The Architect-Teacher's Role in Formulating Architectural Pedagogy in China before 1952: The Examples of Huang Zuoshen and Liang Sicheng

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I, Chin-Wei Chang, confirm that the work presented in my thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

Abstract

This thesis examines China's early modern architectural pedagogy before the 1952 restructuring of higher education under the Communist regime. In this context, it reflects on two key figures—Liang Sicheng (1901–1972) and Huang Zuoshen (1915–1975)—in their respective departments of architectural engineering at Tsinghua University (Beijing) and St. John's University (SJU, Shanghai). I explore three themes—architect-teacher, makeshift modernity, and contested discourse—which encapsulate Huang's and Liang's teaching methodology and reflect their foreign-study experiences.

Part 1 is dedicated to Huang: his studies at the Architectural Association (1933–1938) in Britain during its curricular revolution inspired by the Modern Architectural Research Group; his learning at the Graduate School of Design (1939–1941), not only from Gropius (the focus of previous scholarship) but also other modernists; and the SJU architecture programme Huang established in 1942, where he gathered an international faculty and promoted progressive approaches beyond Bauhaus principles.

Part 2 features Liang's environmental design pedagogy at Tsinghua: his concept of building (ying jian, culminating in his proposal for a College of Building); his methods of teaching city planning (which he added to his curriculum after the Second World War); and his influences from midwestern US institutions (i.e., the Cranbrook Academy of Art, the University of Michigan, and Taliesin) and Harvard's Fogg Museum of Art.

Finally, the thesis investigates Huang's and Liang's beliefs about the social position of the architect. It aligns Liang's views on architecture's relationship to society, engineering, and art with Huang's commitment to architecture's popular, scientific, and national aspects in post-1949 China. This thesis demonstrates that, despite the differences between inward-looking Beijing and outward-looking Shanghai, and between Liang's and Huang's respective backgrounds in the Beaux-Arts and Bauhaus modernism, these two figures embody the pedagogic plurality that characterised the establishment of architectural education in the first half of twentieth-century China.

Impact Statement

This work—The Architect-Teacher's Role in Formulating Architectural Pedagogy in China before 1952: The Examples of Huang Zuoshen and Liang Sicheng—draws on responsive discourses that acknowledge historical and regional pedagogic traditions that have been overlooked or undervalued within Western knowledge frameworks. It also examines the emergence of counterpoints and specificities in relation to Western pedagogic hegemonies—in particular, it looks at an East Asian example of socio-political and cultural formulations of architectural thought. In both these ways, my thesis deals with architectural pedagogies that respond(ed) directly and simultaneously to global well as context-specific values, opportunities, and challenges facing architecture and art history schools and the societies their graduates seek to serve. In this sense, rather than being merely localised versions of a universal Western pedagogic modernity, the figures and domains of my study propose their own modernities and in turn (re)define global modernity itself.

The findings, analysis, and insight presented in this thesis contain new knowledge that is impactful regionally, nationally, and internationally. The first major impact of this work is that it offers a concrete bridge over a vital gap in the scholarship on modern architectural pedagogy in China by examining Chinese architects' global encounters. It also contributes to the genre of life-histories through the stories of two key Chinese architect-educators and their institutional entanglements globally and in China. A related benefit inside my home country of Taiwan is that this work can enable a broader contextual understanding of the Chinese architects of Huang's and Liang's generation who moved to Taiwan after 1949 with their teachers. Of them, for example, Wang Dahong and Chang Chaokang have been well researched in the past two decades. However, in light of the current geopolitical events on both sides of the Taiwan Strait, the broader realm of their professional training and intellectual foundation—which they shared with, for example, Liang and Huang on the mainland—should no longer be overlooked. Another benefit outside China and Taiwan is that this work addresses the underrepresentation of scholars from global regions such as East Asia within the field of global architectural history and theory. As a domestically-honed architect and foreign-trained scholar from the island nation of Taiwan, I am fully aware of how significant a more inclusive foundation is for the allied design and planning fields—from inter-

professional and multi-disciplinary points of view—in the built environment.

The potential impact of my work could be immediate or take place incrementally, in the context of a broader field of research, over many years, and be beneficial to individuals or organisations inside and outside academia. The PhD has also provided a starting point for specialist future studies in areas such as: studying Lin Huiyin not as Liang's wife but as an independent architectural historian, architectural educator, arts and crafts artist, stage designer, poet, and writer; exploring the architect-teachers at SJU who moved on to continue their profession and obligations at Chung Chi College (later part of the Chinese University of Hong Kong) and at other Free-China destinations situated in the heart of Asia; and not least, the role played by the China Institute beyond being a catalyst for Sino-American relations and, in particular, its function as a lever for facilitating bilateral interests in the postwar development of higher education, as well as other research areas.

Should this thesis be published, in either English or Chinese, as a book or as academic articles in the near future, it will have wide impact through dissemination of this alternative epistemology.

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Technical Remarks

For the sake of clarity, some technical aspects applied in this research should be pointed out:

Capitalisation

In this thesis, I generally follow the principles set out in the 17th edition of *The Chicago Manual of Style*. Proper nouns are capitalised, but most other terms are written in lower case. Terms such as job titles, the names of institutions and their subdivisions, geographic areas, and academic degrees are capitalised when they are part of an official name but written in lower case when they are referred to generically. In addition, certain key terms, such as "Year System"/ "Unit System" (two curricular systems), "Physical Environment" (a translation of a Chinese term for a particular approach to architecture), and "Pure Design" (a pedagogical method), are capitalised to distinguish them from generic uses of these words.

Spelling

The problem of spelling Chinese names in English was one of the most challenging issues in writing about this scholarship. Mandarin phonetic transcription (*hanyu pinyin*, hereafter *pinyin*) is generally employed via italics throughout the thesis. However, I also accommodate older versions of well-known names such as Sun Yat-sen, Chiang Kai-shek, and Mao Zedong. This method has been employed across many academic discourses and has become the predominant convention for not merely personal names but also place names commonly transcribed in particular ways. For example, the name of the Yangtze River (literally, the Long River, the longest river in China) is not changed to the *pinyin* version of *Chang Jiang*. In addition, I have used the most common transcriptions of the titles of well-known books.

I have applied *pinyin* to key catchphrases such as Liang's pursuit of *yi ren yi chuang* (一人一床) and *an ju le ye* (安居樂業) (all in lower case except for the titles of institutions,

books, events, or -isms).[1] Any *pinyin* (transliteration) will only follow on the heels of free transcription (a sense-for-sense translation) and, if necessary, literal transcription (a word-for-word translation). For example, Liang's theory of *ti-xing huanjing* (體形環境) will be described as Physical Environment and substance-form-environment. Recognising that the readership of this thesis may range from Western sinologists to Chinese scholars, I also add Chinese wherever applicable, as shown in this paragraph.

In addition, in this thesis, a flexible approach has been taken to the specifics of Chinese names. Apart from well-known names that are transcribed using their most common version, for the sake of consistency, Chinese names are presented in a way that adheres to traditional *pinyin* rather than to the regular custom for Western names. I spell out Chinese names with the last name first and then the first name. In the interests of simplicity for an international readership, I employ Cantonese names for those from Hong Kong who used them, like Lau Fook Tai, Luke Him Sau, and Poy Gum Lee, and I retain familiar English names for those who were popularly known, like Robert Fan, Benjamin Chen, and Charles Chen.[2] This helps prevent duplication of Chinese last names[3] (highly possible, as they are much less diverse than Western names). However, an exception Is made for Huang, whose formal English first name at the AA was "Henry Jorson." Liang's name and birth year are equally complicated in English-speaking accounts.[4]

[1] Plus, once they are provided, their *pinyin* will usually be arranged per Chinese wording custom. For example, 中國營造學社 (introduced in the Translation section below), is transliterated as *Zhongguo Yingzao Xueshe* because there are three Chinese terms in this title: 中国 (*Zhongguo*), 营造 (*Yingzao*), and 学社 (*Xueshe*). This has been done to aid any native Chinese speaker or Chinese language learner.

[2] An exception is made for Zhen Guanxuan (Huang's AA-GSD fellow and Five United colleague), who, in one of most important archival documents in Part 1, signed his name as Arthur Koon Hing Cheang. He will be denoted by "Arthur Cheang," a combination of both his Cantonese and English names, in the thesis.

[3] However, when this cannot be solved by applying a Cantonese or English name, I will spell them out in full in *pinyin* every time, for example, Wu Kinglui and Wu Liangyong.

[4] At the AA, Huang's name was written with the abbreviation "Huang, H. J."; see *AA Student Register*, 1st year, 1933–1945, 6. Later, at GSD, it was written as "Huang, Henry Jorson [Zuoshen]"; see *Official Register of Harvard University*, vol. XXXVI, no. 44 (20 October 1939), 1216. Liang was listed by the same name of "Liang, Shih-Cheng" at both Penn and Harvard; see *Harvard Alumni Directory*, 1955, 756. He—born on 20 April 1901—always put 19 April as his birthday with the years of either 1902 or 1903 in American dossiers. In my research I also came across "Liang Ssu-cheng" not only printed on his honorary degree certificate, published in the FECS & PMPE conference proceedings and penned by himself as a memorandum signature at Princeton but also announced on the cover page in his posthumous book edited and published by Fairbank; see Wilma Fairbank, ed., *A Pictorial History of Chinese Architecture: A Study of the Development of Its Structural System and the Evolution of Its Types* (Cambridge, MA: MIT Press, 1984).

Translation

Short quotes are indicated with double quotation marks[5] in the text, and long quotes appear as independent paragraphs (block quotations). All are translated by me unless noted otherwise in the corresponding exegeses. Readers can recognise whether material is from a source written or spoken in Chinese by looking for Chinese characters in the footnotes. Emphasis is added in short quotes and the main body of the text through the use of italics, and in long quotes through the use of bold typeface. All emphasis was in the original material unless noted otherwise.

Moreover, I do not amend the language used in sources from traditional Chinese (still used in Hong Kong and Taiwan after 1949) to simplified Chinese (used in mainland China after 1949), or vice versa. In this way, a true reflection of the Chinese in use at the time and location in which these sources originated is given, and historical authenticity is enhanced.[6] For instance, the name of the Society for Research in Chinese Architecture (SRCA; *Zhongguo Yingzao Xueshe*) appears with two variants of characters—中國營造學社 and 中国营造学社. When this rule is applied also in the bibliography, when and where the source was published can also be identified.

All translated quotations use British English, as does the body of the text. However, US spellings do appear in quotations that were originally written in American English. Any English word, phrase, or mandate used directly by a person writing in a Chinese context is underlined (both in the main text and in figure captions). This is because this thesis focuses on the Western influence on the discourses of China's architectural educators, who can be supposed to have used a foreign language in their Chinese writing for specific reasons.

[5] Besides, I use single quotation marks for those words and sentences bearing particular connotations.

[6] However, some frequently used place names are written in their modern form. For example, I write Beijing even when I refer to the city before 1949, although it was called Beiping by the Nationalist government in Nanjing (formerly romanised as Nanking), based on its semantic meaning "peace of the north." Nevertheless, an exception is made for organisations such as Peking University (byname *Beida*), for which I use the romanisation in use at the relevant time.

Abbreviations

When particular sources are frequently cited in the text, either in the main text or in footnotes, they are identified using abbreviations—*SRCA Bulletin*, FECS, and PMPE, for instance. One can refer to the alphabetical list below for most of these abbreviations, and further information may be provided in the bibliography at the end.

AA: Architectural Association in London

AAE: Association of Architectural Educators

ACEE: Architectural and Civil Engineering Exhibition (SJU, 4–8 June 1947)

ARCH SCI: Architectural Sciences, a bachelor's degree programme at Harvard University

ASC: Architectural Society of China

ASPA: American Society of Planners and Architects

ASPO: American Society of Planning Officials

ASSC: Architecture Society of Shanghai China

BAID: Beaux-Arts Institute of Design

CAUP: College of Architecture and Urban Planning, Tongji University

CCP: Chinese Communist Party (aka CPC: the Communist Party of China)

CIAM: Congrès Internationaux d'Architecture Moderne (International Congress for Modern Architecture)

CICA: Comité International des Critiques d'Architecture (International Committee of Architectural Critics)

CNKI: China National Knowledge Infrastructure (*Zhongguo Zhiwang*; 中国知网)

CPGB: Communist Party of Great Britain

CPPCC: Chinese People's Political Consultative Conference

FECS: Far Eastern Culture and Society (Princeton's Bicentennial Conference, 1–3 April 1947)

GSD: Graduate School of Design, Harvard University

IRCA: Institute for Research in Chinese Architecture (post-SRCA)

KMT: Kuomintang

MARS: Modern Architecture Research Group

MoMA: Museum of Modern Art (New York City)

NCU: National Central University

NNU: National Northeast University

NRA: National Revolutionary Army (predecessor of the National Army)

PLA: People's Liberation Army

PMPE: Planning Man's Physical Environment (Princeton's Bicentennial Conference, 3–5 March 1947)

PRC: People's Republic of China

RIBA: Royal Institute of British Architects

RPAA: Regional Planning Association of America

SAIC: School of the Art Institute of Chicago

SBAA: Society of Beaux-Arts Architects

SCA: Society of Chinese Architects

SISS: Suzhou Industrial Specialised School

SJU: St. John's University

SRCA: Society for Research in Chinese Architecture (pre-IRCA) / Society for Research in Chinese Arts (in 7.3)

TAC: The Architects Collaborative

TVA: Tennessee Valley Authority

UBCCC: United Board for Christian Colleges in China

UIA: The International Union of Architects

UIUC: University of Illinois at Urbana-Champaign

UNESCO MOU: Memorandum to the United Nations Educational, Scientific and Cultural Organisation (signed at the PMPE conference on 6 March 1947)

YZFS: *Yingzao Fashi*

Chapter 1. Introduction

1.1 Research Background and Themes

What counts as architecture depends on who might be described as an architect. Despite China's four millennia of building tradition, the first Chinese architects who were formally schooled in established architecture institutes appeared only a century ago. During the late Qing dynasty, Chinese architects emerged as modern professionals in China, and that architectural community became a microcosm of the nation's intelligentsia more broadly in the 1920s. This group of Chinese architects helped crystallise the discipline of architecture in China in terms of both architectural education (academic programmes) and architectural practice (professional offices).

This thesis seeks to answer the following main research question:

How did the *makeshift modernities* in departments of architectural engineering in China during the first half of the twentieth century—whose pedagogy at this point was mainly assembled from fragments and philosophies from the West—and the roles *architect-teachers* there contribute to China's pedagogical landscape and to the *contested architectural discourses* embedded within it?

To answer this question, this thesis focuses on two figures who acted as key agents of the transformation of China's architectural pedagogy: Huang Zuoshen and Liang Sicheng. I explore their role in the formation of China's modern architectural pedagogy till 1952, the point that marks the restructuring of architectural education by the regime of the People's Republic of China (PRC). I do this by following three themes throughout this thesis: architect-teacher, makeshift modernity, and contested discourse. The thesis contributes to the literature on China's architectural education by exploring these themes in greater depth than previous research has done. To do this, I pair Huang and Liang together and use them as lenses for examining the challenging questions that continue to arise around these themes in the current literature.

1.1.1 Architect-Teachers

This thesis will focus on the education that took place in this architectural community during the period around the Second World War. At this time in China, many figures were involved to varying degrees in both architectural practice and architectural education simultaneously. However, while there was no firm divide between architectural practitioners and architectural educators in this context, this thesis will focus on the role of architect-teachers in China's architectural education.[7] It argues this role should be recognised as unique to a subset of Chinese architects, a distinction that has largely been absent from mainstream scholarship. Architect-teachers were distinguished by their great efforts to bring their ideas and expertise in architecture and urbanism to a broad audience in the public realm by organising, writing, and speaking about these topics. They comprised an influential group of Chinese architects who taught at one, and often more than one, university in China. They weighed in on a broader range of architectural issues than their fellow architect-builders, who were relatively restricted in the intellectual domain due to practical challenges such as patrons and funding or (in design competitions) consultants and guidelines. (Although the architect-teachers discussed in this thesis often also served as architect-builders at other points in their careers, here I deal with the period in which they focused on architecture education.) Although both architect-teachers and architect-builders not only emerged as modern professionals in China in a similar fashion but also sought architectural modernity in China's name, still, historians need finer categories to probe the large group of individuals who fall under the umbrella of so-called Chinese architects. The need for such distinctions is also inspired by Vimalin Rujivacharakul's notion of *stratified historiography*. Framed this way, while architect-builders were focusing on designing *modern Chinese architecture*, architect-teachers had already arrived at the level of becoming *modern Chinese* people, a process that included the consideration of architecture.

The term "architect-teacher" has previously appeared in formal publications by, for example, the influential Italian architecture critic Bruno Zevi,[8] and similar terms have been used by others, such as "architect-scholar" by Fairbank,[9] "architect-educator" by K.

[7] This thesis assumes that readers will understand that the role of 'architect-teacher' can be played by any architect who is teaching, including architect-builders.

[8] Bruno Zevi, "Architecture," in *Encyclopedia of World Art*, vol. 1 (London: McGraw-Hill Book Company, Inc., 1959), 686.

[9] Fairbank, *Liang and Lin*, 26. Although Fairbank's book is about Liang, and she probably did not intend the kind of distinction I am making with the term "architect-teacher" when she used the term "architect-

Sizheng Fan, "architect-instructor" by Gu Daqing, and "architect-architectural historian" by Nancy S. Steinhardt.[10] Lai Delin also used the term when distinguishing between architect-teachers and architect-builders in a brief discussion of the nuanced difference between China's early *modernist* architects (the majority) and *modern* architects (the minority).[11]

In 1947, Qin Yi published an essay in *Small Daily*, a newspaper based in Shanghai, titled "Talking About Liang Sicheng." In it he wrote:

> *...I don't call Liang Sicheng an jian zhu **shi** [建築師], but respect him as a jian zhu **jia** [建築家]. It makes a lot of sense. He is not a designer from a construction factory, nor the engineer who oversees the drawing. He is an architect-teacher who specializes in architectural theory and has special experience.*[12]

This thesis discusses Huang in the same manner, as he showed a similar inclination to scholarly reading, academic writing, and abstract thinking about architecture. Both took part in numerous architectural and planning organisations, participated in debates at the local and national—and even international—levels (Liang spoke at the UN and Huang wrote in English), lectured widely, and commented frequently in the press on issues of design.

The choice to focus on Huang and Liang in this thesis is not meant to imply that they were the most distinguished figures in China's architectural education. They were chosen

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scholar," Huang *was* making this kind of distinction when he used the term "scholar" (albeit without "architect-") in his overlooked 1948 speech on Chinese Architecture during his criticism of architect-builders (of which more in Chapter 8).

[10] Jeffrey W. Cody, Nancy S. Steinhardt, and Tony Atkin (eds), *Chinese Architecture and the Beaux-Arts* (Honolulu: University of Hawai'i Press, 2011), 20, 76, 101.

[11] Lai Delin, "Science' Vs. 'National Character: Architectural Values in Modern China 「科學性」與「民族性」——近代中國的建築價值觀," in *Studies in Modern Chinese Architectural History 中国近代建筑史研究* (Beijing, Tsinghua University Press, 2007), 220.

[12] "這裡我不稱梁思成為建築師而尊之為建築家，大有意義。他不是一位營造廠的設計師，也不是繪圖監工的工程師，蓋專門研究建築理論，而有特殊心得的學者," see: Qin Yi, Talking about Liang Sicheng 談梁思成, *Small Daily* (Shanghai), 25 September 1947. *Small Daily* was a famous tabloid in the Republican period of China, and it was the most influential tabloid in Shanghai from 1930 to 1937. *Small Daily* had actually been publishing a newspaper for about 23 years since its founding in 1919 and had become the longest-running tabloid in the city. Reflecting the customs and social culture at that time, its influence and readers cannot be underestimated. As for 'architect-scholar' (of which more below), see Huang Zuoshen, "Chinese Architecture" [text in English].

because they embody the translation of knowledge from the West to East, and they can illustrate how Chinese architectural education incorporated two Western traditions that were influential on early modern Chinese architecture: Beaux-Arts and modernism.

In Huang's and Liang's respective contexts of Shanghai and Beijing, they actively engaged in the long debate about traditionalism versus modernism and so became almost literati figures, rather than merely architects. This thesis attempts to portray Liang's and Huang's various encounters and experiments with articulating modernity and what it meant to be modern and Chinese, not just what it means to be a modernist Chinese architect, by looking at their makeshift modernities on both an individual (personal) and a collective (pedagogical) level. In other words, Huang at St. John's University in Shanghai and Liang at Tsinghua University in Beijing embody a pedagogical landscape of architectural education.

1.1.2 Makeshift Modernities

A second theme that runs through this thesis is that of "makeshift" efforts to incorporate Western modernist ideas into Chinese architectural education. According to the Collins English dictionary, makeshift things are temporary and usually of poor quality, but they are used because there is nothing better available. The word 'makeshift' can mean, for instance, temporary, roughly assembled, gathered from disparate ready-to-hand fragments, and at times (though not always) has a negative connotation. Makeshift can also refer to the rough structure or foundation for something more formed or longer term. In this thesis, I use it in this sense of a pedagogic foundation and as part of a dynamic context and process, rather than as something that 'falls short.' I suggest that Huang's and Liang's engagement with modernism experienced many vagaries and vicissitudes due to the turbulent times in which they lived. This was the result, in some ways, of a process of fragmentation, from which an architectural modernity was being assembled and fashioned. Despite these socio-political churnings, nevertheless, these two figures engaged seriously with the modern architectural ideas that were being explored in the West and put careful thought into their selective adoption of these ideas into their Chinese architectural pedagogy. Significantly, they strove to integrate these ideas into Chinese architecture in a way that was unique to China, thereby helping to create a modern Chinese architecture. Despite their diligence, however, their work was affected by social

upheaval, and they were not always able to achieve their full vision. Thus, in this thesis, their efforts are termed "makeshift modernism"—and this term can be extended to the work of Chinese architects in general during this period. A vital aspect of this makeshift modernism was its process-oriented character; it was a modernity continuously in the making.

According to Raymond Williams, "the unfavourable sense of *modern* and its associates [i.e., *modernism*, *modernist*, and *modernity*] has persisted, but through C19 [the nineteenth century] and very markedly C20 [the twentieth century] there was a strong movement the other way."[13] As catchwords for particular kinds of change the terms need scrutiny, and this comparative study—through the lens of Huang and Liang—attempts to trace the shifts that Chinese architect-teachers made in the movement. In other words, 'modern' (*xiandai*; 現代) encompassed not merely the passive options through which Chinese professionals could avail themselves of improved or satisfactory or efficient results, but also active ways in which "when given the opportunity they continue to find meaning in the culture of the past, they continue to be attracted by various tendencies in the West, and they continue to stress theoretical complexities."[14] China's early architects' foreign coursework and studios involved the rigorous study of Western accomplishments in architecture. Still, most of these architects—especially those who remained in the academy as architect-teachers (whose subjectivity was more their own compared to architect-builders under the sway of project patrons)—struggled with the idea of how to be *modern* (usually equated with Western ideas) and still be Chinese.

Liang and Huang were guided by the Chinese adage "to cross the river by feeling the stones" (*mozhe shizi guohe*; 摸著石子過河), and so for them the process of modernisation would only be grappled with through revisiting an array of conflicting life-choices as we shall see later in Parts 1 (Huang) and 2 (Liang). This thesis problematises analyses of Liang's and Huang's *makeshift modernities* stemming from inextricably truncated, contorted, disoriented, and tension-ridden lived experiences that have been largely overshadowed by grand narratives of modern *movements* that have divided scholars from one another, as each has striven to protect the citadel of their own discourse.

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[13] Raymond Williams, *Keywords: A Vocabulary of Culture and Society* (Oxford: Oxford University Press, 1976), 174, emphasis added.

[14] Benjamin I. Schwartz, "The Limits of 'Tradition versus Modernity' as Categories of Explanation: The Case of the Chinese Intellectuals," *Daedalus* 101, no. 2 (1972): 87.

Inspired by Perry's idea of urban micro-environments,[15] this thesis also argues that Huang's and Liang's makeshift modernities were embedded in the different campus cultures at SJU and Tsinghua respectively, and in different cultures of the two cities where their departments of architectural engineering were located, namely treaty-port Shanghai and post-imperial Beijing. These differing cultures afforded contrasting opportunities for and obstacles to realising a shared set of pedagogical aspirations.

It should also be noted that both Huang and Liang struggled as architect-teachers within colleges of engineering that were reluctant to accept a more progressive architectural programme than those used in the first three decades of the twentieth century in China. China's architectural education, influenced by Japan, was initially built on an engineering base. During the 1920s, a distinction occurred primarily between craftsmen-builders and architect-builders. When architecturally based, Western-trained Huang and Liang returned to China in the 1940s, they taught at colleges of engineering that employed not only architect-engineers but also other *scientific* engineers, who would underestimate the *social* and *artistic* aspects of "architectural engineering" (the term used to describe what Huang's SJU and Liang's Tsinghua departments were at the time).

Huang's and Liang's makeshift modernities arose from the restrictions they experienced during the immediate years after the Second World War. The experience of material shortage and the need for efficiency during eight punishing years of war from 1937 to 1945 and the subsequent conflict between the Nationalists and Communists (1945–1949) not only left a conspicuous mark on practising architect-builders, but also painstaking architect-teachers devoted to university teaching suffered from a shortage of qualified staff and adequate textbooks. Nevertheless, these makeshift modernities not only served as a temporary or expedient means to reform curricula but also warrant further research; this study seeks to do this by going beyond the tales of hero-architects that have predominated in much scholarship. The thesis also features independent accounts of Huang's and Liang's scholarly pedagogies not as subsidiary work of master architects[16]

[15] Perry, "Managing Student Protest in Republican China," 5, 16.

[16] Huang and Liang, although they are studied as architect-teachers in this thesis, also did design work. In this work, however, they encountered challenges or failed to realise their projects because their proposals were "against the times" or even "ahead of their time." Still, they devoted themselves to architectural education and to writing architectural history and theory at a level to which their peers would not commit.

but as the obligatory vocation of masterful teachers in their own right.

Since the beginning of modern history from 1840 onward, Chinese modernity seems to have occupied a central position in an imaginary Venn diagram showing the modern in one circle and the Western in another. (See Movements of Self-Strengthening and May-Fourth New Culture in 1.2.1.1.) Therefore, "we can see how," to borrow Jonathan D. Spence's language, "in 1911, and yet again in 1949, disillusion with the present and a certain nostalgia for the past could combine with [makeshift modernities] for the future to bring the old order crashing down, opening the way for an uncertain passage to the new."[17]

1.1.3 Contested Discourses

Indebted to *Reflections on Multiple Modernities* and its prefacing works shepherded by Shmuel N. Eisenstadt,[18] not only does this thesis confront the plurality of non-European modernisms framed in the decolonisation movements of the 1950s and 1960s, but also it examines the contested nature of modernities even within the Chinese context. It focuses on the debate about the roles of modernism and tradition in shaping modern Chinese architecture and—more specifically in this thesis—architectural discourses.

Chinese architects were discouraged from being all-out modernists, for political and cultural reasons, while architect-builders often 'straddled' neoclassicalism and functionalism.[19] The national architectural propaganda had severe effects on Chinese architecture. For example, under the anti-wastefulness policies in the 1950s, the central

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[17] Jonathan D. Spence, *The Search for Modern China* (London, Sydney, Auckland, Johannesburg: Hutchinson, 1st Edition, 1990), xxi.

[18] Shmuel N. Eisenstadt, Jens Riedel, and Dominic Sachsenmaier, "The Context of the Multiple Modernities Paradigm," in *Reflections on Multiple Modernities: European, Chinese, and Other Interpretations*, eds. Dominic Sachsenmaier, Jens Riedel with Shmuel N. Eisenstadt (Leiden: Brill, 2002), 2, a significant work prefaced by two themed issues of *Daedalus* (Journal of the American Academy of Arts & Sciences): vol. 127, no. 3, on Early Modernities (Summer 1998); vol. 129, no. 1, on Multiple Modernities (Winter 2000).

[19] Perhaps no architect experienced the tension between the official promotion of nationalism and private espousal of cosmopolitan modernism more acutely than Dong Dayou (1899–1973), whose reputation during the Republican era was built entirely on a series of municipal commissions in Shanghai but, almost at the same time, designed a thoroughly modernist house for himself. Likewise, Yang's Shengyang Railway Station (1931) and Peace Hotel (1951) were in sharp contrast to other revivalist works during these two decades. According to Lai's 1991 interview with Chang Po, Yang, Kahn's classmate in the same Beaux-Arts atelier at the University of Pennsylvania, was very interested in Gropius; see Chang Po, interview notes, 13 October 1991, courtesy of Lai Delin.

debate was whether China needed modern architecture at all. (This thesis focuses primarily on the period before the 1950s, but the effects of this debate are poignantly illustrated by the likes of Huang and Liang.)[20] Although some Chinese architects were reading about Mies van der Rohe and Walter Gropius, these Western architectural thinkers were denounced as bourgeois idealists who had 'twisted' architectural and cultural forms and 'poisoned' a system in which the primary purpose of architecture was functionalism.

Huang and Liang both found value in incorporating Western modern ideas into Chinese modern architecture. However, even those who agreed on this incorporation might still debate how it should be done. This thesis sees in Huang's and Liang's efforts evidence of China's early contested discourses between Beaux-Arts and modernism and of the aim for architectural professionals to reconcile them. Their teaching experiences epitomise the balance Chinese architects—both teachers and builders—tried to find between Beaux-Arts, modernisms, and Chineseness.[21] This thesis goes beyond previous scholarship on Huang and Liang by reinterpreting the influence of various parts of their education abroad and by highlighting their efforts "to combine the merits of both Eastern and Western architecture so as to develop the intrinsic glories of Chinese architecture."[22]

To understand the background and teaching context in which Huang and Liang practised

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[20] Take the Big-Roof Discussion in 1953, for example: Educated people who remained on the Communist mainland after 1949 had their heyday, during which the CCP government invited comments from Chinese intellectuals and the public in a directive known as the Hundred Flowers Campaign (*Baihua Yundong*; 百花运动), a metaphor equating contending ideas with blooming flowers. This lasted until the first Five Year Plan reached a high tide when the de-Stalinisation of the Soviet Union served as a cautionary tale for Mao. Mao triggered the Anti-Rightist Campaign, rooted in his revolutionary peasant-based universalism, in 1957 and launched the second Five Year Plan—dubbed the Great Leap Forward (*Da Yuejin*; 大跃进)—in 1958, employing a series of anti-wastefulness policies in an attempt to form a Communist utopia through unity. They ultimately culminated in the Cultural Revolution (1966–1977), during which half a million or more Chinese intellectuals (especially foreign-educated ones) were branded with the label "rightist." This went in their permanent record, ruined their careers, and made them social pariahs. Both Huang and Liang were so labelled and forced to undergo 'self-criticism' sessions in which they were asked to produce either verbal or written statements—so-called Personal Ideology Statements—detailing their 'ideological errors' and affirming their renewed belief in the Party line. Without any connection with the CCP government (as he had refused the opportunity to work with Liang on the new capital masterplan in Beijing), Huang and his wife, Cheng Jiu, were even exiled to labour camps at the apogee of the Cultural Revolution. Junior to Liang by fourteen years, Huang passed away shortly after he came back from the camp in 1975, only three years later than Liang's 1972 death. Both felt the same despair over their failure to realise genuine Chinese modern architecture. Most of these labels, or "caps" as the Chinese call them, would not be removed until the blanket rehabilitation in 1979, three years after Mao's death.

[21] Chang, "A Ground between Beaux-Arts, Modernism, and Chineseness," 59–71.

[22] This was in the Inaugural Word written by Zhao Shen: "融合東西建築學之特長，以發揚吾國建築物固有之色彩." Zhao was elected as the SCA president in 1932. This idea can be traced back to China's late-Qing Self-Strengthening Movement slogan *zhongxue weiti, xixue weiyong*, discussed in 1.2.1.1.

at their respective institutions, it is necessary to understand the history of China's acceptance of the foreign professionalisation of architecture and its institutionalisation in higher education. This includes the socio-political distinction of this institutionalisation between treaty-port Shanghai and post-imperial Beijing in war-torn Republican China up to 1949 and the restructuring of universities up to 1952. What follows provides a historical sketch of China's multiple, changing, and often conflicting modernities related to early modern architects.

1.2 A Historical Sketch of China's Architectural Education

Geopolitically, this thesis focuses on a time before the rise of China complicated the old post-Second World War international order. This order was founded on the ideological divide between liberalism and communism, and it pushed many countries, particularly in Asia, to make efforts toward adjusting to a new regional reality that was increasingly centred on Chinese and American influences. For most of the twentieth century, despite some positive developments in higher education, China was not internationally perceived as "rising." Excessive foreign intervention, ideological struggles between Communists and Nationalists, and a devastating 1937–1945 War of Resistance with Japan, followed by a 1945–1949 Civil War, occurred. Mao Zedong's successful 1949 Communist Revolution brought forth the 1952 restructuring of higher education, significantly reducing liberal arts courses and foreign study options in China. This thesis, as a result, focuses on architectural pedagogies before 1952, while the 1958–1962 Great Leap Forward, as well as the 1966–1976 Great Proletarian Cultural Revolution, threw the country into a decade of hierarchical struggles and social chaos suffered both by Huang and Liang, who could not teach as they wanted anymore.

Architecture was held in high regard as a modern profession in China and responsible for creating the modern urban landscapes across the country from the early twentieth century. In the West, this history has been filled with "heroic roles of messiahs"[23] played by modern architects. In Japan, too, modern architects have been seen as heroic cross-cultural importers of modernism and modern knowledge. Although the same trope has

[23] Vimalin Rujivacharakul, "Architects as Cultural Heroes," in *Cities in Motion: Interior, Coast, and Diaspora in Transnational China*, eds. David Strand, Sherman Cochran and Yeh Wen-Hsin (Berkeley: Institute of East Asian Studies, University of California, 2007), 133.

also attributed changes in architectural education to selected Chinese architects, they have mostly been seen as "tragic hero[es]"[24] besieged by the continuous political upheaval, civil unrest, and national and international wars in China between 1920 and the rise of the People's Republic. As a result, the story of these architects has been little more than a "whisper" in the prevailing historical narrative in which they were marginalised and receded into the shadows, as Denison remarked in an article published in *AA Files* in 2012 and developed in his book with Ren in 2014.[25] He wrote, "Making sense of China's architectural experiences is nothing if not a daunting task, which goes most of the way to explaining why an objective and comprehensive history of modern architecture in China does not exist."[26]

This whisper trained my sights as well onto China's own formal architectural education since the late 1920s: nascent programmes and periodicals became short-lived, many national universities needed to relocate their campuses (and missionary ones needed to shut down), and the best staff could only be hired part-time (or only from time to time, or they were unable to settle in war-torn China). This thesis argues that China's architectural pedagogies of the time need to be seen within a framework of makeshift modernities. On the one hand, this term is useful as a replacement for the Western narrative of the modern movement and, on the other, it helps to avoid the omnipresent but complex and problematic generational division of Chinese architects. As Denison has argued:

> *[T]here are sound reasons for questioning [any definition of 'a generation'] on the grounds that it does not distinguish the range and types of education that China's early architects received, and the diversity of their experiences upon returning to China.*[27]

Therefore, instead of separating early modern Chinese architects into generations, I outline four dimensions that can characterise a historical sketch of this period: pragmatism, formalism, cosmopolitanism/ internationalism, and the physical/ built

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[24] Sidney Wong, "The Planning Connection between Clarence Stein and Liang Sicheng in Republican China," *Planning Perspectives* 28:3 (2013), 421.
[25] Edward Denison and Guang Yu Ren. *Luke Him Sau, Architect: China's Missing Modern* (Chichester: John Wiley & Sons Ltd., 2014).
[26] Edward Denison, "Chinese Whispers," *AA Files*, no. 64 (2012): 134.
[27] Denison, *Architecture and the Landscape of Modernity in China before 1949*, 138.

environment. The various makeshift modernities present in early modern Chinese architecture up to the 1950s can be understood using these four dimensions, which were shared equally by most Chinese architects at that time. These makeshift modernities are revealed in this thesis through the lenses of Huang and Liang.

1.2.1 Pragmatism

The academic Huang Chien-Min offered the first review of the educational background of Chinese architects, starting from endeavours in the late Qing dynasty to model Japan's education system.[28] He argued that it is important to examine the intellectual transplantation to China from the West (including Westernised Japan) of an education system that replaced the civil service examinations based on the Confucian classics because this had a significant impact on separating the modern pedagogy of architect-teachers from the craft-based apprenticeship of master builders. The architect-teachers who facilitated this transplantation did so under a programme of foreign study that was encouraged by Chinese authorities for the sake of pragmatism. China, struggling against foreign powers with advanced technologies, sought to import practical knowledge from elsewhere. This pragmatism was the first dimension of makeshift modernities in China.

1.2.1.1 Sending the Young to the West

The pedagogies that had evolved outside China during the eighteenth and nineteenth centuries formalised knowledge for Chinese students, for whom studying abroad became more common beginning in the Qing dynasty. Frustrated by losses against Western powers throughout the mid-nineteenth century, the late Qing empire launched a series of reforms called the Self-Strengthening Movement (*Ziqiang Yundong*; 自強運動, aka the Westernisation Movement, *Yangwu Yundong*; 洋務運動)[29] in 1861. Seeking to consolidate Qing power by introducing Western technology, this movement, which was to last through the 1860s and 1870s, ultimately caused a problematic formula—to be

[28] Huang Chien-Min, "A Review of the Architectural Education in China 中國建築教育溯往," *Taiwan Architect*, no. 131 (November 1985): 34–39.

[29] For general accounts of major movements, historical events, and leaders at the beginning with the First Opium War in 1840, as well as discussion of the continuous war-caused turmoil, see John King Fairbank, *China: A New History* (Cambridge, Mass.: The Belknap Press of Harvard University Press, 1992). Fairbank was a close friend of Liang, and his wife Wilma Cannon Fairbank wrote the most readable biography of Liang and his wife Lin Huiyin.

Western was to be modern, and vice versa—in its later phases and into the 1890s.

Sinologist historian Mary Clabaugh Wright defined this movement as "The Last Stand of Chinese Conservatism,"[30] and it was initially aimed at modernising the Chinese military to attain prosperity and strength. Most of the students affected by the movement studied in the fields of engineering in Europe and the USA. They became the channels of dissemination of modern Western knowledge, and applications from a broader range of Western technology and industry were copied, such as techniques of shipbuilding and mining, the telegraph, and railways.[31]

In broad terms, Chinese society regarded Western knowledge only as a tool. In contrast, Chinese culture remained their priority. Following the Self-Strengthening Movement's slogan "Chinese learning for *essential principle* [*ti*], Western learning for *practical function* [*yong*]" (*zhongxue wei**ti**, xixue wei**yong***; 中學為**體**、西學為**用**),[32] architecture was subsidiary to military-related courses such as military building construction and was not valued in its own right before the twentieth century. Therefore, many of the earliest modern Chinese architects had studied engineering, not architecture, abroad.[33] To borrow Frederic Wakeman Jr.'s language: They learned "to protect Chinese culture with foreign guns."[34]

1.2.1.2 Japan as a Short Cut

Not only did the humiliating defeats of the First Sino-Japanese War of 1894 to 1895 prove the failure of the Self-Strengthening Movement, they also underscored the disparity

[30] Mary Clabaugh Wright, *The Last Stand of Chinese Conservatism: The T'ung-Chih Restoration, 1862–1874* (New Haven and London: Yale University Press, 1957), esp. Chapter XII: The Heritage of the Restoration.

[31] For example, amongst the first cohort of students sent by the Qing government in 1872, Chan Tienyu majored in civil engineering at Yale University and contributed to railway construction upon returning to China.

[32] Shin Muramatsu and Muping Bao, "Architecture and Orientalism/Nationalism," in Zhao, Chen, and Wu Kiang (eds), *Research on China's Modern Architectural Academia* (Beijing: China Architecture & Building Press, 2003), 61.

[33] For example, one of the earliest Chinese engineer-students in the West was Huang Xiling, who attended University College London (UCL) in 1910. Together with American-trained Lu Yanzhi and Guo Yangmo, he had established the first Chinese architectural firm in Shanghai, the South-Eastern Architectural & Engineering Company (*Dongnan Jianzhu Gongsi*; 東南建築公司), by 1921; see: Lai Delin (ed), *Who's Who in Modern Chinese Architecture* *近代哲匠录——中国近代重要建筑师、建筑事务所名录* (Beijing: China Water & Power Press, 2006), 54.

[34] Wakeman, Jr, "Chinese Modernity," 158.

between the modern advances made during the Meiji Restoration in Japan (beginning in 1868 for two decades) and those accomplished in China described above. Aware of how far behind foreign nations China had fallen, the Qing dynasty court began to regard 'Westernised' Japan as its "mirror to modernism,"[35] a stance that made Japan a primary educational destination for Chinese students. As a result, more students were sent to Japan—where the idea of architectural engineering prevailed[36]—beginning in the 1910s as a shortcut to acquiring Western military technology and scientific knowledge.

As Chinese students started to study architecture-related disciplines abroad in the late nineteenth and early twentieth centuries, they brought this teaching system back to China. Even before Zhuang Jun, the first Chinese architect-student in the USA, arrived in Illinois in the fall of 1910,[37] mechanical engineer Chang Yinghsu had started teaching architecture at the Peking Industrial School in China (*Zhongguo Nonggongshangbu Beijing Gongye Xuetang*; 中國農工商部北京工業學堂) based on his related training at Tokyo Imperial University. In addition, Chang published *Building Construction* (*Jianzhu Xinfa*; 建築新法) in the same year, China's first architecture textbook in the modern period. Not only was he seen as the first architect in China, but he was also regarded as the first architect-teacher in the modern understanding of this term.

However, Chang's course was only to last less than a year due to the Xinhai Revolution (*Xinhai Geming*; 辛亥革命) of 1911 when Sun Yat-sen and his fellow revolutionaries dismantled the Qing court, precipitating the Republican period in China. The first full architecture programme (not just one course like Chang's) eventually was established in China by other Japan-trained architects in the next decade. After establishing their Hua Hai (華海) Architectural Practice in Shanghai in 1922, Liu Shiying and Liu Dunzhen, together with two graduates of the Tokyo Higher Technical School, Zhu Shigui and Huang Zuomiao, founded the country's first teaching programme in architecture at Suzhou Industrial Specialised School (SISS, *Suzhou Gongye Zhuanmen Xuexiao*; 蘇州工業專

[35] Denison, *Architecture and the Landscape of Modernity in China before 1949*, 200.
[36] Xu Subin, *The Beginning of Chinese Modern Architecture* *近代中国建筑学的诞生* (Tianjin: Tianjin University Press, 2010), especially Chapter 4: One of the Architectural Developments in the Early Republic of China: The Development of Engineering Architecture.
[37] Lai, *Who's Who in Modern Chinese Architecture* *近代哲匠录*, 220–221.

門學校), near Shanghai, in 1923.[38] Their distinguishing quality was technical—rather than artistic—competence, given "China's first taste of architectural education came from Japan, as an interpretation and adaptation of Western teaching received second-hand."[39]

1.2.2 Formalism

In the 1920s, when the new Republican Nationalist government was founded in Nanjing, a handful of Western-trained Chinese architects returned from their Beaux-Arts-design-based education abroad in a move that, as the scholar Seng Kuan pointed out, would prove to be important.[40] A construction boom created opportunities for these architects in a rare window of extended peace spanning the so-called Nanjing Decade of 1927–1937, during which architectural style was often dictated by the aesthetic or political meaning it contained (i.e., the planning laws in Nanjing demanded government buildings display 'Chinese characteristics'). In this context, the formalist and historicist style associated with the Beaux-Arts resonated with a fledgling administration keen to build a new state infrastructure that drew on Chinese history. This formalism was the second dimension of makeshift modernities in China.

1.2.2.1 Architecture as Art

While the earliest Chinese architect-engineers were trained in Japan or under the tutelage of Japanese-trained teachers, the most influential figures were those trained mostly in the USA,[41] and it was these Chinese architects who inaugurated professional architectural

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[38] Xu Subin, "The Beginning of Modern Chinese Architecture Education and the Architectural Program of Suzhou Industrial Specialised School [SISS] 中国近代建筑教育的起始和苏州工专建筑科," *South Architecture 南方建筑*, no. 3 (1994): 17–19.

[39] Denison, *Architecture and the Landscape of Modernity in China before 1949*, 139. Upon the founding of the programme at Tokyo Imperial University in 1877, architecture as a field of study in Japan was formalised by Josiah Conder. He was a student of Roger Smith, and both walked in the footsteps of Thomas Leverton Donaldson, UCL's first chair in architecture, who was appointed in 1841. When Conder taught in Japan, he promoted Donaldson's 1859 *Handbook of Specifications*, in which architecture was affiliated with fine arts and science. As part of the goals of the Meiji Restoration, for which officials reviewed the UK's progress since the Industrial Revolution, Japan chose to focus on the scientific side of architecture because of its ambition to become a colonising power (*zhi chan xing ye*).

[40] Seng Kuan, "Between Beaux-Arts and Modernism: Dong Dayou and the Architecture of 1930s Shanghai," in *Chinese Architecture and the Beaux-Arts*, eds. Jeffrey W. Cody, Nancy S. Steinhardt, and Tony Atkin (Honolulu: University of Hawai'i Press, 2011), 170.

[41] Lai Delin, "The Transplantation of a Profession: The Emergence of Architects and the Development of Architectural Education in Modern China 學科的外來移植：中國近代建築人才的出現和建築教育的

training at the college rank in China when they returned. (Previously, architecture training in China had taken place in specialised vocational schools for architect-technicians). The attraction of US training rose in the wake of the establishment of Tsinghua School in Beijing in 1911, which was financed using excess funds from the Boxer Indemnity paid by China as reparations for American losses incurred during the Boxer Uprising[42] against foreign legations in Beijing in 1900. In an attempt to appear generous and to repair relations with China, the USA government ultimately remitted two-fifths of this money in 1908.[43] It was used to establish Tsinghua School (*Tsinghua Xuetang*; 清華學堂), which was renamed Tsinghua College (*Tsinghua Xuexiao*; 清華學校) in 1912.[44] Twenty-two Chinese architecture students registered at the preparatory school from 1910 to 1929 would later be sent by the Chinese government to study at universities in

發展," *The Study of Art History 藝術史研究*, no. 7 (2005): 440; This article was later republished as Lai Delin, "The Transplantation of a Profession: The Emergence of Architects and the Development of Architectural Education in Modern China 學科的外來移植：中國近代建築人才的出現和建築教育的發展," in *Studies in Modern Chinese Architectural History 中国近代建筑史研究* (Beijing, Tsinghua University Press, 2007), 115–180. Chinese historians' heavy reliance on American sources, admittedly, has caused them to perpetuate some of the turn-of-the-century American prejudices written into those sources, to downplay some of the less attractive attitudes that American policy makers have displayed in dealing with foreigners, and to all but ignore Chinese policy and politics.

[42] "Boxer" was the English name given to a Chinese secret society that practised boxing and calisthenic rituals in the belief that these activities would make its members impervious to bullets. When China's people were suffering from growing economic impoverishment and the country was forced to grant humiliating concessions to Western powers during the late nineteenth century, the Boxers started openly attacking Chinese Christians and Western missionaries in late 1899. Such an attempt to drive all foreigners from the country was supported by the empress dowager, Cixi. An international force of some 19,000 troops was assembled (most of the soldiers coming from Japan and Russia but many also from Britain, the USA, France, Austria-Hungary, and Italy) in June 1900, and the so-called Eight-Power Allied Forces finally captured Beijing in that August. Hostilities were ended in 1901 with a protocol requiring China to pay a large indemnity to eleven countries. Britain and the USA later returned much of their reparations. The USA used its portion to further Chinese higher education as described above while the UK subsidised the official *Bulletin* at the Society for Research in Chinese Architecture. The US indemnity remission was meant not only to illustrate the fairness and far-sightedness of American policy and its promotion of basic progressive changes in Chinese life but also to contribute to the reservoir of Chinese gratitude and good will toward the USA. It should be noted that the Sino-American relations in the late nineteenth and early twentieth centuries have sparked a stimulating controversy over the nature of American expansionism; that picture has long been one-sided and has encouraged the appearance of American omnipotence and Chinese frailty.

[43] The indemnity remission referred here related to Tsinghua is the first one, accomplished by executive order on 28 December 1908; see Michael H. Hunt, "The American Remission of the Boxer Indemnity: A Reappraisal," *The Journal of Asian Studies* 31, no. 3 (1972): 539–540. Please see 5.1 for mention of a second remission in May 1924 used for founding the China Institute, a joint Chinese-American committee conducive to Liang's 1946–1947 American reconnaissance and his professional programme at Tsinghua.

[44] The university section of Tsinghua was instituted in 1925, and the name National Tsinghua University was adopted in 1928 (which was only a year after the founding of the Nationalist government in Nanjing in 1927).

America.[45] More than half went to the University of Pennsylvania, and they would bring a more artistic approach to the teaching of architecture upon returning to China. During the same period, the rest of these architecture students attended the University of Illinois (Urbana-Champaign),[46] the University of Michigan, the University of Minnesota, Cornell, MIT, Columbia, and Yale.

According to Lai Delin's 1991 interview with Harry Tan (Tan Yuan), notwithstanding Tsinghua College's funding ties to the USA, it was the University of Pennsylvania's recognition of architecture as an art, rather than an engineering discipline, that attracted its Chinese students, who used an ideographic language [Fig. 1.5 & 1.6] and, as Martin Jacques indicated, "often achieve a much higher level of technical competence at a much younger age in music and art…than their Western counterparts."[47] This appeal resulted in the University of Pennsylvania hosting "the largest group of Chinese architectural graduates from a single overseas institution before the later twentieth century."[48] At the core of this group of Chinese architecture students at the University of Pennsylvania was a cluster of close friends attending Tsinghua College. Of these, Liang Sicheng was probably the most famous alumnus. He and Lin Huiyin (whom he married when he earned his master's degree in 1927) represented so much more than architecture in China: They symbolised what it meant to be part of China's "May-Fourth New Culture Movement" (*Wu-Si Xinwenhua Yundong*; 五四新文化運動) in which either to be *modern* or to be *Western* were one and the same thing: to be *new*. As Leo Lee (Lee Ou-fan) explains:

> *In the popular May Fourth parlance, to be "modern" [here, read "to-*

[45] Realising the fact that the training of Chinese students could help strengthen the USA' control over China, Theodore Roosevelt decided to return the surplus since American claims fell short of the amount China had agreed to pay; see Hunt, "The American Remission of the Boxer Indemnity," 539–540.

[46] UIUC's President Edmund James even composed a letter, in 1906, to US President Theodore Roosevelt in support of the Boxer Indemnity Scholarship Program: "China is upon the verge of a revolution…The nation which succeeds in educating the young Chinese of the present generation will be the nation which for a given expenditure of effort will reap the largest possible returns in moral, intellectual and commercial influence." See Mary Timmins, "Enter the Dragon," accessed 28 May 2022, https://uiaa.org/2011/12/15/enter-the-dragon. The first Chinese student of architecture who went to the USA as a Boxer Indemnity scholar was Zhuang Jun (1880–1990), who attended UIUC, graduated in 1914, and returned to China soon thereafter to work with the American architect Henry K. Murphy on the campus plan of Tsinghua College; see Jeffery W. Cody, *Building in China: Henry K. Murphy's Adaptive Architecture, 1914–1935* (Hong Kong: Chinese University of Hong Kong Press, 2001), 61–67.

[47] "Perhaps this stems partly the use of an ideographic language, which requires the rote learning of thousands of characters, and the ability to reproduce those characters with technical perfection"; see Martin Jacques, *When China Rules the World: The Rise of the Middle Kingdom and the End of the Western World* (London: Allen Lane, 2009), 199.

[48] Denison, *Architecture and the Landscape of Modernity in China before 1949*, 143.

> *be-Western" to be exact] means above all to be "new" (xin), to be consciously opposed to the "old" (jiu)…This intellectual posture of newness does not by itself represent anything new, for in traditional China there were indeed recurrent debates between "new" and "old"—or between "moderns" and "ancients"—in matters related to scholarly texts as well as governmental policy. What makes for the qualitative difference in the May Fourth formulation is rather its implicit equation of newness with a new temporal continuum from the present to the future. In other words, the notion and value of "newness" are defined in a context of unlinear time and a unilinear sense of history that is characteristically untraditional and Western.*[49]

When China's salvation seemed to many young iconoclasts to depend upon 'closing down the shop of Confucius' (*dadao kongjiadian*; 打倒孔家店), these selected architect-teachers, in the form of 'Mr. Democracy' (*De Xiansheng*; 德先生) and 'Mr. Science' (*Sai Xiansheng*; 賽先生), epitomised the country's encounter with and articulation of makeshift modernities for such "newness" in prewar Republican China.

"Indeed," Wakeman confirmed, "this 'advent of modernity' was by the end of the May Fourth Movement deeply embedded in the Chinese historical consciousness."[50] In the wake of the Manchurian Incident on 18 September 1931,[51] which made going to study in Japan an unpromising option,[52] Chinese architecture students continued to travel to the USA in relatively high numbers, although others did go instead to France, Italy,

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[49] Lee Ou-fan, "Modernity and Its Discontents: The Cultural Agenda of the May Fourth Movement," in *Perspectives on Modern China: Four Anniversaries*, eds. Kenneth Lieberthal, Joyce Kallgren, Roderick MacFarquhar, Frederic Wakeman, Jr (London and New York: Routledge, 1992), 159, emphasis added. What Lee meant by "unlinear" was "nonlinear," but for rhetoric reasons, he coined the word to contrast with the following "unilinear" history.

[50] Wakeman, Jr, "Chinese Modernity," 159.

[51] The Manchurian Incident was Japanese troops' seizure of the Manchurian city of Mukden (now Shenyang, Liaoning province, China), which was followed by the Japanese invasion of all of Manchuria (now Northeast China) and the establishment of the Japanese-dominated state of Manzhouguo (1932–1945) in the area. It contributed to the international isolation of Japan and is seen as a crucial event on the path to the outbreak of the Second World War. The aforementioned China Institute in New York City tried to make the American government and people aware of Japan's ambition to conquer the world and China's national integrity, after 1937, in the arduous War of Resistance. Its lobbying successfully reminded the USA to stop waiting and actively participate in the Pacific War.

[52] "Rising anti-Japanese sentiment, improved government funding, and better relations with America and Europe all contributed to Japan's comparative lack of appeal"; see Denison, *Architecture and the Landscape of Modernity in China before 1949*, 153.

Austria, Germany, Belgium and United Kingdom. Nevertheless, much of the attention of early scholarship on this period has focused on a handful of American-educated Chinese architects and especially to the bond they forged between China and America,[53] including an appreciation of the artistic side of architecture.

1.2.2.2 Paul Cret and American Beaux-Arts

Much attention has been paid to the classical instruction that Chinese students received at the University of Pennsylvania, administrated by Professor Paul Philippe Cret (1876–1945). Cret had once studied at the École in Paris, and he became Dean Warren Powers Laird's (1861–1948) architecture chair in the School of Fine Arts at the University of Pennsylvania in 1903 [Fig. 1.1]. The Beaux-Arts method was at its heyday in the USA, and the University of Pennsylvania's pedagogies were closely modelled after the renowned programme of instruction at the Parisian École. Although much scholarship on Chinese architectural history has deemed that the Chinese encounter with architectural modernity was experienced through the more traditional lens of Renaissance classicism, Cret, in the 1934 yearbook of the Society of Beaux-Arts Architects, averred in the end: "Being modern is quite another thing from being a modernist, and is not the privilege of a clan. Architectural progress is, and always has been, the work of all men of good will."[54]

[53] It is the merging of the foreign architects in China with Chinese architects that marked a generational watershed amongst Chinese architects in the first decades of the twentieth century; see Denison, *Architecture and the Landscape of Modernity in China before 1949*, 142.

[54] Paul P. Cret, "The Classic versus the Modernist," *Yearbook of the Society of Beaux-Arts Architects* (1934): 116.

Fig. 1.1 The Architectural Society of the University of Pennsylvania, 1924: Yang Tingbao (third row from the bottom, third from the right) was the secretary-general. He was photographed together with his classmate Louis Kahn (the same row, third from the left) and their architectural design tutor Paul Cret (front row, middle).

The first architectural engineering programme at the National Northeast University (NNU) in Shenyang, northeast China, was established by Liang and Lin after their return to China from the University of Pennsylvania. In the first edition of the *The Chinese Architect*, published by the Society of Chinese Architects (SCA), Tong Jun declared that "all of the equipment [in this programme] was closely patterned after the architecture department at University of Pennsylvania in American Philadelphia."[55] Liang and Lin [Fig. 1.2] were joined later by other University of Pennsylvania alumni including Benjamin Chen (Chen Zhi) (1929) and Tong (1930) [Fig. 1.3].[56] Although the NNU department where they taught was referred to as "[a] Branch of Penn"[57] owing to its artistic focus, given China's Japan-oriented tradition of architectural engineering from the beginning of its university-

[55] Tong Jun, "A Brief History of the Department of Architecture at Northeast University 東北大學建築系小史," The *Chinese Architect*, vol. 1, no. 1 (1933): Unpaginated.

[56] Other teaching members at NNU included MIT-trained Cai Fangyin, as well as Liu Lan and Zhang Yisheng; see Guo, Daiheng, Gao Yilian, and Xia Lu, *Chinese Master Architect: Liang Sicheng* 一代宗师梁思成 (Beijing: China Architecture & Building Press, 2006), 36.

[57] Gu Daqing, "An Outline of Beaux-Arts Education in China: Transplantation, Localisation, and Entrenchment," in *Chinese Architecture and the Beaux-Arts*, eds. Jeffrey W. Cody, Nancy S. Steinhardt, and Tony Atkin (Honolulu: University of Hawai'i Press, 2011), 75.

based architectural education, the department was formally called Architectural Engineering—rather than Architecture—and situated within the NNU's College of Engineering. This kind of seemingly contradictory pedagogic setting, with a few exceptions,[58] was the norm in Republican China, but it was challenged by Liang in the 1940s.

[58] Throughout the Republican period of China (1911–1949), there were just two Departments of Architecture: at Peiping Art College (1928–1934, now the Central Academy of Fine Arts, CAFA), directed by French-trained architects Wang Shen and Hua Nangui (Hua Lanhong's father), where Liang once was a lecturer on architectural history (1932–1933), and at the College of Engineering at Peking University (1938–1945). The latter was directed by European-honed engineers Zhu Zhaoxue (France) and Shen Liyuan (Italy and Belgium).

東北大學概覽

職務	姓名	字	年齡	籍貫	履歷
專任教授	高鏡瑩		二十九	河北天津	美國米西干大學工科學士及碩士曾充洋華義賑會漢口堤工主任工程師水利委員會測量隊長
工學院教授	劉廣沛	達夫	三十五	遼寧海城	美國辛辛耐塔大學商業工程師
採冶學系主任教授	薛桂輪	志伊	三十七	江蘇	美國哥勞拉度礦冶大學礦冶工程師浙省理工大學鑛冶大學碩士曾任天津南開大學鑛科主任
專任教授	林斯澄	清之	三十三	福建	美國明尼蘇達大學鑛冶工程師及地質學碩士
專任教授	沈天民	天民	二十九	河北	美國米西干鑛冶大學鑛冶工程師前天津南開大學鑛科教授
建築學系專任教授	梁思成	思成	二十八	廣東新會	美國彭省大學建築碩士
專任教授	林徽音	徽音	二十五	福建閩侯	美國彭省大學建築學士耶魯大學劇院畢業
理工學院製圖教授兼技師	趙際昌	伯期	三十八	浙江紹興	上海國立同濟大學機械電工科畢業曾充司彥大學教職上海商務印書館製圖主任江灣模範工廠工程師
工學院法文講師	劉蘭	瘦石	二十五	福建閩侯	美國奧柏林中學畢業奧柏林大學肄業二年法國杜魯斯大學化學工程師巴黎市政廳中央化驗所見習工程師
物理講師	錢福謙		三十六	浙江杭縣	同濟醫工大學電氣機械畢業德國丹斯但大學電氣門國試工程師及工學博士

三

Fig. 1.2 This NNU yearbook of 1929 indicates China’s dearth of architect-teachers at the time. Liang and Lin (right and left in the red column), in their twenties, were the only two teaching members in the architectural engineering department. They were younger than other staff in the College of Engineering, per the fourth line where their ages are recorded. (Also, on the third line: Most faculty had their courtesy names[59] on the record, but Liang and Lin did not follow this, instead repeating their given names as a ‘modern’ Chinese man and woman)

[59] A courtesy name (*zi*; 字) is a name traditionally bestowed upon one at adulthood in addition to a Chinese given name (usually at the age of 20 for men and sometimes given to women, usually upon their marriage). Besides, in addition to their given and courtesy names, some would even have an alias (which was like a pseudonym). Take Liang’s father Liang Qichao for example: His alias was “owner of the ice-drinking room” (*Yinbingshi Zhuren*; 飲冰室主人). The practice is no longer common in modern Chinese society. A courtesy name is not to be confused with an art name, another frequently mentioned term for an alternative name in East Asia, which is closer to the concept of a pen name.

Fig. 1.3 A vivacious photograph of NNU faculty in 1929; amongst those seated are Liang (second from the right) and Benjamin Chen (centre foreground without a suit jacket)

1.2.2.3 A Short-Lived Technical Alternative

However, the scholarly focus on the Beaux-Arts system has failed to do justice to the multiplicity of different programmes and pedagogical agendas in China. In fact, even if one looks only to the USA, which provided the major influence on China's architectural education in the years central to this thesis, China's architect-teachers transplanted pedagogy not merely from the East Coast (where the Beaux-Arts tradition flourished) but also from other areas of the country. Alternative, polytechnical methods found their niche in the American Midwest. Chinese students who trained in the practical method included Lau Fook Tai (Liu Futai), who attended the University of Illinois before moving to the West Coast without Boxer-Indemnity funding. There he received a BA from Oregon State University in 1923 and his master's degree from the University of Oregon in 1925.[60] Upon returning to China, he was inaugurated as the architecture department chair at National Central University (NCU) in Nanjing in 1927.

[60] In a few of China's studies on Liu, people have become confused about his alma mater. The dates and locations included in this thesis are based on Lai Delin, email message to author, 1 November 2019; as for his early training at UIUC, see Song Kun and Liu Zhao, "Lau Fook Tai, One of the First Generation of Architects and the Pioneer of Modern Architectural Education of China 我国第一代建筑师和建筑教育先驱刘福泰," *The Architect*, no. 6 (2014): 92, 98.

In 1928, the Chinese Ministry of Education invited five architects to set up a standardised curriculum for colleges of engineering—including architectural engineering departments—on a national scale. They were Liang, Liu, Chu Pin (Zhu Bin), Yang Tingbao, and Kwan Sung Song (Guan Songsheng—the founder of Kwan, Chu & Yang Architects and Engineers or *Jitai Gongchengsi*; 基泰工程司). They combined NNC and NCU courses to address both artist- and engineer-architects through the flexible options of elective subjects [Fig. 1.4]. However, the implementation of this standardised curriculum was delayed due to growing Japanese threats. Engineer-architects like Lau Fook Tai left NCU to work in the building industry. This meant that the Beaux-Arts method eventually became the model—after the closure of the NNU in Shenyang[61]—for the whole country in the 1930s. Chang Po, who studied at both the NNU and NCU, recalled the Beaux-Arts focus that came to reside at both institutions:

> *Both situated within the Colleges of Engineering notwithstanding, artistic courses weighed more … [At the NNU,] teachers were primarily students of Cret, so they paid more attention to drawing skills … [At NCU,] the artistically led courses remained significant. They were taught at the College of Art, and students focused on design subjects. As a result, there was a trend to prefer art rather than technology. Although technical courses occupied a certain extent, they never became a vital terrain, and Chinese architects—since their days as architect-students—had regarded buildings as*

[61] The NNU escaped the dilemma between Beaux-Arts- and polytechnic-inspired architecture education because of the Manchurian Incident (1931), which forced the university to close. Before this, however, given the worsening situation in Northeast China, Liang and Lin, the founders of NNU's architectural engineering department, had moved to Beijing to avoid grave worry. There they joined the Society for Research in Chinese Architecture (SRCA). In this society, which was founded by Zhu Qiqian (1872–1964) in 1929 and was the only institution in China that studied architectural history until the early 1950s, Liang chaired the Department of Technical Studies while Liu Dunzhen oversaw the Department of Documentary Research (*Wenxian Zu*; 文獻組). Joined by Lin and other able colleagues, they published *SRCA Bulletin* (There were 23 issues in seven volumes between 1930 and 1945) and, in so doing, achieved notable success in identifying the unique compositional principles of Chinese architecture by an in-depth study of the ancient manuals and a wide-ranging investigation of extant structures. This continued until the SRCA was merged into Tsinghua University's Department of Architectural Engineering when it was established by Liang in 1946. Note that, in Chinese, Liang's Department of Technical Studies was called *Fashi Zu* (法式組) after the oldest existing Chinese technical manual on building construction, *Yingzao Fashi* (YZFS; 營造法式, aka State Building Standards). It was compiled by Li Chieh in 1100, published by the Northern Song government in 1103, and enforced in 1104. Zhu sent this book to Liang and Lin when they were still studying at the University of Pennsylvania in the late 1920s.

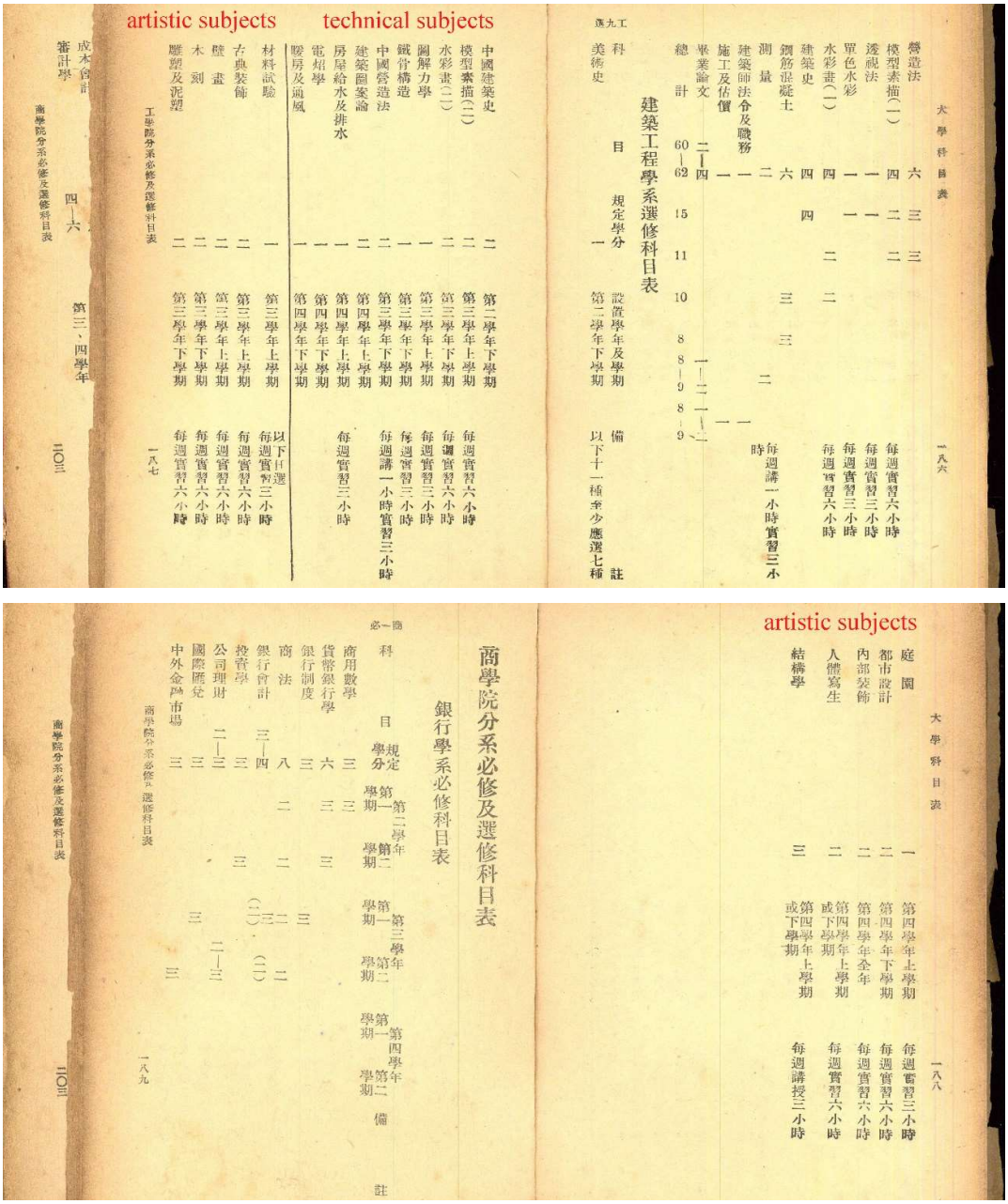

Fig. 1.4 The elective courses in the national standardised curriculum for architecture students; the line divided technical subjects (i.e., house water supply and drainage, electricity, heating and ventilation) and artistic subjects (i.e., sculpture and clay sculpture, interior decoration, life drawing) for each university's programme to select on their own.

[62] Chang Po, "Thinking about the Architect's Cultivation from Memories 從回憶中思考建築師的修養," *The Architect*, no. 12 (1982): 1.

1.2.2.4 Nationalism and its Influence on Modernism

Even though some members of the early generations of Chinese architects did explore functionalism and machine-inspired theory, they tended not to explore modern Western movements during the so-called Nanjing Decade of 1927–1937[63]. This was a period of relative prosperity, however chaotic, which lasted until the Second Sino-Japanese War. During this time, NCU strengthened its role as the model for the national curriculum in architecture since the NNU shut down in 1931. *The Chinese Architect*—a journal in circulation between 1931 and 1937—often published its courses and works of students taught by an ever-changing faculty based on a Beaux-Arts-centric agenda.

When Liu Dunzhen, the only Japanese-oriented NCU teacher, left NCU for Beijing to join Liang at the Society for Research in Chinese Architecture (SRCA) in 1932, French-trained artist-painter Liu Jipiao joined the teaching staff in Nanjing and helped the department bridge the worlds of art and architecture. So did Cret's students Yang and Tong from the University of Pennsylvania. They were followed by Luke Him Sau (Lu Qianshou) from London's Architectural Association (AA) in 1937 when NCU relocated to the proxy capital of Chongqing due to the War of Resistance against Japan.

Despite the Beaux-Arts slant of the national curriculum, it was not until 1939 that the Nationalist government issued these regulations.[64] As a result, during the 1930s in China,

[63] There was some reporting in China of modern Western architectural developments during this period, but Chinese architects were more focused on Chinese style at the time. The news of Frank Lloyd Wright's Imperial Hotel in Tokyo was report through *Shishi Xinbao* (10 February 1931). *Shishi Xinbao* also brought news of Henry-Russell Hitchcock and Philip Johnson's 1932 Modern Architecture: International Exhibition at MoMA to China in 1933. The same newspaper introduced Swedish architect Carl Lindbohm, a new associate partner at Robert Fan's office in Shanghai, who brought the idea of International Style to a Chinese audience. See Shen Tong, "Architect Lindbohm and New Architectural Regulation of 'the International Style' 林朋建築師與「國際式」建築新法," *Shishi Xinbao*, 15 February 1933. Despite the fact that Liang mentioned "the International Style" (*Guoji shi*) for the first time in his 1935 preface to *Pictorial References for Architectural Design*, the competition guidelines for Nanjing's National Central Museum written by him—in the same year—still required that the museum "fully employ [the style of] Chinese architecture…as long as doing so does not affect the function of a modern museum." Implicit in these conditions, according to Lai Delin, was a concern that modern function and Chinese style might conflict; see his "Idealizing a Chinese Style: Rethinking Early Writings on Chinese Architecture and the Design of the National Central Museum in Nanjing," *Journal of the Society of Architectural Historians* 73, no. 1 (2014): 63.

[64] That was the national standards for the architectural curriculum drafted by Liang, Liu, and Kwan in 1929 and released in 1939, after being postponed for a decade, in Chongqing. After the Japanese attacked the Chinese Republic and occupied the capital, Nanjing, the Nationalist Government relocated and officially declared Chongqing its provisional capital on 6 September 1940. There they established their headquarters and some key industries and education facilities.

the teaching of architecture could be influenced by engineering and other types of technical education. For example, Lin Kemin (1901–1999) graduated from Lyon Architectural Engineering School (1926) and established the architecture department at Xiangqin University in Guangzhou in 1932, the first architectural programme in southern China.[65] There were other influences on early modern architecture in China. Interestingly, when the student-edited journal *The New Architecture (Xin Jianzhu*; 新建築) was launched at Xiangqin in 1936, the cover page was illustrated with the German title *DIE ARCHITEKTUR* [Fig. 1.5].[66] This incorporation of German pedagogical references testifies to the various sorts of modernist encounters China was experiencing at that time.

Fig. 1.5 The cover of the first edition of *The New Architecture* in Guangzhou

In another example, after training at what is now known as the Tokyo Institute of Technology until 1929, Chen Boqi (1903–1973) enrolled at the Berlin University of Technology in 1934. This student of Hans Poelzig returned to establish the architectural engineering department at Chongqing University in 1940. However, the modern

[65] Lin advocated a modernist approach with a focus on engineering, but his programme had to be merged with Zhongshan University in 1938 after the outbreak of the second Sino-Japanese conflict.

[66] The temporary magazine was reprinted by student-editors Zhen Zuliang and Li Lunjie in Chongqing during the Japanese invasion. It took a decade for the editorial team to update the German title as DIE NEUE BAUKUNST to reflect the "new" indicated by its consistent Chinese title. See *The New Architecture*, Volume of the Victory, no. 1, 1946.

pedagogies Lin Kemin and Chen Boqi transplanted from Europe made little impact beyond their institutions because they were both overlooked by the Nationalist government. Warlordism in Guangzhou struggled against Nanjing's Kuomintang (KMT) government, and Lin was thus never able to join the SCA.[67] Chen faced the overwhelming impact of Beaux-Arts training when NCU moved to the temporary capital in Chongqing[68] since he needed substitute teachers from a large faculty[69] close by. As a result, European modernities only found their way into China's architectural education in full force at a small number of missionary organisations that had treaty rights of extraterritoriality.

1.2.3 Cosmopolitanism/ Internationalism

Through the introduction of Western modern architects and histories of modern architecture from the first half of the 1930s, a younger generation of Chinese architects began to oppose the Beaux-Arts formalist design approach in teaching and embrace modern architectural theories based on science and technology. According to Denison, it was during this decade that Chinese architects and the foreign architects in China, previously on separate trajectories, started to integrate and work together[70] in most of China's coastal cities, especially those with treaty-ports forced to open to Western powers in the nineteenth century. For example, the spectacular growth of population and wealth Shanghai experienced between 1842 and 1949 resulted in a city of extreme cosmopolitanism divided along cultural, national, and class lines.[71] This cosmopolitanism and embracing of international influences was a third dimension of makeshift modernities in China.

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[67] Qian Feng and Wu Jiang, *Education of Modern Architecture in China (1920–1980) 中国现代建筑教育史（1920—1980）* (Beijing: China Architecture & Building Press, 2008), 76. Moreover, this conjuncture prevented those trained through informal systems—such as traditional craftsmen-builders, foreign firm architect-draftsmen, and engineering-based architects—from retaining a central role in the industry and provided more opportunities for the returned, formally schooled Chinese architects and their architecturally based students in China's universities.

[68] Lai Delin and Wang Haoyu, "Uncovering the Gene of TU Berlin in the School of Architecture at Chongqing University: A Study Based on the Life Experiences of Its Faculty 重慶大學建築系的柏林工業大學基因試探：一項基於人物生平的研究," *Architectural Journal*, no. 11 (2019): 94–95.

[69] Officially formed in 1921, it became National Fourth Zhongshan Daxue when the Nationalist government based in Nanjing was formed, and eight other universities—including SISS—in the Jiangsu region, south of the Yangtze River, were merged into it by 1927.

[70] Denison, *Architecture and the Landscape of Modernity in China before 1949*, 142.

[71] Yeh Wen-Hsin, *The Alienated Academy: Culture and Politics in Republican China, 1919–1937* (Cambridge, Mass.: Harvard University Press, 1990), 54.

In the 1930s and up to 1940, China had witnessed the establishment of architectural training that incorporated modernism to some degree, not only at the University of Shanghai (1934) and Hangzhou University (1940) but also at Tianjin University of Industry & Commerce (1937), where architecture education was led by the engineers-turned-architects Shen Liyuan and Yang Kuanlin.[72] However, it was Huang Zuoshen at St. John's University (SJU) in Shanghai who led the first architectural engineering department in China to challenge the Beaux-Arts system with Bauhaus-inspired pedagogies. At the invitation of Yang Kuanlin, who had served as the engineering college's dean at SJU since 1940, Huang gathered international faculty around him who reflected Shanghai's historic cosmopolitanism.

At SJU, Huang incorporated both the Bauhaus principles he is best remembered for, as the earliest Chinese student of Walter Gropius at the Graduate School of Design (GSD) at Harvard University in the late 1930s, as well as various European influences that he was exposed to earlier at the Architectural Association (AA) in London. At that time, according to architectural historian Elizabeth Darling, the AA was undergoing its most dramatic modernisation.[73] During Huang's studies there, the school undertook a modern reform of its pedagogy, undoing the Year System for the Unit System. This was completed under the leadership of a small band of British modernists, the Modern Architecture Research Group (MARS Group, active 1933–1957), which became a branch of the Congrès Internationaux d'Architecture Moderne (CIAM) in England. As I will argue, Huang was strongly influenced by his early training at the AA in London from 1933 to 1938. Although the above history of early modern architectural education in China has touched only lightly on the few early Chinese architects who trained in Europe, European-trained architect-teachers did play a critical role in modernising China's architectural education.[74]

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[72] The architectural programmes at Shanghai (run by the American Baptists Mission) and Hangzhou (run by the American Presbyterian Mission), albeit Beaux-Arts-influenced, were akin to vocational training due to close cooperation with the SCA. Also, Shen's programme at a mission institution run by the French Catholic church subscribed to pragmatism supported by Chang Po's China Architecture & Engineering (*Zhongguo Gongchengsi*; 中國工程司).

[73] Elizabeth Darling, "Into the World of Conscious Expression: Modernist Revolutionaries at the Architectural Association, 1933–39," in *Man-Made Future: Planning, Education and Design in Mid-20th Century Britain*, ed. Iain Boyd Whyte (London and New York, Routledge: 2007), 160–161.

[74] Wang Haoyu, "Mainland Architects in Hong Kong after 1949: A Bifurcated History of Modern Chinese Architecture" (PhD Thesis, The University of Hong Kong, 2008), 50.

On the other hand, given the very different—in Elizabeth J. Perry's words—"urban micro-environments"[75] from outward-looking treaty-port Shanghai, Liang, in inward-looking post-imperial Beijing, would look for more two-way porous exchanges between China and foreign institutions since he was not satisfied with his Beaux-Arts training in modern-day China. Wilma Fairbank, who was a friend of Liang's as well as his biographer, wrote that "at times in the 1930s and '40s, I heard Sicheng express a wistful regret that he had just missed this induction into the contemporary movements of architecture"[76] during his education at the University of Pennsylvania. For this, he became a believer in internationalism—as Collins dictionary defines it, the idea that countries should work with, help, and be friendly with one another. After the Second World War, he went again to the US—meeting with the then most remarkable architect-planners worldwide—to serve as a member of United Nations' Board of Design and join the signatory of a modernist revolution in architectural education on the globe. All these experiences would make their mark on Liang's teaching at Tsinghua.

1.2.4 Physical/ Built Environment

The development of China's modern architects and architecture in the early 1930s was soon undermined by Japanese imperialism. While the War of Resistance (1937–1945) ended the golden decade of the Nationalist government, it also provided Chinese architects with an opportunity to consider architecture beyond the duality of the Beaux-Arts and modernism. Aligned with a more diverse scale of design, which had become a focus of overseas professionals and progressive discourses, postwar Chinese architect-teachers promoted architectural training in holistic design of what Liang called the Physical Environment (*ti-xing huanjing*; 體形環境), which included industrial art, landscape architecture, and urban planning. In this regard, Huang would join Liang to engage his students in working with architect-builders in emerging professions related to the built environment (*renlei huanjing*; 人類環境) on local, regional, and national levels.

[75] "Shanghai and Peking [Beijing] were Republican China's most important metropolitan centers, and were notably dissimilar in the extent of foreign political and cultural presence and influence. As a consequence, he two cities gave rise to divergent campus cultures that afforded contrasting opportunities and obstacles for realizing a shared set of pedagogical aspirations"; see Perry, "Managing Student Protest in Republican China," 5.

[76] Wilma Fairbank, *Liang and Lin: Partners in Exploring China's Architectural Past* (Philadelphia, PA: University of Pennsylvania Press, 1994), 26.

For architecture and planning to become one and the same thing in modern-day China, the events of the 1940s were decisive. This widening of architecture to include related types of design was a fourth dimension of makeshift modernities in China.

Liang, after helping to write the Beaux-Arts-based standard national architecture curriculum, eventually came to focus his own teaching at Tsinghua University on the Physical Environment. He termed this the "substance-form-environment" based on his experiences during a second trip to the USA in the late 1940s, which he undertook after reading many books published by Western architect-planners during the war. On this journey, he renewed his knowledge of modernism, not only that of the Harvard Bauhaus but also that of the midwestern theory of Pure Design. As he explained, "[The substance-form-environment] is a distinctly formed environment that [literally!] has substance to it."[77] Using this concept, he reformed Tsinghua's curriculum for a pedagogical balance between sciences and humanities; he feared that, without this type of reform, his architectural engineering department could produce 'a half-a-man world' (as Liang entitled a lecture in 1948). He said, "As today when scientific materialism carries such authority, [architecture students are] in danger of degenerating into a selfish and soilless mechanism."[78]

Huang, who commenced his architect-teacher career later than Liang, encountered multiple forms of modernities in a more timely trajectory, as by the time he studied at the AA and GSD, they were both embracing modernism. Like Liang, he became interested in incorporating other types of design, such as the town planning he had studied in his Unit 15 thesis project at the AA,[79] into his architectural education. For example, Huang contributed, along with his SJU students and teaching fellows, to the Greater Shanghai Planning Committee after the Second World War. Shanghai had by then ceased to be an international treaty-port and was now entirely under Chinese jurisdiction. Like Liang,

[77] Even though both the architectural programmes that Liang established were at state-controlled universities, the state was not overseeing them closely at this time. Chiang Kai-shek's authority was oscillating under pressure from both Tokyo's militarists during the Manchurian Incident and the People's Liberation Army (PLA) in the Civil War.

[78] Edmund W. Sinnott, "Science and the Whole Man," *American Scientist* 36, no. 1 (1948): 136. Liang's theory of 'a whole man' was indebted to Sinnott's keynote speech upon the centennial of Sheffield Scientific School at Yale University, where by then he was serving as a visiting professor in 1947.

[79] The project site was Berkshire's westernmost town, Faringdon, and this thesis project was reported in the first edition of the AA's student-edited magazine: Rowse, E. A. A. The Unknown Town. *Focus*, no. 1 (Summer 1938): 17–23.

who "endorsed in Tsinghua's curriculum…the concept of the contextual design of the physical environment…proposing the reform of the training for architects and planners," [80] Huang regarded the city as a combination of built and natural environments. [81] They both stated the importance of architects and planners understanding the interrelations between social, economic, and emotional factors in total design and saw this as a way to create more meaningful design on multiple scales, including both buildings and their larger landscape.[82]

1.2.5 The Aftermath of China's Early Multiple Modernities of Architectural Education

The restructuring in 1952 of Chinese higher education cemented the Beaux-Arts method as the model for the whole country. [83] Not only did Huang's alternative Bauhaus experimentation programme at SJU and Liang's physical city planning approach at

[80] Chin-Wei Chang, "A Ground between Beaux-Arts, Modernism, and Chineseness: Tracing Modernities in China's Architectural Education and Practice, 1919–1949," *Charrette* 4(2) (Autumn 2017): 68.

[81] This dyad may have something to do with Unit 15's subdivision into housing (built) and planning (natural) groups; see R. Cotterell Butler, "A.A. SCHOOL CO-OPERATIVE THESIS UNIT 15: DESIGN FOR A TOWN," *Architectural Association Journal* (September 1938): 89–90. According to Elizabeth Darling's 2007 book *Re-forming Britain*, by 1939, modernism was well established in the UK. Huang studied at London's AA at a crucial time when the student body and teachers formed part of a country-wide emphasis on 'modernising' architectural education: With their tutors, they developed new modes of practice which emphasised teamwork, were research-led and sociologically driven, and heralded a new conception of the persona of the architect.

[82] Wu Kinglui (1918–2002, Liang's assistant at Yale University and a modernist Liang invited to work at Tsinghua) called this approach "total environment." He noted it was "the best," as annotated in the 1946–1947 handwritten conversation notes between Liang and himself; see King-Lui Wu Papers, Manuscripts and Archives, Yale University Library, MS 1842, Series II, Box 104, Folder 7. See Fig. 5.1 in Chapter 5 for this archival image, in which Wu also noted they "Talk[ed] in Cantonese." China's Civil War (1945–1949) prevented Wu from joining Liang and working as a modernist at Tsinghua after the Second World War.

[83] It reshuffled all academic units in existing universities and colleges (state-supported), most of which were in the process of being put under central government administration and funded directly by the government, into several large disciplinary areas organised according to the Soviet education system: humanities and science, engineering, medicine, and education. Each university now instead was focused on a narrowly defined academic area. Also, following the Soviet model, all universities would use standard textbooks. Although the departmental rearrangement may not have affected every detail in the curriculum (church-controlled), the disciplinary reshuffling sent the faculty and students an unmistakable message about the central government's control of higher education. Meanwhile, Soviet texts were translated into Chinese wholesale; students and young intellectuals were encouraged and often required to study Russian, considered a tool of the China-Soviet alliance and an attitude embracing the entire political movement. (This was also the reason why Liang employed mathematical symbols in Architecture $\subset$ (Social Science $\cup$ Technical Science $\cup$ Arts), a 1962 newspaper article that frames the theoretical work of the conclusion in Chapter 8.) For architecture programs, now rearranged into eight institutions nationwide, one technical consequence of 'Learning from the Soviet Union' was the reinforcement of the classicist design method favoured in official Soviet architecture, even though the method was already a significant component in Chinese curricula (a point to which I shall return in 8.4).

Tsinghua get suppressed, but both also faced challenges from the new Communist regime under Mao Zedong in his firm alliance with the Soviet Union from 1950 to the early 1960s. Chinese higher education institutions were restructured based on Russian experts' suggestion that "Chinese universities should turn out not abstract scholars but practical specialists,"[84] as China's universities and colleges were said to have been developed in the unhealthy atmosphere of semi-colonialism controlled by Western imperialists. In 1957, the Anti-Rightist Campaign (*Fanyou Yundong*; 反右運動)[85] forced both Huang and Liang to treat architecture as nothing but a utilitarian infrastructure and halt their civic-minded pedagogies. By the end of the 1950s, after several reformations and the reorganisation of college ranks, there were eventually eight architecture schools in China:

1. Nanjing Institute of Technology (the successor to NCU)
2. Tsinghua University
3. Tianjin University
4. South China Institute of Technology (including Zhongshan)
5. Tongji University (College of Architecture and Urban Planning, aka CAUP, including SJU, the University of Shanghai, Hangzhou University)
6. Chongqing Institute of Construction and Engineering (the successor to Chongqing)
7. Xi'an Institute of Metallurgical Construction (including the NNU)
8. Harbin Institute of Construction and Engineering[86]

Even so, the impact of Huang's and Liang's ideas could be felt in those subsequent years until the Cultural Revolution (1966–1977). The merger of SJU with Tongji University meant Huang was no longer the departmental chairman, but he established an architectural office called Craft-Build-Soil-Wood together with students-turned-teachers like Li Dehua and Wang Jizhong. In 1951, before China's universities and colleges were said to have been developed in the unhealthy atmosphere of semi-colonialism controlled by Western imperialists, they designed the buildings of Shandong Secondary Technical School, which showed characteristics of modern spatial treatment as well as an integration

[84] Immanuel C. Y. Hsu, "The Reorganisation of Higher Education in Communist China, 1949–61," *The China Quarterly*, no. 19 (1964): 137.

[85] This movement was a political campaign to purge alleged "Rightists" from within the Chinese Communist Party (CCP) and from post-1949 new China under the Communist rule as a whole. The campaign was launched by Mao and lasted from 1957 to roughly 1959; it significantly damaged democracy in China and turned the People's Republic (PRC) into a one-party state.

[86] The only one of China's so-called Senior Eight Architectural Schools (*lao ba xiao*) that was established after the restructuring in 1952. (It was established in 1958.)

of various building materials. Only a year later, Chinese higher education would be reformed—but the buildings designed by Huang and his students would remain standing. While Huang's architectural theory course was not offered in the 1950s, Tongji students would have been exposed to SJU's progressiveness through architectural design, including that of the Tongji Faculty Club (1956–1958) discussed in the Conclusion.

Likewise, Liang's reformative pedagogies shifted outside the classroom when Mao Zedong deemed that China should copy Russia, where it was not the university but the technical institute that exercised a decisive influence on national construction. Like Huang, Liang put forth work in 1951 that would serve as a reference for his progressive pedagogy after he could no longer teach it in a classroom. Tsinghua's department of architectural engineering published *A General Outline of City Planning*, prefaced by Liang and Lin, who aligned their postwar view with CIAM.[87] After 1952, students and young architect-planners—from Tsinghua or otherwise—could also easily have gotten their hands on Liang's publications explaining his concept of the Physical Environment in greater detail since he published a series articles called "Miscellaneous Notes of An Awkward Craftsman (*Zhuojiang Suibi*; 拙匠随笔)" in the *People's Daily*.[88] Most of these articles were of a popular science nature, and in them Liang's purpose was to popularise knowledge about the attributes of architectural art and its evaluation methods and standards in the art world and society.

One should never ignore the fact that the two categories of modern-day Chinese architects delineated in this thesis—architect-teachers and architect-builders—practised on different temporal scales: The former's thinking could change daily perhaps based on a book, a case study, or a conversation with students, while the latter's would not be allowed to modify a design overnight unless the clientele became unsatisfied. Both Huang and Liang felt that the architectural work conducted on these two time scales complemented

[87] During the First National Conference on Higher Education in 1950, leading Russian educators made an all-out indictment against the Nationalist educational system that, in their opinion, exhibited too much dependence on the West. For example, many of the libraries had more foreign-language volumes than Chinese, and there was no unified translation of foreign technical terms; see ibid. Given the circumstances, it seems that the Liangs could have been translating Le Corbusier's 1941 *Athens Charter* in haste, while they still had a chance.

[88] There were five of them before the Cultural Revolution: Architecture ⊂ (Social Science ∪ Technical Science ∪ Arts) (8 April 1962, discussed in the Conclusion); How Architects Work (29 April 1962); Sameness and ever-changing (20 May 1962); Starting from "Yan Yong"—An Ominous Prophecy (8 July 1962); From Sloppy to Clean (9 September 1962).

each other: Huang deemed that it was scholars who supplied that little 'kick' that turned a building into architecture (rather than believing that architecture was innately 'within' every building) while Liang had long tried to train architecturally-based architects (in a College of Building) and engineering-based architects (in a College of Engineering) separately (as we shall see later in Parts 1 and 2). Instead of wanting builders and architects to take on one another's characteristics, Huang and Liang promoted essential institutionalisation for both professions to incorporate and work together as, in Liang's words, a 'whole man' who regards architecture and planning as one and the same thing for the built environment joined by, though not limited to, landscape architecture, interior design, industrial arts, and technical engineering.

This thesis attempts to trace Liang's and Huang's original endeavours that had lasting impact or were taken up by later Chinese architects. The eight institutions listed above remain the most critical sites for training professional architects in China today. Although Huang's and Liang's modernist curricula ultimately fell victim to political reforms, their legacy as modern Chinese architect-teachers who were concerned with the architect's social responsibility was preserved and could serve as a model for today's architects, as will be argued in Chapter 8.

1.3 Literature Review: Episodes Missing and Misunderstood

The historical sketch above of the landscape of modern architecture—both professional practice and pedagogical teaching—in Republican China was based on critical figures of the time, many (but not all) of whom were affiliated with the Society of Chinese Architects (SCA).[89] The term 'society' (*xuehui*; 學會) carries an academic connotation. It describes a group of people who have assembled a body of modern knowledge, and it testifies to the fact that the establishment of a profession has much to do with the creation of its own institutions. Examples of this professionalisation of Chinese architecture include the establishment of *The Chinese Architect* (*Zhongguo Jianzhu*; 中國建築), the

[89] Upon its founding in 1927, the organisation was called the "Society of Shanghai Architects," but it was soon renamed the "Society of Chinese Architects" in 1928. Its founders included Zhuang Jun, Zhang Guangqi, and Wu Chenying, and its first president and first vice-president were Robert Fan (Fan Wenzhao) and Lu Yanzhi.

official journal of the SCA launched in 1931 [Fig. 1.6],[90] and the Chinese Architecture Exhibition (1936, *Zhongguo Jianzhu Zhanlanhui*; 中國建築展覽會), the biggest one before the Second World War, jointly organised by Jitai, the SRCA, the SCA, and the current Architecture Society of Shanghai China (ASSC) at Dong Dayou's newly completed Shanghai Municipal Museum. In addition, international competitions such as those for the Sun Yat-sen Mausoleum (1925)[91] and the National Central Museum (1934)[92] in Nanjing were created, and newspapers such as *Shishi Xinbao* (時事新報)[93] and *Shanbao* (申報) appeared.[94] As a result, the new professionalisation of modern Chinese architects gained a stronghold, and professional Chinese architects started working with foreign architects in China.

[90] Due to the fact that its official sanction was not granted until 1932, SCA published its inaugural (makeshift) issue in November 1931 and its first (formal) edition in July 1933 (but few scholars have ever made this clear). The other parallel SCA periodical was *The Builder* (*Jianzhu Yuekan*; 建築月刊), commencing in November 1932 and "representing the commercial and international pragmatism in Shanghai [with] *The Chinese Architect* possessing the scholarly superiority associated with safeguarding cultural tradition," see: Denison, *Architecture and the Landscape of Modernity in China before 1949*, 187.

[91] Lai Delin, "Searching for a Modern Chinese Monument: The Design of the Sun Yat-sen Mausoleum in Nanjing," *Journal of the Society of Architectural Historians* 64, no. 1 (2005): 22–55.

[92] Lai, "Idealizing a Chinese Style."

[93] *Shishi Xinbao* launched the Construction Property Supplement (*Jian Zhu Di Chan Fu Kan*) in December 1930, in which readers came across not only China's building news but also news from overseas: There was a report of Frank Lloyd Wright on 10 Feb 1931 and of Carl Lindbohm (Robert Fan's associate) on 15 Feb 1933.

[94] *Shanbao* published a special issue on "modernisation" in 1933, and that was the first time that average Chinese people accessed the term "modern" (*xiandai*; 現代).

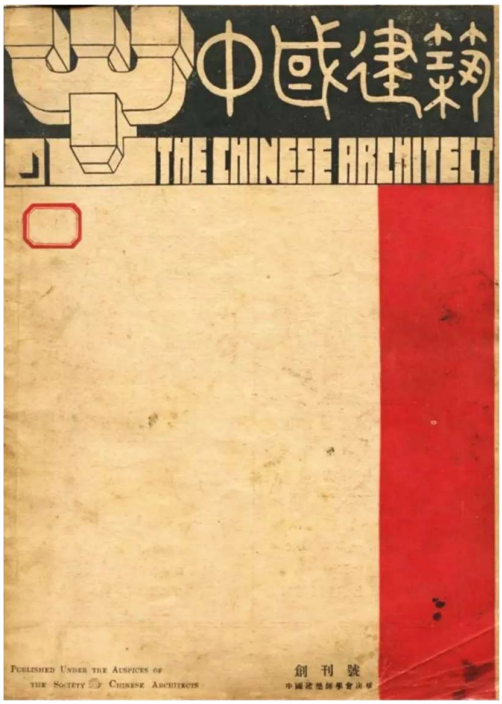

Fig. 1.6 The cover of the SCA-published *The Chinese Architect*'s inaugural issue, before the organisation's sanction was formally granted, in November of 1931

The history of architectural education in China was marked by several institutional events. Firstly, the Boxer Indemnity-funded Tsinghua College used the remaining balance of the fund to institute its university in 1925, and it became a national university in 1928. Secondly, upon returning to China to establish professional programmes, the Chinese architects who had studied abroad endeavoured to cultivate many teachers. Thirdly, the Chinese Nationalist government was involved in an increasing number of nation-building projects for a modern state. Fourthly, the Nationalist campaign of the KMT issued laws on the registration of Chinese architects while it was completely kept out of the concessions—under which Episcopalian St. John's University was subsumed—by the foreigners' treaty rights of extraterritoriality. These factors stimulated the establishment of China's formal programmes at professional schools in the 1920s. Although the encounter between missionary educational goals and nascent Chinese nationalism severely tested the loyalty of China's bicultural elites to the Chinese nation at large, it paved the way for the early generations of foreign-trained Chinese architects to practice and to teach.

Architectural education and the academisation of modern architecture in China are the focuses of this thesis, and Huang and Liang will be analysed as representative figures of

this academisation. To do so, related key existing literature—as well as unpublished sources uncovered through fieldwork and associated activities—are explored in what follows. Only a small band of Chinese architects, after all, served as architect-teachers. The purpose of this literature review is to contextualise why Huang and Liang are meaningful representatives for understanding the academisation of modern architecture in China before the advent of Communism.

1.3.1 An Account of Studies on Architectural Education in Modern China

1.3.1.1 From the Collective to Individual(s)

The majority of the existing scholarship on Chinese architects, as indicated in the historical sketch above, has focused on architects trained primarily in the American Beaux-Arts system who returned to China to teach and practice during the 1930s and 1940s. The first Western conference drawing upon "modern & contemporary Chinese architects" (*zhongguo jinxiandai jianzhushi*),[95] which was entitled "The Beaux-Arts, Paul Philippe Cret, and 20th Century Architecture in China," was held at the University of Pennsylvania in 2003. The international presenters there explored the teaching received by the likes of Liang Sicheng and Yang Tingbao, and the conference culminated in *Chinese Architecture and the Beaux-Arts*, an edited book—which consisted of chapters on Chinese architects both as a group (Part II: Convergence to Influence) and individuals (Part III: Influence to Paradigm)[96]—published by the conference's speakers in 2011.

Based on this springboard, a Chinese touring exhibition (in Nanjing, Beijing, and Shanghai) on the theme of the first Chinese architecture graduates from the University of Pennsylvania took place from 2017 to 2018. Some of China's leading journals in architectural education contributed special issues, such as *World Architecture* (Monthly, no. 2, 2020), *Time + Architecture* (Bimonthly, no. 6, 2018), and *Architectural Journal*

[95] This is a collective byword in conventional Maoist historiography that includes Chinese architects between the First Opium War and the beginning of a revolutionary socialist state.

[96] In addition to the lenses of Beaux-Arts education and the University of Pennsylvania, this edited volume broadened the researchers' horizons to include Dong Dayou at the University of Minnesota, away from his east-coast counterparts, and Lü Yanzhi at Cornell University, who first studied mechanical engineering before architecture. Three years later, in 2014, Edward Denison and Guang Yu Ren offered a counterpart on Luke Him Sau, presenting him as one of a number of British-trained professionals engaged in modernising Chinese architectural practice and education; see Denison and Guan, *Luke Him Sau*.

(Monthly, no. 8, 2018), which included a Chinese translation of David Van Zanten's "Just What Was Beaux-Arts Architectural Composition?"[97] from *Chinese Architecture and the Beaux-Arts* (2011). In contrast, the Bauhaus's impact on Chinese architectural education has been neglected (although, in one notable exception, the scholarship on Huang, as I will show, has placed perhaps too much emphasis on his experiences with Walter Gropius at the Harvard Bauhaus).

The histories of architectural education in China can be studied by tracing the educational backgrounds of the architect-teachers. The Taiwanese scholar Huang Chien-Min was amongst the first to research this field. He suggested in 1985's "Tracing China's Architectural Education" that related research must follow the experiences of overseas-studying professionals.[98] After this publication, it took another two decades for another significant piece about architectural education in China to be published. As part of his doctoral work, in 2005, Lai Delin's "The Transplantation of a Profession" called the dissemination of architectural knowledge in China a process of "transplantation" (*yi zhi*; 移植)[99] from the West to the non-West. Although this point of view holds that the foreign-trained professionals established formal practice and pedagogy on Chinese soil where this "profession" had never existed before, this thesis also questions the notion of purely international drivers of China's architectural education. All research in this area thus must be concerned with the international exchange of ideas. In his research, Lai did not distinguish between architectural practice and architectural education histories because many architect-teachers also served as architect-builders, and vice versa.[100] In contrast, this thesis focuses specifically on architect-teachers. It highlights Huang and Liang in particular because, for a crucial time during the establishment of modern architectural education in China, they centred their careers around teaching rather than building.

Along this line of scholarship, related scholars have focused on a small band of architecture students—mostly graduates from Tsinghua College—who were schooled at

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[97] David Van Zanten, "Just What was Beaux-Arts Architectural Composition?," in *Chinese Architecture and the Beaux-Arts*, eds. Jeffrey W. Cody, Nancy S. Steinhardt, and Tony Atkin (Honolulu: University of Hawai'i Press, 2011), 23–37.

[98] Huang, "Tracing China's Architectural Education 中國建築教育溯往," 34.

[99] Lai, "The Transplantation of a Profession 學科的外來移植," passim.

[100] It was the lack of a building market during wartime from 1937 to 1945 that made Yang Tingbao, Tong Jun, Lau Him Sau, and Li Huibo join NCU's Department of Architectural Engineering. Take Luke, for example: He left Chongqing immediately for Shanghai with the American bombing of Japan in August 1945.

the University of Pennsylvania during the early decades of the twentieth century. For example, in 1999 the Taiwanese scholars Wang Chun-Hsiung and Wu Kuang-Ting completed the first systematic survey of these architect-students, *A Study on the American Education of the Chinese First-Generation Architects with Especial Reference to the Graduates of the University of Pennsylvania*. They focused on the so-called "Laird Years" (1891–1932)[101] during which eleven Tsinghua-University of Pennsylvania students (out of 21 Chinese architects who enrolled at architecture schools abroad before 1937) studied the American Beaux-Arts system with Cret.[102]

Wang Guixiang continued this field of study in 2001 based on a visit to the University of Pennsylvania's School of Fine Arts. He concentrated on two specific figures, Liang Sicheng and Lin Huiyin, and presented some material related to them from the university archives.[103] Likewise, in 2002, Ruan Xing discussed only Yang Tingbao in his paper "Accidental Affinities."[104] This approach has made specific names become synonymous with early modern Chinese architecture and marginalised others who shared equally in China's encounter with architectural modernity. Beginning in the 2000s, international scholarship on overseas-trained Chinese architects rose. It was not unlike the grand narratives of their Western counterparts or the heroic accounts in China's home-grown publications in the 1990s about American-educated NNU and NCU faculty, such as Yang

[101] On 7 October 1890, the School of Architecture opened within the Towne Scientific School at the University of Pennsylvania, and Laird served as its first architect-instructor. He changed the school's curriculum from a focus on professional practice to a Beaux-Arts model and further raised the stature of his architectural programme by encouraging students to enter design competitions sponsored locally, nationally, and internationally. Wang and Wu even said that it was during the "Periclean Age of Pennsylvania" that the Chinese Contingent also made their prizes count; see Wang Chun-Hsiung and Wu Kuang-Ting, *A Study on the American Education of the Chinese First-Generation Architects with Especial Reference to the Graduates of the University of Pennsylvania* (Research Project Report, National Science Council, NSC 882411H32009, Taiwan, 1999), iii.

[102] The most important thing in the report was that what the Chinese Contingent learned was American Beaux-Arts rather than French Beaux-Arts; see Wang and Wu, *A Study on the American Education of the Chinese First-Generation Architects with Especial Reference to the Graduates of the University of Pennsylvania*.

[103] Wang Guixiang, "A Few Archives of Early Chinese Architectural Students at the University of Pennsylvania 美国宾夕法尼亚大学早期中国建筑留学生的几件史料," *Essays on the History of Architecture 建筑史论文集*, no. 17 (2002), 193–202. See also his "A Few Archives of Early Chinese Architectural Students at the University of Pennsylvania 建筑学专业早期中国留美生与宾夕法尼亚大学建筑教育," *Essays on the History of Architecture 建筑史论文集*, no. 19 (2003), 218–238.

[104] Ruan Xing, "Accidental Affinities: American Beaux-Arts in Twentieth-Century Chinese Architectural Education and Practice," *Journal of the Society of Architectural Historians* 61, no. 1 (2002): 30–47; later published as Ruan Xing, "Yang Tingbao, China's Modern Architect in the Twentieth Century," in *Chinese Architecture and the Beaux-Arts*, eds. Jeffrey W. Cody, Nancy S. Steinhardt, and Tony Atkin (Honolulu: University of Hawai'i Press, 2011), 153–168.

Yongsheng's "stardom of the four master architects."[105]

This idea of "cultural heroes" was ultimately challenged by Vimalin Rujivacharakul, who proposed the idea of "stratified historiography" [106] in her conclusion in 2007. Furthermore, many early Chinese architect-students went to a wide range of other institutions outside the USA besides the University of Pennsylvania. It is an exaggeration to claim that the Chinese graduates of that school's Fine Arts School's Department of Architecture comprised the nucleus of early Chinese architectural talent in the first half of twentieth century. Perhaps, seen in this light, a more comprehensive or a specific kind of comparative history would paint a different picture.

1.3.1.2 From General to Specific

This is not to downplay seminal by-products of the growing number of similar studies of specific architects and their respective design offices or teaching institutions. A few comprehensive surveys have been published that have become helpful textbooks providing a foundation for research on these individual architects or the problematic issues described above. For example, with her supervisor Wu Kiang at Tongji University, Qian Feng published *Education of Modern Architecture in China (1920–1980)*[107] in 2008, a significant work may have been indebted to Lai Delin's encyclopedic *Who's Who in Modern Chinese Architecture*, published in 2006. Both of these can serve as information indexes for scholars of related topics who wish to build up general background knowledge.

In addition, some surveys have focused on specific academic areas of inquiry—such as science versus national character (modernism vs. nationalism), the Chinese roof-style (traditionalism) controversy, and China's struggles with the commodification and internationalisation of architecture. These have included Peter Rowe and Kuan Seng's *Architectural Encounters with Essence and Form in Modern China* in 2002 as well as Edward Denison and Guang Yu Ren's *Modernism in China: Architectural Visions and*

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[105] Yang Yongsheng, *Four Masters of Architecture* (Beijing: China Architecture & Building Press, 1998). In China, the stardom of the four master architects, including Japanese-oriented Liu Dunzhen, is very much self-evident even to this day, such as in the long-lasting saying "Liang in the north, Yang in the south" (*bei Liang, nan Yang*); see Rujivacharakul, "Architects as Cultural Heroes," 134.

[106] Rujivacharakul, "Architects as Cultural Heroes," 152–153.

[107] Qian and Wu, *Education of Modern Architecture in China (1920–1980)* 中国现代建筑教育史（*1920—1980*）.

Revolutions in 2008. The latter was indeed the epitome of much discussion and analysis that occurred since the People's Republic of China (PRC)'s reform and opening-up in the late 1970s in the wake of Mao Zedong's all-out cultural revolutionary assault on the Chinese intelligentsia who received 'elitist' Western education.

These works continued earlier discussions dating back to 2002 when a symposium held at Nanjing University recruited scholars from China, Japan, Singapore, Australia, and the USA. Its proceedings were published as *Research on China's Modern Architectural Academia* in 2003.[108] At this symposium, it was argued that, like other modern art forms, early architectural education in China depended on returning overseas students who later became teachers. Therefore, architecture as a formal profession in China was not merely a foreign construct, but its pedagogies relied on foreign models. In contrast, some other scholars have claimed that it has been too often overlooked that the initial impetus for China's architectural education came not from the West (architecture as art) but the East (architecture as engineering),[109] and they had long coexisted within architectural activities in China, as Chen Yanzhong (aka Chen H. S., the first Chinese student at the AA) clearly depicted in his 1934 "Introduction to Architecture":

> *Architectural discipline, one of the studies in modern colleges and universities, is divided into two types for the convenience of research because of its broad scope: On the one hand, it is an architectural discipline related to art and design; on the other hand, it is an architectural discipline related to engineering structures. The courses they specialise in are not the same, and as a result, the professionals created by it are also different. Therefore, specialised architectural designers are called architects. Specialised engineering constructors, called architectural engineers.*[110]

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[108] Zhao Chen and Wu Kiang (eds), *Research on China's Modern Architectural Academia* (Beijing: China Architecture & Building Press, 2003).

[109] Denison, *Architecture and the Landscape of Modernity in China before 1949*, passim, esp. Chapter 8 on Japan's role in cultivating a modern architecture in China.

[110] Chen Yanzhong, "Introduction to Architecture 建築學概論," *Business Studies 工商學志*, vol. 6, no. 2, 1934: 6. Chen arrived at the AA (1925–1928) earlier but was briefly a classmate of Luke (1927–1930). Unlike Huang, who beheld the pedagogical modernisation at the school, the AA was only in the infancy of that process in the 1930s when Chen and Luke were there; see Denison, *Architecture and the Landscape of Modernity in China before 1949*, 159. It should be noted that few scholars have been clear about Chen's

1.3.1.3 Terminological Shifts

A critical point that has not been treated sufficiently in either the Chinese or the English literature is the varying contributions of foreign engineering education and architectural education to the later academisation of Chinese architecture. If one looks at the eight architectural education programmes that existed after 1952 (listed above), one can see that they were most influenced by the education early modern Chinese architects received—although not merely at the University of Pennsylvania as Lai Delin once indicated,[111] but also elsewhere in Japan, the USA, and Europe.

For example, China's architectural programmes at the Peking Industrial School and SISS, which were influenced by Japanese engineering-based architectural education, were not of college rank and were short-lived, even only months long, due to the regional conflict. From the 1920s, architecturally based professionals began to take the place of their engineering-based colleagues, yet those who remained in engineering colleges were not able to retitle their departments from *architectural engineering* to *architecture* in line with their understanding of the academisation of their profession, which they had gained during their foreign studies. In both the Chinese and the English literature nowadays, the precise naming of these departments' titles has escaped most scholarship.[112] This thesis strives to fill this gap by historicising the usage not only of the precise terms *department*, *college*, *school*, or *division*, *society*, and *institute*, as they were applied at the time, but also of the term "Department of Architectural Engineering," which the previous literature has simply standardised as either "Department of Architecture" or "Architecture Department" for all architectural education departments indiscriminately.

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name: His given name was Chen Shen Shou (陳燊壽), with the first word the same as the second in Huang Zuo Shen's (黃作燊) given names. However, this "Shen" is to this day pronounced as the Cantonese "Xin" at Tongji University in Shanghai, and its Wade–Giles romanisation is "Hsin" (新); therefore, in most of the existing (albeit rare) English literature mentioning Chen, he appears as "Chen H. S." Furthermore, Chen used his courtesy name, Chen Yanzhong (Chen Y. Z.; 陳炎仲), for his publications, including one that I cite in this thesis. As for Huang Zuoxin (in lieu of Huang Zuoshen), one only needs to check A Profile of Selected Chinese Architects and Schools (Appendix A) in *Architectural Encounters with Essence and Form in Modern China* (although Rowe and Kuan subsumed him under Tongji University).

[111] Lai, "The Transplantation of a Profession 學科的外來移植," 440.

[112] This is crucial. For instance, simply put: Those publications (Chinese or otherwise) mentioned above—and others—would not decipher why Liang, in the late 1940s, worked hard to divide Tsinghua's architectural engineering department into two departments in, respectively, two colleges: a Department of Architecture in a newly founded College of Building as well as a Department of Architectural Engineering in the original College of Engineering. (This point will be expounded in depth in Part 2.)

Not least, some scholars have sought to formulate a finer terminology for exploring the general pool of "Chinese architects." In 2008, Wang Haoyu divided more than sixty Chinese architects who left China for Hong Kong around 1949 into "architecturally-based" and "engineering-based" professionals;[113] although it is tempting to equate these labels with "Beaux-Arts-trained" and "Bauhaus-trained" respectively, this is questionable. Rujivacharakul used similar terms a year earlier but called the former type of professional a "master architect" and the latter an "architect-engineer."[114] Both terms were combined in Sidney Wong's "architect-planner,"[115]which refers to someone who has an appreciation of both the artistic qualities of architecture but also the practicalities of planning. This thesis takes advantage of these terminological shifts between general architectural terms and those more specific to artistry or engineering in order to formulate a more reflective theoretical framework.

1.3.2 Huang Zuoshen (黃作燊, 1915–1975)

Huang is nowadays not even a conspicuous figure of established studies in architectural education within the academia in Shanghai. To this day, research about Huang and his pedagogy at SJU have been usually—if not always—by-products subordinate to other scholarship subjects, for example, the institutional history of Tongji (the successor to SJU and other missionary universities in East China) or of the Bauhaus school. The works of Qian Feng (whose master's dissertation was about Huang) and Ding Liyang (who contributed the first English account of Huang upon the Bauhaus's centennial) are precious in this regard. Still, they have hardly considered factors outside Gropius and Huang's "master-pupil" relationship. All too often, the Bauhaus founder served as the only answer to every inquiry about the architectural programme at SJU, but Huang, its first chair, also had experience acquired elsewhere, like at the AA or from his Chinese and non-Chinese peers. This thesis will concentrate mainly on his pre-GSD experiences and, even at Harvard, on his learning resources beyond Gropius's Master Class, such as the erudite Dean Joseph Hudnut and Huang's radical classmate, Bruno Zevi.

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[113] Wang Haoyu, "Mainland Architects in Hong Kong after 1949," passim.
[114] Rujivacharakul, "Architects as Cultural Heroes," passim.
[115] Wong, "The Planning Connection between Clarence Stein and Liang Sicheng in Republican China," passim.

1.3.2.1 China and the Bauhaus

There were no Chinese architects attending the Weimar, Dessau, or Berlin Bauhaus schools from 1919 to 1933. However, the connection between modern Chinese architects and the Bauhaus-inspired modernists will not be ignored in this thesis, and, in this regard, Huang Zuoshen deserves attention. In 1942, at SJU under the aegis of the American Episcopal Mission, Huang established a Bauhaus-inspired department of architectural engineering in Shanghai, "one of China's most progressive architectural courses of the twentieth century."[116]

Although the earliest contact between China and the avant-garde German school of the Bauhaus (active 1919–1933), as shown in my chapter "China and the Bauhaus: Encounters and Reactions" in *The Routledge Companion to Architectural Pedagogies of the Global South*, lay in wider Chinese artistic communities,[117] in 1939, Huang was the first Chinese student to join Harvard University's Department of Architecture, which had just welcomed its new chair, Walter Gropius, at the newly established Graduate School of Design (GSD). Therefore, Huang Zuoshen is this thesis's leading figure in demonstrating how Bauhaus-related modernities contributed to China's early architectural education.

Qian Feng was the first scholar who studied Huang and, based on her access to archival dossiers at Tongji University (the successor to SJU's Department of Architectural Engineering after 1952), began publishing about Huang with her master's dissertation "The Founder of Chinese Modern Architecture Education: Huang Zuoshen" in 2001.[118] A decade later, Qian was joined by Lu Yongyi, who published *Commemorative Accounts of Huang Zuoshen* in 2012.[119] This is valuable because, as an addition to Qian's previous works, it included the personal recollections of many architecture students taught by Huang at either SJU or Tongji, or a combination of both.

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[116] Denison and Ren, *Luke Him Sau,* 199.

[117] Chang Chin-Wei, "China and the Bauhaus: Encounters and Reactions," in *The Routledge Companion to Architectural Pedagogies of the Global South*, eds. Harriet Harriss, Ashraf M. Salama, and Ane Gonzalez Lara, (London and New York: Routledge, 2022): 135.

[118] Qian, Feng, "The Founder of Chinese Modern Architecture Education: Huang Zuoshen 中国现代建筑教育奠基人——黄作燊," Master Dissertation, Tongji University, 2001.

[119] Lu Yongyi and Qian Feng (eds), *Commemorative Accounts of Huang Zuoshen 黄作燊纪念文集* (Beijing: China Architecture & Building Press, 2012).

The scholar Wang Haoyu published her interviews with Guo Dunli (Kwok Tun Li, Stanley, Class of 1949) and Fan Zheng (Robert Fan, Jr., Class of 1952) as part of her doctoral study of post-1949 "migrant architects" in Hong Kong, who were mostly engineering-based and British-trained. She also cooperated with Qian and Lai Delin on a series of reports on graduates, including those of SJU[120] (Classes of 1945–1952), in the Hong Kong periodical *Building Review*. These interviewees' information concerning Huang and his teaching colleagues served as key resources for this thesis.

In the past twenty years, however, except for a volume on Huang in the series "Tongji's Architectural and Planning Masters" (*Tongji Jianzhu Guihua Dajia*; 同济建筑规划大家),[121] neither Qian nor her followers have generated new accounts regarding Huang's academic role and teaching philosophy from 1942 to 1952. Qian's discussions of Huang's pedagogy have always focused on his time with Gropius at Harvard without examination of his other influences. Such stagnation remained at a centenary symposium, *Bauhaus Transfers*, at Pennsylvania State University (PSU) in 2019, when Ding Liyang offered the first English paper about Huang to a Western audience and still aligned himself strictly with Qian. Even though the event title suggested the importance of *transferring* the Bauhaus, the discourse solely attributed Huang's modernist pedagogies to his study with Gropius at GSD.

1.3.2.2 London Bauhaus

Not all of Gropius's students walked closely in the footsteps of the Bauhaus founder, who had altered his professional focus and academic concerns upon arriving in the USA, or since his time in the UK. Comparatively little scholarly attention has been paid to Huang's

[120] In addition to SJU graduates, the series included those from SISS, NCU, NNU, and Xiangqin. It is a pity that they did not include Tsinghua University.

[121] Huang was unknown to academia, at both the local and the global level, until the turn-of-century spate of articles and books commemorating the legacy of Chinese modernism. Tongji University's role in upholding the modernist tradition in the 1950s and 1960s also was explained in the special issue "The Way of Tongji Architecture" of Tongji's architectural department's journal, *Time + Architecture* (*Shidai Jianzhu*). They form part of the university's symbolic capital, as described in Shih Shumei's *The Lure of the Modern*, in which personal, institutional, and regional capital are inevitably intertwined. However, to this day, Huang has only been honoured by one volume in a series called "Tongji's Architectural and Planning Masters" (*tong ji jian zhu gui hua da jia*) consisting of remembrances by former students and family recollections. See Shih Shumei, *The Lure of the Modern: Writing Modernism in Semicolonial China, 1917–1937* (Berkeley, CA: University of California Press, 2001), 68.

training in London's Architectural Association (AA). Coinciding with the school's movement towards a modern pedagogy, Huang's five years of professional study there (1933–1938) witnessed a crusade opposed to Beaux-Arts inertia spearheaded by the MARS Group of architects, England's chapter of CIAM. The result of this crusade was "an educational revolution," according to Elizabeth Darling,[122] who wrote a piece on AA's student-edited periodical *Focus*.

Although the MARS Group has never entered adequately into the discussion of Huang's modernist pedagogies back in Shanghai, one of the earliest graduates of SJU, Luo Xiaowei (Class of 1948), remembered that Huang mentioned a few MARS Group's members' names, such as Berthold Lubetkin, Maxwell Fry, and F. R. S. Yorke.[123] This is a significant point to note since Luo (who returned to SJU to teach architectural history in 1951) would be a pre-eminent authority on Huang's life and career.

The influence of these architects on the spread of Bauhaus ideas has been generally overlooked, even beyond scholarship on Huang. For example, both the book *From Bauhaus to Ecohouse* by Peder Anker, who discusses the "London period" of former faculty members of the Bauhaus school in 2010, and the exhibition *Beyond Bauhaus: Modernism in Britain 1933–66* at the Royal Institute of British Architects (RIBA) in 2019 did not include the MARS Group's 1938 exhibition proposal and catalogue. (These are stored respectively at the AA Library and the National Art Library at the Victoria and Albert Museum in London, where I consulted them.)

The MARS Group members were certainly well acquainted with Bauhaus ideas. When Gropius, Marcel Breuer, and László Moholy-Nagy sought refuge from fascism in 1934, it was the handful of modernist architects in the MARS Group in London who first accommodated them and other Bauhäusler, as explored in Alan Powers's *Bauhaus Goes West: Modern Art and Design in Britain and America*.[124] Amongst others included in

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[122] Darling, "Into the World of Conscious Expression," 160–161; see also: Elizabeth Darling, "Focus: A Little Magazine and Architectural Modernism in 1930s Britain," *The Journal of Modern Periodical Studies* 3, no. 1 (2012): 39–63.

[123] Luo Xiaowei and Qian Feng, "Remembering Huang Zuoshen 怀念黄作燊," in *Memoirs of Hundred Architects 建筑百家回忆录续篇*, ed. Yang Yong-Sheng (Beijing, China Water & Power Press, 2003), 48.

[124] Alan Powers, *Bauhaus Goes West: Modern Art and Design in Britain and America*. London: Thames & Hudson, 2019; see also Alan Powers, "Exhibition 58: 'Modern Architecture in England,' Museum of Modern Art, 1937," *Architectural History* 56 (2013): 277–298.

John R. Gold's *An Annotated Bibliography*,[125] useful for research on the MARS Group, John Summerson also gave an insightful account of the group, of which he himself was a member. In it he recognised not only Gropius but also Le Corbusier on the Continent and Frank Lloyd Wright in America.[126]

1.3.2.3 Harvard Bauhaus

After his time at the AA, Huang rejoined Gropius at Harvard. This thesis challenges, in a divergence from the existing accounts on this topic, a simple connection between Huang's time at GSD and the Chinese Bauhaus. Jill Pearlman presented the very complicated context at GSD in her 2007 book *Inventing American Modernism: Joseph Hudnut, Walter Gropius, and the Bauhaus Legacy at Harvard*. This thesis extends her criticism of those who equate the original Bauhaus with the American Bauhaus[127] or Harvard Bauhaus[128]: It argues that one should not take the Chinese Bauhaus (Shanghai Bauhaus or SJU Bauhaus) for granted without tracing the complex matrix of its background. In fact, Pearlman generously donated her interview records (including in-person meetings and phone conversations) and letters to me so that the presumed Gropius-Huang relationship, which has been largely unchallenged by current narratives, can be examined more thoroughly in this thesis.

These interview records show that Huang's support for Gropius may not have been as certain as China's scholars' one-sided accounts have assumed. The interviews show that Gropius was not always acclaimed by students at Harvard. Some preferred the long-forgotten Beaux-Arts-trained architect Joseph Hudnut (1886–1968), who nevertheless had toppled the École-driven programme at Columbia University before assuming his

[125] John R. Gold, *The Modern Architectural Research (MARS) Group, 1933–1957: An Annotated Bibliography* (Monticello, IL: Vance Bibliographies, 1987); see also John R. Gold, "Commoditie, Firmenes and Delight: Modernism, the MARS Group's 'New Architecture' Exhibition (1938) and Imagery of the Urban Future," *Planning Perspectives* 8:4 (1993): 357–376.

[126] John Summerson, "The MARS Group and the Thirties," in *English Architecture Public and Private: Essays for Kerry Downes*, ed. John F. Bold and Edward Chaney (London: Bloomsbury, 2003), 304; see also: Summerson, "Introduction," 12, 14.

[127] Jill Pearlman, "Joseph Hudnut's Other Modernism at the 'Harvard Bauhaus'," *Journal of the Society of Architectural Historians*, vol. 56, no. 4 (December 1997): 467.

[128] Jill Pearlman, "Joseph Hudnut and the Unlikely Beginnings of Post-modern Urbanism at the Harvard Bauhaus," *Planning Perspectives*, 15:3 (2000): 201–239.

deanship at Harvard in 1936. Although his loss of "the battle over basic design"[129] to Gropius was recorded in *The Harvard Crimson*, the stripped-down aesthetics of the "Harvard Box" was not universally preferred.

The Italian architecture critic Bruno Zevi, who, to the best of my knowledge, has never appeared in current literature on SJU, stood firm in opposing the making of an American Bauhaus, to which Gropius subscribed.[130] Zevi possessed a similar schooling itinerary to Huang's and overlapped with him. In 1938 he travelled to London, where he enrolled at the AA, and then he went to the USA, where he attended Gropius's Master Class from 1940 to 1942. In 1941, Zevi published his radical memorandum *An Opinion on Architecture*, an appeal that supported Hudnut over Gropius and was signed by some Chinese architecture students at GSD at the time. According to the archival dossiers stored in Marcel Breuer's collection at Syracuse University,[131] Wang Dahong and Arthur Koon Hing Cheang (Zhen Guanxuan) were some of the signatories, but it was Zevi's unpublished draft *Preface to A CALL*—obtained for my research courtesy of Pearlman—that casts new light on the more polemical context of Huang's GSD period, to be discussed here.

This proved to be a significant association, as Wang and Cheang would later join three other British-trained peers from China—Huang, Luke, and Charles Chen (Chen Zhanxiang)—to form the architectural office Five United (*Wu Lian Jianzhushi Shiwusuo*; 五聯建築師事務所) [Fig. 1.7], "a product of British architectural education and a microcosm of China's architectural community as it encountered modernity," as Denison depicted it in 2015.[132] This thesis, rather than focusing on Five United (whose output was limited), will examine their parallel teaching at SJU together with A. J. Brandt, Eric

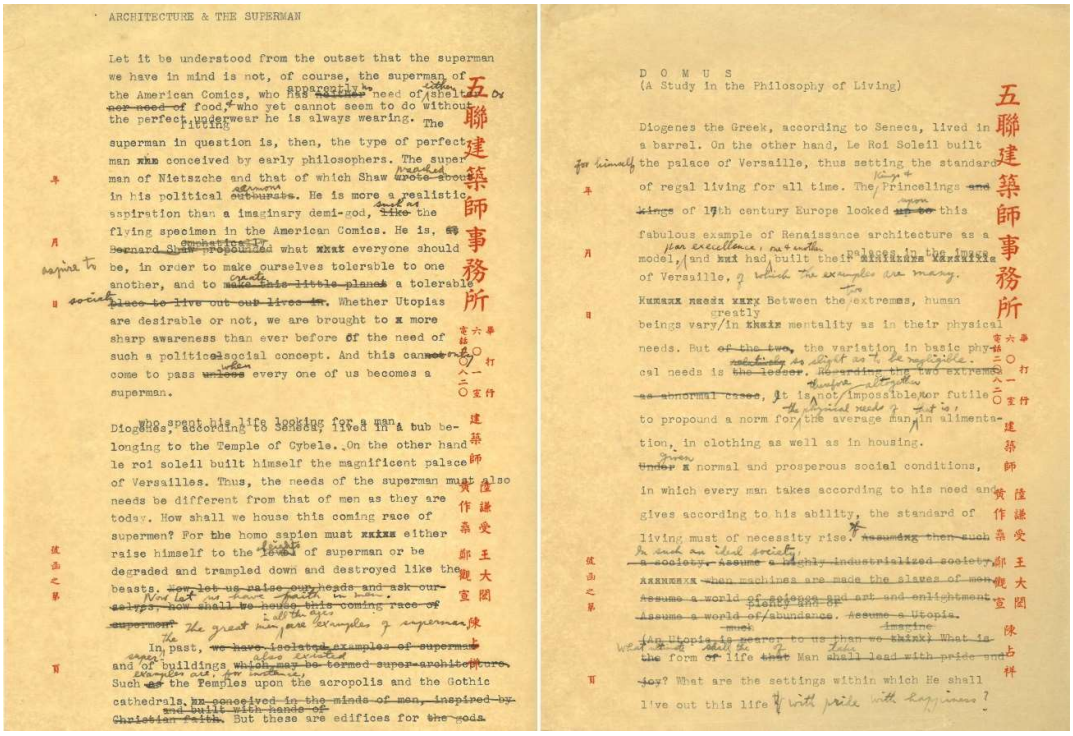
[129] Jill Pearlman, *Inventing American Modernism: Joseph Hudnut, Walter Gropius, and the Bauhaus Legacy at Harvard* (Charlottesville, VA: University of Virginia Press, 2007), esp. Chapter 6: The Battle over Basic Design.

[130] There are three important articles by Gropius himself that describe his teaching at Harvard GSD: Walter Gropius, "Architecture at Harvard University," *Architectural Record* (May 1937): 9–11; Walter Gropius, "Training the Architect," *Twice a Year: A Semi-Annual Journal of Literature*, The Arts and Civic Liberties, no. 2 (1939): 142–151; Walter Gropius, "Blueprint for an Architect's Training," *L'Architecture d'Aujourd'hui* (February 1950): 71–75. Not least, see also Reginald Isaacs, *Gropius at/in Harvard* (Berlin: Bauhaus-Archive, 1983).

[131] Bruno Zevi, *An Opinion on Architecture* (May 1941, an earlier draft entitled *Preface to A CALL*), Marcel Breuer Papers, Syracuse University Archive.

[132] Edward Denison, "Chinoiserie: An Unrequited Architectural Affair," in *British Modernism and Chinoiserie*, ed. Anne Witchard, 199–227 (Edinburgh: Edinburgh University Press, 2015).

Cumine, and Richard Paulick, as well as their pedagogies that were developed and culminated in their involvement with the postwar Greater Shanghai Masterplan.


ARCHITECTURE & THE SUPERMAN

Let it be understood from the outset that the superman we have in mind is not, of course, the superman of the American Comics, who has no need of clothes or food, who yet cannot seem to do without the perfect underwear he is always wearing. The superman in question is, then, the type of perfect man conceived by early philosophers. The superman of Nietzsche and that of which Shaw wrote about in his political outbursts. He is more a realistic aspiration than a imaginary demi-god, like the flying specimen in the American Comics. He is, as Bernard Shaw proclaimed what everyone should be, in order to make ourselves tolerable to one another, and to make this little planet a tolerable place to live out our lives in. Whether Utopias are desirable or not, we are brought to more sharp awareness than ever before of the need of such a political-social concept. And this cannot come to pass unless every one of us becomes a superman.

Who spent his life looking for a man. Diogenes, according to Seneca, lived in a tub belonging to the Temple of Cybele. On the other hand le roi soleil built himself the magnificent palace of Versailles. Thus, the needs of the superman must also needs be different from that of men as they are today. How shall we house this coming race of supermen? For the homo sapien must either raise himself to the level of superman or be degraded and trampled down and destroyed like the beasts. Now let us raise our heads and ask our selves, how shall we house this coming race of supermen? In past, we have isolated examples of superman and of buildings which may be termed super-architecture. Such as the Temples upon the acropolis and the Gothic cathedrals, conceived in the minds of men, inspired by Christian faith. But these are edifices for the gods

五聯建築師事務所

D O M U S
(A Study in the Philosophy of Living)

Diogenes the Greek, according to Seneca, lived in a barrel. On the other hand, Le Roi Soleil built the palace of Versaille, thus setting the standards of regal living for all time. The Princelings and kings of 17th century Europe looked upon this fabulous example of Renaissance architecture as a model, and had built their palaces in the image of Versaille, which the examples are many.

Between the extremes, human beings vary greatly in mentality as in their physical needs. But the variation in basic physical needs is slight as to be negligible. Regarding the two extremes as abnormal cases, it is not impossible nor futile to propound a norm for the average man in alimentation, in clothing as well as in housing.

Given normal and prosperous social conditions, in which every man takes according to his need and gives according to his ability, the standard of living must of necessity rise. Assuming then such a society, a highly industrialized society, when machines are made the slaves of men, assume a world of science and art and enlightment, assume a world of abundance. Assume a Utopia. (An Utopia is scarce to us than we think) What is the form of life that Man shall lead with pride and joy? What are the settings within which He shall live out this life with pride with happiness?

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Fig. 1.7 Text written on Five United company letterhead, late 1940s. On the right, each architect's full name appears under the office title and telephone numbers. These particular examples are draft essays by Wang Dahong (left to right: "ARCHITECTURE AND THE SUPERMAN" and "DOMUS [A Study in the Philosophy of Living]"); Wang was Huang's teaching colleague at SJU and Liang had hoped to hire him at Tsinghua.

Except for Luke and Charles Chen,[133] the rest of Five United attended postgraduate

[133] This man, who was only a planner by training, deserves further heed amongst the Five United architects: Chen Zhanxiang obtained both his bachelor's degree in architecture and his master's degree in town planning at the University of Liverpool in 1944. Then he went to University College London (UCL) to work with Sir Patrick Abercrombie on the Greater London Plan. (The County of London Plan had been done only the year before.) There he pursued a doctorate under supervision of Abercrombie (a Professor of Civic Design at Chen's earlier alma mater, who moved to London in 1935 to become a Professor of Town Planning at UCL). Abercrombie published Chen's article about China's ancient urban planning theory in 1945 in the Liverpool-based *Town Planning Review* where he served as its first editor. Chen's eight years of study in the UK paralleled the Japanese invasion on Chinese soil, and he actively participated in public anti-fascism activities. As early as 1946, Chen was invited by the Nationalist government to direct city planning in Beijing. After he went back to China, to Chen's dismay, he could only stay in Nanjing and later in Shanghai (where he taught at St. John's and formed Five United) for three years in total, as the Civil War in the North prevented him from heading there until 1949. See Chen Yanqing and Wang Ruizhi (eds), *Architect Is Not A Drawing Machine: Chen Zhanxiang, An Urban Planner Should Not Be Forgotten* 建筑师不是描图机器——一个不该被遗忘的城市规划师陈占祥 (Shenyang: Liaoning Education Press, 2005),

studies at GSD (along with their undergraduate training in the UK) and, in the early 1940s, were briefly classmates who witnessed the contest between Hudnut and Gropius that one can read about in Klaus Herdeg's *The Decorated Diagram* (1985) and Anthony Alofsin's *The Struggle for Modernism* (2002). The latter author also published histories of the architecture departments at pre-GSD Harvard and the University of Illinois,[134] which shed light on the histories of other architecture departments with different modernist pedagogies. Taken together, these American accounts of modern alternatives to Gropius justify this thesis's engagement with Huang as an architect-teacher who, upon his return to China, embraced a *contemporary* architecture of ever-shifting ideas rather than as an educator of architect-builders undertaking *modern* architecture in a strict Bauhaus style and copying of Gropius's own ideas.

For instance, Huang did not choose Bauhaus-inspired textbooks for SJU students in his architectural theory course (one of the first of its kind in China), but those written by MARS members such as Fry and Yorke, as well as by Clough Williams-Ellis, who was teaching at the AA when Huang studied there. Huang's stand on the aftermath of Gropius's 'reluctant' association with the MARS Group, which Leslie Humm Cormier has explored,[135] is evidence of his support of the latter as is the fact that he referred only to British architects in his 1948 keynote speech, "The Training of an Architect," in Shanghai.[136] The topic of this speech was borrowed directly from the title of an open letter by his fellow AA student Anthony Cox to the conservatives within the AA, published in *Focus* magazine.[137]

4–19; Fry and Snow's book is mentioned on p. 7, and probably Huang also read it at the AA, as they both received *Red Star Over China* from their British communist classmates. Chen was nominated as the Edgar Snow Professor in the fields of Engineering and Urban Planning at the University of Missouri-Kansas City in 1988; see ibid., 26.

[134] Anthony Alofsin, "Toward a History of Teaching Architectural History: An Introduction to Herbert Langford Warren," *Journal of Architectural Education*, vol. 37, no. 1 (Autumn 1983): 2–7; Anthony Alofsin, "Tempering the Ecole: Nathan Ricker at the University of Illinois, Langford Warren at Harvard, and Their Followers," In *The History of History in American Schools of Architecture, 1865–1975*, eds. Gwendolyn Wright and Janet Parks, 73–88 (The Temple Hoyne Buell Centre for the Study of American Architecture, with Princeton Architectural Press, 1990).

[135] Leslie Humm Cormier, "Walter Gropius: Emigre Architect, Works and Refuge, England and America in the 30s" (PhD Thesis, Brown University, 1986), 78, esp. Chapter IV: Gropius and the Men from MARS.

[136] Huang talked about Sir Thomas Graham Jackson (1835–1924), a significant figure in the late-Victorian architectural scene, and Richard Norman Shaw (1831–1912), well known for an extensive country house practice.

[137] Anthony Cox, "The Training of an Architect: An Open Letter to H. S. Goodhart-Rendel," *Focus* 1 (Summer 1938): 24–34.

Through the analysis of *Focus*'s form, content, and distribution networks, this thesis considers the role this little architectural magazine played in the development not merely of architectural modernism in the UK in the late 1930s but also of the pedagogical transplantation of Huang at SJU in the 1940s. At the British Council of Shanghai, Huang subsequently offered another talk about "Chinese Architecture" that turned a Western audience's sights from cosmopolitan Shanghai to the cultural essence of *Chineseness*, a key dimension he offered along with the *scientific* and *popular* dimensions at the symposium Architecture Is Not Only Housing in 1949.[138] The unpublished records of the two speeches mentioned above, obtained for my research courtesy of Huang Zhi (Huang Zuoshen's youngest son),[139] served as key sources for this thesis. Not least, Huang's essay in SJU's *Engineering Bulletin* in 1947 about his department's Architectural and Civil Engineering Exhibition (ACEE, 4–8 June 1947) also served as an important archival document for Part 1 of this thesis.

1.3.2.4 Institutionalising Cosmopolitanism

From 1942 to 1952, Huang trained about thirty graduates at SJU. Should one agree that Huang's thoughts can be understood through his students' works, especially those who followed similar paths, one might single out Li Ying (Class of 1945) and Chang Chaokang (Class of 1946) since they both followed their mentor's overseas exposure and went beyond Gropius after their respective times at GSD. While Li worked with Alvar Aalto and Marcel Breuer to appreciate the organic theory of architecture, Chang attended MIT courses with György Kepes and Buckminster Fuller and, based on his survey of regional dwellings and vernacular lives in different areas of China, published *China: Tao in Architecture* in 1987. When asked about a would-be "Shanghai Bauhaus," Chang, in his last interview in Taipei, as reported in *Unitas: A Literary Monthly*[140] in 1993, denied that Huang was copying the Bauhaus; likewise, Li once remarked that Huang "was not a copy

[138] In fact, Huang was following the Communist government's New Democracy rule in 1941, per Article 41: "The cultural education of the People's Republic of China is new democratic, that is, national, scientific, and popular cultural education." Moreover, it is evident that Huang valued "national" most: He referred to it directly as "Chineseness," and he tried to define it through Western accounts in his keynote speeches at the British Council, for example.

[139] Huang Zi had two older brothers: The eldest son in the family was Huang Taiping (Class of 1966, Department of Architectural Engineering at Tongji University, where his father Huang Zuoshen taught until the height of the Cultural Revolution), and the second son was Huang Boji.

[140] Lin Yuan, "Bauhaus, Architecture, and I: An Interview with Mr. Chang Chaokang 包浩斯、建築和我：專訪張肇康先生," *Unitas: A Literary Monthly 聯合文學*, no. 99 (January 1993). 222–228.

of Gropius but surpassed him."[141] This thesis assumes the foreign influence on Huang's pedagogy was not as one-sided as recent Chinese scholars have suggested; these accounts, which have focused on the fact Huang was Gropius's first Chinese student, have not done justice to the range of factors that may have contributed to the development of SJU's department of architectural engineering.

The cosmopolitanism at SJU demonstrated by Li and Chang's points of view was not the result only of Huang's own progressiveness. There were at least two aspects to the cosmopolitanism, which will be tackled in this thesis: Westernised cosmopolitanism in a treaty-port city like Shanghai on the one hand, and that of a missionary-controlled university like SJU under extraterritorial protection on the other. For the former, one should go to Perry's "Managing Student Protest in Republican China," published in *Frontiers History China* in 2013, in which she compared Republican China's most important metropolitan centres—Shanghai and Beijing—and showed they were notably dissimilar in the extent of foreign political and social presence and, as a consequence, each city's institutions and campus cultures were characterised by "urban micro-environments," as she theorised.[142] For the latter, one could consult Xu Yihua's works on liberal education in foreign-controlled universities in China, as well as his doctoral research on SJU in this context in 1994.[143] As Chinese studies have been undeveloped and undervalued and Anglo-American traditions and languages of pedagogy have predominated at SJU, these modern experiences of architectural learning there, which have been attributed to the Bauhaus and Gropius by existing scholarship, could be nothing but a kind of alienation from Chineseness, as explained by Yeh Wen-Hsin in her *The Alienated Academy* in 2000.[144]

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[141] Lu and Qian, *Commemorative Accounts of Huang Zuoshen 黄作燊纪念文集*, 156.

[142] Perry, "Managing Student Protest in Republican China," 3–31; the article is so important, a Chinese version was published two years later: Elizabeth J. Perry, "Managing Student Protest in Republican China: Yenching and St. John's Compared 民国时期的学生运动应对——燕京大学与圣约翰大学之比较," *China Scholarship 中国学术*, vol. 11, no. 2 (2015): 204–230. Although it discusses Yenching University in place of Tsinghua University, her work was very useful for Part 2 of this thesis.

[143] Xu Yihua, "St. John's University, Shanghai as an Evangelising Agency," *Studies in World Christianity* 12, no. 1 (2006): 23–49; see also Xu Yihua, "Religion and Education: St. John's University as an Evangelizing Agency" (PhD diss., Princeton University, 1994).

[144] Yeh, *The Alienated Academy*, 56, esp. Chapter II: St. John's University and the Culture of the Shanghai Bourgeoisie.

1.3.3 Liang Sicheng (梁思成, 1901–1972)

Research on Liang has been extensive, nationally and internationally. For example, Liang is a much-discussed figure in *Chinese Architecture and the Beaux-Arts* (noted above), edited by the most-accredited international scholars in the field. Apart from multiple memorial accounts and special journal issues featuring Liang, the most representative biographical accounts must be those by Gao Yilian (one of Liang's earliest students at Tsinghua) and Lin Zhu (whom Liang married in 1962).[145] However, when it comes to Liang's second trip to the USA, both these authors followed a sinologist friend of Liang, Wilma Fairbank, who in 1994 published the unrivalled book *Liang and Lin: Partners in Exploring China's Architectural Past*. Bridging gaps and addressing bias in previous research, this thesis will focus mainly on Liang's last, short trip to the USA between 1946 and 1947, which has tended to be overlooked and which, I argue, played a crucial role in shaping Tsinghua's (and China's) modern architectural education.

1.3.3.1 Modernist(s) Wanted

In contrast to Shanghai, which was the centre of a new Westernised education designed to satisfy the economic and cultural demands of the city's rising bourgeoisie, Beijing's reputation as the repository of traditional Chinese pedagogy limited its national universities' potential to emulate their advanced Japanese and Western counterparts. The recruitment of faculty *from China* and the native *Chinese* language of instruction at Tsinghua would not allow Liang to hire Western teaching members or employ foreign textbooks directly. This was in contrast to the 'bicultural' Yenching University—also located in Beijing but founded, like SJU, by American Protestant missionaries—[146] as

[145] Joined by another of Liang's earliest students, Guo (who also taught at Tsinghua after graduation), and a younger Tsinghua scholar, Xia, Gao authored one of the most important biographies of Liang: Guo, Daiheng, Gao Yilian, and Xia Lu, *Chinese Master Architect: Liang Sicheng 一代宗师梁思成* (Beijing: China Architecture & Building Press, 2006). Besides, although this was not an academic account, Liang's second wife published Lin Zhu, *Liang Sicheng: A Confused Master* (Jinan: Shandong Pictorial Publishing House, 2001), on which her later book was based: Lin Zhu, *Liang Sicheng, Lin Huiyin and I* (Beijing: Tsinghua University Press, 2004).

[146] Yenching University was a university in Beijing. It was formed out of the merger of four Christian colleges between the years 1915 and 1920; see Philip West, *Yenching University and Sino-Western Relations, 1916–1952* (Cambridge, Mass. And London, England: Harvard University Press, 2013), especially Chapter 4: Organizing a Bicultural University; see also John Israel, "The Beida-Tsinghau Connection: Yenching in the World of Beijing's Elite Universities," in *New Perspectives on Yenching University, 1916–1952: A Liberal Education for a New China*, ed. Arthur Lewis Rosenbaum, 295–311 (Chicago: Imprint Publications, 2012).

well as Huang's practices in Shanghai, where he gathered—to borrow Feng Jizhong's quip—"Eight-Power Allied Forces" (*Baguo Lianjun*; 八國聯軍)[147] around him and honed architect-students' talent using foreign materials in his architectural theory course at SJU. Conversely, the faculty who joined Liang at Tsinghua were mostly artist-historians from the SRCA, which became an institute affiliated with the university.

During his visiting professorship at Yale University (from 1946 to 1947), Liang started looking for a Western-educated Chinese modernist to join Tsinghua's department of architectural engineering. Wu Kinglui, a GSD-trained architect-planner who attended Liang's Chinese Art and Architecture courses, became an ideal option. I was able to view Wu's notes on his conversation with Liang, in his own handwriting stored at the Sterling Memorial Library at Yale, valuable archival materials that seem to have been overlooked by scholars of Liang. For example, in *Pedagogy and Place: 100 Years of Architecture Education at Yale* in 2016, Robert A. M. Stern and Jimmy Stamp barely mentioned Wu's commission of the postwar reconstruction of the Yale-in-China campus, let alone his interactions with Liang. However, if one examines the archival materials at Yale, one realises that, had it not been for the Civil War, Wu would have rallied Five United members to Beijing in support of Liang's 'second life' in architectural education. Wu's collection at Yale includes also a "Biographical Sketch of Ssu-ch'eng Liang,[148]" completed in 1981, in which he mentioned Fairbank's ongoing book project. Benjamin Chen said, years later, of Fairbank's 1994 publication, that "no one else could claim himself (or herself) competent in writing about this subject with such knowledge and authority"[149] [Fig. 1.8]. While Fairbank's book is an acknowledged authority and has provided the basis for various international documentaries and articles, it fails to mention one point that is crucial to this thesis: the progressive notions Liang encountered at the Planning Man's Physical Environment (PMPE) conference at Princeton, one of a series of conferences held there in observance of its bicentennial year in 1947. I argue in Part 2 that these form the most significant underpinning of Liang's modern pedagogies. At the PMPE conference, he heard about the "Physical Environment (Substance-Form

[147] Feng Jizhong, *Life of an Architect: Interviews with Feng Jizhong 建築人生：馮紀忠訪談錄* (Shanghai: Shanghai Scientific & Technical Publishers, 2003), 137–138.
[148] The Wade-Giles romanisation of 梁思成, Liang Ssu-ch'eng, is the most-seen spelling of Liang's name, in addition to the *hanyu pinyin* version of Liang Sicheng, in Western literature.
[149] Letter from Benjamin Chen to Wilma Fairbank, 30 July 1982, cited in: Denison, *Architecture and the Landscape of Modernity in China before 1949*, 147–148.

Environment),” a concept he brought back to Tsinghua and translated into Chinese as *ti-xing huanjing* (體形環境), as I will explain in detail in Part 2.

Fig. 1.8 A photograph of Fairbank and Liang at Princeton University, 1947

Fairbank’s book was summarised by Lai Delin in 1996 in his chapter of an anthology titled *Academic Thoughts of Liang Sicheng*.[150] In the same year, he wrote the earliest journal article about Liang’s teaching at Tsinghua, but he made no mention of the PMPE conference. Even though a postscript added in 1996 to Lai’s reprinted article, called “Formation and Features of Liang Sicheng’s Thoughts of Architectural Education,” was an itinerary-like report summarising Liang’s last visit in the USA, it still failed to recognise the significance of the state-of-the-art notion of *Physical* Environment (*Substance-Form* Environment) to Liang’s modern-day pedagogies. In the Draft Plan, it was ultimately called “City Physical [Substance-Form] Planning” *[Shizhen Ti-Xing Jihua*; 市鎮體形計劃]). In this thesis, I will unpack the full dimensions of this concept, which have not been explored in detail in the current literature.

1.3.3.2 Planning Man’s Physical Environment and Midwestern Modernisms

[150] Lai Delin, “Formation and Features of Liang Sicheng’s Thoughts of Architectural Education 梁思成建筑教育思想的形成及特色,” in *Academic Thoughts of Liang Sicheng: An Anthology 梁思成学术思想研究论文集*, ed. Gao Yilian (Beijing: China Architecture & Building Press, 1996, 130, an article reprinted from Lai Delin, “Formation and Features of Liang Sicheng’s Thoughts of Architectural Education 梁思成建筑教育思想的形成及特色.” *Architectural Journal*, no. 6 (1996): 26–29).

Just as Ding Liyang prescribed Bauhaus thinking for Huang's pedagogy at SJU, so did Zhang Yiwei and Gu Daqing assume that Liang was purely inspired by the same German school.[151] This is because of a letter he penned to Mei Yiqi, the president of Tsinghua University, that mentioned Walter Gropius at Harvard University while proposing to establish a new architectural programme at Tsinghua. This archival dossier, written in March 1945 [Fig. 1.9] on the verge of the American bombing of Hiroshima and Nagasaki that August, has been seen as evidence to support this simplistic connection.

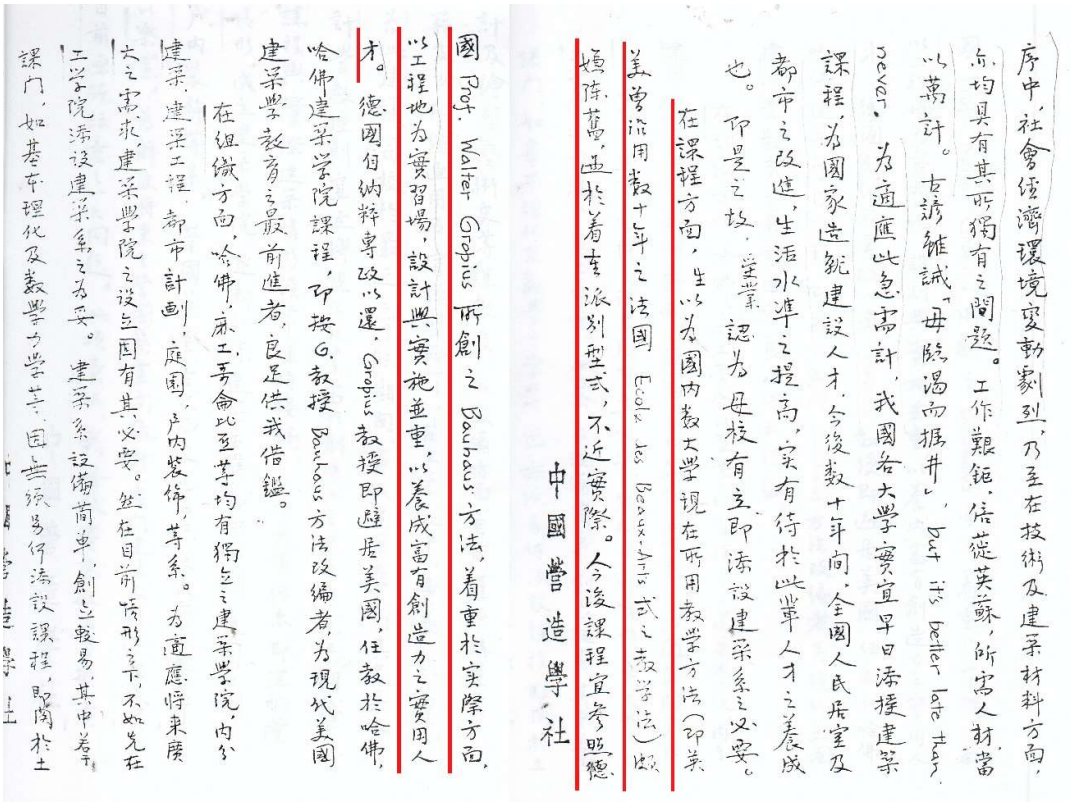

Fig. 1.9 Pages from Liang's letter to Mei, 1945,[152] in which Liang, in English, mentions the "École des Beaux-Arts" (right) and the "Bauhaus" (left) (pages 5–6, emphasis added)

[151] Zhang Yiwei and Gu Daqing, "Origins and Deviations: Two Adaptations of the Bauhaus Preliminary Course in China's Architectural Education 溯源与流变：包豪斯初步课程在中国建筑教育的两次引进," *The Architect*, no. 2 (2019): 55–63. This is a special issue for the centennial celebration of the Bauhaus. To note: Both journal articles were published on the centenary of Bauhaus in 2019.

[152] Translation of the highlighted content: "As far as the curriculum is concerned, I strongly disapprove of the outmoded teaching methods at most of our country's universities (these being the teaching methods of the École des Beaux-Arts), which have led to a focus on different schools of form that is far from reality. An appropriate curriculum would be the Bauhaus method, created by the German Prof. Walter Gropius, which stresses the practical side. Hence the construction site is a place for practical training. Design and execution are equally stressed in order to hone creative minds for practical-oriented works." See Letter from Liang Sicheng to Mei Yiqi, 9 March 1945, Tsinghua University Archives; See also 7.3.2.1 regarding how Liang would have advanced these lines after visiting the USA in the 1940s.

This thesis, instead, deems that Liang's conversion from a scholarly "architect-architectural historian"[153]to a more flexible designer concerned with the wider landscape drew not only from his training, which coincided with the retreat of the École des Beaux-Arts in the West, but also from his sojourn of less than a year in the USA in 1946 and 1947. Although Liang's participation at the "Far Eastern Culture and Society" (FECS) conference on this journey has been the subject of much scholarship, it is his attendance at the PMPE conference[154] that is of most interest to this thesis. It is true that he did come across "Prof. G" in person there, but he also exchanged ideas concerning postwar reconstruction with many other notable architect-planners. These were hard-won opportunities not even available within Liang's much acclaimed participation in the Board of Design of the United Nations Headquarters (UNHQ) where his attendance appeared—compared to his consultant fellows like Oscar Niemeyer[155]—nominal, staying for two hours on average.[156] However, historians have often described Liang's achievements during that short period of reconnaissance abroad as the zenith of his whole career based on a photograph from the UNHQ, in which Liang stands side by side with

[153] Nancy S. Steinhardt, "Chinese Architecture on the Eve of the Beaux-Arts," in *Chinese Architecture and the Beaux-Arts*, eds. Jeffrey W. Cody, Nancy S. Steinhardt, and Tony Atkin (Honolulu: University of Hawai'i Press, 2011), 20.

[154] Both were amongst Series 2 of Princeton University's bicentennial conferences in 1947: The FECS (Conference 7, on 1–3 April) took place only one month later than the PMPE (Conference 5, on 5–6 March). According to the original proceedings of FECS, Liang offered two lectures—"Tang and Song Sculpture" & "Architectural Discoveries" (the latter topic the subject also of a lecture given at the Fogg Art Museum at Harvard, see Fig. 7.25 in Chapter 7)—at 3 April's session Chinese Art and Archaeology. Organised to accompany the bicentennial conferences were five exhibitions (previewed on the evening of 31 March, one day earlier than the convocation, at the Museum of Historic Art and Antioch Court), including photographs of China's sculpture and architecture provided by Liang.

[155] One can quickly obtain a sense of the attendance rate of consultants at the International Board of Design for UNHQ from the eyewitness account of George Dudley—an architect-planner who was present at and kept official notes of its forty-five meetings. See *A Workshop for Peace: Designing the United Nations Headquarters* (Cambridge, Mass.: MIT Press, 1994). Teaching architecture at Yale with Eero Saarinen, Wallace Harrison (Director of UNHQ Planning Board) intended to hire Oscar Niemeyer—who was present at most UNHQ meetings without being late or leaving early throughout—to take on strong design leadership. However, Niemeyer's Communist sympathies against the 1918 US Immigration Law barred him from teaching in America during the Red Scare. As a result, Louis Kahn was hired instead at Yale as a visiting critic. (Yale set out a somewhat informal policy of visiting critics—serving as architects in residence for a limited period—supposed to teach under the auspices of a senior critic.) See Robert A. M. Stern and Jimmy Stamp, *Pedagogy and Place: 100 Years of Architecture Education at Yale* (New Haven and London: Yale University Press, 2016), 84–85, 87–88.

[156] Gertrude Samuels, "What Kind of Capitol for the U.N.?," *New York Times*, 20 April 1947. Plus, in the same edition of *Architectural Record* in April of 1947, readers can find reports of both the PMPE conference and UNHQ: "PLANNING FOR PEACE: Plans for United Nations Headquarters proceed on wartime speed schedules," *Architecture Record* (April 1947): 72–81; "ON PLANNING MAN'S PHYSICAL ENVIRONMENT: At Princeton University Bicentennial Conference," ibid., 98–100.

several world-famous modern architects[157] [Fig. 1.10]. In Part 2 of this thesis, I will show how this emphasis has glossed over the importance of Liang's other encounters in the USA at the time.

Fig. 1.10 The 10 Board of Design designers and other consultants appointed to assist UNHQ, pictured before the preliminary project models, 1 April 1947. Board members standing in foreground are (left to right): Liang Sicheng (China), Oscar Niemeyer (Brazil), Nikolai Bassov (Soviet Union), and Ernest Cormier (Canada). In second row (left to right): Sven Markelius (Sweden), Le Corbusier (France), Vladimir Bodiansky (French engineer-consultant), Wallace K. Harrison (USA, Director of Planning Board), G. A. "Guy" Soilleux (Australia), Max Abramowitz (USA, Deputy Director of Planning Board), Ernest Weismann (Yugoslavian consultant), John Antoniades (Greece), and Matthew Nowicki (Poland). A few Board of Design designers missing from the group are Gaston Brunfaut (Belgium), Howard Robertson (UK, Luke's former third-year tutor at the AA), and Julio Vilamajó (Uruguay). The team started working at the beginning of 1947 at an office in Rockefeller Centre. They elaborated 50 different schemes that were then criticised, analysed, and reworked by the whole team. (Liang's attendance was restricted owing to his simultaneous visiting professorship at Yale.)

[157] In established historiographies, the mainstream Western-style narrative usually presents the architect-builder side of Huang and Liang; the former's training, along with Ieoh Ming (I. M.) Pei, under the sway of Walter Gropius and Marcel Breuer at Harvard GSD, as well as the latter's image in a photograph at UNHQ, long have been reprinted in most related articles and books, Chinese or otherwise. The authors of these publications have usually—if not always—pointed out merely Le Corbusier and Oscar Niemeyer. On the flip side, recent historians of Chinese architects have barely mentioned, or completely omitted, such stories as Liang's travels to the American Midwest, away from the Bauhaus-influenced eastern seaboard, as well as accounts of Huang's preferential usage of British textbooks and quotation of British architects.

At the PMPE conference, as the only Chinese attendee, Liang's "peripheral cultural status [was] reflected in his marginal position"[158] in a group photograph taken in front of the conference venue [Fig. 1.11]. However, at the conference, Liang did sign, along with thirty-two of the world's modernist heavyweights, the CIAM secretary-general Sigfried Giedion's Memorandum to the United Nations Educational, Scientific and Cultural Organisation (UNESCO MOU) pleading for educational reform in architecture and planning. Liang was noted as "Chairman, just-started Department of Architectur[al Engineering], T'sing-Hua University."[159] This thesis will re-examine the original dossier in the Josep Lluís Sert collection at GSD's Frances Loeb Library since the two pages of signatures only survive in the current literature in 2018's *Reto Geiser's Giedion and America: Repositioning the History of Modern Architecture*. There, only one of the two pages is examined, the one that includes the signatures of Le Corbusier and Mies van der Rohe (despite their absence from the PMPE conference).[160] (See Fig. 5.10 in Chapter 5.)

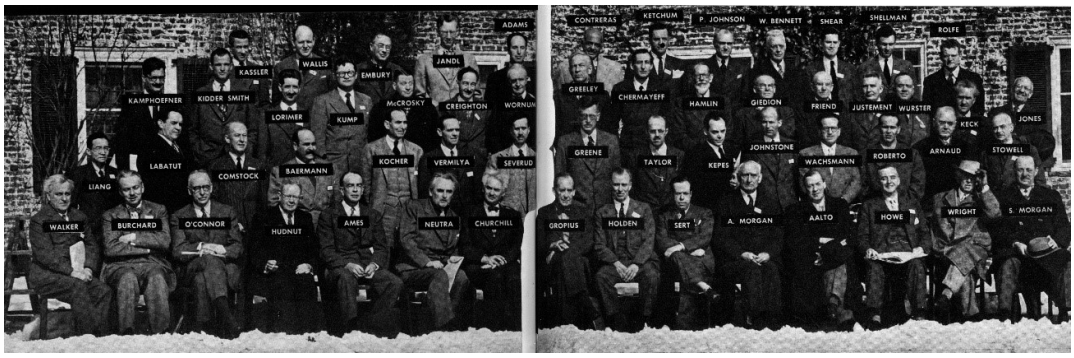

Fig. 1.11 PMPE Conference group outside the Princeton Inn, 1947 (Liang at the far left of the second row and Gropius in the middle of the first row; see also Figs. 5.6 and 5.7 in Chapter 5)

Before he mentioned the Bauhaus founder in his letter to Mei, Liang also mentioned "Working mechanism" and "medium" [Fig. 1.12]. For these ideas, he needed much more than the Bauhaus, including many other strands of progressive approaches to rethinking modern architecture and planning. Liang, for instance, may have wanted to put into practice what he had read during eight years of isolation (1937–1945) during the War of

[158] Denison, *Architecture and the Landscape of Modernity in China before 1949*, 299.
[159] "PLANNERS' PLATFORM," *Architectural Forum* (April 1947): 12. It also should be noted that the foreign press wrongly used the title "Department of Architecture" rather than "Department of Architectural Engineering," as it really was in China, to refer to Liang's institutional affiliation.
[160] *Princeton Conference Committee, PROGRAM: PRINCETON UNIVERSITY BICENTENNIAL CONFERENCE ON PLANNING MAN'S PHYSICAL ENVIRONMENT (Princeton Inn, March 5–6, 1947)* (Princeton, NJ: Princeton University, 1947).

Resistance. One of the representative postwar readings for Liang was *The City Is the People* in 1945. Its author, a New-York-based architect and city planner, Henry S. Churchill, not only taught at Columbia, MIT, and Harvard (the three most modernisation-oriented architectural programmes at the time Liang wrote to Mei) but also spoke at the PMPE conference. This publication sheds new light on the limited understanding of the origins of Liang's "City planning (*Shizhen jihua*; 市鎮計劃)" manifesto—"The System and Order of Cities" in 1945—which championed the cause of civil rights in the city and socialist planning, published in that same year.[161]

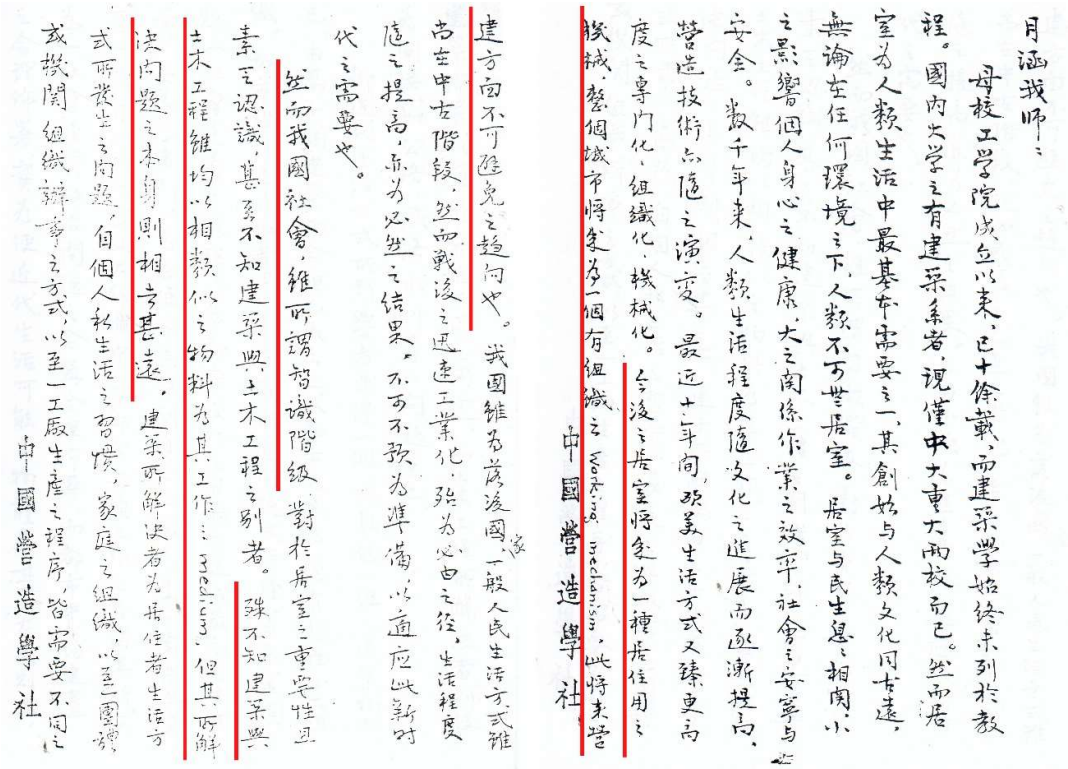

Fig. 1.12 Pages of Liang's letter to Mei, 1945,[162] in which Liang, in English, mentions "Working mechanism" (right) and "medium" (left) (pages 1–2, emphasis added)

[161] For example, Liang advocated for "a bed for everybody" (*yi ren yi chuang*; 一人一床), while Churchill wrote, "What we should try to do is to clarify what kind of a city, what sort of environment would we build for ourselves and the few people we know, and the millions we don't, if we had our way and could find understanding of their way"; Liang spoke of "peaceful dwelling and the happy pursuit of one's work" (*an ju le ye*; 安居樂業) while Churchill said, "We must always remember that this city we wish to create must be lived in, worked in, played in by all kinds of people there are."

[162] Translation of the highlighted content: "From now on, housing will be a machine used for living, and a whole city will be like an organised Working mechanism. Thus, building [*ying jian*, see 1.4.4] will not be able to escape this future tendency…Even though the society of our country can be called an enlightened one…people do not know—although architecture and civic engineering use almost the same material as

Liang's possession, in 1944, of David E. Lilienthal's *TVA* [Tennessee Valley Authority]*: Democracy on the March*[163] even triggered his post-PMPE journey from the Eastern Seaboard to the west. During this trip, he encountered more sorts of modernisms in midwestern America, as documented in his working diary—obtained for my research courtesy of Lin Zhu (Liang's second wife) [Fig. 1.13]. The significance of this journey is shown through the absence of similar notes for Liang's other experiences in the USA. In Liang's personal records of his visits to not only the TVA,[164] but also to the University of Michigan, Cranbrook Academy of Art, and Taliesin East, he tried to address directly their significance for his teaching methodology as well as institutional reform in Tsinghua's architectural engineering department.

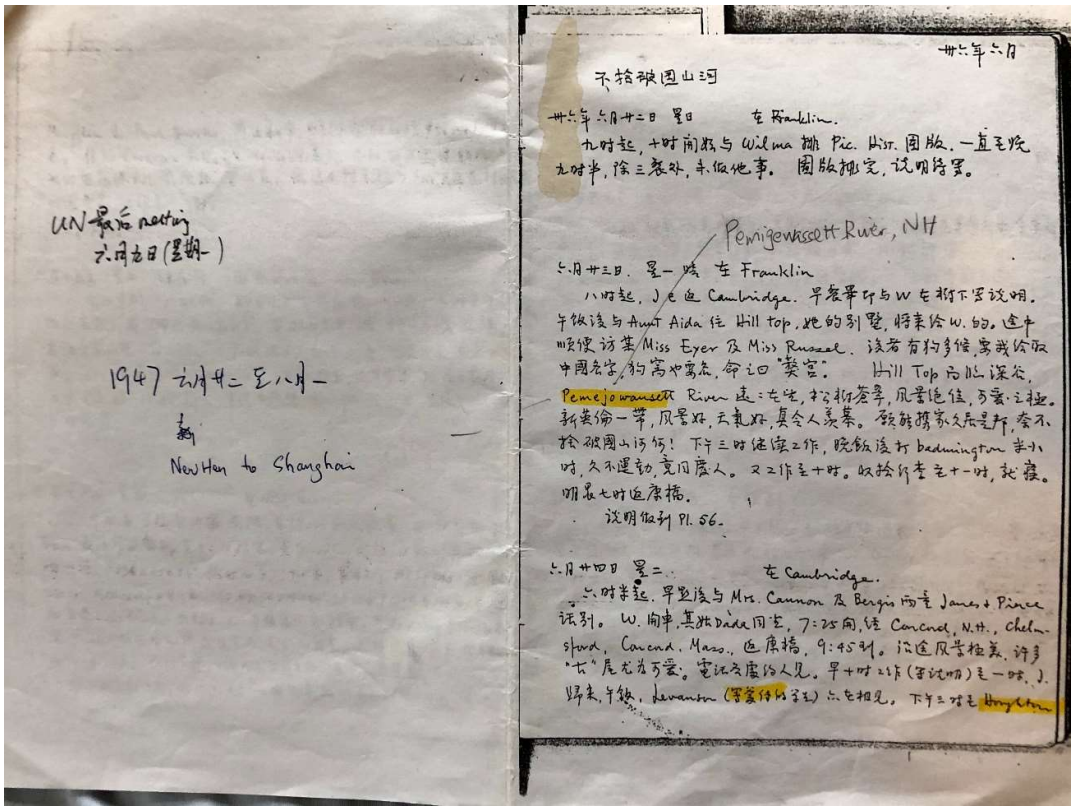

Fig. 1.13 Liang's handwritten working diary, detailing his journey from New Haven to Shanghai from 22 June to 1 August 1947. (The yellow highlights and pencil annotations are original to this document.)

a working medium—the origin of their task is very different." See Letter from Liang Sicheng to Mei Yiqi, 9 March 1945, Tsinghua University Archives.

[163] On behalf of the TVA committee, it was Arthur E. Morgan who attended the PMPE conference, of which more in Part 2. Together with Harcourt Morgan, the third TVA Board member (who was no relation to Arthur), they formed the first board of the Tennessee Valley Authority in 1933.

[164] Denison, *Architecture and the Landscape of Modernity in China before 1949*, 298–299.

1.3.3.3 Spatialising Chineseness

Liang's father, Liang Qichao (1873–1929), was highly concerned with preserving China's history, as Li Shiqiao revealed in his 2002 article "Writing a Modern Chinese Architectural History" in the *Journal of Architectural Education*.[165] Liang learned from his father's example, and his teaching and writing about Chinese art and architecture is vital to study not only for understanding Tsinghua's professional training in architecture and physical planning, but also for grasping some of the most far-reaching Chinese pioneer thinkers' concerns about the modern nation-state in the early twentieth century.

After he had obtained his master's degree at the University of Pennsylvania in the fall of 1927, Liang went for his second master's programme in Harvard University's Division of Fine Arts. Scholarship has tended to pay little attention to this episode because Liang stayed with his supervisor Langdon Warner for just one semester. On the one hand, he realised there was little literature on Chinese architecture, and, on the other, he learned, during his time at the Fogg Museum of Art (with which the Division was affiliated), how Chinese heritage had been damaged and seized by the West.[166] Nevertheless, this early experience at Harvard planted seeds for Liang's later pedagogy, seeds that only began to grow after his second trip to the USA in 1946–1947.

By analysing original materials from the Harvard University Archives [Fig. 1.14], this thesis revaluates the importance of Liang's time at the Fogg. Firstly, despite my criticism of the overrated influence of the FECS Conference on Liang, it was this specific occasion that caused Liang to reminisce about the Fogg's laboratory method of serious study through objects. Liang, together with other Chinese participants at the FECS Conference, proposed a department of art and a university museum at Tsinghua. Secondly, the Pure Design approach Liang saw practised at the University of Michigan put him in mind of Denman Ross's foundation courses at the Fogg for all first-year students. Liang

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[165] Li Shiqiao, "Writing a Modern Chinese Architectural History: Liang Sicheng and Liang Qichao," *Journal of Architectural Education* 56, no. 1 (2002): 35–45.

[166] Langdon Warner, soon to be mentioned below, expanded the Fogg's collection of Chinese art by leading two expeditions to China in 1923 and 1925. During these trips, he acquired some of the museum's rarest and finest works of art. During the 1930s, he undertook similar trips on behalf of the Nelson Gallery in Kansas City, Missouri (now the Nelson-Atkins Museum of Art), which Liang visited during his second outing in the USA. For Warner and his expeditions, see Theodore Bowie (ed), *Langdon Warner through His Letters* (Bloomington and London: Indiana University Press, 1966).

eventually came to teach design in a way that straddled neoclassical aesthetics and mechanical abstraction.

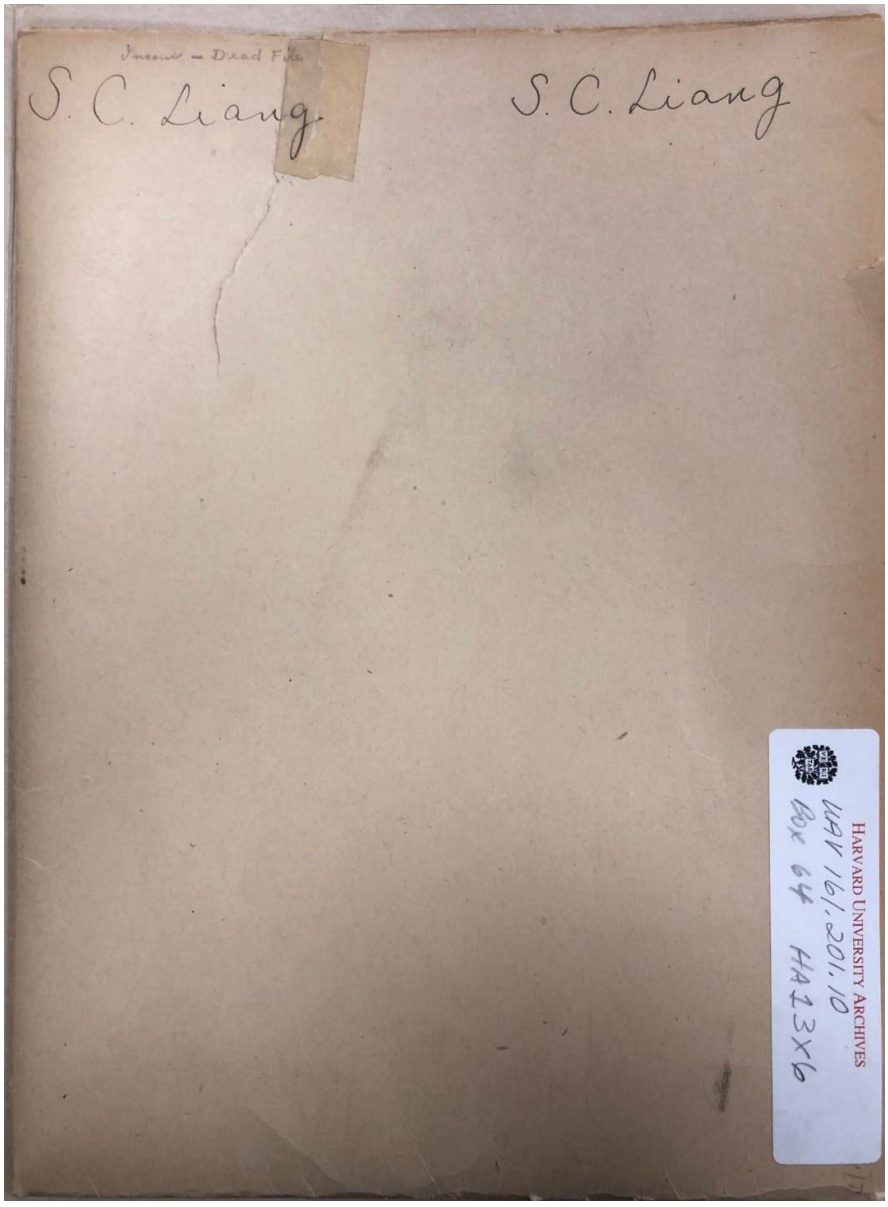

Fig. 1.14 Liang's archival profile in a folder at the Harvard University Archives

Perhaps at the suggestion of his TVA tour guide, Elizabeth Bauer Mock Kassler (1911–1998) from MoMA, Liang brought a set of pedagogical panels called *Elements of Design* back to Tsinghua. Just as its last piece read "the images of design vary with each civilisation…the element of design never change," so did Liang find the niche for his diligent SRCA works looking forward and backward in equal measure: A decade ago, in 1935, he had published *Pictorial References for Architectural Design* (*Jianzhu Sheji*

Cankao Tuji; 建築設計參考圖集) including a collection of details of historical buildings intended for use in modern-day Chinese-style architectural design; a decade later, in 1954, he would release the theory of architectural translatability [167] in which Western modernism, in his mind, ultimately made room for Chinese art and architecture. In his theory, he transposed the latter's vocabulary and grammar using modern technology and material, yet without losing its essential formal characteristics.[168]

1.3.4 Contributions to Discussion of Global Architectural Pedagogies

In addition to correctives to existing scholarship, Chinese or otherwise, this thesis also enables readers to engage with current discussions around global architectural pedagogies and their radical histories beyond the historiography of architecture education in China.

The book *Radical Pedagogies*, edited by Beatriz Colomina, Ignacio G. Galán, Evangelos Kotsioris, and Anna-Maria Meister, has revived interest in diverse pedagogical experiments. It documents, for example, experiments in architectural education in the second half of the twentieth century that have generally been absent, unnoticed, or forgotten in contemporary scholarship. However, most of the experiments in architectural education in this book took place in the 1960s and 1970s during China's determinedly nativist period of the Great Proletarian Cultural Revolution (1966–1977). Besides, as it is based on transversal interdisciplinary studies, this publication overshadows the architectural discipline per se by focusing on cross-fertilisations with other fields of knowledge production.

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[167] Lai Delin, "Composition and Elements: The Origins of Beaux-Arts and Liang Sicheng's discourse of 'Grammar－Vocabulary' and Chinese Modern Architecture 构图与要素：学院派来源与梁思成「文法—词汇」表述及中国现代建筑," *The Architect*, no. 142 (2009): 431–475; see also Lin Wei-Cheng, Untranslatable Iconicity in Liang Sicheng's Theory of Architectural Translatability, *Art in Translation*, 5:2 (2013): 219–250.

[168] Liang's study of YZFS (1100) of the Northern Song (960–1127) and the *Gongbu Gongcheng Zuofa Zeli* (1734) of the Qing (1644–1911) enabled him to codify the 'grammars' of the two ancient manuals and the 'vocabularies' of their elements and motifs, which formed the classical language of Chinese architecture; see Liang Sicheng, "The Two 'Grammar Textbooks' of Chinese Architecture 中國建築之兩部「文法課本」," *SRCA Bulletin*, vol. 7, no. 2 (October 1945): 1 – 8. About a decade later, Liang elaborated his thoughts in his speech at the inauguration of the Architectural Society of China (ASC), which was published under the same title in the inaugural issue of ASC's official periodical in the same year; see Liang Sicheng, "The Characters of Chinese Architecture 中国建筑的特征," *Architectural Journal*, no. 1 (1954): 36–39. Here Liang again recommended these two 'textbooks,' but in the Communist era this time. As for the ASC, it should be noted that it was inaugurated as the Architectural Engineering Society of China in 1953 before it was renamed as the Architectural Society of China in July 1955.

Recalling the etymology of the word 'radical,' this thesis builds on the scholarship in *Radical Pedagogies* by questioning the 'roots' of architecture's disciplinary foundations. In this regard, Huang's and Liang's pedagogical revolutions in the cosmetically Westernised pre-revolutionary Republican China of the 1930s and 1940s were radical, as Huang and Liang developed new pedagogical practices that mobilised students to be more socially dynamic and culturally sensitive in their architectural research projects. For instance, in his theory course and design studio at SJU, Huang seemed to anticipate later critics' attack on orthodox modernists for what they were about to do to the postwar landscape with, in Bruno Zevi's words, "pre-fabrication, standardisation, new materials, building techniques,"[169] and scientific planning. Huang radically spoke out against the high modernists' single-minded preoccupation with technology, efficiency, economy, and social expediency and their neglect of individual needs, local customs, and spiritual qualities. In this light, both Huang and Liang had a more difficult task than the postmodernists who came along twenty years later. Siding with Huang and Liang in the 1940s required foresight that few possessed.

This thesis also shares a methodological approach with *Radical Pedagogies*. As a Taiwanese researcher of architecture in China, writing from a British institution, in this thesis I am turning to architecture's history to revive interest in diverse pedagogical experiments overlooked by mainstream accounts in the Northern hemisphere and correcting the incomplete accounts made by contemporary institutes within which the first cultural programme of modernity developed.[170] In addition, this thesis, like *Radical Pedagogies*, is dependent on bottom-up research. *Radical Pedagogies* relies on accounts of symposia, essays, lectures, and exhibitions, as well as deep archival research, almost to the degree of being crowd-sourced with raw materials and puts little stock in fixing, exhausting, or stabilising the radical events that make up modern institutions' past. My thesis is built on similar types of research, and despite the scalar difference between the two case studies in my thesis and *Radical Pedagogies*'s ambitious multi-author, fourteen-chapter volume, neither are attempting to be the last word on the subject.

[169] Zevi, *An Opinion on Architecture*, 17.
[170] Namely, the West: Europe and the United States, according to Eisenstadt, Riedel, and Sachsenmaier, "The Context of the Multiple Modernities Paradigm," 2.

Should one value *Radical Pedagogies*, which contains not only the familiar examples of Paris May '68, Hochschule für Gestaltung, Ulm, Black Mountain College, and the AA in London, but also less familiar cases, such as Eames in India, the Latin American Schools, and the F+F School for Experimental Design, Zurich, one would even benefit more from the other Routledge Companion, published also in 2022, *Architectural Pedagogies of the Global South* edited by Harriet Harriss, Ashraf M. Salama, and Ane Gonzalez Lara. My thesis adds to this scholarship, too. It goes to great lengths to unsettle the ways in which architecture's body of formal knowledge has been developed and evaluated through grand narratives of modern movements, rather than contested discourses of makeshift modernities. The disturbance of the status quo is similarly the necessary and urgent goal of *Architectural Pedagogies of the Global South*.

With 34 contributions from 55 authors from diverse regional, racial, ethnic, gender, and cultural backgrounds, *Architectural Pedagogies of the Global South* shows that, while there was evidently a common turn towards the radical in architectural education at the end of the twentieth century, there were still essential differences in that common shift because there is a vast diversity to architecture's dissensus throughout the Global South. This thesis also explores this array of makeshift modernities in an earlier era, not only through the archival investigations mentioned above but also through a similar methodology to that used in publications like *Architecture School: Three Centuries of Educating Architects in North America* (2012), which recovered the events of the last century of architectural pedagogies not from historical accounts but from living memories. The inquiries into Huang and Liang documented in this thesis show how Chinese departments of architectural engineering have served as forums for debate about the nature of the architecture profession (science vs. art, vocation vs. business, etc.) and how they have struggled to answer and reshape, rather than simply accommodate, historical changes between East and West or South and North.

Architectural Pedagogies of the Global South argues that similar interests and avenues of research in other neighbouring disciplines have been overlooked. My thesis, alongside this book, may thus serve as a springboard for future work that interrogates collaborations of architect-teachers with other disciplines that are facing similar challenges to architecture's current pedagogical rut. For example, it may address a broader post-disciplinary, or debatably transdisciplinary, audience of designers (architect-builders).

Thus, my thesis may join *Architectural Pedagogies of the Global South* and *Radical Pedagogies* as part of the essential writing on education in design and become an invaluable resource for thinking through radical histories to inspire new radical futures.

1.4 Writing Strategy and Methodology

1.4.1 The Question of Fragmented Archives

This thesis draws on established, original, and unpublished materials to examine the extent to which Liang and Huang found themselves positioned within worldwide movements of modern architecture and to reposition and reconnect their Western experiences with the wider architectural and artistic communities in China as they confronted modernity. However, even for this pair, obtaining original materials was not always easy. All the founding architect-teachers of pre-1952 universities were later effectively sidelined and persecuted, along with untold numbers of other intellectuals with similar Western knowledge and wealthy family backgrounds. During the Great Proletarian Cultural Revolution (1966–1976) that followed the Anti-Rightist Campaign, most of the architect-teachers' writing and photographs were destroyed by the PRC regime. Huang and Liang were not excluded. Most of the institutional documents at SJU and Tsinghua became unavailable after "a very uncultured [cultural] revolution."[171]

To overcome the problem of fragmented and absent archives, this thesis, on the one hand, relies on patchy dossiers—such as unpublished manuscripts and personal notes—which the descendants of both architect-teachers were willing to share. On the other, it also considers material from the archives of their fellow faculty members—both Chinese and non-Chinese—which have been collected relatively well in both Asian places like Taiwan and Hong Kong and in Europe and the USA.[172] These materials have allowed me to reconstruct Huang and Liang's pedagogic experiments as exemplars of Chinese

[171] Denison, "Chinese Whispers," 134. In 1967, during the Cultural Revolution, the architecture major at Tsinghua was suspended by the Communist government, and many books and materials were lost; see Cheng Xiaoxi, "The Evolution of Architectural Education Space in Tsinghua University 清华大学建筑教育空间的变迁," *World Architecture*, no. 7 (2017): 29. SJU, as a missionary university controlled by the American Church, was shut down (before it was turned into a national university—East China University of Political Science and Law—after 1952) and all teaching staff—Chinese or non-Chinese, like Richard Paulick—were expelled in 1949 under the Communist rule.

[172] See further description in the Archival Sources section in the bibliography.

architectural education at the time. Furthermore, I found surviving institutional reports and periodicals—including those edited by students— that have largely enabled me to trace how these pedagogies encapsulate the ideological conflicts and debates that arose for architect-teachers as they attempted to navigate building philosophies and discourses developed in North America and Europe within the context of an ancient civilisation that had its own continuous building practices.

In addition to the problem of fragmented archives, another issue beyond the physical materials is the identity politics associated with historical writing that retraces China's architectural modernism. It comes as no surprise that narratives are often intimately tied to local and institutional history. Much scholarship on Chinese modernism has focused on Shanghai; scholarship on modernism in other areas, even Beijing and Nanjing (the Communist and Nationalist capitals, respectively), has found it to be comparatively limited or isolated.[173] However, at the local level, this reading of Chinese modernism—in which the dichotomy between China and the West is reconfigured as one between the Westernised coastal areas and the traditional hinterland—overlooks the conservative, indigenous side of Shanghai and downplays the progressive, international side of Beijing.

This research also utilised interviews and owes much to those scholars willing to talk directly with me. These consisted of face-to-face interactions during field trips in China during 2017 and 2018 and in Germany and the UK in 2019. I then continued with interviews over the internet due to the worldwide COVID-19 pandemic. During this process, a few descendants of Huang and Liang and their colleagues generously contributed to this research. For example, Tong Ming (Tong Jun's grandson) and his wife, Chang Qin, were very close to Tongji and Dongnan (the successor of NCU) and, given their network as heirs to China's 'hero-architects,'[174] were able to introduce me to Liang

[173] Abreast the advent of modernities in China, geographical differences in development and decentralised power-sharing were beginning to surface: The semicolonial and outright colonial foreign influence in the coastal concessions and, to the north, in the Japanese puppet state of Manchuria created a genuine disparity in modes of economic production and wealth between these areas and regions in central and western China, as well as areas outside the larger modernising cities near the coast and to the north.

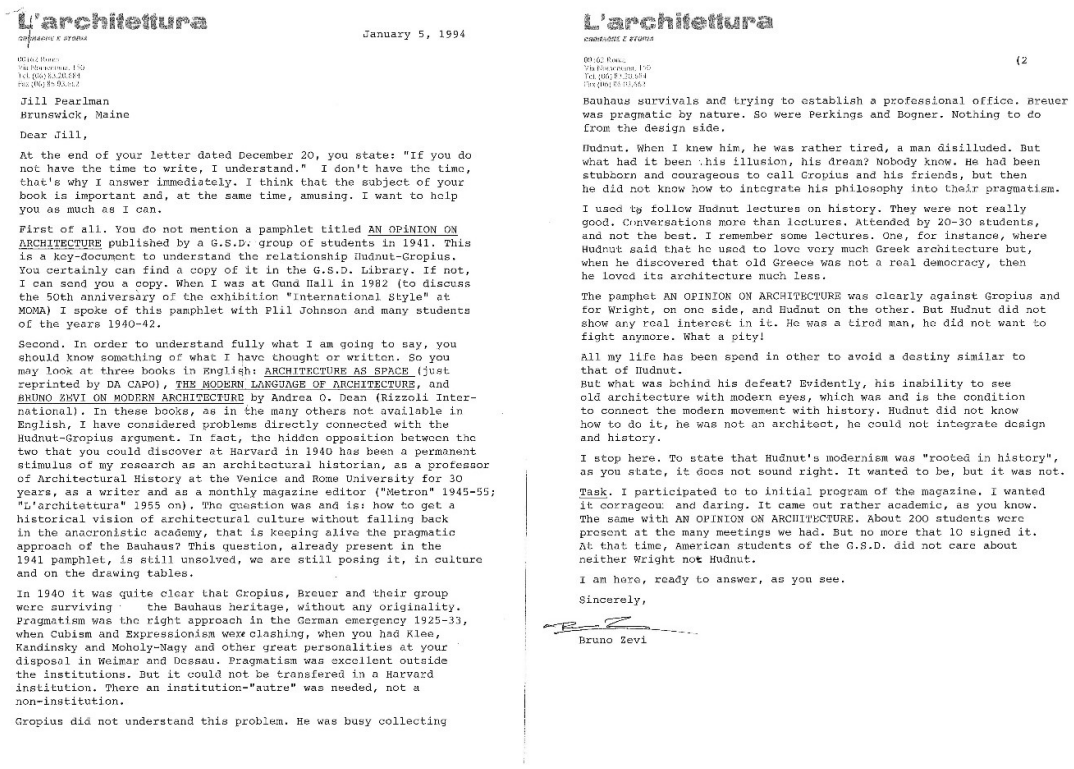
[174] Right after the year-long celebration of Liang's 120th Anniversary at Tsinghua, Dongnan commemorated Yang Tingbao in the same way including an exhibition, a conference, and a special issue of the *Architectural Journal*, the official journal of the SCA. Plus, Dongnan reunited six descendants of Yang Yongsheng's *Four Masters of Architecture* in observance of Yang's 120th anniversary in 2021.

and Lin's grandchildren: Liang Jian, Yu Kui, and Yu Xiaodong.[175] My work is indebted to their courtesy of sharing valuable first-hand data where possible.

These resources were necessary given the fact that the key personalities of the research—namely, Huang and Liang and their university colleagues (including most of their students[176])—had passed away, and they helped fill some of the gaps in patchy research materials to which I was allowed only limited access. In addition to my own interviews, Jill Pearlman provided me with her unpublished notes from her interviews with GSD faculty from the Gropius era and other material, including her correspondence with Zevi during the writing of *Inventing American Modernism* during the 1990s [Fig. 1.15]. These materials were of equal importance since, again, most of those she interviewed have now passed away. In addition, this thesis also took advantage of foreign archives for both materials that originated in the West and Chinese materials stored in them, as these archives are not merely much better preserved but also tend to be more accessible.

[175] These, to be more precise, included Mr. Liang Jian (son of Liang Congjie), Mr. Yu Xiaodong (son of Liang Zaibing), and Ms. Yu Kui (daughter of Liang Zaibing); Liang Congjie and Liang Zaibing are Liang and Lin's children. Besides, it is worth noting that Fairbank dedicated her 1994 book *Liang and Lin* to their grandchildren.

[176] At that time, the age difference between teachers and students was relatively limited, and they usually had a close-knit bond, like a coterie.



L'architettura

January 5, 1994

Jill Pearlman
Brunswick, Maine

Dear Jill,

At the end of your letter dated December 20, you state: "If you do not have the time to write, I understand." I don't have the time, that's why I answer immediately. I think that the subject of your book is important and, at the same time, amusing. I want to help you as much as I can.

First of all. You do not mention a pamphlet titled AN OPINION ON ARCHITECTURE published by a G.S.D. group of students in 1941. This is a key-document to understand the relationship Hudnut-Gropius. You certainly can find a copy of it in the G.S.D. Library. If not, I can send you a copy. When I was at Gund Hall in 1982 (to discuss the 50th anniversary of the exhibition "International Style" at MOMA) I spoke of this pamphlet with Phil Johnson and many students of the years 1940-42.

Second. In order to understand fully what I am going to say, you should know something of what I have thought or written. So you may look at three books in English: ARCHITECTURE AS SPACE (just reprinted by DA CAPO), THE MODERN LANGUAGE OF ARCHITECTURE, and BRUNO ZEVI ON MODERN ARCHITECTURE by Andrea O. Dean (Rizzoli International). In these books, as in the many others not available in English, I have considered problems directly connected with the Hudnut-Gropius argument. In fact, the hidden opposition between the two that you could discover at Harvard in 1940 has been a permanent stimulus of my research as an architectural historian, as a professor of Architectural History at the Venice and Rome University for 30 years, as a writer and as a monthly magazine editor ("Metron" 1945-55; "L'architettura" 1955 on). The question was and is: how to get a historical vision of architectural culture without falling back in the anacronistic academy, that is keeping alive the pragmatic approach of the Bauhaus? This question, already present in the 1941 pamphlet, is still unsolved, we are still posing it, in culture and on the drawing tables.

In 1940 it was quite clear that Gropius, Breuer and their group were surviving the Bauhaus heritage, without any originality. Pragmatism was the right approach in the German emergency 1925-33, when Cubism and Expressionism were clashing, when you had Klee, Kandinsky and Moholy-Nagy and other great personalities at your disposal in Weimar and Dessau. Pragmatism was excellent outside the institutions. But it could not be transfered in a Harvard institution. There an institution-"autre" was needed, not a non-institution.

Gropius did not understand this problem. He was busy collecting

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(2

Bauhaus survivals and trying to establish a professional office. Breuer was pragmatic by nature. So were Perkings and Bogner. Nothing to do from the design side.

Hudnut. When I knew him, he was rather tired, a man disilluded. But what had it been this illusion, his dream? Nobody know. He had been stubborn and courageous to call Gropius and his friends, but then he did not know how to integrate his philosophy into their pragmatism.

I used to follow Hudnut lectures on history. They were not really good. Conversations more than lectures. Attended by 20-30 students, and not the best. I remember some lectures. One, for instance, where Hudnut said that he used to love very much Greek architecture but, when he discovered that old Greece was not a real democracy, then he loved its architecture much less.

The pamphet AN OPINION ON ARCHITECTURE was clearly against Gropius and for Wright, on one side, and Hudnut on the other. But Hudnut did not show any real interest in it. He was a tired man, he did not want to fight anymore. What a pity!

All my life has been spend in other to avoid a destiny similar to that of Hudnut.
But what was behind his defeat? Evidently, his inability to see old architecture with modern eyes, which was and is the condition to connect the modern movement with history. Hudnut did not know how to do it, he was not an architect, he could not integrate design and history.

I stop here. To state that Hudnut's modernism was "rooted in history", as you state, it does not sound right. It wanted to be, but it was not.

Task. I participated to to initial program of the magazine. I wanted it corrageous and daring. It came out rather academic, as you know. The same with AN OPINION ON ARCHITECTURE. About 200 students were present at the many meetings we had. But no more that 10 signed it. At that time, American students of the G.S.D. did not care about neither Wright not Hudnut.

I am here, ready to answer, as you see.

Sincerely,

Bruno Zevi

Fig. 1.15 Zevi's letter recalling his time at GSD when Huang was also there, 1994, obtained for my research courtesy of Jill E. Pearlman

Many of the secondary sources used in this research are fruits of the publishing culture in China, "where the stardom of four master architects [including Liang] is very much self-evident,"[177] but where, to a great extent, Huang has been long forgotten. During the last half-century, conferences and workshops, together with countless proceedings, books, newsletters, and articles on Liang's works and life, have been held continually to honour his contribution. Conversely, Huang's name and reputation have long been marginalised—not unlike the case Denison and Ren make of Hong Kong-based Luke, even though Huang stayed in the post-1949 mainland. Like Luke, Huang remained one of "China's missing modern, [a] non-person, erased from history" [178] until the commemoration of Tongji's role in Shanghai's modernism during the 1950s and 1960s[179]

[177] In addition to Liang, these master architects are Yang Tingbao, Tong Jun, and Liu Dunxhen; see Rujivacharakul, "Architects as Cultural Heroes," 134.

[178] Denison and Ren, *Luke Him Sau*, 205.

[179] Tongji's part in upholding the heavily Shanghai-centred geography of modernism in the 1930s and 1940s, while Huang was in the UK and then at GSD, has been much emphasised in personal, local, and institutional history. Huang's modernist pedagogies at SJU have mostly been left out of these accounts.

at the turn of the twenty-first century, as well as the publication of articles and books during a year-long celebration of the Bauhaus centenary.[180]

While these secondary sources have been helpful to this research, remembrances by former students and personal recollections became a significant part of institutional history, in which individual and local prestige were closely intertwined. Most of the contributors to *Time + Architecture*'s 2004 "The Way of Tongji Architecture" and the 2012 *Commemorative Accounts of Huang Zuoshen* were intimately connected to the university. This handful of scholars are the only ones who have written about Huang. Likewise, although there have been many accounts of Liang, the most notable ones have been published by those based at Tsinghua, who compiled and contributed to his posthumous *Commemorative Accounts* on his 85th, 100th, and 110th birthdays. These 'academic gatekeepers,' on the one hand, restrict related archives[181] within their esoteric comradeship; and, on the other, they rail against those who have proposed alternative opinions about their 'god.'[182]

The ability to conduct research on Huang and Liang is likely to become even more challenging in the future. China's largest academic database—China National Knowledge Infrastructure (CNKI)—recently issued a notice to many foreign universities and research institutions that it will cancel some of their access rights from April 2023. Scholars engaged in China studies, myself included, would agree that this is a further decoupling of China from the outside world and will make studying China even more difficult. This

[180] Ding Liyang's paper, mentioned above, was the first English account of Huang, but it was a translation of the earlier work of Qian Feng in Chinese. No one else could claim himself (or herself) to be as competent as Qian in writing about Huang, as she had exclusive knowledge and official authority. For example, she had exclusive access to classified dossiers such as Huang's ideology statement in the Anti-Rightist campaign (although the truthfulness of this kind of document remains questionable). Also, it was at Tongji—where Qian teaches nowadays—that she worked on her master's dissertation about Huang and published most of her related works. After the publication of *Commemorative Accounts of Huang Zuoshen* (one volume of the series titled "Tongji's Architectural and Planning Masters" noted above) in 2012, however, her writing on Huang halted, and no more progress was made in this decade. However, I am indebted to her for providing this thesis with several vital documents and helping me liaise with Huang's sons for personal dossiers. Although they seemed not to want to push the research about Huang because they deemed everything to have been done already, this thesis will prove otherwise.

[181] There are two sorts of materials in this category: those Liang left behind to his family and those donated to Tsinghua by his descendants.

[182] Zhu Tao and his 2014 book is a typical case in this regard; *Liang Sicheng and His Time* was said to let Liang fall from the "altar." As a result, Zhu was soon criticised by the likes of Wang Jun—renowned for his 2003 book in support of Liang and Lin; see Wang Jun, *Record of a City* 城记 (Beijing: San Lian Bookshop, 2003). Nowadays, Zhu has been completely shut out of the academic circle in Beijing.

will be just another layer of difficulty added to the problem of fragmented archives discussed here; the so-called Security Assessment for Outbound Data Transfer indicates that the established Chinese authorities again hope to influence how 'foreign' academic circles—including those in Hong Kong, Macau, and Taiwan—portray China by controlling information.

1.4.2 Positionality as Researcher

As a Taiwanese architecture researcher working in China and writing from within a British institution, I must acknowledge and reflect upon my positionality in the research. The unique circumstances and challenges that researchers from Hong Kong, Macau, and Taiwan have faced in the past due to political sensitivities[183] continue to this day. Owing to the long-lasting tension between both sides of the strait (plus the worsened USA-China divide arising Trumpism since 2017), Taiwanese research of mainland architects in Taiwan after 1949 (which has so far mainly been concerned with Wang Dahong, Chang Chaokang, Chen Chikwan, etc.) has ignored these figures' lives and studies in their motherland of China, let alone their mainland teachers like Liang and Huang (and a handful of their contemporaries) who remained under Communist rule after 1949.

However, I have navigated these challenges and established a personal network during multiple field trips in China before the Covid-19 pandemic. This network provided me with informal access to original archives. In addition, it connected me with individuals who had personal liaisons with the descendants of Huang and Liang, allowing for a deeper understanding of their work. My ability to explore Huang's and Liang's transnational encounters during their overseas sojourns has provided an opportunity to shed light on the cultural exchange and political influences that formulated their professional practices as architect-teachers upon returning to China.

It is important to recognise that such positionality inherently shapes my perspective and the lenses through which I interpret and present findings in the thesis. By being transparent about this position and the context in which my research is conducted, I can

[183] These researchers have run into difficulties because of the transfer of sovereignty over Hong Kong and Macau from Britain and Portugal to the People's Republic in 1997 and 1999, and also because Taiwan has maintained a tense relationship with China since 1949, in particular in recent years, owing to its governance under a ruling party (2016–2024) that calls for sovereign independence.

contribute to a more nuanced and comprehensive understanding of the subject matter and case study examples. It is also crucial to engage in critical self-reflection and consider the potential implications and limitations of this positionality, such as the influence of institutional affiliations or the potential biases that may arise.

Ultimately, by acknowledging and embracing my positionality as a scholar from Taiwan, studying Chinese architecture and based within a British university, I would also like to enrich the limited discourse surrounding Huang's and Liang's pedagogical works beyond the highly prominent superficial discussion of them as cultural heroes, which Rujivacharakul criticised as stratified historiography. I would like to look beyond their roles in preserving or overcoming tradition, and thus contribute to a more inclusive and diverse understanding of architectural history by retracing architectural modernity in China's higher education before and briefly after 1952.

1.4.3 Three Derivations

Liang and Huang each have particular terms associated with them that deserve special attention.[184] For Liang, that would be his progressive idea of *ying jian* (營建)[185] that possesses—especially in architecture—the most ordinary translation of "building." However, it must be noted that what Liang meant when he used this term in academia was not artificial structures consisting of construction materials. Instead, he meant this term in a different context. In his "Draft Plan of Academic Structure and Programme in the Department of Yingjian (Now Known as the Department of Architectural Engineering) at Tsinghua University" (清華大學營建學系 [現稱建築工程學系] 學制及學程計劃草案), he wrote:

> *[Usefulness is a social attitude, stability is a technical attitude, and aesthetics is an artistic attitude] … Consequently, we realise the inappropriateness of entitling [the Department of Architectural Engineering] under the KMT government's regulation. The so-called*

[184] These related to some of the most dominant philosophies of their respective pedagogies as architect-teachers; more is explained about them in the Conclusion.

[185] *Ying jian* (營建) and *ying zao* (營造) could be interchangeable for Liang: The SRCA's institutional title was *Zhongguo Yingzao Xueshe*, and Liang also applied both parlances (but *ying zao* first) in his letter to Mei Yiqi in 1945.

> *Architectural Engineering addresses only one of three aspects—stability. Foreign universities had a long tradition distinguishing between Departments of Architecture and Architectural Engineering. Tsinghua's courses are concerned with three attitudes through a pedagogical synthesis, rather than merely architectural engineering. Because of this goal, we appeal to change our departmental title to Department of Ying Jian [namely Building; hereafter Dept. YJ]: Ying is a design of both usefulness and aesthetics, whereas Jian is a technical solution for stability to make that design happen. In this way, Dept. YJ corresponds with our curricular content and training purpose.*[186]

For Huang, the key term is 'contemporary': To him, it did not mean *dangdai* (當代) (the usual translation of 'contemporary'), in line with conventional Maoist historiography.[187] Instead, he regarded the word as a critical reflection of the static 'modern' (*xiandai*; 現代) that dooms architectural design to a perpetual state of retardation. He used it to discuss the dynamic conditions of the built environment that his architect-students needed to consider in their coursework assignments.[188] According to Huang's early SJU student Fan Shupei (Class of 1948):

> *[Huang] was unwilling to use 'modern' in point of the fact that the word 'mo deng'*[189] *has been a fad [in the 1940s] in style-obsessed Shanghai. In particular, he did not accept the usage of 'modern style' onto authentic modern architecture; hence he often cautioned us to*

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[186] Liang Sicheng, "Draft Plan of Academic Structure and Programme in the Department of Yingjian (Now Known as the Department of Architectural Engineering) at Tsinghua University 清華大學營建學系（現稱建築工程學系）學制及學程計劃草案," *Wen Wei Pao (Shanghai)*, 10–12 July 1949, quoted from the 11th.

[187] To present the combination of *Jindai* and *xiandai* in English, see conventional Maoist historiography applied in Wakeman, "Chinese Modernity," 155 and passim.

[188] This was perhaps the reason why Huang's architect-students Fan Shupei and Wang Jizhong launched an architectural firm named Contemporary; see Lu and Qian, *Commemorative Accounts of Huang Zuoshen 黄作燊纪念文集*, 160–161; see also: Qian Feng, Lai Delin, and Wang Haoyu, "Chinese Modern Architectural Students (Part 5) 中国近代大学建筑系毕业生（连载五）," *Building Review 建築業導報*, no. 7 (2005): 99; this argument, of course, should undoubtedly be considered in light of the fact that SJU's teaching instruction was in English.

[189] Modern-style, if not full-fledged high modernist, works wedded to Art Deco decoration were popular in Shanghai during the 1930s. One only needs to think of Hudec's Grand Theatre, Park Hotel, and so forth designed after he opened his own architectural office in 1925 in the city.

> *think of 'contemporary,' rather than 'modern,' in our architectural creation. In his opinion, 'contemporary' means a jing shen (Zeitgeist) keeping abreast of the times. The true essence of modern architecture is a spirit, an aspiration, not a modish style or a school. In other words, Huang understood the concept of 'modern' to be static; 'contemporary,' on the other hand, is dynamic.*[190]

Finally, both Liang and Huang used the word 'environment' (*huanjing*; 環境) to refer to the concept of a physical landscape that includes both natural and human factors in their teaching of architecture and urbanism. (While they used the word 'environment,' it should be noted that this did not imply any ecological agenda or advocacy for sustainability per the Western context.)

There are more, similar derivations of words explained in the body of the text. However, these three examples above unmistakably mark Huang and Liang's alternative modernities in their professional programmes in modern-day China and are crucial for reading this thesis. I hope these prefacing remarks satisfy most readers most of the time.

1.4.4 A Writing Strategy Employed in the Thesis

The main body of this thesis is divided into two parts on Huang Zuoshen and Liang Sicheng, respectively. Following a strict chronological framework in telling a tale of two architect-teachers is impossible, as episodes in it overlap.[191] Each part has three branches exploring their transnational encounters. These inform readers of the Western pedagogy that influenced the pedagogies these two figures themselves used upon their return to China. The "transnational" aspect of these encounters is related to their intellectual work on a global scale rather than to physical shifts in geography. For example, the scope of these transnational encounters includes Huang's multilingual faculty at SJU and Liang's multicultural encounters with the world's architect-planners at the vanguard of

[190] Luo and Qian, "Remembering Huang Zuoshen 怀念黄作燊," 54; see also Luo Xiaowei and Li Dehua, "Department of Architectural Engineering of St. John's University, 1942–1952 原圣约翰大学的建筑工程系 1942—1952," *Time + Architecture*, no. 6, (2004): 26.

[191] The narrative is arranged more chronologically in the Literature Review, especially 1.3.1. However, in the body of the text, to ensure clarity in identifying individuals, publications, and events in separate episodes, occasional redundancies are unavoidable.

modernism at the PMPE conference as well as those amongst the UNESCO MOU signatories, which, I will argue, informed his deeper modernist sensibilities at Tsinghua more than his general UNHQ experience.

Part One, on Huang, gives a chronological introduction to this figure since he is almost a stranger to the English-speaking world (and even to most Chinese people). I discuss his professional training at the AA in Chapter 2, then at GSD in Chapter 3, and ultimately his pedagogical work at SJU in Shanghai in Chapter 4. This part of the thesis on Huang responds to growing interest in English-language scholarship in the architecture of modern China. This has been caused by a booming Chinese economy resulting in many high-profile commissions, the widespread demolition of historical architecture, and the increasing interaction of Chinese architects and scholars with the West. In this light, studies have emerged such as Denison and Ren's book on Luke, one of Huang's colleagues—one of the first of this kind written in English. The first half of this thesis also responds to that rallying cry. It shows that the neat dichotomy between the Beaux-Arts and the Bauhaus obscures a multifaceted picture that has been reduced to a moot, if much-vaunted, 'Chinese Bauhaus' in China's literature.[192]

In Part 2, Liang, the most well-known Chinese architectural historian, who was not a modernist from the outset but grew sympathetic to modernism throughout his career, is treated more thematically. In this narration, I focus on previously overlooked episodes that informed and reshaped Liang's pedagogies during his 'second life' of Chinese architectural education at Tsinghua. These include his institutional reform of a college of building (*ying jian*) for design on a larger scale (explored in Chapter 5), his ideas about the Physical Environment (*ti-xing huanjing*) in city planning, which resulted from the PMPE conference (covered in Chapter 6), and eventually a re-evaluation of his alternative pedagogical approach, drawing upon his sojourns in midwestern America (detailed in Chapter 7).

Finally, in the conclusion (Chapter 8), I examine the commonalities between Huang's and Liang's pedagogical contributions to rethinking modern Chinese architecture and

[192] Lin, "Bauhaus, Architecture, and I: An Interview with Mr. Chang Chaokang 包浩斯、建築和我：專訪張肇康先生," 222–228; Chang studied architecture at SJU in Huang's era before leaving for GSD. Admittedly, no Chinese architect-students attended the Weimar, Dessau, or Berlin Bauhaus from 1919 to 1933. Still, the connection between modern Chinese architecture and the Bauhaus cannot be ignored.

architectural education, beyond preserving or overcoming tradition. This will be discussed by examining the *society*, *engineering*, and *art* aspects of their pedagogies. In Chapter 8, the tactics Huang and Liang used to navigate this trilogy will be located, relocated, or dislocated from within my background research and hypotheses since both men seemed to use *makeshift* efforts to create a third modernist path, neither strictly Beaux-Arts nor strictly Bauhaus, but in keeping with the revolutionary socialist state of the new China. This path is unique to China and can only be best represented by the role of architect-teachers. While "Communist China [might be] no place for an independently minded architect[-builders],"[193] in the end this thesis looks at whether it could be a place for civic-minded architect-teachers. Furthermore, it is through this perspective that I deem that Chinese architects nowadays, so far removed from the dynamics of Liang and Huang all those decades ago, can still learn from them. I hope they will see the relevance of this thesis to their work. Detailed chapter summaries are provided below.

Chapter 2, "The MARS Group and AA Students," begins to investigate the roots of Huang's pedagogies at SJU by examining his studies at the AA in London and his acquaintance at that time with London-based European architects at the vanguard of modernism. It traces the potential influence of the MARS Group on Huang, and it assesses the contribution of both the AA and the MARS Group to Huang's later decision to study at Harvard as well as to his architectural programme at SJU. It highlights the MARS Group's progressive role in Huang's mooring in the UK and shows the ways in which the modern history of Chinese architecture can be traced through AA students from the late 1930s and 1940s. It details the circumstances at the AA for Huang and his peers concerning modern architectural pedagogy. It examines the MARS Group's tenets, as shown in their publications, exhibition, and specifications at the AA, which Huang may have taken to SJU. Moreover, in this chapter, I seek to produce a wider reading than has previously been made of the relationship between Huang and Gropius. Previous research on Huang has held that, in London, Gropius's approach to architecture so caught Huang's interest that he followed him to Harvard, where Huang soaked in Bauhaus pedagogy he later transplanted to SJU, creating a 'Chinese Bauhaus.' This chapter questions this simple transplantation and paints a more nuanced picture of the influences on Huang's pedagogy.

[193] Denison and Ren, *Luke Him Sau, Architect*, 205.

Chapter 3, "GSD Masters and Basic Design," focuses on Huang's time at Harvard GSD. This chapter adds to previous scholarship on Huang's pedagogy, which has emphasised the similarities between Huang's architectural curriculum at SJU and Gropius's Bauhaus *Vorkurs* course; this previous scholarship has therefore focused on Gropius's influence on Huang at Harvard. Gropius's *Vorkurs*-based course, however, was first offered at Harvard only after Huang had left. This chapter, therefore, widens the scope of its enquiry into the pedagogical influences Huang experienced at Harvard to include not only Gropius but also, among others, Dean Joseph Hudnut and Bruno Zevi, Huang's previous colleague at the AA who was in the GSD Master Class while Huang was at Harvard. Through critical reflection, it looks at the broader picture of institutional changes happening at Harvard while Huang was there. It covers the battle between Gropius and Hudnut over the GSD's foundation course and highlights the historical pedagogy favoured by Hudnut, which may have influenced Huang's later embrace of history at SJU. It also discusses the related student unrest spearheaded by Zevi and supported by Arthur Cheang and Dahong Wang, fellow students who were to be Huang's future teaching colleagues at SJU and his partners at the Five United architecture firm in Shanghai. This chapter enriches the literature on Huang's SJU pedagogy by delving into previously overlooked aspects of his Harvard experiences beyond Gropius's purview.

Chapter 4, "A Chinese Bauhaus or SJU Modernism?", investigates how SJU's architectural pedagogy under Huang both borrowed from Gropius and extended beyond his ideas. It begins by detailing SJU's context as a domestic foreign institution whose curriculum was free from the confines of the Standard Minima mandated at other Chinese universities. It also explains the impact of wartime uncertainties on SJU's pedagogy and the teaching staff Huang gathered around him. The chapter explores how Huang built a unique approach to architectural education at SJU through the framework of Huang's statement that Chinese architecture should be 'scientific,' 'popular,' and 'Chinese.' At SJU, the 'scientific' aspect of the pedagogy included its Design Preliminary course, which drew not only from Gropius but also other modern architects. Another 'scientific' aspect was the focus on town planning, taught by Richard Paulick and informed by SJU's involvement with the Greater Shanghai Masterplan. The 'popular' aspect of the pedagogy involved an emphasis on teamwork, practical experience for students, and the architect's responsibility to society. The 'Chinese' aspect of the pedagogy was rooted in Huang's belief that true Chinese architecture was infused with Confucian values. These included the ability to draw on personal networks, something Huang used to bolster his vision for

architectural education at SJU. For him, 'Chinese' architecture was not marked by superficial characteristics such as the traditional Chinese 'big roof.' Instead, he positioned it within a wider context by teaching about historical movements around the world and other art forms, rather like Hudnut had done at Harvard. Huang also went beyond Gropius by emphasising a modern architecture that encompassed not just the design of individual buildings but also their environment and society. In fact, Huang rejected the term 'modern' architecture, which he felt was static, in favour of 'contemporary' architecture, which he favoured as dynamic.

Chapter 5, "Building (*Ying Jian*) Is Not Only Architecture," introduces the pedagogical principles Liang strove to incorporate into his curriculum as the inaugural chair of the Department of Architectural Engineering at Tsinghua University. Liang was interested in expanding the architectural education at Tsinghua beyond the curriculum he had taught at NNU in the late 1920s, a change which, this chapter argues, was largely influenced by his visit to the USA in 1946–1947, when his Tsinghua department was first inaugurated. There, while Liang taught as a visiting professor at Yale, he received advice about his new department at Tsinghua from Wu Kinglui, a junior Yale faculty member who focused on town planning. Wu recommended books that looked at architecture as part of a broader environment, and he also suggested that Liang hire modernist faculty. In addition, this chapter argues that Liang's Tsinghua pedagogy was highly influenced by the PMPE conference he attended at Princeton, which focused on the overall design of the 'physical environment.' There, he and other renowned architects signed a statement, later presented to UNESCO by Sigfried Giedion, advocating international standards for architectural training as the world rebuilt after the ravages of war. Finally, this chapter details Liang's official efforts to incorporate the architectural approach he experienced in his US into the institutional environment at Tsinghua. His wish to expand the study of architecture to include the physical environment on a broad scale can be seen in his proposal to expand the Department of Architectural Engineering into a College of Building. Chapter 5 details Liang's championing of such a college, which would position architecture alongside town planning and other design-related disciplines, in state papers he sent to the Ministry of Education, letters he wrote to the president of Tsinghua, and newspaper articles in which he addressed the people.

Chapter 6, "City Planning as Environmental Design," delves more deeply into Liang's pedagogy for teaching architecture at an expanded scope that encompassed city planning.

Liang adopted the term ‘substance-form environment’ as his Chinese translation of the ‘physical environment’ in the PMPE conference title. This chapter shows how he used this as a key term in his draft curriculum for Tsinghua, building on ideas he had been exposed to both through his wartime reading and his 1946–1947 US travels. As a member of the Board of Design at the United Nations Headquarters Planning Commission in New York, Liang witnessed the advantages of strong working relationships between architects and planners, and he strove to incorporate this correlation of professions into Tsinghua’s curriculum. In it, he also tried to avoid what he called the ‘half-a-man’ problem by balancing science and engineering with the humanities. The chapter concludes by discussing how Liang’s curriculum aligned with the three Vitruvian values of *utilitas*, *venustas*, and *firmitas*, and particularly how his interest in *utilitas*, or solving the problems of society, may have been sparked at the PMPE conference and his subsequent visit to communities planned and constructed by the Tennessee Valley Authority.

Chapter 7, “Learning from the Midwest,” shows how, amid challenging circumstances at Tsinghua in the post-Second World War period, Liang strove to include modern design elements in his pedagogy while still maintaining ties to the Chinese architectural tradition and to his own Beaux-Arts background. The result was a unique, makeshift modern pedagogy. The chapter details the pedagogical practices Liang encountered at US midwestern institutions during his 1946–1947 travels and shows how he borrowed elements from them in constructing his own curriculum at Tsinghua. First, the chapter explains Liang’s his decision to train one his faculty members in modernism at the Cranbrook Academy of Art. Then, it discusses the pedagogical principles Liang saw put into practice at the University of Michigan, where Emil Lorch’s theory of Pure Design melded Beaux-Arts methods with a more science-based approach. It also examines the “Elements of Design” teaching boards Liang used in his Elementary Design course, which similarly combined history with modernist principles. The chapter concludes with a discussion of Liang’s belief that his students should study not only historical architecture but also historical design on both a larger scale (the substance-form environment) and a smaller scale (art objects and handicrafts). Inspired by both his visit to Frank Lloyd Wright’s Taliesin in 1947 and by his studies in the 1920s at Harvard’s Fogg Museum of Art, Liang wanted to set up a Department of Industrial Art within his College of Building, as well as a Department of Art History within Tsinghua’s College of Letters. He also wished to create a museum of art objects at Tsinghua where his students could learn about design principles from historical art objects. Although, due to

challenging circumstances at Tsinghua, Liang was not able to implement all aspects of his vision, his pedagogy at Tsinghua showcased a makeshift modernism that embraced contested discourses—modernist principles, Chinese and Western history, and design at every scale.

Finally, Chapter 8, the "Conclusion," describes the similarities between Huang and Liang that have been overlooked by previous scholarship, which has focused on their different backgrounds. Both were agents of cultural exchange between the West and China who crafted their own versions of the reform in architectural education that was happening around the world at that time. The chapter begins by explaining that the study of Chinese architecture did not really take its place on the global stage until relatively recently in China's history and even then, this study focused more on architect-builders than architect-teachers. However, as architect-teachers, Huang and Liang had a flexibility in their approach to modernism that architect-builders, constrained by their clients, did not have. This flexibility allowed them to incorporate various concerns into their approach to modern Chinese architecture. Both were concerned with the role architecture should play in society at large and were interested in the relationship between architecture and other design disciplines. The chapter examines these themes using the framework of Liang's newspaper article "Architecture ⊂ (Social Science ∪ Technical Science ∪ Arts)" in the *People's Daily* from 8 April 1962 by setting Liang's trilogy of social science/ technical science/ arts alongside the Vitruvian trilogy of *utilitas*/ *venustas*/ *firmitas* invoked elsewhere by Liang and his wife, Lin Huiyin, and Huang's aforementioned trilogy of popular/ Chinese/ scientific. This analysis emphasises the common ground between Huang and Liang, who believed that architecture should benefit the people and that it should be rooted in both sound engineering and artistic considerations. Finally, the chapter calls for considering Huang's and Liang's approach to Chinese modernism a part of the dialogues around this topic even today. It argues that Huang's and Liang's flexibility allowed them to survive the Anti-Rightist Campaign in 1957, even as their curricula did not survive, and also preserved their legacies for current Chinese architects. It explains how architect-teachers were less affected by China's turn towards Soviet trends than architect-builders were because they were more concerned with architectural ideas than with actual designs. Huang and Liang were thus able to continue fostering modern approaches in their students to some degree even when modern designs fell out of favour. They were also able to draw on the common French background of the existing Chinese curriculum and the Soviet approach. Moreover, as architect-teachers, they were

able to participate in shaping their society over the politically tumultuous span of their careers. The chapter ends with a call for today's Chinese architects to take up this challenge to address current societal issues.

Part 1. Huang Zuoshen and the Alternative Bauhaus at St. John's University in Shanghai

Chapter 2. The MARS Group and AA Students

Part 1 aims to examine the extent to which Bauhaus ideas in architecture, especially Bauhaus pedagogy, were transplanted to China, concentrating on Huang Zuoshen (1915–1975), who was Walter Gropius's first Chinese student at Harvard University. In the Department of Architectural Engineering at St. John's University (SJU) in Shanghai, Huang established the first modernist architecture programme in China in 1942. Huang's teaching may have had links to his master's training at GSD, but Gropius was not his only teacher at Harvard. His training trajectory was also stamped by his bachelor's study at the Architectural Association (AA), where he overlapped with the other Bauhäusler in Britain and other Bauhaus-influenced modernists from Europe during his time in London, a fact that has been hitherto little discussed in academic scholarship. Focusing on this overlap sheds new light on, for example, Huang's encounters with the Modern Architectural Research (MARS) Group before travelling to the USA, and the potential emergence of another form of Bauhaus in China.

Previous scholars of Huang have emphasised the influence of the Harvard Bauhaus on him as shown in Lu's and Qiang's works and their editorials in *Commemorative Accounts of Huang Zuoshen* (2012). However, ignoring Huang's London experiences beyond his encounters with Gropius, including the modern 'movement'[194] that Huang came across as a student at the AA, would not do justice to the full range of potential influences on Huang's later progressive pedagogy in China. Indeed, Huang's student Li Ying (Class of 1945) argued that Huang's pedagogy ultimately "was not a copy of Gropius [as previous scholars have argued] but surpassed him."[195] Huang moved beyond Gropius's emphasis on the functionalism and materiality of unadorned design and his Bauhaus *Vorkurs* course, which have been the focus of previous scholarship on Huang.

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[194] In the sense that "by 1930, at any rate, there was a real modern 'movement' in English"; see John Summerson, "Introduction," in *Modern Architecture in Britain*, ed. Trevor Dannatt (London, Batsford, 1959), 12.

[195] Cited in Zhao Hanguang (Class of 1953), "Recalling Huang Zuoshen in a Dream," in Lu Yongyi and Qian Feng, eds. *Commemorative Accounts of Huang Zuoshen* 黄作燊纪念文集 (Beijing: China Architecture & Building Press, 2012), 156.

At SJU, instead of embracing Gropius's concept of "total architecture," he expanded it by incorporating and emphasising town planning in his architecture curriculum. His curriculum also, unlike Gropius's, included the study of architectural history. Further, Huang's pedagogy showed the influence of his time at the AA in London and classmates such as Bruno Zevi (who, like Huang, studied at both the AA and GSD) through his dedication to the architect's role in shaping society, which was an issue students at the AA were grappling with at the time.

Although previous scholars of Huang have portrayed him as copying Gropius's pedagogy, this thesis argues that Huang valued equally designs that were hardly inspired by the Bauhaus. His modernism never rigidly followed one particular style. For example, while using Sigfried Giedion's *Space, Time and Architecture* (1941) as a textbook in teaching history, he did not associate Frank Lloyd Wright with the modern movement but, instead, with the Arts and Crafts movement, and he valued Wright's apprenticeships system over the master-pupil relationship.[196] In sum, Huang focused on things expandable and innovative. All these influences showed up in his curriculum in SJU's department of architectural engineering in the 1940s. Chapter 2 will focus specifically on Huang's experiences at the AA and the influence these may have had on his later pedagogy at SJU.

2.1 Huang, the Modern Architecture Research (MARS) Group, and Walter Gropius in London

Huang attended the AA in London between 1933 and 1938 [Fig. 2.1]. Huang's father, Huang Songpan, worked for the British-run Asiatic Petroleum Company, and his brother Huang Zuolin had already settled down comfortably in London. Huang's decision to study in the UK makes sense because of these family connections. Majoring initially in structural engineering, Huang promptly shifted to architecture.[197] The AA was very much under the influence of the MARS Group of modern architects (the springboard for the so-called London Bauhaus and its aftermath), allowing Huang to satisfy his interest in modernism. In 1933, the AA began a shift in its architectural methods, which reached the

[196] I am indebted to Wang Bingquan (Class of 1957) for this example. He remains in contact with Huang's son, Huang Zhi, in the USA nowadays.

[197] Qian Feng, "The Founder of Chinese Modern Architecture Education 中國現代建築教育奠基人——黃作燊" (Master diss., Tongji University, 2001), 6.

"most dramatic years [of undoing the Beaux-Arts method] between 1936 and late 1938," coinciding with Huang's time there.[198]

Fig. 2.1 Huang in London, 1938. He decided to study at the AA since, as he recalled, "When I was at home, I often went to see it because my family was building a house, so I became interested in architecture."[199]

Any association Huang had with the MARS Group has mostly escaped academic attention. The group's title has never been mentioned in the limited Chinese or non-Chinese literature regarding the decade in which the department of architectural engineering was active at SJU, from 1942 to 1952.[200] Some Western works on MARS do mention Huang's peers at the AA in the late 1930s, although I have not found any that refer to Huang. In addition, Huang's early student, Luo Xiaowei (a remarkable architectural historian at her alma mater as well as at its successor Tongji)[201] notably remembered that Huang mentioned to her the names of several key MARS members, such as Berthold Lubetkin, Maxwell Fry, and F. R. S. Yorke, when recalling his training in London, although he did not refer to the group itself by name. She recalled Huang saying, "I respected these heroes simply because I wanted to become one of them."[202]

A number of 'Bauhäusler' emigrated to London while Huang was studying at the AA, not only Gropius but also Marcel Breuer and László Moholy-Nagy.[203] Huang would have

198 Darling, "Into the World of Conscious Expression," 160.
199 Huang Zuoshen, Personal Ideology Statement, 24 August 1952, Tongji University Archives.
200 To note, Huang's classes of graduates after 1952 were at Tongji University, the successor of SJU (which was shut down in the 1952 reorganisation of higher education). Like SJU, Tongji was located in Shanghai, and Huang taught architecture there until the Cultural Revolution in 1966.
201 Lu, "On Teaching History of World Architecture in Tongji 同济外国建筑史教学的路程," 27–29.
202 Luo and Qian, "Remembering Huang Zuoshen 怀念黄作燊," 48.
203 These Bauhäusler who came to Britain were not like Margaret Leischner (1907–1970) or Naum Slutzky

known about these figures given their partnership with MARS Group members he mentioned to his early students at SJU. Huang was also involved in writing an exhibition review while at the AA for the MARS Group's most significant event before the Second World War.[204] Later, he selected books by MARS Group members like Fry and Yorke for the reading list in his architectural theory course.

The idea that, after studying at the AA, Huang "decided to follow [Gropius] to the United States"[205] has been pervasive in Chinese accounts (including the first English paper on Huang, by Ding Liyang). This line of research has held that, when Huang was in London, he became so fascinated with Gropius's approach to architecture that he followed him to Harvard. There he soaked in Gropius's Bauhaus pedagogy; later, he transplanted it to SJU, where he created a "Chinese Bauhaus." This previous research has drawn a strong connection between Huang and Gropius based on Huang's interest in modernism, the fact that his SJU pedagogy did reflect some of Gropius's principles, and the fact that Huang's time at the AA and Harvard GSD did roughly correspond to Gropius's movement between these two institutions. This thesis, however, builds on this previous scholarship by investigating Gropius as one of several modernists whose ideas may have been foundational to Huang's later pedagogy.

In Qian's account, Huang's London chapter was under the sway of the Bauhaus in many ways, and a desire to learn more from Gropius was the only cause for Huang's move to the USA. Several of Huang's early students took on academic roles at their alma mater and followed Qian's lead in their scholarship on Huang. So did young scholars like Ding, who echoed—upon the Bauhaus's centennial—in 2019:

> *Huang claimed that he had attended Gropius's talks in London,*

(1894–1965), of whom few have ever heard—despite their significant contributions to teaching and to designing for industry in the UK, where they remained for the rest of their lives. The disparity in their reputations may be partly due to the fact that, for many years, women at the Bauhaus were chiefly involved in weaving, which was seen as secondary to architecture, furniture, or metalwork. Also, according to Alan Powers, these women were possibly not as concerned with self-promotion as Gropius, Breuer, and Moholy-Nagy were; see *Bauhaus Goes West: Modern Art and Design in Britain and America* (London: Thames & Hudson, 2019), especially Chapter 6: Beneath the Radar: Other Bauhäusler in Britain.

[204] Unit 15, "THE MARS EXHIBITION: REVIEWED BY STUDENTS IN UNIT 15 OF THE AA SCHOOL." *Architectural Association Journal* (February 1938): 386–388.

[205] Ding Liyang, "Huang Zuoshen and the Bauhaus-Based Architectural Education at St. John's University, Shanghai, 1942–1952." *International Journal of Architectural Theory*, vol. 24, no. 39, Bauhaus Transfers (2019): 189.

> *becoming interested in his progressive architectural ideas. When, in 1936, Gropius accepted the position at Harvard University Graduate School of Design offered by Joseph Hudnut and left for Cambridge in March 1937,* ***Huang decided to follow him to the United States****. He was admitted by Harvard in 1938, becoming Gropius's first Chinese student.*[206]

During his interview with me, Ding said that "whatever Qian says about Huang I will believe"; however, he could not confirm exactly which "talks in London" Huang had attended.[207] According to Cormier, Gropius gave only one speech in London—his talk addressing the MARS Group upon his 1934 arrival for the RIBA exhibition—and this speech was eventually relocated from the AA to a large hall at the Institute of Tropical Medicine of the University of London in nearby Malet Street.[208] As a result, it is unclear whether Huang attended it or not.

Qian also mentioned that Gropius served as a teaching member at the AA.[209] However, there was no record at the AA that Gropius ever lectured or even taught at the School.[210] (While this may be a minor oversight, in the past two decades, Qian has not adjusted this stance or tempered her views on the Huang-Gropius connection, even in her latest work in observance of the seventieth anniversary of Tongji's CAUP.)[211] In London, Gropius would only have an opportunity to teach at the Royal College of Art (RCA).[212]

It is true that, as Ding points out, in his Ideology Statement during the Communist era, Huang noted that "Gropius is more reasonable, and his heroism enchanted me."[213]

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[206] Ding, "Huang Zuoshen and the Bauhaus-Based Architectural Education at St. John's University," 189, emphasis added.
[207] Ding Liyang, interview by author online, 20 December 2020.
[208] Cormier, "Walter Gropius," 76.
[209] Qian, "The Founder of Chinese Modern Architecture Education 中国现代建筑教育奠基人—黄作燊," 6.
[210] I confirmed this with the Head of Archives, Edward Bottoms, at the AA on 3 December 2019.
[211] Qian Feng, "Biographical sketch of Mr Huang Zuoshen 黄作燊先生小传," in *The Origins and Early Development of Tongji University's Architectural Education*, 164–207 (Beijing: China Architecture & Building Press, 2022). This edited volume consists of several SJU-related articles she published since her 2001 master's dissertation (and also part of her doctoral thesis from 2005). The volume still includes these misunderstandings—and, more pertinently, incomplete accounts awaiting more research (such as this thesis).
[212] Ines Weizman, interview by author, 9 December 2019, RIBA.
[213] Huang Zuoshen, Personal Ideology Statement, 24 August 1952, Tongji University Archives.

However, the so-called Personal Ideology Statement was an essential component of "struggle sessions" in some communist states, especially China. Party members were forced to undergo "self-criticism" sessions and asked to produce either written or verbal statements detailing their ideological errors and affirming their renewed belief in the Party line. The truthfulness of this kind of document, as a result, is therefore questionable.

Gropius tried to keep a low profile in London. He did enter a partnership with the MARS Group member Fry, and Huang would therefore have had a chance to study modern housing design by "Walter Gropius and Maxwell Fry, Architects" in, for example, Yorke's 1937 *The Modern House in England*.[214] Gropius's participation in the MARS Group, however, otherwise remained minimal. Not only did Gropius refuse the position of Director, he also played only a small role in the MARS Group's remarkable 1938 exhibition of modern architecture in the Bauhaus fashion while the AA students contributed a review article. According to Cormier, Gropius's "leadership at the Bauhaus had caused him to become the target of a great deal of hostility," and the "MARS [crown] would be more beneficial to the group than MARS affiliation could be to Gropius."[215]

Gropius's allegedly strong grip on Huang in the UK and the exclusive connection between Gropius and Huang in the USA warrant further analysis. If Gropius was the sole modern influence on Huang's pedagogy, it seems strange that Huang would not acknowledge his supposed mentor's influence more frequently.[216] In any case, given the limited evidence for Huang's interaction with Gropius in the UK, it makes more sense to focus on the encounters he had with other modernists there during his professional training even before GSD, for which there is more evidence.

2.2 Huang at the AA in Transition

[214] Walter Gropius, "Architecture at Harvard University," *Architectural Record*, May 1937, 10–11. The article was published upon the commencement of Gropius's professorship at GSD that same year. An interesting thing to note is the pages that bear images of the House for Benn Levy in Chelsea, London designed by Gropius and Fry; see also F. R. S. Yorke, *The Modern House in England* (London: The Architectural Press, 1937), 31–35.

[215] That was despite the lobbying of Robert Townsend, MARS's Secretary, and J. M. Richards, the editor of *Architectural Review* in the 1930s, on behalf of the Group; see Cormier, "Walter Gropius," 78–79.

[216] For example, in Huang's two speeches delivered at the British Council of Shanghai in 1948—"The Training of an Architect" and "Chinese Architecture"—there was no mention at all of Gropius or the Bauhaus.

"Modernism's emergence in Britain," asserts Elizabeth Darling, "was not an inevitable response to the conditions of the age, nor was it imported by outsiders and the influx of émigrés after 1933."[217] Darling explained that "by 1930 a definitively modernist Avant-Garde had emerged"[218] in Britain, which, unlike Germany, France, and other European countries, had had a weak modernist architectural tradition. "The 1930s were a pivotal decade for British architecture," as curator Pete Collard briefly summarised in the RIBA's exhibition booklet *Beyond Bauhaus: Modernism in Britain, 1933–66*. The viewers of this exhibition were welcomed to "[look] afresh at the moment Britain became modern."[219] This fertile moment, although anchored in the three years when Bauhaus émigré architects worked in the UK, was not simply the fleeting result of their presence. There was "a native origin" too, as Darling has noted in her 2006 book *Re-Forming Britain: Narratives of Modernity Before Reconstruction*: "…the Modernist approach to the re-forming of space lies within the context of a broader engagement with the cultural project of modernity in inter-war Britain."[220]

Even though Huang's attainment of professional skills and knowledge might have no more than casual ties with Bauhäusler in the UK, whose stay was akin to those of "birds of passage" as *Architectural Review* editor J. M. Richards once sniffily described,[221] the ideas he did draw from the London Bauhaus should not be overlooked. These ideas were drawn mainly from a small band of English modernists in the MARS Group, especially those active in the AA.

The Bauhaus founder's call to arms in modern architecture should have reached most AA students through their acquaintance with MARS members, whose regular meetings took place in Bedford Square.[222] The English modernists of the group regarded Gropius's *Neue Baukunst—The New Architecture and the Bauhaus* (1935) translated by Shand—as their bible. It was not only designed by Moholy-Nagy but also prefaced by one of the most potent modernists of the period, Frank Pick, the Director of the London Transport, who had commissioned modern stations and graphics for the London Underground.[223]

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[217] Darling, "Into the World of Conscious Expression," 157.
[218] Darling, "Focu," 41.
[219] Collard, 2019, unpaginated.
[220] Darling, *Inventing American Modernism*, 157.
[221] Collard, *Beyond Bauhaus*, entry 1.
[222] Cormier, "Walter Gropius," 76.
[223] Ibid, 75.

Indeed, when the MARS Group was planning its major event of the decade in 1938, they titled the exhibition using a translation of *Neue Baukunst*: "new architecture" [Fig. 2.2] (However, they adapted the title using a Bauhaus approach and employed lower case lettering). Some former architecture students at SJU who became teachers recalled Huang's mention of the book during their interview for the 2012 commemorative anthology about Huang.[224] This could be the reason why Ding added those two books to Huang's original 1949 syllabus found in his archives (see Table 4.1 in Chapter 4).[225]

Fig. 2.2 The MARS Group's "new architecture" exhibition catalogue designed by Ashley Havinden, 1938

Along with Corbusier's *Toward an Architecture* (1931), Wright's *On Architecture* (1941), and Giedion's *Space, Time and Architecture* (1941), all on the reading list of the architectural theory course at SJU, perhaps the first one of that kind in China's architectural curriculum,[226] Huang also selected Yorke's *A Key to Modern Architecture*

[224] Lu Yongyi and Qian Feng (eds.), *Commemorative Accounts of Huang Zuoshen* 黄作燊纪念文集 (Beijing: China Architecture & Building Press, 2012), 155.
[225] Ding, "Huang Zuoshen and the Bauhaus-Based Architectural Education at St. John's University," 202.
[226] A theoretical course like SJU's that included many English textbooks on modern architecture could only have taken place at a missionary organ where, by the mid-1890s, English became the medium of instruction. This was because such textbooks were yet to be written in Chinese.

(1939, co-authored with Colin Penn), Fry's *Architecture for Children* (1944), and Clough Williams-Ellis's *The Adventure of Building* (1946). These were publications of MARS members and the AA faculty[227]; they were distinctive selections for a reading list at that time and prove that Huang did not play down the British discourse of modern architecture at SJU.

The MARS Group played a leading role in the CIAM's affairs. In the fifth meeting of the Congress—in which Gropius, Giedion, and Corbusier were dominant figures—in London on 19–21 May, 1934, the MARS Group were the local host. Showing little regard for the "Edwardian style, if not Victorian"[228] gatekeepers, Coates said:

> *My group [MARS] therefore has been organised on quite a different plan. It is, as I have been trying to explain, an organic type of structure, with a nucleus comprised of myself and* ***the other*** [Fry]*, and then there is an inner circle of active young men, each specifically related to one particular activity of the group, and there is lastly an outer circle of individuals whose special activities are not so closely related to the main stream, but whose expert knowledge is useful to us, and will be used. The group is organised as a research group, and its activities will not be controlled by rules, regulations—for as Lao Tze said: 'Where laws and regulations multiply, the world will be full of robbers and thieves'—but by a programme of work, intimately associated with an architectural solution of contemporary economic and social problems.*[229]

As an AA student during the school's transition, Huang should have been aware of this fifth meeting. As he mentioned to his early student Luo Xiaowei, Huang was impressed by three specific MARS architects, namely the stars of the group:[230] Lubetkin, who, joined by some young Group members in his Tecton Group, had the most accomplished

[227] The syllabus of Theory of Architecture numbered "A.E. 5," Tongji University Archives, of which more in Chapter 4.
[228] Summerson, "The MARS Group and the Thirties," 303; Cormier, 1986, p.79.
[229] Coates's own words dated on 1 May 1933, cited by: Darling, "Institutionalizing English Modernism 1924–33," 314–315, emphasis added.
[230] Huang, Personal Ideology Statement, Tongji University Archive.

practice of the 1930s;[231] Yorke, who was the Honorary Secretary of the Group upon its founding;[232] and, especially, Fry, who published "Slum and the Land" shortly after the MARS Group's inauguration in *The Architect's Journal*[233] and whose interest in social conditions may have been of particular interest to Huang, who also cared about slums and the poor in cities.

In her 2007 book chapter about the AA's modernist revolutionaries between 1933 and 1939 (coincidentally the years Huang studied at the School), Darling divided the student-architects into three groups based on their years of enrolment.

> *[The] students who entered the AA in the early 1930s were given a window into a world in which Modernism was alive and an active force. Within the walls of 34–36 Bedford Square, however, things were as yet not quite so progressive, and the students still followed an essentially Beaux Arts curriculum…By the end of the decade, the situation had changed completely. The Orders were banished from the curriculum, a unit system was in place, and students worked in teams to research and design new towns and slum clearance schemes. The shift began in 1933 and was at its most dramatic between 1936 and late 1938, after which relative calm was restored. It was caused by a combination of a series of new staff appointments, pressures on the School's governing council from outside forces and the existence of an exceptionally politically motivated and politically sophisticated body of students. The result was an educational revolution.*[234]

The first two groups of AA students Darling discussed mostly entered the School between 1926 and 1931; the first group included those recruited by Lubetkin into his Tecton Group, and the second was a subdivision of the first group, highlighting some female students (for example, Elizabeth Denby, the focus of Darling's 2000 doctoral thesis at the Bartlett,

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[231] Summerson, "The MARS Group and the Thirties," 308.
[232] Anonymous, "Modern Architectural Research," 550.
[233] E. Maxwell Fry, "Slum and the Land," *The Architects' Journal* (October 1933): 550–552.
[234] Darling, "Into the World of Conscious Expression," 160.

who tackled British social housing with Fry).[235] The prewar modernist blocks, including Tecton's Highpoint One (1936) and Highpoint Two (1938)[236] as well as Fry and Denby's Kensal House (1937), impressed AA students as shown through the magazine *Focus* (on which more below), demonstrating that these architects could build housing for workers as well as for intellectuals, not unlike Coate's 1934 Isokon Building.

Darling's third group of AA student-architects, who included Huang and his school peers, came slightly later and had a relationship with the MARS Group. Cormier confirmed that the school served as a regular meeting location for MARS members. Gropius even wanted to address the Group there upon his arrival in England in 1934.[237] As Coates pointed out in the quote above, "[The] group is organised as a research group." For the third group of students, the student-edited publication *Focus* was vital to the connection between the MARS Group and the AA.

The four issues of *Focus*, which ran briefly between the summers of 1938 and 1939, were triggered by students' radical response to the failure to reform the teaching system at the AA. Not only does *Focus* help epitomise the AA's process of transformation from the Beaux-Arts method (taught using a 'year' system) to a modernist approach (taught using a 'unit' system),[238] but the short-lived publication also encapsulates the ebb and flow of the School's modernising endeavours through what it published—as well as who was invited to write for it. Along with the overseas Corbusier, who wrote on education, and Moholy-Nagy, who wrote on the Bauhaus,[239] the local contributors included English modernist architects (again MARS members): Fry's review of CIAM's 1937 *Logis et Loisirs* and a review of Highpoint Two designed by Lubetkin's Tecton Group, penned by

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[235] Elizabeth Darling, "Elizabeth Denby, Housing Consultant: Social Reform and Cultural Politics in the Inter-war Period" (PhD Thesis, University College London, 2000).

[236] Thomas Diehl, "Theory and Principle: Berthold Lubetkin's Highpoint One and Highpoint Two," *Journal of Architectural Education* 52, no. 4 (1999): 233–41.

[237] "[The] audience he drew for the struggling organisation of avant-grade architects and designers was large enough to force the relocation of the lecture…into the larger hall at the Institute of Tropical Medicine of the University of London in nearby Malet Street." See Cormier, "Walter Gropius," p.76.

[238] The Unit System emphasised the development of comprehensive design projects undertaken within the setting of a single unit selected by a student at the outset of the year. By contrast, in the traditional Year System, which had been used previously, students worked in close contact with unit leaders and tutors who independently set the agenda, aims, and objectives for that year's design project.

[239] Charles-Édouard Jeanneret (Le Corbusier), "If I Had to Teach You Architecture," *Focus* 1 (Summer 1938): 3–12. See also László Moholy-Nagy, "Education and the Bauhaus," *Focus* 2 (Winter 1938): 20–28, which, in addition to shedding light on Fry's partnership with Gropius, could have helped shape Huang's understanding of Bauhaus pedagogy. Gropius was set to write in no. 5, yet that edition never happened.

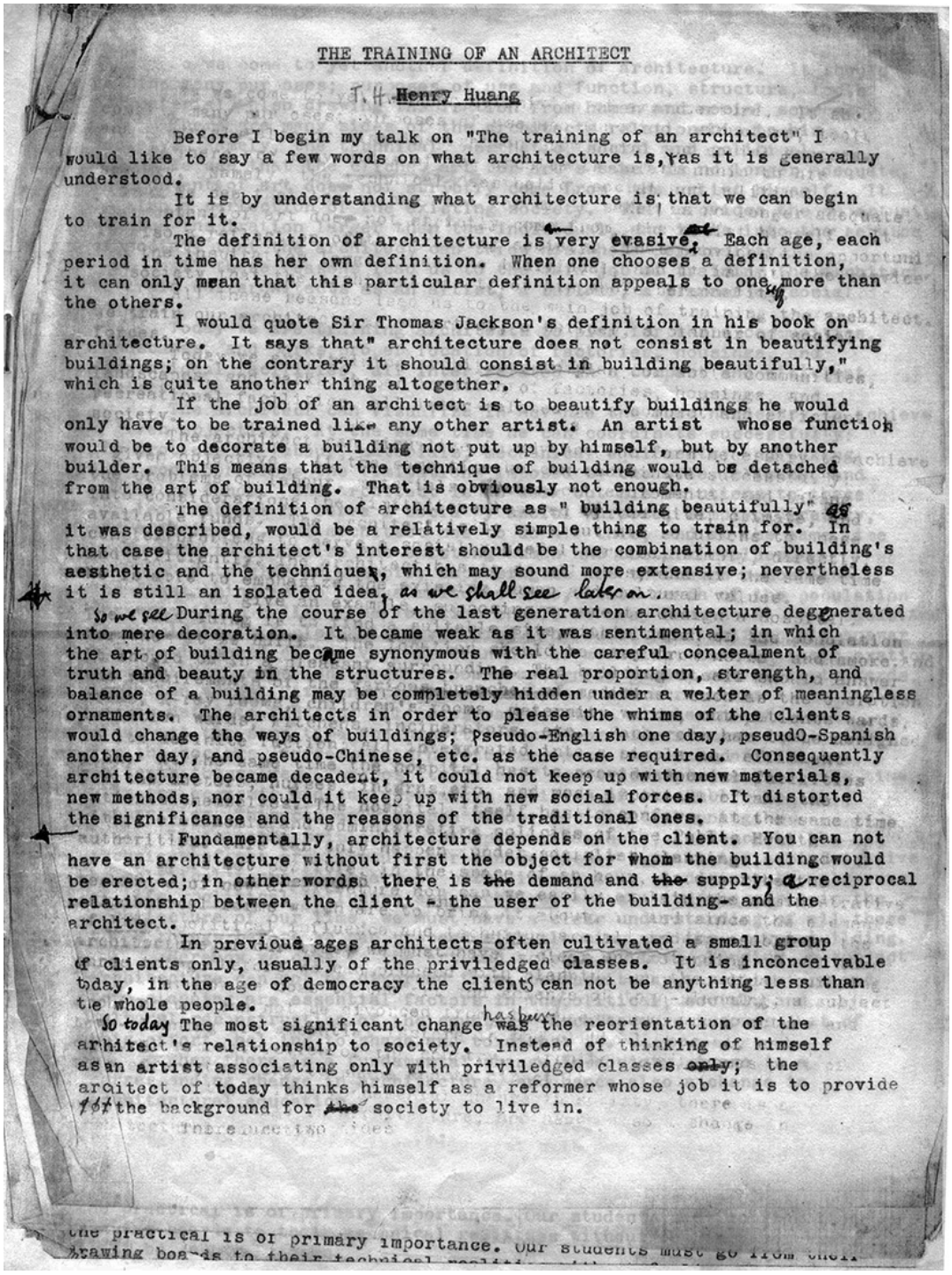
Huang's classmate Cox.[240]

2.3 System Change from Year to Unit

Although Darling did not include Huang in her highlighted list of students whose "modus operandi…would be crucial in the forging of postwar British Modernism,"[241] two of them—Anthony Cox and Arnold John Brandt (A. J. Brandt)[242]—can help with understanding Huang's teaching ideology and pedagogical strategy at SJU.

In 1933, Huang was joined in his AA matriculation by these two students, who affected—and even participated in—his teaching career later in China. Cox, who created the student periodical *Focus* with Richard Llewellyn-Davies, a member of the Communist Party of Great Britain (CPGB) like himself, entered the school one year later than Huang. His contribution to the founding edition of *Focus* (Summer 1938), "The Training of an Architect," inspired Huang to use the same title for his British Council speech a decade later in Shanghai (of which more below) [Fig. 2.3]. On the other hand, Brandt persuaded Huang of the value of the MARS Group's 1938 exhibition on new architecture through Unit 15's critical review published in the *AAJ*. He also eventually joined Huang's architecture faculty at SJU after the Second World War.

[240] E. Maxwell Fry, "Book Review: Logis et Loisirs, 5th CIAM Congress Report," *Focus* 1 (Summer 1938): 56–57; Anthony Cox, "High Point II, North Hill, Highgate (Architects: Tecton)," *Focus* 2 (Winter 1938): 71–79.
[241] Ibid.
[242] Student Register, 1st Year, 1933–45, AA Archive, unpaginated.



THE TRAINING OF AN ARCHITECT

T. H. Henry Huang

Before I begin my talk on "The training of an architect" I would like to say a few words on what architecture is, as it is generally understood.

It is by understanding what architecture is that we can begin to train for it.

The definition of architecture is very evasive. Each age, each period in time has her own definition. When one chooses a definition, it can only mean that this particular definition appeals to one more than the others.

I would quote Sir Thomas Jackson's definition in his book on architecture. It says that" architecture does not consist in beautifying buildings; on the contrary it should consist in building beautifully," which is quite another thing altogether.

If the job of an architect is to beautify buildings he would only have to be trained like any other artist. An artist whose function would be to decorate a building not put up by himself, but by another builder. This means that the technique of building would be detached from the art of building. That is obviously not enough.

The definition of architecture as " building beautifully" as it was described, would be a relatively simple thing to train for. In that case the architect's interest should be the combination of building's aesthetic and the techniques, which may sound more extensive; nevertheless it is still an isolated idea, as we shall see later on.

So we see During the course of the last generation architecture degenerated into mere decoration. It became weak as it was sentimental; in which the art of building became synonymous with the careful concealment of truth and beauty in the structures. The real proportion, strength, and balance of a building may be completely hidden under a welter of meaningless ornaments. The architects in order to please the whims of the clients would change the ways of buildings; pseudo-English one day, pseudO-Spanish another day, and pseudo-Chinese, etc. as the case required. Consequently architecture became decadent, it could not keep up with new materials, new methods, nor could it keep up with new social forces. It distorted the significance and the reasons of the traditional ones.

Fundamentally, architecture depends on the client. You can not have an architecture without first the object for whom the building would be erected; in other words there is the demand and the supply; a reciprocal relationship between the client - the user of the building- and the architect.

In previous ages architects often cultivated a small group of clients only, usually of the priviledged classes. It is inconceivable today, in the age of democracy the clients can not be anything less than the whole people.

So today The most significant change has been the reorientation of the architect's relationship to society. Instead of thinking of himself as an artist associating only with priviledged classes only; the architect of today thinks himself as a reformer whose job it is to provide for the background for the society to live in.

the practical is of primary importance. Our students must go from their drawing boards to their technical

Fig. 2.3 Huang's speech manuscript with his handwritten notes (text in English), 1948. In addition to sharing a title with Cox' *Focus* article of 1938, this speech employed similar wording, such as the common parlance of "needs of society," "experimentation and research work," a "unity" regarding art and technique of building, and a shared critique on "art for art's sake." Both denied the existence of a purely functional architecture.

Even though the pedagogical transition at the AA began in 1933—by which time Cox,

Brandt, and Huang had already encountered one another within the 'year' system—it was not until 1936 that the so-called "educational revolution" of the quotation above ultimately took place in the curriculum and grading system. The reason why Darling regarded 1936–1938 as the most dramatic period of change at the AA was related to the planning expertise of Principal E. A. A. Rowse, who was inaugurated after serving as an Assistant Director for three years. However, the AA Council announced his retirement shortly afterward in May of 1938.[243]

"The underlying triggers for the events of 1936 onwards"[244] were first set in February 1935 when Rowse was appointed the Principal of AA's sister institution, the School of Planning and Research for National Development. There, signs of a more progressive outlook were demonstrated vis-à-vis the more conservative staff, which until then had still been bound by a classically oriented curriculum. It was not until August that Rowse became the Principal of the AA following the former Principal's resignation. However, as H. S. Goodhart-Rendel was appointed Director of Education, this moment turned out to be nothing but the calm before the storm. The AA Council envisaged the appointment of Goodhart-Rendel as a means to temper Rowse's more wayward tendencies. Rowse was an admirer of Patrick Geddes's sociologically driven method and team-based approach. The two men, according to Darling, could not have been more different: "Rowse, in Geddesian fashion, saw architecture as part of a wider range of activities and encouraged students to experiment with methods and practices of design. Though Goodhart-Rendel has too often been dismissed as reactionary, he was certainly no Modernist."[245]

Rowse's very un-Beaux-Arts approach would take some time before it resulted in a change in the way the AA was steered. The moment came in the spring of 1936, probably the most radical time for Huang and his classmates. Rowse ended the system of teaching by *year* and introduced a method of teaching, instead, by *unit* [Fig. 2.4]: fifteen units in all across the five-year training, each led by a tutor. As a result, tutors were encouraged to give the students live projects and develop their analytical and group-working skills: Enquiry would replace the *esquisse*.[246]

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[243] Anonymous, "Mr. E. A. A. Rowse," *Architectural Association Journal* (May 1938): 523.
[244] Ibid, 161.
[245] Darling, "Into the World of Conscious Expression," 161–162.
[246] The École saw architecture as fine art and aimed to set the aesthetic criterion by deliberate

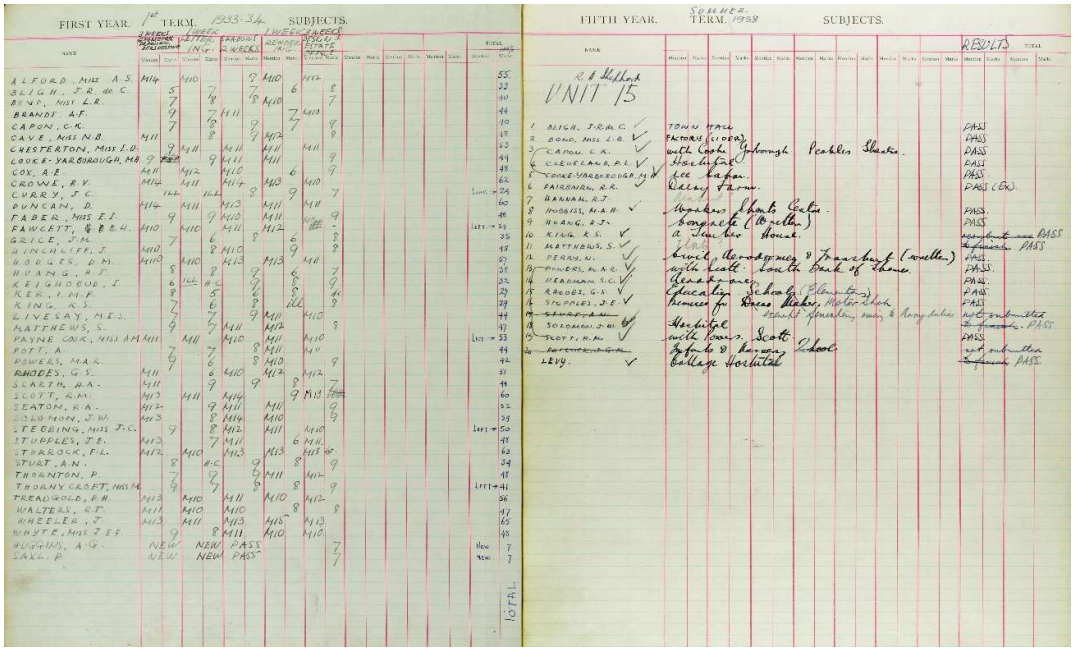

Fig. 2.4 The pedagogical transition from Year to Unit is showcased in the Student Register, First Year, 1933 (left), reading "HUANG, H.J." on its 18th line, and Fifth Year, 1938 (right), with Huang's name on its ninth line in Unit 15

What resulted was not widespread acceptance of the Unit System. However, Huang and his peers, after an initial shock, realised that there were benefits to the modernist pedagogy: more individual attention from the tutors, more constructive criticism, and the freedom to work on their ideas, as Cox would later point out in his controversial *Focus* article.[247] In opposition to the new system stood Goodhart-Rendel and the AA Council. In favour stood Rowse, most of the staff, and the students. Amongst the latter, it was the students who fought for the Unit System most ardently, and it was under the leadership of Cox and Llewelyn-Davies that the third-generation modernists—including Brandt and Huang—were to structure and manipulate this battle so that their ideological principles would henceforth underpin the education of architects.[248]

consideration of element deposition, excluding complicated functional problems. Students were required to solve the *analytique* problem and to present a monochromatic *rendu* (rendering) for judgement within four to six weeks. Students would first make an *esquisse* (preliminary sketch) independently within six hours based on their previous study of classical architectural elements. The initial scheme, called *parti*, would then be refined based on the individual critique. After finishing the design, the students composed a sheet with drawings of the partial plan and section, particularly the elevation and details of specific elements. The entire last week was usually left for rendering.

[247] Cox, "The Training of an Architect."

[248] Ibid.

Huang proved his sympathy for the AA's student activism and his essential association with the school's radicals when he later entitled his speech delivered at the British Council in Shanghai in 1948 "The Training of an Architect," borrowing directly from Cox's open letter against Goodhart-Rendel in *Focus*. In this speech, Huang, like Cox, criticised Beaux-Arts-design-based education: "If the job of an architect is to beautify buildings he would only have to be trained like any other artist…This means that the building technique would be detached from the art of building. That is not enough."[249] However, the hostility Rowse's un-Beaux-Arts training faced from Goodhart-Rendel led to the end of the Unit System. The council backed getting rid of it, precipitating Rowse's resignation in May 1938 and the founding of *Focus* that summer, while Huang was still in the AA school.

[249] Huang, "The Training of an Architect [text in English]."

Chapter 3. GSD Masters and Basic Design

In the last chapter, we saw how the AA likely informed Huang's future pedagogic plans at SJU and how this period of his education has tended to be overlooked by scholarship in China. This chapter focusses on his time at GSD, and how this period, rather than being a major influence on Huang's modernist pedagogy, actually held him back from becoming even more modern.[250] This can be understood by looking at the complete picture of Huang's experience at GSD and its "institution-ature."[251] Huang's time at GSD was affected not only by Gropius but also, among others, Dean Joseph Hudnut and Huang's previous AA colleague Bruno Zevi, who was also in the GSD Master Class with Huang.

Contemporary scholarship about architectural education at SJU in China, albeit sparse compared to that on such education at Tsinghua, tends to emphasise Gropius's Bauhaus *Vorkurs* course as having an almost singular influence on Huang at Harvard. As previously mentioned, there is a dearth of research on Huang to this day, and the rare studies on him by scholars such as Ding have followed Qian's framework and found another Bauhaus in China. However, this thesis seeks to challenge this position because, on the one hand, it overlooks Huang's experiences in the UK and on the other, it overlooks the fact that Gropius was still developing his pedagogy at GSD and it was by no means complete when Huang was studying there. The *Vorkurs*-based course only started at GSD after Huang left. In other words, Huang's modernist pedagogies were influenced during his time in the USA by Harvard GSD more broadly, not simply by Gropius's approach. Critical reflections in what follows broaden our understanding of the impact Harvard had on Huang's pedagogy beyond the early Harvard Bauhaus through the battle over the foundation course as well as student unrest.

3.1 Move to Harvard

Winning over the favour of Joseph Hudnut, the first Dean of Harvard GSD—and even that of Harvard President James Bryant Conant[252]—Walter Gropius was hired as the

[250] In the sense that, as quoted in the Introduction, "being modern is quite another thing from being a modernist"; see Cret, "The Classic versus the Modernist," 116.
[251] Bruno Zevi to Jill Pearlman, 5 January 1994 (Courtesy of Jill Pearlman).
[252] Conant had as much say in the final hiring decision as Hudnut did. During a lengthy trip to England in

Nelson Robinson, Jr. Professor of Architecture and chair of the newly established Department of Architecture in 1937.[253] The Bauhaus founder made his way to Harvard under a hard-won agreement that stipulated time for practical work on an American edition of his *New Architecture and the Bauhaus*, prefaced by the founding GSD dean. He also was to teach a Master Class: "[A] group of fifteen or twenty, [not unlike the Unit System,] of the country's best architecture students and the freedom to teach them as he saw fit."[254]

Gropius's departure from England to the USA was not surprising since England did not appreciate the Bauhaus founder's architecture.[255] His extraordinary experience in research, design, and construction of low-cost housing had failed to make life in the British capital either more gratifying or more economically viable. While previous scholars have argued that Huang followed Gropius to the USA, studying at GSD would do more for Huang than simply giving him access to Gropius. Even Qian went so far as to describe studying at GSD as "a dream come true" for Huang.[256] With impending war threatening the UK, Huang's quest for "[a] living architectural spirit," such as he had experienced with the MARS Group and the Rowse-led AA, made it logical for him to move on to a place like Harvard GSD.

Gropius said about his job in the US, "I want to teach…an attitude towards the problems of our generation which is unbiased, original and elastic."[257] Huang would later copy this approach to the training of an architect. As he said, "Instruction in architecture today tries

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the fall of 1936, Conant had a lunch meeting with Gropius in London and seems to have won him over. See Pearlman, *Inventing American Modernism*, 69.

[253] Upon the 1936 resignation of Jean-Jacques Haffner, a Beaux-Arts man, from Harvard's architecture school, Hudnut had taken the opportunity to 'modernise' the Beaux-Arts-based curriculum as he had previously done at Columbia. In addition to Gropius, Hudnut's list of candidates included also another two high-profile European modern architects, J. J. P. Oud in Rotterdam and Mies van der Rohe in Berlin. Gropius's new position was officially announced through MoMA's exhibition catalogue for Henry-Russell Hitchcock's Modern Architecture in England.

[254] Pearlman, *Inventing American Modernism*, 70.

[255] Only a handful of the MARS members supported him, and the membership of this group fluctuated between six in 1933 (per its press announcement that April of the formation of an English chapter of CIAM) and a probable peak of seventy-one in 1938; see the list in MARS Group, *New Architecture: An Exhibition of the Elements of Modern Architecture* (London: New Birmingham Galleries, 1938). Most of the group were left-wing, though with differing degrees of radicalism. Lubetkin and Chermayeff had to create the Architects' and Technicians' Organisation as a sort of "socialist MARS Group"; see William Whyte, "MARS group (act. 1933–1957)," Oxford Dictionary of National Biography, 4 October 2007, accessed 4 July 2020.

[256] Qian, "The Founder of Chinese Modern Architecture Education 中国现代建筑教育奠基人—黄作燊" 7.

[257] Gropius, "Architecture at Harvard University," 10.

to find the solution of a problem like a problem itself."[258] Gropius continued, "I think any architect would feel inspired and eager to take part in the task of developing the American architecture. I hope my appointment [at Harvard] will be further proof of the American ability to reconcile and amalgamate the most diverse types of people to create a new form of life."[259] Although the sort of technical demands Gropius made could not necessarily be fulfilled in China at the time, such a vision that could have interested Huang and caused him to turn towards a similar development of Chinese architecture upon his return to China, as evidenced by the title of another of his Shanghai speeches, "Chinese Architecture."

At the start of the 1939 academic year, Hudnut remarked: "I think it is highly probable that we shall think of nothing but war now for the next five or six years. Meanwhile, we must keep our shops open and do all we can to keep the nation from entirely forgetting the fact that there is still some art left in the world."[260] That is to say, the campus—not unlike other universities and colleges at that time—was entirely engulfed in a wartime atmosphere. Harvard actually turned over much of its physical plant to the military.[261] Under such tension and given his acquaintance with left-leaning architects of the MARS Group—such as Fry, Yorke, and Lubetkin—Huang became interested in reformist utopianism and the Soviet Union's Five-Year Plans while reading *The Daily Herald* correspondent Edgar Snow's *Red Star Over China* (1937),[262] possibly given to him by his Communist classmates at the AA on *Focus*'s editorial board.

3.2 Joseph Hudnut: ARCH SCI Beyond GSD

One of the possible non-Gropius influences at GSD on Huang's later SJU pedagogy was Joseph Hudnut's approach to architectural education. Although Hudnut had courted Gropius, even sending G. Holmes Perkins as a GSD emissary to meet with him in

[258] Huang, "The Training of an Architect [text in English]."
[259] Gropius, "Architecture at Harvard University," 9. According to Perkins, Gropius "tried to adapt to America and some of the American ideas," and he seemed to turn away from the social principles he had once championed when "the rigidity of his Bauhaus preaching became looser"; see G. Holmes Perkins, interview by Jill Pearlman, Philadelphia, PA, 31 December 1990 (Courtesy of Jill Pearlman).
[260] G. Holmes Perkins, interview by Jill Pearlman, phone conversation, 9 June 1992 (Courtesy of Jill Pearlman)
[261] Pearlman, *Inventing American Modernism*, 200.
[262] Huang Zuoshen, Personal Ideology Statement, 24 August 1952, Tongji University Archives.

London,[263] they had their differences. "It was petty feuding," recalled Perkins, "but [Gropius and Hudnut] were both on the same side in promoting modern architecture."[264] Nevertheless, the differences came to light even before the 1940s, after initial years of extraordinary cooperation, and Huang—who studied at GSD from 1939 to 1941—witnessed the critical roots of the battle between Hudnut and Gropius. This battle was over a much-anticipated new curriculum for all beginning students in each of GSD's three master's degree departments: architecture, landscape architecture, and regional planning.[265]

Fond of the spirit of the Bauhaus's *Vorkurs* in Germany,[266] Gropius sought to bring its original foundation course to GSD. He began by urging Hudnut, back in 1937, to hire Joseph Albers, then at Black Mountain College in North Carolina at the very beginning of his tenure. However, Hudnut never admitted Albers to be either an architect or a planner. According to Bruno Zevi, who studied at GSD from 1940 to 1942: "[Gropius] was busy collecting Bauhaus survivors and trying to establish a professional office," yet only Martin Wagner and Marcel Breuer ultimately made their way to Harvard. As Zevi explained, "Hudnut…had been stubborn and courageous to call Gropius and his friends, but then he did not know how to integrate his philosophy into their pragmatism."[267]

At GSD, the so-called foundation course—for all first-year students regardless of their majors of matriculation—did not exist until 1946 after the Second World War. By then, Hudnut required all new students to enrol in two core courses. On the one hand, there was *Planning I*, in which the newcomers explored the common principles and techniques of each of GSD's three fields with a team of teachers from every department. Perkins, then the planning department's chairman, once regarded the course, one that Hudnut had wanted to develop from the time he first founded GSD, as: "the exact reverse of the

[263] Perkins was trained by Haffner but moved away from Beaux-Arts to modernism in his design and teaching method at GSD from 1930 to 1950. During this time, he remained a close friend of both Hudnut and Gropius; see Pearlman, *Inventing American Modernism*, 70, 116–117.

[264] G. Holmes Perkins, interview notes, 31 December 1990, courtesy of Jill Pearlman.

[265] The original Department of City and Regional Planning was renamed "regional planning" in the fall of 1937; see Eugene Bressler, "Chronological Summary: History of the Dept. of Landscape Arch. At HU," *HGSD* (May 1970), in Pusey Archives, UA V. 322.7, Dean's Records, GSD, Subseries VII, Correspondence and General Records of Committees and Departments, VII F. Dept. of Landscape Arch., 1908–0975, Box 14.

[266] In Germany, the *Vorkurs* was the preliminary course required as preparation for work in all kinds of Bauhaus workshops where three-dimensional sketching with all sorts of materials—i.e., the elements of "building"—was exercised as well as drawing and painting.

[267] Bruno Zevi letter to Jill Pearlman, 5 January 1994, courtesy of Jill Pearlman.

Beaux-Arts way…It worked."[268] On the other hand, *Design I*, the other key component of the new programme, was taught by the young American instructor George Le Boutellier, but this "half-baked teacher" failed to address Gropius's two goals of "*Basic Design* (Design I's new course title in 1948)": fostering creativity as well as developing a new language of vision.[269]

It was not until 1950—almost a decade after Huang's departure—that Gropius's definitive version of the foundation course, renamed *Design Fundamentals* and initially offered as part of a two-year experiment,[270] was taught in an active and outspoken way by Moholy-Nagy-trained Richard Filipowski, a young artist from the New Bauhaus in Chicago who taught in a manner similar to "form master" Albers at the original Bauhaus, teaching students about the nature of materials and the fundamental laws of design. Gropius may well have seen these efforts as the first step in transforming GSD into an American Bauhaus.

Although the "basic course in the theory of design" proved popular and effective, Hudnut did not want it to play a dominant role in the curriculum and announced its termination in February 1952: "It is a good general introduction to design courses, but not a necessary one, and we no longer have the means to keep it."[271] Although Gropius refused to comment during an interview with the *Crimson* (Harvard's daily newspaper since 1873) on the report that there had been personal antagonism between Hudnut and himself, he resigned in July. At that time, he stated:

> *Although my whole faculty favours the course and almost all the architecture schools have such a course after the model of the Bauhaus, here it is being discontinued because the dean is against it and the means are not available to keep it going…I have been fighting for this course for 14 years. The faculty of the School of Architecture is of the opinion that this course is basic, and for anything which is basic*

[268] G. Holmes Perkins, interview notes, 31 December 1990, courtesy of Jill Pearlman.
[269] Pearlman, *Inventing American Modernism*, 205–206. A decade ago, the course title was put differently as "Theory and Practice of Design" instead of "Design I" by the same author; see Jill Pearlman, "Joseph Hudnut's Other Modernism at the 'Harvard Bauhaus'," *Journal of the Society of Architectural Historians* 56, no. 4 (1997): 470.
[270] *The Harvard Crimson*, "Gropius Resignation Bares Design School Hassel," 15 September 1952.
[271] *The Harvard Crimson*, "Hudnut Drops Design 1, Based on Gropius Ideas: Gropius, Filipowski Protest the Action," 23 February 1952.

> *the time has to be found…The Bauhaus's success has not only been local but international and I definitely think this course should be continued.*[272]

However, all these dilemmas took place after Huang's departure from GSD. This directly calls into question recent Chinese accounts of Huang's pedagogy as rooted in Gropius's approach. In particular, some scholars have regarded the SJU undergraduate course "Design Preliminary" to have directly resulted from Huang's training at Harvard—during which Gropius taught only one, postgraduate course in practical building (the Master Class). Should Huang's pedagogy have been influenced by his own schooling, we must look elsewhere in his history since a formal Bauhaus-modelled course never happened at GSD before 1950.[273]

When it comes to the critical component of SJU's architectural programme, Qian asserted that "Huang's Design Preliminary (*she ji chu bu*; 設計初步) was directly based on the *Vorkurs* from the Bauhaus at Harvard."[274] Ding also stated in perhaps the first English piece about Huang: "SJU's curriculum was…an idea that closely conformed to that of the *Vorkurs* at the Bauhaus."[275] This has been taken for granted since. However, simply in terms of time, what Huang brought back to Shanghai was educational experiences that took place well before the Design Fundamentals course was offered at Harvard. This is not to argue that the Bauhaus had nothing to do with Huang's pedagogy at SJU, but to explore those hidden factors during Huang's wartime stay at GSD from 1939 to 1941 [Fig. 3.1], one must examine other issues that took place before the world war.

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[272] *The Harvard Crimson*, "Gropius Resignation Bares Design School Hassel," 15 September 1952.
[273] *The Harvard Crimson*, "Hudnut Drops Design 1, Based on Gropius Ideas: Gropius, Filipowski Protest the Action," 23 February 1952.
[274] Qian, "The Founder of Chinese Modern Architecture Education 中国现代建筑教育奠基人—黄作燊," 45.
[275] Ding, "Huang Zuoshen and the Bauhaus-Based Architectural Education at St. John's University, Shanghai, 1942–1952," 197.

Fig. 3.1 Huang and his wife, Cheng Jiu, at Harvard, 1941. Cheng was studying at the College of Arts and Science at Boston University, but she returned to China with Huang without obtaining her degree.[276]

Master Class students had already received architectural training from abroad, like Huang had at the AA, or at different schools in America and may have already had jobs in the field. They took only one course, but it was Gropius's. In her letter to me, Pearlman insisted that "others were important as well…Many students would identify with Breuer instead of Gropius!"[277] However, my research has revealed no instance of a Chinese scholar who mentioned Bauhäusler other than Gropius in relation to Huang's pedagogy at SJU. Hudnut has also tended to be neglected, remembered only in relation to Gropius rather than in his own right.

The experience of John Harkness, a leading co-founder of The Architects Collaborative (TAC) at GSD is crucial to assessing Huang's take on the Harvard Bauhaus since he also graduated from the Master Class with Gropius in 1941. Earning his bachelor's degree (1936–1938) at Harvard, Harkness indicated that "Hudnut was already the Dean [in 1936], Gropius had not arrived yet. But the modern movement was already getting started."[278] Most importantly, the exercise in the Bauhaus *Vorkurs* fashion had begun even though the head critic was still a Beaux-Arts man, Jean-Jacques Haffner. The pedagogy at GSD was already in transition before Gropius's first full academic year in the fall of 1938. Harkness recalled that "we were not required to do an *analytique*, our first sheets were done on what was called a stretch: wet the board down, put on paper, staple it all around."[279]

[276] Huang Zuoshen, Personal Ideology Statement, 24 August 1952, Tongji University Archives.
[277] Jill Pearlman, email message to author, 29 December 2020.
[278] John Harkness, interview notes, 14 December 1990, courtesy of Jill Pearlman.
[279] Ibid.

Albers would have used similar assignments to teach modern architecture if he had been hired to teach at Harvard as Gropius requested.

According to Perkins, also a student of Haffner: "[Hudnut] was the one that brought about the end of the Beaux-Arts way of teaching. He singlehandedly did that." As evidence, Haffner recalled when writing to Conant about Hudnut's bachelor's degree programme in Architectural Sciences (ARCH SCI), which allowed undergraduates to major, say, in the history and principles of design: "[Hudnut] wants a history course dealing with principles of aesthetics through analysis and criticism of existing examples, and the theory of design of historic styles based on civilisation, construction, and function."[280]

In addition, continued Haffner, Hudnut wanted "a composition course relating colour, texture, and form of the materials used in building."[281] To do that, even while resisting Gropius's desire to recruit more Bauhäusler, Hudnut furnished ARCH SCI with "a laboratory workshop"—which "prepare[s] one directly for the Graduate School of Design"[282]—launched in 1938:

> *In a laboratory workshop, architectural science students developed a basis in design through experience rather than precept. In the famed preliminary course: they experimented with paper, pencil, scissors, clay, wire, and other materials, exploring the nature of materials and concepts of space and form.*[283]

Harkness admitted, when asked whether modern architecture was why he joined Harvard GSD, "no. Absolutely not." His study at GSD was much earlier than the mandatory training in Planning I and Design I. However, "[the] philosophy of modern architecture was [already] the philosophy taught in the school. We were not given problems in the gothic or ionic columns. So it was already the direct philosophical basis"[284] of GSD, with or without Gropius.

Another invaluable point Harkness made in his interview with Jill Pearlman was that

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[280] Haffner letter to Conant, 20 May 1935, Conant Papers, Box 2-c, Pusey Archives, Harvard University.
[281] Ibid.
[282] *The Harvard Crimson*, "ARCH SCI SEEKS CREATIVE EFFORT," 23 April 1942.
[283] Ibid.
[284] John Harkness, interview notes, 14 December 1990, courtesy of Jill Pearlman.

"others who came a little later were very conscious of what was happening in architecture and that there was a world of Frank Lloyd Wright and the Bauhaus and all that stuff."[285] The appointment of modern architects at architecture schools took place not only at Harvard but also elsewhere in the USA. These appointments (including Gropius's in 1937) were like "a bomb," in the words of another Master Class alumnus, Zevi, "placed in the foundations of academic training."[286] Huang refused an office position offered by Corbusier in Paris and decided to register at GSD—but as a non-degree student rather than under the tutelage of Gropius's anti-history Master Class. There, after all, was more to GSD than Gropius, or more to the modernist movement than Harvard in architectural education.

Huang's use of history in his pedagogy at SJU leads one to question Luo and Qian's characterisation of his teaching as a "Bauhaus-style modern architectural education method" (*Baohaosi-Shi de Xiandai Jianzhu Jiaoyu Fangfa*; 包浩斯式的現代建築教育方法)[287] similar to that of Gropius. Jean-Paul Carlhian could not be more transparent regarding the Bauhaus founder's indifference towards history. Gropius "suppressed the teaching of history at Harvard and he believes sincerely that the student's mind had to be clear and washed out of any kind of principal, illusion, anything." During his four years of study at GSD, Carlhian never—under any circumstances—heard Gropius mention any other architect or any other building.[288] On the contrary, Hudnut "was more interested in the teaching [of architecture] and in the teaching he was interested in the history of it."[289] Under the sponsorship of Harvard's Division of Fine Arts at the Fogg Museum of Art in 1942,[290] Hudnut returned to the classroom to teach a new series of three courses on the history of civic design in cooperation with Kenneth Conant, the first historian to achieve tenure at the pre-GSD School of Architecture (see Fig. 7.27 in Chapter 7). In these courses, Hudnut talked about a broad range of historical issues—beyond architects and buildings—by introducing paintings, sculpture, literature, technological developments, social customs, and politics."[291]

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[285] Ibid.
[286] Bruno Zevi, "Architecture," in *Encyclopedia of World Art*, vol. 1 (London: McGraw-Hill Book Company, Inc., 1959), 691. The quote is cited in complete in Chapter 7.
[287] Luo and Qian, "Remembering Huang Zuoshen 怀念黄作燊," 47.
[288] Jean Paul Carlhian, interview notes, 12 May 1988, courtesy of Jill Pearlman.
[289] G. Holmes Perkins, interview notes, 31 December 1990, courtesy of Jill Pearlman.
[290] This institution in the late 1920s will be discussed in Chapter 7 about Liang Sicheng.
[291] Jean Paul Carlhian, interview notes, 12 May 1988, courtesy of Jill Pearlman.

In addition to artificial built works, Huang also introduced every project's social background and cultural nature. Not unlike Hudnut, Huang tried to demonstrate that cities were not just "great machines for production and consumption," as Corbusier once had claimed.[292] If Huang experienced a GSD pedagogy with a more humanistic nature rather than one that eliminated history, it would have been History and Principles of Design in ARCH SCI, an undergraduate programme run by Hudnut since 1938, in which there were also *Vorkurs*-like experiments. Gropius played no role in this department, as bachelor student Henry Cobb recalled:

> *My colleagues and I resented the fact that Gropius just taught the Master Class. He never appeared at a review, he never participated in what was then the bachelor's degree program. And this class of fifteen students was an elite group. I wasn't so much offended by the fact that he didn't teach studio to the bachelor students, but I was very much offended that he didn't show up at reviews.*[293]

According to Harvard's 1975 Alumni Directory at GSD [Fig. 3.2], Huang did not formally register as a degree student[294] in either the GSD master's or the ARCH SCI bachelor's programme. He was categorised into a group called "DS" (Design School)—"Graduate School of Design; School of Architecture; School of Landscape Architecture; or School of City Planning"[295]—in which students took a range of courses without necessarily working towards a specific degree.[296] As a result, Huang possessed plenty of time to

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[292] Ibid.

[293] Henry Cobb, interview by Jill Pearlman, 21 May 2003, courtesy of Jill Pearlman.

[294] 1975 Alumni Directory, Harvard Graduate School of Design, Francis Loeb Library. I am indebted to Ines Zalduendo (special collections archivist and reference librarian at GSD) for related consultation on this reference.

[295] "DS" stands for "Design School," since "DV" stands for Divinity School (as one can see later in the abbreviation listing in the directory). Three schools became subsumed into one school—GSD—in 1936 when Hudnut became the dean. As a result, the directory included under DS the other schools—SoA, SoLA, SoCP—because some people in the directory may have attended in previous years when the schools operated separately.

[296] Like other students listed as DS on that page, Huang—read "Huang, Henry J., DS 39–41 Address Unknown"—had a range of years rather than a graduation year (and he did not even have his address shown). I confirmed with GSD's Frances Loeb Library that this is the only directory where Huang's name can be found, and that Gropius only taught the Master Class during those years when Huang was there and throughout his GSD tenure. Those who, like Huang, were not accepted into the Master Class would have been granted a B.Arch. (Bachelor of Architecture) at the end of the programme, as opposed to an

explore both B.Arch. and M.Arch. studies at Harvard.[297] In the former, Hudnut required students to take many traditional college courses, including physics, geology, maths, art history, and history,[298] but the dean had also started to teach the history of architecture himself when the new undergraduate programme commenced. Zevi used to follow Hudnut's lectures on history[299] and wrote about him in a seminal essay "Architecture" in the *Encyclopedia of World Art*.

M.Arch. (Master of Architecture) for those who, like Wang Dahong and I. M. Pei, continued an additional year with Gropius. This is a point that completely escapes current scholarship, which attributes Huang's study entirely to Gropius's Master Class.

[297] The M.Arch. programme was not much different from the B.Arch. programme, since both had "crits" in the same room. There were only a few faculty in the M.Arch. programme: Gropius and his assistant, Breuer, at first, and then, upon Huang's departure in 1941, his successor, Hugh Stubbins. See Frederic Day, Jr, interview by Jill Pearlman, 30 November 1990, courtesy of Jill Pearlman.

[298] *The Harvard Crimson*, "ARCH SCI SEEKS CREATIVE EFFORT," 23 April 1942.

[299] Bruno Zevi to Jill Pearlman, 5 January 1994, courtesy of Jill Pearlman.

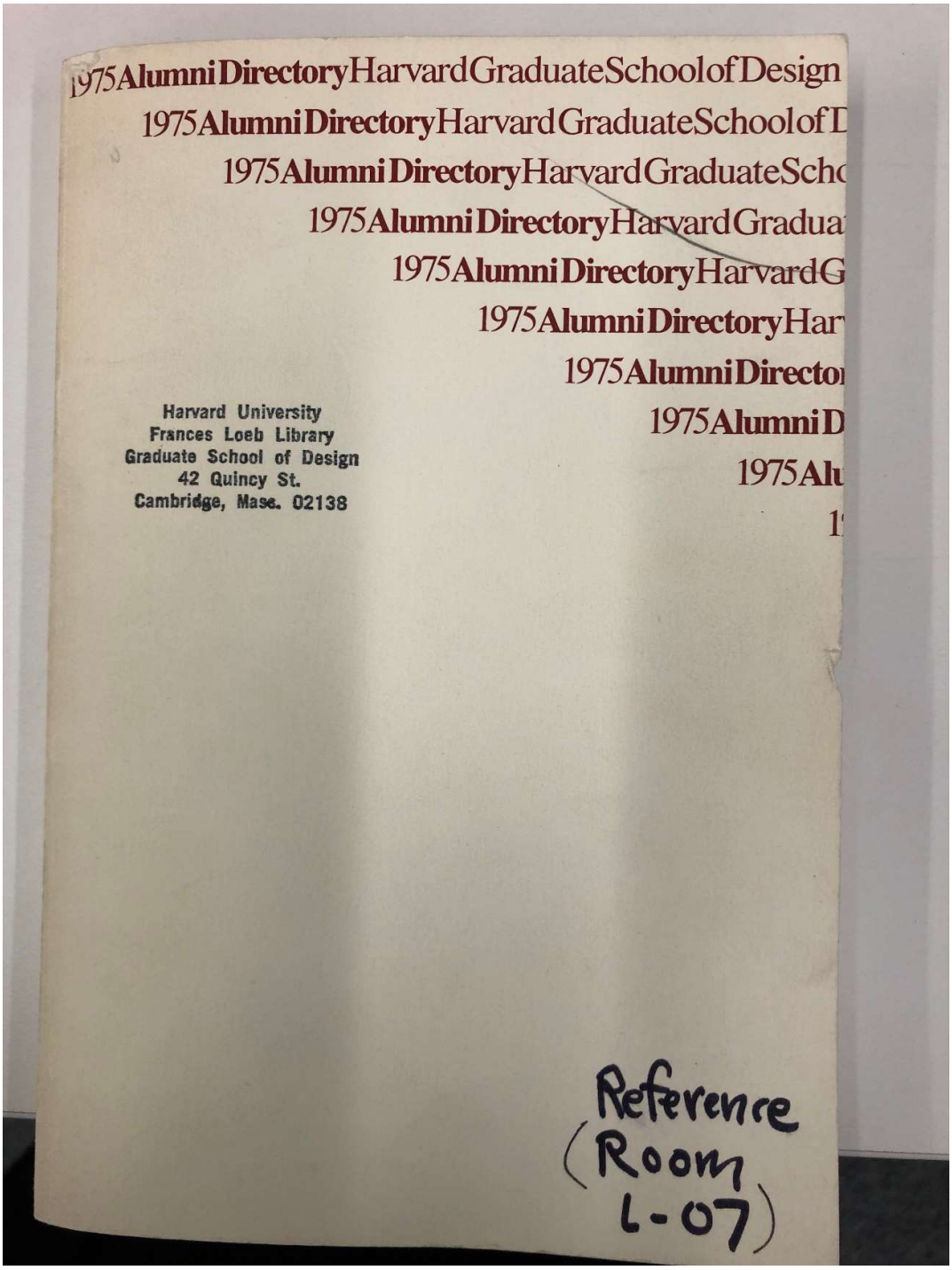

Fig. 3.2 GSD Alumni Directory, 1975, is the sole record of Huang at Harvard. He kept a very low profile at Harvard: There is no student work under his name in the GSD History Collection, nor does he have a thesis in HOLLIS (the Harvard Library Catalogue). The fact, after all, is that Huang did not receive a degree at Harvard GSD—neither a B.Arch. nor an M.Arch.

It was rare in 1959 to find even a mention of Hudnut in any scholarly account. Still, Zevi's own experience and writing suggests that Huang's focus on the historical aspects of SJU's

curriculum might have stemmed from Hudnut's pedagogy. Although Zevi himself was very dissatisfied with Hudnut's courses on history ("They were not really good. Conversations more than lectures. Attended by 20–30 students"[300]), Perkins put it more generously:

> *The [history] courses [Hudnut] taught were largely dealing with the society of a given period. He would talk about, say, 16th century in Paris, but he would not give you a history of Paris, or he would take Periclean Athens or Augustan Rome. But it was not a history of cities at all. But trying to give you a picture of a given society in a fairly limited time. In that way he could deal with the art of the period, the architecture, the society and the way they lived, the relationship of society to what they produce. Rather than giving the history of art chronologically—styles and so on—well, and Hudnut was trying to put this whole thing together by deliberately limiting yourself.*[301]

The tendency for current scholarship to overlook Hudnut's potential influence on Huang is perhaps understandable. Hudnut remained a long-forgotten figure in the world of the history of modern architecture not merely for Chinese scholars, but also for their Western counterparts. "[You] sometimes read things about Gropius being the head of the school," recalled Harkness, "but he was not the head of the school, Hudnut was."[302] Nevertheless, Huang's SJU pedagogy appears to have drawn upon Hudnut's approach to undergraduate architect-students at Harvard more than Gropius's approach to graduate-level instruction at GSD.

Despite consequences for architectural education in the USA and, later on, in Europe caused by Gropius's appointment, the discourses of modern architecture at GSD never completely sided with the Bauhaus founder. Opposed to the making of an American Bauhaus, to which Gropius subscribed, Hudnut stood firm, "a quiet man of broad learning,"[303] attempting to find a way for modern architecture and the modern history of

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[300] Ibid.
[301] G. Holmes Perkins, interview notes, 31 December 1990, courtesy of Jill Pearlman.
[302] John Harkness, interview by Jill Pearlman, 14 December 1990, courtesy of Jill Pearlman.
[303] Zevi, "Architecture," 691.

architecture to coexist. In circumstances not yet propitious for the harmony or collaboration needed for such a coexistence, Huang and other GSD peers—including two Chinese classmates who later joined him at SJU—honed their modernist talent and allowed it to inform their progressive pedagogy upon returning to China.

3.3 Bruno Zevi: *A CALL* to Others

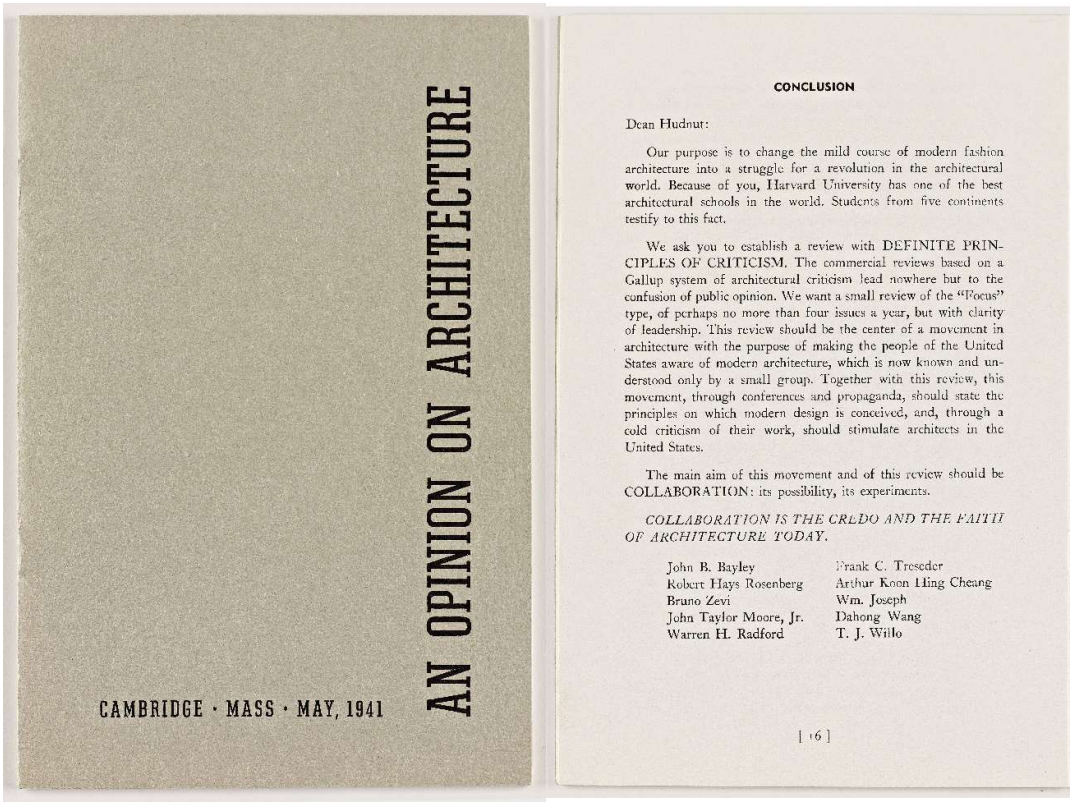
Bruno Zevi is a figure who sheds some light on the multiple influences on Huang's SJU pedagogy. Zevi was a supporter of Hudnut's inclusion of history in his pedagogy and a critic of Gropius, who rallied other GSD students to his cause, including some who would become Huang's close associates later in China. His writing showcases the criticisms of Gropius's teaching style that Huang would have heard at Harvard. Zevi also expressed admiration for other prominent architects whom Huang likewise praised and who appeared in his teaching at SJU. Their shared ideas about the teaching of architecture may have stemmed from their time at the AA, where they both were immersed in the short-lived reform crystalised in *Focus* magazine. A better understanding of the outspoken Zevi may therefore lead to insight into Huang's ideas as well.

When Zevi returned to GSD in 198[2] for the 50th anniversary of the MoMA exhibition "International Style," he spoke about a pamphlet he had written in May 1941 with Philip Johnson and many other students during the years he had spent with Huang at Harvard. Zevi, who became a leading architectural critic in Italy, contended that the hidden opposition between Hudnut and Gropius at Harvard in the 1940s became a permanent stimulus for his research as an architectural historian,[304] authoring the "key document to understand the relationship Hudnut–Gropius."[305] This pamphlet bore the "violent critical title"[306] of *Preface to A CALL*, and it was clearly against Gropius and for Wright, on one side, and Hudnut on the other."

Zevi had looked for endorsements of his polemical pamphlet from GSD students. "About 200 students were present at the many meetings we had," recalled Zevi, "but no more than 10 signed it."[307] To be more specific, in addition to Zevi himself, there were nine

[304] Ibid.
[305] Ibid.
[306] Bruno Zevi to Jill Pearlman, 28 January 1994, courtesy of Jill Pearlman.
[307] Jill Pearlman, email message to author, 29 December 2020.

signatories in the final publication with a tempered new title: *An Opinion on Architecture*. Notably, two of the signatories were the Chinese students "Arthur Koon Hing Cheang" (Arthur Cheang) and "Dahong Wang" [Fig. 3.3]. Both were Huang's later teaching colleagues at SJU and his partners at the Five United (*Wu Lian Jianzhushi Shiwusuo*; 五聯建築師事務所)[308] architecture firm based in Shanghai.


AN OPINION ON ARCHITECTURE

CAMBRIDGE · MASS · MAY, 1941

CONCLUSION

Dean Hudnut:

Our purpose is to change the mild course of modern fashion architecture into a struggle for a revolution in the architectural world. Because of you, Harvard University has one of the best architectural schools in the world. Students from five continents testify to this fact.

We ask you to establish a review with DEFINITE PRINCIPLES OF CRITICISM. The commercial reviews based on a Gallup system of architectural criticism lead nowhere but to the confusion of public opinion. We want a small review of the "Focus" type, of perhaps no more than four issues a year, but with clarity of leadership. This review should be the center of a movement in architecture with the purpose of making the people of the United States aware of modern architecture, which is now known and understood only by a small group. Together with this review, this movement, through conferences and propaganda, should state the principles on which modern design is conceived, and, through a cold criticism of their work, should stimulate architects in the United States.

The main aim of this movement and of this review should be COLLABORATION: its possibility, its experiments.

COLLABORATION IS THE CREDO AND THE FAITH OF ARCHITECTURE TODAY.

John B. Bayley	Frank C. Troseder
Robert Hays Rosenberg	Arthur Koon Hing Cheang
Bruno Zevi	Wm. Joseph
John Taylor Moore, Jr.	Dahong Wang
Warren H. Radford	T. J. Willo

[16]

Fig. 3.3 Cover (left) and signatories (right) of Zevi's appeal for Hudnut against Gropius at GSD, 1941. Cheang's and Wang's signatures are, respectively, on the second and fourth lines of the righthand column while Zevi's is on the third line of the lefthand column.

Although the outcome of Zevi's campaign was unsatisfactory since, as he recalled, "at that time, American students of the G.S.D. did not care about neither Wright not [*sic*] Hudnut,"[309] Zevi's "A CALL" to arms proved that Chinese students who were later close to Huang were part of the anti-Gropius campaign. They were radical fighters "in the face of this anachronistic cultural imposition, the modern movement, which began in

[308] Signalling a reunification of British-trained Chinese architects, Huang, Cheang, and Wang joined two other architects—Luke Him Sau and Charles Chen—to form one of the first architectural practices established in postwar China, a point to which I shall return in Chapter 4.

[309] Bruno Zevi to Jill Pearlman, 5 January 1994 (Courtesy of Jill Pearlman).

opposition to the academies and their styles, [and] fell itself into stylistic academicism—and perhaps an even worse academicism, because illusions did not support it and because it was more disorganised."[310]

Beyond the Hudnut–Gropius debate at Harvard, Huang shared Zevi's admiration for other architects who would appear at SJU. Upon Zevi's departure from Italy after the rise of Fascism, he had firstly continued his architectural training at the AA in 1939. Wright visited the School in May 1939 with fanfare and won Zevi's lifelong adherence to the idea of organic architecture.[311] In his manifesto-like *An Opinion on Architecture,* which declared "modern architecture is FIGHTING FASCISM,"[312] Zevi's explanation of organic architecture included not only his hero, Wright, but also whatever he deemed humanistic and democratic in architecture. This included, for example, the Tecton Group, led by Berthold Lubetkin, "from the point of view of coherence of conception," as well as Alvar Aalto, "[an] architect…[who] shows perfect comprehension of the different factors of the modern approach to architecture."[313]

Huang also mentioned these architects of the "father's generation [like Wright]" and "the younger generation [like Aalto and Breuer]" in China. Wright's *On Architecture* (1941) was on his reading list for students in his architectural theory class, and Aalto's Expo Finnish Pavilion (1939) was his favoured example of design that integrated material and form. Huang even called Marcel Breuer a "genius" (*tian cai*; 天才)![314] It was Breuer and Aalto who most impressed both Huang and Li Ying,[315] one of Huang's most remarkable SJU students. Li was sent to the USA by Huang in the late 1940s and learned from Aalto at MIT and Breuer at Harvard [Fig. 3.4], rather than from Gropius—another indication that Huang's admiration for Gropius was more reserved than current scholarship suggests.

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[310] Zevi, "Architecture," 687.

[311] Anonymous, "Mr. Frank Lloyd Wright at the AA," *Architectural Association Journal* (May 1939): 268–269, 287.

[312] Bruno Zevi, *An Opinion on Architecture* (May 1941, based on an unpublished draft entitled *Preface to A CALL*), Marcel Breuer Papers, Syracuse University Archive, 14, upper case is in the original.

[313] Ibid, 10, 12.

[314] Luo and Qian, "Remembering Huang Zuoshen 怀念黄作燊," 48.

[315] After SJU, Li Ying earned her master's degrees first at MIT in June 1947 and then at Harvard in March 1949, during which she worked closely with Aalto and Breuer in their offices. She then returned to China to teach at SJU and work with Liang Sicheng on the Beijing Masterplan in the early 1950s; see Qian, Lai, and Wang, "Chinese Modern Architectural Students (Part 5) 中国近代大学建筑系毕业生（连载五）," 94.

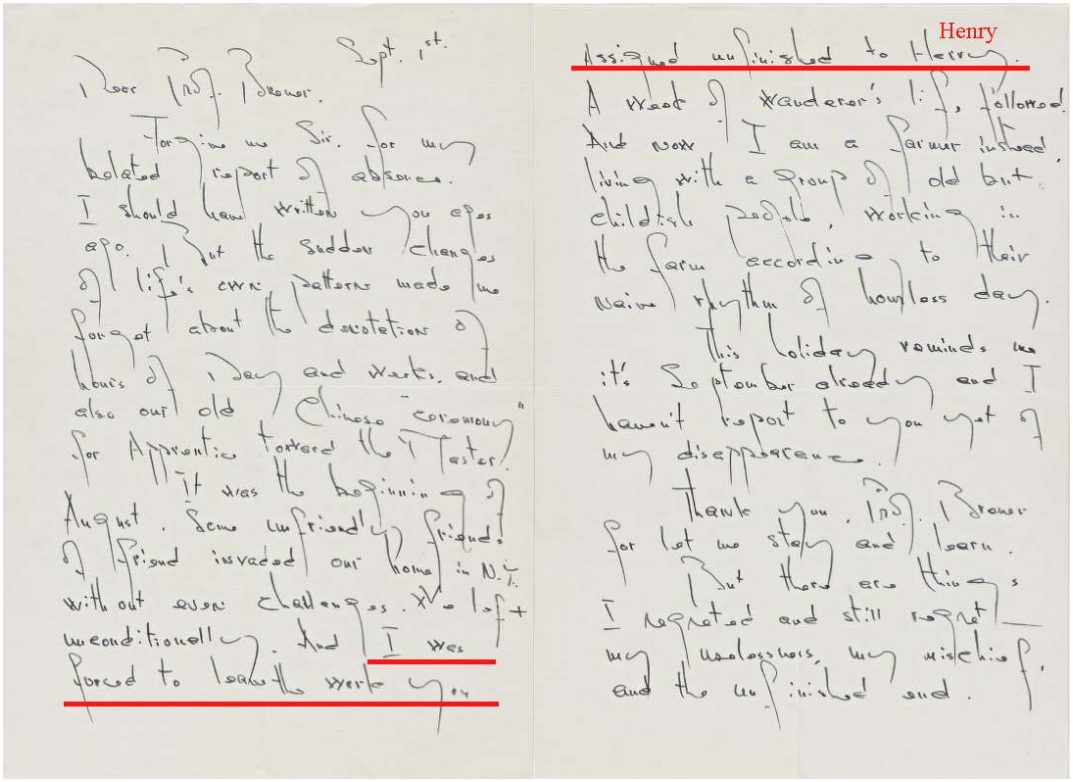

Fig. 3.4 A letter to "Dear Prof. Breuer" (left) on 1 September 1950, in which Li mentioned Huang, calling him by his English name. The letter discusses a mutual project and says, "…I was forced to leave the work you assigned unfinished to Henry."

Seen in tandem, both Zevi's criticism and Huang's pedagogy show the influence of the student-edited periodical *Focus* at the AA. They both had access to *Focus* during their studies in London, and also this short-lived little magazine served as a model when GSD wanted to create something similar. The signatories to Zevi's pamphlet of May 1941—including Huang's Chinese peers Cheang and Wang—asked Dean Hudnut "to establish a review with DEFINITE PRINCIPLES OF CRITICISM" by contending:

> *We want a short review of the "Focus" type, or perhaps no more than four issues a year, but with clarity of leadership. This review should be the centre of a movement in architecture to make the people of the United States aware of modern architecture, which is now known and understood only by a small group. Together with this review, this movement, through conferences and propaganda, should state the principles on which modern design is conceived, and, through a cold criticism of their work, should stimulate architects in the United*

*States [**to have more consciousness of those principles and to be ready to defend them**].*[316]

In closing this entreaty, Zevi borrowed the capital letters Corbusier had used to end "If I Had to Teach You Architecture" in the first edition of *Focus* ("YOU ARE AN ORGANIZER, NOT A DRAWING-BOARD STYLIST"[317]). Zevi penned: "The main aim of this movement and this review should be COLLABORATION: its possibility, its experiments. COLLABORATION IS THE CREDO AND THE FAITH OF ARCHITECTURE TODAY."[318]

Just as the AA had recently begun a transition from Beaux-Arts to modernism when Huang arrived there, so too had GSD encountered a similar dilemma regarding the foundation and history courses. In Perkins's view, if one were to "look back at the schools all across the country who went, in quotes, *went modern*, for most of those schools, that *went modern* was just a stylistic change. For some, [though,] it was a meaningful change." Perkins thought that at Harvard it was meaningful: "A real, real change…the change was, you dealt with real problems for real people."[319] This change and the radical architect-students who engaged in the heated debates, must have had some impact on Huang and his pedagogy at SJU. The experience for Huang and for architectural history is a more diverse and more nuanced one than conventional scholarship has painted with its emphasis on Gropius and modernism's master narrative. By better understanding the role of figures such as Hudnut and Zevi, a more plural encounter with modernity emerges along with a truer picture of the sources of what would become the architectural pedagogy at SJU.

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316 Bruno Zevi, *An Opinion on Architecture*, 16. Words in the square brackets are available only in the draft but omitted in the final publication, referred to here; therefore, the restoration is not original.

317 Corbusier, "If I Had to Teach You Architecture," 3–12.

318 Bruno Zevi, *Preface to A CALL* (1941, a draft of the final publication entitled *An Opinion on Architecture* in print that May), courtesy of Jill Pearlman (a document along with Bruno Zevi's letter on 5 January 1994), upper case is in the original.

319 G. Holmes Perkins, interview notes, 31 December 1990, courtesy of Jill Pearlman.

Chapter 4. A Chinese Bauhaus or SJU Modernism?

In 1941, according to his son Huang Zhi, Huang departed the USA for his home country without obtaining his degree certificate from GSD. He left many job opportunities in America behind.[320] The following year, based on the recommendation of Yang Kuanlin, then Dean of the Sze School of Engineering,[321] Huang was invited to head up the newly founded Department of Architectural Engineering at St. John's University (SJU) [Fig. 4.1].

Fig. 4.1 Huang's profile in a SJU yearbook, 1940s. The name H. J. Huang here echoes his name in the AA Student Register, Henry Jorson [Zuoshen] Huang. The yearbook entry notes that Huang is an Associate Professor and Chair at the Department of Architectural Engineering and holds a Master of Science in Architecture (M. S. C. A.) from the A. A. (London)[322]

[320] Huang was joined by his wife, Cheng Jiu, then yet to graduate from an art programme in Boston. According to his son, the departure was very rushed and caused Huang to leave without his GSD certificate. See Huang Zhi, "Memories of Parents 父母杂忆," in *Lu Yongyi and Qian Feng, eds. Commemorative Accounts of Huang Zuoshen 黄作燊纪念文集 (Beijing: China Architecture & Building Press, 2012), 190.*

[321] SJU's Civil Engineering department was founded in 1914 by John Andrews Ely and became the Sze School of Civil Engineering. It was based on the Harvard-Technology Project funded by alumnus Alfred Sao-ke Sze in 1923; see Hou Li and Wang Yibing, *Paulick in Shanghai: Postwar Planning and Rebuilding of a China's Contemporary Metropolis 鲍立克在上海——近代中国大都市的战后规划与重建* (Shanghai: Tongji University Press, 2016), 84.

[322] However, the degree title of M. S. C. A. is technically questionable. Even if it was the equivalent of an

In probing SJU's architectural pedagogy implemented by Huang, it is important to acknowledge the role of his AA modernists classmates. Their words and writing would have a long-lasting impact on Huang. Echoing Cox's arguments for doing research, undoing *esquisse*, maintaining teamwork, and avoiding competition ("[The] germ of the course would be the principle that nothing should be taught, but that information should be available,") [323] Huang declared likewise at the 1947 Architectural and Civil Engineering Exhibition (ACEE, 4–8 June) at SJU: "[Architect-students] are never 'taught' anything, but given the facility to learn, to solve again the age-old problems of living in a fresh approach by understanding and analysing human necessities and answering them by living themselves."[324]

4.1 The Social and Cultural Context of SJU

The scholarship on Huang's architecture programme at SJU to date has tended to underplay the economic and cultural characteristics specific to a Christian organisation in treaty-port Shanghai at that tumultuous time. Like other Christian schools, from the beginning SJU was part of an educational system separated from the rest of China. The school carried on, regardless of the fact that the country, since the founding of the Republic in 1912, had been ruled by two different regimes—KMT and CCP—from three different capitals (Nanjing, Chongqing, and Beijing). As a result of overlooking SJU's special characteristics, not only have Huang's progressive pedagogies and faculty recruitment there been treated superficially, but they have also been reduced to a small facet of the Bauhaus' global reverberations.

Before having a closer look at Huang's architecture pedagogy at SJU, it is helpful to understand the premise of the university, as well as the context of Shanghai during the war-torn Republican years:

MSc degree at the AA, the school did not have degree-awarding power in the 1930s, so it certainly cannot be officially recognised. It was possible and quite common to graduate from the AA with RIBA Part 2 but not to go on and earn an AA Diploma. To obtain a diploma, students had to submit evidence of a period of office work after completing the AA course. The length of this varied, but there is no student record under Huang in the AA Prospectus, nor is there his name in the Registrar's Diploma Roll books, which list those students who have been awarded the AA Diploma. I am indebted to Edward Bottoms at the AA Archives for related consultation on this reference.

[323] Cox, "The Training of an Architect," 32.

[324] Engineering Bulletin, issued by The Sze School of Engineering, St. John's University (featuring Architectural and Civil Engineering Exhibition, June 4–8, 1947). Yale University, Divinity Library Special Collections, St. John's Minutes, RG11-239-3942.

> *St. John's University, founded by the American Protestant Episcopal Church in Shanghai by 1879, was the third oldest Christian college in China. It distinguished itself as the first Christian college in China to use the English as the medium of instruction, and the first to be incorporated in the United States as a university. Unlike other Christian colleges in China, it refused, for a long period of time, to register in China under the regulations laid down by the Chinese governments. But despite these and other differences, the internal and external environments in which St. John's and other Christian colleges functioned were quite the same.*[325]

In his doctoral thesis, Xu Yihua pointed out two historical facts about SJU that are relevant to studying Huang's department of architectural engineering: SJU was located in Japanese-occupied territory during the war (although it maintained the extraterritorial protection its faculty and student body once had enjoyed during previous upsurges of civil unrest, e.g., the Revolution of 1911 and the May Fourth Movement),[326] and it remained unregistered with the Nationalist government until the depths of the Civil War in 1948.

China was in the War of Resistance when Huang returned in 1941. He initially planned to teach in Chongqing, China's wartime capital. Still, he ultimately decided to settle down in Japanese-occupied Shanghai at SJU, a missionary university administrated by the Protestant Episcopal Church in America. Remaining unregistered with the Kuomintang (KMT) regime even after the surrender of the Japanese in August 1945, SJU was associated with the United Board for Christian Colleges in China (UBCCC). Ignoring notifications from the Shanghai Municipal Bureau of Education, SJU maintained its unregistered status, which enabled it to escape the educational administration of China's

[325] Xu Yihua, "Religion and Education: St. John's University as an Evangelizing Agency" (PhD diss., Princeton University, 1994), x.

[326] Despite its physical separation from the territory of the International Settlement, SJU had long been regarded—by its administration and by the Shanghai Municipal Council—as falling within the latter's jurisdiction as an extra-legal institution in China. According to Perry, the nine members of the Municipal Council—six Britons, two Americans, and one Japanese—naturally viewed the Episcopal university as an integral part of their international community; see her "Managing Student Protest in Republican China," 16. However, the fact that SJU's campus was located outside the formal boundaries of the International Settlement meant that it was in Chinese territory and subject to Chinese law, rather than to the regulations of the foreign-controlled Municipal Council.

Standard Minima, enacted in 1939.[327]

The Standard Minima mandated a uniform curriculum at all universities in China. Free from Nationalist governance as a domestic foreign institution, SJU had a free atmosphere of teaching and learning from the liberal arts education model that Huang appreciated.[328] In addition, one of his primary considerations in choosing to teach at SJU was his limited ability in Chinese since "English was his first language."[329] This, along with SJU's so-called "western out-of-school spirit,"[330] acted as the keys to attracting Huang, along with the fact that, in the early 1940s when most professional architectural training in China still followed the Beaux-Arts system, SJU would accept his modern pedagogy.

The educational experiment of Huang's pedagogical modernism at SJU lasted for a decade, from 1942 to 1952. He trained about 30 graduates, and some of them received further training overseas.[331] Most of them became remarkable architects, like Chang Chaokang (Class of 1946) [Fig. 4.2] and Li Ying (Class of 1945),[332] who both appreciated Huang's overseas exposure and also went on to study with Gropius at Harvard. Their success there proved that Huang's curriculum at SJU—known as "Harvard in the Far East[333]"—had prepared them well to pursue their postgraduate studies at Harvard, where, in Gropius's own words, "…At the end of this final training, only the very best students should get the master's degree to maintain a high standard."[334]

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[327] SJU paid a heavy price, however, since its students became a ready target for various nationalist movements and suffered from the Chinese government's limitations on the unregistered schools. See Xu Yihua, "St. John's University, 30.

[328] Incorporated in the District of Columbia in 1905, formally speaking, St. John's University became the second Chinese Christian university to be incorporated in the USA since the Lingnan University had done so in New York in 1893. In another work in 2009, Xu argued that it was St. John's that first started the collegiate course in China; see Xu Yihua, ed, *Shanghai St. John's University (1879–1952) 上海圣约翰大学（1879—1952）*(Shanghai: Shanghai Renmin Chubanshe, 2009), 1.

[329] Qian, "The Founder of Chinese Modern Architecture Education 中国现代建筑教育奠基人——黄作燊," 9.

[330] Mary Lamberton, *St. John's University, Shanghai, 1879–1951* (New York, NY: United Board for Christian Colleges in China, 1955), 53.

[331] Qian, Lai, and Wang, "Chinese Modern Architectural Students (Part 5) 中国近代大学建筑系毕业生（连载五）," 91–99.

[332] Switching from Civil Engineering to Architectural Engineering with Bai Demao, Li Dehua, and Yu Songhua, Li Ying (Class of 1945) was amongst the earliest cohort of Huang's architect-students at SJU. Their classmate, Chang Chaokang, Class of 1946, was an exception since he was not a transfer student with the advantage of graduation credits; see Qian, Lai, and Wang, "Chinese Modern Architectural Students (Part 5) 中国近代大学建筑系毕业生（连载五）," 98–99.

[333] Xu, "St. John's University, Shanghai as an Evangelising Agency," 25.

[334] Walter Gropius, "Training the Architect," *Twice a Year: A Semi-Annual Journal of Literature, The Arts and Civic Liberties*, no. 2 (1939): 151.

Fig. 4.2 Gropius (left) and Chang (right) at Harvard GSD, 1949

This, however, does not mean that Huang trained his students in the same way as he had experienced at GSD. Given the limited number of architecture teachers in the first half of the 1940s, SJU's *Vorkurs*-like Design Preliminary changed many times. This makeshift pedagogy arose from the tumultuous upheaval of the wartime unrest. Fan Shupei (Class of 1948) described his experience: "Four years of study at SJU, two years in occupied condition, the other two years in KMT governance, the most turbulent period."[335]

Upon Huang's founding of the department of architectural engineering, the aristocratic SJU already had the reputation of being the most expensive school in China, although it was contrary to SJU's mission ideals to make it an institution that only wealthy students could attend.[336] Just as the Bauhaus—with its pragmatism resulting from the collapse of the German Empire and the dramatic birth of a new republic—could not be fully transferred to a Harvard institution, so that "institution-ature"[337] failed to be reduplicated within the walls of another Ivy League-like school. This is not to argue that GSD had nothing to do with Huang's pedagogy at SJU, but to explore the hidden influences on this pedagogy, in addition to Gropius's Basic Design and Master Class, one must examine other issues which took place outside the classroom.

4.2 Architectural Pedagogies of Huang Zuoshen

Right before the founding of the People's Republic of China, on 25 September 1949, The

[335] Lu and Qian, *Commemorative Accounts of Huang Zuoshen* 黄作燊纪念文集, 202.
[336] Xu, "St. John's University," 29. William Zu Liang Sung, vice-president of the university, admitted that this had already been the case in 1940; see Lamberton, *St. John's University, Shanghai, 1879–1951*, 196.
[337] Bruno Zevi to Jill Pearlman, 5 January 1994 (Courtesy of Jill Pearlman).

Construction Group of the China Technology Association organised a symposium—Architecture Is Not Only Housing. Huang, as the Chair of SJU's Department of Architectural Engineering, was invited as one of the speakers. In the symposium, Huang specifically pointed out three "new directions of China's architecture from now on: namely, scientific [*ke xue hua*; 科學化], popular [*da zhong hua*; 大眾化], Chinese [*zhong guo hua*; 中國化]."[338] Not only did these schemes indicate Huang's ambition to build a new China as an architect-teacher, but such ideas also shed light on the modern pedagogies to which he had committed himself at SJU in the years since 1942.

Huang's method of approach—and it was a method of approach, not a crystallised "style" (more on this later)—not only entered his purview through the discourse and works of the MARS Group in the UK (1933–1939) but also stemmed from his time in the USA (1939–1941) with Gropius, Breuer, students like Zevi, and those Chinese fellows to whom he later offered academic positions in Shanghai during the 1940s. Based on the previous discussion of Huang's experiences at the AA and GSD, in what follows I will analyse Huang's SJU architectural pedagogies by creating a thematic framework that challenges the current Bauhaus-laden discourse.

4.2.1 The "Scientific" New Direction for China's Architecture: Architect-Planners in the Engineering College

> *Chinese architecture must be scientific. Science is the most incapable of deceiving people. The process of starting scientific work requires some analysis, collection of materials, and research. Only after you have a complete understanding can you start work. In the future, you need to continue to experiment. Architecture must do the same. Before starting work, we must enrich our understanding of the natural and human environment. Architectural work cannot be scientific until this kind of knowledge becomes very familiar.*[339]

[338] "Architecture Is Not Only Housing: A Symposium 座談紀錄：建築不僅是造房子而已," *Engineering 工程界*, vol. 4, no. 9 & 10 (1949): 32.

[339] Ibid. While discussing the scientific aspect of Chinese architecture, Huang also mentioned the recent

Although Huang did not experience GSD's versions of the Bauhaus *Vorkurs* (either the version championed by Hudnut and taught by Le Boutellier or the one championed by Gropius and taught by Richard Filipowski), Huang's Design Preliminary proved that SJU's department of architectural engineering honed students in the Bauhaus's technical competence in the spirit not only of Gropius but also of other modernists. Moreover, Huang's teaching colleagues at SJU served up the latest in town planning education from a long pedagogical lineage that extended back to the AA. Just as A. J. Brandt demonstrated to Huang how architects work as planners through Unit 15's thesis project at the AA,[340] so did Richard Paulick at SJU implement the planning skills under his belt to help Huang's students contribute to the Greater Shanghai Masterplan.

4.2.1.1 Tracing the Origins of SJU's Design Preliminary

It is true that Huang used many of Gropius's praxises. For Gropius, "successful teaching cannot…be handled by historians, but only by a creative artist who is a born teacher." This would be a teacher like Joseph Albers, whose *Vorkurs*-modelled Design I (later Basic Design) would have been "run [at GSD] as obligatory standard courses, forming the first part of all curricula [of three departments] dealing with the training of architects and designers"[341] had it not been for Hudnut's opposition to hiring more Bauhäusler.

Even though postwar Design I (1946–1948 and its successor, Basic Design, 1948–1950) was not directly available to Huang during his GSD studies from 1939 to 1941 (let alone Design Fundamentals, 1950–1952), Jill Pearlman confirmed that he would have been exposed to its *Vorkurs*-inspired ideas nevertheless:

> *There were likely some Basic Design exercises taught in Gropius's courses [Master Class]. It is not surprising that Huang would have been exposed to Basic Design ideas while at the GSD—through*

work of the symposium organiser to which he would commit his SJU students: "It is very meaningful that members of the Construction Group of the China Technology Association recently helped restore the building work, not only for relief but also to enrich themselves in the countryside. This is truly meaningful." This relates to his next topic of "Popular."

[340] R. Cotterell Butler, "A.A. School Co-operative Thesis Unit 15: Design for A Town," *Architectural Association Journal* (September 1938): 89–90.

[341] Gropius, "Training the Architect," 142–144.

> *Gropius, other students, Breuer [and Martin Wagner] … In addition to Gropius's and Breuer's teachings, Huang could easily have gotten his hands on Bauhaus reading material that would have explained Basic Design to him in greater detail. Also—Gropius would bring visitors to the school, like Josef Albers, who had taught the course [Vorkurs] at the Bauhaus. [Gropius] often brought former Bauhaus visitors there, so that is another way that Huang could have been exposed to these ideas.*[342]

At both the Bauhaus and GSD, Albers was, for Gropius, the model teacher. Unlike the other two instructors who had taught the course, Johannes Itten and László Moholy-Nagy, Albers interpreted textual exercise by asking students to illustrate—"through graphic and painterly means[343]"—diverse materials and textures. Huang did likewise at SJU, nurturing his students' talent through such exercises instead of indulging in actual tactile experiences.

For instance, Luo Xiaowei, Huang's student during the late 1940s, once told a story about an assignment in the "Design Preliminary" course:

> *Mr Huang asks us to express "pattern and texture" on a piece of paper. We did not understand and asked him what pattern, texture, and precisely the assignment says. Huang answered: Like your clothes and scarfs, everything has a pattern, and you know texture when you touch it…My classmate Hua Yizeng cut a ginseng-like Chinese herbal medicine into round pieces and scattered them over the paper; I mixed some powder with glue and then spread this paste-like material on the paper in a spiral pattern. Upon submission, Huang looked at their work and did not say anything in the first place. After a while, he spoke to us: "Look, don't you now have both 'pattern' and 'texture'"?*[344]

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[342] Jill Pearlman, email message to author, 4 January 2021.

[343] Éva Forgács, *The Bauhaus Idea and Bauhaus Politics*, trans. John Bátki. Budapest (London, New York: Central European University Press, 1995), 140.

[344] Luo and Qian, "Remembering Huang Zuoshen 怀念黄作燊," 51.

The Bauhaus's *Vorkurs* was introduced in the MoMA's exhibition catalogue for *Bauhaus 1919–1928* thus: "Practical and theoretical studies [at the Bauhaus were] carried on simultaneously to release the creative powers of the student, to help [students] grasp the physical nature of materials and the basic laws of design [Fig. 4.3]. Concentration on any particular stylistic movement is studiously avoided. Observation and representation—to show the desired identity of Form and Content—define the limits of the preliminary course."[345] Huang's assignment described above, in this light, aligned with the Bauhaus's *Vorkurs*.

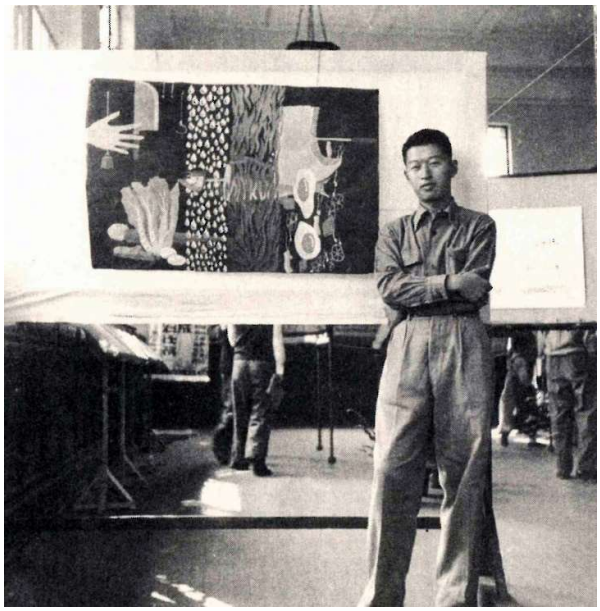

Fig. 4.3 SJU student-architect Li Dingyi standing in front of the banner at the entrance to an exhibition of student work and his work from the Pattern and Texture course, 1951

Huang's Design Preliminary course also encouraged students to get their hands on authentic construction materials, such as by doing bricklaying practice while learning structural mechanics.[346] In this way, again, students beheld how a pattern was created and what kind of texture emerged accordingly. However, Gropius was not Huang's only potential source for exercises of this kind: neither the Bauhaus *Vorkurs*, Harvard's Design I, Basic Design, nor Design Fundamentals could completely capture Huang's Design

[345] Herbert Bayer, Walter Gropius and Ise Gropius (eds), *Bauhaus 1919–1928* (New York, NY: Museum of Modern Art (MoMA), 1938), 26.
[346] Qian, "The Founder of Chinese Modern Architecture Education 中国现代建筑教育奠基人——黄作燊," 44.

Preliminary. Huang shared with Zevi an appreciation of how Aalto successfully integrated architectural content and form,[347] and he promoted the organic quality of a building no matter "if either wood, brick, stone, concrete, or steel was used for construction."[348] Huang considered all materials used in construction to be equal, as he pointed out in his 1948 speech entitled "The Training of an Architect": "In the matter of science and technique, the acquisition of a vast technical knowledge of materials, construction, statics, have all increased enormously during the past decades. The students must understand that architecture depends on the nature and the character of material and construction."[349]

4.2.1.2 Planning Education and the Greater Shanghai Masterplan

One way in which Huang's pedagogy at SJU diverged from Gropius's was in its emphasis on urban planning. Huang's curriculum did not initially emphasise planning, but this shift in direction occurred when Richard Paulick joined the teaching staff at SJU in 1943. As the department of architectural engineering Huang built was the first in Shanghai, and one of the earliest modern programmes in architecture in China, it is necessary to point out that, in the first decade of teaching, the curriculum every semester was brand new, and the ways that each instructor taught were constantly changing.[350] In Yeh Wen-Hsin's words, Shanghai was the "lone islets (*gudao* [孤島]) in a sea of Japanese occupying forces"[351] during the eight years of the War of Resistance (1937–1945). The war, along with the heated student movements in Shanghai, meant the teaching during the initial years of SJU's department of architectural engineering was barely organised. The ways that each instructor taught were constantly changing and never repeated.[352]

During the first year of the programme, there were only five students, and the only one who had not transferred from SJU's Department of Civil Engineering was Chang

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[347] Luo and Qian, "Remembering Huang Zuoshen 怀念黄作燊," 48; Pearlman, *Inventing American Modernism*, 217.

[348] Huang, "The Training of an Architect [text in English]."

[349] Ibid.

[350] Qian, "The Founder of Chinese Modern Architecture Education 中国现代建筑教育奠基人——黄作燊," 44–45.

[351] Yeh, *The Alienated Academy*, 54.

[352] Furthermore, some SJU professors (especially the Americans and the British) had been facing internment in Japanese camps if they were not repatriated. See Eduard Kögel, "Zwei Poelzigschüler in der Emigration: Rudolf Hamburger und Richard Paulick zwischen Shanghai und Ost-Berlin (1930–1955)" (PhD diss., Bauhaus-Universität Weimar, 2006), 7.

Chaokang. (He graduated one year later than the others due to the absence of transfer credits).[353] The limited number of students reinforced a makeshift pedagogy, and so did the lack of teaching staff. Until the German architect Richard Paulick, joined the SJU teaching staff in 1943, Huang had been its only permanent member [Fig. 4.4]. (The lack of teachers contributed to Germans being appointed to teaching posts[354] at the most pro-Anglican university in China. As student-architects Fan Shupei and Hua Yizeng recalled about the late 1940s, Huang also invited a few Jewish teachers to join SJU, which allowed them at least to make a very small living.[355]) Paulick had previously worked at Gropius's Dessau office before seeking refuge from Nazism in Shanghai in 1933. However, he was not a Bauhaus alumnus, which many scholars have mistakenly claimed.

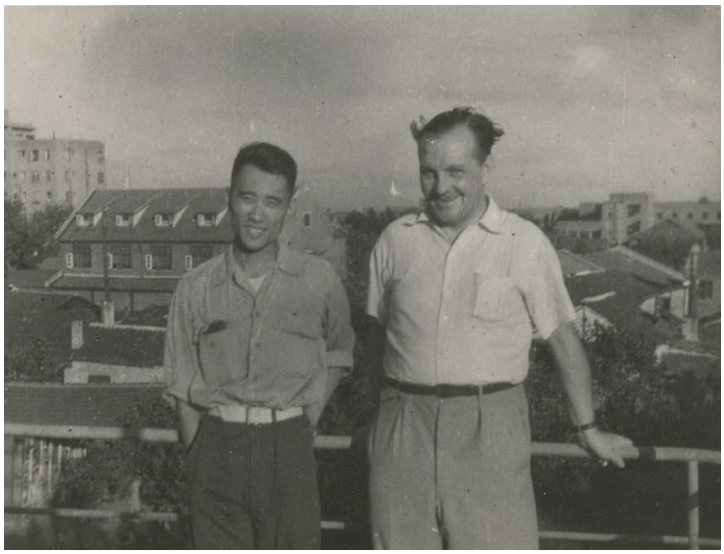

Fig. 4.4 Chang (left) and Paulick (right) on the roof garden of Huang's house in Shanghai, ca. 1946

Huang's pedagogy tended to highlight the social position of an architect (of which more below), and, in the same way, Paulick—China's first professor of architecture and town planning [Fig. 4.5]—also contributed a particular slant to the scientific side of architects' professional training: an emphasis on planning education, including zoning, population, and infrastructure.

[353] The rest were Bai Demao, Li Dehua, Li Ying, and Yu Songhua; see Qian, Lai, and Wang, "Chinese Modern Architectural Students (Part 5) 中国近代大学建筑系毕业生（连载五）," 91.

[354] Kögel, "Zwei Poelzigschüler in der Emigration," 230.

[355] In addition to Paulick, who taught town planning, for instance, the Hungarian architect H. J. Hajek taught Western architectural history (of which more below). Huang's sympathy for political refugees, as Bai Demao (Class of 1945) recalled, was also revealed in his classes when he talked about concentration camps. See Lu and Qian, *Commemorative Accounts of Huang Zuoshen 黄作燊纪念文集*, 207.

Fig. 4.5 Visiting cards of Paulick at SJU in English. His title read only "Architectural Engineer" in Chinese.

When Huang arrived in London to study at the AA in 1933, Paulick had just reached Shanghai that June, fleeing from Nazi Germany.[356] A left-wing activist (his family house in Dessau-Roßlau had been the office and library for the Sozialdemokratische Partei Deutschlands [SPD] and his youth had been filled with working-class uprisings),[357] Paulick studied architecture at the Technische Hochschule in Dresden in 1923 and, when Paulick had just arrived in his hometown, was employed as a freelancer in the construction office of Walter Gropius for six months in 1925. Contrary to common misconceptions,[358] it was at the Technical University in Berlin-Charlottenburg (TU Berlin)—rather than the Bauhaus—that Paulick completed his professional training under the auspices of Hans Poelzig in 1927. There he studied not only architecture but also painting, stage design, and film making, and he befriended Rudolf Hamburger. Later, when Adolf Hitler came into full power as Germany's Chancellor, Hamburger invited him to work in China.[359]

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[356] Paulick to Gropius, 6 July 1941, MS Ger 208 (Box 30: 1317), Houghton Library, Harvard University.

[357] Paulick was, however, discontent with SPD's conservatism against Nazism; he joined the Socialist Workers' Party of Germany (Sozialistische Arbeiterpartei Deutschlands; SAPD) and took a so-called central Marxist stand in politics and public affairs. See Hou and Wang, *Paulick in Shanghai 鲍立克在上海*, 27.

[358] For example (but not limited to) Lu Zhongkang, "Study on Architect Community in the Period of the Republic of China 民国时期建筑师群体研究" (Doctoral Thesis, Central China Normal University, 2009), 205.

[359] Kögel, "Zwei Poelzigschüler in der Emigration," 7.

In Shanghai, Paulick and Hamburger incorporated and ran a successful partnership at an interior design company later called Modern Homes (*Shihdai Gongsih*; 時代公司). Even though their business worked well with—to borrow Yeh's term—"compradore bourgeoisie" and the Concession's high society,[360] Paulick reckoned interior design to be a necessary evil because, although it gave him work, it allowed him to work only with wealthy people and also barred him from building projects due to his stamp as "an interior architect."[361] In Shanghai, at that time, according to Paulick, "[its] social structure shows a proletariat living mostly in mugshots, until recently no middle-class, and a large class of rich people, who alone are able to pay for our work."[362]

Per his letters to Gropius, Paulick was discontent with a Chinese city that "looked toward London, Tokyo, and New York, rather than toward China's hinterland,"[363] serving merely as "the emporium of the trendy, the gaudy, the decorative, the conspicuous, and the city of the newly rising bourgeoisie."[364] Paulick had a socialist mindset not unlike Huang's. In addition to employing some student-architects under his tutelage at SJU,[365] he wrote, "I am always employing eight to ten other emigrants, as architects, painters or surveyors"[366] [Fig. 4.6].

[360] Yeh Wen-Hsin, *The Alienated Academy: Culture and Politics in Republican China, 1919–1937* (Cambridge, Mass.: Harvard University Press, 1990), 67, 79–80.
[361] Paulick to Gropius, 6 July 1941, MS Ger 208 (Box 30: 1317), Houghton Library, Harvard University.
[362] Ibid.
[363] John Israel, *Student Nationalism in China, 1927–1937* (Stanford, Calif.: Stanford University Press, 1966), 6–7.
[364] Yeh, *The Alienated Academy*, 56.
[365] Li Dehua (Class of 1945), Cheng Guanyao and Zeng Jian (Class of 1947), Wang Jizhong and Bao Zheen (Class of 1948) worked at Paulick's Modern Homes; see Lu and Qian, Commemorative Accounts of Huang Zuoshen 黃作燊纪念文集, 212–213.
[366] Paulick to Gropius, 6 July 1941, MS Ger 208 (Box 30: 1317), Houghton Library, Harvard University.

Fig. 4.6 Paulick (with a tobacco pipe) in his Modern Homes office, in Shanghai, with SJU student Li Dehua, sitting at the front in a long gown, 1948

Although Huang had not joined the signatories to *An Opinion on Architecture* (1941) like Cheang and Wang had, Huang agreed with Zevi that, in architecture, "the schools are focal points of research and experimentation, [students] can offer a real service to the profession."[367] Paulick's interest in town planning gave Huang an opportunity to cultivate this service. Together with Paulick and the graduating seniors at SJU, Huang devoted his architectural engineering department to the Greater Shanghai Planning Committee (1946–1948) when the postwar municipality was again China's. In other words, by the time GSD was at the zenith of "the Battle over Basic Design" (in Pearlman's words), Huang and Paulick had moved on to a greater consideration for the people in the city and their everyday well-being through the profession of town planning.

Huang believed in the value of involving students in practical projects such as this. He criticised other sorts of Chinese architectural education at the time: "In most of these schools, [national ones under the control of the Standard Minima], teaching is still too academical in the conventional sense. It is remote from reality and also of a very narrow

[367] Zevi, *An Opinion on Architecture*, 18.

outlook. And of course, no attention is given to experimental and research work…During a certain stage of their professional training, we encourage our students to work in some governmental offices."[368]

Paulick shared Huang's interest in socialism. At the dawn of Japan's full-scale invasion of China in 1937, Paulick had moved his company to a building complex designed by Luke Him Sau (another former AA student and later Huang's colleague at Five United). The building was the former Bank of China's Yates Road branch, located where it intersected Bubbling Well Road (now Nanjing Road West),[369] where Paulick also lived throughout the rest of his stay in Shanghai. Like London's Isokon Building, Paulick's residence became a hotbed of foreign leftists who welcomed, for example, American journalist Agnes Smedley. She had inaugurated an English anti-Japanese magazine, *The Voice of China* (*Zhongguo Husheng*; 中國呼聲), in Shanghai's International Settlement in 1936 under the auspices of the American Communists in New York[370] to which Paulick had contributed an essay, "Crisis Education," under the pseudonym Peter Winslow before the outbreak of the Second Sino-Japanese War in April of 1936. In it he wrote:

> *Economically China is in a semi-feudal stage, with growing forces of industrialism striving for domination. Politically, the methods of Fascism and Gangsterism are in high esteem. The economic and political struggle combined with the feudal traditions, constitute the main obstacles to the development of China. The lack of national organisation and of national consciousness is obvious to every observer of Chinese affairs. The Chinese system has contributed in large measure to the maintenance of feudalism, and has prevented the development of a national state, similar to the development of European states after the French Revolution in 1789.*[371]

Huang would agree with Paulick's reference to the KMT's "Fascism and Gangsterism"

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[368] Huang, "The Training of an Architect [text in English]." It was a pity that, at the time, Huang was not able to access Liang's nascent progressive pedagogy of city planning at Tsinghua University in Beijing (much more on that in the Part 2).

[369] Denison and Guang, *Luke Him Sau*, 120–121.

[370] Kögel, "Zwei Poelzigschüler in der Emigration," 98–99.

[371] Quoted from Richard Paulick (Peter Winslow), "Crisis Education," *Voice of China*, vol.1, no.2, (April 1936): 10–12.

in the article since that was named the reason why he foresaw the Nationalists' ultimate failure before the founding of the People's Republic.[372]

Paulick saw a clear need for change in wartime Shanghai, change that he was eventually to help enact as a member of the Greater Shanghai Planning Committee alongside Huang. Upon reading about Gropius's and Breuer's recent charge to "revitalis[e] Harvard's School of Architecture" in *Life* magazine in 1941, Paulick posted a complaint to Gropius, penned in English—for fear that a German letter might cause an issue in America, which was poised to enter the war. In it, he outlined his disappointment regarding Shanghai's war-torn cosmopolitanism. Under the looming shadow cast by the Manchurian Incident a decade ago, the city had gradually been cut off from the outside world due to the threat of a total war that haunted China:[373]

> *Though we are wearing collars, shirts, and trousers, Shanghai still is a place without any cultural life. That's why we have been cut off entirely from any knowledge of artistical developments in the world. Sometimes I think, that the modern movement died out entirely, that painters returned to impressionism, and that the latest development in architecture is W. D. Teague, at least, that's what we know. It is even hard now, to get the Studio-Yearbooks regularly, which occasionally published some of your works.*[374]

"[By] the beginning of 1942," according to Jeffrey Wasserstrom, "for the first time in nearly a century, all of Shanghai was unified under the rule of one group: The Axis powers."[375] Paulick, however, did not enjoy privilege under this regime. His previous deep-seated relationship with the Bauhaus and Sir Ellice Victor Sassoon (3rd Baronet from a Baghdadi Jewish family)[376] meant he was unable to renew his visa, which had

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[372] Qian, "The Founder of Chinese Modern Architecture Education 中国现代建筑教育奠基人——黄作燊," 14.

[373] Paulick to Gropius, 6 July 1941, MS Ger 208 (Box 30: 1317), Houghton Library, Harvard University.

[374] Paulick to Gropius, 6 July 1941, MS Ger 208 (Box 30: 1317), Houghton Library, Harvard University. In the letter, Paulick also mentioned that he had lost his German nationality some time ago.

[375] Jeffrey Wasserstrom, *Student Protests in Twentieth-Century China: The View from Shanghai* (Stanford, CA: Stanford University Press, 1991), 153.

[376] Founded in 1932 by Rudolf Hamburger, "The Modern Home" (TMH) was merged with the (Jewish) tycoon Sassoon family in 1934, who changed the name to "Modern Home" (MH) and moved it within the

expired in 1938. His range of activities, as a result, was restricted only to within the concessions.[377] Coincidentally, this brought Paulick the opportunity of a professorship in town planning at SJU.

For Paulick, the Greater Shanghai Planning Committee offered an opportunity he had been awaiting for some time. "When I arrived without a penny, I took the first available job in some firm for interior decoration," recalled Paulick, but his interest was town planning. Even before his academic role at SJU, Paulick asked Gropius in 1941 to "recommend some magazines or books published after 1933."[378] In 1945, he wanted Gropius to "take the trouble and arrange, that some of the publishing houses or larger bookshops would forward to [him] catalogues and leaflets of their publications during the last five or six years."[379] In addition, Paulick joined the American Society of Planning Officials (ASPO)—a society Luke also joined that same year—in 1946 to obtain up-to-date knowledge about the profession[380] after eight years of isolation in quasi-colonial Shanghai occupied by Japan.

For the next four years after the War (1945–1949), while the KMT and CCP fought in other parts of China to determine who would rule the nation, it was the representatives of Chiang Kai-shek's central government who administered all of Shanghai much as they had governed the Chinese Special Municipality before 1937.[381] Before long, the central government again appointed a mayor, Wu Guozhen, who selected the heads of the municipal bureaus and set up a Shanghai Masterplan Group in the Technical Advisory Board at the Public Works Bureau led by Zhao Zukang. Together with "a considerable [number of students] of the Junior and Senior years,"[382] both Huang and Paulick played

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French Concession. Winning the family's trust due to his compassion for the Jewish people, Paulick became its chief architect and was responsible for the interior design of the Sassoon House (now the Peace Hotel). By the end of 1936, China was haunted by a total war with Japan; "Modern Home" became "Modern Homes" (MHs) by simply appending an "s" and severed its ties with the Sassoon-owned firm, which had been liquidated by then. Instead, it was joined by Richard Paulick's brother, Rudolf Paulick, and American architect Hans Werner. See Hou and Wang, *Paulick in Shanghai 鲍立克在上海*, 43, 50, 56, 60.

377 Kögel, "Zwei Poelzigschüler in der Emigration," 206–210.

378 Paulick to Gropius, 6 July 1941, MS Ger 208 (Box 30: 1317), Houghton Library, Harvard University.

379 Richard Paulick to Walter Gropius, 27 August 1945. Bauhaus Archive, BHA_GS19_Mp529_02_003r. It is tempting to know Gropius's responses in suggesting publications, but he never replied to Paulick until 1948 and mentioned nothing relevant (of which more below).

380 Kögel, "Zwei Poelzigschüler in der Emigration," 26, 243.

381 Wasserstrom, *Student Protests in Twentieth-Century China*, 154.

382 Richard Paulick, "Planning and Town Planning," *Engineering Bulletin*, issued by The Sze School of Engineering, St. John's University (featuring Architectural and Civil Engineering Exhibition, June 4–8, 1947). Yale University, Divinity Library Special Collections, St. John's Minutes, RG11-239-3942.

critical roles in the Greater Shanghai Planning Committee established in the wake of a series of symposia (October to December in 1945) in August 1946. Amongst the specialists on the boards of investigation and design in the restored Shanghai Municipality, Paulick distinguished himself—as the only professor of town planning in Shanghai at the time—from other architects and engineers, and incorporated aspects of his job into the planning pedagogy at SJU. Huang agreed to a considerable loading of town-planning courses in the curriculum since Paulick's courses addressed Huang's spatiotemporally specific, *contemporary* ideas (discussed further later) for the training of an architect:

> *In this way, our students were introduced to practical planning work, and all the problems concerned with it, while studying town-planning is not an application of formula or fixed recipes. Every city and every site offer different problems and require new solutions, which demand an all round scientific training on the part of the planner. We hope that we have given this training to our students.*[383]

4.2.2 The "Popular" New Direction for China's Architecture: Teamwork Design for the People

> *Chinese architecture must be popularised. Architecture has a very close relationship with people, and its building process must match the local geology, climate, and material supply and fully conform to the people's lives and habits. Our construction is not for the material enjoyment of people of a particular class but the happiness of the people's life. The architect of the past has always stood in the position of a technical expert and contributed his talents with an objective attitude, which is not enough in any case. To understand the needs of the public, architects must be a part of the public and work from the point of view of entering the public.*[384]

[383] Paulick, "Planning and Town Planning."
[384] "Architecture Is Not Only Housing: A Symposium 座談紀錄：建築不僅是造房子而已," 32.

Huang would agree with Zevi's critical appeal in *An Opinion in Architecture*. That was in line with the popular aspect of SJU's training of architect-planners: SJU students were required to complete civic-minded studio drawing related to questions and research on the one hand, and to reflect on the social responsibility of professional architects to help create a liveable society for all people on the other. In these two ways, Huang not only took up Gropius's practices at GSD as "a method of approach" for fertilising students' creative faculties, but he also extended that notion into his studios at SJU to deal with real problems in design. Huang aimed to be the popular reformist that Gropius failed to become at the American Bauhaus; Zevi had facilitated these reformist views via A*n Opinion in Architecture*, based on their common experience of MARS-influence progressiveness at the AA.

4.2.2.1 Architectural Practice and Five United

Gropius always felt that "students should be given access to the outside practice offices of the teaching staff."[385] Similarly, in the immediate years after the Second World War, Huang commenced engaging with a few such practices in his SJU programme. For example: In 1946, the year before Luke's rift with the Bank of China,[386] Huang designed a dormitory for its Shanghai branch's high-ranking employees on Jessfield Road (now *Wanhangdu Lu*; 萬航渡路). SJU was also located there, numbered 1575, and so it was easy for the department of architectural engineering's students to behold this practical example of their teacher's architecture [Fig. 4.7]. The complex is said to reflect the influence of Corbusier, whom Huang had met a decade ago in France, in terms of the so-called five points of architecture.[387]

[385] Gropius, "Training the Architect," 150.
[386] The commission was under the auspices of senior AA alumni Luke, who was in charge of the bank's Shanghai-based architectural department from 1930 to 1947. For Luke's nomination by the Bank's general manager, Zhang Jia Ao, in 1929, see Denison and Guang, *Luke Him Sau,* 58–59.
[387] Lu and Qian, *Commemorative Accounts of Huang Zuoshen* *黃作燊纪念文集*, 110.

Fig. 4.7 Huang's residential design for the Bank of China in Shanghai, built in 1946. The photograph (top) is from the 1980s. Jessfield Road is on the left of the SJU perspective drawing (bottom). On the east side of Low Library (1913), Graves Hall (1939, with which Huang's department was affiliated) was yet to be built when this drawing was made.

The practice of exposing SJU students to their teachers' architectural projects, however, did not take hold until this mission was taken up by the British-trained architect-builders gathered by Huang at SJU, together with many former students of Huang who either had stayed on after graduation to become faculty or had completed foreign training and then returned to teach after the war. In 1946–1948, Huang and other SJU faculty had students contribute drawings to the Greater Shanghai Planning Committee. In 1948, Huang helped

found the architectural company Five United—"a product of a British architectural education"[388] that included Luke, Charles Chen, Wang Dahong, and Arthur Cheang (the final two being signatories of Zevi's *An Opinion on Architecture*) [Fig. 4.8].

Fig. 4.8 Five United Architects: Luke Him Sau (front right), Wang Dahong (front middle), Huang Zuoshen (front left), Charles Chen (back left), and Arthur Cheang (back right), photographed in Shanghai in the late 1940s

Huang realised that "the necessary experience cannot be acquired *all* from the school. The important thing is to arouse interest in the techniques of building…knowledge can be acquired and strengthened by experience through students' contact with actual constructions."[389] At the original Bauhaus, Gropius had articulated education and practice in a more radical way than he later did at Harvard, where he was reduced to "Bauhaus stylisation of modern forms."[390] This approach was not unlike that outlined in "The Educational Program" of *An Opinion on Architecture*, in which Zevi claimed that "schools should be workshops for experimentation: experimentation that the architect in

[388] Edward Denison, "Chinoiserie: An Unrequited Architectural Affair," in *British Modernism and Chinoiserie*, ed. Anne Witchard (Edinburgh: Edinburgh University Press, 2015), 219.
[389] Huang, "The Training of an Architect [text in English]," emphasis added.
[390] Chang Chin-Wei, "Rethinking the Little Prince: Dahong Wang and his Modern, Chinese(-ness), Architecture 再／重思小王子：王大閎與他的現代、中國、建築," *Fun Matter 放築塾代誌*, no. 37 (July 2018): 24.

practice does not ordinarily have the time or the means to accomplish…they can work with local, regional, and national planning boards…experimenting in pre-fabrication, standardisation, and building techniques,"[391] rather than only with types of buildings dependent upon a particular financial and intellectual elite.

4.2.2.2 Question- and Research-Based Studio Training

While I have previously argued that the influence of Gropius at GSD on Huang has been overemphasised, there is one way in which Huang's pedagogy strongly reflects Gropius's: the approach to design. However, Huang never experienced Gropius's full vision for a design studio while he was at GSD (he did not register at the master's degree programme). In fact, Huang's approach to design seems to have been more aligned with pedagogical methods at the original Bauhaus, where tentative design for realistic production was always encouraged, but he extended this pedagogy even beyond Gropius.

Shen Zhijie (Class of 1952) was asked what he had learned at SJU, and he replied to Huang: "APPROACH TO DESIGN." Once, in a class, Huang had recalled this and said: "It sounds little, but so profound indeed."[392] Huang's design studio focused on "a method of approach and not a crystallised 'style'."[393] Huang had acquired this perspective not only from the MARS Group's "new architecture" exhibition in London but also at GSD when Gropius tried to adjust the original Bauhaus to suit the American context at Harvard.

Although Gropius could never bring an ideal Bauhäusler like Albers to Harvard, whom he thought would cause GSD students to "feel inspired and eager to take part in the task of developing *the American architecture*,"[394] he still, after a decade in the USA, stood by his stance that the "teaching of *a method of approach* is more important than the teaching of skills."[395] This notion was so important for the Bauhaus founder that he repeated it again, even after his resignation from Harvard, in an unpublished interview in 1960: "Education is not the accumulation of knowledge alone, but *a method of approach* and of

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[391] Bruno Zevi, *An Opinion on Architecture*, 17.
[392] Lu and Qian, *Commemorative Accounts of Huang Zuoshen 黄作燊纪念文集*, 161.
[393] MARS Group, *New Architecture: An Exhibition of the Elements of Modern Architecture* (London: New Birmingham Galleries, 1938), 6.
[394] Gropius, "Architecture at Harvard University," 9, emphasis added.
[395] Walter Gropius, "Blueprint for an Architect's Training," *L'Architecture d'Aujourd'hui* (February 1950): 71, emphasis added.

finding one's own way."[396] Huang similarly encouraged students to begin a project with inquiries, rather than with the specifications usually set at the very beginning in other, Beaux-Arts-design-based programmes at the time. He said: "Instruction in architecture today tries to find the solution of a problem like a problem itself, contrary to the old form of architectural education which approached its problems from without, with preconceived ideas and prescriptions."[397]

"To accomplish this," Huang again followed Zevi's advice in *An Opinion on Architecture*: "the school must be flexible. The student must be able to follow a problem to its logical end, wherever it will lead him, however long it takes."[398] They both tried to redeem Gropius's unaccomplished goals at GSD. Gropius said of his programme there:

> *I have sometimes felt a certain disappointment at being asked only for the facts and tricks in my work when my interest was in handing on my basic experiences and underlying methods. In learning the facts and tricks, some can obtain sure results in a comparatively short time, of course; but these results are superficial and unsatisfactory because they still leave the student helpless if he [or she] is faced with a new and unexpected situation. If he [or she] has not been trained to get an insight into organic development no skillful addition of modern motives, however elaborate, will enable him to him [or her] to do creative work.*[399]

In Huang's attempt to accomplish this same goal at SJU, he, as an architect-teacher, put into practice the principles Zevi had outlined in *An Opinion on Architecture* in an even more progressive way than the signatories of that letter, Cheang and Wang. For example, a similar approach to the one Zevi advocated can be recognised in Huang's pedagogy in the Architectural Design courses at SJU, where he taught students to design from scratch. "When there were only five students [before the department moved into Graves Hall (Fig. 4.9)]," recalled Li Dehua (Class of 1945), "[Huang] provided each of us with a piece of A4 paper, on which he described the background and requirements of the design project

[396] Jonathan Barnett, "An Unpublished Interview with Walter Gropius, December 1960," *Journal of the Society of Architectural Historians* 77, no. 4 (2018): 408, emphasis added.
[397] Huang, "The Training of an Architect [text in English]."
[398] Zevi, *An Opinion on Architecture*, 17.
[399] Gropius, "Architecture at Harvard University," 10–11.

in poetic English. Upon receipt of it, one had to contemplate and research before proposing what function and content are needed."[400]

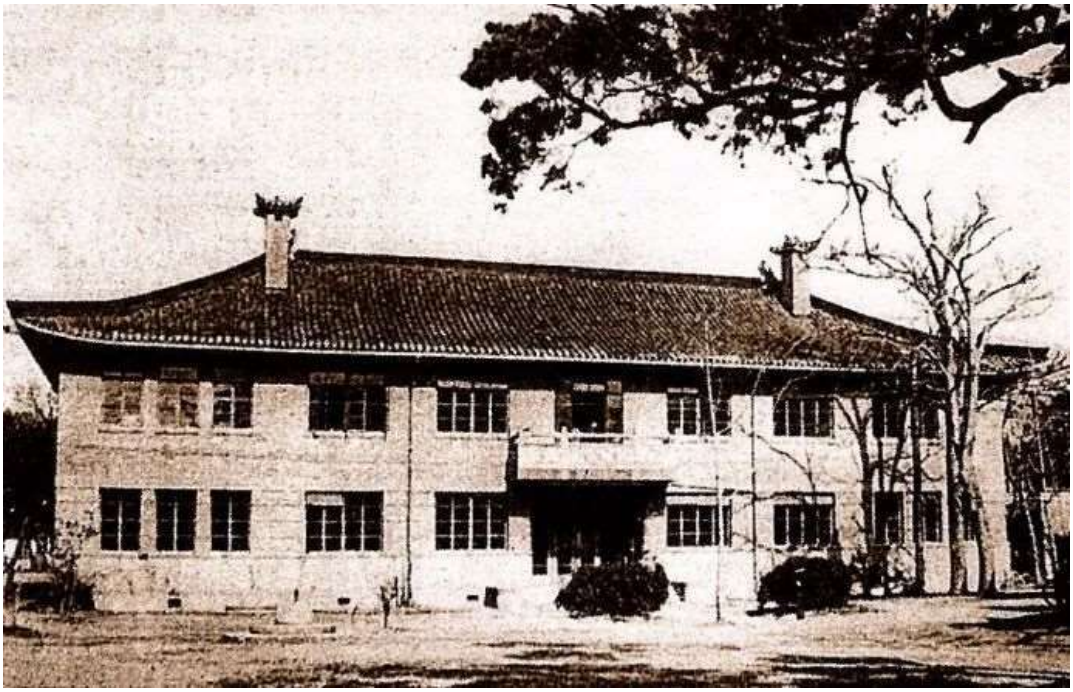


Fig. 4.9 Graves Hall, whose second floor accommodated the department of architectural engineering at SJU after 1944. It was not until Li and three of his classmates (all the initial students in the department except for Chang) graduated that Huang's staff and students moved from the basement of civic engineering department to this 1939 building named after Rt Rev. Frederick Rogers Graves, a missionary bishop of the Anglican diocese of Shanghai heavily involved in the administration of SJU[401]

For a "weekend house," Huang would only briefly introduce how it differentiate from ordinary houses and leave the rest to students' own imaginations, such as the security issue posed by a house empty of residents on weekdays. Another more extreme case was the experience of Wang Jizhong (Class of 1948). After writing only a task title (a clinic near a waterfront) on the blackboard, Huang once left the classroom with no further instructions but his hat on the podium (indicating he was coming back later). Also, as

[400] Luo and Qian, "Remembering Huang Zuoshen 怀念黄作燊," 50.

[401] That would include the contention that Bishop Graves and his Council of Advice decided to disobey the Nationalist Government's regulations for registration and even threatened to close SJU. Although his reason was that the registration would compromise the principles of religious and academic freedoms and lead to the secularisation of missionary schools, the postponement of registration until 1948 made the University paid a heavy price. SJU became a ready target for various Nationalist movements and also suffered from the limitations put on the unregistered schools by the Nationalist Government. See Xu, "St. John's University, Shanghai as an Evangelising Agency," 30. The problem of registration with the Chinese government also reflected the conflicts between the educational and religious objects of a Christian university.

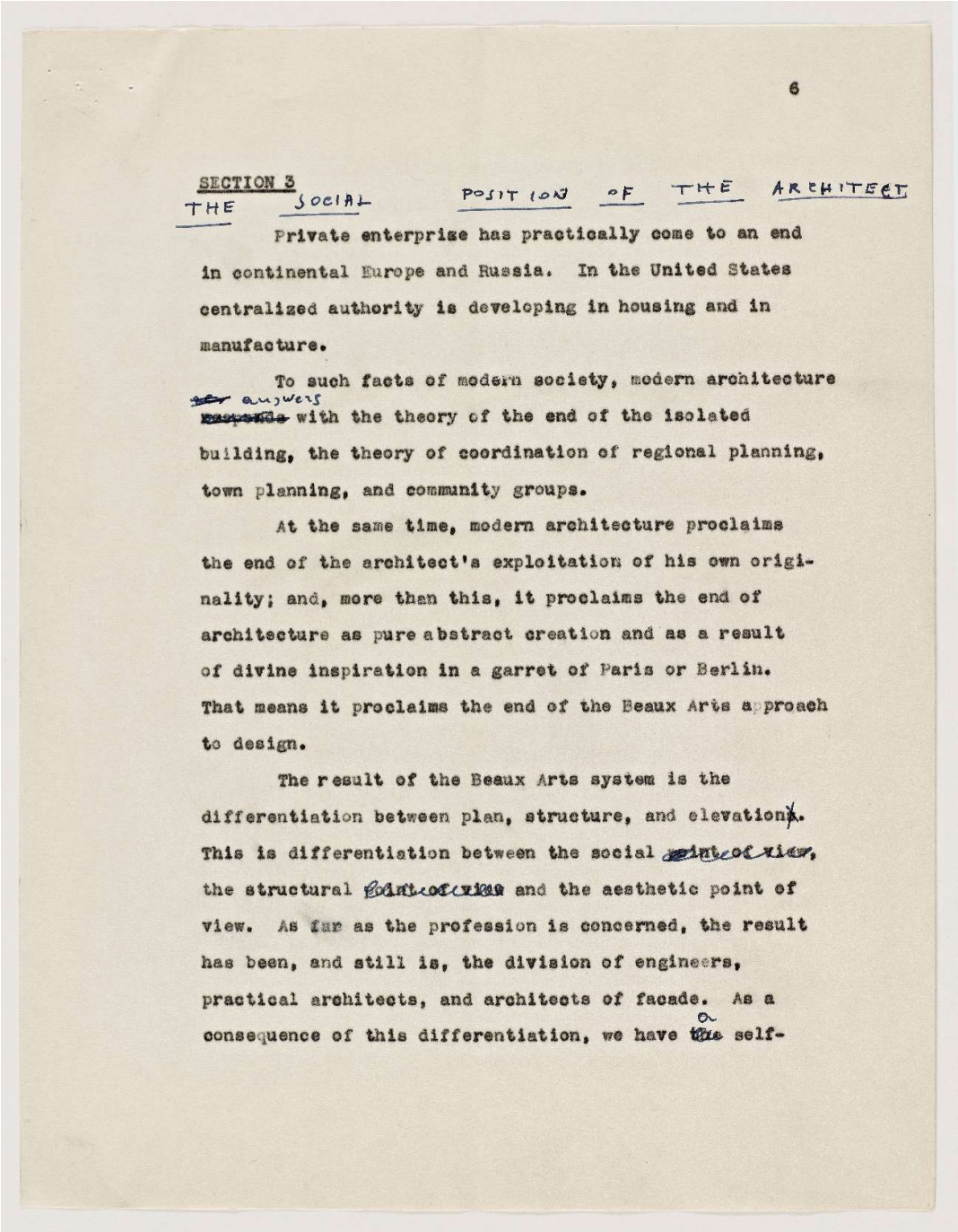
Zevi suggested, Huang felt students should be encouraged to create their own programme with the advice of the faculty and should be free to set their schedules.[402]

Framed this way, Huang not only adopted but also extended Gropius's principles in the "popular" aspect through his design pedagogy of "practising a false question" (*jia ti jhen zuo*; 假題真做):

> *The design studio remains the centre of all activities, and here there should [on the one hand] be a gradual increasing of the complexity of the problems to be solved by the student…[and on the other] be related to the actual programs concerned and to their practical realisation…Visiting actual sites to be selected for the problems, visiting buildings under construction, architects' and contractors' offices, manufacturing plants and research institutes, will stimulate the student's activities and strengthen his practical experience.*[403]

Although the "popular" aspect of Huang's pedagogy did follow Gropius's closely, as previous scholars have argued, they have overlooked the fact that Huang actually extended Gropius's ideas by placing a strong emphasis on the architect's social responsibility to society. Zevi's draft *Preface to A CALL* (which was signed by Cheang and Wang, Huang's SJU colleagues and Five United partners, in its subsequent publication *An Opinion on Architecture*) contained a section with the heading "The Social Position of the Architect." Under this handwritten heading [Fig. 4.10], Zevi wrote, "In previous ages architects often cultivated a small group of clients only, usually of the privileged classes. It is inconceivable today." Huang, inspired by the MARS Group as he indicated in his Personal Ideology Statement, often toured around Shanghai's slums with students such as in the Putuo District (普陀區, where SJU was located). He believed in teaching his students not simply to solve practical architectural problems, but to address social issues as well.

[402] Zevi, *An Opinion on Architecture*, 17.
[403] Gropius, "Training the Architect," 149.



6

SECTION 3 THE SOCIAL POSITION OF THE ARCHITECT

Private enterprise has practically come to an end in continental Europe and Russia. In the United States centralized authority is developing in housing and in manufacture.

To such facts of modern society, modern architecture answers with the theory of the end of the isolated building, the theory of coordination of regional planning, town planning, and community groups.

At the same time, modern architecture proclaims the end of the architect's exploitation of his own originality; and, more than this, it proclaims the end of architecture as pure abstract creation and as a result of divine inspiration in a garret of Paris or Berlin. That means it proclaims the end of the Beaux Arts approach to design.

The result of the Beaux Arts system is the differentiation between plan, structure, and elevation. This is differentiation between the social point of view, the structural point of view and the aesthetic point of view. As far as the profession is concerned, the result has been, and still is, the division of engineers, practical architects, and architects of facade. As a consequence of this differentiation, we have a self-

Fig. 4.10 Section 3 on THE SOCIAL POSITION OF THE ARCHITECT in Zevi's draft of *An Opinion on Architecture*: *Preface to A CALL*, 1941

Huang agreed with Zevi, who, in a vivid metaphor, wrote that he believed in doing away with architecture as "divine inspiration in a garret of Paris and Berlin."[404] To Huang, encouraging his students' sociological investigations was important since "in the age of

[404] Zevi, *An Opinion on Architecture*, 6.

democracy the clients cannot be anything less than the whole people…Instead of thinking himself as an artist associating only with privileged classes, the architect of today thinks himself as a [popular] reformer whose job is to provide the background for society to live in."[405]

The thesis project of the graduates at SJU in 1948 served as evidence of this pedagogy, for which Huang paved the way in China. The topic was an obstetrical hospital, an unusual building type in this country, and it was hard to find precedents locally. To do so, Huang invited an actual obstetrician, Amos Wang (Wang Yihui), who taught at SJU School of Medicine and wanted to rebuild his hospital in a particular location. Students visited the original hospital after Wang's talk in the department. They discussed their on-site survey and interviews of doctors, nurses, and expectant mothers with one another.

Based on his modern training at the AA and GSD, Huang asked students to make models for spatial study. He asked students to hang them at an average eye level, so the jury could get a sense of the architectural design from the usual point of view.[406] Upon the design's completion, students addressed the doctors, and the presentation was joined by the college dean and many others from different departments. Here Huang's pedagogy conformed to Zevi's suggestions, which in turn had resulted from their shared experience of the Harvard Bauhaus in its problematic early years in the late 1940s, an era in which Zevi said the Harvard Bauhaus neither "opens to the student a practical educational field [nor] enables the architect to keep in touch with the new members of his [or her] profession and [let alone] work toward a greater understanding of the collaboration [they would] purpose."[407]

As a progressive educator like Zevi, Huang felt it was his duty to enlighten the public beyond SJU's walls. This thesis project proved to be meaningful for his pedagogical framework, as shown when he specifically shared this experience with the audience at the British Council of Shanghai in the same year:

> *Now to give an example, supposing we are to design a hospital. The first thing is to find a suitable site, within reach of the population for whom it is built. The location should be away from noise and smoke.*

[405] Huang, "The Training of an Architect [text in English]."
[406] Luo and Qian, "Remembering Huang Zuoshen 怀念黄作燊," 52.
[407] Zevi, *An Opinion on Architecture*, 18.

> *And it should be in pleasant surroundings. The building itself should answer the requirement of the various branches of medicine: such as the operation rooms, X-ray rooms, children's rooms, maternity wards, out-patients wards, isolation wards, kitchen, incinerators, etc. Each room has to be designed to its definite function, all integrated into a simple and efficient plan. At the same time the hospital has to provide special facilities for doctors, nurses, interns, etc, and most important of all the patients themselves. The hospital itself has to conform, at the same time to the economic and administrative policies of the Public Health authorities.*[408]

Huang's dedication to teaching his students to approach architecture as a way of solving real-world problems can be summed up in the following story. As Shen recalled, in 1948, Huang unforgettably explained his pedagogy in the design studio: "This is a class hard to teach since we have a special student [Fan Zheng (Class of 1952)], son of a successful architect [Robert Fan]. He must think of his father's [Art Deco] Majestic Theatre [*Meiqi Daxiyuan*; 美琪大戲院] when a design task like a movie theatre is assigned. As a *teacher*, however, the primary mission is to dislodge these *preconceived ideas* because design [education] should commence from the very beginning, so a white paper is easier to draw on."[409]

4.2.3 The "Chinese" New Direction for China's Architecture: Contested Discourses in a Modernising Discipline

> *Chinese architecture should be entirely Chinese. What is Chineseness? That is, Chinese architecture must express the spirit of the Chinese people. What is the spirit of the Chinese people? That is the unique national characteristics such as honesty, simplicity, modesty, diligence, and hard work. We should fully meet these conditions*

[408] Huang, "The Training of an Architect [text in English]."
[409] Lu and Qian, *Commemorative Accounts of Huang Zuoshen 黄作燊纪念文集*, 160–161; see also: Qian, Lai, and Wang, "Chinese Modern Architectural Students (Part 5) 中国近代大学建筑系毕业生(连载五)," 99, emphasis added.

regarding architectural principles and ideas so that Chineseness can manifest.[410]

Huang's quest for "Chineseness" in modern architecture did not depend on superficial elements such as the traditional Chinese "big roof"—a traditional-style ceramic-tile roof or an imitation of one put on top of a modern material such as reinforced concrete—that could embody merely formalism in terms of grand symmetry, bold elaboration, and unambiguous frontal views. Instead, he emphasised the importance of Confucian values to good design and the social position of an architect. He put these values into practice in his teaching as well—for example, in the way he leveraged his leadership position to gather a strong network of architecture faculty at SJU. His criticisms of modern Chinese architecture that incorporated Chineseness only through using traditional design elements illustrates the sort of contested discourses that characterised modern Chinese architecture in this period. Huang's own Theory of Architecture pedagogy shows how he pulled together some of these contested discourses, incorporating examples from history, the social sciences, and the arts, both Western and Chinese, into his makeshift modernity.

Huang distinguished his own approach to modern architecture from Gropius's by including historical and cultural concerns in his architectural teaching, rather than expecting an architect to focus only on technical specifications and the client's wants for a particular project. To do that, not only did Huang combine some *scientific* elements from Gropius and some *popular* elements from Zevi (and Hudnut), but also his own *Chinese* influences by reclaiming four traditional virtues. As Martin Jacques pointed out, Chinese people between 1911 and 1949 were looking for a reconciliation between traditional Confucianism and Western values.[411] Huang was no exception. At the Architecture Is Not Only Housing symposium, Huang quoted Mencius (372–289 BC), a disciple of Confucius, who wrote about the "honesty, simplicity, modesty, diligence and hard work" of the Chinese people.

While dealing with practical problems of modern architecture in a way other professional programmes at national universities did not, Huang also blended Chinese and socialist

[410] "Architecture Is Not Only Housing: A Symposium 座談紀錄：建築不僅是造房子而已," 32.

[411] Martin Jacques, *When China Rules the World: The Rise of the Middle Kingdom and the End of the Western World* (London: Allen Lane, 2009), 249.

components into his flexible pedagogies. At Westernised SJU, Huang was able to gather around him a more diverse teaching staff—Chinese and otherwise. In a sense, Huang believed in combining the essential factors of traditional Chinese architecture with an understanding of genuine goodwill to build an authentic Communist Chinese architecture of its time and place, rather than in celebrating modernities in the middle of nowhere.

4.2.3.1 Lessons from the Frank House

Gropius famously eschewed history in his architecture pedagogy. In this respect, Huang differed fundamentally from the Bauhaus founder. The challenge to China from Western powers in the nineteenth century brought in entirely different ideas, namely those key aspects of scientific orientation and technical knowledge. Although the Chinese eventually turned to Communism, which explicitly rejected Confucianism, Confucian values and ways of thinking continued to be very influential, albeit in a subterranean form. The ideas remained in some measure the shared understanding of the people, and Huang was very aware of this. In his pedagogy, he strove to integrate the old and the new rather than to ignore history entirely, as Gropius tried to do.

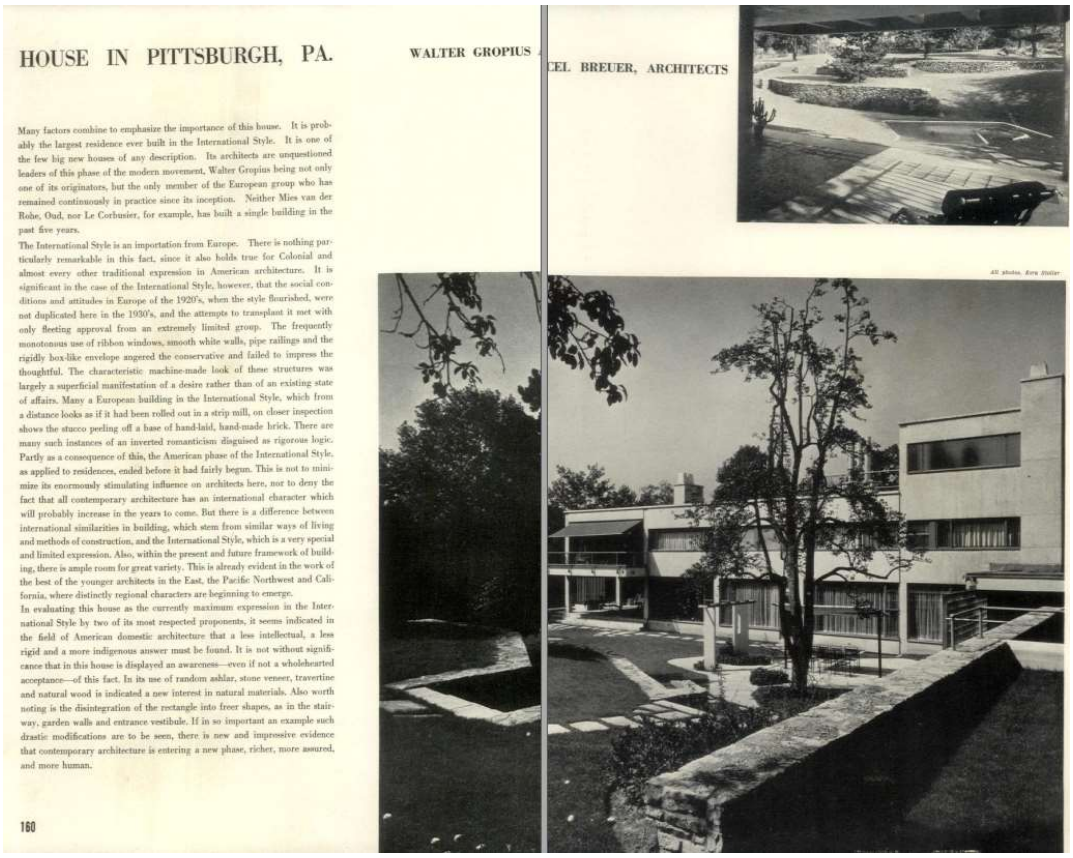
Confucianism also envisions a society based on a hierarchical system in which each individual's role is determined by his or her position in society, as well as by familial and personal relationships (more on the latter in the following section on diligence and hard work). In terms of the social position of an architect, Huang felt the need to help SJU students reach out towards modern movements outside of "Harvard in the Far East." In this, he resembled Gropius, who strove to redeem the progressiveness of modern methods and materials at Harvard. However, when Gropius wrote in *Architecture Record*, "My intention is not to introduce a so to speak cut and dried 'Modern Style' from Europe, but rather to introduce a method of approach which allows one to tackle a problem according to its peculiar conditions,"[412] he attributed his work to the International Style. It was due to this point that history had no place in *any* Bauhaus (original, London, or American). On the flip side, that was not the case for Huang as well as most of his teaching staff at SJU's *alternative Bauhaus*. What differentiated objective Gropius and the subjective likes of Huang was the way in which they considered whether or not to integrate the knowledge of who they were into modern architecture and, as architect-teachers, whether or not to

[412] Gropius, "Architecture at Harvard University," 9–10.

teach students about the world (namely, histories of their own people and others). In this way, Huang's makeshift version of modernism, by navigating between discourses from his own culture and those of others, was able to go beyond Gropius's strict Bauhaus vision.

The differences between Gropius's views on history in architecture and those of Huang and his contemporaries at GSD who opposed Gropius's approach can be observed in the example of the Frank House [Fig. 4.11]. Gropius had designed this house with his colleague, the Hungarian-born high modernist Marcel Breuer. The design, in the International Style, relied entirely on the internal problems of the project and the wants of the clients. Zevi, in his *Preface to A CALL*, mentioned the Frank House specifically. In fact, a report on the Frank House entitled "Largest International Style Residence in the U.S." [413] in *Architectural Forum*—a popular magazine that Huang kept reading throughout his SJU career[414]—was actually the impetus for Zevi's petition on behalf of the radical students at GSD, questioning whether "our life in the school is not fundamentally different from that of any Beaux Arts school." Zevi protested the lack of historical context for this project, asking: "Have we substituted for the *art for art's sake* of the 'rendered project', the *art for art's sake* of the abstract model?"[415]

[413] "House in Pittsburgh: Largest International Style residence in the U. S.," *Architectural Forum* (March 1941): 160–170.
[414] Lu and Qian, *Commemorative Accounts of Huang Zuoshen 黄作燊纪念文集*, 198, 203.
[415] Zevi, *An Opinion on Architecture*, 3–4.



HOUSE IN PITTSBURGH, PA.

WALTER GROPIUS

CEL BREUER, ARCHITECTS

Many factors combine to emphasize the importance of this house. It is probably the largest residence ever built in the International Style. It is one of the few big new houses of any description. Its architects are unquestioned leaders of this phase of the modern movement, Walter Gropius being not only one of its originators, but the only member of the European group who has remained continuously in practice since its inception. Neither Mies van der Rohe, Oud, nor Le Corbusier, for example, has built a single building in the past five years.

The International Style is an importation from Europe. There is nothing particularly remarkable in this fact, since it also holds true for Colonial and almost every other traditional expression in American architecture. It is significant in the case of the International Style, however, that the social conditions and attitudes in Europe of the 1920's, when the style flourished, were not duplicated here in the 1930's, and the attempts to transplant it met with only fleeting approval from an extremely limited group. The frequently monotonous use of ribbon windows, smooth white walls, pipe railings and the rigidly box-like envelope angered the conservative and failed to impress the thoughtful. The characteristic machine-made look of these structures was largely a superficial manifestation of a desire rather than of an existing state of affairs. Many a European building in the International Style, which from a distance looks as if it had been rolled out in a strip mill, on closer inspection shows the stucco peeling off a base of hand-laid, hand-made brick. There are many such instances of an inverted romanticism disguised as rigorous logic. Partly as a consequence of this, the American phase of the International Style, as applied to residences, ended before it had fairly begun. This is not to minimize its enormously stimulating influence on architects here, nor to deny the fact that all contemporary architecture has an international character which will probably increase in the years to come. But there is a difference between international similarities in building, which stem from similar ways of living and methods of construction, and the International Style, which is a very special and limited expression. Also, within the present and future framework of building, there is ample room for great variety. This is already evident in the work of the best of the younger architects in the East, the Pacific Northwest and California, where distinctly regional characters are beginning to emerge.

In evaluating this house as the currently maximum expression in the International Style by two of its most respected proponents, it seems indicated in the field of American domestic architecture that a less intellectual, a less rigid and a more indigenous answer must be found. It is not without significance that in this house is displayed an awareness—even if not a wholehearted acceptance—of this fact. In its use of random ashlar, stone veneer, travertine and natural wood is indicated a new interest in natural materials. Also worth noting is the disintegration of the rectangle into freer shapes, as in the stairway, garden walls and entrance vestibule. If in so important an example such drastic modifications are to be seen, there is new and impressive evidence that contemporary architecture is entering a new phase, richer, more assured, and more human.

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Fig. 4.11 The Frank House, designed by "WALTER GROPIUS AND MARCEL BREUER, ARCHITECTS," reported in *Architectural Forum*. The article noted, "It is probably the largest residence ever built in the International Style. It is one of the few big new houses of any description."

Zevi admitted that Gropius's "work in this country, in partnership with Marcel Breuer, is of basic importance in the present stage of architecture in the United States."[416] However, much of his Section 6 on "THE PRESENT PICTURE: The pioneers today" and its discussion of the Bauhaus founder at Harvard GSD was ultimately omitted in Zevi's final publication. The original included a polemical portion dealing with "the Frank house in Pittsburgh":

> *But there is an exception in their sound tradition: The Frank house in Pittsburgh. Among the many costly but successful houses spread over Europe (Savoy at Poissy, Tugendhat house) and in this country (the Bear Run house of Frank Lloyd Wright) the Frank house stands as an example of gentleman's architecture, of client's architecture. We submit that the principles of modern planning, based on sound,*

[416] Ibid, 12.

> *healthy logic, and the structural clarity and simplicity of expression of modern architecture are frustrated by a search for cosiness and for extravagant formality and by a disregard for the relation between design and industry.*[417]

Huang, like Zevi, trained his sights on the social context of problematic designs such as those "done on a strictly individual basis, and not in the light of a school or a movement."[418] Huang wrote, "The architects in order to please the whims of the clients would change the ways of building: pseudo-English one day, pseudo-Spanish another day, and pseudo-Chinese, etc, as the case required. Consequently, architecture became decadent, it could not keep up with new materials, new methods, nor could it keep up with new social forces."[419] Huang's point of view echoed Zevi's concerns about "social consciousness, in content and form," which the latter presented in *An Opinion of Architecture*:

> *We sometimes hear: "I wouldn't have built the Frank house. I am not concerned with the houses of millionaires," or: "we must have housing projects which will get built, that is all." These statements do not concern the architectural problem as such. They concern the "what" are the needs of society, not "how" we are going to coordinate these needs in architectural design. In other words, the architectural problem, as such, is not the building problem in its quantitative content. Architectural criticism is based on quality; for example, the Frank and the Savoye house have the same quantitative content [building and architectural problem], but there is a difference in quality [social problem]. One is the expression of a client; the other is the expression of a civilisation of definite and common principles, springing from (not applied to) a special problem.*[420]

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[417] Zevi, *Preface to A CALL*, 18–19. This paragraph was only available in the unpublished draft of *An Opinion of Architecture*.
[418] Zevi, *An Opinion on Architecture*, 12.
[419] Huang, "The Training of an Architect [text in English]."
[420] Zevi, *An Opinion on Architecture*, 14–15.

Eventually, however, the critical debate over issues such as the Frank House was omitted from Zevi's final publication "because [Zevi] wanted the signatures of students who were afraid of everything."[421] Still, like Wang and Cheang, who signed the revised document, Huang realised the International Style could dismantle modern architecture should it stay aloof from any historical context. That is, they believed in the universalism of honesty, simplicity, and modesty, which they had learned from Confucius and which helped them value the social position of an architect. Although the idea of the Confucian responsibility of Huang as a Chinese architect-teacher has escaped current scholarship, this responsibility is a very significant criterion in gauging Huang's teaching of modern architecture. One can behold that, at SJU, which owed much of its cosmopolitanism to a hybrid social outlook and a Westernised cultural bearing, Huang's department of architectural engineering not only looked forward to state-of-the-art technologies, like Gropius did, but also back: Students traced their own and their work's relation to the real world, as Hudnut would suggest doing in his history courses on civic design. They looked back on the Confucian moralities that were embedded in present-day Chinese architects and their modern-day architecture.

4.2.3.2 A Collaborative Approach to Architecture and Planning

The networks of personal associations in Chinese culture, as a 'glue' that can hold factions in Chinese politics together,[422] are rooted in Confucianism, in which the ruler's main function was to educate and transform the people. An educator at a university should aim to fulfil a similar function. Through the advantaged position of chairmanship of a department, Huang took full advantage of this glue. Through his professional network, he was able to gather around him the most-qualified professionals at SJU. Not only the Western-style cosmopolitanism in Shanghai but also Huang's AA and GSD connections gave his students a unique architectural education facilitated by professionals either formally employed at SJU or available to students there based on fraternal cooperation.

[421] Bruno Zevi to Jill Pearlman, 28 January 1994 (Courtesy of Jill Pearlman).

[422] This vivid metaphor is from Lucian W. Pye, who called this *guanxi* (關係); see *The Spirit of Chinese Politics* (Cambridge, Mass. and London, England: Harvard University Press, 1992), 207; see also "The Power of Personal Ties," 212–217.

According to Guo Dunli (Class of 1949),[423] Huang invited two kinds of teachers to SJU: "Full Time" (*chang jiao*; 常教), like Huang himself and Paulick, and "Part Time" (*lin shi*; 临时), who served as "Studio Master[s]" (*ke zuo jiao shou*; 客座教授). These—in addition to the professionals of Five United [Fig. 4.12]—included A. J. Brandt (Huang's fellow AA alumnus in Unit 15, construction), Poy Gum Lee, Chester Moy, Cheng Shifu (gardening), Cheng Ji (painting), Zhong Yaohua (civil engineering), and Nelson Sun (mechanical engineering).[424] Most of them had been trained either at the AA or at GSD, the only two schools in the world that fully embraced modernism and promoted the pedagogical ideals put forward by CIAM.[425] This section traces the influence of Huang's professional network on his pedagogy.

Fig. 4.12 Studio Masters at SJU in 1947 (left to right): A. J. Brandt, Zhong Yaohua, Arthur Cheang, Huang Zuoshen, unidentified person in foreground, Wang Dahong

After the Second World War, Huang's more extensive faculty was able to press the

[423] Wang Haoyu, "Interview with Mr. Guo Dunli: On Learning Experience at St. John's University and His Architectural Practice in Hong Kong 郭敦礼先生谈圣约翰大学学习及在港开业经历," *Oral History of Chinese Architecture, vol. 1: Rescuing History from Memory 中国建筑口述史文库（第一辑：抢救记忆中的历史）*, eds. Chen Bochao and Liu Siduo (Shanghai: Tongji University Press, 2018), 104.

[424] Dong Jianhong, "The Origin and Flow of Tongji Architecture Department 同济建筑系的源与流," *Time + Architecture*, no. 2 (1993): 4; see also Kögel, "Zwei Poelzigschüler in der Emigration," 239–240.

[425] Patrick Zamarian, *The Architectural Association in the Postwar Years* (London: Lund Humphries Publishers Ltd, 2020), Front Matter.

institutional advantage of a liberal arts model like SJU and also practice their own pedagogical progressiveness, which was aligned closely with their training in "the West—Europe and the USA, where the first cultural programme [in architecture as a profession] of modernity developed."[426] Paulick described the perspective these faculty brought to SJU's architect-students:

> *It was the application of modern science, of steam, electricity, physical, chemical and biological discoveries. It was the technological utilisation of these discoveries, which produced that higher standard of living which, until now, separates life in the West from that in the East, which gave to the old countries of the West their dominating position over the rest of the world during the 19th century.*[427]

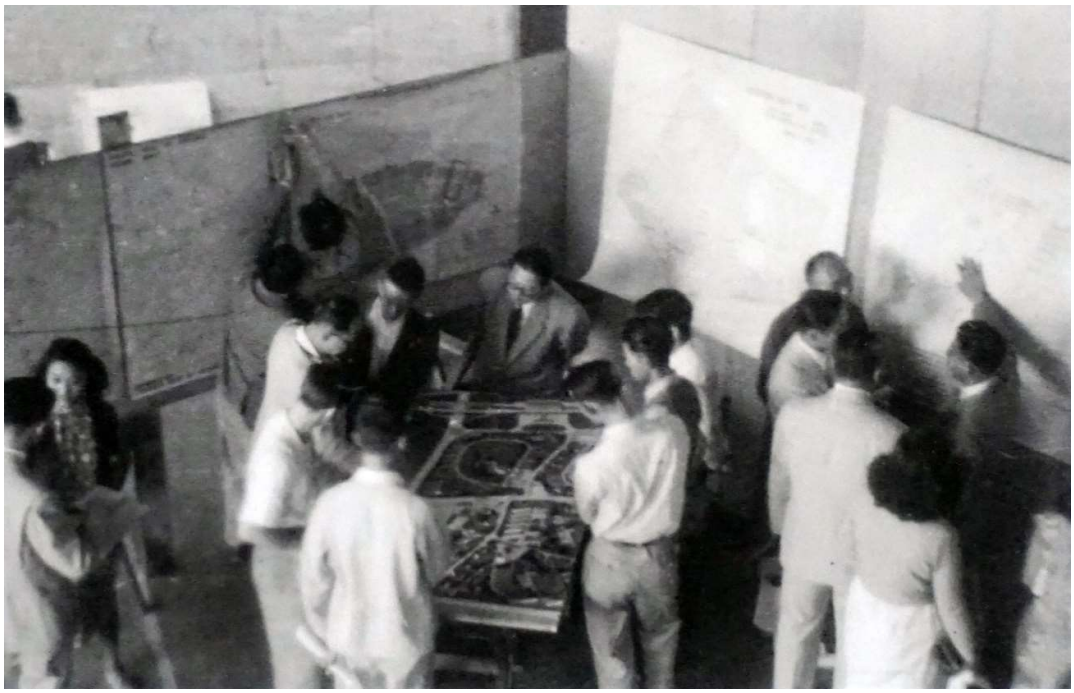
Huang was also able to draw on his personal networks in another way that influenced his pedagogy. Not only did the teachers he invited to SJU teach design studios, but, as Paulick explained, "most teachers of the architectural [engineering] department are [also] members of the planning group which designed the Shanghai Masterplan, and a large number of students were working as assistants at the planning group's office."[428] Upon the submission of the second report of the Shanghai Masterplan in May 1947, the Department of Architectural Engineering held the Architectural and Civil Engineering Exhibition (ACEE, 4–8 June) [Fig. 4.13], which demonstrated their significant works (discussed in 4.2.1) at SJU. Paulick described how the Shanghai Masterplan was integrated into the pedagogy at SJU:

> *Town planning, as taught at St. John's, is a combination of many sciences with architectural art…The problem treated in last year's laboratory courses was the detailed design of one of the new town districts proposed in the Masterplan for Shanghai. The problem went far beyond the usual thesis work of architectural schools, for there*

[426] Eisenstadt, Riedel, and Sachsenmaier, "The Context of the Multiple Modernities Paradigm," 2.
[427] Paulick, "Planning and Town Planning."
[428] Paulick, "Planning and Town Planning." Paulick's parlance of "Shanghai Masterplan" may have been related to the earliest "Shanghai Masterplan Group" at the city's Public Works Bureau led by Zhao Zukang. He and Luke Him Sau were the first two SJU teachers who joined Zhao's Technical Advisory Board's planning group of Shanghai Masterplan as early as late 1945. With regard to Luke's professorship at SJU, see Denison and Guang, *Luke Him Sau*, 198–199.

were neither any models or suggestions of foreign countries, which could be copied or applied. So a considerable amount of research work was necessary for the design of the new industrial city district.[429]

[429] Ibid.



ENGINEERING BULLETIN

issued by

The Sze School of Engineering

ST. JOHN'S UNIVERSITY

featuring

Architectural and Civil Engineering Exhibition, June 4th to 8th, 1947

WHAT THE EXHIBITION MEANS

Q. L. YOUNG

It means that we are interested in creative and constructive endeavors.

It means that if we are not satisfied with the existing condition, we must try to find something better.

It means that an individual can be a force for good in shaping the destiny of society by his ideas.

It means that one's ideas must not be limited by the scope of a structural problem alone but must involve its relation with the other parts of the structure. A room must not be designed by its own requirements alone, but also by consideration of its relation with respect to the entire building, and a building with respect to the entire lot and its surrounding landscape.

It means that one has to think in terms of three dimensions. In making a drawing where two dimensions are drawn one must not forget the third dimension. A roof truss must not be designed by its structural analysis in one plane, but must also by consideration of the other plane for bracings and rigidity.

It means that what a student learns from books and lectures must be more firmly impressed on his mind by actual representations.

It means that a student in engineering always does more work than what each credit-hour represents in the registration office.

It indicates interest in his studies.

It means all the difference between one that participates in this voluntary endeavor and one that does not.

It means that an idea is real. A building already exists before it is built and that it is real as soon as it is conceived in the mind of the designer.

It means that we must develop imagination and vision and build castles in the air.

It means that every design has its origin in the designer and the Universe in the Supreme Architect.

The Exhibition

The Seniors of the Architectural Department, namely Chi Chuan-Shih, Chen Kuan-Yao, Ho Chi-Chien and Tseng Chien, as an assigned exercise in town planning present a design of the future development of the Hong Jao District which is one of the twelve proposed by the Shanghai City Planning Board. The problem represents an assignment in a course lasting two terms conducted by our Lecturer Richard Paulick.

Along with this planning, housing problems of various kinds are assigned to the different classes in architectural design. They are also exhibited.

The Architectural section is in three parts:—

1. The New Hong Jao District, with designs of public buildings and housings by students.
2. Illustrative designs for discussions as prepared by Mr. Paulick.
3. Students curricular work covering designs, interior architecture and freehand drawing.

The Civil Engineering section gives out exhibit samples of students curricular work and their own work in models and construction details not assigned but as result of their hobby.

The Content of the Exhibit follows:

PART I. Plan of "New Hong-Jao" District.

A. Existing Condition of Shanghai—maps perspectives

B. Master Plan of Shanghai Regional Planning, Shanghai Zoning Planning, Communication and Arterial Roads
   General Index of Community Construction
   Master Plan of Hong-jao District
   Plant of Intermediate Unit —4 Sheets
   Town Model
   Town Perspectives

B. Public Buildings — Shopping Center (Market)
   Primary School
   Cinema
   Theatre
   Nursery School

C. Housing — Apartments 8 designs with 4 Models
   Terrace Houses 8 designs with 4 Models
   Steel Prefabricated House

PART II

A. Wu-sih Railway Station
   Chang-kiang Railway Station
   Nanking Central Railway Terminal
   Multistoried Garage

B. Ying-shih University Campus at King-Hwa
   Lay out Plan
   Assembly Hall
   Engineering School
   Students' Dormitory
   Dormitory for Bachelor Professors
   Terrace Houses for faculty members

Part 3. New Chin-po town planning with designs of:
A department Store, Railway Station, Apartment, Library and Small houses.
Interior designs.
Freehand drawings.

Part 4. The civil engineering models and constructions include An Arch Dam, A reinforced Arch Bridge, A deck plate girder railway bridge, an I-beam girder railway bridge, a suspension bridge, a watertank, a typical panel of a reinforced concrete building including a concrete truss, form-work showing arrangement and placing of bars, grade separation, and runway section of rigid pavement type.
The students' curricular work include their drawings and calculations in mechanical drawing, descriptive geometry, graphic statics, structural designs in steel, in reinforced concrete, and others.

Fig. 4.13 The student works surrounded by visitors at SJU's ACEE exhibition, 1947 (top). The event was reported in the Sze School of Engineering's *Engineering Bulletin*, which included articles from Huang, Paulick, and Dean Yang Kuanlin (bottom).

Although giving SJU's students the opportunity to take part in the Greater Shanghai Planning Committee was associated with the lack of planners-by-training at the time in China, Paulick and Luke were amongst other architect-planners in preparatory meetings at the Shanghai Municipal Government in late 1945 who helped to make this happen [Fig. 4.14]. The network of faculty Huang gathered around him at SJU were able to leverage their own advantaged positions to help bring real-world learning opportunities to its students.

Fig. 4.14 Cheng Shifu, Zhong Yaohua, and Jin Jingchang working on the third report of the Shanghai Masterplan in haste right after the city's liberation, 1949[430]

4.2.3.3 Chineseness in Beautifying Buildings: Lessons from the Greater Shanghai Civic Centre

In 1948, after Huang's Five United colleagues had departed to Hong Kong and Taiwan, he looked forward to the promising vision of the Communist future. He delivered two speeches at the British Council of Shanghai in 1948 and highlighted several quotes from English architects. In so doing, it was Sir Thomas Jackson's answer to the question "What

[430] Museum of Architecture at the Technische Universität München, Richard Paulick Collection, pauli-44–1000.

is Architecture?" that Huang quoted in both "The Training of an Architect" as well as "Chinese Architecture":

> *Architecture does not consist in beautifying buildings; on the contrary it should consist in building beautifully, which is quite another thing. As prose rises into poetry by the greater elevation of thought, the finer flow of language, the touch of sympathy, grace and pathos, so does building pass into Architecture with the superior grace of the main forms of the fabric, perfect expression of the conditions of the construction and closer harmony between purpose and achievement. In a word: Architecture is the poetry of construction.*[431]

In "building beautifully" in postwar China, Huang emphasised the importance of Chineseness. This emphasis was clearly a departure from Huang's education under Gropius. However, Huang was interested in incorporating modern principles into this Chinese design. He had very specific ideas about how this should be done. The new Chinese architecture should not merely comprise modern designs that incorporated Chinese decorative elements (as seen earlier in Robert Fan's Majestic Theatre in Shanghai). Instead, for him, "Chineseness" referred to the Confucian traditional virtues.

Huang's ideas about the proper way to incorporate Chineseness into architecture can be seen in his opinions about the Greater Shanghai Civic Centre. The planning group for the Shanghai Masterplan, which Huang and his SJU colleagues and students were working on, was meant to replace the Greater Shanghai Civic Centre from 1929–1931. The earlier development had been a new urban settlement to the northeast of Shanghai's existing city centre, but it had been designed by Beaux-Arts-trained Dong Dayou.[432] The Greater Shanghai Civic Centre had consisted of many municipal buildings such as libraries, museums, and hospitals. Take the Mayor's Building, for example [Fig. 4.15]:

> *The elevation of the Mayor's Building is symmetrical and follows neoclassical proportions and compositional principles. In the building's details, decorative elements from the palaces and temples*

[431] Jackson, "On True and False Ideas in the Education of an Architect," 224.
[432] Seng Kuan, "Between Beaux-Arts and Modernism: Dong Dayou and the Architecture of 1930s Shanghai," in *Chinese Architecture and the Beaux-Arts*, eds. Jeffrey W. Cody, Nancy S. Steinhardt, and Tony Atkin (Honolulu: University of Hawai'i Press, 2011), 170–173,

of ancient China are liberally borrowed and applied to its exterior façade and interior spaces. Though the building is built of concrete, components of timber construction such as bracket sets are incorporated onto the façade. Underneath the glazed tiles is a truss system supporting the roof, rather than the orthogonal juzhe ("raise and lower") construction one would expect from the roof's outward appearance. Inside the building, intricate polychrome patterns adorn coffered ceilings and beams, and vermilion paint covers the columns. Even electrical lighting fixtures are disguised under lantern shades.[433]

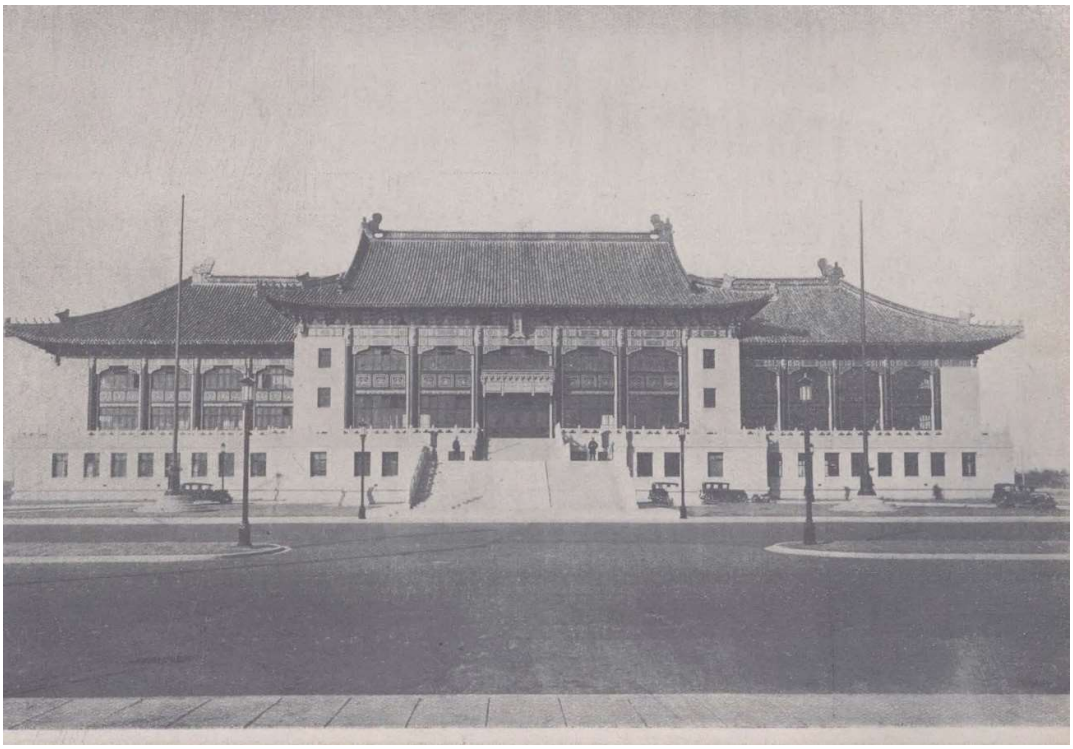


Fig. 4.15 New Mayor's Building in Shanghai, designed by Dong, completed in 1933

Huang criticised this so-called "Chinese Renaissance Style," which some had started calling "Liang Sicheng Style" (*Liang Sicheng Shi*; 梁思成式). Qin Yi pointed out:

Western architecture focuses on light and sanitation, while Chinese architecture focuses on appearance. Twenty years ago [in the 1920s], Liang published the theory that both Chinese and Western

[433] For illustrations and an explanation, see Wilma Fairbank, ed. *A Pictorial History of Chinese Architecture* (Cambridge, MA: MIT Press, 1984), 16–18.

> *architecture take into account the advantages and disadvantages of each other, and the remedy lies in the Western architecture with Chinese palace-style roofs, which are both beautiful and practical.*[434]

Qin also categorised other university buildings designed by Henry Murphy (i.e., Ginling Girls' College in Nanjing and Yenching University in Beijing)—and not least, those on the SJU campus—into such a 'Style' including the "Peiping (Beijing) National Library" critiqued by Huang on the occasion of his Chinese Architecture speech:

> *In the 1930s, I think that there was a period in which we noticed some very strong nationalistic movement in architecture…We were, and probably still are, rather impatient with our progress…A* ***contemporary*** *Chinese architecture capable of coping with the* ***modern*** *requirement and yet remaining still true to our cultural tradition cannot come about so easily by adopting a Chinese exterior and a Western interior. I wish such happy marriage were possible.*[435]

It was the superficial application, simply put, of "big roof" (*da wuding*; 大屋頂) Chinese architecture that Huang deemed unsatisfactory, and he criticised the many such buildings that had been designed during the early decades of Republican China: "Architects and the training of architects lost touch with the rapid progress of technical achievements. In this decadence, architecture could not keep up with new methods and new materials, and even misunderstood the significance of the traditional ones."[436]

Huang's criticism of his recent predecessors' misunderstanding of traditional methods and materials made him believed that "respect for tradition does not mean an acceptance of domination by some aesthetic forms. It means and always has meant, the preservation [of] essentials in the process of striving to get at what lies at the back of all materials and every technique, old and new, by giving semblance and sympathy to one with the intelligent aid of the other."[437]

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[434] Qin Yi, Talking about Liang Sicheng 談梁思成, *Small Daily* (Shanghai), 25 September 1947.
[435] Huang, "Chinese Architecture [text in English]," emphasis added.
[436] Huang, "Architecture at St. John's [text in English]."
[437] Ibid.

4.2.3.4 Chineseness in Building Beautifully: Theory of Architecture at SJU

At SJU, the formal study of architectural history did not follow Hudnut's highly structured humanist approach.[438] However, as part of his makeshift modernism, Huang supplemented the traditional History of Architecture curriculum by integrating his own historical approach into his Theory of Architecture course. The curriculum of SJU's department of architectural engineering in 1946 [Fig. 4.16] shows that the History of Architecture (A.E. 3 & 4) courses were taught by a Hungarian architect, H. J. Hajek, and focused mainly on Greco-Roman Orders and the Renaissance. "He is not very modern," Zeng Jian (Class of 1947) said about Hajek. According to Luo Xiaowei (Class of 1948): "There was no textbook, Hajek did not ask us to read. For our class in History of Architecture, he had done a blackboard filled with big drawings in detail. What he taught was historic buildings, rather than architectural history."[439] Guo Dunli (Class of 1949) remembered likewise in his 2007 interview; he told Wang Haoyu: "That was not good. We were simply told to memorise Orders [but without proper understanding of the context]."[440] Besides, "Hajek's course was arranged on Saturday afternoon; by then, everyone barely stayed focused in class."[441] Thus it is not surprising that Paulick played down his teaching colleagues, except for Huang, in his letter to Gropius upon the postwar restoration of the postal service:

> *For the past three terms I am running with your former student Henry Huang [at] the architectural department of St. John's U. There are, of*

[438] Although it was not until 1942, after Huang had left GSD, that Hudnut began to teach his series of three courses on the "history of civic design," Hudnut had taught the history of architecture as part of GSD's new Bachelor of Architectural Sciences programme (ARCH SCI) since 1938. The appreciation of history was an essential component of Hudnut's modernism even before he became a firm defender of the subject in many public pronouncements after The Second World War. In his 1947 "What a Young Planner Ought to Know," which described an ideal curriculum for postwar architect-planners, Hudnut even contended that "ten courses in history were recommended. These are not too numerous or too arduous to create that sense of continuity, that awareness of past crises and conflicts, of the march of peoples and empires, of the impact of great renown and ideas, which ought to furnish the mind of [the student] and illuminate his path"; see Joseph Hudnut, "What a Young Planner Ought to Know," *Journal of the American Institute of Architects* vol. VII, no. 2 (February 1947): 61–62. In retrospect, Hudnut got mixed reviews on his lectures on history, but Pearlman singled out his humanist approach in contrast to the Bauhaus's antihistorical modernism: "Hudnut traced architecture's role in the formation of cities and towns rather than offering a history of styles found in all schools of architecture. He analysed plans from ancient times to the end of the nineteenth century by focusing on certain key moments of the past—like Periclean Athens or London in the days of Nash—instead of following a linear, historical narrative"; see Pearlman, *Inventing American Modernism*, 211, as well as 121–122.

[439] Lu, "On Teaching History of World Architecture in Tongji 同济外国建筑史教学的路程," 27.

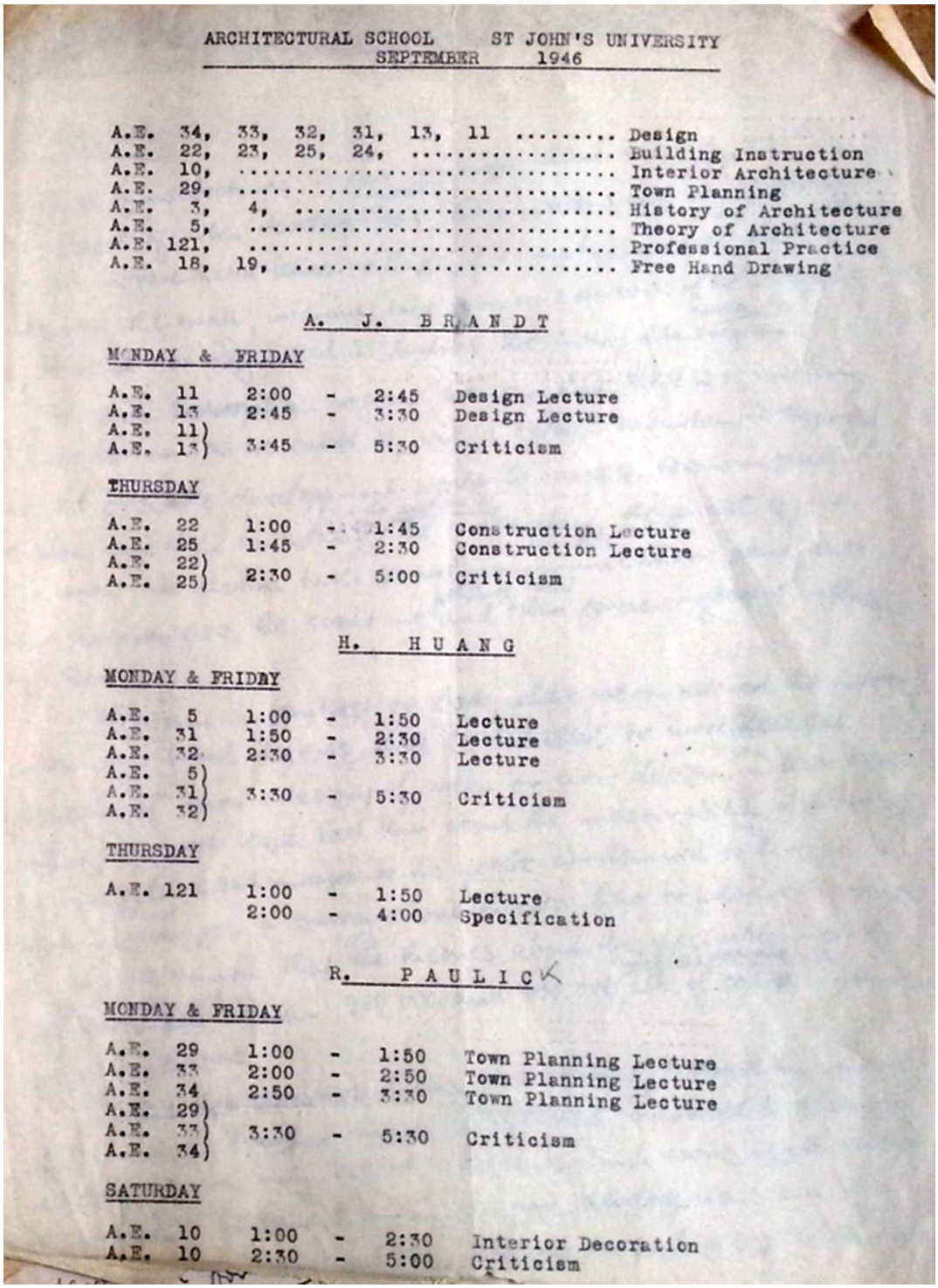
[440] Wang, "Interview with Mr. Guo Dunli 郭敦礼先生谈圣约翰大学学习及在港开业经历," 104.

[441] Lu, "On Teaching History of World Architecture in Tongji 同济外国建筑史教学的路程," 27.

> *course, other teachers besides us, who are, however, rather old-fashioned. I feel, that due to Shanghai having been cut off from communication for such a long period that I must have lost touch with recent development. I have noticed this already previous to the outbreak of the war, and am now in Shanghai for more than twelve years.*[442]

Apart from Huang and Paulick, until after the end of the Second World War, there were no other modern figures amongst SJU's architecture faculty, only those who embraced Beaux-Arts-centric directionality and cardinal formalism.[443]

[442] Richard Paulick to Walter Gropius, 27 August 1945. Bauhaus Archive, BHA_GS19_Mp529_02_003r.
[443] Lu and Qian, *Commemorative Accounts of Huang Zuoshen* 黄作燊纪念文集, 212.



ARCHITECTURAL SCHOOL ST JOHN'S UNIVERSITY
SEPTEMBER 1946

A.E. 34, 33, 32, 31, 13, 11	.....	Design
A.E. 22, 23, 25, 24,	.....	Building Instruction
A.E. 10,	.....	Interior Architecture
A.E. 29,	.....	Town Planning
A.E. 3, 4,	.....	History of Architecture
A.E. 5,	.....	Theory of Architecture
A.E. 121,	.....	Professional Practice
A.E. 18, 19,	.....	Free Hand Drawing

A. J. BRANDT

MONDAY & FRIDAY

A.E. 11	2:00	-	2:45	Design Lecture
A.E. 13	2:45	-	3:30	Design Lecture
A.E. 11) A.E. 13)	3:45	-	5:30	Criticism

THURSDAY

A.E. 22	1:00	-	1:45	Construction Lecture
A.E. 25	1:45	-	2:30	Construction Lecture
A.E. 22) A.E. 25)	2:30	-	5:00	Criticism

H. HUANG

MONDAY & FRIDAY

A.E. 5	1:00	-	1:50	Lecture
A.E. 31	1:50	-	2:30	Lecture
A.E. 32	2:30	-	3:30	Lecture
A.E. 5) A.E. 31) A.E. 32)	3:30	-	5:30	Criticism

THURSDAY

A.E. 121	1:00	-	1:50	Lecture
	2:00	-	4:00	Specification

R. PAULICK

MONDAY & FRIDAY

A.E. 29	1:00	-	1:50	Town Planning Lecture
A.E. 33	2:00	-	2:50	Town Planning Lecture
A.E. 34	2:50	-	3:30	Town Planning Lecture
A.E. 29) A.E. 33) A.E. 34)	3:30	-	5:30	Criticism

SATURDAY

A.E. 10	1:00	-	2:30	Interior Decoration
A.E. 10	2:30	-	5:00	Criticism

Fig. 4.16 The architectural curriculum at SJU in the autumn semester of 1946

To make up for Hajek's very traditional approach to the history of architecture, Huang aptly integrated the history of modern architecture into his course A.E. 5—Theory of

Architecture—every Monday and Friday.[444] Zhang Weicheng (Class of 1961) explained: "Before sitting at the feet of Gropius, Huang [at age 24] had gone from London to Paris to meet with Le Corbusier. His knowledge of modern architecture was profound and ahead of his peers"[445] [Fig. 4.17]. As a result, Huang stood at the very vanguard, in China at that time, by lecturing on four masters in the modern movement of architecture.[446] Bai Demao (Class of 1945) elaborated on Huang's pedagogy:

> *In his lectures about the theory of modern architecture, Huang focused on the ideas and works of several avant-gardist architects. In particular, the Bauhaus founder Walter Gropius and his "*Form follows function*" for emphasising the importance of a building that reflects its purpose; Le Corbusier and his "*House is a machine for living in*" for refusing unnecessary parts of design; Mies van der Rohe and his "*Less is more*" for the beauty of simplicity without useless decoration; Frank Lloyd Wright and his "organic architecture" for the respect of built environment and surroundings.*[447]

Alongside reading Sigfried Giedion's *Space, Time and Architecture* (1941) as a textbook, Guo remembered becoming acquainted with the likes of Gropius and thinking of architecture in terms of industrialisation, rather than being taught about classic styles.[448]

Fig. 4.17 Sent to a Catholic school in Tianjin's French Concession from the age of five until he left for England at age fourteen, Huang (left) communicated with Corbusier (right) in fluent French in Paris, 1939

[444] According to Bai and Zeng, Huang's lectures on history were along the same lines as his theory courses. See Lu and Qian, *Commemorative Accounts of Huang Zuoshen 黄作燊纪念文集*, 206, 212.
[445] Lu and Qian, *Commemorative Accounts of Huang Zuoshen 黄作燊纪念文集*, 173.
[446] Lu, "On Teaching History of World Architecture in Tongji." 27.
[447] Lu and Qian, *Commemorative Accounts of Huang Zuoshen 黄作燊纪念文集*, 136–137.
[448] Wang, "Interview with Mr. Guo Dunli 郭敦礼先生谈圣约翰大学学习及在港开业经历," 104–105.

Nevertheless, Huang's architectural theory pedagogy did not present only historical ideas. It was similar to Hudnut's architectural history pedagogy at GSD—a course that Master Class students would have audited during their postgraduate training. Hudnut "was broadly humanistic in his lectures, including not only buildings but paintings, sculpture, literature, technological developments, social customs, and politics as he tried to demonstrate that cities were not just great machines for production and consumption."[449] Likewise, "in order to provide a background for the understanding of present civilisation and its relation to that of the past," in his A.E. 5 course [Table 4.1] Huang addressed not merely "history," but also "politics, philosophy, sociology, psychology, literature and art."[450] Like Hudnut, Huang often engaged fields other than architecture in his theory class or design studio like, for example, the paintings of Henri Matisse, Pablo Picasso, and Amédée Ozenfant, or the musicianship of Claude Debussy, Dmitri Shostakovich, and Arnold Schönberg.[451] Thus it can be seen that Huang's theory of architectural function surpassed Gropius's material (or physical) method by including a spiritual (or psychological) dimension, while the Bauhaus founder insisted that "there is no need for the architect to compile a complete knowledge of all the ancient and modern buildings, paintings and sculptures, to become a master of his profession."[452] In so doing, Huang emulated a pedagogical approach that no other American school offered in the 1940s, let alone any other Chinese school, where architecture remained, as Huang's colleague Paulick criticised, "a purely decorative art, which it was some fifty years ago, in the time of Camillo Sitte."[453]

Table 4.1 The framework of Huang's Theory of Architecture course in the 1940s

A.E. 5: Theory of Architecture, Department of Architectural Engineering, St. John's University (Monday and Friday)
● Outline:
1. Introduction—Architecture and Science, Technique, Art
2. History & Theory—Architecture and Context, History's Value in Architecture
3. Time & Living—On Machine
4. Time & Architecture—Artistic Perspectives of Ages
5. Architecture & Circumstance—Urban Planning and Built Environment

[449] Walter Creese to Jill Pearlman, 28 September 1987 (Courtesy of Jill Pearlman); Creese was once Hudnut's Civic Design course teaching fellow.
[450] Huang, "The Training of an Architect [text in English]."
[451] Luo and Qian, "Remembering Huang Zuoshen 怀念黄作燊," 54–55.
[452] Gropius, "Training the Architect," 149.
[453] Paulick, "Planning and Town Planning."

	The explanation for the principles of new architecture, in terms of historical background and socio-economic context, and those requirements regarding aesthetics, function, and structure, including the goals of the new architecture. Criticism of examples of new architecture and new architects and their survey.
●	Course References: Maxwell Fry's *Architecture for Children*, Clough Williams-Ellis's *Architecture of Building*, Le Corbusier's *Toward a New Architecture*, F. L. Wright's *On Architecture*, F. R. S. Yorke's *A Key to Modern Architecture*, Sigfried Giedion's *Space, Time, and Architecture*.

In SJU's architectural theory course, when it came to "the principles of new architecture" in the A.E. 5 syllabus, Huang mentioned "function" and keywords like atmosphere, manner, and charm. Fan offered this genuine experience:

> *Upon Liang Sicheng's invitation to Beijing in 1949, Huang took me. After travelling by train in the morning and some rest in the afternoon, he asked me to join him in visiting The Forbidden City (that was my first time in the city), and required me to stand right on the central axis to empathise with the imperial momentum stemmed from its spatial "approach" to the spaces, what he called "Chinese vigour" in concluding his lessons on "spiritual function."*[454]

Huang used many creative ways to incorporate "contemporary Chinese architecture capable of coping with the modern requirement"[455] into his pedagogy. Born in Tianjin in North China, he was a Beijing opera expert and often invited students to watch performances. In so doing, he used Mies van der Rohe's motto "less is more" when acquainting students with the abstract movements and brief sets, props, and costumes on the stage; he said that the same is true in architectural design. Huang's theory of how to approach Chineseness in architecture was also applicable to the West. He once greeted student Luo Xiaowei with a familiar yet meaningful question: "How much space in a Gothic church is employed for practical use?" He was also well known for his stage design for the musical "Robot" in China when his brother, Huang Zuolin, directed the show written by Czech playwright Karel Čapek in 1921 [Fig. 4.18].[456] The set addressed the idea of "spacious," which Fan said was one of the Avant-Garde spatial terms

[454] Fan Shupei to Qian Feng, June 2001, courtesy of Qian Feng. It was during those intervening years of modern China's regime transfer that Huang's and Liang's paths crossed.
[455] Huang, "Chinese Architecture [text in English]."
[456] Lu and Qian, *Commemorative Accounts of Huang Zuoshen* 黃作燊纪念文集, 109.

(alongside “material, texture, proportion, harmony, contrast, rhythm”) that Huang also used to describe some traditional Chinese paintings.[457]

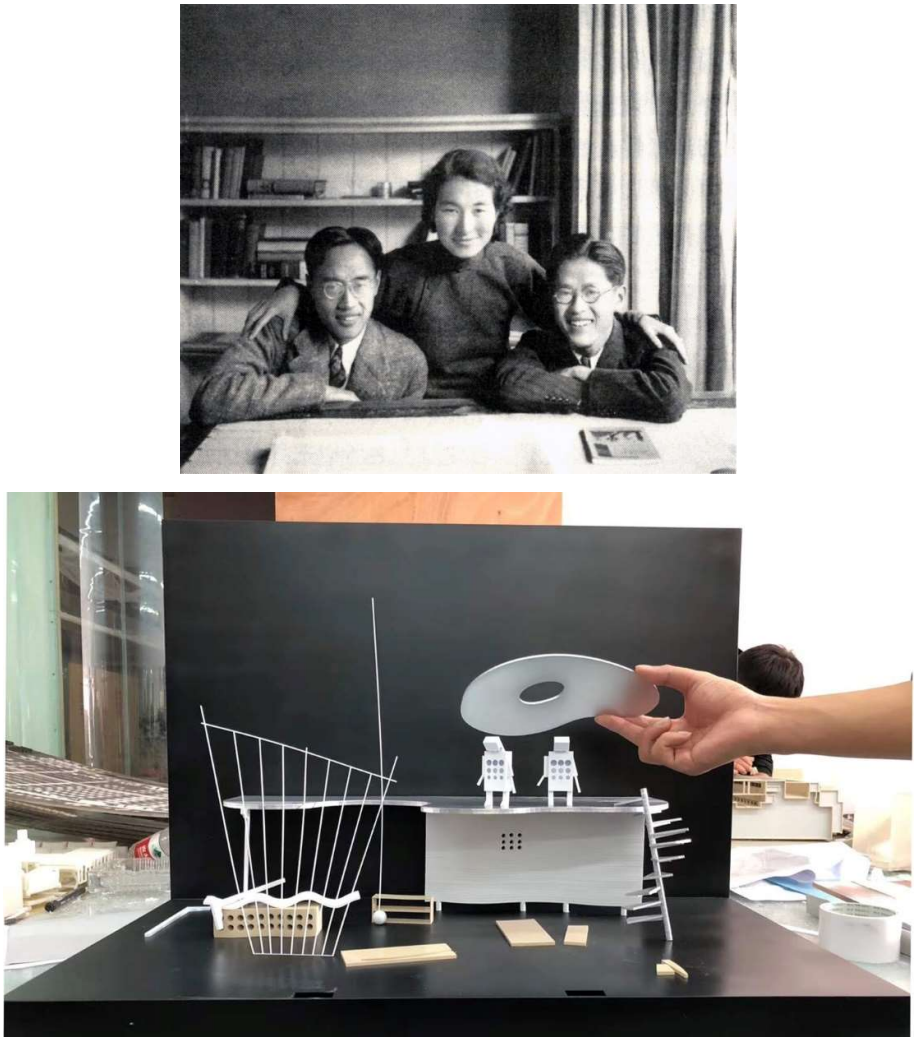


Fig. 4.18 Playwriter and theatre director Huang Zuolin, his actress wife Danny, and Huang Zuoshen (above, left to right) in London, 1937; a recent model of Huang’s Bauhaus-inspired “Robot” stage design from 1945 (below), with a dark backdrop and small light bulbs indicating celestial bodies. The general stage set[458] was intended to produce a sense of the unlimited depth of the universe.

[457] Fan Shupei to Qian Feng, June 2001, courtesy of Qian Feng.

[458] At the right corner of the stage, they arranged a spiral staircase that connected to an overhanging slab aimed to produce an enclosed space. At the left side, an interesting spatial configuration built with abstract formal components—including strings, corrugated panels, and cantilevered posts—created an in-between space correlating the enclosed space with the expansive universe. A model of Huang’s 1945 stage design was reproduced as part of “serial commemoration events of 100-years-bauhaus” at Tongji University’s College of Architecture and Urban Planning—A Hundred Year Legacy: A Dialogue with Bauhaus in the Preliminary Course in Tongji's Architectural Education—in 2019. However, Huang was never formally educated as a stage designer as Lin Huiyin (Liang Sicheng’s wife) was at Yale; instead, that production must have been related to his transposed experience of his favourite Peking Opera and Kunqu Opera.

4.3 The Living Spirit of Architecture

> *The above three points [scientific, popular, and Chinese] can be applied to architecture but also to other aspects, especially things that directly interact with people's daily lives. The scope of such design work, from everyday appliances to urban and rural planning, can follow this direction. The new way of life must be harmonious and orderly, and the new society [of People's Republic] must be realised. China will inevitably embark on the road of industrialisation, and architecture will move forward simultaneously.*[459]

Based on the three directions—*scientific*, *popular*, and *Chinese*—Huang averred for Chinese architecture at the Architecture Is Not Only Housing symposium, Huang's pedagogy in Shanghai was namely "training architects to plan for the whole communities, landscapes, and parks, proper location of factories, housings, and recreational facilities, all inter-related in a compact and efficient society."[460] It was through this viewpoint—rather than through Bauhaus *Vorkurs*-inspired pedagogy—that Huang surpassed Gropius's focus on the design of a housing unit in relationships to its context. Rather than Gropius's open-ended compositional possibilities, Huang taught architecture students at SJU that "space [the core focus of the modern architect-planner] is not confined to the building alone, it goes from the building to the garden, landscape, on to the street, the street then is a part of the town, till finally, the implications rest with our regional and national planning."[461] In this light, architecture and town planning at SJU were one and the same thing.

During the immediate years following the Second World War, Huang noted that "the reconstruction of devastated regions and towns as well as the normal building and planning programs have caused everywhere a great demand for architects, town planners, and building technicians."[462] Given Huang's previous training at both the AA and GSD,

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459 "Architecture Is Not Only Housing: A Symposium 座談紀錄：建築不僅是造房子而已," 32
460 Huang, "The Training of an Architect [text in English]."
461 Ibid.
462 Ibid.

such an interdisciplinarity approach to architecture was not new for him. He was also joined by other architect-planner colleagues who partook of the "art and science of town-planning, a subject that architecture cannot be divorced from." Huang explained:

> *Today architecture and town planning are essential factors in the political, social, and cultural reconstruction of the country. Architecture becomes part of this effort, helping to shape and to direct it. When there is a fundamental change in society, there is a corresponding change in architecture, and hence also a change in architectural education…Architectural education should keep an open mind and a close contact with reality. It should also emphasise the role of architecture and town planning as arts of civilisation in general, instead of treating them as independent subjects, because one influences another. Students must be conscious of this inter-relationship all the time.*[463]

The influence of Gropius's "total architecture" at SJU's department of architectural engineering was extended to the 'total environment'. This openness recalled Zevi's petition at GSD: "Landscape students at Harvard are required to take first-year architecture design. Architectural students should also be aware of landscape problems. This can best be accomplished through collaborative problems…This should hold not only for the larger problems of town and regional planning but for the small house problem as well."[464]

In retrospect, Huang's progressive conception of new architecture, which was inspired during his early training in London, never faded despite his later time at Harvard. While the AA's students united to dismantle the pedantic *esquisse* and the Year System, GSD faced the 'battle' over Basic Design between Hudnut and Gropius that exacerbated the divides within the students and the faculty. In his interview with Qian Feng, Zhao Hanguang's (Class of 1952) recollection showed how SJU's progressiveness in part resulted from Huang's familiarity with not only Gropius's uncertainties about Harvard's pedagogy but also the Bauhaus founder's conflicts with the GSD dean:

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[463] Ibid.

[464] Bruno Zevi, *An Opinion on Architecture*, 19.

> *In fact, Mr. Huang taught while learning, because there is no complete education system in the United States. The idea that Gropius preached at Harvard is a kind of fire that lights up the minds of students, but it cannot be practised like he did at the [original] Bauhaus…Gropius's education system at Harvard was not fully implemented because his relationship with the dean [Hudnut] was not very good.*[465]

As a result, Huang did not embrace a rigid idea of the *modern* laden with set discourse concerning "a so to speak cut and dried Modern Style"[466]; only *contemporary* made sense to Huang, "a living architectural spirit…that in all countries Youth and Maturity has been fired with its inspiration."[467] As Fan Shupei explained:

> *He resented that some people regard modern architecture as "international style" since he opined that it is the only redundant decoration against modern architecture. Modern architecture must be "vernacular"—rather than "international"—as long as it reflects workable functions (both material and spiritual ones) and reasonably employ proper technique as well as appropriately addresses local context.*[468]

To reiterate what was stated in the introduction, Huang felt that *modern* was static. In contrast, *contemporary* was dynamic. (Therefore, for example, it was not surprising that when Huang's architect-student Wang Jizhong inaugurated his own interior design business, he named the company "Contemporary" [*Shi Xin*; 時新]).[469]

4.3.1 Beyond Total Architecture and Gropius

Huang's teaching of "practising a false question" in design studios trained his students in

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[465] Lu and Qian, Commemorative Accounts of Huang Zuoshen 黃作燊纪念文集, 217.
[466] Gropius, "Architecture at Harvard University," 9.
[467] Huang, "Architecture at St. John's [text in English]."
[468] Fan Shupei to Qian Feng, June 2001, courtesy of Qian Feng.
[469] "*Shi Xin*" in Chinese 時新 means to keep renewing all the time; see Fan Shupei to Qian Feng, June 2001, courtesy of Qian Feng.

an approach encapsulated in the MARS 1938 exhibition: "Architecture is not the crude equation of means and ends. There are formal problems which must be solved."[470] Likewise, Huang's student Fan Shupei recalled that, in his first theory class, Huang wrote, "House is a machine for living in!" and "FUNCTION" in upper case on the blackboard. However, Fan said, "He would not accept people regarding modern architecture as functionalism. To argue that, Huang reckons it as the beginning, rather than the end, of design."[471] In this sense, Huang's functionalist approach to architecture—to be more precise, a new vernacular architecture, borrowing from his AA peer Anthony Cox—should be considered to apply to principles rather than means.

It was through Sir Thomas Jackson's view on "building beautifully," noted above, that Huang went beyond Gropius's emphasis on function—which can be summed up by Gropius's statement "Only perfect harmony in its technical functions as well as in its proportions can result in beauty."[472] Instead, Huang aligned his pedagogy with Zevi, who said: "We want the slogan 'Form Follows Function' (Sullivan) finally to become a reality. We want a working class with recognised technical rights, men specialised in their fields, not slaves of the SPECIFICATIONS of the architect who does not know."[473] Both Huang and Zevi embraced research and group work, two of the most critical components they had shared during their everyday experience of the Unit System at the AA.

Cox summarised the effects of these practices on the study of architecture in "The Training of an Architect," his open letter in the first edition of the AA's *Focus* against H. S. Goodhart-Rendel, who threatened the dissolution of the Unit System. He wrote of architect-students creating "a new vernacular architecture: vernacular in the sense that it is truly indigenous to the conditions from which it springs, and how it aims to satisfy them, and therefore, to-day, a dynamic tradition as opposed to a formalistic one."[474] However, that was something that hardly ever happened at the feet of Gropius at GSD since his Master Class accommodated only experienced architects, for whom "graduate schools of architecture [should] offer a refinement of training and a better preparation for future practice. This training differs from that of preceding years only in degree, the

[470] Charles-Édouard Jeanneret (Le Corbusier), "The MARS Group Exhibition of the Elements of Modern Architecture: A Pictorial Record," *Architectural Review* (March 1938): 112.
[471] Fan Shupei to Qian Feng, June 2001, courtesy of Qian Feng.
[472] Gropius, "Architecture at Harvard University," 9.
[473] Zevi, *An Opinion on Architecture*, 9.
[474] Cox, "The Training of an Architect," 29.

problems given more comprehensive and difficult and as close as possible to those of actual professional practice," and, in this sense, "teaching the history of art has so far been hypertrophical within the architect's curriculum."[475]

Li Ying, a fellow SJU architecture alumnus who later joined Gropius's Master Class after studying with Alvar Aalto at MIT, concluded that Huang "was not a copy of Gropius but surpassed him."[476] Current accounts to this day, continue to argue that Huang was solely influenced by Gropius and attribute all his pedagogies in Shanghai to the Harvard Bauhaus. However, Huang went beyond the original Bauhaus in his pedagogy from the outset. To let students experience different methods of approach to design without indoctrinating any 'style,' his modernist faculty even welcomed Poy Gum Lee, an American Beaux-Arts-trained architect. Bai Demao (Class of 1945) recalled Poy as an open-minded professional who did not force students to regard the model of the École in Paris as the best option:

> *That was very intriguing; he agreed with our opportunities to understand distinct architectural thinking. [While in charge of our thesis project of a theatre design in 1945] however, Lee did not ask us to follow his method since, at the time, there had been different approaches to design, the Beaux-Arts system was not the only option for us.*[477]

Huang may well have pondered Zevi's leftist criticism against their American alma mater: "The main object of architecture is to archive a proper relationship between the building type and the community as a whole…[GSD, however,] is isolated from outside life…Another consequence of this isolation is that our school reflects little of the social organisation of *contemporary* society."[478]

4.3.2 The Social Position of the Architect

There was a strong influence on Huang's use of history and theory at SJU's department

[475] Gropius, "Training the Architect," 148, 150.
[476] Cited in: Zhao, "Recalling Huang Zuoshen in a Dream," 156.
[477] Lu and Qian, *Commemorative Accounts of Huang Zuoshen* 黄作燊纪念文集, 157, 207.
[478] Zevi, *An Opinion on Architecture*, 3, 10, emphasis added.

of architectural engineering. Just as Huang and Zevi both took Gropius's part and held that *l'art pour l'art* was no longer adequate,[479] SJU's approach to architecture of *building beautifully* distinguished itself greatly from that at other, national universities, which sought to *beautify buildings*, following the Standard Minima strictly in the 1940s. According to Fan:

> *Our [early training] was different from that at [National] Central University. Theirs focused mainly on rendering praxes, ours on the theory of modern architecture introduced by Huang. To do that, he integrated architectural approaches and ideas from [the AA,] Harvard and Bauhaus for us; the class runs once a week. It was taught in English, lectures about some theories of modern architecture like "function" and so forth.*[480]

SJU was a Church-controlled organ, where English was the language of instruction, exempt from the Nationalist curriculum. As a result, it is not surprising to realise what Hua Yizeng (Fan's SJU classmate and later wife) added in their interview:

> *We were not systemically trained in rendering and drawing but, instead, learned related skills mostly from architectural magazines accommodated in Huang's residence, where we visited every week. He possessed lots of books at home, quite like a mini salon in doing so…Our assignments did not require us to draw alike by traditional schools, whatever we like.*[481]

To be more specific, "the process of drawing practice was considerably short," recalled Fan. "Mainly we worked on some shapes or desk and chair, on a watercolour of still objects and landscape, and often on a sketch on the street or in a park."[482] Compared with fine-art training at Beaux-Arts-design-based programmes, which might even include "sculpture and pottery" as well as "nude sketching" per the Standard Minima, instead Huang focused on cultivating students' ability to analyse elements of form and, as a result,

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[479] Walter Gropius, "Blueprint of an Architect's Education (Part One: Education of Architects and Designers)," in *Scope of Total Architecture*, ed. Ise Gropius (New York, N.Y.: Collier Books, 1955 [1943]), 51.
[480] Lu and Qian, *Commemorative Accounts of Huang Zuoshen* 黄作燊纪念文集, 198.
[481] Ibid, 203.
[482] Ibid, 53–55.

to communicate with not only professionals but also laymen regarding design using available representational tools.

On the other hand, Huang also encouraged students to pursue "Contemporary new architecture" in line with dynamic development over time, rather than "so-called Modern Architecture," which had become a static emblem of a specific period in history.[483] This open-minded pedagogy in architecture was probably the benefit of his first-hand reading of AA classmate Cox's *Focus* article tackling his "greatest scepticism": "Some people would have it that the stage has now been reached at which *modern architecture*, or the *new architecture*, call it what you will, has in some respects crystallised into a style, and that the time is ripe for *a new formal academy*."[484] Their mutual ideas were proven by the fact that, for his Shanghai speech a decade later, Huang borrowed Cox's exact title of "The Training of an Architect," and no one can ignore the similarities between their wordings throughout the article and speech. Zevi would also agree with Huang and Cox in this regard:

> *[This greatest scepticism] arose with the consciousness of new discoveries in the visual field, which was an international phenomenon. In fact, any architecture is regional, and, more than regional, is individual within its own specialised functions…It is for these reasons that the struggle for modern architecture [or new architecture, contemporary architecture, so to speak] is similar to the fight for* ***a new civilisation****.*[485]

Although this thesis argues that Huang would never suppose that one should call his *contemporary* architecture or (MARS-inspired) *new* architecture another *style* of modern

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[483] Luo and Li, "Department of Architectural Engineering of St. John's University, 1942–1952 原圣约翰大学的建筑工程系 1942—1952," 26. Luo and Li were both Huang's students and later a married couple who taught at SJU (as well as at its successor Tongji after 1952). This journal article was based mainly on a book chapter published a year before and co-authored by Luo and Qian, "Remembering Huang Zuoshen 怀念黄作燊." It was slightly revised and reprinted twice later: Luo Xiaowei and Li Dehua, "Disappeared St. John's University 消逝的圣约翰大学," *Architecture & Culture*, no. 5 (2007): 48; Luo Xiaowei and Li Dehua, "The youngest department at St. John's University—Department of Architectural Engineering 圣约翰大学最年轻的一个系——建筑工程系," in Xu Yihua (ed), *Shanghai St. John's University (1879–1952)* (Shanghai: Shanghai Renmin Chubanshe, 2009), 322–326.

[484] Cox, "The Training of an Architect," 27, emphasis added. One only needs to juxtapose this *Focus* article and the notes for Huang's speech titled likewise to see how much they shared the same concern and ideals in architectural education—even in terms of their wording.

[485] Zevi, *An Opinion on Architecture*, 14, emphasis added.

architecture, there is a logic in shifting to 'makeshift contemporaneities' instead of 'makeshift modernities' at SJU. Raymond Williams points out that "[modern's] earliest English senses were nearer our *contemporary* [(*dangdai*; 當代)], in the sense of something existing now, just now."[486]

Without a formal, stylistic language, this MARS-inspired makeshift contemporaneity represented "a living architectural spirit" while realising the significance of traditional aspects. "The new architecture," continued Huang at the ACEE at SJU in 1947, "is merely the outcome of an understanding of our present age and its technical possibilities, and the expression of such is a logical outcome of applying such technique on a rational basis to create an orderly social background to the difficult task of living and working."[487] Frankly proclaiming a call to arms in architectural education ("Architecture," after all, is "the setting of your life and work"), Huang aligned SJU's student work show to reflect the MARS Group's demonstration a decade ago, which the Group had described thus: "The exhibition is, if you like, propaganda."[488]

The reason why Huang tried to integrate "practising a false question" into the SJU design studio was to imbue student-architects with the idea that not only is "the opportunity and inspiration larger than the individual, and it is into the service of society that the architect can throw his whole personality," but also that there are both "demand and supply: a reciprocal relationship between client—the user of the building—and architect…So today, the most significant change has been the reorientation of the architect's relationship with society":[489]

> *Our guiding principle is that artistic design is neither an intellectual not a material affair, but simply an integral part of the stuff of life, to rouse the creative artistic from his out-of-this worldliness and reintegrate him into the workaday world of realities, but at the same time to broaden and humanise the rigid and almost exclusively material ways of real life. Thus our conception of the basic unity of all*

[486] Williams, *Keywords*, 174.
[487] Huang Zuozhen, "Architecture at St. John's," *Engineering Bulletin*, issued by The Sze School of Engineering, St. John's University (featuring Architectural and Civil Engineering Exhibition, June 4–8, 1947). Yale University, Divinity Library Special Collections, Box 239, RG11-239-3942.
[488] MARS Group, *New Architecture*, 6.
[489] Huang, "The Training of an Architect [text in English]."

> *design in relation to life is in the diametrical opposition to that of "art for art's sake" [to echo Zevi's questioning] and the even more dangerous philosophy from which it sprang from, business as an end in itself.*[490]

In summary, though Huang pointed out the new directions for modern Chinese architecture—scientific, popular, and Chinese—at the Architecture Is Not Only Housing symposium, he also regarded China's architecture as embodying Confucian responsibility and traditional virtues: honesty, simplicity, modesty, diligence, and hard work. Framed this way, one can see a Janus-faced characteristic in the architectural education in Huang's department of architectural engineering: on the one hand, Huang retreated from the Bauhaus/CIAM modernist hegemony; on the other, he rejected the Beaux-Arts ivory tower. Through the question- and research-based approach to design, a compromise could be reached in Huang's studio training between the ideological and formal factions present in the independent research GSD and the Unit-System teamwork at the AA. Not least, it is through considering the social position of an architect, as Huang did in his architectural theory course, that Huang at SJU can be most easily compared Liang Sicheng at Tsinghua, the subject of the following chapters.

[490] Huang, "Architecture at St. John's [text in English]."

Part 2. Liang Sicheng and Environmental Design at Tsinghua University in Beijing

Chapter 5. Building (*Ying Jian*) Is Not Only Architecture

Trained at the most distinguished American Beaux-Arts architectural school in the 1920s, the University of Pennsylvania, Liang Sicheng is the most famous Chinese architect-teacher in the world for his work at the Society for Research in Chinese Architecture (SRCA) upon returning to China. However, this thesis focuses on a less-studied period of his life in the 1940s, when, as the inaugural chair of the Department of Architectural Engineering at Tsinghua University, he went for his last trip to the USA after the Second World War to renew the architecture pedagogies he had begun at NNU in the late 1920s. During this trip, he encountered the disciplinary expansion of architectural education to include planning education in the postwar context.

Liang stayed in the USA for less than a year, between 1946 and 1947. Still, during this limited time, in which he gave talks to art history students and showed his slides at Yale, "[Liang] managed also to participate in activities outside New Haven that spread his influence and enhanced his own familiarity with current professional developments after his long isolation."[491] In what follows, some specific evidence related to Liang's activities in the 1940s is revealed. In particular, Part 2 discusses his experiences at the Planning Man's Physical Environment (PMPE) conference and the University at Michigan, hitherto little discussed in the current scholarship on Liang and different from Liang's encounters in the USA in the 1920s. It was these postwar experiences of Liang's that, I argue, largely distinguished the architectural education at Tsinghua from that at NNU (belonging to an earlier period). At Tsinghua, Liang would focus on a critical pedagogical concept for environmental design in postwar China.

Part 2 of this thesis contains three chapters, which are organised thematically: Chapter 5 focuses on Liang's hope to set up a Department of Building at Tsinghua; Chapter 6 explains Liang's pedagogy for teaching architecture at an expanded scope that included city planning; and Chapter 7 details Liang's efforts to incorporate modern elements into

[491] Fairbank, *Liang and Lin*, 150.

his pedagogy at Tsinghua and the pedagogical practices at midwestern US institutions that inspired him.

This chapter, Chapter 5, focuses on Liang's concept of "building": By the time Liang was establishing the Department of Architectural Engineering at Tsinghua, he had come to believe that architectural education should be expanded beyond the design of individual buildings. He thought it should include "architecture, architectural engineering, city planning, gardening, [and] indoor decoration,"[492] and he believed these different disciplines would be best taught in individual departments housed under the roof of an overarching College of Building. This chapter gives an introduction to the context at Tsinghua where Liang tried to put these ideas into practice. It then traces two important influences on Liang's concept of building from his 1946–1947 US travels: the advice Liang received from Yale faculty member Wu Kinglui, a Chinese architect who had trained at Harvard GSD but now focused on town planning, and the insight he gained from the PMPE conference at Princeton University, where prominent architects discussed wide-scale consideration of the physical environment in which people live. Finally, this chapter introduces documents that show Liang's attempts to set up a College of Building at Tsinghua. It discusses how these efforts reflect the Vitruvian values of *utilitas, venustas*, and *firmitas*, concepts Liang later used to frame his theory of socialist architecture and that may well have guided his vision for Tsinghua.

Although Liang had a similar socialist mindset to Huang's at the American-funded St. John's University in Shanghai, Liang had to carry out his progressiveness within a distinctive terrain that was governed by Chinese authority. Established in 1911 as a preparatory school for America-bound teenagers who had benefited from Boxer Indemnity Scholarships and were going to study in the USA,[493] Tsinghua became the KMT's national university in 1928[494] and remained subordinate to the Nationalist State

[492] Letter from Liang Sicheng to Mei Yiqi, 9 March 1945, Tsinghua University Archives.

[493] "The Boxer Indemnity Scholarship Program was the most important scheme for educating Chinese students in America and arguably the most consequential and successful in the entire foreign-study movement of twentieth-century China…especially after the founding of a specially designed preparatory school in Beijing." See Ye Weili, *Seeking Modernity in China's Name: Chinese Students in the United States, 1900–1927* (Stanford, Calif.: Stanford University Press, 2001), 10–11, quoted at 10, as well as 53, 65, 141 for their origin, and the numbers of students who received them.

[494] "[Tsinghua *Xuetang*] was renamed Tsinghua [College] in 1912. The university section was instituted in 1925. The name National Tsinghua University was adopted in 1928." See Gu Daqing, "An Outline of Beaux-Arts Education in China: Transplantation, Localisation, and Entrenchment," in *Chinese Architecture and the*

during the Republic era (until November 1948, when the KMT lost Beijing to the Communists). After Liang's second trip to the USA, he realised that there were quite a few problematic issues within China's standardised curriculum for engineering colleges—including the architecture programmes within them—that he had himself helped to legislate two decades ago. These issues became particularly apparent during postwar reconstruction. For the sake of his Department of Architectural Engineering at Tsinghua University, Liang wrote to those with influence from time to time when he needed amendments to the obsolete courses at Tsinghua. His writing took many forms and addressed a range of readers: state papers for the Ministry of Education, letters to the president of Tsinghua, and newspaper articles addressing the people.

Liang is well known for founding two departments of architectural engineering in China after he received both a bachelor's and a master's degree in architecture at the Beaux-Arts-design-based University of Pennsylvania, both in 1927. First, he founded a short-lived (1928–1931) programme at NNU—called "A Branch of Penn" by Gu Daqing[495]—in Shenyang. Secondly, he founded a modern programme at Tsinghua University in Beijing starting in 1946. This second programme is the focus of Part 2 of this thesis. Liang's pedagogical progressiveness, which was also marked by the need to reconstruct war-torn China, was, however, only demonstrated to the initial alumni of Tsinghua's department of architectural engineering, those who graduated no later than 1949. That was the year that China's Communist Party (CCP) decided to follow Soviet experts' advice on nearly all critical fronts of China's socialist reconstruction. Then, in 1952, came a restructuring of the higher education system that eventually reinstated the Beaux-Arts method again as the model for architectural education in the whole country. Part 2 focuses on Liang's pedagogy during this period in the late 1940s before his work was engulfed by these larger educational reforms.

Beaux-Arts, eds. Jeffrey W. Cody, Nancy S. Steinhardt, and Tony Atkin (Honolulu: University of Hawai'i Press, 2011), 87, note 3. According to Ye, Tsinghua *Xuexiao*'s English name was "Tsinghua College,"—rather than "Tsing School" as Gu originally put it—and this is confirmed by Tony Atkin, "Chinese Architecture Students at the University of Pennsylvania in the 1920s: Tradition, Exchange, and the Search for Modernity," in *Chinese Architecture and the Beaux-Arts*, eds. Jeffrey W. Cody, Nancy S. Steinhardt, and Tony Atkin (Honolulu: University of Hawai'i Press, 2011), 51; see also Ye, *Seeking Modernity in China's Name*, 233–234, note 60.

[495] Gu Daqing, "An Outline of Beaux-Arts Education in China: Transplantation, Localisation, and Entrenchment," in *Chinese Architecture and the Beaux-Arts*, eds. Jeffrey W. Cody, Nancy S. Steinhardt, and Tony Atkin (Honolulu: University of Hawai'i Press, 2011), 75. For more about Liang's programme in Shenyang, see Xu Huan, "Northeast University's Architectural Education and its Pedagogical System (1928–1931) 东北大学建筑系及其教学体系述评（1928—1931）," *Architectural Journal*, no. 1 (2007): 95–97.

Liang Qichao (Liang Sicheng's father, the foremost intellectual leader of China in the first two decades of the twentieth century[496]) had used his influence to press Tsinghua University—which, at that time in 1928, had just became a full-fledged national university[497]—to "consider (reluctantly) offering [his son] a lectureship (in architecture?) and an opportunity to teach drafting."[498] However, it was not until the postwar era that Liang started his teaching career in Beijing. He obtained this post on his own by writing to then Tsinghua President Mei Yiqi from a small town in Sichuan province's Nanxi District, Li-Chuang, in March of 1945 when the Second World War seemed to be coming to an end:

> *As soon as the war is over, we may set up the College of Architecture and gradually add departments like architectural engineering, city planning, gardening, and indoor decoration as allowed by the situations. …To serve the following city construction, we must cultivate architecture professionals. And it is time for Tsinghua to stand out and shoulder the responsibility.*[499]

To do this, Liang proposed founding an architectural programme in Tsinghua' engineering college.

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[496] It is important to position Liang's writings on Chinese architectural history in the context of the greater task of compiling histories of Chinese culture that his father ardently advocated for; see Li, "Writing a Modern Chinese Architectural History," 35. Joseph R. Levenson has called the elder Liang "the mind of modern China" since, after China's humiliating defeat by Japan (1894–1895), he joined Kang Youwei and helped usher in the Hundred Days of Reform (*Bairi Weixin*; 百日維新) in the summer of 1898. The suggested changes included setting up modern schools, remaking the 2,000-year-old civil service examination system, and reorganising virtually every activity of the Qing government. When the empress dowager Cixi halted their reform, warrants were issued for the arrest of Liang Qichao, Kang, and other reformers. Liang fled to Japan, and it was during his exile that Liang Sicheng was born in Tokyo. See Joseph R. Levenson, *Liang Ch'i-Ch'ao [Liang Qichao] and the Mind of Modern China* (Cambridge, Mass.: Harvard University Press, 1953).

[497] Tsinghua Xuetang was originally established in 1911, under the terms of the Boxer Indemnity Fund, as a preparatory school for students whom the government would send to study at universities in the USA. The school was renamed Tsinghua College in 1912. Its university section was instituted in the year that followed Liang's graduation in 1925 before the name National Tsinghua University was adopted three years later.

[498] Fairbank, *Liang and Lin*, 33. While considering Tsinghua, the elder Liang was also planning for his daughter-in-law Lin Huiyin to teach at nearby Yenching University; see Liang, Qichao, "Liang Qichao's letter to Liang Sicheng on 4 May 1928 1928 年 5 月 4 日致梁思成," in Complete Works of Liang Qichao (vol. 10) 梁啟超全集（第十卷）, eds. by Yang Gang and Wang Xiangyi (Beijing: Beijing Publishing House, 1999), 6292.

[499] Letter from Liang Sicheng to Mei Yiqi, 9 March 1945, Tsinghua University Archives.

5.1 The Links between Tsinghua and Wu Kinglui at Yale

After eight punishing years during the War of Resistance in exile in remote provincial areas in southwestern China (very different from metropolitan centres that saw an inflow of cosmopolitan ideas), Liang turned his back on the Beaux-Arts pedagogy he had embraced in his youth and professed great admiration for the practical side of "Professor G." (*g jiaoshou*; G. 教授). He also came to value the attention to social and cultural factors in the built environment.

Mei accepted Liang's advice and announced the founding of Tsinghua's Department of Architectural Engineering in its engineering college in February 1946. He appointed Liang as department chairman upon his arrival in Beijing late that July. School started on the 5th of November, the first day of the restoration of the University's Haitien campus.[500] After many years of poverty and isolation, Liang was ready to start at the newly established department and take it in a different direction from NNU's. However, at the suggestion of Liberal Arts Dean Feng Yulan, Mei encouraged Tsinghua's professors to broaden their horizons for a year overseas and thus to enrich their pedagogies in class.[501]

Liang went to the USA to study current programmes at architectural schools there. He embarked on constant travel to numerous campuses on a tight budget and also spent time at both Yale and Princeton Universities. On the one hand, Everett V. Meeks (Chairman of Yale's Department of History of Art)[502] invited him to New Haven from 1946–1947 as a visiting professor in Chinese Art and Architecture.[503] On the other hand, Princeton wanted him to participate in the international conference on Far Eastern Culture and Society (FECS; 1–3 April 1947; Series 2, Conference 7) during the observance of its bicentennial year in 1947.[504] These invitation letters from two leading universities

[500] Compilation Group of Tsinghua University's History, *The Manuscript of Tsinghua University's History* *清华大学校史稿* (Beijing: Zhonghus Book Company, 1981), 431–432.
[501] Ibid., 434, 436, 452. However, according to Fairbank, the opportunity was offered by the Ministry of Education; see; Fairbank, *Liang and Lin*, 112, 158. In either case, one thing remains unchanged: The budget was very limited.
[502] Meeks was the dean of the Yale School of Art (1922–1947), where architecture became a department in 1916. Eero Saarinen and Wallace Harrison served as teachers there. It was under Meek's influence that architecture chair Harold Hauf hired Louis Kahn.
[503] Wu King-Lui, "Biographical sketch of Ssu-cheng Liang, 1981," 1, in King-Lui Wu Papers, Manuscripts and Archives, Yale University Library, MS 1842, Series II, Box 104, Folder 7.
[504] Fairbank, *Liang and Lin*, 148.

provided Liang with an opportunity to renew his ties with the USA.

Owing to the traffic turmoil of the immediate years following the Second World War, it was not until November 1946 that Liang settled down in New Haven after a fortnight-long trans-Pacific voyage. It was teaching as a visiting scholar in Yale's Department of the History of Art that enabled Liang to meet with Wu Kinglui, a junior faculty member at Yale who had a town planning focus. Wu had studied at Harvard GSD (Master's Class of 1944). Knowing Liang was launching a new architectural programme in Beijing, not only did Wu provide the latest curriculum from both Harvard and Yale as a reference, but he also assisted Tsinghua in purchasing important books on American and European architecture and urbanism for Liang's newly prepared departmental library.[505] The "Library" entry at the bottom of Wu's note on their conversations [lower page, Fig. 5.1], shows the books on city planning he recommended to Liang "that should be available in the library of the new department"[506] at Tsinghua.

According to Liang's working diary, upon finishing his teaching duties at Yale, Wu joined Liang on a visit to the China Institute in New York City. It had been founded in 1926 by the China Foundation for the Promotion of Education and Culture (*Zhonghua Jiaoyu Wenhua Jijinhui*; 中華教育文化基金會), which also subsidised the *SRCA Bulletin* during the Second World War.[507] Liang went with Wu to purchase those publications conducive to the upcoming courses at Tsinghua, especially those driven by the "total environment" that Wu noted as "the best" [upper page, Fig. 5.1] or, in Liang's own words, "City Substance-Form Planning."[508] Against the background of the Second World War, the China Institute (*Hua-Mei Xiejinshe*; 華美協進社)[509] in New York City was ensuring

[505] Liang Sicheng, Working Diary (between 22 June and 1 August 1947), 27 June 1947; Mei Yiqi, "Colleges and Departments at Tsinghua 本校各院系略述," *Tsinghua Alumni Correspondence*, Postwar no. 4 (June 1948): 5.

[506] Fairbank, *Liang and Lin*, 149.

[507] The Boxer Indemnity remission from the UK also was used, in addition to funding support from China's Ministry of Education; see Liang Sicheng, "Reissue Word 復刊詞," *SRCA Bulletin*, vol. 7, no. 1 (October 1944): 4.

[508] Liang Sicheng, Working Diary (between 22 June and 1 August 1947), 27 June 1947.

[509] The China Institute was founded with a second remission of the Boxer Indemnity in May I924. Because of the regional political division in China at that time, the funds were entrusted not to the Chinese government as was done with the first remission, which had been used to establish Tsinghua College (see 1.2.2). Instead, it was given to the China Foundation for the Promotion of Education and Culture (*Zhonghua Jiaoyu Wenhua Jijinhui*; 中華教育文化基金會) at $25,000 per year for three consecutive years, as the founding funds for the China Institute (*Hua-Mei Xiejinshe*; 華美協進社). The China Institute

that Sino-American relations continued to develop and that knowledge and books were exchanged between the two countries.[510]

was established in 1926 as a joint Chinese-American committee to promote education and culture. It was started by Chinese reformers Hu Shi and Kuo Pingwen and American educators John Dewey and Paul Monroe in New York City. It is the oldest bicultural, non-profit organisation in the USA to focus exclusively on China. During the Second World War full of gunpowder, the China Institute became an important window for Americans to understand China.

[510] The relationship between the China Institute and Tsinghua can be traced back to 1933 when Mei Yiqi—who chaired the Committee on Wartime Planning for Chinese Students in United States (*Liumei Xuesheng Zhanshi Jihua Weiyuanhui*; 留美學生戰時計畫委員會)—appointed alumnus Meng Zhi honorary director of the Chinese Educational Mission in the USA; see Tan Sor-Hoon, "China's pragmatist experiment: Hu Shih's pragmatism and Dewey's influence in China," *Metaphilosophy* 35, no. 1/2 (2004): 44.

Liang Z.C.

Time: 1946-47? Spring term

Place: J-E. Rm., Yale

Movements: New Haven, New York (U.N.), Cambridge and Princeton.

Atmosphere: Excitement for the future & quite moment in a College Rm.

Topics: The future of arch. in China with some discussion on planning a the total environment (the best).

Talk in Cantonese

His mood, his desires for C., his almost total trust in us

My admiration for his work, his father's work (both content & style) & his wife's work (thru the chaos & 文革)

Details: C. arch. & M. arch.
Western tech.
C. life, tradition & changing, how far one goes toward the west, how far we retain the past.

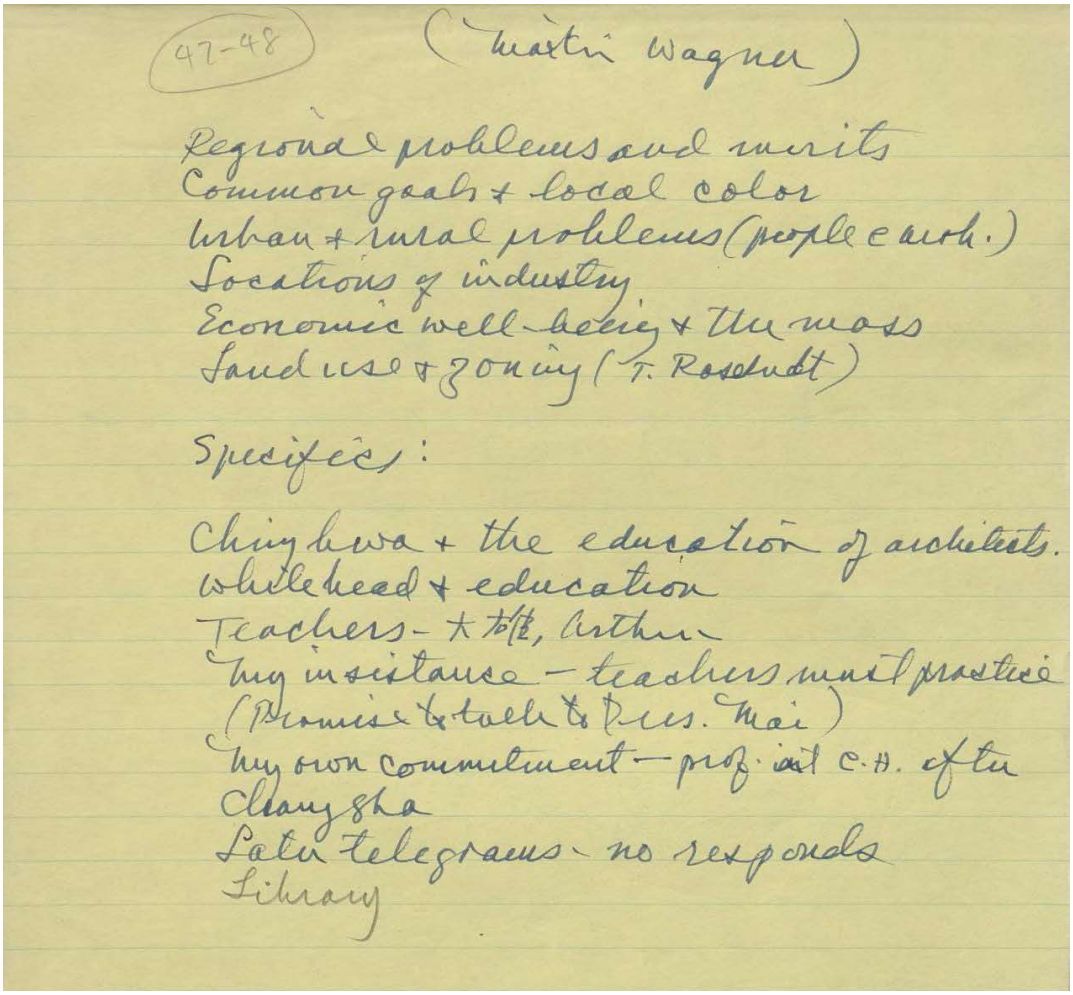


Fig. 5.1 Wu Kinglui's handwritten notes on his conversations with Liang at Yale, 1947

Not only did Wu Kinglui suggest to Liang readings on modern planning, but he also recommended potential modernist faculty for Tsinghua (none of whom were ultimately hired due to makeshift circumstances in the Civil War). During Liang's time in New Haven, Wu often visited his room at Jonathan Edwards College on campus and took note of their conversations: In the "1946–47, spring term," they discussed significant "Topics," in the so-called "J-E Room, Yale," such as "The future of arch. in China with some discussion on planning." Along with their dialogue in Cantonese, Wu was impressed by "[Liang's] mood, his desire for [China], his almost total trust in us."[511] [upper page, Fig.

[511] King-Lui Wu Papers, Manuscripts and Archives, Yale University Library, MS 1842, Series II, Box 104, Folder 7. This is from Wu Kinglui's notes on his conversations with Liang at Yale during the spring term when the latter held a visiting professorship in Chinese Art and Architecture (of which more in Chapter 7). In a letter of 1979 from Wilma Fairbanks to Earle Coleman: "Mr Liang received his architectural training at the University of Pennsylvania but spent his earlier years and all of his later years in China with the exception of the academic year 1946–47. In that year he was a visiting professor at Yale." See Wilma

5.1]

"Despite their wide differences in age, the two men found much in common,"[512] Fairbank remarked in her book *Liang and Lin*.[513] Moreover, Wu audited Liang's course by serving as a teaching assistant in that 1946–47 spring term and became impressed by the "excitement for the future" in his class. He wrote about Liang, "He was intensely interested in finding new architectural expressions for post-war China."[514] They were both concerned with rebuilding a war-torn China during the immediate years after the Second World War, and Wu viewed a teaching position at Tsinghua as a promising option in this regard. Also, he tried to help Liang 'modernise' Tsinghua's faculty by considering other contemporaries "trained abroad." Two of them, at the least, were recorded in Wu's conversation notes under "Ching hwa [the Wade-Giles romanisation of Tsinghua] + the education of architects." In terms of "Teachers" in its "Specifics" section [lower page, Fig. 5.1], Wu recorded "大雄" (*Daxiong*), an erroneous spelling of 大閎 (*Dahong*) without the first name Wang. Wang Dahong had studied mechanical engineering at the UK's University of Cambridge before moving to the USA. In addition, he mentioned "Arthur," short for Arthur Koon Hing Cheang (the Arthur Cheang mentioned in Part 1).

Both Wang and Cheang were members of Five United, one of the first architectural practices established in postwar China (mentioned in earlier chapters in connection to Huang Zuoshen). They were ideal teaching members for Liang since they had been schooled together first at the AA and then at Harvard's GSD. Liang had referred to the Bauhaus as early as his Letter 1 in March 1945,[515] and Wu as a GSD alumnus had impressed Liang so much that the latter even had put "鄔勁旅" (Wu's name in Chinese) on Tsinghua's revolutionary curriculum [see Fig. 6.1 in Chapter 6]. Unfortunately, due to

Fairbank to Earle Colman, 21 July 1979, in Liang Ssu-ch'eng, Honorary Degree Records, Box 13, AC106, Princeton University Archives, Department of Special Collections, Princeton University Library.

[512] Fairbank, *Liang and Lin*, 149.

[513] In 1981, Wu wrote a brief unpublished essay, "Biographical sketch of Ssu-cheng Liang." He had known someone else was going to do a more well-rounded version, saying, "Fairbank is writing a book on her old friend, Prof. Liang." This was later published as *Liang and Lin: Partners in Exploring China's Architectural Past* in 1994; see Wu, "Biographical sketch of Ssu-cheng Liang, 1981," 2.

[514] Wu, "Biographical sketch of Ssu-cheng Liang, 1981," 1–2. Plus, it is perfectly possible that Liang would have spoken several dialects, including Cantonese, especially when one considers the importance of Cantonese amongst the revolutionary nationalist core of his father's generation. After all, it was very nearly selected as the national language of the new China. For this information, I am indebted to Valerie C. Doran, email message to author, 24 March 2021.

[515] Letter from Liang Sicheng to Mei Yiqi, 9 March 1945, Tsinghua University Archives.

the heated Civil War on the mainland, Wang and Cheang—after a brief spell at Five United while teaching at SJU in Shanghai—moved to Taiwan and Hong Kong, respectively, in 1949. Returning to Yale, Wu Kinglui was also unable to fulfil his "own commitment—prof. at C.H. [Ching hwa] after Changsha" [lower page, Fig. 5.1] owing to the rapidly changing circumstances on the eve of China's revolutionary socialist state.[516] Fairbank depicted the situation thus: "Inflation had achieved frightening dimensions; householders living from day to day had to sell precious possessions to buy food, and the civil war was bad for the Nationalist government."[517]

5.2 Planning Man's Physical Environment (PMPE) at Princeton

On Liang's second excursion to the USA, he attended two conferences of note: Princeton University's Bicentennial Conference on Far Eastern Culture and Society (FECS), about which much has already been written, and an earlier conference, Planning Man's Physical Environment (PMPE). This latter conference has not featured prominently in previous scholarship, but it was key to his pedagogy in the early years of the Department of Architectural Engineering at Tsinghua.

Liang and his wife Lin Huiyin had many American friends, and amongst them the most famous were the Fairbanks: the Sinologist couple John K. and Wilma C. Fairbank. They were famous guests in Lin's living room in Beijing, an intellectual salon not unlike, as Wu opined, "the way Virginia Wolf did in London,"[518] and they shared much as friends. After Liang's passing in 1972, Wilma Fairbank started working—with familiarity, frankness, and eloquence—on manuscripts about him and his wife, their life, and their work. She made notes on Liang's "activities outside New Haven." In addition to Liang's visiting professorship at Yale in the History of Art Department, his visit to the Princeton University FECS Conference doubtless deserves attention since it was the consensus amongst many notable Chinese scholars, including Liang's Tsinghua colleagues Feng Yulan (Philosophy Department) and Chen Mengjia (Chinese Literature Department), that

[516] Wu designed the Changsha Medical Centre and thirty-seven buildings for the Yali Middle School (1947–1948), but Yale-in-China's restoration was ultimately abandoned as a result of the 1949 Civil War. Wu thus returned to Yale to assist the newly appointed architecture chairman George Howe in reforming the old-guard curriculum; see Stern and Stamp, *Pedagogy and Place*, 109.
[517] Fairbank, *Liang and Lin*, 153.
[518] Wu, "Biographical sketch of Ssu-cheng Liang, 1981," 2.

"Liang Sicheng was the prize"[519] [Fig. 5.2] for the conference organiser, George Rowley—Liang was the conference participant he sought most highly. Rowley was Princeton's specialist in Chinese and Japanese art, and his course was the first in that field offered in an American university.

Fig. 5.2 Liang at the FECS Conference, 1947, sitting next to and looking at John Fairbank, who is standing in the middle

In the third entry in her notes about Liang's activities beyond Yale in *Liang and Lin*, Fairbank mentioned Liang as the "leading figure at the FECS Conference [Fig. 5.3] followed by the award to him of a Princeton honorary degree,"[520] and she wrote to Princeton Archivist Earle Colman for further reference in 1979: "I am at present

[519] Fairbank, *Liang and Lin*, 152. Liang had triggered his reputation in Western academia in the late 1930s. With Fairbank's assistance, he was even able to publish articles in the predecessor of *Progressive Architecture*: Liang Sicheng, "Open Spandrel Bridges of Ancient China," *Pencil Points*, 19 (January 1938): 25–32; 19 (March 1938): 155–160. Plus, the final two issues of *SRCA Bulletin* (vol. 7, no. 1 & 2) involved making use of the primitive technique of printing, described as hand-stencilled lithography, in barren Li-juang between 1944 and 1945. Those painstaking processes and scholarly contributions, nevertheless, did earn him an international reputation that brought him to the USA again after the Second World War. Both Feng and Chen were likely referring to the same high esteem Liang was held in within the Princeton establishment.

[520] Fairbank, *Liang and Lin*, 150.

researching and writing a book on the life and work of an eminent Chinese architectural historian…[and] eager for any fuller information on Liang [Sicheng] which may be available at Princeton, either in the archive or elsewhere."[521]

Fig. 5.3 FECS Conference group outside the Princeton Inn, 1947 (Laing is seventh from the left of the first row)

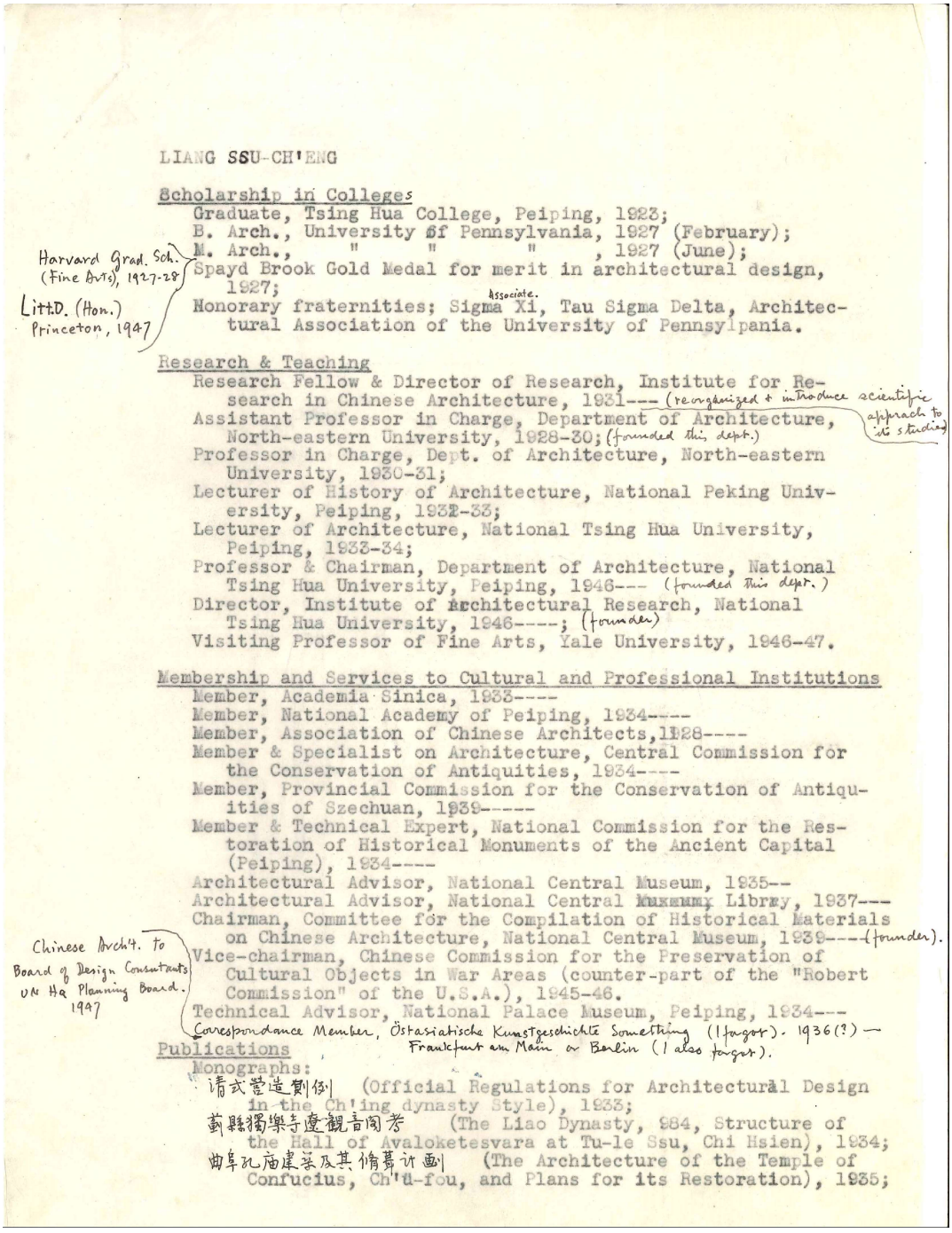
According to the original proceedings of the FECS Conference, Liang offered two lectures—Tang and Song Sculpture & Architectural Discoveries—during 3 April's session on Chinese Art and Archaeology. However, there was no record that Liang steered the conference, and Fairbank, when she called him a "leading figure" there, may have been just trying to honour her old friend. Nevertheless, she did include some dossiers supplied by Colman's assistant, Mrs. George E. McClelland, regarding Liang's footprints at Princeton. In addition to Liang's resume with handwritten annotations[522] [Fig. 5.4], McLelland showed Fairbank Liang's humble reply to then Princeton President Harold W. Dodds before he received his honorary doctorate in the Faculty Room at Nassau Hall. This demonstrated Liang's sense of his work as an architect-teacher: "It is a reward much too high for one who did nothing more than spending a disproportionately large part of

[521] Wilma Fairbank to Earle Colman, 21 July 1947, in Liang Ssu-ch'eng, Honorary Degree Records, Box 13, AC106, Princeton University Archives, Department of Special Collections, Princeton University Library.

[522] Liang also sent this resume along with his correspondence with Alfred Bendiner in April 1947. (A letter with the Curriculum Vitae was dated 26 April 1947, so this is how this archival dossier is dated in the thesis). Bendiner was an architecture classmate of Liang; they both graduated from the University of Pennsylvania with master's degrees in 1927. Liang calls him "Al" in the letters. I am indebted to Timothy H. Horning (Public Services Archivist at Penn Archives) for this information.

his time and energy in pursuit of perhaps the mere satisfaction of his idle curiosity."[523]

[523] Liang Sicheng to Harold W. Dodds, 15 March 1947, in Liang Ssu-ch'eng, Honorary Degree Records, Box 13, AC106, Princeton University Archives, Department of Special Collections, Princeton University Library; see also: Fairbank, *Liang and Lin*, 152.



LIANG SSU-CH'ENG

Scholarship in Colleges
Graduate, Tsing Hua College, Peiping, 1923;
B. Arch., University of Pennsylvania, 1927 (February);
M. Arch., " " " , 1927 (June);
Spayd Brook Gold Medal for merit in architectural design, 1927;
Honorary fraternities; Sigma Xi, Tau Sigma Delta, Architectural Association of the University of Pennsylpania.

Harvard Grad. Sch. (Fine Arts), 1927-28
Litt.D. (Hon.) Princeton, 1947
Associate.

Research & Teaching
Research Fellow & Director of Research, Institute for Research in Chinese Architecture, 1931--- (reorganized & introduce scientific approach to its studies)
Assistant Professor in Charge, Department of Architecture, North-eastern University, 1928-30; (founded this dept.)
Professor in Charge, Dept. of Architecture, North-eastern University, 1930-31;
Lecturer of History of Architecture, National Peking University, Peiping, 1932-33;
Lecturer of Architecture, National Tsing Hua University, Peiping, 1933-34;
Professor & Chairman, Department of Architecture, National Tsing Hua University, Peiping, 1946--- (founded this dept.)
Director, Institute of Architectural Research, National Tsing Hua University, 1946----; (founder)
Visiting Professor of Fine Arts, Yale University, 1946-47.

Membership and Services to Cultural and Professional Institutions
Member, Academia Sinica, 1933----
Member, National Academy of Peiping, 1934----
Member, Association of Chinese Architects, 1928----
Member & Specialist on Architecture, Central Commission for the Conservation of Antiquities, 1934---
Member, Provincial Commission for the Conservation of Antiquities of Szechuan, 1939-----
Member & Technical Expert, National Commission for the Restoration of Historical Monuments of the Ancient Capital (Peiping), 1934----
Architectural Advisor, National Central Museum, 1935--
Architectural Advisor, National Central Museum Library, 1937---
Chairman, Committee for the Compilation of Historical Materials on Chinese Architecture, National Central Museum, 1939---(founder).
Vice-chairman, Chinese Commission for the Preservation of Cultural Objects in War Areas (counter-part of the "Robert Commission" of the U.S.A.), 1945-46.
Technical Advisor, National Palace Museum, Peiping, 1934---
Correspondance Member, Östasiatische Kunstgeschichte Something (I forgot). 1936(?) — Frankfurt am Main or Berlin (I also forget).

Chinese Arch't. to Board of Design Consultants UN HQ Planning Board. 1947

Publications
Monographs:
清式營造則例 (Official Regulations for Architectural Design in the Ch'ing dynasty Style), 1933;
薊縣獨樂寺觀音閣考 (The Liao Dynasty, 984, Structure of the Hall of Avaloketesvara at Tu-le Ssu, Chi Hsien), 1934;
曲阜孔廟建築及其修葺计画 (The Architecture of the Temple of Confucius, Ch'ü-fou, and Plans for its Restoration), 1935;

Fig. 5.4 Page 1 of Liang's resume, with handwritten annotations, accompanying his American reconnaissance, 1947. Under "Scholarship in Colleges & Membership," he added "Harvard grad. Sch. (Fine Arts), 1927–28" and "Litt.D. (Hon.) Princeton, 1947," and under "Membership and Services to Cultural and Professional Institutions," he added "Chinese Arch't. [Architect] to Board of Design consutants [*sic*] UN HQ Planning Board, 1947."

McClelland said that she had shown to Fairbank "*all* the information [they] have concerning Liang [Sicheng's] participation in the Bicentennial Conference on Far Eastern

Culture [and Society, FECS] and the awarding of his honorary degree."[524] However, neither Colman nor McClelland provided Fairbank with an image of the "Exhibition of Liang Photographs in Antioch Court" that Liang had exhibited at FECS following Professor George Rowley's invitation, even though Fairbank stated in her letter that she was most interested in it. Furthermore, they were not able to inform Fairbank about Liang's participation in the earlier Princeton Bicentennial Conference, Planning Man's Physical Environment (PMPE; 5–6 March 1947; Series 2, Conference 5), where Liang had been relatively downplayed. However, this other conference, as will be shown below, was the key to his progressive pedagogy at Tsinghua, characterised by "*ti-xing huanjing*," Liang's translation of "Physical Environment" in Chinese.

Following a plan thoughtfully prepared by Arthur C. Holden and his committee—Henry A. Jandl, Kenneth S, Kassler, Jean Labatut, Sherley W. Morgan, and Robert B. O'Connor[525]—for the official occasion at Conference Five of Series Two of the academic conferences that marked Princeton University's Bicentennial Celebration in 1947 [Fig. 5.5], the Planning Man's Physical Environment (PMPE) convocation had "done its scholarly best to assist the architects [and foremost professionals in other fields] in pinning down their racketing Physical Environment to a feasible point for two day's discussion…[as well as] talking about what kind of environment they would plan for modern society—if they had a chance."[526]

[524] Mrs. George E. McClelland to Mrs. J. K. Fairbank, 30 July 1979, in Liang Ssu-ch'eng, Honorary Degree Records, Box 13, AC106, Princeton University Archives, Department of Special Collections, Princeton University Library, emphasis is not original.

[525] *Princeton Conference Committee, PROGRAM: PRINCETON UNIVERSITY BICENTENNIAL CONFERENCE ON PLANNING MAN'S PHYSICAL ENVIRONMENT (Princeton Inn, March 5–6, 1947)* (Princeton, NJ: Princeton University, 1947).

[526] "PLANNERS' PLATFORM," *Architectural Forum* (April 1947): 12.

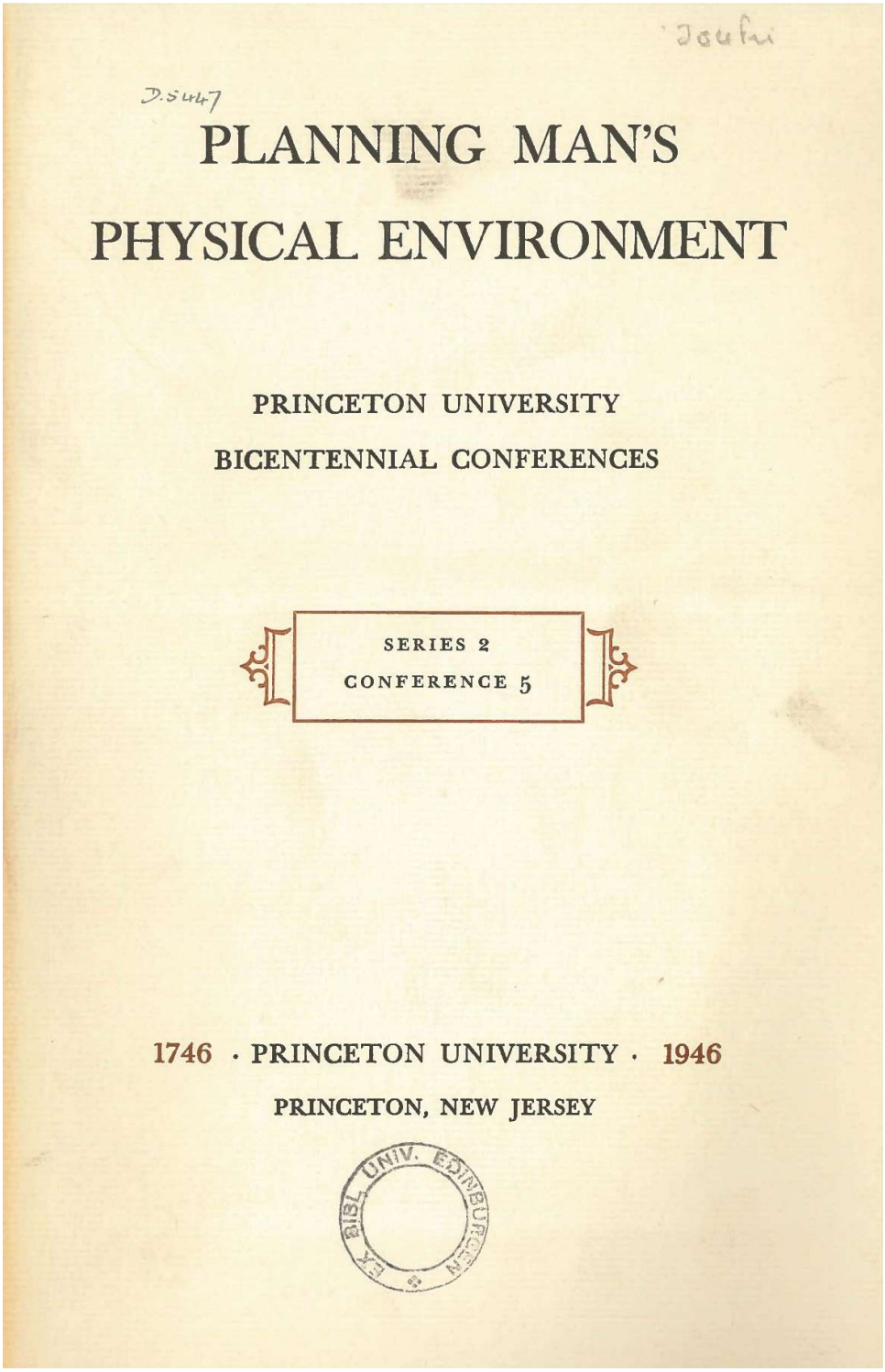


Fig. 5.5 PMPE Proceedings published by Princeton University in 1947

At the PMPE conference [Fig. 5.6], Liang met with "Prof. Walter Gropius," who, Liang explained in a letter to Mei, "fled to the US where he took a chair at Harvard University. The curriculum of the Department of Architecture at Harvard was then changed according

to Professor G.'s Bauhaus method."[527] However, Liang was not as excited about the Bauhaus method as he was about the "physical environment." This focus was on display when he wrote to China's Ministry of Education on Mei's behalf with two main education appeals:

> *Given Euro-American architects' critical concern with urban planning in recent years, it is time to establish, for the human well-being, a physical environment through creating cities with orders in an organised way. This is the recent demand of human culture, especially in postwar reconstruction. To do that, we plan to divide graduating seniors into two curricular groups: architecture and city planning.[528] Besides, we also plan to replace the department title "architectural engineering" with "building" since the former accommodates only part of the lore of architecture.[529]*

Fig. 5.6 PMPE Conference group outside the Princeton Inn, 1947 (Liang at the far left of the second row; see also Fig. 1.11 in Chapter 1)

[527] Letter from Liang Sicheng to Mei Yiqi, 9 March 1945, Tsinghua University Archives.
[528] Liang's translation of what he called 市鎮計劃 (*Shihjhen jihua*) was "City planning," see: Liang Sicheng, "The System and Order of Cities 市鎮的體系秩序," *Ta Kung Pao (Chongqing)*, 7 October 1945.
[529] Liang Sicheng, "A Letter to the Ministry of Education on behalf of Mei Yiqi," Tsinghua University Archives.

Even though Liang drafted this letter for Mei, it was his first educational manifesto upon his return from the USA. Liang took some ideas from the PMPE conference but also started creating his own, amplified ideas around them, and was beginning to use his own (but related) terminology as well. His idea of focusing architectural training at Tsinghua on environmental design was significantly indebted to the PMPE conference concerning postwar construction. For example, it provided a timely opportunity for Liang to listen to Churchill, whose 1945 *The City Is the People*, according to Wu Liangyong, was most highly respected by Liang.[530] In this book, Churchill,[531] a New York architect, offered his appreciation of the ancient planning in Beijing and reminded the PMPE attendees as well: "We must always remember that this city we wish to create must be lived in, worked in, played in by all kinds of people there are."[532] These lines echoed what Liang had called "peaceful dwelling and the happy pursuit of one's work" in 1945.[533]

In less grandiose words, Henry S. Churchill described the conference thus: "What we should try to do is to clarify what kind of a city, what sort of environment would we build for ourselves and the few people we know, and the millions we don't, if we had our way and could find understanding of their way.[534]" Although the established accounts of Liang's architectural education have not focused on the PMPE conference, clues from the archival evidence, systematically discussed below, point to the impact the ideas presented there had on his pedagogy at Tsinghua.

Even though Liang's eight-year-long isolation—firstly in Changsha (October 1937), then in Kunming (January 1938), and finally in Li-juang (November 1940)[535]—had almost cut

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[530] Wu Liangyong, "Inheriting and Carrying Forward Liang Sicheng's Academic and Educational Thoughts 继承和发扬梁思成学术和教育思想," in *Academic Thoughts of Liang Sicheng: An Anthology 梁思成学术思想研究论文集*, ed. Gao Yilian (Beijing: China Architecture & Building Press, 1996), 2. Wu's 1986 text in commemoration of Liang's 85th Birthday was previously published in Tsinghua's *建筑史论文集 Treatises on History of Architecture*, no. 10, in 1988.

[531] Churchill was also a Consultant at the N. Y. State Division of Housing and at the N. Y. Housing Authority, see: "Planners' Platform," *Architectural Forum* (April 1947): 12.

[532] "Statement by Henry S. Churchill," in Princeton Conference Committee, *SUMMERY OF AXIOMS, ASSUMPTIONS AND SUGGESTED TOPICS FOR DISSCUSSION FOR CONFERENCE ON "PLANNING MAN'S PHYSICAL ENVIRONMENT" (March 5–6, 1947)* (Princeton, NJ: Princeton University, 1947).

[533] Liang Sicheng, "The System and Order of Cities 市鎮的體系秩序," *Ta Kung Pao (Chongqing)*, 7 October 1945.

[534] "Statement by Henry S. Churchill," in Princeton Conference Committee, *SUMMERY OF AXIOMS, ASSUMPTIONS AND SUGGESTED TOPICS FOR DISSCUSSION FOR CONFERENCE ON "PLANNING MAN'S PHYSICAL ENVIRONMENT" (March 5–6, 1947)* (Princeton, NJ: Princeton University, 1947).

[535] The Liangs and the SRCA moved to Kunming along with *Lianda*. Still, they were uprooted again when

off his contact with the outside world, he was still able to digest and respond to up-to-date professional ideas from the West. "It [was] most likely that Liang got book supplies in these years from the Fairbanks," noted Christian Kammann, who confirmed that two publications were known for sure to have been in Liang's possession in the early 1940s: Wright's *On Architecture*, published in 1941, as well as José Luis Sert's *Can Our Cities Survive*, published in 1942.[536] Liang's new interests in urban planning and the relationship between architecture and the "physical environment" became evident in his 1948 appeal to add a focus on city planning for architecture students, in his 1949 reformative curriculum for the national standards drawn up two decades before, and in the publication of *A General Outline of City Planning* under his lead in 1951.

The PMPE conference was a gathering of architects and planners, those who taught architecture and planning, those who wrote about such subjects, and a sprinkling of those engaged in related fields. Twenty-four prepared papers were read, and the seven sessions of the conference featured many discussions; most conferees regarded the event with appropriate solemnity.

Even though Liang was a not a leading figure at the PMPE conference, as he later was at the FECS Conference—he was not even on the conference's membership list and did not offer any formal oration included in the compilation of the conference proceedings (which were ultimately never published)[537]—he was amongst the signatories of a memorandum letter from the conference's attendees [Fig. 5.7] to Julian Huxley, by then the Director General of the United Nations Educational, Scientific and Cultural Organisation (UNESCO).[538] In the letter (hereafter called the UNESCO MOU) penned by Sigfried Giedion, the conference participants collectively promoted educational progress for

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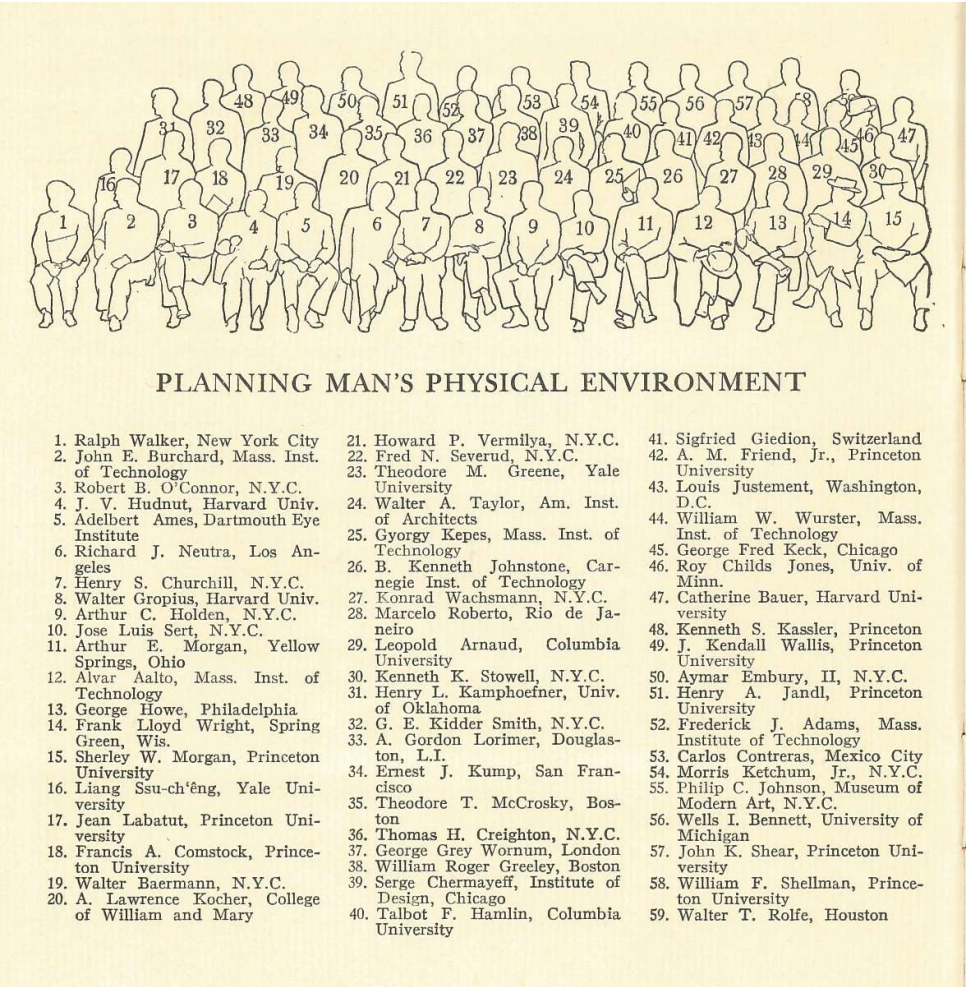
the SRCA became part of the Ministry of Education's Academia Sinica in 1940 and relocated to a small town on the south bank of the Yangtze River about two hundred miles west of Chongqing in Sichuan Province, the proxy capital city by then. Fairbank wrote, "The Ministry of Education—or was it the Academia Sinica—may have envisioned Li-juang as a haven where scholars could work undisturbed by the war." Fairbank, *Liang and Lin*, 112–113, 119.

[536] Christian Kammann, "Liang Sicheng and the Beginnings of Modern Chinese Architecture and Architectural Preservation" (Ph.D. Thesis, ETH Zürich, 2006), 28.

[537] Princeton Conference Committee, *SUMMERY OF AXIOMS, ASSUMPTIONS AND SUGGESTED TOPICS FOR DISSCUSSION FOR CONFERENCE ON "PLANNING MAN'S PHYSICAL ENVIRONMENT" (March 5–6, 1947)* (Princeton, NJ: Princeton University, 1947).

[538] Oscar Niemeyer, quoted from: "Oscar Niemeyer and the United Nations Headquarters," Archives and Records Management Section (ARMS) of United Nations (UN), accessed 16 April 2021, https://archives.un.org/content/oscar-niemeyer-and-united-nations-headquarters.

postwar professionals around the globe: "The undersigned, having met together in the [PMPE] Conference, urged that you set up immediately a committee of professionals and educators in the field of Planning and Architecture, to draw up a plan for a fundamental reform of training for Architects and Planners in all countries, and to draft as part of such a plan basic curricular standards for all countries."[539]



PLANNING MAN'S PHYSICAL ENVIRONMENT

1. Ralph Walker, New York City
2. John E. Burchard, Mass. Inst. of Technology
3. Robert B. O'Connor, N.Y.C.
4. J. V. Hudnut, Harvard Univ.
5. Adelbert Ames, Dartmouth Eye Institute
6. Richard J. Neutra, Los Angeles
7. Henry S. Churchill, N.Y.C.
8. Walter Gropius, Harvard Univ.
9. Arthur C. Holden, N.Y.C.
10. Jose Luis Sert, N.Y.C.
11. Arthur E. Morgan, Yellow Springs, Ohio
12. Alvar Aalto, Mass. Inst. of Technology
13. George Howe, Philadelphia
14. Frank Lloyd Wright, Spring Green, Wis.
15. Sherley W. Morgan, Princeton University
16. Liang Ssu-ch'êng, Yale University
17. Jean Labatut, Princeton University
18. Francis A. Comstock, Princeton University
19. Walter Baermann, N.Y.C.
20. A. Lawrence Kocher, College of William and Mary
21. Howard P. Vermilya, N.Y.C.
22. Fred N. Severud, N.Y.C.
23. Theodore M. Greene, Yale University
24. Walter A. Taylor, Am. Inst. of Architects
25. Gyorgy Kepes, Mass. Inst. of Technology
26. B. Kenneth Johnstone, Carnegie Inst. of Technology
27. Konrad Wachsmann, N.Y.C.
28. Marcelo Roberto, Rio de Janeiro
29. Leopold Arnaud, Columbia University
30. Kenneth K. Stowell, N.Y.C.
31. Henry L. Kamphoefner, Univ. of Oklahoma
32. G. E. Kidder Smith, N.Y.C.
33. A. Gordon Lorimer, Douglaston, L.I.
34. Ernest J. Kump, San Francisco
35. Theodore T. McCrosky, Boston
36. Thomas H. Creighton, N.Y.C.
37. George Grey Wornum, London
38. William Roger Greeley, Boston
39. Serge Chermayeff, Institute of Design, Chicago
40. Talbot F. Hamlin, Columbia University
41. Sigfried Giedion, Switzerland
42. A. M. Friend, Jr., Princeton University
43. Louis Justement, Washington, D.C.
44. William W. Wurster, Mass. Inst. of Technology
45. George Fred Keck, Chicago
46. Roy Childs Jones, Univ. of Minn.
47. Catherine Bauer, Harvard University
48. Kenneth S. Kassler, Princeton
49. J. Kendall Wallis, Princeton University
50. Aymar Embury, II, N.Y.C.
51. Henry A. Jandl, Princeton University
52. Frederick J. Adams, Mass. Institute of Technology
53. Carlos Contreras, Mexico City
54. Morris Ketchum, Jr., N.Y.C.
55. Philip C. Johnson, Museum of Modern Art, N.Y.C.
56. Wells I. Bennett, University of Michigan
57. John K. Shear, Princeton University
58. William F. Shellman, Princeton University
59. Walter T. Rolfe, Houston

Fig. 5.7 The complete list of PMPE attendees at Princeton, 1947; Liang was numbered 16 and pictured in that position in the group photograph (see also Fig. 1.11 in Chapter 1)

Six months after the PMPE conference—shortly after Liang's arrival back in China—in Bridgewater in England, the International Congress for Modern Architecture (CIAM) held its sixth congress (7–14 September 1947), which a UNESCO observer also attended. As a result, Sigfried Giedion and Maxwell Fry (a leading member of the MARS Group,

[539] Correspondence, 1946–1947. The Josep Lluis Sert Collection, DES, 1982, 0003, 000603276, E000, Folder: E003. Frances Loeb Library Special Collections, Graduate School of Design, Harvard University.

CIAM's UK branch) reached a deal with Huxley: CIAM would submit some preliminary remarks on architectural and planning education at the Mexico conference of UNESCO that November, which would "include a survey of the professional education and training of planners and architects."[540] Although Liang's contact with the outside world had again almost halted, the initiative he had endorsed in the earlier UNESCO MOU ultimately proved constructive at Tsinghua. This will be discussed further in Chapter 6.

In the PMPE memorandum, Giedion proposed that "this program should further be considered in two parts: (1) a programme of education in Architecture and Planning to meet long-term needs, and (2) a short-term programme to meet the immediacy of postwar reconstruction."[541] The initiative not only reflected Liang's US experiences in the mid-1940s, which had intensified his interest in urban studies and the social aspects of architecture, but also offered a practical solution to his intended architectural education after the war. As Liang wrote to Mei:

> *In Britain and the Soviet Union, the postwar reconstruction plan was commenced when the war had just begun, and the first damages were done. China, in contrast, not only plans for nothing but also is short of relevant professionals…The old saying goes, "Don't wait till you are thirsty to dig a well," but it's better late than never. To cater to such urgent needs, Chinese universities need to offer architecture courses as soon as possible to cultivate professionals for the nation…To meet upcoming needs, establishing a **College** of Architecture is necessary. Under current conditions, however, why not found an Architecture **Department** within the College of Engineering?*[542]

Liang had a particular interest in how countries should care for their landscapes during and after the ravages of war. In 1944, he helped the Nationalist government establish Chinese Commission for the Preservation of Cultural Objects in War Areas (*Zhanqu*

[540] *Report of the Director General on the Activities of the Organisation in 1947* (Presented to the Second Session of the General Conference at Mexico City November-December 1947) (Paris: UNESCO, 1947), 94.
[541] Ibid.
[542] Letter from Liang Sicheng to Mei Yiqi, 9 March 1945, Tsinghua University Archives, emphasis added.

Wenwu Baocun Weiyuanhui; 戰區文物保存委員會), and he worked hard travelling back and forth between Li-juang and Chongqing to have China's significant heritage structures systematically catalogued in a *List of Monuments*. 396 objects were listed in this bilingual (Chinese-English) work in 1945.[543] The list was used by the Allied Forces during their fighting operations in order to avoid damaging irreplaceable cultural artefacts such as palaces, temples, grottoes, mausoleums, gardens, bridges, and towers. The *National Short List of Architectural Monuments* (1949)[544] [Fig. 5.8] was later used by the People's Liberation Army in the same way (and objects investigated by the SRCA were specially marked in the latter list).

[543] By the autumn of 1944, the project turned to the labelling of maps. Because the maps were military secrets and could not leave their hiding place in the wartime capital, Liang frequently visited Chongqing. SRCA fellow Luo Zhewen usually went with Liang, and they were assisted by Wu Liangyong (future Tsinghua staff). All work was completed in May 1945, and the catalogue was printed as a series of booklets; see Lin Zhu, "Liang Sicheng and *National Short List of Architectural Monuments* 梁思成与《全国重要建筑文物简目》," in Zhang Kaifu (ed), *Treatises on History of Architecture*, vol. 12 (April 2000): 7–17.

[544] Lin Huiyin also proposed that, in order to be more responsible and not forget the work achievements of the SRCA, the architectural cases investigated and studied by the society must be noted in this list with a special mark; see Luo Zhewen, "A Great Gift to the New China: Records on the Protection of the Ancient Capital of Beiping [Beijing] and the Compilation of 'National Short List of Architectural Monuments' 向新中国献上的一份厚礼——记保护古都北平和《全国重要建筑文物简目》的编写," *Architectural Journal*, no. 1 (2010): 66–68 (a special issue of commemorating the eightieth anniversary of the founding of SRCA).

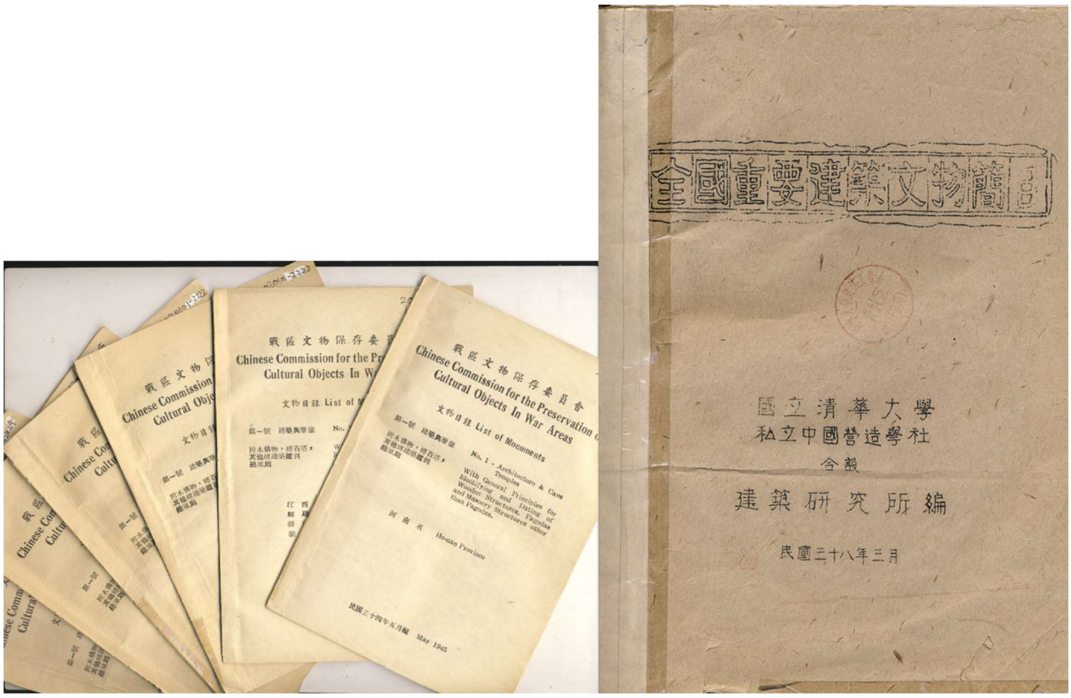
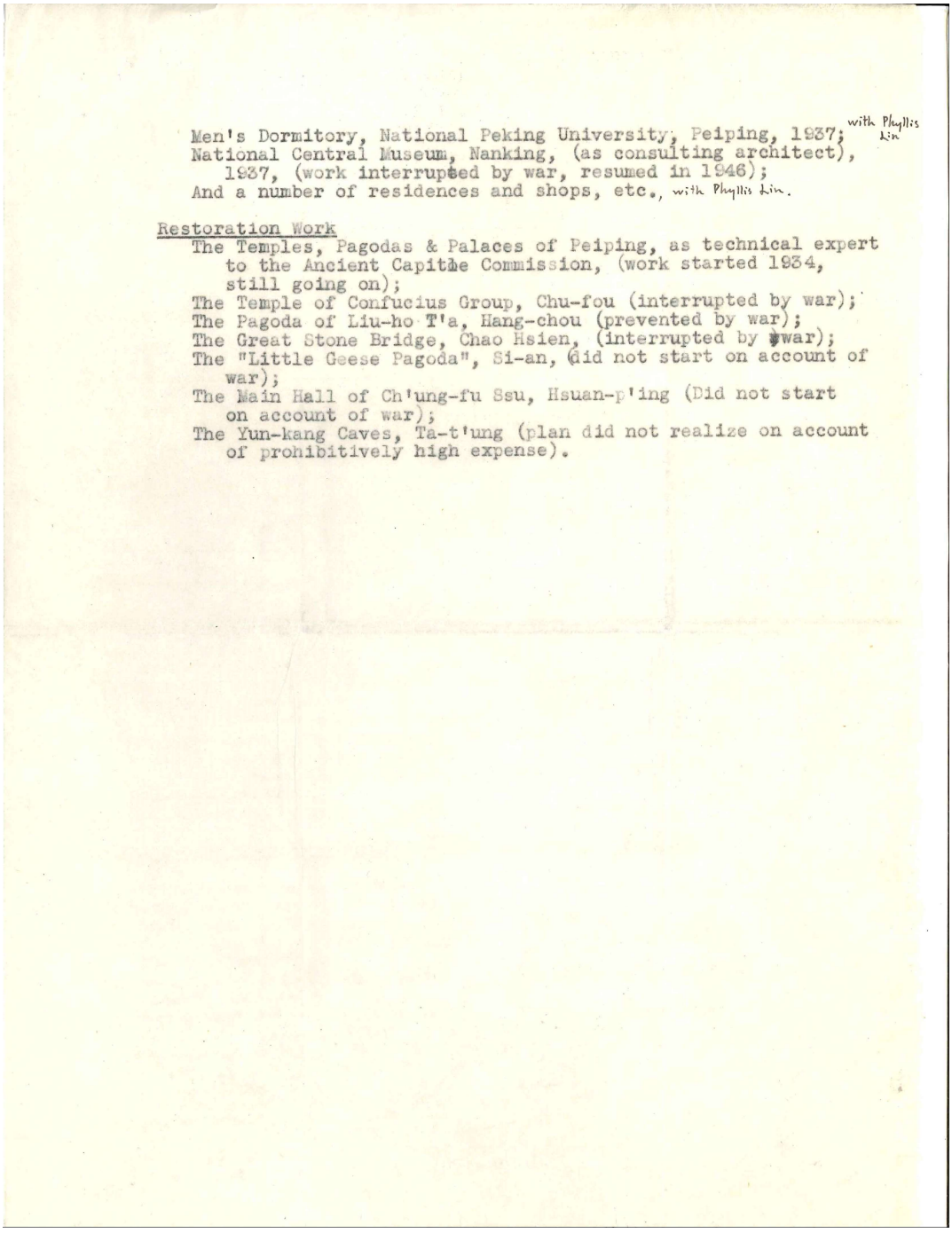


Fig. 5.8 The *List of Monuments* for Allied Armies (US Air Force) to protect all monuments from their air bombing against Japanese troops (left, May 1945); the *National Short List* for CCP's People's Liberation Army (PLA), used to protect cultural relics when the PLA went south to fight the KMT's National Army (the successor of National Revolutionary Army, NRA) (right, March 1949)

From a current-day point of view, this *List of Monuments* is almost symbolic of how limited Liang's resources had become to carry out architectural restoration in China from 1930 to 1949. His concern with historical preservation [Fig. 5.9] was surely in line with, for example, the opinions of architectural historian Talbot Hamlin, who made a plea at PMPE for one more principle in city planning:

> *Any existing community is a living thing. It possesses a present to be analysed and a future which may be planned, but in most cases it also possesses a past…The modern city planner frequently seems blind to any such considerations…But the true planner…must consider the total life of the community and…must take advantages of all existing points of beauty or historical monuments as essential elements in the scheme he is planning.*[545]

[545] Thomas H. Creighton, *Building for Modern Man: A Symposium* (Princeton, NJ: Princeton University Press, 1949), 142–143.



Men's Dormitory, National Peking University, Peiping, 1937; with Phyllis Lin
National Central Museum, Nanking, (as consulting architect), 1937, (work interrupted by war, resumed in 1946);
And a number of residences and shops, etc., with Phyllis Lin.

Restoration Work
The Temples, Pagodas & Palaces of Peiping, as technical expert to the Ancient Capithe Commission, (work started 1934, still going on);
The Temple of Confucius Group, Chu-fou (interrupted by war);
The Pagoda of Liu-ho T'a, Hang-chou (prevented by war);
The Great Stone Bridge, Chao Hsien, (interrupted by war);
The "Little Geese Pagoda", Si-an, (did not start on account of war);
The Main Hall of Ch'ung-fu Ssu, Hsuan-p'ing (Did not start on account of war);
The Yun-kang Caves, Ta-t'ung (plan did not realize on account of prohibitively high expense).

Fig. 5.9 Page 3 of Liang's resume, with handwritten annotations, accompanying his American reconnaissance, 1947. Under "Restoration Work," many of the listed items—if not still "going on"—were interrupted or prevented by war, or "on account of prohibitively high expense."

"Further," Giedion also penned in the UNESCO MOU, it was necessary, "to study and formulate legislation, uniform in principle, directed toward making effective planning legally and economically possible, to be recommended for adoption on the national level." Giedion's point of view also addressed Liang's very concern with China:

> *…in our case, as the country is correct in industrialisation, which is accompanied by drastic social and economic changes, we are faced with some unique challenges in terms of technologies and building materials. The task could be several times harder than in the above two countries [United Kingdom and Soviet Union], and tens of thousands of professionals would be required.*[546]

Although it would be not until his 1946–1947 American reconnaissance that Liang would visit modern new town projects in Bergen, Knoxville, Chicago, Kansas, and Los Angeles,[547] he should have already thought, in 1945, about the experimental housing prototypes put forward by Bauhäusler in the USA and Europe through his and Lin Huiyin's wartime reading on Western building works. According to Wang Jun, on 20 June 1944, when the US Vice-President Henry A. Wallace was in China for a visit, Liang received a stack of state-of-the-art books Wallace had brought at the request of Liang's friend John K. Fairbank (Wilma Fairbank's husband).[548] It was most likely since then that Liang and his wife, Lin Huiyin, had gradually come to agree that a new philosophy of form was required: planning and architecture should become one thing.

Therefore, it was not surprising that Liang signed Giedion's document. Its signatories even included several modernist heavyweights unable to attend the PMPE event, amongst them Mies van der Rohe and Le Corbusier.[549] Liang was one of the 33 signatories [Fig. 5.10] asking for "a world-wide reform in architectural education:[550]"

> *Although it must be admitted that the training has improved in many schools since the nineteenth century, when all vision was destroyed at its very roots, we are still meticulously teaching a considerable number of insufficiently integrated auxiliary sciences; we are still too*

[546] Letter from Liang Sicheng to Mei Yiqi, 9 March 1945, Tsinghua University Archives.
[547] This can be pieced together from various bits of information from Liang's working diary between 22 June and 1 August 1947.
[548] Wang, *Record of a City* 城记, 50.
[549] *Princeton Conference Committee, PROGRAM: PRINCETON UNIVERSITY BICENTENNIAL CONFERENCE ON PLANNING MAN'S PHYSICAL ENVIRONMENT (Princeton Inn, March 5–6, 1947)* (Princeton, NJ: Princeton University, 1947).
[550] This final sentence was, however, omitted in Creighton's edited work on the PMPE conference; see Sigfried Giedion, "On the Force of Aesthetical Values," 3, in Princeton Conference Committee, *SUMMERY OF AXIOMS, ASSUMPTIONS AND SUGGESTED TOPICS FOR DISSCUSSION FOR CONFERENCE ON "PLANNING MAN'S PHYSICAL ENVIRONMENT" (March 5–6, 1947)* (Princeton, NJ: Princeton University, 1947); Creighton, *Building for Modern Man*, 103.

> *close, I am afraid, to drawing-board architecture; we still fail to preserve and foster the original creative gifts of the student, and to bring him in close contact with the emotional currents which created a new art in our century.*[551]

According to Thomas H. Creighton, the *Progressive Architecture* editor who also attended the PMPE conference and joined the signatories, the memorandum was written and signed outside the assembly hall since the purpose of that series of Princeton conferences was limited to general orientation and exchange of ideas, not conclusions or resolutions.[552]

[551] Giedion, "The Need for a Basic Reform in Architectural Education," 119.
[552] Creighton, *Building for Modern Man*, 119.

We further request that the reply to this letter be addressed on behalf of the signatories to: Dean Joseph Hudnut of Harvard University.

Walter Gropius, Harvard University

Richard Neutra, Architect, Los Angeles

Konrad Wachsmann, Engineer, New York City

Henry L. Kamphoefner, Dept. of Architecture, University of Oklahoma

A. Gordon Lorimer, Architect, Douglaston, L. I.

Fred N. Severud, Engineer, New York City

C.L.V. Meeks, School of Fine Arts, Yale University

Liang Ssu-chieng, Architect, China

C.E. Kidder Smith, Architect, New York City

Carlos Contreras, Architect, Mexico City, Mexico

Marcelo Roberto, Architect, Rio de Janeiro, Brazil

Jose' Luis Sert, City Planning Consultant, New York City

Catherine Bauer, Harvard University

Dean Joseph V. Hudnut, Harvard University

Roy Childs Jones, University of Minnesota

Ernest J. Kump, Architect, San Francisco

Lawrence A. Kocher, College of William and Mary

John E. Burchard, Massachusetts Institute of Technology

Serge Chermayeff, Institute of Design, Chicago

Harold S. Buttenheim, Architect, New York City

Richard M. Bennett, Architect, Chicago

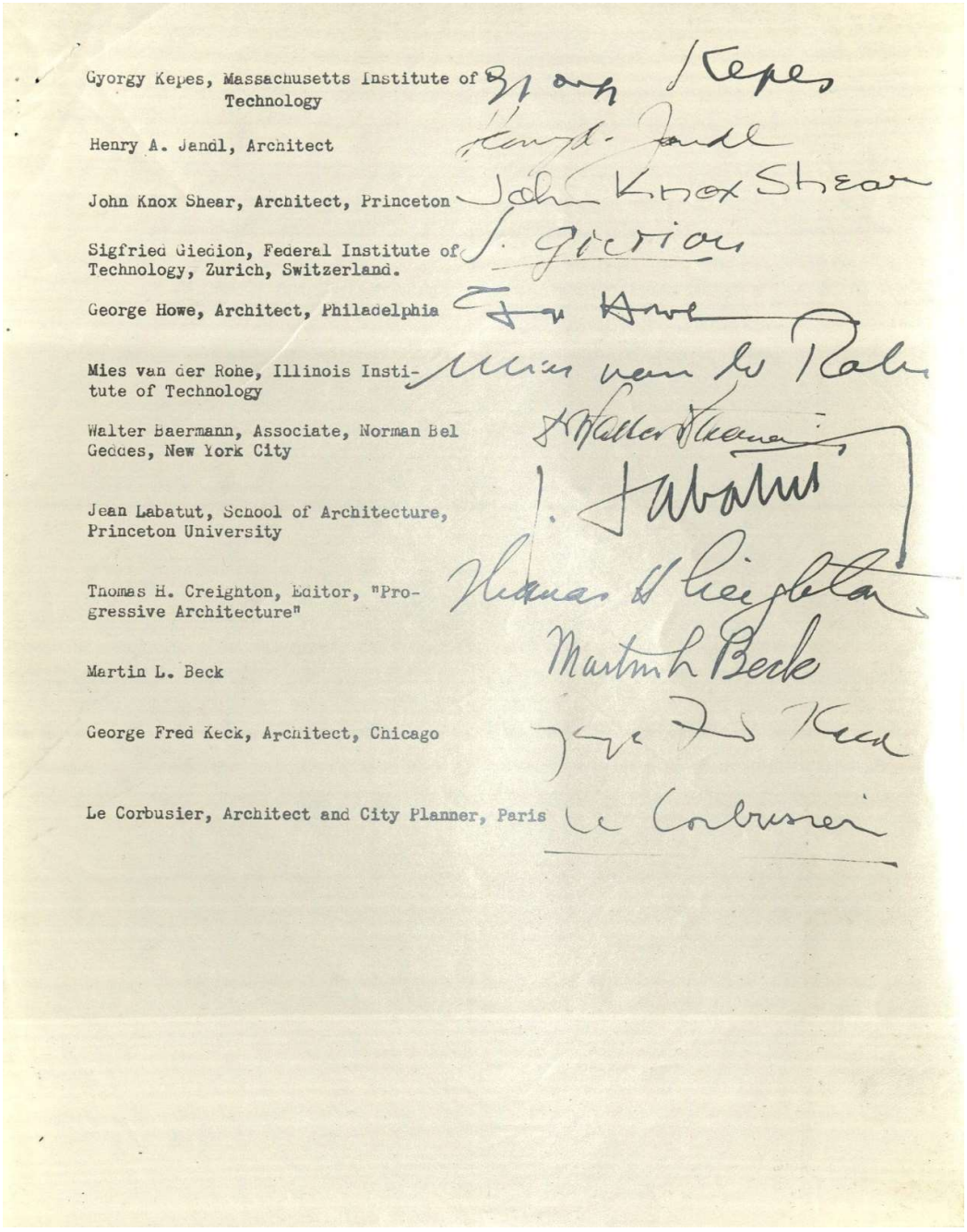


Fig. 5.10 Signatories to Giedion's UNESCO MOU at PMPE, 1947; Liang signed on the eighth line on the first page (at top)

5.3 Toward A College of Building (*Ying Jian*)

Liang's 1949 "Draft Plan of Academic Structure and Programme in the Department of Yingjian (Now Known as the Department of Architectural Engineering) at Tsinghua University" (清華大學營建學系 [現稱建築工程學系] 學制及學程計劃草案) (Draft

Plan hereafter), which was serialised over three days in Shanghai's *Wen Wei Pao*,[553] served as his most crucial manifesto on architectural education. In it, he counted not only architecture but also city planning as the most essential parts of building (*ying jian*; 營建); Liang wished to establish a college—rather than merely a department—to house different departments concerned with both *ying* (usefulness & aesthetics) and *jian* (stability) in the "physical environment" (*ti-xing huanjing*; 體形環境). This term was a prevailing notion throughout the Draft Plan that Liang appears to have borrowed exactly from the theme of the PMPE conference he had attended at Princeton in 1947. He even extended this parlance to 's*ubstance-form*[554] [Liang's translation of *physical* in Chinese] environment' in the Draft Plan (of which more in Chapter 6).

This final section of Chapter 5 will focus on his idea of *ying jian* (building) by reviewing his related state papers for the Ministry of Education, letters to the president of Tsinghua, and newspaper articles addressing the people. For clarity in this discussion (and that in Chapters 6 and 7 as well), I will number these source materials in chronological order. I will designate the above-mentioned "Draft Plan" as Letter 5, two dossiers on architecture as Letters 1 and 3, and two newspaper articles on city planning as Letters 2 and 4. Their full titles are listed below:[555]

Letter 1—Liang, Sicheng. "A Letter to Mei Yiqi" (致梅貽琦信). Dated on 9 March 1945. Tsinghua University Archives.

Letter 2—Liang, Sicheng. "The System and Order of Cities" (市鎮的體系秩序). *Ta Kung Pao (Chongqing)*, 7 October 1945.

Letter 3—Liang, Sicheng. "A Letter to the Ministry of Education on behalf of Mei Yiqi" (代梅貽琦擬呈教育部代電文稿). Dated on 16 September 1948. Tsinghua

[553] Established in 1938, this newspaper, which leaned towards China's Communist Party (CCP), was shut down by the Nationalist government in 1947. It resumed publication firstly in Hong Kong in 1948 and then again in Shanghai upon the liberation of the city, in June of 1949.

[554] This usage may be related to Liang's understanding of China's late-Qing Self-Strengthening Movement's doctrine, noted in the Introduction, "Chinese learning for essential principles [*ti*/substance], Western learning for practical functions [*yong*/form]," and particularly with the binary concepts of *ti* (substance, referring to body, essence, or foundation) and *yong* (form, standing for use, function, or application). See Peter G. Rowe and Seng Kuan, *Architectural Encounters with Essence and Form in Modern China* (Cambridge, Mass.: MIT Press, 2002), 5.

[555] Individually and collectively, they serve as leading threads for navigating Liang's tapestry of ever-shifting pedagogies, which aligned faithfully with his encounters with his progressive counterparts in the West during his last outing in America on the one hand, but also reflected the turbulent political and social upheavals in China on the other.

University Archives.

Letter 4—Liang, Sicheng. "Substance and Form of the City and its Planning" (城市的體形及其計劃). *People's Daily (Beijing)*, 11 June 1949.

Letter 5 (also called the "Draft Plan," given its importance and prevalence in the discussion below)—Liang, Sicheng. "Draft Plan of Academic Structure and Programme in the Department of Yingjian (Now Known as the Department of Architectural Engineering) at Tsinghua University" (清華大學營建學系 [現稱建築工程學系] 學制及學程計劃草案). *Wen Wei Pao (Shanghai)*, 10–12 July 1949.

In Letter 1, Liang wrote to Mei, the president of Tsinghua, in 1945, asking him to establish an architectural programme. Later that year, in Letter 2, he advocated for a larger scope of design in the city than architecture—he suggested looking not just at form but also at social orders. (This viewpoint was affected by Eliel Saarinen's book *The City: Its Growth, Its Decay, Its Future*, 1943.)[556] Letter 3, written in 1948, was an appeal to the Ministry of Education and asked for curricular adjustment in training architect-planners. Letter 4 was published as a newspaper article in 1949 and aligned Liang's planning theory with CIAM ideas (affected by Le Corbusier's book *The Athens Charter*, 1933). Finally, Liang published Letter 5 as a series of newspaper articles in which he outlined his reformative curriculum at Tsinghua for professionals concerned with the postwar built environment.

To Liang's dismay, his requests to create two curricular streams within Tsinghua's architecture pedagogy (architecture and city planning) and to replace the term "architectural engineering" with "building" in his department's name were turned down by the Ministry of Education, within a month of his asking for this change in Letter 3.[557] His suggestions were rejected because of the heated unrest of student protests against the Civil War, which the KMT-led government tried to repress by handing students heavier

[556] Influenced by *The City*, this newspaper article included the planning ideas of "system" and "order" but also politically oriented for Liang. From the perspective of Chinese society's expectations for the restoration of the country's political "system" and "order" after the victory of the Anti-Japanese War, what attracted Liang to Saarinen's book was not only his professional insights but also the urban development goals and social work advocated by the author. It should be noted that, while putting the idea of urban community into spatial terms in *The City*, Saarinen always used "towns and cities." In Chinese, town and city are translated as 鎮 (*Zhen*) and 市 (*Shi*), and so Liang integrated his all-inclusive idea of a city into the term *Shizhen* in Chinese.

[557] The Ministry of Education only allowed planning students to regard both "Mechanics of Materials" and "Steel Construction" as elective subjects; see Liang Sicheng, "A Letter to the Ministry of Education on behalf of Mei Yiqi," Tsinghua University Archives.

workloads. By and large, Tsinghua's annual budget, which, like all education funding, competed with funding for Anti-Communism affairs was inadequate—the government spent on only 2.92% of its budget on education in 1947.[558] As a national university at the time, Tsinghua was clearly a heavy burden on the government's back. Neither the department of architectural engineering nor any other department had the monetary cushion to implement systematic reform. Furthermore, they were not allowed to set in place any curriculum that the war-torn Nationalists had not reviewed.

In Letter 3, Liang had provided the educational officialdom in China with a progressive curriculum aligned with the UNESCO MOU at the PMPE conference, so it could be used to review the national standardised curriculum (Standard Minima hereafter) released in 1939. Although his department at Tsinghua still bore the title of Department of Architectural Engineering, one can already behold that he had been trying to divide the fourth-year student-architects into two strands: architecture and city planning. The new curriculum for the fourth-year planning students would omit advanced training in construction and replace it with compulsory courses in municipal administration, land management, and statistics for demography (see the red underlining in Letter 3 in Fig. 6.1 & 6.2 in Chapter 6). In this way, Liang accepted the deficiencies of the Standard Minima he himself had crafted for the nation in 1929.

After the Nationalist Ministry of Education rejected his ideas for curricular reform, Liang, on the eve of the founding of the People's Republic of China (PRC), tried to pin his hopes on the revolutionary universalism of the Communist government. He published his ideal curriculum three days in a row (10–12 July 1949) in Shanghai's *Wen Wei Pao* under the headline "Draft Plan of Academic Structure and Programme in the Department of Yingjian (Now Known as the Department of Architectural Engineering) at Tsinghua University":

> *Our Department is a young member of Tsinghua, with a history of only three years. The curriculum changes every year and is less bounded by KMT's Ministry of Education. The school year of 1949–1950 is the first one under the aegis of CCP in the liberated era…As a newly founded Department only after the War, we have merely three*

[558] Compilation Group, *The Manuscript of Tsinghua University's History* 清华大学校史稿, 437.

grades so far, and courses are not fully set. Some amendments may become necessary in the upcoming years, but [as we endorsed via UNESCO MOU] a short-term program, as one sees below, needs to be established.[559]

In the "Draft Plan," Liang elaborated on the suggestions he had put forth earlier to the KMT, yet ultimately had been refused. This time he first published his ideas in a newspaper to obtain public support. They were more fully developed and much more detailed, yet pragmatic at the same time. Based mainly on his trip to the USA, Liang looked to Harvard, MIT, and Columbia—the universities he had mentioned in Letter 1 to Mei and whose teaching faculty he had listened to at Princeton's PMPE conference—for pedagogical models that Tsinghua could use at its first convenience once it was not impeded by Nationalist and Communist conflicts. To do this, Liang wanted to integrate "architecture, architectural engineering, city planning, gardening, [and] indoor decoration"[560] and wanted to have students in these disciplines work together through a five-year-long curriculum, as their overseas counterparts did. Drawing upon his vision that seemed to have been about a scalar expansion of architecture at both ends as well as adding an internationalist scope to Chinese pedagogy, Liang developed a more critical account of the PMPE conference theme—the Physical Environment (*ti-xing huanjing*; 體形環境)—and this time, he literally interpreted it as "substance-form environment":

The so-called substance-form environment is a distinctly formed environment that has substance to it. It reaches from the small scale of a lamp or an inkstone, a cup or a plate to the larger scale of a whole city and even to the relationship of several cities of a region to each other…Tsinghua University's architectural curriculum aims to bring forth architectural designers in this broad sense of substance-form environment. This ample meaning of substance-form environment has three sides: First usefulness, then stability, and

[559] Liang Sicheng, "Draft Plan of Academic Structure and Programme in the Department of Yingjian (Now Known as the Department of Architectural Engineering) at Tsinghua University 清華大學營建學系（現稱建築工程學系）學制及學程計劃草案," *Wen Wei Pao (Shanghai)*, 10 July, 1949.
[560] Letter from Liang Sicheng to Mei Yiqi, 9 March 1945, Tsinghua University Archives.

aesthetics.[561]

Not only did Liang, in Letter 3, persist in requesting that the title of his department be changed to "*Ying Jian*" (Building), he, in the Draft Plan, also envisioned a progressive institution like it at every university in the new China. At Tsinghua, Liang suggested the five departments already noted in his Letter 1 to Mei: Architecture, City Planning, Gardening, Indoor Decoration, and Architectural Engineering.[562] To do this, based upon his experience of setting up the Standard Minima two decades ago, plus the up-to-date pedagogies he had observed in the USA in 1946–1947, Liang classified his intended courses into five subjects denoted by the letters A to E:

A—Cultural and Social Background (*文化及社會背景*)

B—Science and Engineering (*科學及工程*)

C—Presentation Skills (*表現技術*)

D—Design Theory (*設計理論*)

E—Comprehensive Research (*綜合研究*)[563]

Students in each department would have to take courses from every subject, in a department-specific module, every year. In addition to the regular four-year-long programme, Liang provided as well a five-year-long version, in line with his foreign counterparts, that included one year of training on construction sites, an idea that he had already explored:

As far as the curriculum is concerned, I entirely disapprove of the passé pedagogy at most of our country's universities (namely, those being the teaching methods of the École des Beaux-Arts, which once

[561] Liang Sicheng, "Draft Plan of Academic Structure and Programme in the Department of Yingjian (Now Known as the Department of Architectural Engineering) at Tsinghua University 清華大學營建學系（現稱建築工程學系）學制及學程計劃草案," *Wen Wei Pao (Shanghai)*, 10 July, 1949.
[562] Letter from Liang Sicheng to Mei Yiqi, 9 March 1945, Tsinghua University Archives.
[563] Liang Sicheng, "Draft Plan of Academic Structure and Programme in the Department of Yingjian (Now Known as the Department of Architectural Engineering) at Tsinghua University 清華大學營建學系（現稱建築工程學系）學制及學程計劃草案," *Wen Wei Pao (Shanghai)*, 10 July, 1949.

> *had been employed in England and the US for several decades) which have led to a focus on formal modalities away from functional realities. An appropriate curriculum would be the Bauhaus method created by the German Prof. Walter Gropius, which stresses the practical side and regards the construction site as a place for practical training. Design and implementation are equally valued to hone creative minds for practical-oriented works.*[564]

By 1950, Tsinghua had entered its heyday. Nanjing had lost control of Beijing, besieged by the People's Liberation Army (PLA) around November 1948. This meant that, even though the Nationalist Ministry of Education had turned down Liang's proposed educational reforms, as Sidney Wong explained, "Tsinghua could do whatever they wanted"[565] until 1952's restructuring of the higher education system as directed by Soviet experts. As a result, Liang eventually had his Class of 1951 recorded as graduates from the 'Department of Building' on their official certificates. The transformation from 'architectural engineering' to 'building' at Tsinghua, in terms of both faculty and pedagogy, can be marked by the department's 1951 publication of a Chinese version of Le Corbusier's 1941 *Athens Charter*, retitled *A General Outline of City Planning* [Fig. 5.11]. Two years before, Liang had addressed this book in his Letter 4. This time, he contributed a preface to the book together with Lin,[566] in which the influence of the proceedings of 1933's convocation of the CIAM can be seen from their consistent use of the term 'City planning,' which Liang had first used in Letter 2 in 1945. In line with the deliberation at that Congress's fourth meeting (CIAM IV) about a 'Functional City,' Liang pointed out that "a city must meet the need of these four kinds of activities. That is to say, the four functions of a city are (1) dwelling, (2) work, (3) recreation, (4) traffic, and none of them can be waived."[567] It was during such a rare window of liberated peace, before the Sino-Russian reinforcement of the classicist design method became China's rule again nationwide, that Tsinghua was aligned with Liang's modernist endeavours.

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564 Letter from Liang Sicheng to Mei Yiqi, 9 March 1945, Tsinghua University Archives.

565 Sidney Wong, email message to author, 5 April 2021.

566 Liang Sicheng and Lin Huiyin, "Preface 序," in *A General Outline of Urban Planning 城市计划大纲*, 1–4 (Beijing: Long-Men Bookstore, 1951).

567 Liang Sicheng, "Substance and Form of the City and its Planning 城市的體形及其計劃." *People's Daily (Beijing)*, 11 June 1949.

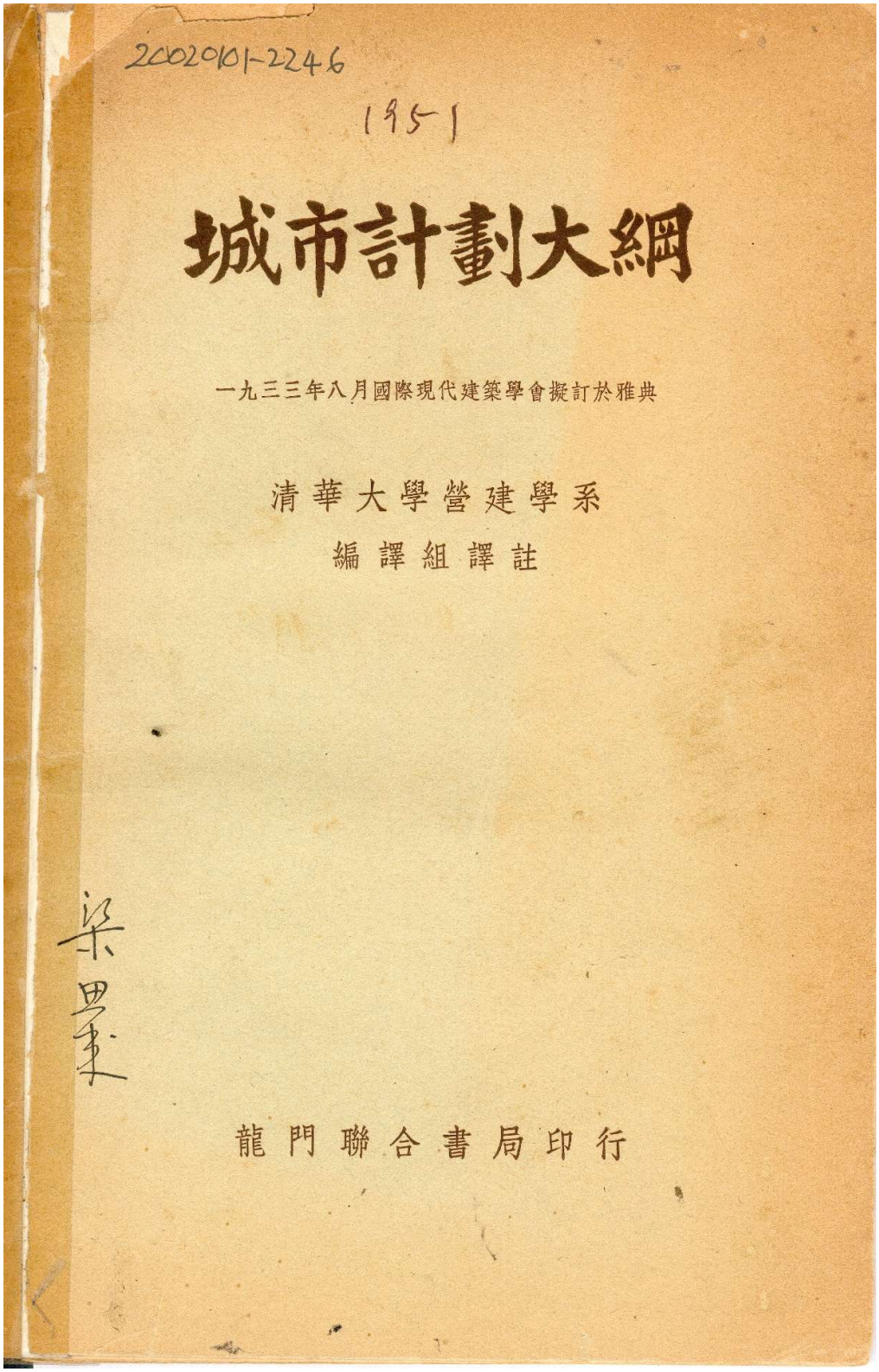

Fig. 5.11 The cover page of *A General Outline of City Planning*, which reads Department of Building (*Ying Jian*, rather than of Architectural Engineering) and has Liang's signature at the bottom left, 1951

Chapter 6. City Planning As Environmental Design

> *The successful planning of Man's physical environment means knowing Man—not only as factory worker, artisan, merchant, doctor, clergyman, professor—as earner and spender—but Man also as husband, father, brother; as poet, philosopher, painter, dreamer; Man as spirit as well as body, Man as a whole. And we, as Architects, shall never know MAN AS A WHOLE until we discard the narrow, particularizing, separating view of Science, and take the BROAD, UNIFYING VIEW OF ART.*[568]

These words, taken from the Princeton Conference Committee's planning documents for the PMPE conference, outline an approach to architecture which, I will argue, Liang embraced wholeheartedly in his curriculum plans for Tsinghua. This chapter focuses on Liang's pedagogy for teaching architecture at this expanded scope, which included city planning. It traces the theme of the "substance-form environment" (Liang's Chinese term for the "physical environment" discussed at the PMPE conference) in his curriculum at Tsinghua. It shows how he had started to think about architecture on an expanded scale even before his US visit, based on his reading. It then presents Liang's draft curriculum documents for Tsinghua. Finally, this chapter explains Liang's vision of the architect as a co-ordinator between various design-related professions and shows the degree to which his US experiences at the UNHQ, the PMPE conference, and the Tennessee Valley Authority (TVA) may have contributed to this vision.

PMPE director Holden carried out extensive pre-conference discussions with those invited to the conference via letters or meetings in New York and Boston. The result was a carefully crafted schedule of events related to the conference topic.[569] Wednesday the fifth began with an inquiry into the environmental needs of man as an individual and as a

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[568] "Remarks of Ernest J. Kump: When we know Man, then we can Plan!" in Princeton Conference Committee, *SUMMERY OF AXIOMS, ASSUMPTIONS AND SUGGESTED TOPICS FOR DISSCUSSION FOR CONFERENCE ON "PLANNING MAN'S PHYSICAL ENVIRONMENT" (March 5–6, 1947)* (Princeton, NJ: Princeton University, 1947).

[569] Princeton Conference Committee, *PROGRAM: PRINCETON UNIVERSITY BICENTENNIAL CONFERENCE ON PLANNING MAN'S PHYSICAL ENVIRONMENT* (Princeton Inn, March 5–6, 1947) (Princeton, NJ: Princeton University, 1947).

member of society.[570] Then the discussion moved to a consideration of the various limitations (and, conversely, possibilities) that physical, technical, and economic factors impose on designers and the people for whom they design.[571] Thereafter the sessions proceeded through a study of form—philosophical bases, physiological reception, and psychological effect[572]—to an inquiry into how these matters should be taught via an open session on education.[573] On Thursday the sixth, the conference moved to a more direct consideration of applying design principles on multiple scales, from city and regional planning to creating buildings and small objects.[574]

If such a conference had been held a decade earlier, it would very probably have been a debate between modernists and traditionalists. Along with the times, Liang's thinking about design was evolving. There was no clear-cut watershed for Liang dividing the period in which he favoured the Beaux-Arts design, in which he had been schooled at the University of Pennsylvania during the 1920s, from his later interests.

The Liangs kept abreast of up-to-date knowledge of their Western counterparts through American publications. That is to say, Liang was well-informed of the latest developments in architecture outside China between his initial return from the USA (in the late summer of 1928) and his second trip there in 1946–1947. Although Liang had not once left China during the War of Resistance against Japan, he was acquainted with the pedagogies at American schools like Harvard, MIT, and Columbia[575] before he revisited USA. As a result, his in-person encounters with the world's then leading architect-planners during his second visit broadened Liang's horizons, and the PMPE conference strengthened and enriched the knowledge he had received via scholarly reading.

6.1 City Substance-Form Planning

The key term Liang used in drawing up Tsinghua's curriculum for postwar student-architects was "substance-form environment" taken from the PMPE conference's title.

[570] Session I: THE VISUAL AND SOCIAL BASIS OF DESIGN.
[571] Session II: PHYSICAL POSSIBILITIES AND LIMITATIONS OF DESIGN.
[572] Session III: PHILOSOPHY OF FORM AND THE PSYCHOLOGICAL EFFECT OF FORM.
[573] Session IV: Open Discussion: REVIEW OF SOCIAL, PHYSICAL AND INTELLECTUAL ATTRIBUTES OF DESIGN.
[574] Sessions V, VI, VII, respectively: EXTENSIVE ENVIRONMENT, THE BUILDING AS THE LIMITING ELEMENT OF SPACE, THE DESIGN OF INDIVIDUAL OBJECTS AND THEIR PLACE IN ENVIRONMENT.
[575] Letter from Liang Sicheng to Mei Yiqi, 9 March 1945, Tsinghua University Archives.

He rendered it into Chinese as *ti-xing huanjing* (體形環境), as he penned it in both his Letter 3 to the Ministry of Education (1948) requesting curricular reform and his Draft Plan to the public on the same topic in *Wen Wei Pao* (1949). Tsinghua's modern pedagogy of professional training in—again as per Liang's words—building (*ying jian* or 營建 in Chinese) reflected a broader view of architecture in the built environment.

The Ministry of Education refused his appeals in Letter 3 to stream senior students into Architecture or City Planning and to rename the department as one of building rather than architectural engineering (as a precursor to establishing Liang's desired *College* of Building). However, Liang persisted against the KMT's insistence upon an architectural engineering department by proposing five areas of study within that department (corresponding to the departments he wished to have in a College of Building). He felt that, as quoted above, "The aim of Tsinghua University's architectural curriculum is to bring forth architectural designers in this broad sense of substance-form environment," and "to hone students' talent for solving the problems of three aspects [usefulness, stability, aesthetics] as a whole" while distinguishing the student-architects from those acquainted merely with engineering.[576] Impressed by his meetings at the PMPE conference with figures who were considered remarkable educators, such as Joseph Hudnut (of Columbia and later Harvard) and William Wurster (of MIT and later UC Berkeley), who "both housed different fields of expertise concerned with the built environment under one roof,"[577] together with many PMPE-inspired visits on his way home, Liang evidently tried to follow suit back in China even though "due to the limited budget, [they] can [could] only deal with the substance-form environment; namely, the most significant part of *Ying Jian*."[578]

Liang had already been thinking about the need to consider both the small scale and the large scale in architecture before he attended the PMPE conference. During the Second

[576] Liang Sicheng, "Draft Plan of Academic Structure and Programme in the Department of Yingjian (Now Known as the Department of Architectural Engineering) at Tsinghua University 清華大學營建學系（現稱建築工程學系）學制及學程計劃草案," *Wen Wei Pao (Shanghai)*, 11 July 1949. For example, in so arguing, Liang contrasted Tsinghua with Peking University's architectural engineering department.
[577] Chang, "Joseph Hudnut, William Wurster, and Urban Design at Harvard and Berkeley," passim; quoted from Chang, "A Ground between Beaux-Arts, Modernism, and Chineseness," 68.
[578] Liang Sicheng, "Draft Plan of Academic Structure and Programme in the Department of Yingjian (Now Known as the Department of Architectural Engineering) at Tsinghua University 清華大學營建學系（現稱建築工程學系）學制及學程計劃草案," *Wen Wei Pao (Shanghai)*, 10 July 1949.

World War, Liang shifted his pedagogical focus from histories to current realities. Even before Mei officially announced the approval for the founding of the Department of Architectural Engineering at Tsinghua, Liang had published another article in Chongqing's *Ta Kung Pao*, "The System and Order of Cities" (Letter 2), on 7 October 1945. In that newspaper essay, he mentioned, on the one hand, the so-called "peaceful dwelling and the happy pursuit of one's work" (*an jyu le yeh*; 安居樂業) in response to the social and economic importance to a country of its people's mental and physical health and, on the other, his intention to mine the West for its latest modern developments.[579]

At the same time, however, Liang also noticed problems of Euro-American planning, such as urban "Slum[s]" (*Pinminku*; 貧民窟),[580] that had arisen in the West since the second half of the nineteenth century; Liang wished to avoid these issues and create "a bed for everybody" (*yi ren yi chuang*; 一人一床).[581] In his Letter 2—The System and Order of Cities—Liang introduced Eliel Saarinen's idea of "Organic decentralisation" (*Youjixing shusan*; 有機性疏散) set out in Saarinen's 1943 text *The City, Its Growth, Its Decay, Its Future*.[582] Liang referred to the need for good city planning in his plea for establishing Tsinghua's new professional programme in 1945:

> *And not least, we call attention to improve or facilitate the forming of a city system, and also of its systematic order; we need many professionals who specialise in architecture (rather than civil engineering) or city planning; however, at China's universities nowadays, there are only two or three in architecture and nothing in city planning. The founding of architecture and city planning departments is the primary step of forming cities' systematic order. This, after all, is the responsibility of the educational authority of a country.*[583]

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[579] Letter from Liang Sicheng to Mei Yiqi, 9 March 1945, Tsinghua University Archives.
[580] Liang, "The System and Order of Cities 市鎮的體系秩序."
[581] "Now China has 450 million people, how many beds are there? Whether in cities or villages, we see working people at night in their studios, sleeping at desks, or laying floors. This kind of life is the treatment of slaves. For the people of the Republic of China in the future, we require everyone to have a bed at least at night. If we don't have a bed, we can't talk about improving our standard of living, let alone city planning." See ibid.
[582] Ibid.
[583] Letter from Liang Sicheng to Mei Yiqi, 9 March 1945, Tsinghua University Archives.

Liang returned to China in haste from the USA in the summer of 1947. Not only had he exhausted his budget (which was limited due to the Chinese Civil War, 1945–1949), but also Lin Huiyin's health was worsening (she needed a kidney operation, but it had been postponed due to serious tuberculosis). Liang resumed his role as Lin's nurse, confidante, and comforter in whatever free time he could spare from his busy work schedule at the department.[584] He addressed the substance-form environment at his first convenience at Tsinghua, where he divided his department into two groups, Architecture and City Planning—which he deemed the most critical parts of building (*ying jian*):

> *…both have the same basic guiding principles but different focuses. The former mainly studies the design and construction of building itself and thus has more courses on house design and structures. On the other side, the latter focuses on the interrelationship of the whole city and even several cities and the regional deployment in culture, politics, economy, transportation, and so on to attain convenience, applicability, and beauty. City Planning's work is tightly related to cultures, politics, economics, transport, and even society. Therefore, the main courses of the latter group involve city engineering and several socio-political sciences.*[585]

Liang tellingly had much more to say on the latter after shifting his vision to "an enlargement in the scope of architectural planning"[586] to include "City planning" (*Shizhen jihua*; 市鎮計劃).[587] City planning as a field of study had not been available when Liang received his Beaux-Arts-centric training at the University of Pennsylvania,

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[584] Guo, Gao and Xia, *Chinese Master Architect: Liang Sicheng 一代宗师梁思成*, 152.

[585] Liang Sicheng, "Draft Plan of Academic Structure and Programme in the Department of Yingjian (Now Known as the Department of Architectural Engineering) at Tsinghua University 清華大學營建學系（現稱建築工程學系）學制及學程計劃草案," *Wen Wei Pao (Shanghai)*, 10 July, 1949.

[586] Letter from Liang Sicheng to Mei Yiqi, 9 March 1945, Tsinghua University Archives. In it, Liang called what he would later term city planning "urban design" (*Dushi sheji*; 都市設計). See his Letter 2 of a half year later, which was influenced by Liang's wartime reading of Eliel Saarinen, *The City, Its Growth, Its Decay, Its Future* (New York, NY: Reinhold Publishing Corporation, 1943), 6–8, 25–26, and passim. In that book, Saarinen equated *town design*—or, civic design—to (two-dimensional) *town planning*, in contrast to (three-dimensional) *town building*, which possesses organic order.

[587] Liang, "The System and Order of Cities" (市鎮的體系秩序). This was to distinguish Liang's Churchill-influenced terminology from urban planning or town planning. Besides, his second outing in America broadened his horizons on a smaller scale as well, of which more in the next chapter.

where a faculty for landscape design was in its nascent stage.[588] However, according to Wong, Liang had been "an advocate for urban decentralisation and modern planning"[589] since he met with American architect-planner Clarence Stein in Beijing in 1936, with whom he held a long-lasting friendship.

In this light, it was not surprising that Liang would follow the ideas in Saarinen's *The City*, which he had obtained in Chongqing and contextualise so-called "organic decentralisation" for China. Nevertheless, it was not until the PMPE conference at Princeton that Liang had a chance to go beyond scholarly reading to acquire a sense of practical methodology in this area. There, for example, he was introduced to Boston-based architect William R. Greeley, a member of the Regional Planning Association of America (RPAA) founded by Stein in 1923. Greeley was concerned with solving the "chaos" within cities through "community organisation."[590]

Such viewpoints broadened Liang's horizons indeed. Take Frederick J. Adams, for example, a consultant to many state and municipal planning boards, who delivered a statement to the conference:

> *My statement…was prepared on the assumption that representative American architects, having in recent years become vitally interested in a field given by default for nearly half a century to engineers, landscape architects, and lawyers, wished to discuss in broad terms the responsibility of the architectural profession in the planning of communities, cities, and regions.*[591]

The PMPE conference, as a result, spoke to Liang's early understanding of the binary of the '*Order* of Cities' in Saarinen's book *The City*, in which Saarinen wrote, "The city's

[588] Kammann, "Liang Sicheng and the Beginnings of Modern Chinese Architecture and Architectural Preservation," 29.
[589] Sidney Wong, "The Planning Connection between Clarence Stein and Liang Sicheng in Republican China," *Planning Perspectives* 28:3 (2013), 421.
[590] "Statement by William Roger Greeley," in Princeton Conference Committee, *SUMMERY OF AXIOMS, ASSUMPTIONS AND SUGGESTED TOPICS FOR DISSCUSSION FOR CONFERENCE ON "PLANNING MAN'S PHYSICAL ENVIRONMENT" (March 5–6, 1947)* (Princeton, NJ: Princeton University, 1947).
[591] "Statement by Frederick J. Adams," in Princeton Conference Committee, *SUMMERY OF AXIOMS, ASSUMPTIONS AND SUGGESTED TOPICS FOR DISSCUSSION FOR CONFERENCE ON "PLANNING MAN'S PHYSICAL ENVIRONMENT" (March 5–6, 1947)* (Princeton, NJ: Princeton University, 1947).

'form-order' and 'social-order' cannot be separated: they must be developed hand-in-hand, reciprocally inspiring one another."[592] Liang expounded on this idea in his Letter 2: Just as "city engineering," like "organic decentralisation," addressed what Liang called "Form-order" (*Singshih jhihsyu*; 形式秩序), so could "socio-political sciences" be added to his newly proposed curriculum, as this spoke to "Social-order" (*Shehuei jhihsyu*; 社會秩序).[593] While there were only three grades of students at Tsinghua enrolled in the fall of 1948, Liang classified them into two groups when they became fourth-year graduating seniors [Fig. 6.1]. In this tentative classification, one can foresee how he intended to sort out the respective courses in his ideal College of Building, which would include Architecture and City Planning *groups* (as part of the existing department, and so for which he could include electives) and Landscape Architecture, Industrial Art, and Architectural Engineering[594] *departments* (whose electives would be decided once a college became feasible) [Table 6.1]. It is evident that Liang was thinking about the theory of the substance-form environment and imagining how he could apply his socialist ideas to pedagogical measures in the then-promising new China:

> *Our China of the New Democracy is under industrialisation; life and benefits of workers and farmers are our priority. However, the point is that the substance-form environment—on which their living quality is dependent—is such a complicated issue that requires planning at first convenience. If it were built with error, it would be difficult and expensive to fix, and we should avoid any flaws. Because of the war affairs, what follows will be long-term reconstruction. In this light, it is not too early to train professionals. The higher education committee should pay attention to this as soon as possible and, in so doing, contribute to the establishment and improvement of our*

[592] Saarinen, *The City, Its Growth, Its Decay, Its Future*, 4.

[593] Liang, "The System and Order of Cities 市鎮的體系秩序"; see also Liang Sicheng, "Draft Plan of Academic Structure and Programme in the Department of Yingjian (Now Known as the Department of Architectural Engineering) at Tsinghua University 清華大學營建學系（現稱建築工程學系）學制及學程計劃草案," *Wen Wei Pao (Shanghai)*, 10 July, 1949.

[594] To clarify: Liang already had a department of architectural engineering at Tsinghua, but here he meant another one, which would be the sole architecture-related entity affiliated with the original College of Engineering, while other architectural fields would cluster in their independent College of Building, which would exclude architectural engineering. This is also mentioned in the next section.

urban-rural substance-form environment.[595]

[595] Liang Sicheng, "Draft Plan of Academic Structure and Programme in the Department of Yingjian (Now Known as the Department of Architectural Engineering) at Tsinghua University 清華大學營建學系（現稱建築工程學系）學制及學程計劃草案," *Wen Wei Pao (Shanghai)*, 11 July, 1949; Liang Sicheng, "The System and Order of Cities 市鎮的體系秩序." *Ta Kung Pao (Chongqing)*, 7 October 1945.

國立清華大學工學院

建築工程學系學程（民國三十七年至三十八年） 1948年

學程	講演	實習次數	實習每次時數	實習共時數	學分	先修學程	教師	學程	講演	實習次數	實習每次時數	實習共時數	學分	先修學程	教師
一年級 上學期								**下學期**							
中101 國文	3				3			中102 國文	3				3		
外101 英文	5				3			外102 英文	5				3		
物101 物理	3	1	3	3	4			物102 物理	3	1	3	3	3		
数103 微積分	4				4			数104 微積分	4				4		
建101 建築製圖		2	3	6	2		莫宗江,胡允敬,程應銓	建112 預級圖案		2	3	6	2		胡允敬,程應銓,
建105 投影畫(一)	1	1	3	3	2		朱暢中,汪國瑜,	建106 投影畫(二)	1	1	3	3	2		朱暢中,汪國瑜,
建131 素描(一)		2	3	6	2		李宗津,畢頤生,	建132 素描(二)		2	3	6	2		李宗津,畢頤生,
經103 經濟簡要	2				2			經104 經濟簡要	2				2		
	18			18	22				18			18	22		
二年級															
建113 初級圖案		3	3	9	3	建112	林徽因,朱暢中,程應銓	建114 初級圖案		3	3	9	3	建113	林徽因,朱暢中,程應銓,
建161 材料與結構	1	1	3	3	2	建101	劉致平	建162 材料與結構	1	1	3	3	2	建161	劉致平
建151 歐美建築史	2				2	建112	梁思成	建152 歐美建築史	2				2	建112	梁思成
建133 素描(三)		2	2	4	2	建132	李宗津,畢頤生,	建134 素描(四)		2	2	4	2	建133	李宗津,畢頤生
建141 水彩(一)		2	2	4	2	建132	莫宗江,	建142 水彩(二)		2	2	4	2	建141	莫宗江,
機121 應用力學	4				4	物102		機122 材料力學	4				4	機121	
※土113 測量(上或下)	2	1	3	4	2			※土113 測量(上或下)	2	1	3	4	2		
社101 社会學概論	3				3			社102 社会學概論	3				3		
	12或10			24或20	20或18				12或10			24或20	20或18		

註(※)測量可選在上學期或下學期

學程	講演	實習次數	實習每次時數	實習共時數	學分	先修學程	教師	學程	講演	實習次數	實習每次時數	實習共時數	學分	先修學程	教師
三年級															
建115 中級圖案(一)		4	3	12	6	建114	劉致平,胡允敬,林徽因,汪國瑜	建116 中級圖案(二)		4	3	12	6	建115	劉致平,胡允敬,林徽因,汪國瑜
建153 中國建築史	2	1	3	3	3		梁思成	建156 市鎮計劃	2				2		梁思成
建135 素描(五)		1	3	3	1		李宗津,畢頤生,	建136 素描(六)		1	3	3	1		李宗津,畢頤生
建143 水彩(三)		1	3	3	1		莫宗江,	建144 水彩(四)		1	3	3	1		莫宗江
土125 工程材料學	3				2		王明之	土123 鋼筋混凝土	3				3		王明之
社267 鄉村社會學	3				3			社268 都市社會學	3				3		
地363 土地利用	2				2			地363 土地利用	2				2		
建119 雕飾學		1	3	3	1		莫宗江	建202 庭園學	2				2		
	12			24	19				12			21	20		
四年級 建築組（本年度無四年級）															
建117 高級圖案		5	3	15	8		劉致平,鄔勁旅,林徽因	建118 高級圖案		5	3	15	8		劉致平,鄔勁旅,林徽因
建155 歐美繪塑史	2				2		梁思成	建154 中國繪塑史	2				2		梁思成
建145 水彩(五)		1	3	3	1		莫宗江	建146 水彩(六)		1	3	3	1		莫宗江
土124 鋼筋混凝土	3				3		王明之	土 機械設備	3				3		
土122 圬工地基及房屋	4				3		王明之	建172 業務法會、施工估價	2				2		
建181 雕塑(一)		1	3	3	1		徐沛真	建182 雕塑(二)		1	3	3	1		徐沛真
建191 專題講演	1				1			選修	2				2		
								建192 專題研究					2		
	10			21	19				9			21	21		
四年級 市鎮組（本年度尚無四年級）															
建123 高級圖案		5	3	15	8		鄔勁旅,林徽因	建124 高級圖案		5	3	15	8		鄔勁旅,林徽因
建155 歐美繪塑史	2				2		梁思成	建156 中國繪塑史	2				2		梁思成
建145 水彩(五)		1	3	3	1		莫宗江	建146 水彩(六)		1	3	3	1		莫宗江
土166 環境衛生	2				2			建172 業務法會、施工估價	2				2		
政131 市政學	2				2			政182 市政學	2				2		
社237 人口問題	3				3			社238 人口問題	3				3		
建181 雕塑		1	3	3	1		徐沛真	建182 雕塑		1	3	3	1		徐沛真
建171 專題演講	1				1			建192 專題研究					2		

Fig. 6.1 Tsinghua's Department of Architectural Engineering curriculum handwritten by Liang, 1948 (an attachment to Letter 3). In it he underscored specific courses in red for City Planning students: Sanitation (166), Municipal Study (131/132), and Demography (237/238). Plus, these students had the same newly added courses that Architecture student did in the Departments of Economics, Sociology, Geography, Political Science, and Civil Engineering—if not Architectural Engineering—at Tsinghua.[596] In addition, Liang slated Wu Kinglui as a teacher for graduating seniors' advanced design courses per 117/118 (architects) and 123/124 (planners), although Wu Kinglui never ultimately taught at Tsinghua.

[596] The rest of the courses underlined in red were for freshman (Introduction to Economics, 103/104), sophomores (Introduction to Sociology, 101/102), and juniors (Rural Sociology, 267; Urban Sociology, 268; Land Use, 363; and Decoration, 119). To note, when Liang drafted this curriculum in the fall of 1948, the architecture students he could train separately as architects or planners were those transferring from junior to senior year (whose coursework had yet to be undertaken), so in this, we only see the distinction within the fourth year.

Table 6.1 Draft Plan of Academic Structure and Programme in the Department/College of Building (*Ying Jian*), 1949[597]

	Cultural and Social Background [Subject A]	Science and Engineering [Subject B]	Presentation Skills [Subject C]	Design Theory [Subject D]	Comprehensive Research [Subject E]
Architecture (Group)	Chinese Language, English, Sociology, Economics, Physical Environment and Society, European and American Architectural History, Chinese Architectural History, European	Physics, Calculus, Mechanics, Material Mechanics, Surveying, Engineering Materials, Building Structures, Building Construction, Reinforced Concrete,	Architectural Drawing, Projection Drawing, Sketching, Watercolour, Sculpture	Vision and Design, Introduction to Architectural Design, Introduction to City Planning, Keynote Speech	Architectural Design, Status Investigation, Practice, Thesis (Monographic Study)

[597] The content of this table, translated (from Chinese) and tabulated by me, is based on various bits of information in Liang's Draft Plan (Letter 5). To clarify before further discussion of this table below: In Liang's suggested curriculum (see the column at the far left), on the one hand, for the studies of Architecture and City Planning then feasible at the existing Department of Architectural Engineering, he used the term "group" (*zu*; 組); on the other, for the studies of Landscape Architecture, Industrial Art, and Architectural Engineering, still awaiting a College of Building to accommodate them in due course, Liang used "department" (*xi*; 系). (This College of Building was never realised, but Liang's desire to create it was the reason why he, at the time, only made a "Draft Plan" of elective courses for Architecture and City Planning students).

	and American Painting and Sculpture History, Chinese Painting and Sculpture History	House Mechanical Equipment, Field Practice (5-year programme)			
City *Substance-Form* Planning (Group; a derivative, explained below, of City Planning)	See above	Physics, Calculus, Mechanics, Material Mechanics, Surveying, Engineering Materials, Municipal Sanitary Engineering, Road Engineering, Physical Geography	See above	Vision and Design, Introduction to Architectural Design, Introduction to City Planning, City Planning Technology, Rural Sociology, Urban Sociology, Municipal Management, Keynote Speech	Architectural Design (2 years), City Design (2 years), Status Investigation, Practice, Thesis (Monographic Study)
Landscape Architecture (Department)	See above	Physics, Biology, Chemistry, Mechanics, Material	See above	Vision and Design, Introduction to Landscape	Architectural Design, Landscape Architecture Design,

		Mechanics, Surveying, Engineering Materials, Landscape Architecture Engineering (ground and underground water discharge, road drainage, etc.)		Architecture, Horticulture, Planting Information, Keynote Speech	Practice, Thesis (Monographic Study)
Industrial Art (Department)	See above	Physics, Chemistry, Engineering Chemistry, Calculus, Mechanics, Material Mechanics	Architectural Drawing, Projection Drawing, Sketching, Watercolour, Sculpture, Woodcarving	Vision and Design, Psychology, Colour Science	Industrial Design (daily utensils, furniture, vehicles and vessels, clothing, textiles, pottery), Industrial Art Practice
Architectural Engineering (Department)	Chinese Language, English, Economics, Physical	Physics, Engineering Chemistry, Calculus, Differential Equation,	Architectural Drawing, Projection Drawing, Sketching,	Introduction to Architectural Design, Keynote Speech,	N/A

	Environment and Society, European and American Architectural History, Chinese Architectural History	Mechanics, Material Mechanics, Engineering Materials, Engineering Geology, Constructional Analysis, Structural Design, Building Construction, Material Testing, Advanced Structural Analysis, Advanced Constructional Design, Reinforced Concrete, Soil Mechanics, Foundation Engineering, Surveying	Watercolour, Architectural Design (1-year)	Practice	

As noted above, Liang wrote in the Draft Plan, "Due to the limited budget, we can only deal with the substance-form environment; namely, the most significant part of Building (*Ying Jian*)." He continued in his Letter 5: "Our Department [of Architectural Engineering] will temporarily [that is, before the founding of a would-be College of Building] be divided into two groups: Architecture and City Planning. The basic principles of the two groups are the same, but the emphasis is different."

In his Draft Plan, Liang seemed to have already formulated his pedagogical thoughts about City Planning—based on his PMPE-inspired substance-form framework—as an independent department that specifically "studies a city, or from it to a county, as well as the relations amongst most cities and counties of a geographic area or an economic-cultural region. The main purpose focuses on useful, reasonable, pleasant distribution demanded by farming, industry, commercial business, dwelling, administration, and transportation for the sake of people's physical and mental health that promote their working efficiency."[598]

Four specific functions in a city—dwelling, work, recreation, and traffic in Sert's 1942 *Can Our Cities Survive?*—almost certainly inspired Liang to publish "Substance and Form of the City and its Planning" in Beijing's *People's Daily* (Letter 4) in 1949. (This was a prelude to Tsinghua's publication of *A General Outline of City Planning* in 1951.) Liang took some ideas from the PMPE conference but also started creating his own amplified ideas around them, and was beginning to use his own (but related) terminology as well.[599] In it, Liang aimed at the realisation of 15 main goals in building the "city substance-form" (*Chengshi ti-xing*; 城市體形) on the one hand and, on the other, planning through four "substance-form bases" (*Ti-xing jichu*: 體形基礎): first, zoning (the designation of functions to selected areas); second, the neighbourhood unit (the assignment of city areas according to the geographic origin of people in the country); third, a radial and ring-road traffic network; and fourth, the size restriction of self-supporting neighbourhoods from 50,000 to 60,000 inhabitants.[600] Concerned with

[598] Liang Sicheng, "Draft Plan of Academic Structure and Programme in the Department of Yingjian (Now Known as the Department of Architectural Engineering) at Tsinghua University 清華大學營建學系（現稱建築工程學系）學制及學程計劃草案," *Wen Wei Pao (Shanghai)*, 11 July, 1949.

[599] In his Letter 2 in 1945, Liang was directly borrowing terminology and absorbing ideas from Saarinen's *The City* (1943).

[600] Liang Sicheng, "Substance and Form of the City and its Planning 城市的體形及其計劃." *People's Daily (Beijing)*, 11 June 1949.

"substance-form bases" for students in the City Planning group, Liang even retitled the modular structure of their subjects from "City Planning" to "City Substance-Form Planning" (*Shizhen ti-xing jihua*; 市鎮體形計劃)[601] [Table 6.1].

In Liang's ideal curriculum, in addition to Subjects A and C (Cultural and Social Background and Presentation Skills), in which planning students took the same courses as architecture students, the former received different training from architects when it came to Science and Engineering, Design Theory, and Comprehensive Research (Subjects B, D, and E). Plus, Liang nominated elective courses only for architect-planners in his pedagogical practice at Tsinghua, including Political Science, Psychology (eight credits), Population (six credits), House Acoustics and Lighting (two credits), Gardening (one credit), Decoration (one credit), Watercolour (V) (VI)[602] (two credits), Decoration (III) (IV) (two credits), Residential Issues (two credits), Engineering Geology (two credits), Archaeology (six credits), General History of China (six credits), and Social Survey (three credits).[603]

An average of one-third of the credits in the first two years—during which architects and planners took the same courses—were in the social sciences. Moreover, in the second half of either the four- or five-year programme, most of the non-compulsory credits were again in the social sciences. As seen in his Letter 3 to the Ministry of Education, Liang pointed out key examples like Municipal Study, Land Issue, and Demography and underlined them in red [Fig. 6.2]. Plus, it is interesting to note that Liang had even more thoughts on City Planning than on Architecture; once the programme was given a five-year duration, he offered fewer elective options to make sure planners, in their senior years of study, receive sufficient training in areas such as Physical Geography (eight credits in Subject B, plus three credits each in Urban and Rural Sociology, both related to Human Geography, in Subject D), as well as, most importantly, City Planning Technology and

[601] "Hua" in Chinese can either be "劃" or "畫," and they are interchangeable in most circumstances. In Letters 1 to 5, however, Liang always used the former (see Fig. 7.6 in Chapter 7), which possesses a dynamic sense while the latter is static.

[602] The academic system in China is planned in terms of semesters. Generally speaking, the difficulty level increases as the grade increases. Taking watercolour as an example, elective courses 5 and 6 are at an advanced level, so they are elective courses, but this also shows that courses 1 to 4 are compulsory—Roman numerals are used for other classes and so on.

[603] Liang Sicheng, "Draft Plan of Academic Structure and Programme in the Department of Yingjian (Now Known as the Department of Architectural Engineering) at Tsinghua University 清華大學營建學系（現稱建築工程學系）學制及學程計劃草案," *Wen Wei Pao (Shanghai)*, 12 July, 1949.

Elementary City Design (two credits in Subject D plus eight credits in Subject E) in the fourth year, and Advanced City Design (ten credits in Subject E) in the fifth year, when architects would spend a lot of time in factories or on construction sites (in Subject B, of which more in Chapter 7).[604]

[604] Liang Sicheng, "Draft Plan of Academic Structure and Programme in the Department of Yingjian (Now Known as the Department of Architectural Engineering) at Tsinghua University 清華大學營建學系（現稱建築工程學系）學制及學程計劃草案," Wen Wei Pao (Shanghai), 10 & 11 July 1949.

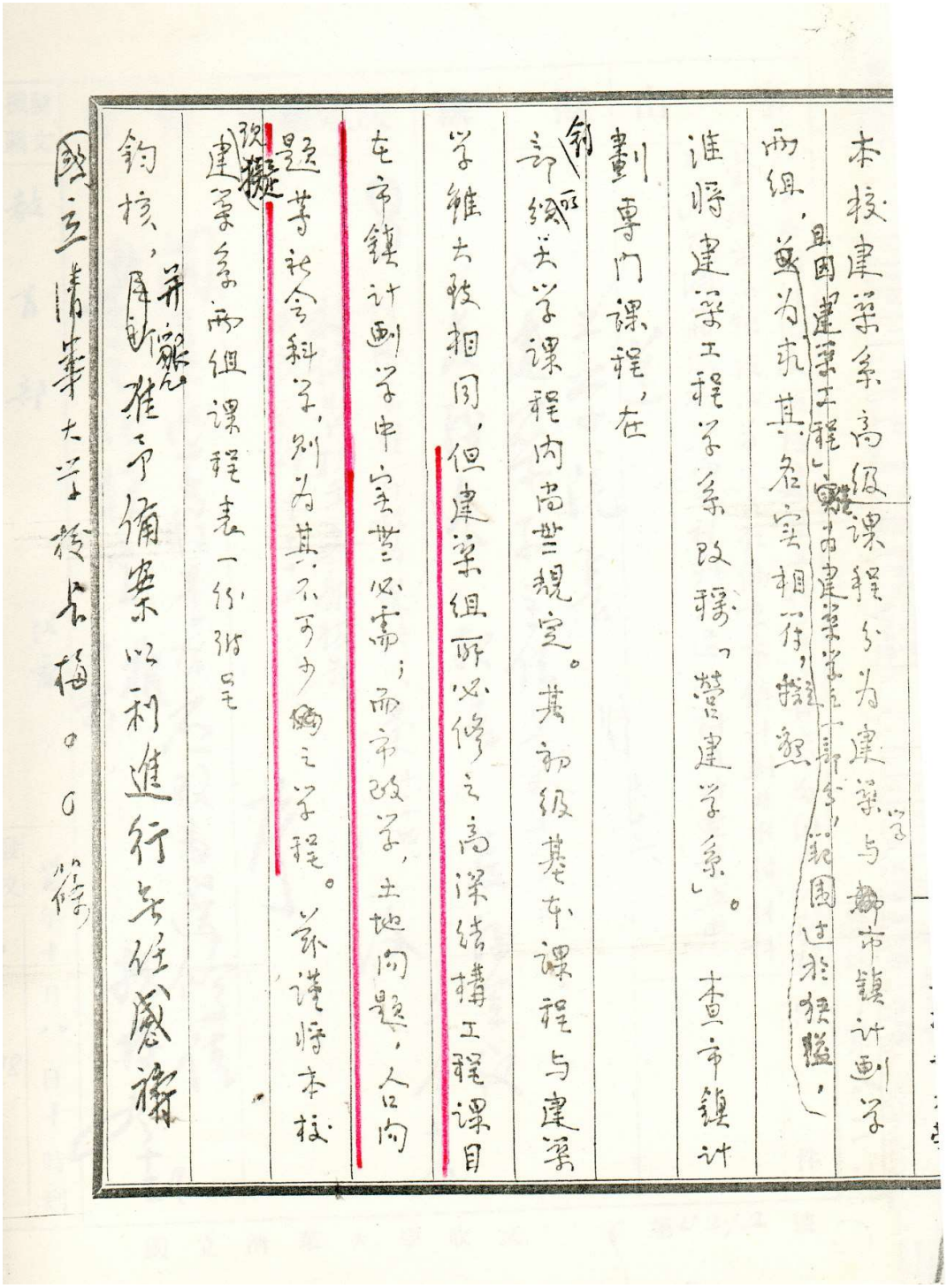

Fig. 6.2 Liang highlighted his curricular distinctions for architects and planners in red, 1948; his underlined words say: “The advanced structural engineering subjects required by the Architecture group are not necessary in the City Planning group, while social sciences such as Municipal Study, Land Issue, and Demography are indispensable subjects for the latter.”

6.2 The Correlation of Professions

Current scholarship on Liang's planning skills has overlooked the aspects concerned with the substance-form environment at the PMPE conference and has relied mainly upon Fairbank's *Liang and Lin*. Lai Delin's work is an example of this phenomenon. He trained his sights particularly on Liang's participation as a member of the Board of Design at the United Nations Headquarters Planning Commission [Fig. 6.3] and argued for its influence on the planning components of Tsinghua's programme.[605] Each time Liang met the UNHQ Planning Commission, he spent two hours meeting with a group of men of many nationalities on the twenty-seventh floor of the RKO building of Rockefeller Centre. The project, of course, was on a planning scale because it involved a six-block site for the construction of the UN Permanent Headquarters on the Manhattan East River site.

[605] Lai Delin, *Studies in Modern Chinese Architectural History* 中国近代建筑史研究 (Beijing, Tsinghua University Press, 2007), 173.

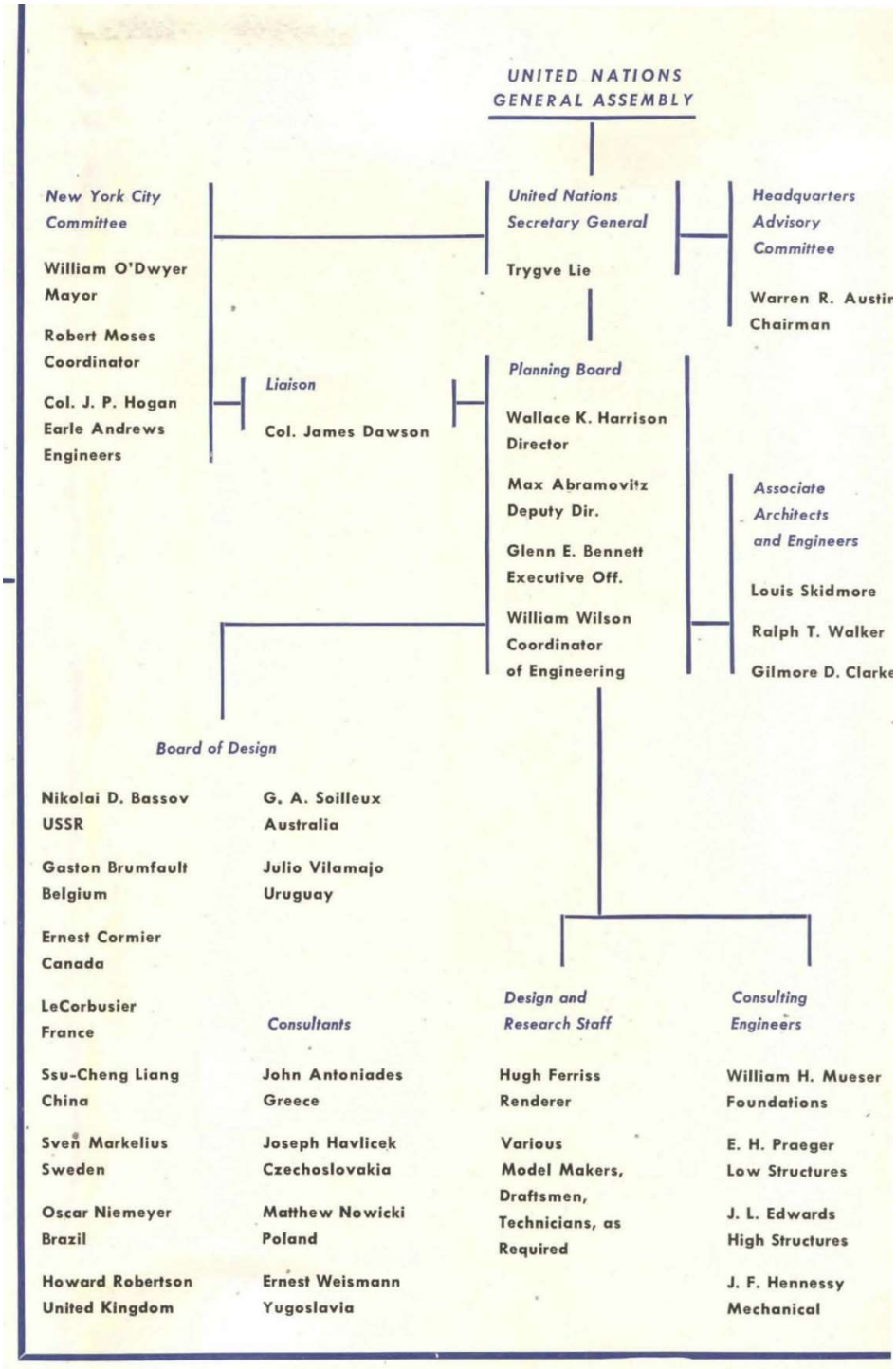

Fig. 6.3 An organisational chart of the UNHQ Planning Commission

This thesis will extend the previous research by arguing for the greater contributions of the PMPE conference and Liang's midwestern travels to the integration of planning into Liang's Tsinghua pedagogy. While Liang did participate in the UNHQ Planning Commission, his teaching obligations at Yale meant he could not attend its meetings as

frequently as other participants did. Also, as Wong commented on the famous who's who UNHQ photograph [Fig. 6.4]: "[Liang] clashed with Le Corbusier during the UNHQ deliberation. The other architects were confounded by his insistence on an isolated and exclusive courtyard design surrounded by walls and his stubborn north-south orientation. They politely appreciated that he was the one bringing back history to the team [Fig. 6.5], yet I see he [was] fighting and interjecting Chinese historicism primarily."[606]

Fig. 6.4 Liang Sicheng (second from right) represents China at the UNHQ Board of Design in New York, along with Ernest Cormier (first from left), Charles Le Corbusier (second from left), Vladimir Bodiansky (third from left), and John Antoniades (first from right), 1947

[606] Sidney Wong, email message to author, 10 April 2021.

Fig. 6.5 Liang in a UNHQ Board of Design meeting in New York with Scheme 24 (his failed proposal) on the wall behind him, 1947. Danish-American architect Abel Sorensen is at left.

Nevertheless, one thing that Liang must have realised at the UNHQ Board of Design, and that was also very evident at the PMPE conference, was how significant architects' and planners' ability to work together could be in the domain of so-called 'city substance-form planning'. "Although the actual pattern used now was not designed by Professor Liang," a special correspondent wrote in the *Small Daily*, "the pattern decided now is not designed by any one person at all, but has integrated the characteristics of everyone who participated in the design. Then, at least, some of the drawings contributed by Professor Liang have been adopted."[607] The 10-man Board of Design[608] started working at the beginning of 1947, and they elaborated fifty different schemes that were then criticised, analysed, and reworked by the whole team.

[607] Liang Sicheng Draws the Design of the Building of the United Nations 聯合國建大廈 梁思成打圖樣, *Small Daily* (Shanghai), 23 September 1947.

[608] The Board of Design was comprised of ten architects from around the world under the direction of Wallace K. Harrison: Sven Markelius (Sweden), Le Corbusier (France), Ssu-ch'eng Liang (China), G. A. "Guy" Soilleux (Australia), Nikolai Bassov (Soviet Union), Ernest Cormier (Canada), Gaston Brunfaut (Belgium), Howard Robertson (United Kingdom), Julio Vilamajó (Uruguay), and Oscar Niemeyer (Brazil).

As Giedion pointed out in his preliminary remarks on architectural education at the PMPE conference (remarks that stemmed from the UNESCO MOU signed by Liang), "what we urgently need are people with coordinating minds … To achieve this, we must free ourselves of the departmentalised and encyclopaedic conception of education."[609] Liang's experience on the UNHQ Board of Design showed in practice what the PMPE conference had highlighted in theory: Future architect and future planners should never be educated in separate departments. That was how the idea of a college of building—rather than a department of architectural engineering—entered Liang's purview.

In the summer of 1949, Liang made a clear distinction between Tsinghua, his alma mater, and Peking University (*Beida*; 北大) in terms of the training of a designer: "Herein we must point this out the difference, in terms of curricula and criteria, between Tsinghua's Building Department and Beida's Architectural Engineering Department: The latter focuses on [stability (engineering)] of architecture, and their teaching members are those usually with a civil engineering background; The former, on the other hand, hones students' talent in synthesising three aspects [usefulness (society), stability (engineering), and aesthetics (art)] of the substance-form environment.[610]" At Tsinghua, Liang classified all design courses—in either the Architecture or City Planning programmes—under what he called "Subject E: Comprehensive Research" [Table 6.1] to shed light on the progressive role of a modern architect, someone who should appreciate how various strands of knowledge can come together (hence 'comprehensive') in a type of grounded enquiry (hence 'research'). Giedion's UNESCO MOU, which Liang endorsed, explained this concept well:

> *This request [to reform architectural education] is based on our conviction that existing curricula, with few exceptions, are not adjusted to the needs of the immense task of replanning and reconstruction which lies ahead of us everywhere. We desire to state in particular that any new program must include development of*

[609] Sigfried Giedion, "The Need for a Basic Reform in Architectural Education," in *Building for Modern Man: A Symposium*, ed. Thomas H. Creighton (Princeton, NJ: Princeton University Press, 1949), 121.
[610] Liang Sicheng, "Draft Plan of Academic Structure and Programme in the Department of Yingjian (Now Known as the Department of Architectural Engineering) at Tsinghua University 清華大學營建學系（現稱建築工程學系）學制及學程計劃草案," *Wen Wei Pao (Shanghai)*, 10 July, 1949.

> *knowledge of social, economic, and emotional factors involved as well as technical competence—for it is through the understanding of the interrelation of these that the Architect and Planner of our time may be properly equipped not only to make his special contribution more significant but further to equip him for essential collaboration with other specialists in allied fields.*[611]

In other words, Liang believed that an architect was a co-ordinator amongst multiple disciplines, and Special Lectures (*Zhuanti Yanjiang*; 專題演講) and Special Research (*Zhuanti Yanjiu*; 專題研究) for upperclassmen were added to his curriculum—as early as in 1948 [Fig. 6.1 per 191/192]—for this objective:

> *Mr. Liang also paid attention to hiring famous experts outside the school to give lectures and impart knowledge. In my memory, Mr. Chang Shuhong talked about the Dunhuang Grottoes; Mr. Wu Huaqing gave a lecture on the art of colour lighting; Mr. Hou Renzhi talked about Beijing's geography in history; Mr. Wang Tan talked about his study in the school [Taliesin] run by [Frank Lloyd] Wright; and Mr. Chen Zhanxiang [Charles Chen] talked about city planning; etc. For all the scholars who passed by Beijing and met Mr. Liang, he always found a way to invite them to spend a period of time with the students and tell them something. We jokingly call this the 'wild goose plucking' (yanguo bamao fa; 雁過拔毛法) method.*[612]

In this light, Liang decided to apply the spirit of the UNESCO MOU he had signed at the PMPE conference to Tsinghua's curriculum. He employed Giedion's concept of the "development of knowledge of social, economic, and emotional factors," but he rephrased this as "Subject A," courses categorised as "Cultural and Social Background" [Table 6.1]. These courses played a leading role in Tsinghua's postwar curriculum since, except for "European and American Painting and Sculpture History, Chinese Painting and Sculpture History" in Architectural Engineering, Subject A was the only set of courses taken by

[611] Correspondence, 1946–1947. The Josep Lluis Sert Collection, DES, 1982, 0003, 000603276, E000, Folder: E003. Frances Loeb Library Special Collections, Graduate School of Design, Harvard University.
[612] Guo, Gao and Xia, *Chinese Master Architect: Liang Sicheng 一代宗师梁思成*, 162.

every department. When it came to Subject E, Comprehensive Research, where all design credits were to be accommodated, Architectural Engineering was the only discipline that was supposed to remain within an engineering college, rather than joining Architecture, City Planning, Landscape Architecture, and Industrial Art in the College of Building.[613] Liang's proposed pedagogy reflected Giedion's reminder at the PMPE conference: "in sharp contradiction to the present development this malaise is a one-sided *specialisation*, one of the fundamental diseases of our time."[614]

Of course, this is not to say that Liang overlooked building practice, which, in Giedion's words, was "involved as well as technical competence." Liang also designated many technical courses in Subject B on Science and Engineering [Table 6.1] for each department. In launching a five-department curriculum for the College of Building, Liang was trying to reform the then-current structure of architectural education in China, where the few architectural programmes were still solely housed in technician-oriented colleges of engineering, unlike the programmes he had learned about at the PMPE conference.

To have his country become part of Giedion's so-called "world-wide reform in architectural education" and, furthermore, "to study and formulate legislation, uniform in principle, directed toward making effective planning legally and economically possible, to be recommended for adoption on the national level,"[615] it was timely that Liang offered a keynote speech—on science-engineering (*ligong*; 理工) and humanities (*renwun*; 人文)—on 27 May 1948 at Tsinghua, in which he underscored the importance of balance between science-engineering (Subject B) and humanities (Subjects A and C–E). The lecture was later published and entitled "The Half-A-Man World." Liang was said to be quoting Dean Edmund W. Sinnott's 1947 centenary address to Yale's Sheffield Scientific School: Science and the Whole Man. In his speech, Sinnott had referred to Patrick Geddes's evolutionary theory and disclosed a condition Liang wished to change

[613] Liang Sicheng, "Draft Plan of Academic Structure and Programme in the Department of Yingjian (Now Known as the Department of Architectural Engineering) at Tsinghua University 清華大學營建學系（現稱建築工程學系）學制及學程計劃草案," *Wen Wei Pao (Shanghai)*, 11 July, 1949.
[614] Creighton, *Building for Modern Man*, 121.
[615] Correspondence, 1946–1947. The Josep Lluis Sert Collection, DES, 1982, 0003, 000603276, E000, Folder: E003. Frances Loeb Library Special Collections, Graduate School of Design, Harvard University; this paragraph is however missing in Giedion, "The Need for a Basic Reform in Architectural Education" and is only in the original archival document.

by proposing a College of Building[616]:

> *Man leads a double life, of mind [the sciences] and spirit [the humanities]. If mind is suspect, as in religious fanaticism, he may become a creature only of his instincts and emotions; if spirit is suspect, as today when scientific materialism carries such authority, he is in danger of degenerating into a selfish and soilless mechanism. To be a whole man he must cultivate both parts of him…If we train his mind to master material things without at the same time enlarging his spirit so that he may appreciate the value of immaterial ones and thus become the master of himself, he is but half a man.*[617]

Sinnott's Geddes-inspired concept may have informed Liang's reading of both *The City* (1943) and *The City Is The People* (1945). It was also reflected in his Letter 1 and Letter 2 in equal measure. In the former, Liang regarded the city as a "Working mechanism" while, in the latter, he talked about the "Correlation" of those architectural units he would specify later in Letter 4. Taken together, Liang was most concerned—perhaps not unlike Saarinen and Churchill—with coordination between architect-planners and society. Just as the UNESCO MOU aimed at a complete restudying of architectural education and its necessary curricula, so did Sinnott's centennial address indicate that "only whole men can save the world today and to train them well is the imperative task of every university."[618]

Although the script for Liang's lecture is still missing today,[619] even in the summer before Sinnott's oration on 17 October 1947, Liang had once referred to an engineer as "also 1/2 an architect" in his working diary. In addition, Liang was in solid support of Albert Mayer (who had given him a tour of the USA's foremost "garden city" of Radburn, New Jersey, designed by Liang's lifelong friend Stein and the PMPE conference participant Walker),

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[616] Liang's understanding of Geddes might have come from Stein, who visited the Scottish biologist and British planner Ebenezer Howard to study English garden cities before he befriended Liang by 1936 in Beijing; see Wong, "The Planning Connection between Clarence Stein and Liang Sicheng in Republican China," 425.

[617] Edmund W. Sinnott, "Science and the Whole Man," *American Scientist* 36, no. 1 (1948): 136, 138. A Centennial Special Issue of the Sheffield Scientific School (1847–1947), Yale University.

[618] Sinnott, "Science and the Whole Man," 137–138.

[619] Confirmed by Lai Delin, email message to author, 1 November 2019: "As a matter of fact, I just noticed that many others are also looking for the source of Liang's talk, but very strange, no one can make it clear."

and Mayer's viewpoint that "engineering is no more than the backbone of architecture or, at most, one of those means to make a living or building a house, there is nothing spectacular to show off."[620] However, Liang by no means played down Subject B (Science and Engineering) in his postwar training of architects and planners to meet "the needs of the immense task of replanning and reconstruction which lies ahead of us everywhere."[621] Instead, he simply wanted to align scientific methodology and technical contribution closely with, for example, "usefulness" (or solving the problems of society, of which more in Chapter 5), in the CCP's new China. Hence, it was not surprising that Liang chose to compress all five groups of student-architects in different strands of training under one roof since this was more economical for students, teachers, and not least, Tsinghua's budget as a national university at the time:

> *Under present circumstances, it is more suitable to add architecture departments in engineering colleges. Framed this way, some of the subjects in architecture such as physics, chemistry, mathematics, and mechanics do not need a curriculum of their own. Even courses in civic engineering can be taken at the department of civil engineering. Also, the equipment of an architecture department is quite simple to be quickly established. New teaching staff needs to be employed only for drafting and art history of painting and sculpture courses. As far as the equipment is concerned, only bookshelves and some plaster models are needed; both can be easily obtained at an engineering college.*[622]

Liang's Draft Plan crystallised concepts that were already present in his earlier Letter 3 to the Nationalist government. He then asked for a flexible curriculum—students could select courses from five broad subjects plus elective courses—for each field of training. This flexible curriculum addressed the substance-form environment. We can reasonably

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[620] Liang Sicheng, Working Diary (between 22 June and 1 August 1947), 29 June & 2 July 1947. Mayer "was one of a group of socially oriented architects, planners and urban theorists, including Lewis Mumford, Clarence Stein and Henry Wright," see: Paul Goldberger, "ALBERT MAYER, 83, ARCHITECT AND HOUSING PLANNER, DIES," *New York Times*, 16 October 1981. https://www.nytimes.com/1981/10/16/obituaries/albert-mayer-83-architect-and-housing-planner-dies.html.

[621] Correspondence, 1946–1947. The Josep Lluis Sert Collection, DES, 1982, 0003, 000603276, E000, Folder: E003. Frances Loeb Library Special Collections, Graduate School of Design, Harvard University.

[622] Letter from Liang Sicheng to Mei Yiqi, 9 March 1945, Tsinghua University Archives.

deduce that Liang recalled what he had learned at the PMPE conference: his foreign counterparts possessed a long tradition of distinguishing between *architecture* departments and *architectural engineering* departments. Liang contended that Tsinghua's courses did not only address architectural engineering in terms of *jian* (建; stability) but also were concerned with *ying* (營; usefulness & aesthetics). In his Draft Plan, he wrote: "Since its inauguration [in 1946], Tsinghua's *Department of Architecture*[623] has focused on a pedagogical synthesis, the space arrangement, which is design," driven by each of the three categories mentioned above.

From their training in the Beaux-Arts system at the University of Pennsylvania in the 1920s, Liang and Lin would have been familiar with Marcus Vitruvius Pollio's triad penned in his treatise on architecture during the height of the Ancient Roman civilisation. In her 1932 article Regarding Some Characteristics of Chinese Architecture Lin Huiyin wrote of this triad's concepts of *utilitas*, *firmitas*, and *venustas*:

> *In principle, a good building [ying jian] must contain the following three elements: usefulness; stability; and aesthetics.* ***Usefulness*** *[shi yong; 實用]: suitable for the living habits of the local people at that time, suitable for the local geographical environment.* ***Stability*** *[jian gu; 堅固]: It does not violate the reasonable structural principles of its main material, and it is quite permanent under ordinary circumstances.* ***Aesthetics*** *[mei guan; 美觀]: with a reasonable balance (not the top heavy and the bottom light, towering and wanting to tilt, the top big and the bottom small cannot support; or the state of solitary, tall, slender and protruding, etc. violates the laws of nature), and should be stable, comfortable and natural in appearance, it is necessary to honestly reveal all and part of its functions, without concealing anything, without pretentiousness, or being reluctantly piled up.* ***Aesthetics, it can also be said, is the***

[623] To clarify, here in the Draft Plan, Liang wrote "Department of Architecture," as he wished it to be, in place of "Department of Architectural Engineering," as it was at the time.

natural result of conflating usefulness and stability.[624]

It was not until 1947—when asked in the USA—that Liang publicly mentioned these Vitruvian values,[625] but his conception of *ying jian* (building) when he formulated Tsinghua's curriculum could well have been related to the Vitruvian Triad mentioned in Lin's article. Liang's oration a decade later proved this hypothesis since he, on 2 June 1959, talked about housing standards and architectural aesthetics (art) questions. He mentioned 'Vitruvius' at the beginning of this speech. Once again, he stated the three terms from *De Architectura* including usefulness (solving the problems of society), but he replaced stability or engineering with the term 'economical':

> *Since ancient times, countless architectural theorists recast three elements of architecture were "utilitas, firmitas, venustas" … The CCP central committee pointed out the direction as of "Useful, Economical, and Aesthetically Pleasing when possible" in 1953, a magnificent creation of architectural theory. It explains several factors of the dialectical relationship in terms of materialism's ideas and methods within only fourteen words [in Chinese]…So-called "architecture" for architectural theorists, in the past, was almost at the service for the governing class and thearchy in feudalist or capitalist societies like a palace, tower, institution, church, temple, and other public buildings…One of the features of socialist architecture [on the other hand] is to satisfy demands of the mass and, in so doing, produce massive project [like TVAs] with mega-structure…[That is to say,] what "Useful, Economical, and Aesthetically Pleasing when possible" concretises is the construction policy of socialism under the swing of Marxism-Leninism.*[626]

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[624] Lin Huiyin, "Regarding Some Characteristics of Chinese Architecture 論中國建築之幾個特徵," *SRCA Bulletin*, vol. 3 no. 1 (March 1932): 164–165.

[625] Liang Sicheng Draws the Design of the Building of the United Nations 聯合國建大廈 梁思成打圖樣, *Small Daily* (Shanghai), 23 September 1947.

[626] Liang Sicheng, "Talking about Tradition and Innovation from 'Useful, Economical, and Aesthetically Pleasing When Possible' 从「适用、经济、在可能条件下注意美观」谈到传统与革新," *Architectural Journal* (June 1959): 1. In it, Liang was following the CCP's rule: "As early as 1953, the [Chinese Communist]

Framed this way, it seems Liang had been thinking about these terms in between these two dates, when he was formulating his curriculum at Tsinghua. In other words, the curriculum focused on using materials (engineering [corresponding to Vitruvius's '*firmitas*,' or stability])—such as brick, stone, tile, timber, concrete, and steel—to solve civil problems (society [corresponding to Vitruvius's '*utilitas*,' or usefulness]) and asked the solution to be beautiful (art [corresponding to Vitruvius's '*venustas*,' or aesthetics])."[627] These triadic schemes serve as a helpful lens for analysing Liang's pedagogy [Table 6.2].

Table 6.2 Liang's postwar framework of a *Ying-Jian* College at Tsinghua University

Vitruvius	**utilitas**	**venustas**	**firmitas**
design	usefulness	aesthetics	stability
	society	art	engineering
physical environment	environment	form	substance
building	*ying*		*jian*

In Chapter 7, Liang's pedagogy of aesthetics (art) and its relation to the national-ethnic form[628] will be traced beyond stability (engineering). First, however, it is important to understand Liang's views on the society aspect of the Vitruvian Triad, in which, after the Second World War, he valued usefulness to balance the downward spiral of the longstanding debate about the spectrum between Beaux-Arts (art) and modernism (engineering) amongst architect-builders. It should be admitted that Liang's association with leftist thought during his second trip to the USA might have enhanced his view of planning, which had already been widened via reading wartime publications on urban and regional planning which he accessed around 1943.

party put forward the architectural policy of 'Useful, Economical, and Aesthetically Pleasing When Possible'. In the first few years, although various formalist deviations such as structuralism, functionalism, and revivalism appeared in architectural design, under the leadership and education of the party, these deviations basically disappeared around 1956." See Liang Sicheng, "Architecture and the Art of Building 建筑和建筑的艺术," *People's Daily* (Beijing), 26 July 1961.

[627] Liang Sicheng, "Draft Plan of Academic Structure and Programme in the Department of Yingjian (Now Known as the Department of Architectural Engineering) at Tsinghua University 清華大學營建學系（現稱建築工程學系）學制及學程計劃草案," *Wen Wei Pao (Shanghai)*, 10 July, 1949.

[628] Liang Sicheng, "The National-Ethnic Form of Architecture 建築的民族形式," lecture script at the meeting of architectural researchers (unpublished material), dated on 22 January 1950.

To be more specific, the remarks made from the floor of the PMPE conference likely played an important role in Liang's departure from his father's anti-communist influence towards a belief in active government actions to control development. In particular, some conference participants affiliated with usefulness (or solving the problems of society) won his full attention. Take Arthur E. Morgan, for example, a practising engineer best known for the outstanding job he accomplished as chairman of the Tennessee Valley Authority (TVA) between 1933 and 1938. He talked about the democratic spirit in architecture: "[Architecture] must have respect for the ethical integrity of human life, for cultural, social, and personal needs. Architecture must be a part of the effort to see life whole."[629]

According to his working diary written in detail during his 1946–1947 sojourn in the USA, Liang set off on a 'grand tour' after the last UNHQ meeting on 9 June 1947. Between 2 and 4 July, he visited the housing and hydroelectric projects at TVA [Fig. 6.6]. Due to Stein's connections with left-wing professionals within the Regional Planning Association of America (RPAA), it was Elizabeth "Betty" Bauer (the sister of Catherine Bauer, a core member of the RPAA since its founding in 1923 and a friend Stein had introduced to the Liangs) and her husband, Rudolph Mock (an architect who designed prefabricated houses for a new TVA town, Fontana Village), who accompanied Liang in touring progressive planning and democratic housing on modern terms at the TVA.

[629] "Statement by Arthur E. Morgan," in Princeton Conference Committee, *SUMMERY OF AXIOMS, ASSUMPTIONS AND SUGGESTED TOPICS FOR DISSCUSSION FOR CONFERENCE ON "PLANNING MAN'S PHYSICAL ENVIRONMENT" (March 5–6, 1947)* (Princeton, NJ: Princeton University, 1947).

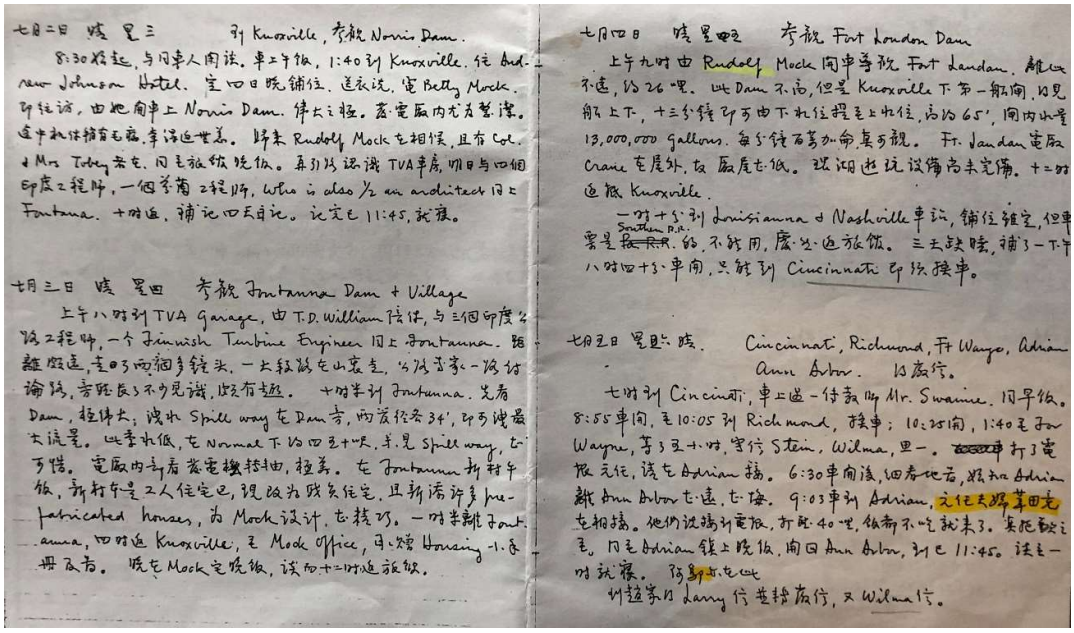
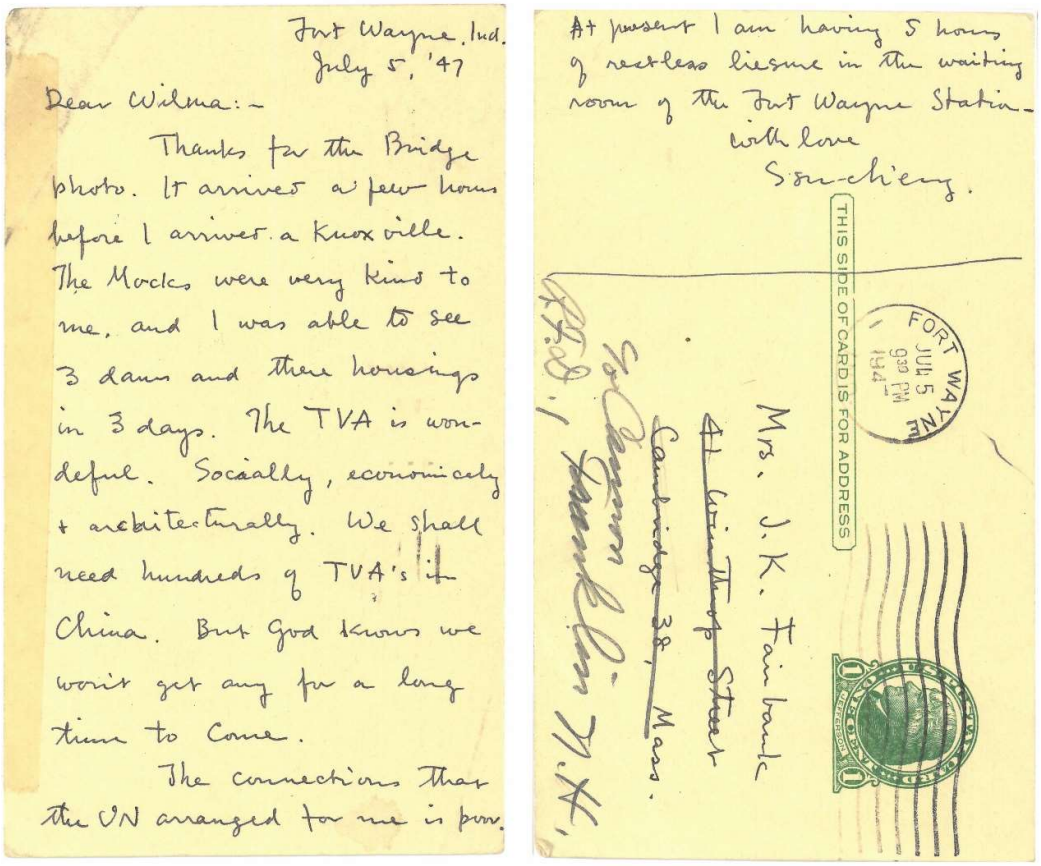


Fig. 6.6 Working diary at TVA, handwritten by Liang, entries on 2–4 July 1947. The yellow highlights and pencil annotations are original in this document, obtained for my research courtesy of Lin Zhu.

"The TVA is wonderful," Liang wrote in almost the same notes on blank postcards sent respectively to Stein and Fairbank during five hours of waiting on 5 July for the train to Adrian, Michigan:[630] "socially, economically, and architecturally. We shall need hundreds of TVA's in China. But God knows we won't get any for a long time to come" [Fig. 6.7]. Being able to visit three dams—Novis, Fontana, and Fort Landon—as well as the housing associated with them [Fig. 6.8] in three days,[631] Laing wholeheartedly continued sharing about the TVA on the next day, 6 July from Ann Arbor: "TVA is wonderful—inspiring and enviable. But I can never be objective when I look at these modern advancements. They always make me sad for I just wish that China would be someday like that. But that day is remote, perhaps a century or more away."

[630] Liang Sicheng, Working Diary (between 22 June and 1 August 1947), 5 July 1947.
[631] Liang Sicheng, Working Diary (between 22 June and 1 August 1947), 2–4 July 1947.


Fort Wayne, Ind.
July 5, '47

Dear Wilma:-

Thanks for the Bridge photo. It arrived a few hours before I arrived a Knoxville. The Mocks were very kind to me, and I was able to see 3 dams and three housings in 3 days. The TVA is wonderful. Socially, economically + architecturally. We shall need hundreds of TVA's in China. But God knows we won't get any for a long time to come.

The connections that the UN arranged for me is pro-

At present I am having 5 hours of restless liesure in the waiting room of the Fort Wayne Station-

With love

Sou-chieng.

THIS SIDE OF CARD IS FOR ADDRESS

FORT WAYNE JUL 5 939 PM 1947

Mrs. J. K. Fairbank

4 Irving Street

Cambridge 38, Mass.

Fig. 6.7 Postcard regarding TVA from Liang to Fairbank on 5 July 1947


Fig. 6.8 The Novis Dam and new town of prefabricated housing at TVA

As Morgan said at the PMPE conference, "Democratic architecture will be modest. It will seek integration with its [substance-form] environment, not dominance over it."[632] Liang

[632] "Statement by Arthur E. Morgan," in Princeton Conference Committee, *SUMMERY OF AXIOMS, ASSUMPTIONS AND SUGGESTED TOPICS FOR DISCUSSION FOR CONFERENCE ON "PLANNING MAN'S PHYSICAL ENVIRONMENT" (March 5–6, 1947)* (Princeton, NJ: Princeton University, 1947).

had actually discussed something similar in 1945, in Letter 2, when he contended "peaceful dwelling and the happy pursuit of one's work" was the ultimate architectural goal. Likewise, in that fall, Lin Huiyin had taken the "Sectional House" at TVA as an example in her article "The Reference of Modern Housing Design" in the final issue of the *SRCA Bulletin*. Nevertheless, Fairbank deemed that Liang's scholarly life had given him little interest or experience in politics.[633] It was only after Chairman Mao Tse-tung's PRC was inaugurated, on 1 October 1949, that Liang really began more seriously to incorporate into his Tsinghua pedagogy the principle of architecture serving the people, a principle he had explored during his second trip to the USA. For example, Wang Qiming (Class of 1951) described taking, along with Subjects A–E, courses in Historical & Dialectical Materialism (three credits) and Mao's New Democracy (three credits) in the 1949–1950 academic year.[634]

Although not even a dozen new students registered annually in architecture during Liang's department's first years, such a pedagogical philosophy attracted students to transfer to Tsinghua. Amongst those in the fall of 1948, Guan Zhaoye (Class of 1952) from Yenching University recalled the old days with Liang: "His lessons always involved [knowledge of] related fields from both China and the West such as history, language, art, calligraphy, music, Buddhist philosophy, engineering technology, and city planning."[635] In his design courses, too, Liang encouraged the exploration of diverse ideas: "Mr. Liang was a kind, approachable and humorous person. He believed in democratic principles and, during the sessions for criticism of drawings, he encouraged everybody to speak out freely. In Mr. Liang's presence, we never felt restrained. He also had faith in each of us, and all members of the department felt unbounded and comfortable."[636]

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[633] Recalled Fairbank as well: "[Liang] told us that he intended to stay on in Peking no matter what the outcome of the civil war might be…He knew nothing personally of the Communists. But like many fellowcitizens suffering from the extortions and corruption of Chiang's government he doubted that anything could be worse." See: Fairbank, Liang and Lin, 153.

[634] Wang Qiming, "Recalling Liang Sicheng's Pedagogical Stories 忆梁思成先生教学事例数则," *Traditional Chinese Architecture and Gardens 古建园林技术*, no. 3 (2001): 19.

[635] It was such an idea regarding "architecture [as] a mirror which reflects faithfully a distinct society's political, economic and ideological culture" that Liang pointed out in his 1948 lecture at Yenching University—entitled The Characters of Chinese Architecture (*Zhongguo Jianzhu De Tezheng*; 中國建築的特徵)—and that made Guan decide to transfer to Tsinghua for architectural study; see Guan Zhaoye, "Remembering the Lessons I learned from Mr. Liang 忆梁先生对我的教诲," in *Commemorative Accounts of the 85th Birthday of Liang Sicheng 梁思成先生诞辰八十五周年纪念文集* (Beijing: Tsinghua University Press, 1986), 156–157.

[636] Zhu Zixuan, "To Profoundly Cherish the Memory of Liang Sicheng 深切怀念导师梁先生," in

Was this not again the "full acceptance of the democratic spirit in architecture" that Morgan had promoted at Princeton when he said "architecture and the related arts would be refined and ennobled by such a liberation"[637]? As the 1947 UNESCO MOU signed at the PMPE conference had stated, if architectural education was to meet the test which the crisis of the immediate postwar years had put upon it, architectural engineering (Vitruvius's *firmitas*, to which Liang later referred) needed to be taught as parts of a great whole that included both society (*utilitas*) and art (*venustas*),[638] as well as against the background of all human knowledge (which Liang tried to reflect in his Subjects A–E), rather than as a privileged and superior discipline. Liang urgently reminded his listeners of this in the keynote speech later published as "The Half-A-Man World":[639]

> *Having no idea of the history, culture, and living style when one visits meaningful places like China or Italy and becomes discontent with them due to illiteracy, such a person is "one-quarter man"…To be frank, we are a half- or one-quarter man and have no right to treat them with indignity…Therefore, we must understand what the demands of a city are and, as a result, we can make an original contribution to people by putting ourselves in another's position.*[640]

"Man, not matter, is the chief problem of the world today,"[641] Sinnott said in his centenary address at Yale. Seen in this light, Liang was not alone in his pessimism about the built environment in the postwar period; "Despite all our high-sounding

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Commemorative Accounts of the 85th Birthday of Liang Sicheng *梁思成先生诞辰八十五周年纪念文集* (Beijing: Tsinghua University Press, 1986), 149. People in China are used to calling their teachers respectfully "Mister" (*Siansheng*; 先生) in Chinese.

637 "Statement by Arthur E. Morgan," in Princeton Conference Committee, *SUMMERY OF AXIOMS, ASSUMPTIONS AND SUGGESTED TOPICS FOR DISSCUSSION FOR CONFERENCE ON "PLANNING MAN'S PHYSICAL ENVIRONMENT" (March 5–6, 1947)* (Princeton, NJ: Princeton University, 1947).

638 Liang Sicheng, "Draft Plan of Academic Structure and Programme in the Department of Yingjian (Now Known as the Department of Architectural Engineering) at Tsinghua University 清華大學營建學系（現稱建築工程學系）學制及學程計劃草案," *Wen Wei Pao (Shanghai)*, 10 July, 1949.

639 To put it further: "In its origins architecture was the servant of loyalty, nobility, and power. The impressions sought to be conveyed were grandeur, dominance, and power." See "Statement by Arthur E. Morgan," in *Princeton Conference Committee, SUMMERY OF AXIOMS, ASSUMPTIONS AND SUGGESTED TOPICS FOR DISSCUSSION FOR CONFERENCE ON "PLANNING MAN'S PHYSICAL ENVIRONMENT"* (March 5–6, 1947) (Princeton, NJ: Princeton University, 1947).

640 Liang Sicheng, quoted in Yang, "After Reading Half-Man World 读半个人的世界书后," 21.

641 Sinnott, "Science and the Whole Man," 138.

proclamations and elaborate promises," opined San Francisco architect Ernest J. Kump at the PMPE conference, "our planning so far has failed. It will continue to fail, despite all our conferences and other manifestations of good intention [like the UNESCO MOU], until we, as Architects, discard the Procrustean idea that Man is made for planners and realise, rather, that PLANNERS ARE MADE FOR MAN." Not least, Liang would concur with Kump's motto at the PMPE conference: "When we know man, then we can plan!"[642]

[642] "Remarks of Ernest J. Kump: When we know Man, then we can Plan!" in Princeton Conference Committee, *SUMMERY OF AXIOMS, ASSUMPTIONS AND SUGGESTED TOPICS FOR DISSCUSSION FOR CONFERENCE ON "PLANNING MAN'S PHYSICAL ENVIRONMENT" (March 5–6, 1947)* (Princeton, NJ: Princeton University, 1947).

Chapter 7. Learning from the Midwest

This chapter details Liang's efforts to incorporate modern elements into the architectural education at Tsinghua. First, it looks at Liang's efforts to recruit at least some faculty with a modern outlook and the difficulties he encountered in setting up Tsinghua's department of architectural engineering under challenging circumstances. Then, the bulk of the chapter examines pedagogical practices at midwestern US institutions, such as the Cranbrook Academy of Art and the University of Michigan, that Liang admired and that inspired his work at Tsinghua. It investigates the theory of Pure Design taught at the University of Michigan and shows how Liang used its principles to teach modern architecture in a way that incorporated the artistic practices of the Beaux-Arts. The chapter then discusses how Liang integrated history, especially the history of Chinese architecture, into his modern architecture pedagogy. Finally, it looks at the way he expanded the scope of this pedagogy to include small-scale design as well: He wanted his students to learn industrial art and art history, and he hoped to create a museum of well-designed objects for students to study. Here, again, he incorporated Chinese elements into his plans inspired also by his short-term graduate study at Fogg Museum of Art at Harvard University. In sum, this chapter shows how Liang incorporated practices and approaches he saw at midwestern US architecture institutions as well as uniquely Chinese features into his attempts to create a modern Chinese architecture pedagogy. Due to the difficulties he faced at Tsinghua, Liang's full vision was never implemented, but this chapter documents the makeshift modernity he did teach there and the contested discourses it reflected.

In October 1946, Tsinghua University launched its Department of Architectural Engineering but commenced its first semester that November without its chairman, as Liang was then in the USA.[643] Lin Huiyin, though housebound and obliged to spend much of her time in bed, played an important part in the establishment and operations of the department at the beginning. Wu Liangyong, Liang's assistant in compiling the *List of Monuments* for the Chinese Commission for the Preservation of Cultural Objects in War Areas in Chongqing in 1944, served as the only teacher (or, rather teaching assistant) while welcoming the department's first twelve students. During that period, Lin's

[643] Civil engineering professor Wu Liusheng took the helm as an alternate during Liang's absence; see Compilation Group, *The Manuscript of Tsinghua University's History* 清华大学校史稿, 454.

previous close involvement with the analogous beginnings at NNU in Shenyang made her advice invaluable. Wu Kinglui noted her deeds[644] and Wu Liangyong recalled the necessary logistics:

> *The [Department of Architectural Engineering] was a few empty rooms on the second floor of the Old Hydraulic Engineering Building. The students had arrived at Tsinghua and were busy starting school. Classrooms, drawing boards, and drawing stools were already there, but nothing else. So I hurriedly put the library in five pillars. The books are transferred, the model drawings are described, the blueprints are drawn, and the "Descriptive Geometry Class" is opened first, and the "Sketch" class is started…many things proved that [Lin], who needs to stay in bed for most of her time notwithstanding, can take the floor as a planner, commander of the business and help us solve quite a few challenging issues.*[645]

Shortly after President Mei's announcement of the founding of Tsinghua's architectural programme in February 1946, Liang entered into a contract with Tsinghua to integrate his SRCA[646] into the newly established department as the Institute for Research in Chinese Architecture (IRCA) [Fig. 7.1]. Under these makeshift circumstances, Liu Zhiping, Mo Zongjiang, and Luo Zhewen subsequently reached Beijing in early 1947, and, as Fairbank wrote, "they were all promptly enlisted to teach architectural design along with Wu. Liu also taught construction, and Mo, the skillful artist, taught watercolour painting."[647] The original mission of the SRCA—the compilation and interpretation of Chinese classical texts—seems to have become dormant when Liang shifted his focus from research to

[644] Most likely based on word-of-mouth from Liang at Yale, Lin equally impressed Wu Kinglui, just as the elder Liang did. Wu noted "my admiration for his [Liang's] work, his father's work (both content and style) and his wife's work"; see the upper page of Fig. 5.1 in Chapter 5, excerpted from King-Lui Wu Papers, Manuscripts and Archives, Yale University Library, MS 1842, Series II, Box 104, Folder 7.

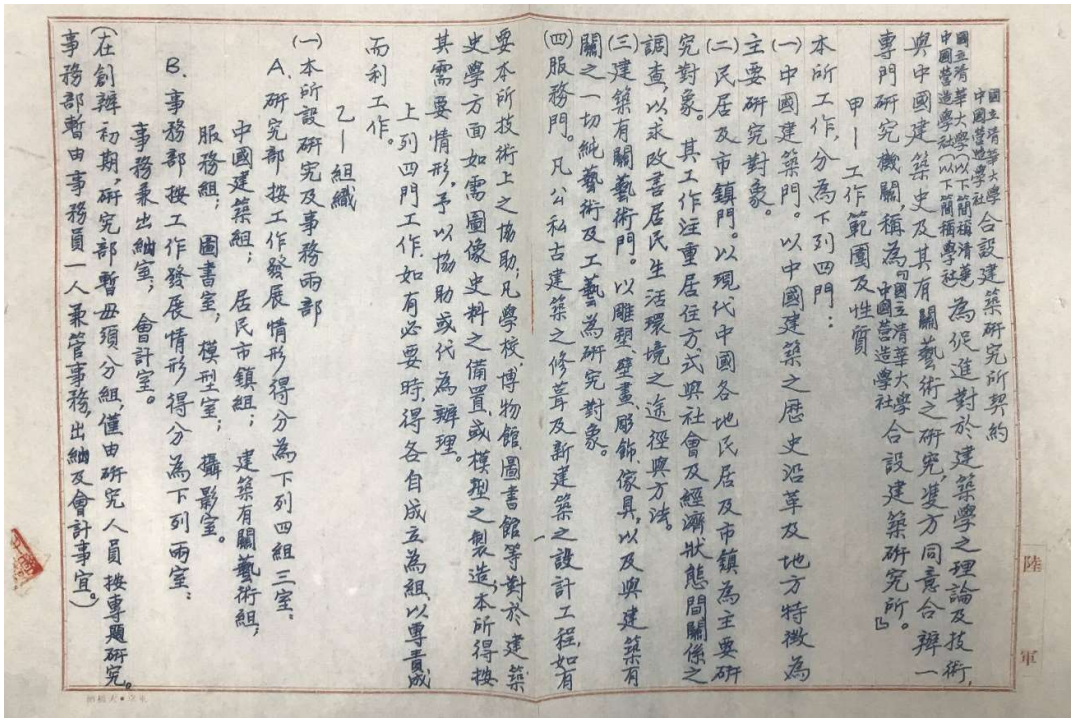
[645] Wu Liangyong, "Recalling the Last Ten Years of Lin Huiyin 林徽因的最后十年追忆," in *Academic and Cultural Miscellany of Wu Liangyong 吴良镛学术文化随笔*, ed. Wu Liangyong (Beijing: China Youth Publishing Group, 2002), 291–292.

[646] The SRCA, at the time, belonged to the Institute of History and Philology at the Academia Sinica under the auspices of the Ministry of Education. Liang, named SRCA Director by its President Y. T. Tsur, in November 1940, moved from Kunming to Li-chuang and became a Fellow at the Academia Sinica. Later, in March 1948, he became a representative of Art History in the Humanities Division. See Fairbank, *Liang and Lin*, 112, 158.

[647] Fairbank, *Liang and Lin*, 155.

pedagogy at Tsinghua. As he wrote to Fairbank, however, in May 1948 near the end of his first year of teaching,[648] these IRCA architect-architectural historians were an irreplaceable asset at Wu's disposal.

[648] Ibid., 159.



國立清華大學 中國營造學社 合設建築研究所契約

國立清華大學（以下簡稱清華）中國營造學社（以下簡稱學社）為促進對於建築學之理論及技術，與中國建築史及其有關藝術之研究，雙方同意合辦一專門研究機關，稱為『國立清華大學 中國營造學社合設建築研究所』。

甲、工作範圍及性質

本所工作，分為下列四門：

(一)中國建築門。以中國建築之歷史沿革及地方特徵為主要研究對象。

(二)民居及市鎮門。以現代中國各地民居及市鎮為主要研究對象。其工作注重居住方式與社會及經濟狀態間關係之調查，以求改善居民生活環境之途徑與方法。

(三)建築有關藝術門。以雕塑、壁畫、陳飾、像具，以及與建築有關之一切純藝術及工藝為研究對象。

(四)服務門。凡公私古建築之修葺及新建築之設計工程，如有要本所技術上之協助，凡學校、博物館、圖書館等對於建築史學方面如需圖像史料之備置，或模型之製造，本所得按其需要情形，予以協助或代為辦理。

上列四門工作，如有必要時，得各自成立為組，以專責成而利工作。

乙、組織

(一)本所設研究及事務兩部

A. 研究部按工作發展情形，得分為下列四組三室。

中國建築組；居民市鎮組；建築有關藝術組，服務組；圖書室，模型室；攝影室。

B. 事務部按工作發展情形，得分為下列兩室。

事務室兼出納室，會計室。

(在創辦初期，研究部暫毋須分組，僅由研究人員按專題研究。事務部暫由事務員一人兼管事務，出納及會計事宜。)

(二)研究部研究人員及技術人員分為下列各級：

研究員；副研究員；助理研究員。

技正；技士；技佐；技工。

書記。

(三)事務部事務人員分為下列各級：

事務管理員；事務員。

(四)圖書室保管收藏本所書籍史料圖像。

(五)模型室製造木質石質及石膏模型。

(六)攝影室攝製本所調查所用照片，沖洗印晒調查及供給外訂圖像照片。

(七)本所設所長一人綜理本所事宜。各組（酌量發展情形）設主任一人負責指導組內工作。事務部設事務管理員一人，辦理庶務及會計出納事宜。圖書室、模型室、攝影室各設管理員一人。

丙、合作辦法

(一)本所研究人員、技術人員及事務人員得由清華大學教職員兼任之。此項兼任人員不另支薪金及生活補助費。

(二)除上列兼任人員外，如有必需，本所得聘專任研究、技術或事務人員，其薪金及生活補助費，或由清華支付，或由學社支付，臨時由雙方負責人議定之。

(三)本所需用房屋暫由清華借用，天安門內學社社址，本所亦得借用之。

(四)本所所需製造模型用工具，測量儀器，照相儀器及設備，得借用清華現有之設備。本所需參考資料得借用學社現有之書籍圖像。至於學社未經發表之測量稿及圖像，於徵得學社及原調查人同意後，亦得借用之。

(五)清華建築系四年級學生及畢業生，如有願致力建築學之研究者，本所應予以指導。

(六)本所工作費，如旅行調查費，照相材料費等，由學社支付之。

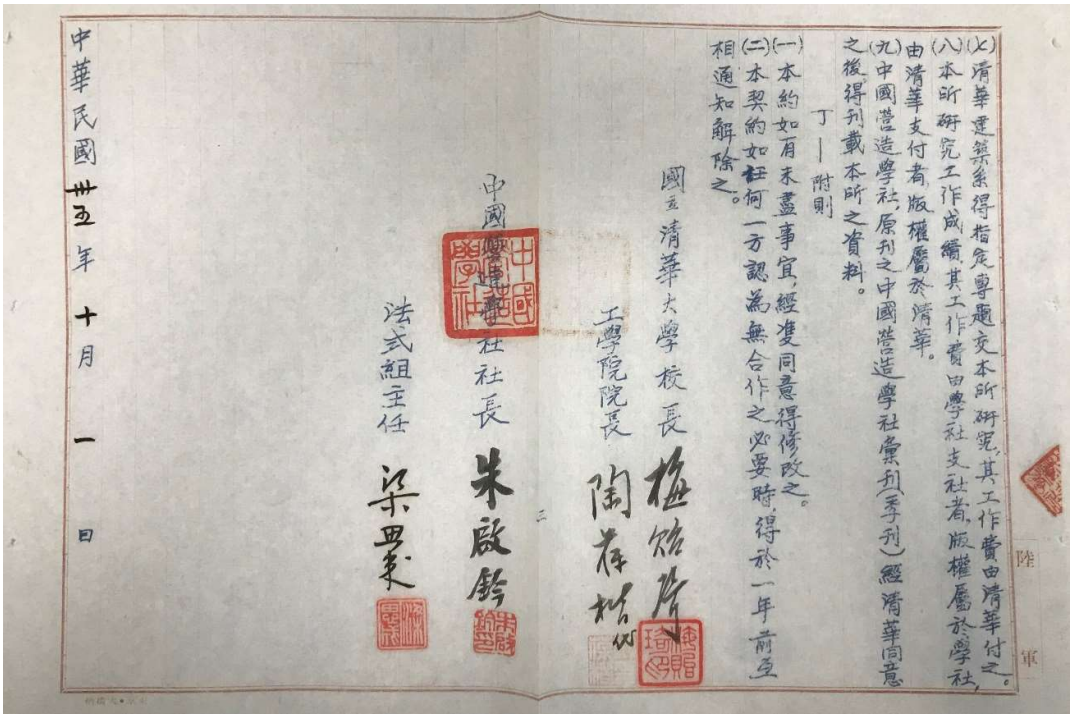


Fig. 7.1 The three-page contract signed by the SRCA and Tsinghua for the IRCA, 1946. On the last page are the signatures (right to left) of Mei Yiqi (Tsinghua President), Tao Baokai (Engineering College Dean), Zhi Qiqian (SRCA Founder), and Liang Sicheng. It should be noted that Liang was denoted as Chair of the SRCA's Department of *Fashi*—namely, technical studies based on *Yingzao Fashi* (YZFS)—rather than as the Architectural Engineering Department Chair.

Liang wrote in a letter to Clarence Stein immediately upon returning to China from the USA in late 1947:

> *To give you some of my news now I must begin with Tsing Hua. I found teaching in Tsing Hua very gratifying. Now we have about 25 freshmen and 15 sophomores, quite a handful for the faculty which consists of 2 professors (one being myself), four assistants and two instructors in freehand drawing and water colour. Calculus, mechanics, etc, are taken care of by the departments of methmetics* [sic]*, civil engineering, etc. The bunch of students look like a hopeful group and, judging by their enthusiasm, certainly seem to enjoy the hard work.*[649]

[649] Liang Sicheng to Clarence Stein, 21 December 1947, in Clarence Stein papers, 1905–1983, Division of Rare and Manuscript Collections, Cornell University Library, Container 15, File Unit 26. By the summer of

The ideas Liang had acquired through his acquaintance with the world's then leading architect-planners at the PMPE conference informed his vision at Tsinghua. However, working out civic-minded pedagogies at his alma mater in the challenging postwar era meant his new programme had to incorporate makeshift elements. In the same letter he sent to Stein, from whom he had learned first-hand about the possibilities and difficulties involved in city planning, Liang expressed his concern about his teaching faculty; there was no modernist on Tsinghua's faculty, given the economic crisis at the time in China: "Our main difficulty is to get new professors. We can hardly induce, with our present salary conditions, anybody who is trained aboard to come to teach."[650]

As already discussed above, the worry about half-a-man training remained central to Liang, who opined that "by the time they graduate, they [his students] shall be well equipped to deal with the *engineering* side of architecture,"[651] yet held back in terms of city planning. Liu, Mo, and Luo were qualified SRCA artists and historians, and Wu was a NCU graduate taught by Beaux-Arts-trained Harry Tan (Tan Yuan), but the fact was that none of them ever received particular training in modernism. When Liang was in the USA, the only modernist course at Tsinghua was Lin's "Modern Housing" (*jindai zhuzhai*; 近代住宅) based on the 1934 book *Modern Housing* by Catherine Bauer. Otherwise, the first department exhibition in May 1947 demonstrated only SRCA's heritage survey and students' watercolour paintings.[652]

Liang, who had impressive credentials both from China and internationally, hoped Tsinghua could teach a modern architecture that combined internationalism with a past place-based inheritance of architectural tradition. One can see that Liang was well-positioned to create this kind of pedagogy by looking at his titles listed in the records of the Doctor of Letters (D.Litt.) he received at Princeton after the FECS Conference:

1947, the faculty included Professors Liang and Liu; Full-Time Lecturers Mo (later Associate Professor) and Li Zongjin; and Teaching Assistants Wu, Hu Yunjing, Wang Guoyu, and Zhu Changzhong. There were eight of them in total; see Compilation Group, *The Manuscript of Tsinghua University's History* *清华大学校史稿*, 454, note 3.

[650] Liang Sicheng to Clarence Stein, 21 December 1947, in Clarence Stein papers, 1905–1983, Division of Rare and Manuscript Collections, Cornell University Library, Container 15, File Unit 26.

[651] Liang Sicheng to Clarence Stein, 21 December 1947, in Clarence Stein papers, 1905–1983, Division of Rare and Manuscript Collections, Cornell University Library, Container 15, File Unit 26. Emphasis is not original.

[652] Wu, "Recalling the Last Ten Years of Lin Huiyin 林徽因的最后十年追忆," 293.

Research Fellow, Academia Sinica. Director of the Institute for Research in Chinese Architecture [SRCA]. Chairman of the Department of Architectur[al Engineering] and Director of the Institute of Architectural Research [IRCA], National Tsing Hua University, Peiping [Beijing], China. Chinese Architect, Board of Consultants, United Nations Headquarters Planning Office. At present Visiting Professor of Fine Arts, Yale University.[653]

However, as Mei said at his inauguration: "What makes a university a university is its teachers, rather than buildings" (所謂大學者，非謂有大樓之謂也，有大師之謂也). Liang needed appropriate faculty at Tsinghua to support his vision and the university's lack of modernist staff worried him. It was not until 1949 that Cheng Yingquan, who was assigned to lead the city planning group at Tsinghua, became Liang's most trusted modernist teacher. He spoke several times in presentations at the Beijing Municipal City Planning Commission that summer (Liang had engaged in the Commission that May). The next year, in 1950, Liang hired his department's next modernist teacher, Zhou Buyi, who had obtained master's degrees from both the University of Illinois (Urbana-Champaign) and Columbia (Class of 1948 & 1949, respectively).[654]

As for Liang's formal cooperation with Wang Dahong and Authur Cheang—as Wu Kinglui once suggested to Liang when they were at Yale—this remained at a standstill after the Second World War. Due to the Civil War, neither Wang nor Cheang were able to help teach Liang's new modern architecture pedagogy at Tsinghua—although, in 1950, together with Charles Chen (Chen Zhanxiang), another of the Five United members, they did put forward with Liang the so-called Liang-Chen Proposal (*Liang-Chen Fangan*; 梁陳方案).[655] This proposal insisted that modern development should occur outside the city walls to preserve the ancient city. There was such a philosophic match between Liang

[653] Liang Ssu-ch'eng, Honorary Degree Records, Box 13, AC106, Princeton University Archives, Department of Special Collections, Princeton University Library.

[654] Sidney Wong, email message to author, 3 & 5 April 2021. For Cheng, see also: Chen Yuqing, *How Many Things Have Been Through* 多少往事烟雨中 (Beijing, People's Literature Press, 2010)

[655] Nevertheless, these gestures show Liang's wholehearted attention to Five United, an unsung microcosm of China's postwar architectural community and the nation's intelligentsia. At least, he finally had Chen by his side in crafting the so-called Liang-Chen Proposal, even though it was unsuccessful. Liang penned in his letter to Nie, "Mister Chen Zhenxiang studied town planning with [Professor Patrick Abercrombie] in the UK, a very hard-won expert in China." See Letter from Liang Sicheng to Nie Rongzhen, 19 September 1949, Tsinghua University Archives.

and Chen in their attempts to create an assimilative cosmopolitan architectural landscape that had a place for both tradition and modernity that Liang would surely have appreciated hiring him in the early days at Tsinghua. However, this is an example of how the changeable circumstances at that time resulted in makeshift modernity.

7.1 Cranbrook Academy of Art

Given Liang's failure on his return to Beijing to recruit any Five United modernist who had been schooled with Wu (who had won Liang's "total trust"), Liang could only try to have his current faculty go overseas to receive further training in modernism. The decision of where to send his faculty was influenced by his second trip to the USA; Harvard no longer seemed like the only worthy destination because the PMPE conference had broadened his horizons of modernism beyond the Bauhaus school. On 8 July 1947, when he visited Eliel Saarinen, the author of *The City, Its Growth, Its Decay, Its Future* at Cranbrook Academy of Art, he was impressed by him:

> *On the guiding principles for teaching architecture, he [Saarinen] stood for basing it on practical problems, not on hypothesis. If Chinese students come, he said, they should bring problems China faces, which he will help resolve.*[656]

Clearly, the type of civilisational hierarchy implied here—that the white Western male architect had the solutions (in the form of modern architecture and planning) to the world's problems—is in fact quite problematic. However, for Liang, Saarinen's modern paradigm still offered a potential for realising his progressive vision for Tsinghua at the time.

Liang noted that Cranbrook "has only one graduate class, with the number of students limited to ten, which the old gentleman [Saarinen] taught personally. The course of designing is somewhat unique, with the stress on subjects on city planning." This point must have impressed Liang since the idea of "City planning" had been already central to him since 1945 in Letter 1: "City planning is not meant anymore to be only the broadening of roads and the demolition of slums as it was in the past…In principle, there is no

[656] Liang Sicheng, Working Diary (between 22 June and 1 August 1947), 8 July 1947.

difference between the design of one building or a group of buildings. Therefore, city planning is nothing but an enlargement in the scope of architectural design":

> *… both have the same principles but different focuses. Architecture mainly studies the design and construction of building itself and thus has more courses on house design and structures. On the other side, City Planning focuses on the interrelationship of the whole city and several cities and the regional deployment in culture, politics, economy, transportation, and attain convenience, applicability, and pleasing look. The team's work is tightly related to cultures, politics, economics, transport, and even society. Therefore, the main courses involve city engineering and social and political sciences.*[657]

When Liang decided to send someone from his existing faculty to the USA for modernist training, he did not consider the East Coast, where most of China's foreign-trained architects, including himself two decades before, had been accommodated. Instead, Liang chose Cranbrook in midwestern USA, which presented an alternative modern method in architectural education. There, "aside from architecture, students study painting, sculpturing, porcelain-making and textile production subjects. They are keen to acquire practical skills and to create new things."[658] Liang may have been interested in these social, aesthetic arenas because he saw in them ways to articulate China's inherited cultural traditions within his modern-day endeavours in architectural education. (Liang's plan to bring Chinese elements into his curriculum through the study of history, art, and industrial design will be discussed more in section 7.3.) He certainly had expertise in China's cultural traditions in these arenas: Had it not been for the resource shortages during the War of Resistance his *Volume on Architecture* would have been followed by planned volumes on painting and sculpture that would complete a series on *History of Chinese Art*.

According to Guo Daiheng, Gao Yilian, and Xia Lu in *Chinese Master Architect: Liang*

[657] Liang Sicheng, "Draft Plan of Academic Structure and Programme in the Department of Yingjian (Now Known as the Department of Architectural Engineering) at Tsinghua University 清華大學營建學系（現稱建築工程學系）學制及學程計劃草案," *Wen Wei Pao* (Shanghai), 10 July 1949.
[658] Liang Sicheng, Working Diary (between 22 June and 1 August 1947), 8 July 1947.

Sicheng, Liang had wanted to send a previous student, Liu Zhiping, who was at NNU from 1928 to 1932, to Cranbrook. However, Liu had protested: "It is fine to study Chinese Architecture in China, why am I supposed to go to the USA?"[659] Liu Zhiping was expressing open resistance to the idea of civilisational hierarchies and the hegemony of Western architectural knowledge in a way Liang did not. However, despite Liang's open-minded internationalism, he clearly valued the unique history and artistry of China's long architectural tradition, although he was not keen on being confined to nationalist frames. All these different, and at times contradictory, dimensions complicated Tsinghua's pedagogy and showed up as contested discourses.

Liang, realising that Liu would not accept his recommendation to attend Cranbrook and bring its approach back to Tsinghua, turned instead to Wu Liangyong, the above-mentioned Tsinghua teaching assistant. Liang notified him that "the artistic environment is wonderful [at Cranbrook] where you can learn both architecture and city planning, it is very suitable for you. [Eliel] Saarinen is already 70–80ish years old; you have to act soon; it could be too late otherwise."[660] Cranbrook also had a campus filled with inspiring works of art that addressed Liang's "1/2 an architect" concern; he wrote, "with sculptures and water fountains here and there, the campus can't be more beautiful" [Fig. 7.2]. Cranbrook was also a practical option: As Liang, mindful of the hyperinflation accompanying the Civil War by then, wrote that "the [Cranbrook] program is quite flexible. For a school year of nine months, a student just pays 1,050 dollars that covers food and accommodation. Inexpensive, indeed."[661] Although Liang clearly appreciated Cranbrook in its own right, this example shows the sort of practical challenges that affected Liang's makeshift modern pedagogy at Tsinghua. Cranbrook received Wu's application, along with a recommendation letter drafted by Liang and revised by Lin, on 22 March 1948 and conferred a master's degree in Architecture and Urban Design on him on 27 May 1949 [Fig. 7.3].[662] Wu's dissertation "Study of Chinese Cities: Nanjing as an

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[659] Guo, Gao and Xia, *Chinese Master Architect: Liang Sicheng* 一代宗师梁思成, 151–152.

[660] Wu, "Recalling the Last Ten Years of Lin Huiyin 林徽因的最后十年追忆," 295.

[661] Liang Sicheng, Working Diary (between 22 June and 1 August 1947), 8 July 1947. Should one want to know how expensive the American tuition was for a Chinese student, commencing Liang's department of architectural engineering at Tsinghua at that time cost only 3,000 dollars; see Compilation Group, *The Manuscript of Tsinghua University's History* 清华大学校史稿, 454. As for SJU, its students paid even more than the amount an American university would charge. By the early years of the Republic of China, SJU could already rely solely on tuition fees for its maintenance.

[662] Laura MacNewman (Associate Archivist, Cranbrook Centre for Collections and Research), email message to author, 2 June 2021.

Example" [Fig. 7.4] was supervised by Ted Luderowski, Richard Thomas, Marianne Strengell, Maija Grotell, and Zoltan Sepeshy, in addition to Saarinen.[663]

Fig. 7.2 Cranbrook's campus, filled with statuettes and fountains (above), impressed Liang during his visit; so did architecture students working on models and city planning projects (below), 1946.

[663] The other faculty at this time were Mary Coulter, Peter Schiwetz, and William McVey; see Laura MacNewman, email message to author, 2 June 2021.

Fig. 7.3 Wu Liangyong (seated at left) attending an urban design course taught by Saarinen (seated in the centre) at Cranbrook, 1949

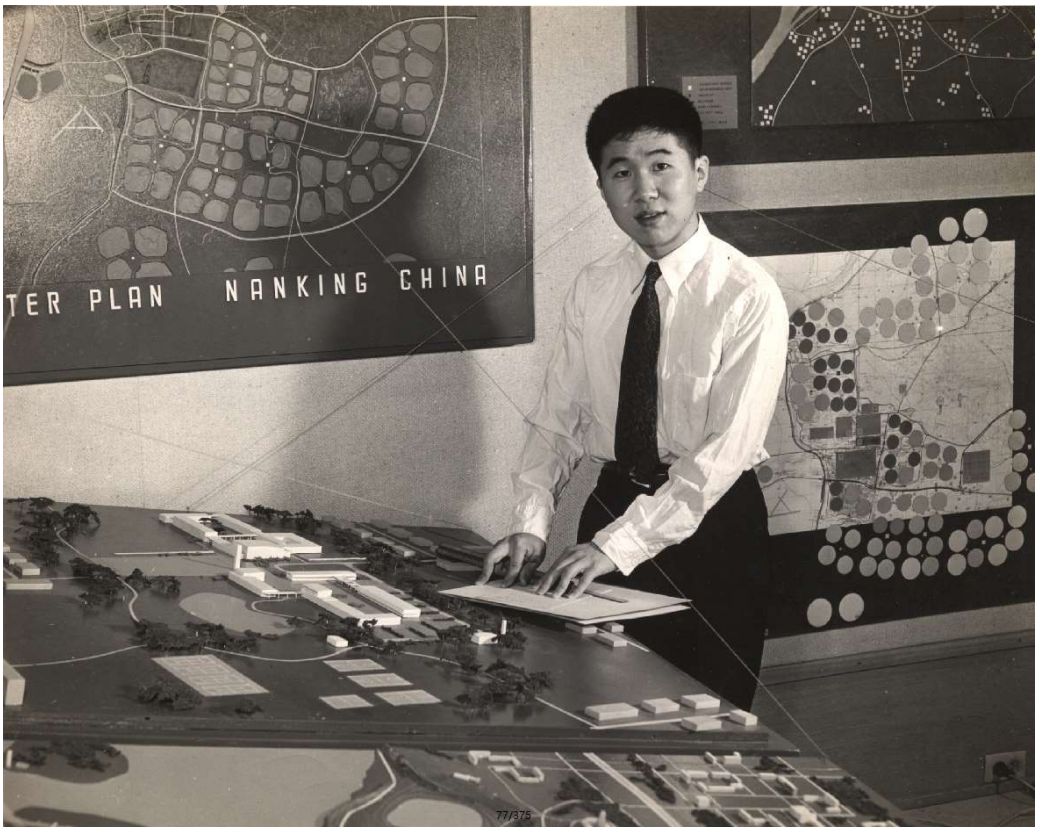

Fig. 7.4 Wu Liangyong and his master's project at Cranbrook, 1949

7.2 University of Michigan

7.2.1 The Theory of Pure Design

Liang's staffing efforts outlined above demonstrated the fact that it was not until Cheng, Zhou, and Wu were hired at Tsinghua between 1949 and 1950 that Liang possessed ideal members on his faculty. Before this, Liang had to make do with what he had, and his faculty was makeshift. Fairbank outlined that "the fundamental constraint to him to search for a golden median between traditionalism and modernism is his lack of training in [the latter]." According to Fairbank, not only did Liang take "responsibility for the main historical course, presenting the evolution of Western architecture followed by that of Chinese," but "he was also involved in the design-criticism sessions that twice a week examined and appraised the students' drawings."[664]

A very modern pedagogy, distinctive from Liang's atelier training, so-called design "crit" (namely critique; *ping tu*; 評圖) was a feature of most leading architecture schools that had followed Harvard GSD. Many in the USA had done so, as Zevi portrayed in the *Encyclopedia of World Art* in 1959:

> *In the field of education the appointment of Walter Gropius as chairman of the Graduate School of Design [GSD] at Harvard in 1937 was like a bomb placed in the foundations of academic training. After a few years Chicago called Moholy-Nagy [to the New Bauhaus the same year] and Mies van der Rohe [at Armour Institute (now the Illinois Institute of Technology) in 1938]; Massachusetts Institute of Technology [MIT] invited Alvar Aalto [by 1940]; and Yale, Berkeley, and Oregon reorganised their faculties [after the Second World War]. The same process was repeated in Europe. The best-qualified modern architects returned, because of a personal need for culture, to the universities they had left in disgust after their degrees. In so doing,*

[664] Fairbank, *Liang and Lin*, 159.

they radically altered the direction of the universities.[665]

Liang, however, was never an all-out participant in Chinese architectural modernism. Calling for "useful, economical, and aesthetically pleasing [architecture] when possible" in the same year that Zevi was writing (1959), his eclectic approach struggled between contested discourses; in Wong's words: "There was no way, he or others could fully express themselves at that time to balance modernism, Stalinism, nationalism, socialism, and traditionalism."[666] The notion of architecture as a fine art remained deep-seated for most of his generation, who could not let go of Beaux-Arts aesthetics' focus on drawing skills. For example, Liang retained watercolour courses not only in Presentation Skills (Subject C) for the students of five groups/departments (including architectural engineers) but also offered advanced electives in watercolour painting—Watercolour (V) and (VI)—for graduating seniors [see Table 6.1 in Chapter 6], for which he even hired Li Zongjin and Li Hu from the then Beiping Art Specialised School (now the China Academy of Art).[667] Thus Liang incorporated both Beaux-Arts and Chinese elements into his modern curriculum.

Without proper modernists on board at first at Tsinghua, Liang's approach to the foundation courses for beginner architects deserves special attention: At a time when Beaux-Arts methods were pitted against more technical, engineering-based programmes, Liang sought the best from each. Again, his second trip to the USA—and, in this regard, specifically his visit to the University of Michigan—informed his pedagogical approach at Tsinghua.

In the wake of three days at TVA, according to his working diary in the USA, on 5 July 1947, Liang visited Zhao Yuanren, a visiting professor in languages at the University of Michigan in Ann Arbor. There again he seemed to find a solution for modernising Tsinghua's curriculum without toppling down its sense of the fine arts. In other words, "some type of balance between the two [science and art] became necessary." These were the words of Emil Lorch, the first chair of the Department of Architecture at the University of Michigan. He went on to say:

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665 Zevi, "Architecture," 691.
666 Sidney Wong, email message to author, 10 April 2021.
667 Guo, Gao and Xia, *Chinese Master Architect: Liang Sicheng 一代宗师梁思成*, 152.

> *Perhaps the new architecture school will more closely unite the scientific and the practically artistic. By this I mean there will be a much closer relation for architectural students between the schools of engineering and those of painting, sculpture, and decorative design. These should unite more closely, and through such a union will perhaps spring up something that will be artistic in a purely American sense; and therein, I am sure, even the architect will admit that the engineer and the machine will have one of the most important parts to play.*[668]

Although Lorch saw his union of science and the arts as a specifically American attribute, Liang proactively built upon this idea at Tsinghua in China.

Given the close relationship between Liang and Wu Kingliu, through their frequent conversations in New Haven, Liang must have known that Wu, like Zhao, had spent time at the University of Michigan. In fact, Wu "came to the US to study architecture [firstly] at the University of Michigan. In 1938 he transferred to Yale University before transferring to Harvard; in 1942, he earned his bachelor's and master's degrees"[669] in 1945. It was therefore not surprising that Liang, after visiting Zhao, would come up with the idea—one that indeed escapes most of recent scholarship—to visit this flagship midwestern university, where architectural study had originally been a formal course within an engineering setting, as it had first emerged in China, rather than beginning in fine arts schools as it had done at the University of Pennsylvania and Yale.

Established within the Department of Engineering in 1906 and granted its departmental status and full control of its curriculum in 1913, the University of Michigan's Department of Architecture was steered by its programme's founding Chair Emil Lorch and upgraded to a separate college at the university in 1931. It was around Liang's visit in 1946 that a graduate programme in urban planning, which awarded a master's degree in "City Planning" was introduced, one of the first in the USA.

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[668] Emil Lorch, lecture typescript, 20 March 1901, Box 1, Folder 1–9, Emil Lorch Papers, Bentley Historical Library, University of Michigan.

[669] Robert Gregson, "The Head and the Heart of King-lui Wu, Architect," *Connecticut Explored*, vol. 18, no. 2 (Spring 2020): 38.

On 7 July 1947, Liang arrived on the University of Michigan campus by 10 in the morning [Fig. 7.5]. He was given a tour by then Professor of Architecture—previously Assistant Professor of Descriptive Geometry and Drawing (aka *Huafa jihe*; 畫法幾何 in China)—Wells Ira Bennett, who was the current dean of the college.[670] Bennett had also been a PMPE conference attendee at Princeton, and he needed Liang's expert guidance regarding Oriental architecture, one of his academic interests. Liang, for his part, was not only eager to share ideas with Bennett on architectural expressions of low-cost housing (in comparison with those seen at TVA) but also to learn what was currently being taught at this recently created "College." Lorch, Bennett's mentor, had resigned in 1937, but Bennett continued to follow his approach. Liang was impressed:

> *U. of Mich is very progressive. It focuses on professional competence, as well as on social sciences. The architect teaches the structure rather than the engineer; graduating seniors must do the advanced drawing.*[671]

[670] After doing bachelor's work at Syracuse University, Bennett graduated in 1916 by earning his master's degree at the University of Michigan under Lorch. This was at a time when the Beaux-Arts Institute of Design (BAID) had just received its charter from its predecessor, the Society of Beaux-Arts Architects (SBAA). Meanwhile, from 1912 to 1918, Bennett was an instructor in descriptive geometry and drawing at the University of Michigan.

[671] Liang Sicheng, Working Diary (between 22 June and 1 August 1947), 7 July 1947.

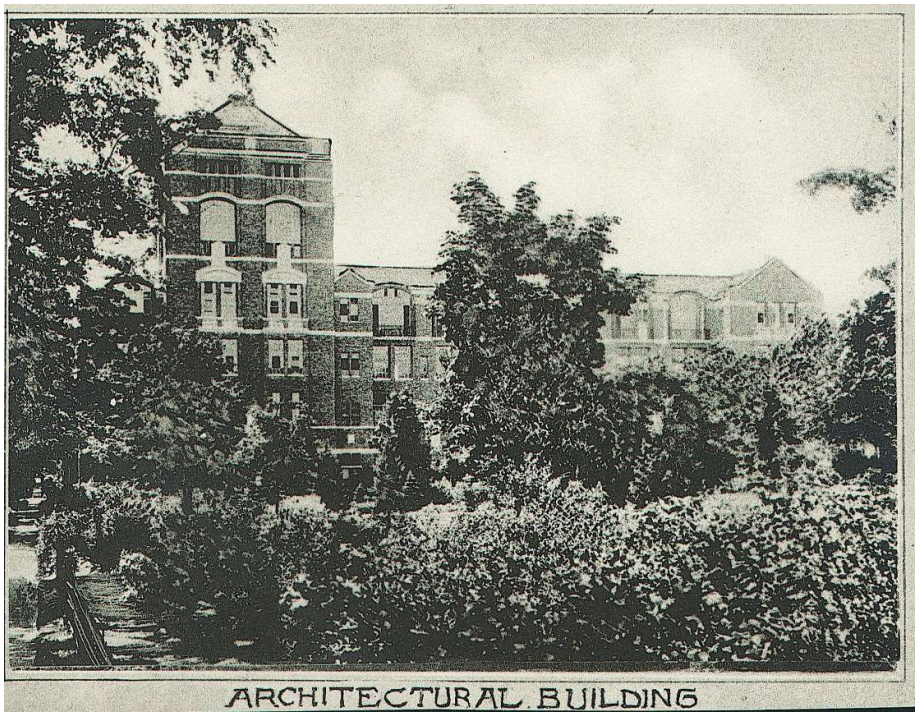

Fig. 7.5 The Architectural Building, 1949, which Liang had visited in person two years before

At the time of Liang's visit, the "College of Architecture" had already been retitled the "College of Architecture and Design" for about a decade, a change that had come about when landscape architecture had been added to the college's curriculum. This institutional evolution played a crucial role in reinforcing Liang's idea that the "College of Architecture" (*Jianzhu xueyuan*; 建築學院) he referred to in Letter 1 could be expanded into a "College of Building" (*Yingjian xueyuan*; 營建學院) and include more professions concerned with the built environment, as he discussed in Letter 5. Liang felt that "building" should include more than merely designing and erecting structures. As previously discussed, he believed in designing for the entire "substance-form environment." In 1949, Liang added a "Department of Landscape Architecture" (*Zaoyuan xuexi*; 造園學系) to his proposal for a College of Building, since:

> *In a highly industrialised environment, people would long to contact nature … Many landscapes, including scenic sights, forests, ravine streams, heritage, and wildlife, have been destroyed due to the developments without planning. Such kind of planning and conservation of people's parks needs professionals; that is to say, the training of professionals in Landscape Architecture cannot be ignored*

in a well-established society and regime.[672]

Later Liang recalled, "Once, on the Gate of Heavenly Peace, Chairman Mao pointed to the area south of the Square and meant that later, looking over toward this place, the view should be full of industrial chimneys…But, from the bottom of my heart, I did not agree at all."[673]

Liang's visit to the University of Michigan may have inspired his "Draft Plan" in other ways as well. The College of Architecture and Design's architectural programme was expanded to a five-year curriculum in 1939. Likewise, in Liang's "Draft Plan," he proposed that an additional year of study be added to the then general four-year curriculum in China. That was also due to his newly formulated Subjects A–E, on which each department's modular structure was based: Every "department has quite heavy coursework due to its comprehensive synthesis [generated by our loading of Subjects from A to E…Should it remain within] the four-year system, many courses would jostle against each other, and our students' pressure could top the University…Most Colleges of Building overseas are on a five-year curriculum. Seen in this light, and to solve our problem, we had come up with a five-year curriculum too. Compared with city planning, it should be noted that architecture students would spend their fifth year on building sites to obtain practical experience and knowledge of housing construction."[674]

As shown in his working diary from the summer of 1947, Liang's Tsinghua pedagogy was influenced by the University of Michigan's unique model in the Midwest, which had been established by Lorch and continued by Bennett. To emulate this model, in Liang's educational manifesto Letter 5, "social sciences" were to be taught in Subject A on Cultural and Social Background, "professional competence" was promised through graduating seniors' training in "advanced working drawing" (*gongchenghua*; 工程畫)

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[672] Liang Sicheng, "Draft Plan of Academic Structure and Programme in the Department of Yingjian (Now Known as the Department of Architectural Engineering) at Tsinghua University 清華大學營建學系（現稱建築工程學系）學制及學程計劃草案," *Wen Wei Pao (Shanghai)*, 11 July, 1949.

[673] Liang Sicheng, unpublished materials known as "self-criticizing essays of the Cultural Revolution (文化大革命交代材料)," supplied by Liang's second wife Lin Zhu.

[674] Given the fact that Liang was talking here about his ideal "College of Building," of overseas stature and consisting of five full-fledged "departments," I ignore the real difference at the time between "department" and "group"; see Liang Sicheng, "Draft Plan of Academic Structure and Programme in the Department of Yingjian (Now Known as the Department of Architectural Engineering) at Tsinghua University 清華大學營建學系（現稱建築工程學系）學制及學程計劃草案," *Wen Wei Pao (Shanghai)*, 10 July, 1949.

and a "construction site internship" (*gongchang shixi*; 工廠實習) during their fifth year, and two courses that had been in the Standard Minima that Liang helped to frame two decades earlier in 1929 were waived for architecture students. Not least, his vision of a College of Building—instead of a Department of Architectural Engineering—reflected the practice of the architects at the University of Michigan teaching structure themselves, rather than hiring engineers who possessed limited knowledge of architecture.

As mentioned above, architectural education was first organised at the University of Michigan by Lorch. Born into a Detroit Jewish-American family, Lorch was influenced by the Mid-Western Polytechnique stemming from the tradition of German architectural education while attending the Detroit School of Art. Lorch attended the Beaux-Arts-modelled MIT (1890–1892) and even the École (Summer 1896) as well as studying for a certificate in art history and aesthetics at the Collège de France (1899) in Paris during his travels in Europe. He was then offered a position at the School of the Art Institute of Chicago (SAIC) in the fall of 1899, where "Lorch's own efforts in teaching, his connections with art educators and familiarity with contemporary aesthetics, made him keenly aware of the creative process of design and alternative means to encourage it."[675]

It was probably through Henry Bailey, an art educator whom Lorch befriended at the International Congress of Public Art in Brussels, that Lorch became familiar with the works of Denman Ross, especially his Theory of Design: Pure Design (Balance, Rhythm, and Harmony) and Design in Representation (a course numbered as Architecture 7) taught at Harvard's Department of Architecture between 1899 and 1909, perhaps the first design theory courses in an American architectural curriculum.[676] Later this curriculum was published as a book, *A Theory of Pure Design: Harmony, Balance, Rhythm* (1907). Lorch quickly perceived the potential of Pure Design, intended for art education yet taught at an architecture department, for architectural education at the SAIC. In other words, its teachable method provided concrete means to create the "practically artistic" curriculum (in Lorch's words quoted above) he had long been looking for.

This was the beginning of Lorch's crusade to adapt an art education concept developed

[675] Marie Frank, "Emil Lorch: Pure Design and American Architectural Education," *Journal of Architectural Education*, vol. 57, no. 4 (May 2004): 30.
[676] Marie Frank, *Denman Ross and American Design Theory* (Lebanon, NH: University Press of New England, 2011), 178.

by Ross at Harvard to architecture education, firstly at the SAIC. To do that, Lorch's version of Pure Design taught students to be inventive with shape, space, and colour rather than to rely on traditional styles and architectural formulas. Writing to Ross in November 1900, Lorch stated how he tried to use Pure Design specifically for architecture students:

> *Following out the scheme I have been working on during the past two years I started the students on 'Elements of Design,' as I call it—which is of course based on and largely identical with your 'work' in theory and practice but from which I have found it possible to go on to study of rendering on the one hand and to the study of architectural and freer decorative forms—or ornament on the other. Thus the students are led up to the elements of architecture where the aesthetic and constructive motives of the designer are merged.*[677]

Why would an architect turn to art educators like Bailey and Ross for guidance? Lorch came to architecture with a strong background in art. Liang also had had a similar background, so it was unsurprising that he was attracted to such an alternative pedagogical method when he came across it at the University of Michigan in 1947 [Fig. 7.6]. He wrote:

> *Most interestingly, first-year students' design course starts with the line design, space, colour, form, 2-dimensional, then 3-dimensional, and applies such notions to architecture.*[678]

As noted in Liang's working diary at the University of Michigan, Dean Bennett had consistently followed his mentor Lorch very well since joining his alma mater's faculty as an instructor in descriptive geometry and drawing in the early 1910s.

[677] Letter from Emil Lorch to Denman Ross, 12 November 1900, Box 1, Folder 1–7, Emil Lorch Papers, Bentley Historical Library, University of Michigan. Emphases are original.
[678] Liang Sicheng, Working Diary (between 22 June and 1 August 1947), 7 July 1947.

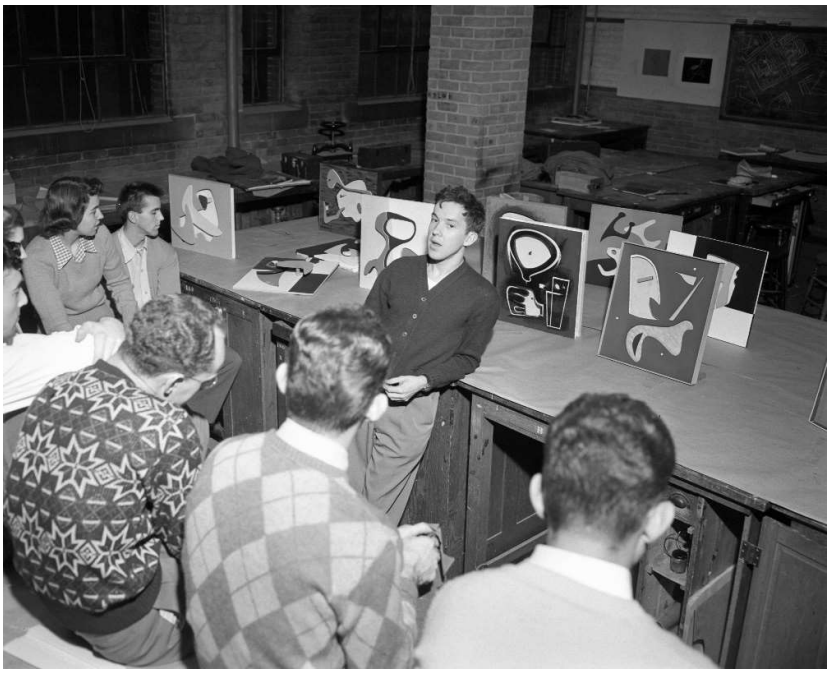


Fig. 7.6 The Pure-Design training of beginner architect-students at Michigan, 1949

When it came to the core training in architecture at Tsinghua, Liang agreed that it would be architectural design, and he acknowledged its importance for a long time. However, undoing atelier-style training became challenging for Liang and his Beaux-Arts-trained colleagues from the SRCA (then IRCA). As depicted in his letter to Stein, the failure to rally foreign-trained modernists (either Wu Kinglui or any Five United members) during the immediate postwar years meant that Tsinghua had had to figure out a makeshift pedagogical strategy to 'modernise' its architectural education yet remain within the skills at the faculty's disposal. The University of Michigan's Pure Design approach helped Liang find a way to do this through harmony, balance, and the rhythm of 'composition.'

Liang—and his generation of Chinese architects, mostly schooled on the East Coast of the USA—would perhaps not have known, before his second visit to the USA, that there was an opportunity for modernisation, focusing upon the formal characteristics of art, that the University of Pennsylvania's "Chinese contingent" (*zhongguo xiaofendui*; 中國小分隊)[679] had missed. Liang was able to learn about this alternative modern approach during his visit to the University of Michigan and bring it back to Tsinghua, where it suited the

[679] Chen, Zhi (1983), "Syueh Guan Jhong Si, Yeh Ji Gong Huei: Reminiscence of Yang Tingbao and Tong Jun 学贯中西，业绩共辉——忆杨老仁辉、童老伯潜," in *The Architect+ (III): The Voices in the Past 建筑师丛书（第三辑：逝去的声音）*, ed. Yi Na (Beijing: China Architecture & Building Press, 2007), 159.

strengths of the faculty better than Gropius's Basic Design principles.

Liang and his fellow member of the University of Pennsylvania cohort actually narrowly missed learning this alternative pedagogy during their student days. Lorch, after enrolling in Ross's 1901 summer course at Harvard, became a full-time student at Harvard in architecture in the fall of that year. According to Anthony Alofsin, under the chairmanship of Langford Warren, the pre-GSD School of Architecture provided a curriculum that balanced Beaux-Arts methods with attention to modern work, design theory, and aesthetics.[680] Upon finishing his studies at Harvard in 1903, Lorch applied for an architecture position at the University of Pennsylvania, which he ultimately lost to Paul Cret. In his letter to Lorch, Warren Laird, the Chairman of the University of Pennsylvania's School of Architecture (then dean of the School of Fine Arts when Liang studied architecture there),[681] was honest that there would be little space to add additional work in Pure Design to the University of Pennsylvania's curriculum, which already had a heavy load of required, Beaux-Arts-centric coursework. Had it not been for Lorch's disappointment at the University of Pennsylvania, the University of Michigan would not have welcomed him in 1906 when an architecture programme was to be founded [Fig. 7.7]. Not least, Liang would not have had to wait for another twenty years to realise that the tremendous impact of the Bauhaus had often obscured earlier attempts made by educators such as Lorch to promote a modern American—or, for the likes of Liang, Chinese!—architecture from within.

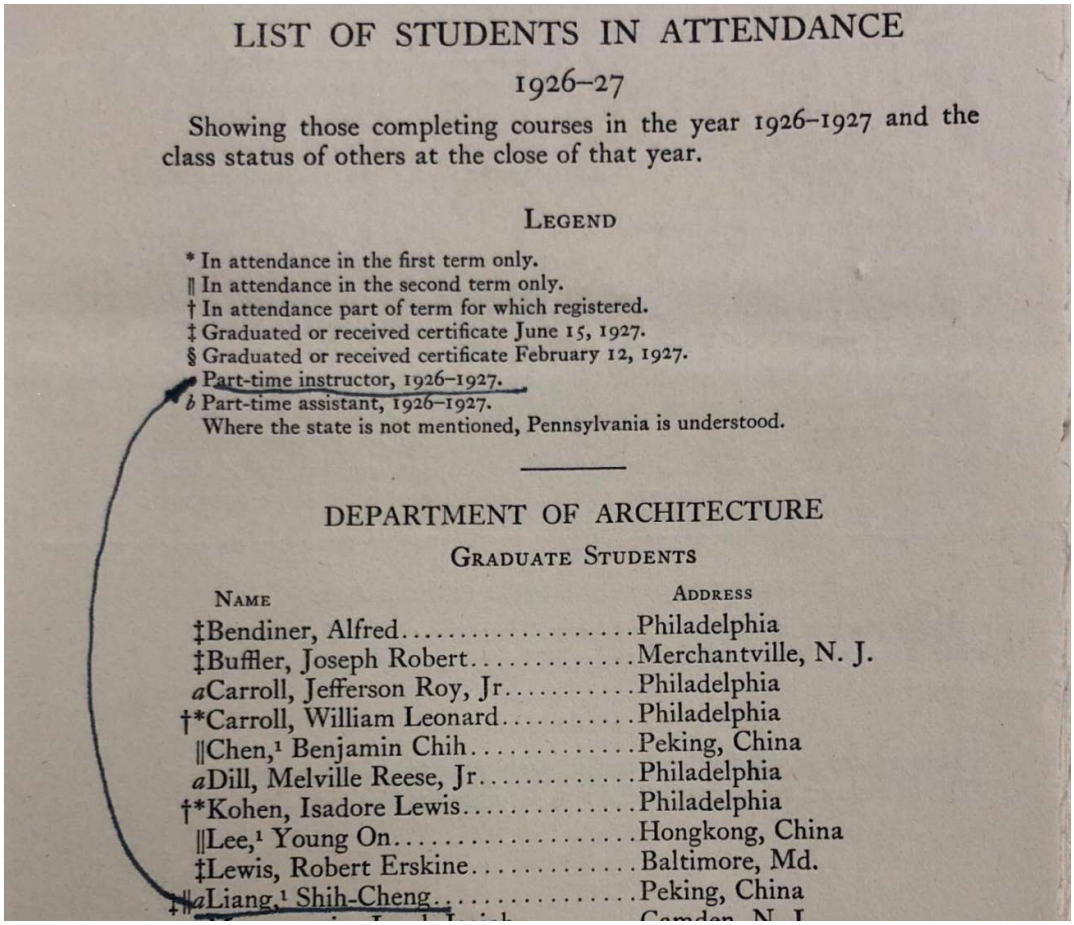
[680] Anthony Alofsin, "Toward a History of Teaching Architectural History: An Introduction to Herbert Langford Warren," *Journal of Architectural Education*, vol. 37, no. 1 (Autumn 1983): 2–7.

[681] The School of Fine Arts was dedicated on April 4, 1921, and Laird became its dean. He had supervision over the chairmen named for each of the School's four departments: Architecture, Music, Fine Arts, and, beginning in 1924, a Department of Landscape Architecture. Liang studied at the University of Pennsylvania from 1924 to 1927.

Fig. 7.7 Rows of students in the architectural programme at the University of Michigan; Lorch in far left of class

In the late 1890s, Lorch's architectural reputation rested more on his attractive drawings and watercolours than on built works.[682] Liang's story was similar: Not only had he been a student-instructor at the University of Pennsylvania [Fig. 7.8]—whose architecture department dominated the country in the competitions of the Beaux-Arts Institute of Design (BAID, the successor of the Society of Beaux-Arts Architects, SBAA)—but he was also a gold medal winner of the Arthur Spayd Brooke Memorial Prize in his graduating academic year, 1926–1927 [Fig. 7.9]. Both, when they tried to take advantage of their early education (at Beaux-Arts-modelled MIT and the University of Pennsylvania, respectively) in their attempts to be modern, did not mention classical drills; instead, they emphasised abstract elements of design (dots, lines, shapes, colour) and stressed universal principles (harmony, balance, rhythm)—without relying on or copying historical examples. However, this "practically artistic" approach still revealed their debt to 'composition' training, including the layout of drawings [Fig. 7.10].

[682] Frank, "Emil Lorch," 30.



LIST OF STUDENTS IN ATTENDANCE

1926–27

Showing those completing courses in the year 1926–1927 and the class status of others at the close of that year.

LEGEND

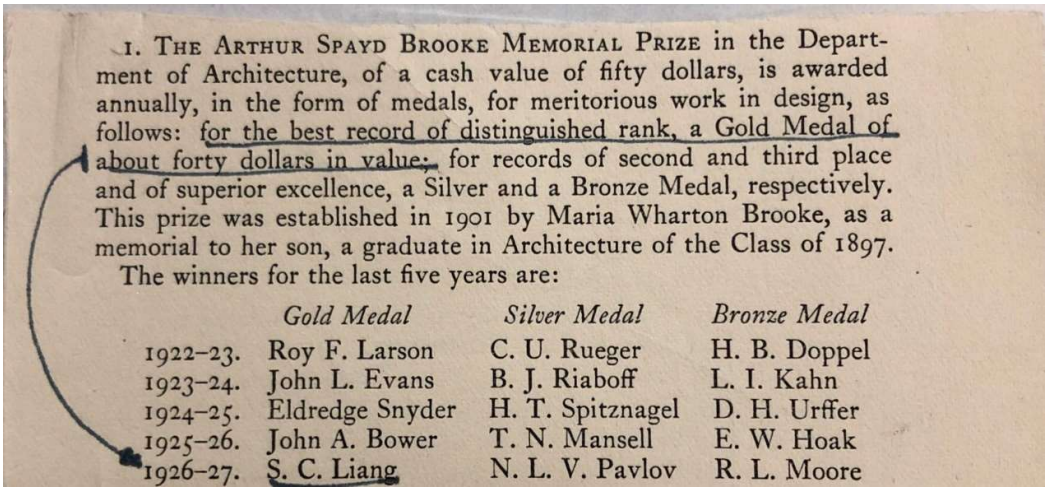
* In attendance in the first term only.
‖ In attendance in the second term only.
† In attendance part of term for which registered.
‡ Graduated or received certificate June 15, 1927.
§ Graduated or received certificate February 12, 1927.
a Part-time instructor, 1926–1927.
b Part-time assistant, 1926–1927.
Where the state is not mentioned, Pennsylvania is understood.

DEPARTMENT OF ARCHITECTURE

GRADUATE STUDENTS

NAME	ADDRESS
‡Bendiner, Alfred	Philadelphia
‡Buffler, Joseph Robert	Merchantville, N. J.
aCarroll, Jefferson Roy, Jr	Philadelphia
†*Carroll, William Leonard	Philadelphia
‖Chen,[1] Benjamin Chih	Peking, China
aDill, Melville Reese, Jr	Philadelphia
†*Kohen, Isadore Lewis	Philadelphia
‖Lee,[1] Young On	Hongkong, China
‡Lewis, Robert Erskine	Baltimore, Md.
‡‖aLiang,[1] Shih-Cheng	Peking, China

Fig. 7.8 Liang's record as a part-time instructor at the University of Pennsylvania, 1926–1927



1. THE ARTHUR SPAYD BROOKE MEMORIAL PRIZE in the Department of Architecture, of a cash value of fifty dollars, is awarded annually, in the form of medals, for meritorious work in design, as follows: for the best record of distinguished rank, a Gold Medal of about forty dollars in value; for records of second and third place and of superior excellence, a Silver and a Bronze Medal, respectively. This prize was established in 1901 by Maria Wharton Brooke, as a memorial to her son, a graduate in Architecture of the Class of 1897.

The winners for the last five years are:

	Gold Medal	*Silver Medal*	*Bronze Medal*
1922–23.	Roy F. Larson	C. U. Rueger	H. B. Doppel
1923–24.	John L. Evans	B. J. Riaboff	L. I. Kahn
1924–25.	Eldredge Snyder	H. T. Spitznagel	D. H. Urffer
1925–26.	John A. Bower	T. N. Mansell	E. W. Hoak
1926–27.	S. C. Liang	N. L. V. Pavlov	R. L. Moore

Fig. 7.9 Liang's gold-medal record at the University of Pennsylvania, 1926–1927 (whereas Louis I. Kahn was the recipient only of an earlier bronze medal)

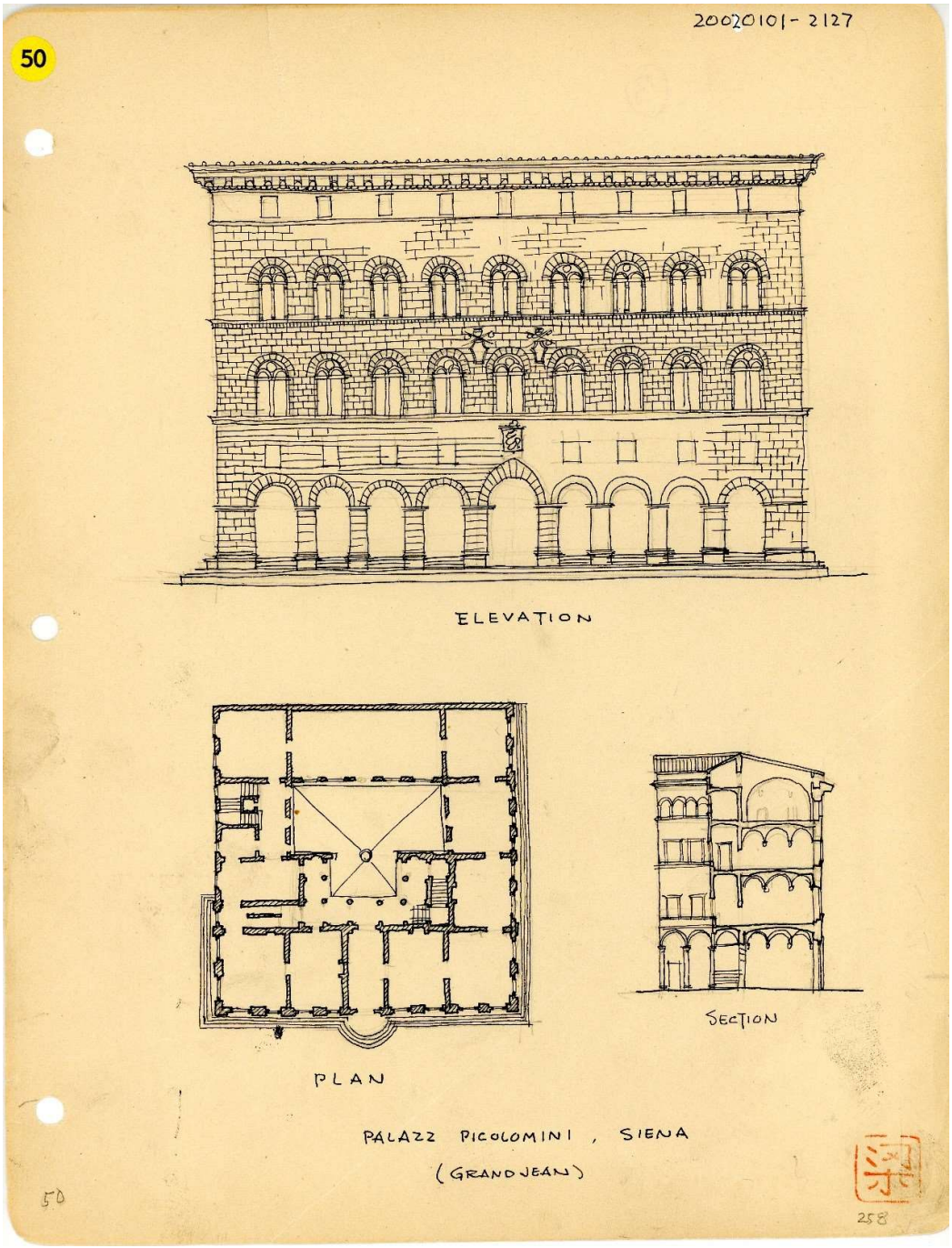


Fig. 7.10 Liang's drawing coursework at the University of Pennsylvania, 1924–1927, with his stamp at the bottom right

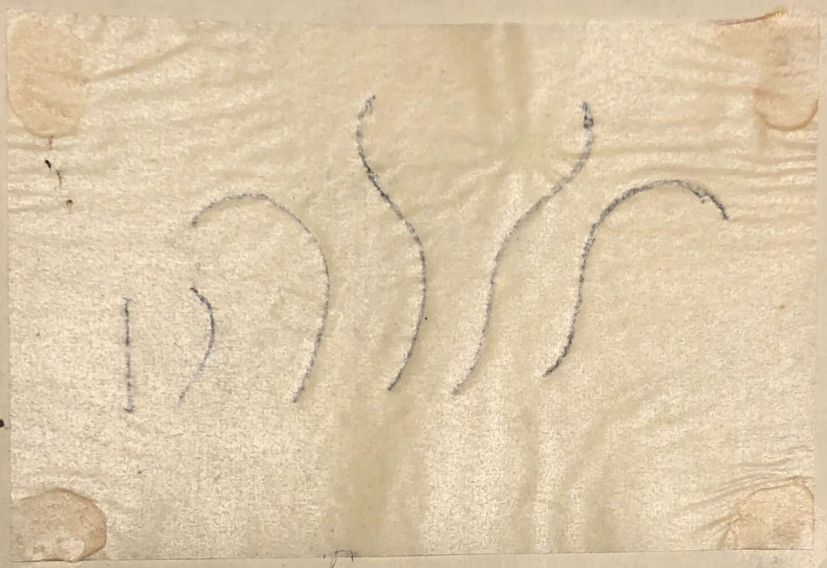
Architecture student Gao Yilian (Class of 1953) recalled in a phone interview that, when Liang returned to Tsinghua, the first-year students' foundation course became devoted to Pure Design for beginners, or Elementary Design (*yuji tuan*; 預級圖案):

> *Upon returning to China, he [Liang] incessantly imbued foreign ideas into his students. I recall some changes which took place in the curriculum. The Beaux-Arts part was waning, and modern architectural education prevailed. When I entered the school in 1949, the changes were quite drastic. Our class and the preceding one did not study the five orders anymore. However, we certainly still learned the exactitude of technical drawing and measuring. We studied abstract composition. In many assignments, we arranged flat circles (yuan bian; 圓扁). We learned how to set rectangular shapes, which point to a particular direction and compose them according to different conditions or textures. That was quite modern, wasn't it?*[683]

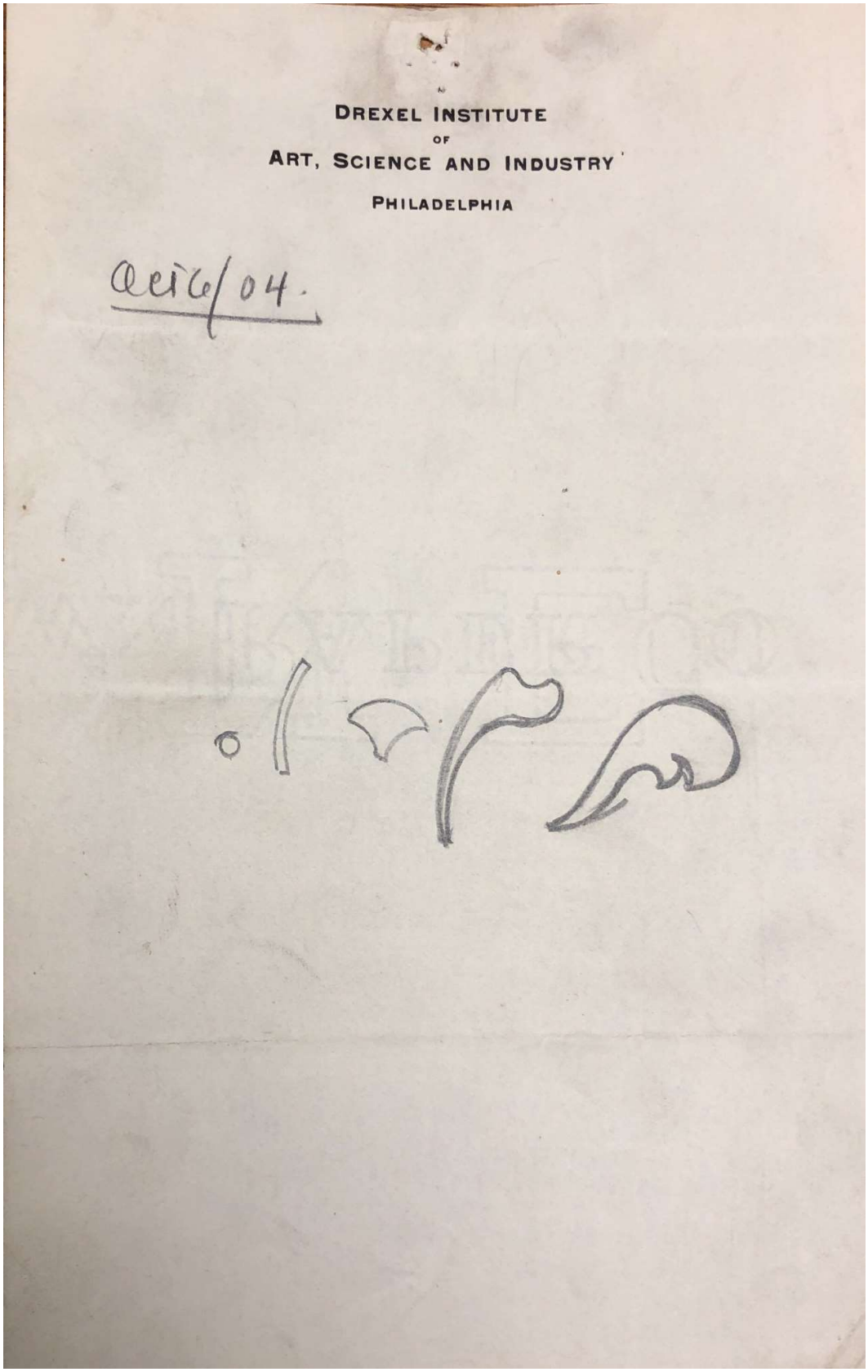
Liang again questioned his 1929 Standard Minima and moved Preliminary Design (*chuji tuan*; 初級圖案) from the first year to the sophomore year. What Liang assigned to Gao and her classmates seemed to be in line with the assignments at the Drexel Institute of Technology (now Drexel University), where Lorch briefly taught after his would-be position at the University of Pennsylvania was won by Cret: "A typical homework assignment for [Lorch's] students entailed making a composition out of a variety of shapes…in his exams he would ask them to make arrangements of dots or lines that could serve as patterns and borders"[684] [Fig. 7.11].

[683] Gao Yilian, phone interview with author, 6 December 2020.

[684] Emil Lorch, homework assignments at Drexel Institute of Technology, Box 11, File 11–21, Emil Lorch Papers, Bentley Historical Library, University of Michigan.



Do not Take from board.



Figs. 7.11 Lorch's assignments for entering student-architects at the Drexel Institute, early 1910s

Not only did Lorch employ abstracted design elements (line, form, space, colour, light, etc.), but he also underscored the importance of their psychological effect. It is human nature to appreciate beauty, which Liang acknowledged in his 1959 notable saying that architecture should be "aesthetically pleasing when possible."[685] In addition to Ross, Arthur Dow influenced Lorch most in devising refined design—a phrase for what Dow ultimately referred to as "composition"[686]—in the 1910s for architectural education and appreciation. "If a child," opined Dow in 1895, "can appreciate a fine spacing in a rectangle, he can appreciate the façade of the Public Library [McKim, Mead & White's Boston Public Library in American Neoclassical revival]."[687]

In addition to the usual design courses, the courses Lorch most prized during his time in Harvard's pre-GSD architecture programme were not only those of Ross, with classroom practice through exercises and projects in Pure Design, but also those of philosopher George Santayana and psychologist Hugo Münsterberg in physiological psychology: Both men argued that the perception of harmoniously composed lines and shapes encouraged a sense of beauty in the individual.[688] Liang's experience of these pedagogical influences at the University of Michigan should have reminded him of his recent participation in the PMPE conference at Princeton, where the university's bicentennial convocation invited Adelbert Ames, Jr., a professor in Psychological Optics, to demonstrate the so-called Ames Experiments produced by the Dartmouth Eye Institute.[689]

"Aesthetics is a problem of art," Liang extrapolated in his Draft Plan:

> *The physical environment we build should arouse as much pleasure as possible to dwellers and workers, improve mental health, create*

[685] Although Liang tempered "aesthetically pleasing" with useful and economic factors and noted that the former should only be embraced "when possible" in 1959, in a sense, "aesthetics" remained his priority in the Vitruvian Triad.

[686] First published in 1899, Arthur Dow's book *Composition: A Series of Exercises in Art Structure for the Use of Students and Teachers* has probably influenced more Americans than any other text on thinking about visual form and composition.

[687] Cited in Frank, *Denman Ross and American Design Theory*, 78.

[688] Frank, "Emil Lorch," 33.

[689] "Statement of Adelbert Ames, Jr." & "Re: AMES EXPERIMENTS," in Princeton Conference Committee, *SUMMERY OF AXIOMS, ASSUMPTIONS AND SUGGESTED TOPICS FOR DISSCUSSION FOR CONFERENCE ON "PLANNING MAN'S PHYSICAL ENVIRONMENT" (March 5–6, 1947)* (Princeton, NJ: Princeton University, 1947).

emotionally happy people with calm nerves, mild temperament, improved work efficiency, and full of lively creativity, and establish good relationships with them.[690]

Upon founding the new professional programme at Tsinghua, Liang specifically included psychology as an elective for Architecture and City Planning students.[691] Here again, Liang relied on makeshift methods to assemble the components he wanted in his modern architecture pedagogy: Just as it was economical for budding architect-planners, in Subjects B on Science and Engineering, "to go to class together with engineering-students…as far as the courses of physics, chemistry, mathematics, and mechanics are concerned,[692]" so could an elective like psychology be taught by the College of Science, which housed the Department of Psychology at Tsinghua University.[693]

Just as Elementary Design served as a prerequisite for all the architecture programmes at the University of Michigan, it became the foundation for all coursework in the Department of Architectural Engineering at Tsinghua. Lorch's alternative pedagogical method convinced Liang of the importance of Pure Design. The exercises used in this method taught fundamental principles that could be applied to all kinds of artistic design: harmony, balance, and the rhythm of composition. These could be used in architecture, painting, sculpture, textile design, posters, and other arts. They were akin to the Beaux-Arts tenets with which Liang was much better acquainted than the Bauhaus's stripped-down aesthetics, but they allowed Liang to teach the formal and compositional aspects that were also very much part of Bauhaus philosophy. The Michigan Pure-Design approach also included a higher engagement with history and context than the Bauhaus method did. Thus, this approach allowed the integration of Chinese artistic elements in a way strict Bauhaus pedagogy would not. As a result, Pure-Design pedagogy inherited from Lorch in Michigan appealed to Liang at Tsinghua, where he aimed to train civic leaders to see the built environment in a holistic way.

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690 Liang Sicheng, "Draft Plan of Academic Structure and Programme in the Department of Yingjian (Now Known as the Department of Architectural Engineering) at Tsinghua University 清華大學營建學系（現稱建築工程學系）學制及學程計劃草案," *Wen Wei Pao (Shanghai)*, 10 July, 1949.

691 Liang Sicheng, "Draft Plan of Academic Structure and Programme in the Department of Yingjian (Now Known as the Department of Architectural Engineering) at Tsinghua University 清華大學營建學系（現稱建築工程學系）學制及學程計劃草案," *Wen Wei Pao (Shanghai)*, 10, 12 July, 1949.

692 Letter from Liang Sicheng to Mei Yiqi, 9 March 1945, Tsinghua University Archives.

693 Mei Yiqi, "Tsinghua in the Post-war Era 復員後之清華," *Tsinghua Alumni Correspondence*, Postwar no. 1 (March 1947): 3.

7.2.2 Elements of Design

As Liang strove to bring modern design principles to Tsinghua he did, for a time, use approaches in his foundation course "Elementary Design" at that shared many features with the Bauhaus. However, a closer examination of the resources he brought to class shows that, like his counterparts at the University of Michigan, Liang retained a sense of history in his pedagogy that Gropius would have rejected. Nevertheless, one thing that Liang would share with the original Bauhaus was the consideration of economical[694] pedagogies indebted to the visual method of teaching. In other words, he used a makeshift approach that moved from "seeing is believing" to "seeing is learning," which could be accomplished through a series of small, compact, and complete materials reproduced in multiple forms for sale or circulation. According to Gao Yilian, for an example not unlike Dow's one in the last subsection: "Mr. Liang showed us a piece of carved ware, a little pig [Fig. 7.12]. 'You would be qualified for graduation,' he said, 'as soon as you could realise the beauty through the lines of this Han Dynasty pottery pig'."[695]

Fig. 7.12 Pig-related cultural relics are the most abundant of those unearthed from the Han Dynasty, and Liang often used such "teaching aids" to train architecture students' aesthetic accomplishment.

[694] This is a key substitution that Liang, in line with common Marxist-Leninist tenets and the thought of Mao Zedong, used in place of "stability" in the Vitruvian trilogy; see Liang, "Talking about Tradition and Innovation from 'Useful, Economical, and Aesthetically Pleasing When Possible'" 从「适用、经济、在可能条件下注意美观」谈到传统与革新," passim.

[695] Gao Yilian, "Deeply Missed and Unforgettable Teaching 深切的怀念　难忘的教诲," in *Commemorative Accounts of the 85th Birthday of Liang Sicheng* *梁思成先生诞辰八十五周年纪念文集* (Beijing: Tsinghua University Press, 1986), 180.

In a phone interview, Gao mentioned that Liang brought with him back to China a set of teaching boards called *Elements of Design* [Fig. 7.13], a title to which, in his letter to Ross, Lorch attributed his Pure-Design-based methodology.[696] Designed by abstract artist Robert Jay Wolff, these twenty-four pedagogical posters on cardboard panels (20" x 25" in size) were once exhibited at the Museum of Modern Art (MoMA), from 24 October to 18 November, in 1945. Gao recalled that:

> *… the demonstrative illustration in separate sheets of abstract design: Elements of Design. There were not so many students at that time, the pupils from all grades gathered in the large classroom—where the Elements of Design illustrations were hung onto the back wall—on the second floor of Tsinghua's Old Hydraulic Engineering Building.*[697] *[Fig. 7.14]*

MoMA's Elodie Courter Osborn at the Department of Circulating Exhibitions, responsible for the dissemination of teaching portfolios, said Wolff's visual aid was designed for classroom use and sent to schools as part of the Museum's programme in educating the public about modernism. Perhaps Liang had come across it in New York[698] when he came to the city the UNHQ Board of Design's meetings or during his visit to the TVA guided by Elizabeth Bauer, who had resigned as Acting Curator of Architecture at MoMA (1943–1946) only one year before.[699]

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[696] Letter from Emil Lorch to Denman Ross, 12 November 1900, Box 1, Folder 1–7, Emil Lorch Papers, Bentley Historical Library, University of Michigan.

[697] Gao Yilian, "The Pedagogy of Liang Si-cheng 梁思成的办学思想," *World Architecture* *世界建筑*, no. 11 (2006): 134–135.

[698] According to an NCU alumnus, Liu Guanghua mentioned—in his unpublished memoir *Dream Hometown* (*Meng Xi Gu Yuan*; 梦系故园)—that once, during his study at Penn in 1947, he was invited to a dinner with Mr. and Mrs. I. M. Pei hosted by Lu Bingyu. (Lu was Pei's father-in-law; his daughter was Lu Shuhua, aka Eileen Loo, a landscape architecture student at Harvard GSD who married Pei in 1942.). Other guests included Liang Sicheng (in the USA for the UNHQ), Liang Yen (a chief designer at Harrison & Abramovitz; Wallace K. Harrison was the UNHQ Director of Planning Board), and his wife Sa Benlian (a sibling of Chinese architect-builder Sa Benyuan). This occasion was the catalyst for Pei—who had persuaded Liu to transfer to GSD from obsolete Penn—to give them a tour of the relationship between abstract art and modern architecture at MoMA in midtown Manhattan.

[699] Wendy Lesser, "The Importance of the Personal," *Places Journal*, September 2022, accessed on 7 September 2022, https://placesjournal.org/article/elizabeth-bauer-mock.

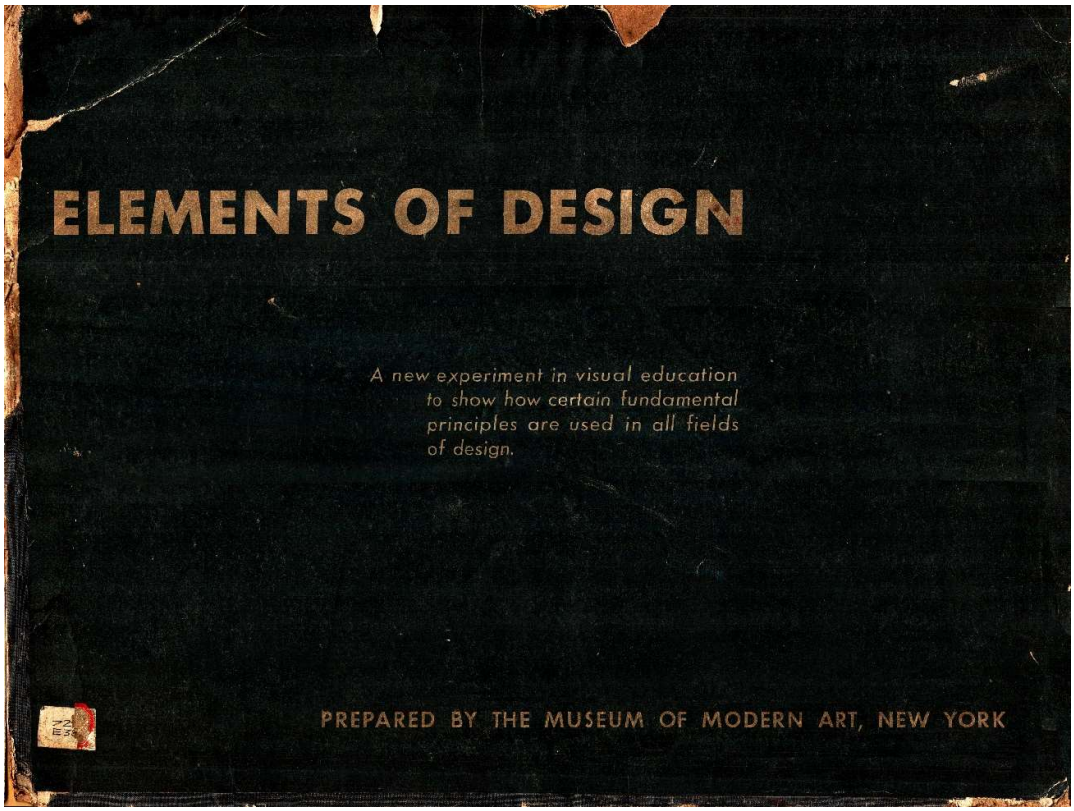
ELEMENTS OF DESIGN
A new experiment in visual education to show how certain fundamental principles are used in all fields of design.
PREPARED BY THE MUSEUM OF MODERN ART, NEW YORK

Fig. 7.13 The cover for *Elements of Design* (1945) used for Abstract Design courses at Tsinghua (top), which consisted of twenty-four pedagogical cardboard sheets. The first sheet, with the stamp of Tsinghua Library, read "Design is everywhere" (bottom); this epitomised Liang's all-inclusive approach to the physical environment.

Fig. 7.14 The Hydraulic Experiment Hall (aka the Old Water Conservancy Hall) was located on the south side of Tsinghua College. Designed and presided over by the famous water conservancy and hydropower educator Shi Jiayang, it was completed in 1933. The department of architectural engineering led by Liang worked on the second floor until 1952.

While much existing scholarship has attributed the preliminary exercises in Liang's Elementary Design courses to the influence of Basic Design at the Harvard Bauhaus (which in turn stemmed from the *Vorkurs* [Foundation Course] at the original Bauhaus), it may well have been the "word-and-picture combination"[700] of Wolff's *Elements of Design* sheets, with their expressive and accessible text accompanying the pictures, that inspired Liang's pedagogy. The assumption that Liang was following the Harvard Bauhaus has been based simply on the fact that, by the time Liang went home to China, he was one of the few Chinese professionals who had had the opportunity to interact with leading architects and planners under the sway of Gropius and Mies in the USA.

However, it is also true that both Lorch and Liang were under the spell of "Ross's inversion of the historical order of development—starting with the result (the object) and then investigating the cause (the history)"[701] (of which I discuss more in the next section). The latter, historical aspect distinguished them from those under the direct sway of high modernism, say, those at Gropius's Harvard and Mies's Illinois Institute of Technology

[700] Sarah Newmeyer (Publicity Director), "Design Principles Shown in Small Exhibition at Museum of Modern Art," *MoMA Press Release*, 19 October 1945.
[701] Frank, *Denman Ross and American Design Theory*, 195.

(IIT). Wolff had not come from the circle of European high modernists, but in 1938 he had begun working closely with László Moholy-Nagy and György Kepes at the School of Design, briefly called the New Bauhaus, upon its opening in Chicago in 1937.[702]

As confirmed by Xu Chang's master's dissertation at Tsinghua, *Elements of Design* briefly became the basis for Liang's makeshift version of a 'foundation course.' When most young SRCA-based artist-historian teachers felt unfamiliar with this kind of pedagogy and its incredibly three-dimensional assignments, Wang Qiming pointed out[703] that they referred to the teaching materials that arrived at Tsinghua along with Liang's return:

> *The design foundation course related to the Bauhaus Vorkurs ran for merely two or three years at the beginning of liberation. The exercise of abstract composition was mainly based on a set of cardboard panels and several books, edited by Bauhaus teachers, regarding visual and formal characteristics. The practice included, for example, the arrangements of dots along with a circle (not direction-specific), with a rectangle figure (in a particular direction), the composition of colours, fabric, and texture of three-dimensional solids. It ceased shortly afterwards.*[704]

Ru Jinghua (Class of 1951) recalled that, at Tsinghua, she was once asked to use both curved and straight lines to make a composition without the final product having a similarity to any particular item. This assignment was not unlike one Lorch assigned as a prerequisite for all course work at the University of Michigan. Ru earned a low grade from Mo Zongjiang on this assignment because her ultimate submission looked like a violin.[705] Liang's Elementary Design at Tsinghua, in a sense, could also be called "Abstract Design" since any concrete form was discouraged. In Wang's words, on the

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[702] Arden Reed, "Robert Jay Wolff at Canfield," *Art in America*, vol. 91, no. 12 (2003): 114–115.
[703] Wang, "Recalling Liang Sicheng's Pedagogical Stories 忆梁思成先生教学事例数则," 20.
[704] Xu Chang, "Design Foundation and Visual Arts 设计基础与视觉艺术" (Master Dissertation, Tsinghua University, 1980), 6.
[705] Du Erqi, *Commemorative collection of the first, second, third, and fourth graduating class of the Department of Architecture of Tsinghua University 清华大学建筑系第一、二、三、四届毕业班纪念集* (Beijing, Tsinghua university Press, 2005), 130.

other hand, they learned "to integrate dots, lines, shapes, volumes into pleasing composition aligned with principles of formal aesthetics: harmony, proportion, balance, rhythm, contrast." These sorts of pedagogies, even to several young teachers, were quite new at the time:

> *To do so, students and teachers explored [abstract design]. Two-dimensional seemed to be fine but three-dimensional became more challenging; for the latter, the problems even included a shortage of materials. Some students went to the metal factory on campus to pick up metal shavings waste to bring back in class.*[706]

During the Anti-Rightist Campaign in the second half of the 1950s, Liang was censured for asking students to find inspiration in the scrap heap. Wang could not agree at all with this criticism, based on her own decades-long experience as an architectural educator:

> *After more than thirty years, I returned to Beijing by 1979. I was able to teach a foundation course at Beijing Institute of Civil Engineering and Architecture [now the Beijing University of Civil Engineering and Architecture]. When I realised the course title of "composition [gou cheng]," I went specifically to the Central Academy of Arts and Design [merged into Tsinghua in 1999] for pedagogical preparation. Upon arriving at the Academy, listening to and watching the course, I sighed with sorrow for Liang since "is it not Abstract Design that I had learned but that shortly came under criticism three decades ago?" …Half a century ago, it required foresight to employ such a progressive way of training at the expense of starting from Western five orders.*[707]

Wolff's *Elements of Design* was not explicitly formulated for architectural education. Still, he generally worked with the same essential elements used in every design field by demonstrating the designer's tools and materials. In this way, Wolff devoted most of his

[706] Wang, "Recalling Liang Sicheng's Pedagogical Stories 忆梁思成先生教学事例数则," 19–20.
[707] Wang, "Recalling Liang Sicheng's Pedagogical Stories 忆梁思成先生教学事例数则," 20.

teaching boards to universal features such as Line, Form, Space, Light, and Colour through examples from the works of not only Moholy-Nagy and Kepes, but also Mies van de Rohe, Marcel Breuer, Frank Lloyd Wright, and George Howe. However, although many 'elements' seemed to be driven by ingredients of the Bauhaus *Vorkurs*, the final panel of the set—once photographed with Lin Huiyin and her teaching fellows at Tsinghua [Fig. 7.15]—read, "The images of design vary with each civilisation … the elements of design never change" [Fig. 7.16].

Fig. 7.15 Lin Huiyin and Tsinghua faculty in a classroom with Wolff's pedagogical board numbered 24 on the wall (see top right), 1950. Modernist Zhou Buyi and painter Li Zongjin are amongst those seated in the back row, at third and fifth from the left.

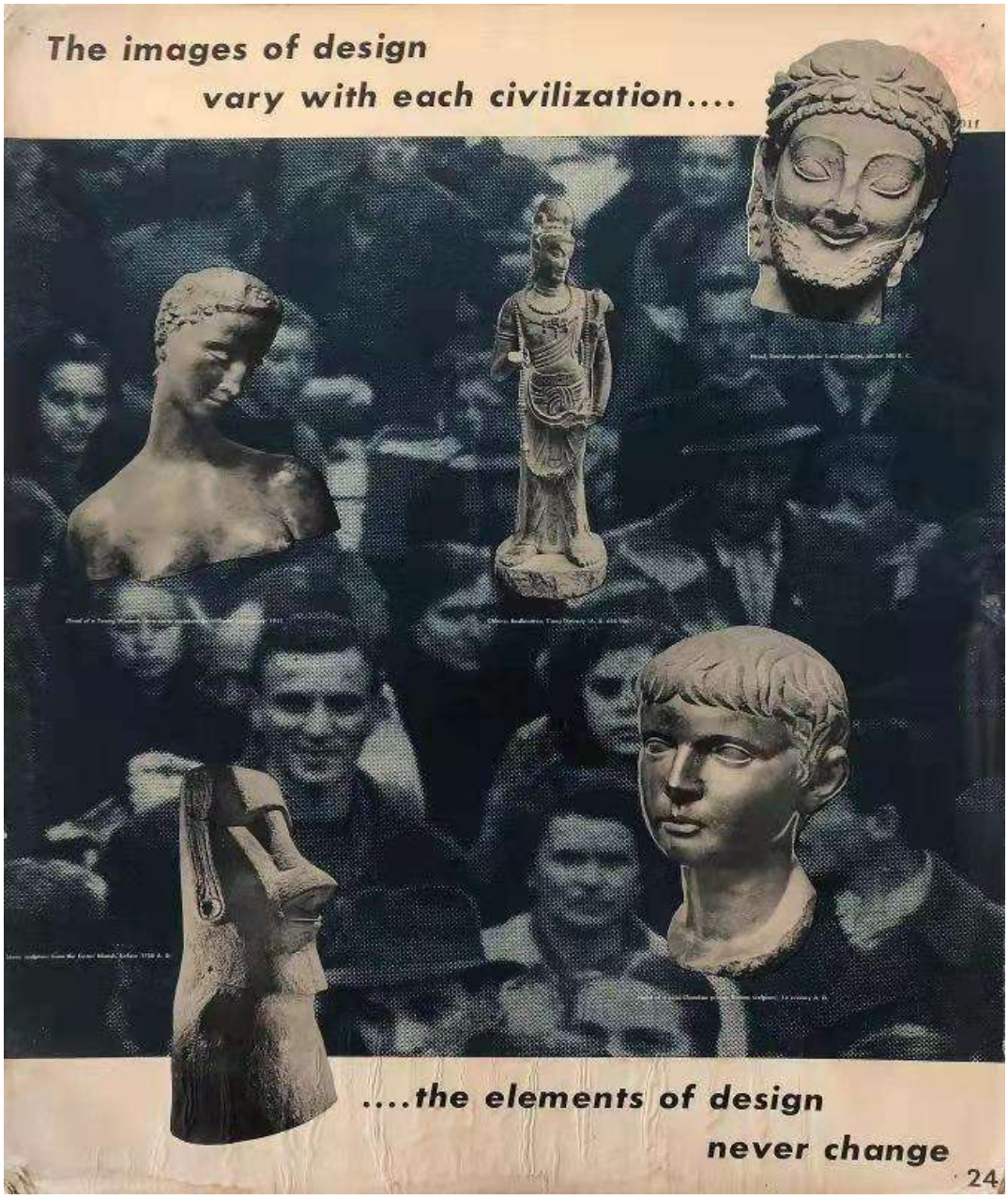

Fig. 7.16 The 24th and final board, 20" x 25" per panel, of *Elements of Design*. It hangs on the wall behind Lin as seen in Figure 7.16.

The final board of *Elements of Design* encapsulates one way the postwar architectural programme at Tsinghua distinguished itself from the discourse of high modernists, who did away with any kind of historical precedents. Despite Lorch's and Liang's ensuing interest in the activities of the Bauhaus and European modernism, they still included traditional coursework in shades and shadows (Subject C: Presentation Skills), humanities requirements (Subject A: Cultural and Social Background), and not least, architectural history, which had a twofold value: Not only did it instruct the students in

the general, universal principles of design, but it also contributed to the students' general education, which sought to avoid, as already discussed, a half-man world.

7.3 The Creative Adaptability of Traditions

> *"We study Greek and Latin in order to write better English, not to make ourselves think and do what the Greeks did." --Emil Lorch*[708]

Liang was schooled in "over-aestheticism"[709] at the University of Pennsylvania in the late 1920s, but after two decades plus a hard-won trip to the USA, Liang's efforts to balance the liberal with the artistic and technical studies through Subjects A to E would have won Lorch's respect and his approval for their use of history in the modern period. Liang urged students not to copy from the historical account but to absorb its principles and produce contemporary designs of their times. This creative adaptability of traditions was an approach to history that had already caught his interest. For example, in 1937, Liang, with a former student, Liu Zhiping, had published the *Pictorial References for Architectural Design*,[710] a collection of elements of historical buildings intended for use in the new Chinese-style architectural design.

Further inspired by the modernism he saw on his late-1940s trip to the USA, Liang incorporated such adaptability (such as could be found at Frank Lloyd Wright's nostalgic Taliesin or even traced back to late-1920s art history at Harvard's Fogg Museum) into his ideal curriculum at Tsinghua to promote the kind of design that he later, in 1959, called "useful, economical, and aesthetically pleasing when possible." It was this "practically artistic" approach that Lorch and Liang, to name only a few, adopted since they retained an interest in history throughout their architect-teacher careers. In this section, I will articulate Liang's midwestern experience and his overlooked endeavours elsewhere in the USA and show how they contributed to his pedagogical vision even beyond a College of

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[708] Emil Lorch, lecture notes, n. d., Box 11–12, Lorch Papers, Bentley Historical Library, University of Michigan.

[709] To borrow Lorch's criticism of the architectural education associated with Beaux-Arts orthodoxy, for example, at the University of Pennsylvania, see Robert Atkinson, *Report on the Education of the Architect in the United States of America* (London: The Royal Institute of British Architects, 1923), 41.

[710] Prefaced by Liang as early as in 1935; see Liang Sicheng, "Preface in Pictorial References for Architectural Design 建築設計參考圖集序," *SRCA Bulletin*, vol. 6, no. 2 (December 1935): 73 – 79.

Building at Tsinghua.

7.3.1 The Use of History

While high modernist teachers like Walter Gropius had completely severed historical teaching from their architectural education since the late 1930s, Lorch in the Midwest had already worked out alternative pedagogical methods in Pure Design—generally known by its course number Architecture 1: Elementary Design (or, Elements of Design, as he had used at SAIC)—by the turn of the last century.

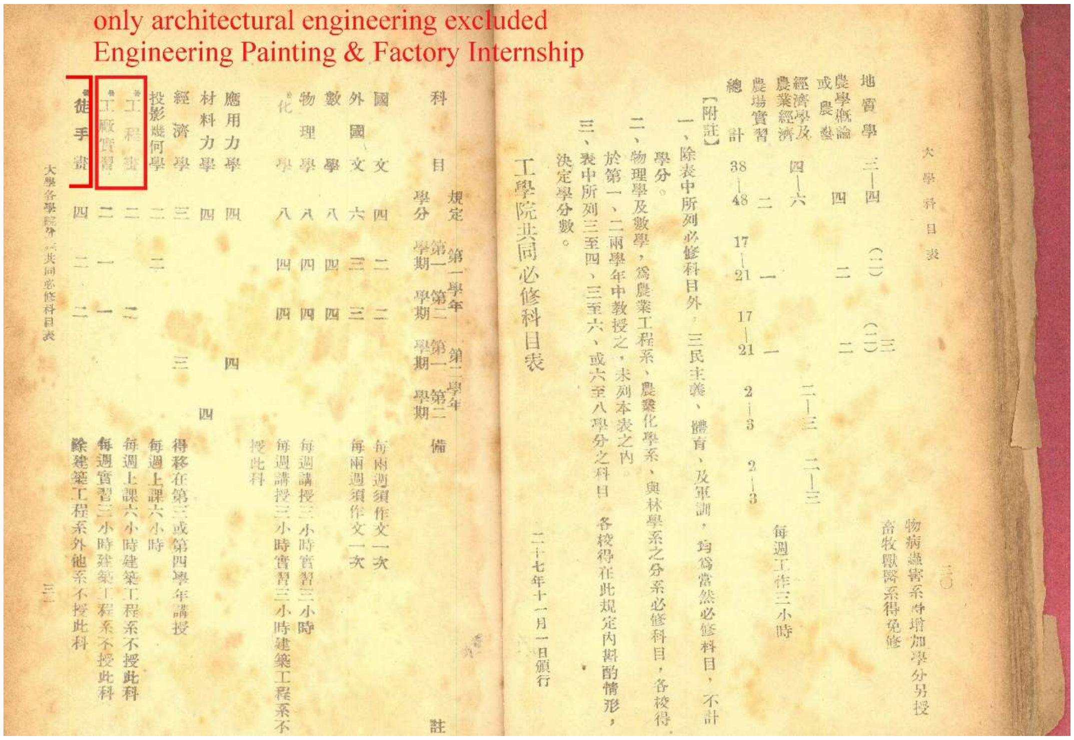
In addition to the first-year training aligned with Ross's theory of Pure Design, there were other similarities in the arrangement of history courses at the University of Michigan and Tsinghua that distinguished them from their counterparts in the eastern USA in terms of how they modernised the discipline of architecture. At the University of Michigan and at Tsinghua, students would only begin history courses in the second year. It should also be emphasised that, at the University of Michigan, only after taking Architecture 1 (which focused on design elements alone) could a student register for Architectural Design 1, in which he or she could better grasp the universal principles demonstrated by historical examples and become, while avoiding imitation and slavish copying, more sensitive to their use in architectural design.

This curricular strategy remained crucial at Tsinghua's department of architectural engineering. While most national universities in China set in place Preliminary Design for all first-year students, Liang superseded it with Elementary Design (aka Abstract Design as it was popularly termed: *Chouxiang tuan*; 抽象圖案). This makeshift compromise marked a 'modernisation' of Liang's design pedagogy:[711] At NNU (where he carried out his first architectural life), he had taught design in tandem with architectural drawing components since *tuan* brought about a sense of 'composition' (*goutu*; 構圖)[712]

[711] In the rest of this paragraph, I employ Fiona MacCarthy's parlance from her 2019 *Walter Gropius: Visionary Founder of the Bauhaus*, in which she likens three locations of the Bauhaus founder's career to three 'lives': Germany (first life), England (second life), and America (third life). Even if these lives may serve merely as geographic indicators for Gropius, they can be employed at a higher theoretical level to mark Liang's intellectual 'break' from a formalist (NNU) to an environmentalist (Tsinghua).

[712] *Tuan* was the word Liang used in establishing the Standard Minima in 1929, when he was in his first life as a Beaux-Arts teacher at NNU. It included the Shadow Method consisting of Descriptive Geometry and Perspective Drawing—known as Architectural Principle and Architectural Drawing (*Jianzhu chuze ji jianzhuhua*; 建築初則及建築畫)—in China's standardised curriculum.

in the Chinese context of architectural education [Fig. 7.17]; later, at Tsinghua (in his second architectural life), *tuan* served no longer to mark personal skills but had the sole purpose of communicating with others concerned with a design project.



only architectural engineering excluded
Engineering Painting & Factory Internship

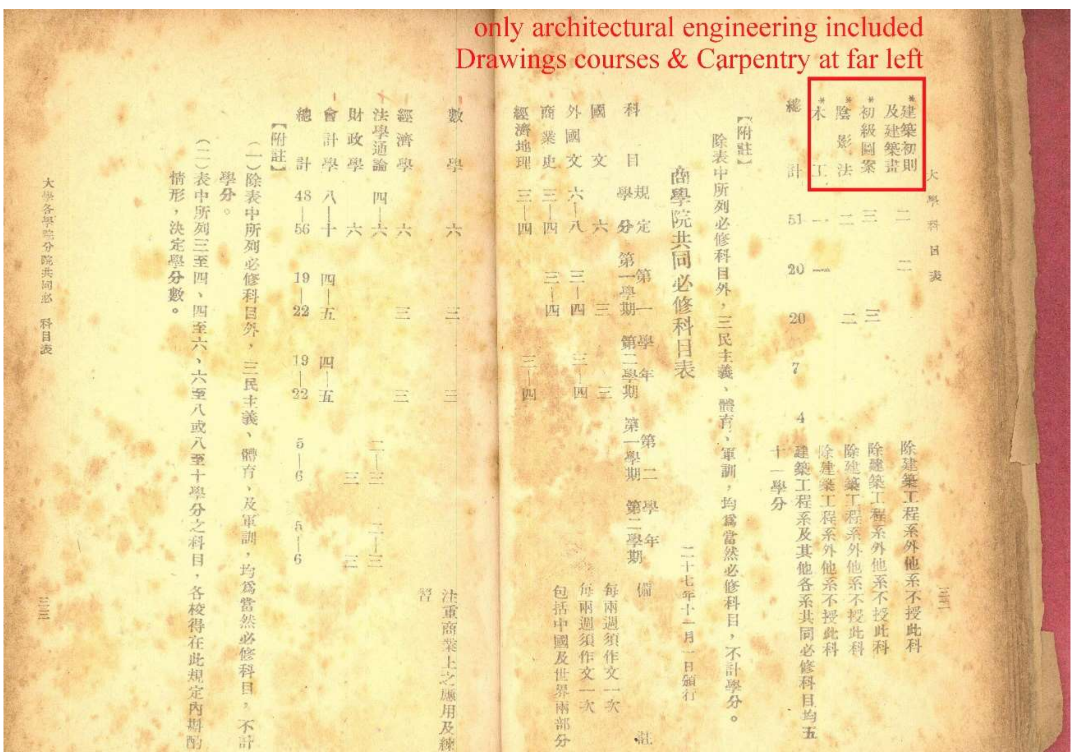
科目	規定學分	第一學年第一學期	第一學年第二學期	第二學年第一學期	第二學年第二學期	備註
地質學	三—四	（三）	（三）			物病蟲害系得增加學分另授
農學概論或農藝	四	二	二			畜牧獸醫系得免修
經濟學及農業經濟	四—六			二—三	二—三	
農場實習	二	一	一			每週工作三小時
總計	38—48	17—21	17—21	2—3	2—3	

【附註】
一、除表中所列必修科目外，三民主義、體育、及軍訓，均為當然必修科目，不計學分。
二、物理學及數學，為農業工程系、農業化學系、與林學系之分系必修科目，各校得於第一、二兩學年中教授之，未列本表之內。
三、表中所列三至四、三至六、或六至八學分之科目，各校得在此規定內斟酌情形，決定學分數。

工學院共同必修科目表

二十七年十一月一日頒行

科目	規定學分	第一學年第一學期	第一學年第二學期	第二學年第一學期	第二學年第二學期	備註
國文	四	二	二			每兩週須作文一次
外國文	六	三	三			每兩週須作文一次
數學	八	四	四			
物理學	八	四	四			每週講授三小時實習三小時
*化學	八	四	四			每週講授三小時實習三小時建築工程系不授此科
應用力學	四			四		
材料力學	四				四	
經濟學	三			三		得移在第三或第四學年講授
投影幾何學	二	二				每週上課六小時
*工程畫	二		二			每週上課六小時建築工程系不授此科
*工廠實習	二	一	一			每週實習三小時建築工程系不授此科
*徒手畫	四	二	二			除建築工程系外他系不授此科



only architectural engineering included
Drawings courses & Carpentry at far left

科目	規定學分	第一學年第一學期	第一學年第二學期	第二學年第一學期	第二學年第二學期	備註
*建築初則及建築畫	二	二				除建築工程系外他系不授此科
*初級圖案	三		三			除建築工程系外他系不授此科
*陰影法	二		二			除建築工程系外他系不授此科
*木工	一	一				除建築工程系外他系不授此科
總計	51	20	20	7	4	建築工程系及其他各系共同必修科目均五十一學分

【附註】
除表中所列必修科目外，三民主義、體育、軍訓，均為當然必修科目，不計學分。

二十七年十一月一日頒行

商學院共同必修科目表

科目	規定學分	第一學年第一學期	第一學年第二學期	第二學年第一學期	第二學年第二學期	備註
國文	六	三	三			每兩週須作文一次
外國文	六—八	三—四	三—四			每兩週須作文一次
商業史	三—四	三—四				包括中國及世界兩部分
經濟地理	三—四		三—四			
數學	六	三	三			注重商業上之應用及練習
經濟學	六	三	三			
法學通論	四—六			二—三	二—三	
財政學	六			三	三	
會計學	八—十	四—五	四—五			
總計	48—56	19—22	19—22	5—6	5—6	

【附註】
（一）除表中所列必修科目外，三民主義、體育、及軍訓，均為當然必修科目，不計學分。
（二）表中所列三至四、四至六、六至八或八至十學分之科目，各校得在此規定內斟酌情形，決定學分數。

Fig. 7.17 There were drawing components in the Common Compulsory Courses for the College of Engineering in the national standardised curriculum set up exclusively for the department of architectural engineering, i.e., Freehand, Architectural Principles and Architectural Drawings, Preliminary Design, Shading, Carpentry. Students in other departments in colleges of engineering (which at Tsinghua, for example, included civil, mechanical, electrical, chemical, and aeronautic engineering) only took Engineering Painting and Factory Internship.

Also, history courses were not open for registration until the second year of study at Tsinghua's department of architectural engineering (or, later, in the tentative Department of Building laid out in Liang's Draft Plan). Just as Lorch did at the University of Michigan, Liang—"who call[ed] himself more of a historian than a creative architect"[713]—taught these courses himself at Tsinghua. In them, he presented the evolution of Western architecture followed by that of Chinese architecture. For example, Wang Qiming entered Tsinghua in 1947, right upon Liang's return, and took Euro-American History of Architecture in sophomore year, both Euro-American and Chinese Histories of Sculpture and Painting in junior year, and Chinese History of Architecture in senior year.

Liang's "History of Oriental Architecture" was divided into two parts per semester in the final year of a four-year-long curriculum. This was a field of study that Liang certainly could imbue with a lot of details based on his SRCA experience between 1930 and 1945.[714] Similarly, Lorch also held off the more specific history courses until the last year. At the University of Michigan, after a broad history survey in the second and third years, study in Greek and Roman architecture was undertaken only in the fourth year and taught by the university's specialists in the Art and Archeology Department; their counterparts would have most likely appeared at Tsinghua's Department of Art History if Liang's late-1947 makeshift proposal for an art history research laboratory[715] (of which more in the next subsection) did not yield to the political turmoil of the Civil War.

For Lorch and Liang, the use of history in their respective curricula shed light on their professional background aligned with their Beaux-Arts training and their critical observation of the American Bauhaus's technical success at the expense of artistic and liberal studies. Liang's oration "Science-Engineering and Humanities" in 1948 seemed to

[713] Samuels, "What Kind of Capitol for the U.N.?."
[714] Wang, "Recalling Liang Sicheng's Pedagogical Stories 忆梁思成先生教学事例数则," 19.
[715] Liang Sicheng, Deng Yizhe, and Chen Mengjia, *Proposal for the Establishment of an Art History Research Laboratory 設立藝術史研究室計劃書* (Beijing: Tsinghua University, 1947).

echo Lorch's 1922 article, "The Architectural Student and His Relation to Professional Practice." Lorch wrote:

> *The fundamental idea of the college is, after all, to increase resource and power; to develop [whole] men, to train them for good citizenship rather than narrow vocationalism or professionalism. They must be able to do their elected work, but they must also be prepared to give whole-hearted cooperation to the furtherance of civic, state and national well-being. ... If he [the student] can give time to a fair amount of liberal or cultural studies, he will more readily understand human relations and learn to distinguish ethical values.*[716]

Lorch's choice of words and examples reverberated in Liang's published script of "The Half-A-Man World":

> *Having no idea of the history, culture, and living style when one visits meaningful places like China or Italy and becomes discontent with them due to illiteracy, such a person is "one-quarter man"…To be frank, we are a half- or one-quarter man and have no right to treat them with indignity…Therefore, we must understand what the demands of a city are and, as a result, we can make an original contribution to people by putting ourselves in another's position.*[717]

Lorch's article may well have helped convince Liang of the value of the University of Michigan's curriculum.

7.3.2 The Use of Objects

Most scholarship has suggested that Liang shifted his role from that of an architect-architectural historian at NNU to that of a city planner at Tsinghua. However, his city planning at Tsinghua was characterised almost solely by the Liang-Chen Proposal, and

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[716] Emil Lorch, "The Architectural Student and His Relation to Professional Practice," *The Annals of the American Academy of Political and Social Science*, vol. 101, The Ethics of the Professions and of Business (May 1922): 118–119.

[717] Liang Sicheng, quoted in Yang Deren, "After Reading 'the Half-A-Man World' 讀「半個人的世界」書後," *World Monthly 世界月刊 (Shanghai 1946)*, vol. 3, no. 6 (1948): 21. Yang's article is precious for it contains approximately 3,000 words cited from Liang's missing script.

this interpretation of his career indiscriminately dismisses his design work as being on a lesser scale and subsumed into the broad category of general patriotism. (Such design work included the national flag, national emblem, and the Monument to the People's Heroes during the early post-liberation period.) This thesis argues, alternatively, that Liang's 'scalar expansion' of architecture at both ends was a key aspect of his work, and that he built upon this expanded view of architecture when crafting his vision for modern Chinese pedagogy at Tsinghua.

Specifically, I deem that Liang's previous education in the late 1920s in Harvard's Division of Fine Arts at the Fogg Museum influenced his view that architecture students (and planning students) should study art objects and handicrafts. Building on this learning, which had been under his belt for two decades in the late 1940s, Liang not only hoped to create a Department of Industrial Art at Tsinghua within his planned College of Building, based on his visit to Frank Lloyd Wright's Taliesin, he also intended to help set up a Department of Art History in the College of Letters as well as to amass a museum collection of objects—similar to the ones at the Fogg Museum or at Cranbrook—for Tsinghua's students to study.[718] In all these ways, Liang, inspired by both his own education and by his experiences in the USA in 1946–1947, tried to encourage the creative adaptability of modernism but also to imbue it with craftsman-like handiwork as well his physical-environment-oriented pedagogy at Tsinghua.

7.3.2.1 Department of Industrial Art

The idea of a 'whole man' (of which more in Chapter 6) underscored Liang's and Lorch's greatest similarities and differences. Both architectural educators agreed that another year of schoolwork should be added to the current programme of four years in their respective colleges of engineering, but their expectation for these two more semesters of training varied. Lorch felt that this extra year should be used for infusing more cultural elements into architectural education. He wrote:

> *If, however, he [the student] immediately enters the customary limited professional course of but four years in architecture based on*

[718] Chen Mengjia, "The Establishment of Tsinghua University Cultural Relics Showroom 清華大學文物陳列室成立經過," *Ta Kung Pao (Tianjin)*, 1 May 1948.

> *a high school training, thus allowing very little time for cultural studies, the likelihood of his having a good general conception of the normative field is greatly lessened, for his chief preoccupation will be to make a practical success as possible as possible* [sic] *after graduation.*[719]

Lorch's definition of "cultural studies" would lead the University of Michigan's architecture programme to offer liberal coursework including English, German, a romance language, philosophy (usually ethics and aesthetics), and political economy.

Liang, on the other hand, while agreeing that cultural factors were very important, wanted to use the extra year to give his students practical design experience because Factory Internship was not compulsory for architectural engineering students per the Standard Minima in China.[720] Nevertheless, Liang's Subject A in Cultural and Social Background at Tsinghua mirrored what Lorch referred to as "cultural studies" at the University of Michigan. For them—both bearing in mind the idea of the whole man in the education of architect-planners—formal architectural education had superseded the apprenticeship system (*shitu zhi*; 師徒制) precisely because it provided a well-rounded education. Liang criticised modernists who dispensed with the cultural elements of architectural education.

For example, on 9 July 1947, after visiting the University of Michigan and Cranbrook, Liang visited Frank Lloyd Wright at Spring Green. Sidney Wong noted, "when [Liang] was in Taliesin visiting Wright, he was not [as much] impressed"[721] as most scholarship has assumed nowadays. Liang noted in his working diary:

> *That ancient monasteries, Chinese academies, and Medieval apprenticeships all merge into one which cannot be stranger [Fig. 7.18]. Nowadays, the students' living centres on him alone, who is already 78 years old. Once he passes away, Taliesen [sic] will die with him.*[722]

In other words, Liang was raising a critique of an architectural education centred on a

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[719] Lorch, "The Architectural Student and His Relation to Professional Practice," 119.

[720] In his Letter 1 in 1945, Liang had noted that the Standard Minima—legislated by himself in 1929—was flawed by the lack of Factory Internship for architectural engineering students (see the upper image of Figs. 7.19). He wrote to Tsinghua President Mei: "…the construction site is a place for practical training. Design and execution are equally stressed in order to hone creative minds for practical-oriented works."

[721] Sidney Wong, email message to author, 10 April 2021.

[722] Liang Sicheng, Working Diary (between 22 June and 1 August 1947), 9 July 1947.

single figure that took place in a contained environment, separate from the wider world and its social and cultural issues. Liang did not align Tsinghua's pedagogy with the discourses of any specific theorist, as Zhu Zixuan recalled:

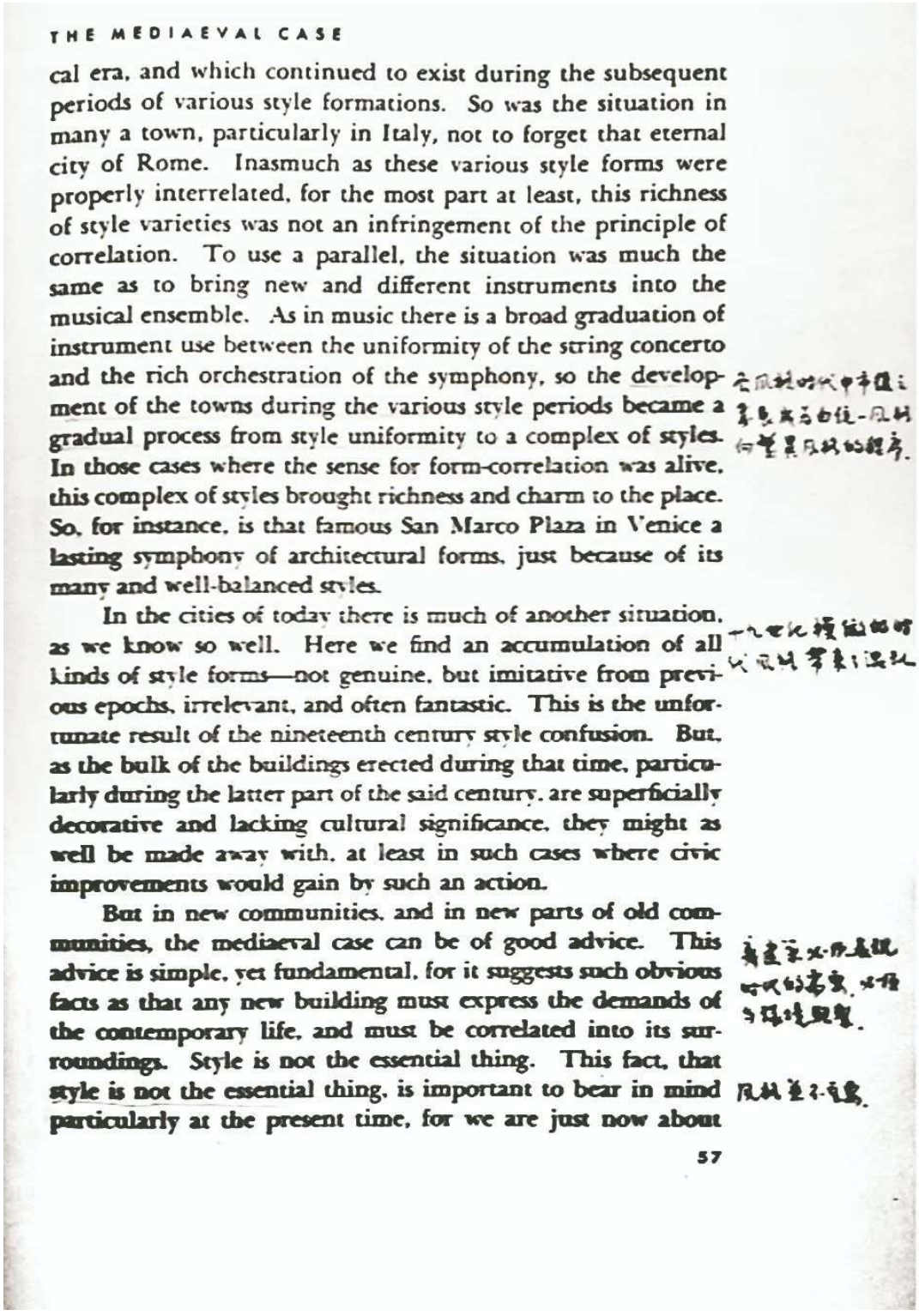
> *We also agreed with some Western masters, such as Gropius's Bauhaus school, Wright's [communalism] (a [Broadacre] city that grows naturally), Saarinen and Corbusier, etc. They fueled our urban design enthusiasm, but in the end: Where is the most fundamental theory? We cannot say very clearly.*[723]

It was then not surprising that Liang sent Wu Liangyong to study at Cranbrook with Saarinen, whose *The City* Liang annotated carefully [Fig. 7.19], rather than with Wright at Spring Green, even though Wu would have had an opportunity to obtain the Taliesin Fellowship with Liang's letter of recommendation [Fig. 7.20].[724]

[723] Zhang Jingyu and Du Yiming, "The Development of Urban Design in Chinese Architectural Education——An Interview with Zhu Zixuan 城市设计在中国建筑教育中的发展——访谈清华大学建筑学院朱自煊先生," *Design Community* 住区, no. 4 (2017): 120; On the social meaning of Wright's Broadacre city, see Mark B. Lapping, "Toward A Social Theory of the Built Environment: Frank Lloyd Wright and Broadacre City," *Environmental Review*, vol. 3, no. 3 (Spring 1979): 13.

[724] Elizabeth Bauer—who served as tour guide for Liang's visit at TVA in 1947—was accepted as one of the earliest apprentices at Frank Lloyd Wright's Taliesin and later was in charge of the exhibition "A New Country House by Frank Lloyd Wright: Scale Model (18 Jun–3 Sep)" at MoMA in 1946; see Lesser, "The Importance of the Personal."

Fig. 7.18 The interior space at Taliesin, 1952



THE MEDIAEVAL CASE

cal era, and which continued to exist during the subsequent periods of various style formations. So was the situation in many a town, particularly in Italy, not to forget that eternal city of Rome. Inasmuch as these various style forms were properly interrelated, for the most part at least, this richness of style varieties was not an infringement of the principle of correlation. To use a parallel, the situation was much the same as to bring new and different instruments into the musical ensemble. As in music there is a broad graduation of instrument use between the uniformity of the string concerto and the rich orchestration of the symphony, so the development of the towns during the various style periods became a gradual process from style uniformity to a complex of styles. In those cases where the sense for form-correlation was alive, this complex of styles brought richness and charm to the place. So, for instance, is that famous San Marco Plaza in Venice a lasting symphony of architectural forms, just because of its many and well-balanced styles.

In the cities of today there is much of another situation, as we know so well. Here we find an accumulation of all kinds of style forms—not genuine, but imitative from previous epochs, irrelevant, and often fantastic. This is the unfortunate result of the nineteenth century style confusion. But, as the bulk of the buildings erected during that time, particularly during the latter part of the said century, are superficially decorative and lacking cultural significance, they might as well be made away with, at least in such cases where civic improvements would gain by such an action.

But in new communities, and in new parts of old communities, the mediaeval case can be of good advice. This advice is simple, yet fundamental, for it suggests such obvious facts as that any new building must express the demands of the contemporary life, and must be correlated into its surroundings. Style is not the essential thing. This fact, that style is not the essential thing, is important to bear in mind particularly at the present time, for we are just now about

57

Fig. 7.19 Liang's Chinese synopsis on page 57 of Saarinen's *The City* (1943). In the lower righthand corner, his notes read, "New architecture must reflect the needs of the times and must be in harmony with the environment" and "Style doesn't matter."

DIRECTIONS FOR MAKING APPLICATION:

1. Fill out this form completely.
2. Submit examples of your creative work. (Sculptors and Ceramists send photographs only.)
3. Enclose Registration Fee of $10.00. Fee will be refunded if application is not accepted.
4. Secure and enclose a statement from your physician concerning your health and indicating any disabilities.
5. Enclose a written statement giving your reasons for wishing to attend the Academy, suggesting the ways in which you believe the Academy might help you develop your art, and indicating the professional use you expect to make of your experience here.
6. If a candidate for a degree, submit transcripts of previous educational records.
7. Arrange for a personal interview if possible.
8. List below the names and addresses of five mature persons including three instructors and two persons who are not relatives, who have known you recently and to whom we can write for information about your character, ability, and motivation.

REFERENCES:

Name *Dr. Liang Ssu-ching* Street Address *Department of Architecture,*
City *Tsing Hua University, Peiping, China* Zone State
Name *Mr. T. Pao* Street Address *No. 7 Chin Cheng Lee, Pao Hwa chieh.*
City *Hankow, China* Zone State
Name *Prof. T. P. Young* Street Address *Department of Architecture.*
City *National Central University.* Zone *Nanking* State *China*
Name *Prof. Hsü Chung* Street Address *Department of Architecture.*
City *National Central University* Zone *Nanking* State *China*
Name Street Address
City Zone State

NO APPLICATION WILL BE CONSIDERED UNLESS ACCOMPANIED BY THE DATA REQUESTED ABOVE, NOR WILL ACTION BE TAKEN UNTIL COMMENTS FROM REFERENCES HAVE BEEN RECEIVED.

I hereby agree to accept full responsibility for debts or other obligations incurred by *me* at the Cranbrook Academy of Art:

Liang-yung Wu
(Signature of applicant, or, if applicant is under 21 years of age, signature of parent or legal guardian.)

OC. SCHOL. – 45

Name WU, Liang-yung
Term No. 401 Second Main Street Pang-fu, Anhui, China
Number
REC'D MAR 22 1948
Action
DO NOT WRITE IN THIS SPACE

CRANBROOK ACADEMY OF ART
BLOOMFIELD HILLS, MICHIGAN

APPLICATION FOR ADMISSION

Please answer the following:

1. Subject in which you intend to specialize *Architecture*
2. Minor subjects, in order of preference *Design.*
3. Are you a veteran ______. If so, under which public act will you enroll ______.
4. Describe work which will be submitted with this application:
   Number of packages *ONE* Contents
   Air mail
   How submitted (i.e., in person, Parcel Post, Railway Express, etc.)
5. Address to which work should be returned *Mr. Wu Liang-yung Department of Architecture, Tsing Hua University, Peiping, China.*

Accept. letter sent Peiping address via air mail 5/14/48

Work rec'd 4/1/48

CRANBROOK ACADEMY OF ART
BLOOMFIELD HILLS, MICHIGAN

The person whose name appears below is applying for admission to this institution. The Academy will greatly appreciate your evaluation of the applicant. Kindly mail this form directly to the Secretary, Cranbrook Academy of Art, Bloomfield Hills, Michigan.

Name of Applicant *LIANG-YUNG WU*

Address of Applicant *DEPARTMENT OF ARCHITECTURE, TSING HUA UNIVERSITY, PEIPING, CHINA*

Ability *Able designer of high imaginative power.*

Character *Upright, streight forward.*

Personality *Most amiable + congenial.*

Seriousness of Purpose *Most consciencious scholar.*

Ability to Assume Self Direction *Most intelligent. Man of Intelectual honesty. Unquestionable ability to assume self direction in both life + work.*

Is Applicant Adjusted to Group Living? *Acustomed to college dormitory + Army Barrack*

Physical Disabilities *None.*

Remarks *As assistant in my department, I found Mr. Wu an able teacher and a dependable colleague.*

NATIONAL TSING HUA UNIVERSITY
國立清華大學
建築學系
DEPARTMENT OF ARCHITECTURE

Signature *Liang Ssu-ch'eng (Liang Ssu-ch'eng)*

Address *National Tsing Hua University*

Position *Professor + Chairman, Dept. of Architecture.*

Fig. 7.20 Wu Liangyong's application for admission to Cranbrook with recommendations from Liang Sicheng, Bao Ding, Yang Tingbao, and Hsu Chung, 1948 (above); Liang's letter of recommendation, revised by Lin, for Wu to study at Cranbrook, 1948 (below)

However, Liang was still rather impressed by the collective handiwork at Wright's Taliesin, where "apprentices are planting vegetables, raising cattle and chickens, doing carpentry, stonemason, metalworking, as well as building houses including maintenance on their own."[725] These scenes [Fig. 7.21] could have reminded Liang of University of Michigan Dean Bennett's introduction to Lorch's Architecture 17: "The Allied Arts of Design, lectures, and research, showed use of these principles [demonstrated in Elementary Design] in the entire artistic field; rugs, book covers, glass, mural painting, furniture, and interiors."[726] Taliesin's and the University of Michigan's programmes both shared a focus on craft, artisanship, and building work. Even growing vegetables and carrying out field work, as students did at Taliesin, shared the notion of working with one's own hands and manipulating materials, as students also did at the University of Michigan.

[725] Liang Sicheng, Working Diary (between 22 June and 1 August 1947), 9 July 1947.
[726] Lorch, "Dev. of Dec. Design Teaching in the College of Arch. [*sic*]" n.p., n.d., Box 1, Folder 11–9, Emil Lorch Papers, Bentley Historical Library, University of Michigan.

Fig. 7.21 Wright (middle) standing amid his apprentices working at Taliesin, 1953

Given that his Subject A had mostly covered Lorch's so-called "cultural studies," Liang wanted his student-architects to spend a fifth year "regard[ing] the construction site as a place for practical training"[727] by working in factories or workshop sites to obtain hands-on experience in making and building.[728] Although Tsinghua never had a chance to extend its curriculum length in this way until the 1952 restructuring of the higher education system,[729] Liang hired Gao Zhuang, an able instructor of arts and crafts who taught a carpentry course (a subject that Liang had already set up in the national standardised curriculum in 1929, see the lower image of Figs. 7.19). Gao Yilian explained in a phone interview:[730]

> *Then, we also had to learn carpentry. It is in this that we learned with Bauhaus methods. We made little stools and towel-holders. We had a small room, which was originally a garage, in which we worked and*

[727] Letter from Liang Sicheng to Mei Yiqi, 9 March 1945, Tsinghua University Archives.
[728] Liang Sicheng, "Draft Plan of Academic Structure and Programme in the Department of Yingjian (Now Known as the Department of Architectural Engineering) at Tsinghua University 清華大學營建學系（現稱建築工程學系）學制及學程計劃草案," *Wen Wei Pao (Shanghai)*, 10 July, 1949.
[729] Then it became six years per the Soviet experts' advice; however, it had a completely different setting aligned solely with Subject B on Science and Engineering, training what Liang would call 1/2 architects.
[730] Guo, Gao and Xia, *Chinese Master Architect: Liang Sicheng 一代宗师梁思成*, 152.

> *produced a lot of noise. Our teacher was a sculptor, but he was very good at carpentry. This indeed was the thought of the Bauhaus: The Bauhaus thought to 'do it yourself,' to 'employ your own hands.' This thought, together with its whole curriculum, was reformed in 1952. The Russian education system was introduced because we all had to learn from Russia and adapt to its education model.*[731]

While most students, like Gao Yilian, would attribute the teaching of handicrafts to the recently fashionable Bauhaus, this can be challenged by examining another one of Liang's courses, which was similar to the University of Michigan's Architecture 17. Tsinghua's students took this course in their junior year, when Liang offered the course Vision and Design (*Shihjyueh yu tuan*; 視覺與圖案, see Table 6.1 in Chapter 6). In Allied Arts at the University of Michigan, Lorch focused upon the 1890s to the early twentieth century as the site of vital progress in modern architecture, while in Vision and Design at Tsinghua Liang undertook similar teaching but went further, to the mid-nineteenth century. In this light, Lorch's and Liang's pedagogical landscapes stretched beyond that of the Harvard Bauhaus. This thesis, however, does not aim at a conclusive argument for the origin of such a pedagogical idea of 'learning by doing'; instead, to echo Mei Yiqi's credo quoted at the very beginning of this chapter, I would like to highlight the function of a modern university characterised by progressive teachers like Lorch and Liang, who seized on curriculum in the sciences and liberal arts at the University of Michigan and Tsinghua to enable architect-students to remain sensitive to historical precedents and other contextual questions, yet free to search for their own usefulness, whether American or Chinese, in the design discourse and handiwork practice of modern architecture.

Not only did Liang's pedagogy at Tsinghua resonate with the endeavours of both the Elementary Design and Allied Arts courses at the University of Michigan, but his 'second life' in China's architectural education also assimilated some of the concerns articulated by Frank Lloyd Wright at Taliesin—as did Lorch's at the University of Michigan. According to student Yu Jinwen, it was owing to the impact of Wright that Liang proposed the fifth year of workshop training for architecture students and that Gao Zhuang taught

[731] Gao Yilian, phone interview with author, 6 December 2020.

them to make a Carrom board.[732] Inviting an able sculptor to teach carpentry and offering a hands-on Vision and Design course in the junior year, along the lines of the Physical Environment theme much heralded at Tsinghua, showed how the modern-day term 'design' had gained central importance for Liang upon his return to China [Fig. 7.22].

Fig. 7.22 Lin Huiyin (left) working with Gao Zhuang (right) on the design of the national emblem, 1950. Although Gao taught the carpentry course only, through his talent in various domains of design as "a master of industrial arts,"[733] he made great contributions to the artistic creation of Liang's department of architectural engineering.

The idea that art and architectural education should make a student a 'creative' rather than an 'adaptive' worker was very vital to the idea of modernity within the theory of Pure Design. The German system in the Midwest was appealing because it also was focused on individual attainments and examinations and not on the pure competition with each other.[734] There were also many Chinese architects who honed their talent at the University of Illinois (Urbana-Champaign) but have been overlooked in recent scholarship and overshadowed by the "Chinese contingent" at the University of Pennsylvania. For example, there was Zhou Buyi at Tsinghua, noted above, and even the first Chinese American-trained architect, Zhuang Jun, who returned to China in 1914.

[732] Du, *Commemorative collection of the first, second, third, and fourth graduating class of the Department of Architecture of Tsinghua University* *清华大学建筑系第一、二、三、四届毕业班纪念集*, 41.

[733] Guo, Gao and Xia, *Chinese Master Architect: Liang Sicheng* *一代宗师梁思成*, 152.

[734] Anthony Alofsin, "Tempering the Ecole: Nathan Ricker at the University of Illinois, Langford Warren at Harvard, and Their Followers," in *The History of History in American Schools of Architecture, 1865–1975*, eds. Gwendolyn Wright and Janet Parks (The Temple Hoyne Buell Centre for the Study of American Architecture, with Princeton Architectural Press, 1990), 74; see also Roula Geraniotis, "The University of Illinois and German Architectural Education," *Journal of Architectural Education* 38, no. 4 (1985): 15.

Possibly Liang was attracted to this kind of pedagogy because, while it featured the creative pursuits of individuals that Western capitalism foregrounded, it also favoured teamwork—as he had experienced at the UNHQ—over competition and thus meshed with the values of socialist China. About the teamwork at the UNHQ, Liang said:

> *My feeling is that this group of [UNHQ] buildings should be not only international in character, but un-national—expressing no country's characteristic but expressive of the world as a whole. If a commercial building like Rockefeller Center gave people in it the feeling that they were the United Nations, I would say that the building was not well designed. And vice versa, if the U.N. group gave the people in it the feeling of Rockefeller Center, I would say that it was not well design.*[735]

7.3.2.2 Department of Art History

When Liang adopted a similar design pedagogy to Lorch's at Tsinghua, he also drew on his own early educational experiences. Completing architectural study at the University of Pennsylvania in 1927, Liang also went to Harvard that fall—to the university's Division of the Fine Arts at the Fogg Museum of Art—to work with Sinologist Langdon Warner. According to Liang's formal application submitted to the Harvard Division in the summer of 1927 [Fig. 7.23], he was not applying to the doctoral programme—as Fairbank said—but a second master's degree.[736] Besides, his research was not as specific as "a history of Chinese palaces"[737]—as Fairbank's followers noted—but relatively general: "ARCHEOLOGY, WITH SPECIAL EMPHASIS TO ORIENTAL ARCHITECTURE." Upon Liang's arrival at Harvard, a quarter century later than Lorch at the same venue, Ross had shifted his career from the School of Architecture to the Division of Fine Arts. He developed his Ross Study Series by eventually amassing over sixteen thousand items, a hard-won collection of artistic objects from which this design theorist tried to draw universal principles by presenting a scientific approach to the various fields of design.

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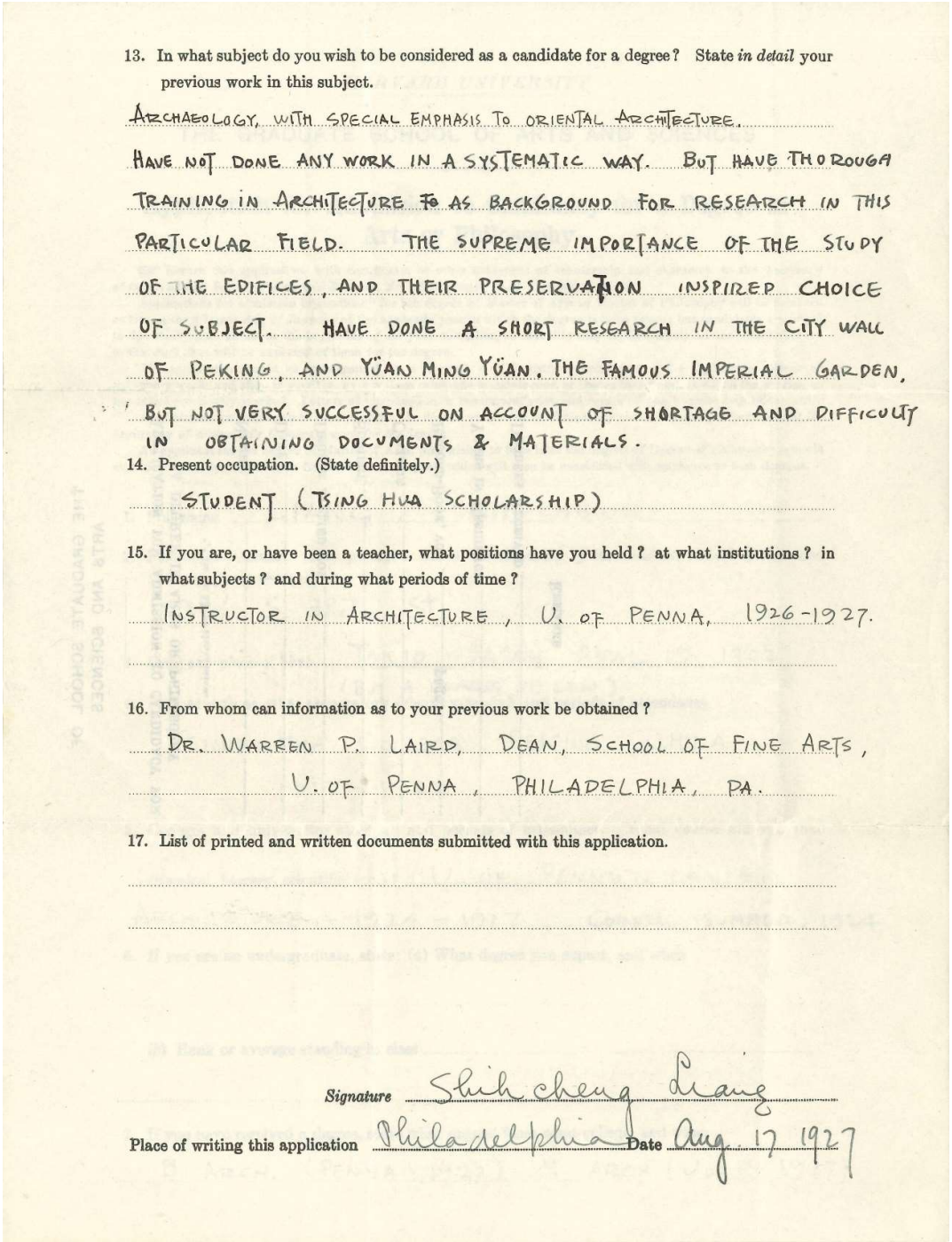
[735] Liang Sicheng, when asked by *New York Times* journalist Gertrude Samuels, "What Kind of Capitol for the U.N.?."

[736] Harvard Alumni Directory (Cambridge, Mass.: Harvard University, 1955), 756.

[737] Li Shiqiao, "Writing a Modern Chinese Architectural History: Liang Sicheng and Liang Qichao," *Journal of Architectural Education* 56, no. 1 (2002): 43.



13. In what subject do you wish to be considered as a candidate for a degree? State *in detail* your previous work in this subject.

ARCHAEOLOGY, WITH SPECIAL EMPHASIS TO ORIENTAL ARCHITECTURE.
HAVE NOT DONE ANY WORK IN A SYSTEMATIC WAY. BUT HAVE THOROUGH TRAINING IN ARCHITECTURE TO AS BACKGROUND FOR RESEARCH IN THIS PARTICULAR FIELD. THE SUPREME IMPORTANCE OF THE STUDY OF THE EDIFICES, AND THEIR PRESERVATION INSPIRED CHOICE OF SUBJECT. HAVE DONE A SHORT RESEARCH IN THE CITY WALL OF PEKING, AND YÜAN MING YÜAN, THE FAMOUS IMPERIAL GARDEN, BUT NOT VERY SUCCESSFUL ON ACCOUNT OF SHORTAGE AND DIFFICULTY IN OBTAINING DOCUMENTS & MATERIALS.

14. Present occupation. (State definitely.)

STUDENT (TSING HUA SCHOLARSHIP)

15. If you are, or have been a teacher, what positions have you held? at what institutions? in what subjects? and during what periods of time?

INSTRUCTOR IN ARCHITECTURE, U. OF PENNA, 1926-1927.

16. From whom can information as to your previous work be obtained?

DR. WARREN P. LAIRD, DEAN, SCHOOL OF FINE ARTS,
U. OF PENNA, PHILADELPHIA, PA.

17. List of printed and written documents submitted with this application.

Signature Shih cheng Liang

Place of writing this application Philadelphia Date Aug. 17 1927

Fig. 7.23 Liang's application for studying art history at Harvard's Fogg Museum, 1927

Instead of the original Architecture 7—Theory of Design: Pure Design (Balance, Rhythm, and Harmony) and Design in Representation—that he had taught at Harvard's School of Architecture, this sort of pedagogy based on art objects instead of facts became Ross's "Fine Arts 1a: Principles of Drawing and Painting and Theory of Design" at the Fogg

Museum of Art. This course became a prerequisite for all majors within Harvard's Division of Fine Arts, including those who wanted to take either Fine Arts 10a (Elementary Architectural History, Drawing and Design) or 10b (Elementary Architectural Design) for their future professional study in Landscape Architecture (13a) or Architecture (4a).[738]

Liang's enrolment was fortuitously timed to allow him to meet with prominent art historians [Fig. 7.24]. It was such object-oriented study that enabled Liang, during the late 1930s and 1940s, to apply his Fogg classmate Henry-Russell Hitchcock's seminal classic *International Style: Architecture Since 1922* (co-authored with Philip Johnson in 1932) to demonstrate the similarity between traditional Chinese architecture and modernist Western architecture.[739] As shown in Liang's teaching slides at Yale, likewise, his claim of Greek influence in the use of bases and pedestals for Chinese buildings [Fig. 7.25] explained his belief in renewing Chinese architecture at a time when the apparent higher standards of hygiene, safety, and comfort of Western buildings were greatly impressing the Chinese public and young Chinese architects.

[738] "Announcement of the Courses of Instruction offered by the Faculty of Arts and Sciences, 1927–28," Official Register of Harvard University, vol. XXIV, September 19, 1927, no. 41 (Cambridge, Mass.: Harvard University, 1955), 56, 59.

[739] Liang Sicheng and Liu Zhiping, "Preface," in *Pictorial References for Architectural Design* (Beijing: Society of Research in Chinese Architecture, 1935). n.p.

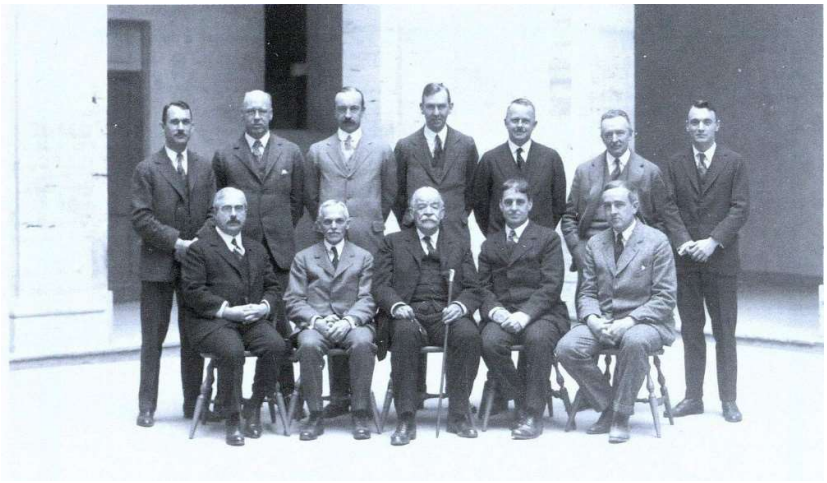


Fig. 7.24 Harvard faculty of art historians in the courtyard of the new Fogg Museum of Art, Warner standing second from the left and Ross seated in the middle, 1927. (Kenneth Conant, standing at far right, helped GSD Dean Joseph Hudnut teach the history of civic design courses in 1942, as mentioned in Chapter 3.)

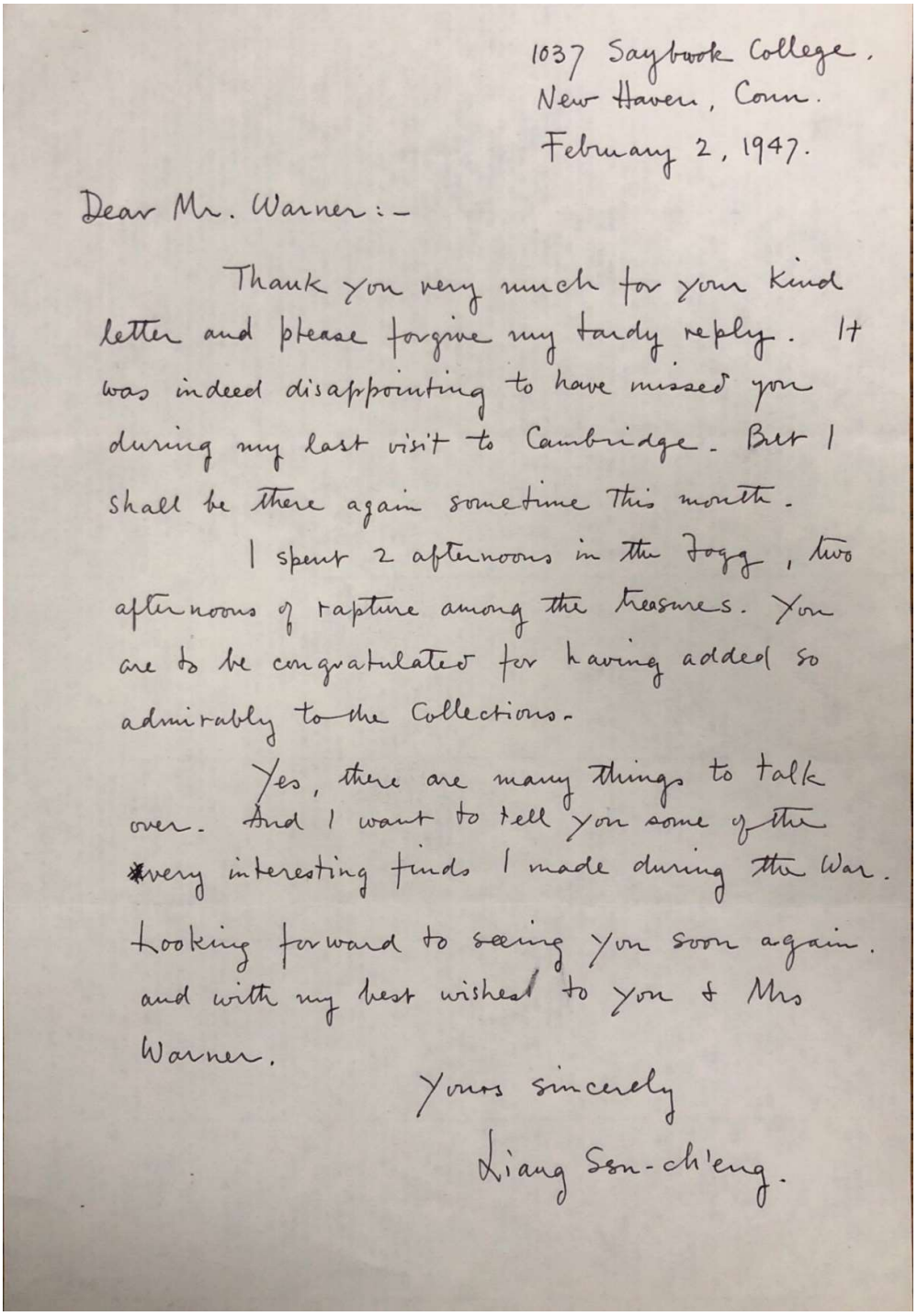
Fig. 7.25 In this course slide from his teaching at Yale in 1946–1947, Liang likened China's *dougong* (a system of brackets) to Western *order*—THE CHINESE 'ORDER.' He claimed in 1954, "in this way of development, Chinese architecture is exactly the same as the classical architectural systems of Greece and Rome in Europe."[740] This was published in his posthumous *A Pictorial History of Chinese Architecture* in 1984.

In his letter to Warner during his second trip to the USA, Liang stated his interest in object studies: "I spent two afternoons in the Fogg, two afternoons of rapture among the treasures. You are to be congratulated for having added so admirably to the Collections" [Fig. 7.26]. (One of these afternoons could have been before a lecture Liang gave at the Fogg on a Friday at 4 p.m.; see Fig. 7.27) For his intended industrial art department in a building college, Liang would have to provide its students with a good collection of objects to study. In addition to Industrial Design—of daily utensils, furniture, vehicles and vessels, clothing, textiles, and pottery—and Industrial Art Practice, Liang's Department of Industrial Art was amongst four departments (all except for architectural engineering) that included a Vision and Design course akin to the University of

[740] Liang, "The Characters of Chinese Architecture 中国建筑的特征," 39.

Michigan's Allied Arts of Design (Architecture 17). This course was described thus: "Designs are made for a piece of furniture, decorative glass, metal and mosaic and of other objects or features commonly used in connection with architecture"[741] [Fig. 7.28].

[741] "Nature of Courses, College of Architecture," in *University Bulletin, Catalogue of the University of Michigan for 1914–1915* (1915), 313.



1037 Saybrook College,
New Haven, Conn.
February 2, 1947.

Dear Mr. Warner:—

Thank you very much for your kind letter and please forgive my tardy reply. It was indeed disappointing to have missed you during my last visit to Cambridge. But I shall be there again sometime this month.

I spent 2 afternoons in the Fogg, two afternoons of rapture among the treasures. You are to be congratulated for having added so admirably to the Collections.

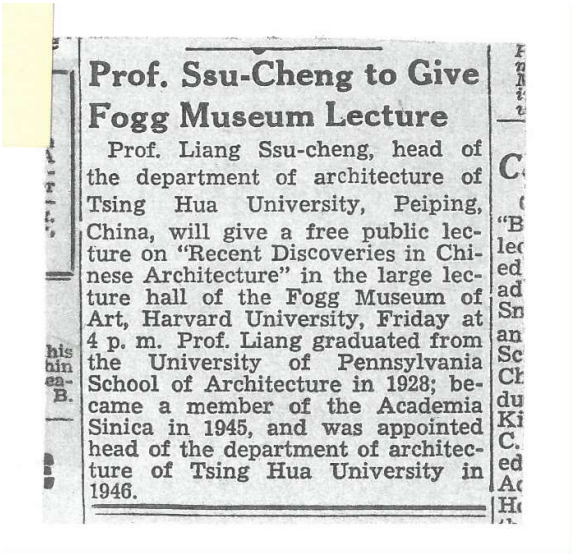
Yes, there are many things to talk over. And I want to tell you some of the very interesting finds I made during the War.

Looking forward to seeing you soon again. and with my best wishes to you & Mrs Warner.

Yours sincerely

Liang Ssu-ch'eng.

Fig. 7.26 Letter from Liang to Warner regarding Museum Study Series, 2 February 1947



Prof. Ssu-Cheng to Give Fogg Museum Lecture

Prof. Liang Ssu-cheng, head of the department of architecture of Tsing Hua University, Peiping, China, will give a free public lecture on "Recent Discoveries in Chinese Architecture" in the large lecture hall of the Fogg Museum of Art, Harvard University, Friday at 4 p. m. Prof. Liang graduated from the University of Pennsylvania School of Architecture in 1928; became a member of the Academia Sinica in 1945, and was appointed head of the department of architecture of Tsing Hua University in 1946.

Fig. 7.27 A newspaper clipping about Liang's lecture at the Fogg, Recent Discoveries in Chinese Architecture (one of his FECS keynote speeches), attached to the letter sent to Fairbank by Liang, 28 June 1947. (In it, Liang also mentions "Mrs Elizabeth Mock," whom he would meet to visit TVA shortly.)

Fig. 7.28 Fresco painted in a craftsman-like way by students in the west corridor of the Architectural Building at the University of Michigan

Tian Xuezhe (Class of 1951) recalled about Vision and Design, "One could find their

exercises including teaware, lamps, and lanterns, the cover design of an architecture periodical, a memorial for musician or litterateur."[742] Such a "Study Series" idea, rooted two decades earlier in the 1920s, would be indeed reinforced through Liang's 1947 attendance at the PMPE conference examined in Chapter 6 (which focused on the expansion of architectural education to include design on scales both larger and smaller than individual buildings). It also was an interest Liang shared with fellow participants in the later FECS Conference, where he offered keynote lectures and hosted a photo exhibition for the international attendees who gathered at Princeton University, including his Tsinghua colleagues Feng Yulan (Philosophy Department) and Chen Mengjia (Chinese Literature Department). Upon returning to China, they came up with ideas concerned with the founding of Tsinghua's Department of Art History and, following their shared FECS experience, a university museum to facilitate Study Series oriented education.

There were only a few university museums in the 1940s. Still, the Fogg and the Freer Gallery in Washington on the Smithsonian campus already owned splendid collections of Chinese cultural and historical relics at that time. Knowing well the tragic loss of Chinese antiquities owing mainly to turbulent political and social upheavals (ranging from the late Qing dynasty to the early Republic era), the three Tsinghua professors at the FECS Conference realised the necessity of founding both an art history department and an auxiliary museum.[743] Testifying to the importance of object study for an architect (or a designer in a broader sense), along with foundation and history courses, Liang rallied experts from different departments to organise another "SRCA"—this time, the Society for Research in Chinese *Arts*—in November 1947. The group started purchasing curios based on budgets originally allocated for books. In this way, the predecessor of the 1950 Tsinghua Museum—a makeshift relics showroom, not unlike the Ross Study Series, housed within the library—opened to the public on 29 April 1948, the University's 37th anniversary.[744] Although this makeshift collection contained mostly utensils and was

[742] Tian Xuezhe, Yu Jingzhi and Lu Xiangdong, *Formal Composition Analysis* (Beijing: China Architecture & Building Press, 2005), n.p.

[743] Chen, "The Establishment of Tsinghua University Cultural Relics Showroom 清華大學文物陳列室成立經過."

[744] Another Professor, Deng Yizhi, assisted in this regard. Affiliated departments at Tsinghua included Chinese Literature, Philosophy, Anthropology, History, Geology, Foreign Languages, Society, and, of course, Liang's architecture. See Yao Yaxin and Tian Qian, "Origin of the Research for Chinese Art History in Tsinghua University: From the Plan of Art Department to the Foundation of Tsinghua Museum 清华大学

much inferior to Ross's at Harvard in terms of quantity and diversity, according to Chen Mengjia's 1944–1948 survey trips overseas, Tsinghua's art exhibit was of the same stature as those at the University of Pennsylvania, Yale, and Stanford.[745]

Much to the dismay of the museum's advocates, however, their appeals to establish an art history department in the College of Letters and a full-fledged art museum were both turned down in late 1948 by the Nationalist government. On the one hand, the university policy at that time was to develop mainly science and engineering disciplines;[746] on the other, as already noted on Letter 3, the Nationalist government was under stresses that made it unlikely to approve new university initiatives: It was beset by the People's Liberation Army (PLA), and more and more collegiate youth were becoming interested in the CCP due to the occurrence of the Civil War right after the eight-year-long War of Resistance.[747] Not until 1950, after the founding of the People's Republic, was a Committee of Tsinghua Museum officially formed, with Liang, in place of Feng, as its chairman. Although it inherited the earlier library exhibit, purchase funding, and logistics supply, the museum became aligned strictly with promoting the CCP's revolutionary socialism, and research on China's art history at Tsinghua shrank into just a study major within the Department of Philosophy for expediency until 1952.[748]

Liang's vision of developing a university art museum on a par with the ones he had visited in the USA did not come to meaningful fruition. The things that had caught Liang's eye

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艺术史研究探源——从筹设艺术系到组建文物馆," *Journal of Harbin Institute of Technology (Social Sciences Edition)* *哈尔滨工业大学学报（社会科学版）*, no. 4 (2006): 19.

[745] At the rank of the Fogg and Freer, those outside the USA included the Östasiatiska Museet (Museum of Far Eastern Antiquities) in Stockholm and the Royal Ontario Museum in Toronto. See Chen, "The Establishment of Tsinghua University Cultural Relics Showroom 清華大學文物陳列室成立經過."

[746] Yao and Tian, "Origin of the Research for Chinese Art History in Tsinghua University 清华大学艺术史研究探源," 20. Located in a former imperial garden outside the city, within whose walls both Beida and Yenching were housed (the latter moved to its suburban campus close to Tsinghua in 1926), Tsinghua was alone amongst the three in developing a school of engineering from the very beginning; see Israel, "The Beida-Tsinghau Connection," 297, 299.

[747] Xu and Sun, *Selected Historical Materials of Tsinghua University (vol. 4)* *清华大学史料选编（第四卷）*, 186. As mentioned previously, it was about the same time that Liang's own appeal to change his department title from architecture to building and to divide senior courses into architecture and city planning groups was also rejected by the Ministry of Education. See Liang, "A Letter to the Ministry of Education on behalf of Mei Yiqi 代梅贻琦拟呈教育部代电文稿," 5, note 1.

[748] Yao and Tian, "Origin of the Research for Chinese Art History in Tsinghua University 清华大学艺术史研究探源," 21–22.

at Cranbrook were not only its impressive landscape,[749] on the academy's 300-acre estate, but also the beautiful objects made by the university's students and staff. Liang penned in his working diary: "Toured by [Wallace] Mitchell in details to each part of the campus, handicraftsman students have mechanised tools that facilitate their work [Fig. 7.29]. The Art Museum possesses exquisite silverware designed by [Eliel] Saarinen."[750] Besides, it is worth mentioning that Saarinen, as Cranbrook's Art Council chairman, was planning a music department. Liang's scheme in founding an art history department at Tsinghua, likewise, included a music major alongside the more conventional fields of study in history and archaeology.[751]

[749] During his presidency at the Academy from 1932 to 1946, Eliel Saarinen designed most of the main buildings on the Cranbrook soil, including the Cranbrook School for boys (1926), the Art Academy, which was the centrepiece of the estate (over a period of several years from 1928 on), the Kingswood School for girls (1929), and his own residence (1930), as well as the complex of the library and museum, in many ways his best on campus, completed by 1942. See Paul Goldberger, "The Cranbrook Vision," *The New York Times Magazine*, 8 April 1984, https://www.nytimes.com/1984/04/08/magazine/the-cranbrook-vision.html.

[750] Liang Sicheng, Working Diary (between 22 June and 1 August 1947), 8 July 1947. The campus tour took place after visiting the senior Saarinen's even more well-known son Eero's office, where he was working on the Detroit Civic Centre, a project that perhaps reminded Liang much of his recent participation in designing the UN's headquarters; see Liang, "Liang Sicheng's Working Diary: An Excerption 梁思成工作笔记摘录," 131–132. Mitchell later served as Cranbrook's President; however, this was during a bleak time at the Academy (due to financial difficulties after Booth's death in 1949 and the loss of distinguished faculty, such as Charles Eames and his wife, Ray, who left for California in the early 1940s, and the elder Saarinen, who passed away in 1950). This lasted from 1970 to 1977, until Roy Slade took over to make significant improvements.

[751] "When fully developed, the Academy is planning to include departments of architecture, design, decoration, drawing, painting, sculpture, drama, landscape design, music and artistic craftsmanship," see: Anonymous, "Cranbrook: An Interesting Experiment," *The American Magazine of Art*, vol. 22, no. 2 (February 1931): 142. Wu also underscored the would-be music department at Cranbrook; see Wu Liangyong, "The Lessons of Eliel Saarinen 沙里宁的教诲," in *Academic and Cultural Miscellany of Wu Liangyong 吴良镛学术文化随笔*, ed. Wu Liangyong (Beijing: China Youth Publishing Group, 2002), 264. For Tsinghua's part, see: Xu and Sun, *Selected Historical Materials of Tsinghua University (vol. 4) 清华大学史料选编（第四卷）*, 184–185.

Fig. 7.29 The condition and equipment of the handicraft workshop at Cranbrook, 1944. Woodworking instructor Svend Steen stands amid his apprentices with work in progress.

In this light, Liang was neither modern nor traditional, but a gentle and inventive mix; on the one hand, he was a nativist in the Arts and Crafts line like his Fogg peer Hitchcock; on the other, he called for Chinese modernism—not unlike Lorch called for American modernism—and by "modernism," he did not just mean attuning traditional modes to the machine-aesthetics of the International Style in the modern age. Teaching at a pre-eminent national university under the Standard Minima issued by China's Ministry of Education in 1939, Liang could not outright model his school after, for example, Cranbrook, where there were "no grades and no classes, and each student is considered an 'artist-in-residence.'"[752] Nevertheless, he showed his own makeshift style of modernity and the way in which he took up the contested Chinese discourses of the modern and the traditional in telling ways. For example, he did not dispatch Wu to an Ivy League University but rather to the senior Saarinen in the American West. As an architect-teacher, he led his architecture students at Tsinghua to embrace a kind of modernism, one that reflected midwestern institutes like the University of Michigan and Cranbrook more than GSD and the Bauhaus. Paul Goldberger once said that Cranbrook "is more frankly picturesque, and contains more visual richness, ornament, texture, and even historical

[752] Goldberger, "The Cranbrook Vision."

allusion."[753] It was this sort of modernism, one that encompasses contested discourses and could accommodate the unique history of China, that Liang strived to implement at Tsinghua.

[753] Ibid.

Chapter 8. Conclusion

8.1 Huang and Liang: A Tale of Two Architect-Teachers

As a result of the USSR-assisted 'college-department rearrangement' (*yuanxi tiaozheng*; 院系調整) in China's higher education system, there were eight architectural programmes within the 182 universities nationwide (*laobaxiao*; 老八校) in the 1950s.[754] They remain the most influential ones in China to this day. When it comes to the founders of the pre-1952 architectural programmes in China, Huang Zuoshen and Liang Sicheng, in their roles as architect-teachers, are exemplary among the Chinese architects who taught at these fledging institutions. As this thesis asserts, most of this group were architect-builders whose teaching was often secondary to practice-oriented obligations,[755] such as Lau Fook Tai at NCU (and Liu Shying and Liu Dunzhen at its predecessor SISS), Shen Liyuan at Tianjin, Lin Kemi at Xiangqin, and Huang Jianhua at Chongqing.

Huang and Liang never sought wealth or fame as architect-teachers, nor did they like to be dependent on others. Huang and Liang's archives reveal them to be relative loners for whom professional fulfilment lay in learning, writing, and teaching. On the other hand, their contemporaries like Lau, Liu, Shen, Lin, and Huang Jiahua—to name just a few—were architect-builders of notable projects throughout China.[756] Their connections with education were more tenuous than those of Huang and Liang, given their practical work outside of, and often far away from, their places of teaching. Many of them started to teach only in the mid-1930s as China went to war and their professional practice waned.

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[754] K. Sizheng Fan, "A Classicist Architecture for Utopia: The Soviet Contacts," in *Chinese Architecture and the Beaux-Arts*, eds. Jeffrey W. Cody, Nancy S. Steinhardt, and Tony Atkin (Honolulu: University of Hawai'i Press, 2011), 95. For a description of the ideological framework of China's higher education rearrangement and its consequence, see also Ruth Hayhoe, *China's Universities, 1895–1995: A Century of Cultural Conflict* (New York and London: Garland Publishing, 1996), 73–114.

[755] One only needs to think about the composition of the Society of Chinese Architects (SCA); see Membership of the Society of Chinese Architects, *The Chinese Architect*, no. 1 (1933), 39–40.

[756] These architects included NCU's US-trained Lau (a superintendent, with Poy Gum Lee in the later phase, of Lu Yanzhi's Sun Yat-sen Mausoleum in Nanjing), Tianjin University's Italian-trained Shen Liyuan (founder of Hua Xing Architecture and Engineering, 1915), French-trained Lin Kemin (superintendent of Lu Yanzi's Sun Yat-sen Memorial Auditorium in Guangzhou) of Xiangqin University (which merged into the South China Institute of Technology as part of Zhongshan University), and the Chongqing Institute of Construction and Engineering's US-trained Huang Jiahua, who was recommended by German-trained Xi Fuquan; see their entries in Lai, *Who's Who in Modern Chinese Architecture* 近代哲匠录.

Huang and Liang not only devoted their lives and careers to architectural education but also stayed in China after 1949 when others moved elsewhere. What helped to keep them on board with the Communist project was an interest in a larger scale of architectural design and city planning of, in their cases, Shanghai and Beijing, respectively, in the postwar period. Their interest in the societal role for architecture also provided a specific framework for their pedagogy, developed through their unique contacts during their overseas training and their personal liaisons. This theme persisted in their pedagogy even after the restructuring of higher education in 1952.

This thesis focuses on modern Chinese 'architect-students' who received their training in the Departments of Architectural Engineering at SJU and Tsinghua. It demonstrates that the reality of twentieth-century modernism was far from a top-down 'standard historiography' reflecting the victor's narrative of a record of power.[757] This work also critiques Huang and Liang's roles as passive receivers of modern architecture from master-teachers in the West and argues instead that they took advantage of Western knowledge from their peers, colleagues, and in some cases even their students (learning from the bottom up) to modernise Chinese architecture.

Most surveys of architectural modernism in China have portrayed hero-architects educated overseas as marking the practices and programmes of modern architecture. Instead, I have treated Huang and Liang as 'human agents' of transcultural exchange between the West and the non-West, rather than between the modern and the nonmodern. In other words, by focusing on the architect-teachers of Chinese modernists, I have shown Huang and Liang to be useful figures running against the grain of mainstream historiography in China since both these architect-teachers tried to integrate traditional components with their professional pedagogies to be new, rather than to be modern or Western.

Huang and Liang were not random choices for this thesis since few architect-builders showed their readiness to embrace the newness as readily as these architect-teachers did, as shown in their teaching, speeches, and writing. With consummate skills in architectural teaching, they both at the same time yearned for something deeply Chinese, creative, and innovative. Because of their rich experiences with both Western modernism and other

[757] Denison and Guang, *Luke Him Sau*, 204.

traditions, this thesis argues that they were able to build a Chinese modernism in a way most architect-builders were not. In his seminal chapter in the 2007 book *Studies in Modern Chinese Architectural History*, Lai Delin explained "Science" and "National Character" as the Janus-faced nature of architect-builders in Republican China:

> *There were quite a few Chinese architectures in modernist style but the absence of **genuine modern architects**. This point of view is beyond saying, on the one hand, that the Chinese lack the consciousness of falling behind and, as a result, do not promote modern architectural theories such as **serving the masses**, **industrial production**, **mechanical aesthetics** and, on the other, that few pursuits of those who had ever designed modern-style architectural objects remain consistent.*[758]

Those architect-builders who designed "Chinese architecture in modernist style" based on their project patrons' wishes and the demands of various building types failed to be consistent in their practice. The following are a few examples. Xi Fuquan employed a form of European modernism in Shanghai's Hongqiao Sanatorium (1934) but added specific Chinese motifs in his Nanjing National Assembly Hall, Guo Hua Bank, and National Academy of Drama (all in 1935) to "avoid losing a taste of Chinese."[759] Allied Architects once "had a deal to give up Big Roof,"[760] but that was only feasible when they designed commercial and recreational facilities. At the same time, they designed Nanjing's Ministry of Food (1936) and Legislature (1937) in a Chinese style. Likewise, Kwan, Chu & Yang Architects leaned on Jitai's know-how about modernist methods merely for capitalist projects. Finally, according to Chang Po, Yang Tingbao appreciated Gropius's approach to modernism and worked it out in Beijing's Peace Hotel (1953)[761]; however, as an architect-builder, he honed his methods to manipulate architectural objects

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[758] Lai, "Science' Vs. 'National Character, 「科學性」與「民族性」," 220, emphasis added.

[759] Xi Fuquan, "Guo Hua Bank in Nanjing, China," *The Chinese Architect*, no. 28 (January 1937).

[760] Chen, Zhi (1983). "Yi Jing Gao Yuan, Cai Hua Heng Yi: Tribute to Tong Jun 意境高远，才华横溢——悼念童寯同志." In *The Architect+ (III): The Voices in the Past 建筑师丛书（第三辑：逝去的声音）*, ed. Yi Na (Beijing: China Architecture & Building Press, 2007), 155.

[761] Together with Xi's Hongqiao Sanatorium in Shanghai, Yang's Dalian Train Station (1930) was said to be one of the two earliest examples of authentic modern architecture in China; see Yang Bingde, *The Combination History of Sino-West Architectural Culture in Modern Times of China 中国近代中西建筑文化交融史* (Series of Research Library of Chinese Architectural Culture 中国建筑文化研究文库) (Wuhan: Hubei Education Publishing House, 2003), 203.

in imitation of the ancient.[762]

According to *A Global History of Architecture* (2017 [2007]), Chinese architecture entered the purview of the West in the seventeenth century. Western patrons and architects during the Enlightenment admired aspects of Chinese architecture, as reflected in the chinoiserie designs of the mid-eighteenth century.[763] In the following century, however, especially after Britain defeated China in the Opium War of 1839–1842, Chinese architecture fell into disrepute in the Western narrative of architectural history. In the fourth edition of the widely circulated textbook *Sir Banister Fletcher's Global History of Architecture* (1901, retitled from *A History of Architecture on the Comparative Method* published in 1896), Chinese architecture was first added but categorised into the 'non-historical styles.' This term echoed 'unhistorical history' in Hegelian Historicism, a concept the philosopher applied to China because he discerned neither historical development nor enhancement of rationality over time on the mainland. It was not until the seventeenth edition of *Sir Banister Fletcher's Global History of Architecture* (1961, the first edition after the death of Sir Banister Flight Fletcher), edited by R. A. Cordingley, that Oriental Architecture replaced those so-called non-historical styles.

It took the entire twentieth century (1896–1996) for *Sir Banister Fletcher's Global History of Architecture* to, in its twentieth edition edited by Dan Cruickshank, introduce the modern development of China's architecture to a worldwide readership. Nevertheless, it did so in a section that would cause Huang and Liang's delight and despair in equal measure. While Chinese architect-builders (i.e., Kwan, Chu & Yang, Allied Architects, Zhuang Jun, Lu Yanzhi, and Dong Dayou) and their built works were eventually added to the classic textbook, which has been widely used since they studied abroad in the 1920s and the 1930s, architect-teachers and their academic works were barely presented. Although the SRCA is mentioned, the book does not use its analysis as an editorial framework for other China-related content like *A Global History of Architecture* does. Still, China is almost absent in regard to the 18–19th centuries and even the first half of the 20th century as they are discussed in *A Global History of Architecture*.

[762] Chang Po, interview notes, 13 October 1991, courtesy of Lai Delin.
[763] Francis D. K. Ching, Mark M. Jarzombek, and Vikramaditya Prakash, *A Global History of Architecture* (Hoboken, N.J.: John Wiley & Sons, Inc., 2017 [2007]).

China's absence in international modernist histories is proof—if more proof was needed—of the West's supremacy in historical writing since the late nineteenth century. Framed this way to this day, China's architectural history, as shown in these publications disseminated and owned by many previous generations of architects globally, has been a narrative of the architect-builder. Instead, my work's attempts to focus on architect-teachers, trains its sights alternatively, and casts new light onto contemporary historiography by contextualising—rather than mapping—subject matters. Take Huang and Liang, for example. They realised Chinese modernity in the abstract—a mental endeavour of architectural thought exempted from the recent official accounts of modernism penned by Western authors.

With its long history of complex modernisations such as multifarious civilisations and four millennia of building traditions, China does not fit into the picture of a nation-state whose nature and history of nationalist consciousness sustained the same polity. It gave rise to contested discourses, what Prasenjit Duara called 'bifurcating linear history,' which contrasted against Western assumptions about continental-sized states like China and India.[764] Against this background, in this thesis I explore what Lai Delin calls China's "genuine modern architects."[765] I hypothesise that the "few pursuits of those who had ever designed modern-style architectural objects" that did "remain consistent" can be attributed to the architect-teachers like Huang and Liang who dedicated their careers to professional education and design pedagogies. (These "pursuits" include both the designs that emerged from their studio teaching and their real [built] buildings, although the latter were not numerous. As academicians, Liang and Huang had a certain degree of autonomy, independent of clientele or contractors, which they managed to guard and make good use of. In this thesis I propose that seeing through the lens of architect-teachers like them can give one a head start in understanding why "modernity in China," according to Lee, "was loosely defined……moving in a continuous 'stream' or 'tide' from the past to the present."[766] Huang and Liang never worked together, although at one point there was the possibility that they would both participate in the Beijing Masterplan Committee. Huang

[764] Prasenjit Duara, "Bifurcating Linear History: Nation and Histories in China and India," *Positions-east Asia Cultures Critique*, vol. 1, no. 3 (1993): 779–804.
[765] Lai, "Science' Vs. 'National Character, 「科學性」與「民族性」," 220.
[766] Lee, "Modernity and Its Discontents," 164.

failed to join, however, and so this opportunity was missed.[767]

Nevertheless, this comparative research was made possible by the similarities and parallels between Huang's and Liang's efforts to "modernise" Chinese art and architecture at a seminal moment in the history not only of the profession of architecture, but also of China. It is a work that attempts to fill the gaps created by preceding scholarship around this subject, which has tended to distance these two figures given the differences in their education (American Beaux-Arts versus Harvard Bauhaus) and the fact that they taught in two distinct cities, the treaty-port Shanghai and post-imperial Beijing respectively. Liang was not just an inward-looking architect-teacher, one who focused exclusively on China's long architectural history, even though he claimed his research on China's traditional architecture was a mission "against the times."[768] Likewise, Huang was not just an outward-looking architect-teacher who followed non-Chinese architectural trends at the expense of his own cultural inheritance; he refused to follow the Bauhaus and throw down the gauntlet against the study of history.[769]

Especially in terms of the back-and-forth exchange of ideas between China and the West, Huang and Liang both enacted their own versions of architectural education reform, at their respective venues of SJU and Tsinghua, while their counterparts around the world were reforming architectural education in their countries as well. Both could be said to have borrowed from Corbusier's and Giedion's similar, almost manifesto-like

[767] In his letter to the then Mayor of Beijing, Nie Rongzhen, Liang, as the vice president of the Beijing Masterplan, mentioned Huang, the chief planner in the promising Shanghai Masterplan between 1946 and 1948, before the official inauguration of the CCP on 1 October 1949; see Letter from Liang Sicheng to Nie Rongzhen, 19 September 1949, Tsinghua University Archives. In her interview with Fan Shupei (Class of 1948, SJU), Qian Feng remembered an anecdote about how Huang and Liang were once about to incorporate and work together: Per Liang's invitation letter, on 23 May 1949, Huang brought Fan and Ji Chuanshi northbound to Beijing for several meetings, one of which was the inauguration ceremony of the Beijing City Planning Board, also attended by Nie Rongzhen and specialists from the Construction Bureau. Although Liang Sicheng was in charge of the city planning, had won Huang's respect, and could make the final call on planning issues as the veteran cadre, Huang was concerned with the divergent urban micro-climates between outward-looking Shanghai and inward-looking Beijing. As a result, Huang foresaw the erroneous timing for reformative constructions and left only his students in the new capital; see Fan Shupei to Qian Feng, June 2001, courtesy of Qian Feng. In addition to Fan and Ji, SJU architect-students Hua Yizeng, Bai Demao, Li Ying, and Zhou Wencheng also went to Beijing later. To Liang's dismay, on one level, he failed to carve room for Five-United modernist teaching members like Wang and Cheang; on the other, he was unable to stand in the very vanguard of the Beijing Masterplan Committee with progressive Huang.

[768] Liang Sicheng, "Why Study Chinese Architecture 為什麼研究中國建築," *SRCA Bulletin*, vol. 7, no. 1 (October 1944): 5.

[769] One only needs to think of Huang's historical components in the Theory of Architecture (course number A.E. 5) as well as his support of Hajek's course in Western history of ancient architecture.

protestations in 1939 (the former writing "YOU ARE AN ORGANISER, NOT A DRAWING-BOARD STYLIST" in the first edition of the AA's *Focus*, while the latter said, "[We] are still too close, I am afraid, to *drawing-board* architecture"[770] at Princeton's PMPE conference). They both believed in the approach Sinnott summarised: "[Architecture] must be taught as parts of a great whole and against the background of all human knowledge, rather than as a privileged and superior discipline."[771]

Liang's curriculum featured the expansion of his environmental vision for architecture to include larger- (city planning) and smaller-scale (industrial arts) design, whereas Huang gathered a network of diverse faculty around him, some from overseas, in cosmopolitan Shanghai but also trained home-grown historians of Chinese architecture and gardens. As well as their interest in and Chinese version of the social position of an architect, both Liang and Huang were concerned with the values underlying architecture. This appeared in their innovative curriculum: Liang's concern with the half-a-man world vis-à-vis Huang's interest in traditional Confucian values. Arguably, it was in this internationalist approach where a cosmopolitan values-base seems to have been most visible at not only SJU but also Tsinghua.

Chinese scholars have overlooked the interplay between Huang's and Liang's contributions to early modern Chinese architecture and how their varied contributions helped build a pedagogical landscape for China's architecture before 1952. These two visionary architect-teachers and their leading roles in creating modern Chinese architectural education merit further study. Their contributions will be compared below using the lens of Liang's 1962 article "Architecture ⊂ (Social Science ∪ Technical Science ∪ Arts)"[772] in the *People's Daily*. This can provide a preliminary analysis upon

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[770] Sigfried Giedion, "The Need for a Basic Reform in Architectural Education," in *Building for Modern Man: A Symposium*, ed. Thomas H. Creighton (Princeton, NJ: Princeton University Press, 1949), 118–121, quote at 119. Written in upper case, the sentence that ended the essay reads "YOU ARE AN ORGANISER, NOT A *DRAWING-BOARD* STYLIST"; see Le Corbusier, "If I Had to Teach You Architecture," *Focus*, no. 1 (Summer 1938), 12. Giedion was a *Focus* contributor as well in no. 3 (Spring 1939) and no. 4 (Summer 1939). Gropius wrote, "More than anything else, the young architect of today needs to be trained practically in the use of tools and materials…The mere *drawing-board* is bloodless"; Walter Gropius, "Training the Architect," *Twice a Year: A Semi-Annual Journal of Literature, The Arts and Civic Liberties*, no. 2 (Spring–Summer 1939): 148. All emphases are not original.

[771] Edmund W. Sinnott, "Science and the Whole Man," *American Scientist* 36, no. 1 (1948): 138. A Centennial Special Issue of the Sheffield Scientific School (1847–1947), Yale University.

[772] Liang Sicheng, "Architecture ⊂ (Social Science ∪ Technical Science ∪ Arts) 建筑 ⊂（社会科学 ∪ 技术科学 ∪ 美术）," *People's Daily* (Beijing), 8 April 1962.

which a more comprehensive framework can be based in the future.

8.2 Society, Engineering, Art: Three Trilogies

Three decades earlier than Liang's *People's Daily* article, Lin Huiyin had referred to the Vitruvian trilogy of *utilitas* (*shi yong*; 實用), *firmitas* (*jian gu*; 堅固), *venustas* (*mei guan*; 美觀) in her 1932 *SRCA Bulletin* article "Regarding Some Characteristics of Chinese Architecture." Although this triadic formula, rooted in Western tradition in ancient Rome, might seem an odd choice for analysing Chinese architecture, Lin chose to use it. Perhaps this is not surprising, as she and Liang had just finished their studies at a Beaux-Arts school in the USA. However, Liang also adapted Vitruvius's terms in his 1959 speech published as Talking about Tradition and Innovation from "Useful, Economical, and Aesthetically Pleasing When Possible." This framework could stretch to examine many disparate elements: the International Style (*Guoji shi*), an exhibition whose architectural language Liang mentioned [773] in the 1935 preface to *Pictorial References for Architectural Design*[774]; Li Chieh's *Yingzao Fashi*, which Huang regarded as a technical book in his talk on Chinese Architecture; and the 1934 *Qing Structural Regulations*, which informed Liang's 1954 theory of architectural translatability and which examined the 'vocabulary' and 'grammar' of China's historical buildings and their use in new Chinese-style architectural design.

In his presentation at the Architecture Is Not Only Housing symposium on the eve of China becoming a Communist state, Huang proposed three specific directions for the new People's Republic: popular, scientific, and Chinese.[775] These can be seen as parallels to Liang and Lin's triadic formula: For Huang, "popular" meant something like "responsive

[773] Curated by Philip Johnson and Henry-Russell Hitchcock, in 1932, at the Museum of Modern Art in New York City, the exhibition was originally entitled "Modern Architecture—International Exhibition," yet the director of the museum, Alfred H. Barr, referred to "an international style…the ideas of a number of progressive architects have converged to form a genuinely new style which is rapidly spreading throughout the world" in his foreword of the catalogue published under the title *The International Style: Architecture Since 1922*. This term did of course come to represent a certain architectural language. See William H. Jordy, "The Aftermath of the Bauhaus in America: Gropius, Mies, and Breuer," in *The Intellectual Migration: Europe and America, 1930–1960*, eds. Donald Fleming and Bernard Bailyn (Cambridge, Mass.: Harvard University Press, 1969), 494. This book chapter is a reprint of a journal article; see also William H. Jordy, "The Aftermath of the Bauhaus in America: Gropius, Mies, and Breuer," *Perspectives in American History*, no. 2 (1968).

[774] Liang, "Preface in Pictorial References for Architectural Design 建築設計參考圖集序"; The ten volumes of *Pictorial References* were completed in 1937 and published by the SRCA in Beijing.

[775] "Architecture Is Not Only Housing: A Symposium 座談紀錄：建築不僅是造房子而已," 32.

to the people and their needs"—which can be seen to correspond with *utilitas* or "usefulness." "Scientific" meant using rational, systematic methods that would stand the test of time—corresponding with *firmitas* or "stability." *venustas* or "aesthetics," in a Chinese context, could be seen as relating to China's long cultural tradition, and hence corresponding with "Chinese."[776] However, at the zenith of the Anti-Rightist Campaign in 1959, Liang himself eventually downplayed the lofty translation of the Vitruvian architectural principles by, on the one hand, replacing *stability* with *economy* and, on the other, asking for "aesthetically pleasing" (initially and rightfully, "aesthetics") only "when possible."[777]

If I were to align Huang's triadic formula directly with Liang's, some might criticise this as tautology. Nevertheless, the tripartite scheme, in its various guises, plus Lai Delin's definition of "genuine modern architects" whose work extended beyond modernist style, is helpful for understanding the commonalities between Huang's and Liang's visions for modern Chinese architecture and architectural education [Table 8.1]. The following sections will use three trilogies in tandem with the mathematical relationship Liang set forth in his article "Architecture ⊂ (Social Science ∪ Technical Science ∪ Arts)"[778] in the *People's Daily* [Fig. 8.1] to investigate these commonalities further.

[776] In fact, both Huang's and Liang's trilogies can be traced to the Common Program of the Chinese People's Political Consultative Conference—aka New Democracy—in 1941; see Fang Min, "Mao Zedong's Revision of New Democracy 毛泽东对《新民主主义论》的修改," *CPC History Studies*, no.6 (2006), 107–115. As Liang indicated in his lecture at the Construction Research Association (*Yingjianxue Yanjiuhui*; 營建學研究會): "The direction of our creation has been pointed out to us in Article 41 of the Common Programme: 'The cultural education of the People's Republic of China is new democratic, that is, national, scientific, and popular cultural education.' Our buildings are 'new-democratic, that is, national, scientific, and popular buildings.' This is our program, this is our direction, and we must make it happen. How to realize it is our big problem...In the design process, we have to reverse this order. Our first step is to understand what 'popular' is, that is, what the people's needs are"; see Liang, "The National-Ethnic Form of Architecture 建築的民族形式."

[777] Liang, "Talking about Tradition and Innovation from 'Useful, Economical, and Aesthetically Pleasing When Possible' 从「适用、经济、在可能条件下注意美观」谈到传统与革新," 1.

[778] A ⊂ B: every element of A is in B, but B has more elements; A ∪ B: this includes the elements in A or B (or both).

Table 8.1 A tripartite framework for Huang's and Liang's training of architect-planners

Vitruvius's terms	*utilitas*	*venustas*	*firmitas*
	society	art	engineering
Huang Zuoshen's terms	popular	Chinese	scientific
	built environment		natural environment
	physiological	psychological	
Walter Gropius's terms	usefulness	aesthetics	stability
The PMPE Conference terms	environment	form	substance
College of Building terms	ying		jian
Liang Sicheng's terms	Social Science	Arts	Technical Science

人民日报

建筑⊂（社会科学∪技术科学∪美术）

梁思成

拙匠随笔

常常有人把建筑和土木工程混淆起来，以为凡是土木工程都是建筑。也有很多人以为建筑仅仅是一种艺术，还有一种看法说建筑是工程和艺术的结合，但把这艺术看成钢工程美化的艺术，如同舞台上把一个演员化装起来那样。这些理解都是不全面的，不正确的。

两千年前，罗马的一位建筑理论家维特鲁维斯（Vitruvius）曾经指出：建筑的三要素是适用、坚固、美观。从古以来，任何人盖房子都必首先有一个明确的目的。基为了满足生产或生活中某一特定的需要。房屋必须具有与它的需要相适应的坚固性。在这两个前提下，它还必须美观。必须三者具备，才够得上是一座好建筑。

适用是人类进行建筑活动和一切创造性劳动的首要要求。从单纯的适用观点来说，一件工具、器皿或者机器，例如一个能用来喝水的杯子，一台能拉二千五百斤货物，每小时跑八十到一百二十公里的机车，就都算满足了某一特定的需要，解决了适用的问题。但是人们对于建筑的适用的要求却是层出不穷，十分多样化而复杂的。比方说，住宅建筑应该说是建筑类型中比较简单的课题了，然而在住宅设计中，除了许多满足饮食起居等生理方面的需要而外，还有许多社会性的问题。例如这个家庭的人口数和辈分（一代、两代或者三代乃至四代），子女的性别和年龄（幼年子女可以住在一起，但到了十二、三岁，儿子和女儿就需要分住），往往都是在不断发展改变着。生老病死，男婚女嫁，如何使一所住宅能够适应这种不断改变着的需要，就是一个极难圆满人意的难题。又如一位大学教授的住宅就需要一间可以放很多书架的安静的书斋，而一位电焊工人就不一定有此需要，仅仅满足了吃饭、睡觉……等问题，而不解决这些社会性的问题，一所住宅就不是一所适用的住宅。

至于生产性的建筑，它的适用问题主要由工艺操作过程来决定，它必须有适合于操作需要的车间；而车间与车间的关系则需要适合于工序的要求，但是就有厂房，就必有行政管理的办公楼，它们之间必然有一定的联系。办公楼里面，又必然要按企业机构的组织形式和行政管理系统安排各种房间，既有工厂就有工人职员，就必须建造职工住宅（往往是成千上万的工人），形成成街成坊成片的住宅区。既有成千上万的工人，就必然有各种人数、辈分、年龄不同的家庭结构，就有住宅区，就必然有各种商店、服务业、医疗、文娱、学校、幼托机构……等等的配套问题。当一系列这类问题摆到设计任务书上来的时候，一个建筑设计人员就不得不做一番社会调查研究的工作了。

推而广之，当成千上万座房屋聚集在一起而形成一个城市的时候，从一个城市的角度来说，就必须合理布置全市的工业企业，各级行政机构，以及全市居住、服务、教育、文娱、医卫、供应等等建筑，还有由于解决这千千万万的建筑之间的交通运输的街道系统和市政建设等问题，以及城市街道与市际交通的铁路、公路、水路、空运等衔接联系的问题。这一切都必须全面综合地予以考虑，并且还要考虑到城市在今后十年、二十年乃至四五十年间的发展。这样，建筑工作就必须根据国家的社会制度，国民经济发展的计划，结合本城市的自然环境——地理、地形、地质、水文、气候等等和整个城市人口的社会分析来进行工作。这时候，建筑师就必须在一定程度上成为一位社会科学（包括政治经济学）家了。

一个建筑师解决这些问题的手段就是他所掌握的科学技术。对一座建筑来说，当他全面综合地研究了一座建筑物各方面的需要和它的自然环境和社会环境（在城市中什么地区、左邻右舍是些什么房屋）之后，他就按照他所能掌握的资金和材料，确定一座建筑物内部各个房间的面积、体积，予以合理安排。不言而喻，各个房间与房间之间，分隔与联系之间，都是充满了矛盾的，他必须求得矛盾的统一，使整座建筑能最大限度地满足适用的要求，提出设计方案。

其次，方案必须经过结构设计，用各种材料建成一座座具体的建筑物。这项工作，在古代是比较简单的，从上古到十九世纪中叶，人类所掌握的建筑材料无非就是砖、瓦、木、灰、砂、石。房屋本身也仅仅是一个"上栋下宇，以蔽风雨"的"房子"。建筑工种主要也只有木工、泥瓦工、石工三种。但是今天情形就大不相同了。除了砖、瓦、木、灰、砂、石之外，我们已经有了钢铁、钢筋混凝土、各种合金，乃至各种胶合料、塑料等等新的建筑材料，以及与之同来的新结构、新技术。而建筑物本身内部还多出了许多"五脏六腑，筋络管道"，有"血脉"，有"气管"，有"神经"，有"小肠、大肠"等等，它的内部机电设备——采暖、通风、给水、排水、电灯、电话、电梯、空气调节（冷风、热风）、扩音系统等等，都各是一门专门的技术科学，各有其工种，各有其管道线路系统。它们之间又是充满了矛盾的。这一切都必须各得其所地妥善安排起来。今天的建筑工作的复杂性绝不是古代的匠师们所能想像的，但是我们必须运用这一切才能满足越来越多、越来越高的各种适用上的要求。

因此，建筑是一门技术科学——更准确地说，是许多门技术科学的综合产物。这些问题都必须全面综合地从工程、技术上予以解决。打个比喻，建筑师的工作就和作战时的参谋本部的工作有点类似。

到这里，他的工作还没有完。一座房屋既然建造起来，就是一个有体有形的东西，因而就必然有一个美观的问题。它的美观问题是客观存在的。因此，人们对建筑就必然有一个美的要求。事实是，在人们进入一座房屋之前，在他意识到它适用与否之前，他的第一个印象就是它的外表的形象，美或丑。这和我们第一次认识一个生人的观感的过程是类似的。但是，一个人是活的，除去他的姿容、服饰之外，更重要的还有他的品质、性格、风格等。他可以其缺不掩，不修边幅而无损于他的内在的美。但一座建筑物却不同。尽管它既适用，又坚固，人们却还要求它是美丽的。

因此，一个建筑师必须同时是一个美术家。因此建筑创作的过程，除了要从社会科学的角度分析并认识适用的问题，用技术科学来求坚固、经济地实现一座座建筑以解决这适用的问题外，还必须同时从艺术的角度解决美观的问题。这也是一个艺术创作的过程。

必须明确，这三个问题不是应该分别各个孤立地考虑解决的，而是应该从一开始就综合考虑的，同时也必须明确，适用和坚固、经济的问题是主要的，而美观是从属的、派生的。

从学科的配合关系看，我们可以得出这样一个公式：建筑⊂（社会科学∪技术科学∪美术），也可以用这图表达出来：这就是我对党的建筑方针——适用、经济、在可能条件下注意美观——如何具体化的学科分析。

Fig. 8.1 Liang's newspaper article Architecture ⊂ (Social Science ∪ Technical Science ∪ Arts) in the *People's Daily*, 8 April 1962, his initial piece in a series called Miscellaneous Notes of An Awkward Craftsman (*Zhuojiang Suibi*; 拙匠随笔)

8.2.1 Society ⊂ (Serving Masses ∪ Social Science)

The heading above, taken from Liang's article "Architecture ⊂ (Social Science ∪ Technical Science ∪ Arts)" in the *People's Daily*,[779] can be interpreted to mean that society should be serving masses, and the architects who can engage in that urban community would need training in the social sciences. The first step, therefore, must be to undertake inclusive social research according to which the physical organisation of the city can be developed. "The fragmentation and displacement of China's architectural community around 1949," as Denison and Ren observed, "permanently altered the course of China's architectural history, theory, and practice in the country."[780] For example, of the members of Five United, Cheang and Wang stayed in Hong Kong, and their fellow architect "Luke [who] was persuaded by his old friend and colleague, Liang Sicheng…to give Communism a try," only stayed for six months (during which intervening months Wang moved again and settled down in Taiwan). An old friend told Luke that "Communist China was no place for an independently minded architect[-builder],"[781] but the civic-minded other members of Five United, Huang and Chen, did not agree that Communist China was no place for them. Chen by then was working on the Beijing Masterplan with Liang, and, although Huang refused to join Liang in Beijing, he stayed in China and attended the overlooked symposium Architecture Is Not Only Housing.

At that event, the reporter of the symposium said, "The architectural business in China, upon the establishment of People's Republic of China as well as the commencement of economic construction works centred on the New Democracy, becomes an issue worth serious attention."[782] Huang underscored that he, as a teacher who aligned student-architects' social position with the public (rather than with "the material enjoyment of people of a certain class"[783]) "should never fall behind, instead, need[ing] to keep pace with the new period and to solve people's problem of living."[784] He stood firmly behind the idea of working to better everyday lives:

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[779] Liang, "Architecture ⊂ (Social Science ∪ Technical Science ∪ Arts) 建筑 ⊂（社会科学 ∪ 技术科学 ∪ 美术）."

[780] Denison and Guang, *Luke Him Sau*, 207.

[781] Luke learned this shibboleth from Xu Guomao, with whom he had worked in Qingdao, Chongqing, and Shanghai; see ibid., 205, 207.

[782] "Architecture Is Not Only Housing: A Symposium 座談紀錄：建築不僅是造房子而已," 31.

[783] Ibid, 32.

[784] Ibid.

> *It is not enough from any point of view, that architects in the earlier [Nationalist] period worked as professional technocrats in an objective way to design. Conversely, architects are supposed to understand the realistic needs of people through being part of them and designing from their point of view.*[785]

When Huang read *Red Star Over China* at the AA, he realised, for the very first time, a reality he had not previously understood as a member of an affluent family in war-torn North China. Compared with Liang, Huang's move towards the left was most likely relatively straightforward. He had even been to school with comrades of the Communist Party of Great Britain (CPGB), such as Richard Llewellyn-Davies and Anthony Cox, co-founders of the student-edited periodical *Focus*[786] and it is possible he may have been influenced by their thinking. It was in this magazine that Cox published his essay, "The Training of An Architect," which espoused communist/ socialist ideas. Huang echoed it in his keynote lecture a decade later in Shanghai with similar wording and exactly the same title. Huang's idealism, his attention to solving what Cox called *topical* social problems (as opposed to what he called *typical* problems, which merely concerned buildings with a particular visual appearance),[787] and his emphasis on design modelling instead of architectural rendering[788] showed the unmistakable orientation of his SJU curriculum towards the Unit System rather than *only* towards the Master Class. The MARS-influenced educational revolution that commenced during his UK spell led Huang to think about architecture in a wider societal context, rather than just focusing on the design elements needed for a particular project like the Frank House. Huang saw "Chinese" architecture as architecture that embodied traditional Confucian values. He did not equate

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[785] Ibid.

[786] As CPGB members, Cox and Davies (with many fellow students) saw their opportunity at the AA and used the skills of organisation the party had taught them to create what was essentially a communist cell among the students and foster a broader demand for change. See Darling, "Focus," 43.

[787] Cox, "The Training of an Architect," 25. This open letter to the conservatives within the AA (called "older members" by Cox)—those who deemed "that designing was best learnt by means of designing, and that design problems should be typical rather than topical, since the latter often involved time-wasting research"—argued for group work instead of competition and research in place of irrevocable *esquisse* because "these things [in the Year System] lay a conception of architecture fundamentally opposed to the only conception which meant anything to [them]" (like Huang in the Unit System); see ibid., 24–25.

[788] Bai Demao, "Like Teacher Like Friends: In Memory of Dept. AE Chair Huang Zuoshen and good education at SJU 亦师亦友：缅怀建筑系主任黄作燊、铭记约大的良好教育," in Lu Yongyi and Qian Feng, eds. *Commemorative Accounts of Huang Zuoshen 黄作燊纪念文集* (Beijing: China Architecture & Building Press, 2012), 137.

"Chinese" architecture with "big roof" architecture or any other traditional physical characteristics and criticised Chinese architecture that focused on superficial appearance (similar, arguably, to how Zevi criticised the Frank House).

One can trace Liang's evolution from a detached stance on socialist politics[789] in his Letter 1 (March 1945)—to socialist discourses, such as "a bed for everybody" and a "peaceful dwelling and the happy pursuit of one's work,"[790] in Letter 2 (October 1945). Huang perhaps could later be seen to echo these phrases at the symposium Architecture Is Not Only Housing when he emphasised "the happiness of the people's life." Liang seemed to have undergone a series of rapid positioning and repositioning of his political and cultural visions for China as he absorbed Western knowledge from his wartime reading of progressives like José Luis Sert, Eliel Saarinen, and Henry S. Churchill.

Penning down in 1945 the need to change from a formalist to an environmentalist, Liang realised during the Second World War that "the study of palaces does not qualify one to design a cottage"[791], and he valued opportunities to listen to and exchange ideas with great modernists not merely at the UNHQ but also at the PMPE conference. There he joined the UNESCO MOU signatories promoting postwar educational reform in architecture and urban planning and was inspired to visit the progressive University of Michigan in person. During his second journey to the USA, Liang had the opportunity to think deeply about the role of architecture in shaping a society, not just architecture as an intellectual or aesthetic exercise.

Whatever Liang's developing ideas about the architect's social role were, he soon had no choice but to integrate political courses into his curriculum. Teaching at a national university like Tsinghua (let alone in the aforementioned urban micro-environment in Beijing), he was obliged by the state to include political courses like New Democracy,

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[789] "…socialist Russia thinks that the aim of city planning lies in evoking the highest rate of productivity; British and American scientists, however, think that today's city-dweller should be enabled to enjoy, physically and emotionally, the highest attainable standards of happiness and comfort"; see Letter from Liang Sicheng to Mei Yiqi, 9 March 1945, Tsinghua University Archives. In fact, at the time, Liang was more favourable to the latter since he mentioned, at the beginning, "During the last ten years, the European and American way of life have reached an even higher level of specialisation, organisation and mechanisation."

[790] Liang, "The Structure and Order of Cities 市鎮的體系秩序."

[791] J. A. Chewning, "William Robert Ware at MIT and Columbia," *Journal of Architectural Education* 33, no. 2 (1979): 28.

Materialist Dialectics, and Historical Materialism when Communist government took control[792] [Fig. 8.2]. Liang claimed in his Letter 4 in June 1949 that it was important that "Chinese learned from past mistakes in the West so as to avoid falling into the same old trap again."[793] These mandated courses were taught alongside his social science courses in Subjects A–E, which ultimately also fell in line with Maoism. New Democracy was a specific notion of Mao Zedong's communism mentioned in both Liang's Letters (4 and 5) in 1949. Both were written on the eve of the official inauguration of the Communist Party on 1 October 1949, and in them Liang used no more English writing. The only exception, nevertheless, he made was for "Vitruvius."[794]

8.2.2 Engineering ⊂ (Industrial Production ∪ Technical Science)

The heading above, from Liang's article "Architecture ⊂ (Social Science ∪ Technical Science ∪ Arts),"[795] can be interpreted to mean that industrial production and technical science should be the basis for architecture. The second step, nevertheless, must be to understand that there are other equally important aspects of architecture that lie beyond the realm of engineering. Huang and Liang encountered bewildering change and extraordinary challenges concomitant with many prevailing difficulties: grave economic woes, severe hyperinflation, and the intensifying conflict between the Nationalists and the Communists. The final years of their careers were marked by their expedient role as architect-planners, whose success relied on adapting and responding to ever-shifting conditions. An enlargement in the scope of architectural planning was thus informed by their aforementioned makeshift modernities, characterised by trial-and-error pedagogy and part-time visiting faculty teaching within the crevices of their design practice. The planning ideologies they used may have been local (and by definition, *Chinese but modern*), but the principles were global in applying international models like functional zoning and self-supporting neighbourhoods. Nevertheless, one thing remained unchanged

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[792] Du, *Commemorative collection of the first, second, third, and fourth graduating class of the Department of Architecture of Tsinghua University* *清华大学建筑系第一、二、三、四届毕业班纪念集*, 119.

[793] Liang Sicheng, "Substance and Form of the City and its Planning 城市的體形及其計劃," *People's Daily (Beijing)*, 11 June 1949.

[794] Liang, "Talking about Tradition and Innovation from 'Useful, Economical, and Aesthetically Pleasing When Possible' 从「适用、经济、在可能条件下注意美观」谈到传统与革新," 1; Liang, "Architecture ⊂ (Social Science ∪ Technical Science ∪ Arts) 建筑 ⊂（社会科学 ∪ 技术科学 ∪ 美术）."

[795] Liang, "Architecture ⊂ (Social Science ∪ Technical Science ∪ Arts) 建筑 ⊂（社会科学 ∪ 技术科学 ∪ 美术）."

throughout Huang's and Liang's tenure as early modern Chinese architect-teachers. With few exceptions, engineering colleges still accommodated China's architectural programmes. Both Huang and Liang worked within this reality while trying to ensure that architectural education encompassed cultural essentials as well as engineering elements.

After the provisional capital moved from Chongqing back to Nanjing on 5 May 1946, President Mei Yiqi soon declared the founding of Liang's Department of Architectural Engineering at Tsinghua. However, at the same time, chemical engineering also joined civil, mechanical, electrical (prewar), and aeronautic engineering (wartime) there. Given his experience at the PMPE conference and the University of Michigan, Liang negotiated with Dean Tao Baokai to persuade the Ministry of Education to create an unprecedented Department of Building for architectural design and city planning. In other words, Liang managed to create an independent professional department—albeit still a makeshift modernity, as what he really desired was a College of Building—that was concerned with both the liberal arts and the physical environment while leaving the technical studies of architectural engineering in its own right within the College of Engineering. When asked in the USA, Liang tried to sum up 'stability' in a nutshell: "Needless to say, it is a matter of physics"[796]; he spoke on this topic for approximately one tenth of the time he spoke about usefulness and aesthetics.

Huang, at the Architecture Is Not Only Housing symposium, argued for the importance of a scientific approach to architecture, but also mentioned the central role of "psychology." He divided the training of an architect into understanding the natural environment (*ziran huanjing*; 自然環境) and understanding the built environment (*renlei huanjing*; 人類環境):

> *The so-called built environment is partly a study of psychology and partly a study of physiology. Our architecture must meet these two conditions. The natural environment includes the local climate, wind direction, geology, materials and other building issues. Of course, the designs of cold and hot places are completely different. We should also choose unique local materials to make use of. For example,*

[796] Liang Sicheng Draws the Design of the Building of the United Nations 聯合國建大廈 梁思成打圖樣, Small Daily (Shanghai), 23 September 1947.

> *people will laugh at its unreasonableness if a tropical house is built in the cold north. So the relationship between science and architecture is very close. Scientific architecture should be very concise, simple, and straightforward. Everything must be based on science, absolutely abandon undesirable abuses in the past, and avoid unreasonable and unnecessary things.*[797]

Similarly, Liang also mentioned the same binary of the natural environment and sociological problems—the physical, social, cultural, and aesthetic aspects of the built environment—and called the latter the social environment (*shehui huanjing*; 社會環境).[798] In addition, he summarised his second trip to the USA by criticising the "1/2 an architect" produced at China's insufficient departments of architectural engineering and by addressing technicians—including student-architects ignorant of the spirit of the humanities—in his 1948 lecture "Science-Engineering and Humanities":

> *Should we trace why a half-man comes into being, it would be the erroneous policy of our education. The goal of today's Standard Minima issued by the Ministry of Education concentrates only upon obtaining particular knowledge and specific skills. That, after all, was training "-icians" ("jiang" ren; "匠"人); namely, producing half-men rather than educating them. Our engineering college trains machine-icians, civil-engineering-icians, and architecture-icians. Likewise, other colleges train physics-icians, chemistry-icians, law-icians, Chinese-language-icians, foreign-language-icians, history-icians, philosophy-icians, etc. So-called "-icians" are acquainted only with their area while knowing and caring nothing about other fields. He and his business detach themselves from society as a whole. They are merely half-men.*[799]

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[797] Ibid. In closing his presentation titled Past Malformation, Charles Chen gave a critical example not unlike Huang in this regard: "After the steel frame house is built, adding a big roof is really worthless. Foreigners who wear Chinese clothes are still not considered Chinese."

[798] Liang thought, "In what area of the city, what kind of houses are the neighbours?" in regard to architecture's 'social environment'; see "Architecture ⊂ (Social Science ∪ Technical Science ∪ Arts) 建筑⊂（社会科学 ∪ 技术科学 ∪ 美术）.

[799] Liang Sicheng, quoted in Yang, "After Reading Half-Man World 读半个人的世界书后," 20.

Framed this way, Liang's criticism can be equated with the speech Huang gave in Shanghai in the same year, in which the latter quoted Sir Thomas Jackson[800]: "Good construction is only the foundation of our art. It is ours to build not only well but beautifully: not by adding ornament, for that is not essential to art, but by forcing the construction into a form that pleases."[801] While both Huang and Liang laboured to secure their architecture students an education informed by the liberal arts, they also lived under the reality that these students remained under the all-inclusive framework of architectural engineering. While they might yearn for a full-fledged college of building, the makeshift modernity they actually fashioned guaranteed the technical courses were covered by the well-established engineering faculty at each venue. This would ensure the independence, in due course, of a *Department*—if not a *College*—of Building (*ying jian*) [Table 8.1]. In the arena of *ying jian* (building), their institutions' deep grounding in *jian* (stability) allowed Huang and Liang to focus on *ying* (usefulness and aesthetics).

In Shanghai, the Sze School of Engineering at SJU was based on the Harvard-Technology Project funded by a famous SJU alumnus, Alfred Sao-ke Sze (Shi Zhaoji). In Beijing, Tsinghua had the greatest strength in the natural sciences amongst Beijing's three elite universities, along with Peking and Yenching Universities. This strength gave Liang more time to hone his architecture students' talent in design but also made it easier to undo Beaux-Arts pedagogy with *Elements of Design*. Similarly, Huang asked mechanical engineers to oversee studio works while he himself continued to further perfect the Design Preliminary and Architectural Theory courses—he was not looking for another Bauhaus in China. Both Liang's and Huang's pedagogies reflected Edmund W. Sinnott's 1947 motto: "Only whole men can save the world today and to train them well is the imperative task of every university."[802]

8.2.3 Art ⊂ (Mechanical Aesthetics ∪ Arts [Chineseness])

The heading above, from Liang's article "Architecture ⊂ (Social Science ∪ Technical

[800] "Architecture does not consist in beautifying buildings; on the contrary it should consist in building beautifully," cited in Huang, "The Training of an Architect" [text in English].
[801] Jackson, "On True and False Ideas in the Education of an Architect," 224.
[802] Sinnott, "Science and the Whole Man," 137–138.

Science ∪ Arts),"[803] can be interpreted to mean that "all real architects are artists,"[804] adding to the two previous trilogies that make architecture a distinctly formed environment that has substance to it.[805] The third step, consequently, must be to encourage students' mechanical creation[806] and their use of materials—brick, wood, stone, etc.—to make work expressing a pleasing balance of proportions. Liang, however, was also in favour of expanding industrial arts for the benefit of Chinese society:

> *On the other hand, our country still has several crafts that should be encouraged and for which it is worth standing. Yet, at the same time, their artistic level must be enhanced. Therefore, industrial design and other newly built industrial productivity forms entertain an inseparable relationship. It is something which is needed in our modern age.*[807]

This was apparent, for example, in Liang's desired college of building. Likewise, Li Dehua (in one of the earliest cohorts of architecture students at SJU) gained such experience from Huang, who proposed creating a set of clothes that could allow everyone to be close to the masses[808] after the whole country was liberated in 1949. To do that, architect-teachers and students integrated and worked together to design with Chinese

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[803] Liang, "Architecture ⊂ (Social Science ∪ Technical Science ∪ Arts) 建筑 ⊂（社会科学 ∪ 技术科学 ∪ 美术）."

[804] Liang Sicheng Draws the Design of the Building of the United Nations 聯合國建大廈 梁思成打圖樣, *Small Daily* (Shanghai), 23 September 1947.

[805] This artistic/aesthetic/Chinese aspect seemed to be the most challenging among the three trilogies to Liang, who suggested readers consult his other newspaper article—Liang, "Architecture and the Art of Building 建筑和建筑的艺术—in 1961; see Liang, "Architecture ⊂ (Social Science ∪ Technical Science ∪ Arts) 建筑 ⊂（社会科学 ∪ 技术科学 ∪ 美术）."

[806] For this "creation" (*chuangyi*; 創意) as opposed to "adaption," Huang would go further and use another word, "originality" (*yuanchuang*; 原創), as Li Dehua remembered; see Luo and Qian, "Remembering Huang Zuoshen 怀念黄作燊," 51; Luo and Li, "Department of Architectural Engineering of St. John's University, 1942–1952 原圣约翰大学的建筑工程系 1942—1952," 26.

[807] Liang Sicheng, "Draft Plan of Academic Structure and Programme in the Department of Yingjian (Now Known as the Department of Architectural Engineering) at Tsinghua University 清華大學營建學系（現稱建築工程學系）學制及學程計劃草案," *Wen Wei Pao (Shanghai)*, 11 July, 1949.

[808] When asked during his final interview in Taiwan in 1992 (the year of his death) whether SJU transplanted the whole Bauhaus system to China and whether SJU's Department of Architectural Engineering could be regarded as the "Bauhaus in Shanghai," Chang Chaokang's (Class of 1946) answer was critical: "It was basically a Bauhaus system, but no Workshop. In terms of the philosophies of education, training, and ideas, it was basically a Bauhaus system. The main reason we did not have Workshop is that SJU was an elite school, at which students wearing robes were from affluent families, and it was challenging to have them roll up sleeves in the workshops." See Lin, "Bauhaus, Architecture, and I: An Interview with Mr. Chang Chaokang 包浩斯、建築和我：專訪張肇康先生," 227.

homespun cloth (so-called 'wool blue cloth' at that time).[809]

The connection of Huang and Liang to the Euro-American Bauhaus and its stripped-down functionalist aesthetic represents only one thread in their rich pedagogical tapestry. This tapestry was unique in its constitution and shared many characteristics with China as a whole, a civilisation-state that had neither, as Lucian W. Pye once remarked,[810] ever been a tabula rasa awaiting modern architecture transplanted from the West nor remained in, to borrow Dipesh Chakrabarty's language, "an imaginary waiting room of history"[811] for future modern movements. When, in 1944, Liang finished writing China's first treatise on architectural history, based on the SRCA's odyssey of field surveys throughout China for almost fifteen years [Fig. 8.2], he entitled the book *History of Chinese Art: Volume on Architecture* (*Zhongguo Yishushi: Jianzhu Pian*; 中國藝術史：建築篇) [Fig. 8.3]. In other words, when Liang brought all of his manuscripts and drawings to the USA, looking for an opportunity for publication in the English-speaking world [Fig. 8.4], he aimed also to publish accompanying volumes on painting and sculpture. Per Liang's own words in the 1948 entry on Architecture in the *Encyclopedia Americana*:

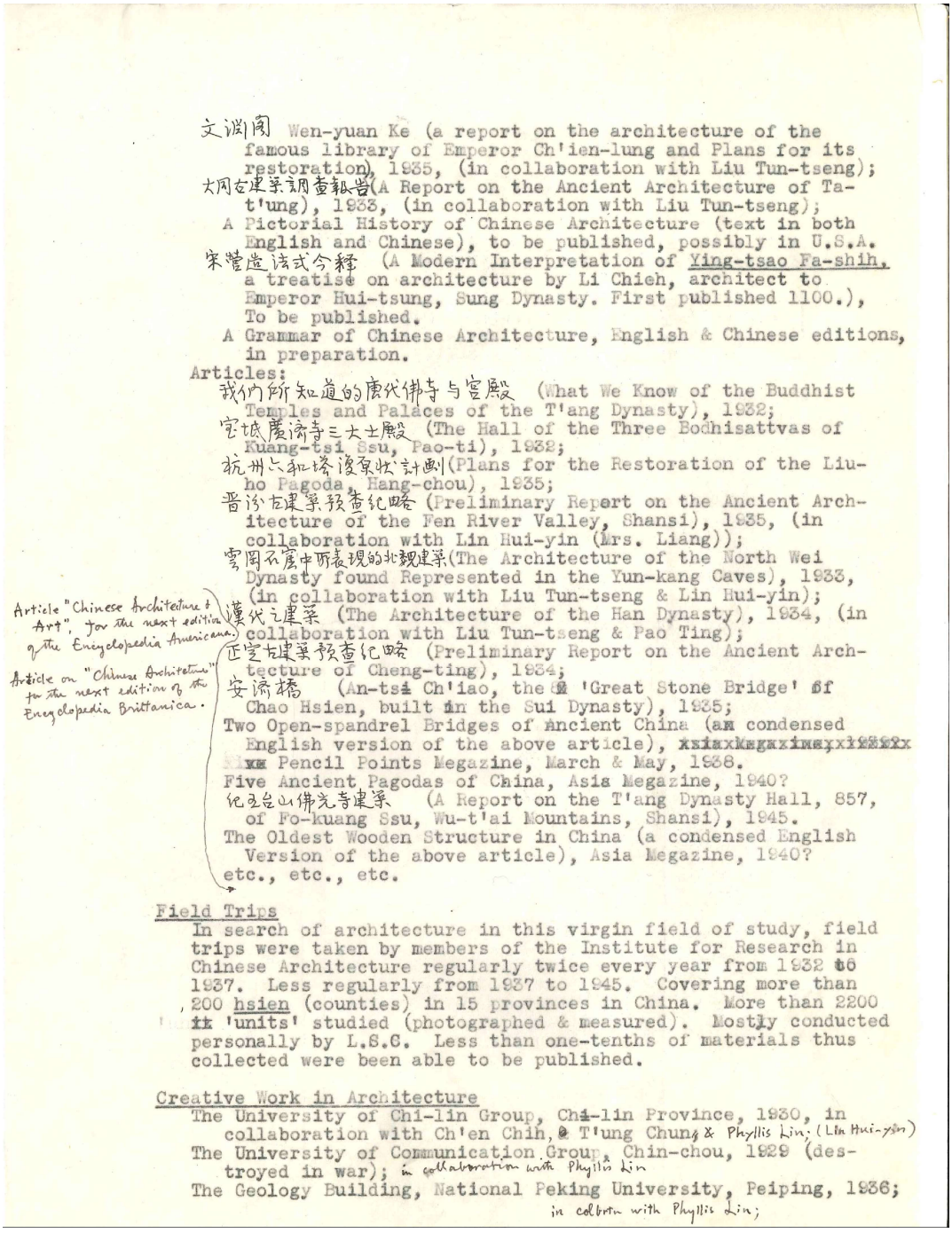
> *Although the ancient Chinese never considered architecture a fine art, in China as in the West it has been the mother of the fine arts. It was through the medium of architectural decoration that painting and sculpture matured and gained recognition as independent arts.*[812]

[809] Considering the convenience of drawing, they designed these clothes so that the front buttons were dark, while the top button was bright; different colours were used to distinguish each grade. Plus, there were slits on both sides under the clothes, which was not only convenient for movement but also especially convenient for bending over to draw. Before long, this piece of clothing became an 'uniform,' and everyone no longer competed in terms of clothing. See Luo and Qian, "Remembering Huang Zuoshen 怀念黄作燊," 53; Luo and Li, "Department of Architectural Engineering of St. John's University, 1942–1952 原圣约翰大学的建筑工程系 1942—1952," 26.

[810] Pye, *The Spirit of Chinese Politics*, 235.

[811] Dipesh Chakrabarty, *Provincializing Europe: Postcolonial Thought and Historical Difference* (Princeton, NJ: Princeton University Press, 2008 [2000]), 8, in which he also cites John Stuart Mill's words in his 1975 *Three Essays*: "We were all headed for the same destination…but some people were to arrive earlier than others." After the significant decolonisation movements of the 1950s and 1960s, this mythical figure of Europe was challenged by Chakrabarty's *Provincializing Europe*, which attacks this imaginary Europe—said to be the original site of modernity in many histories of capitalist transition in non-Western countries—built into the social sciences.

[812] Liang Sicheng, "China: Arts, Language, and Mass Media," *Encyclopedia Americana*, vol. 6 (New York, NY: American Book-Stratford Press, Inc., 1948), 563.



文淵閣 Wen-yuan Ke (a report on the architecture of the famous library of Emperor Ch'ien-lung and Plans for its restoration), 1935, (in collaboration with Liu Tun-tseng);
大同古建築調查報告(A Report on the Ancient Architecture of Ta-t'ung), 1933, (in collaboration with Liu Tun-tseng);
A Pictorial History of Chinese Architecture (text in both English and Chinese), to be published, possibly in U.S.A.
宋營造法式今釋 (A Modern Interpretation of Ying-tsao Fa-shih, a treatise on architecture by Li Chieh, architect to Emperor Hui-tsung, Sung Dynasty. First published 1100.), To be published.
A Grammar of Chinese Architecture, English & Chinese editions, in preparation.

Articles:
我们所知道的唐代佛寺与宫殿 (What We Know of the Buddhist Temples and Palaces of the T'ang Dynasty), 1932;
宝坻广济寺三大士殿 (The Hall of the Three Bodhisattvas of Kuang-tsi Ssu, Pao-ti), 1932;
杭州六和塔復原状計劃(Plans for the Restoration of the Liu-ho Pagoda, Hang-chou), 1935;
晋汾古建築預查紀略 (Preliminary Report on the Ancient Architecture of the Fen River Valley, Shansi), 1935, (in collaboration with Lin Hui-yin (Mrs. Liang));
雲岡石窟中所表現的北魏建築(The Architecture of the North Wei Dynasty found Represented in the Yun-kang Caves), 1933, (in collaboration with Liu Tun-tseng & Lin Hui-yin);
漢代之建築 (The Architecture of the Han Dynasty), 1934, (in collaboration with Liu Tun-tseng & Pao Ting);
正定古建築預查紀略 (Preliminary Report on the Ancient Architecture of Cheng-ting), 1934;
安濟橋 (An-tsi Ch'iao, the 'Great Stone Bridge' of Chao Hsien, built in the Sui Dynasty), 1935;
Two Open-spandrel Bridges of Ancient China (a condensed English version of the above article), Pencil Points Megazine, March & May, 1938.
Five Ancient Pagodas of China, Asia Megazine, 1940?
纪五台山佛光寺建築 (A Report on the T'ang Dynasty Hall, 857, of Fo-kuang Ssu, Wu-t'ai Mountains, Shansi), 1945.
The Oldest Wooden Structure in China (a condensed English Version of the above article), Asia Megazine, 1940?
etc., etc., etc.

Article "Chinese Architecture & Art", for the next edition of the Encyclopedia Americana;
Article on "Chinese Architecture" for the next edition of the Encyclopedia Brittanica.

Field Trips
In search of architecture in this virgin field of study, field trips were taken by members of the Institute for Research in Chinese Architecture regularly twice every year from 1932 to 1937. Less regularly from 1937 to 1945. Covering more than 200 hsien (counties) in 15 provinces in China. More than 2200 'units' studied (photographed & measured). Mostly conducted personally by L.S.C. Less than one-tenths of materials thus collected were been able to be published.

Creative Work in Architecture
The University of Chi-lin Group, Chi-lin Province, 1930, in collaboration with Ch'en Chih, T'ung Chung & Phyllis Lin; (Lin Hui-yin)
The University of Communication Group, Chin-chou, 1929 (destroyed in war); in collaboration with Phyllis Lin
The Geology Building, National Peking University, Peiping, 1936; in colbrtn with Phyllis Lin;

Fig. 8.2 Page 2 of Liang's resume, with handwritten annotations, accompanying his American reconnaissance, 1946–1947. Under Field Trips, he wrote, "Mostly conducted personally by L.S.C. [Liang Sicheng]." SRCA's investigations searching for the remains of ancient Chinese structures in southwestern China were carried out twice a year from 1932–1937 but less regularly during the War of Resistance, 1937–1945. More than 2,200 "units" were photographed and measured for this "virgin field of study" in two hundred counties in fifteen provinces including Hebei, Shanxi, Henan, Zhejiang, and Shandong

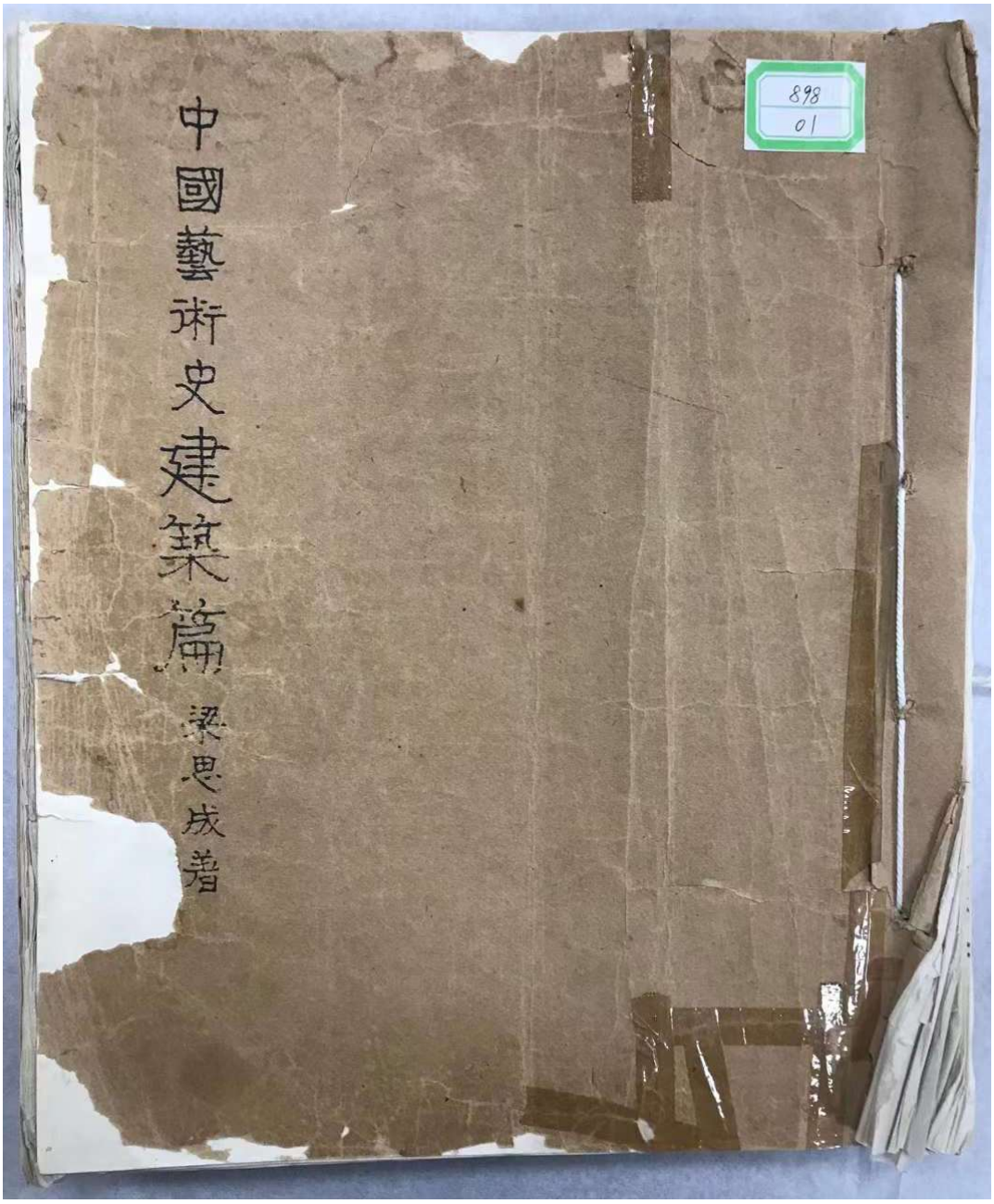


Fig. 8.3 The cover of Liang's *History of Chinese Art: Volume on Architecture* (later published as *Chinese Architectural History*), 1944

circular sent out by WZF 1947

PICTORIAL HISTORY OF CHINESE ARCHITECTURE

AUTHOR: Ssu-ch'eng Liang

Format:

Map of China showing location of monuments

Chronological table of Chinese dynasties

List of Plates: 3000 words

Preface: 1800 words

Text: 30,000 words (describing the basic structure of Chinese architecture and outlining its development through 3500 years)

Plates: Total number -234, size 9 x 12 inches. With explanatory captions.

a. Total line drawings - 105 (plans, elevations etc) of which 66 are full-page

b. Total photographs - 384 (black and white. A few full-page, average 4x5½)

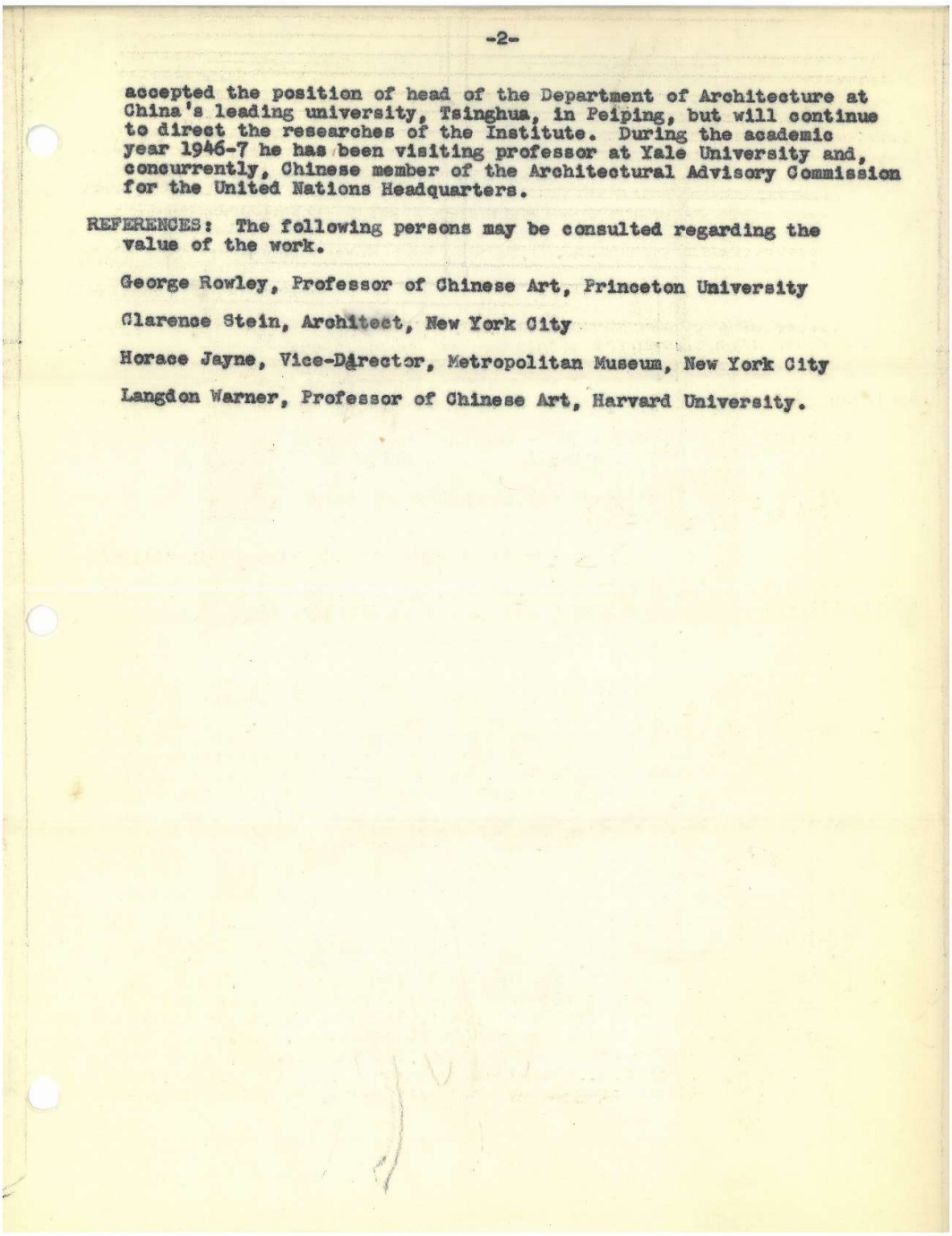
Glossary and Proper Names: about 15 pages.

List of plates in Chinese: 50-60 pages. The list would be prepared in handwriting and could be reproduced by photo-lithography

* * * * * * * * * * * * * * * * * *

COMMENT: The book incorporates the discoveries and researches of the Institute for Research in Chinese Architecture, Peiping, China of which Mr. Liang has been Research Director for the last 16 years. It describes and analyzes in a thoroughly scientific manner the important architectural monuments in China from the earliest times through the Ch'ing dynasty. It will undoubtedly be the standard work in the field for many years to come. Its only predecessors in western languages are Boerschmann's work (in German) and a book in English by Osvald Siren, Swedish art historian. Many of the most important monuments were unknown to these authors and neither book contains the structural analysis which Mr. Liang's primary contribution to an understanding of the subject.

AUTHOR: Ssu-cheng Liang received his architectural degree at the University of Pennsylvania in 1928 and returned to China to found China's first department of architecture, at Northeastern University in Mukden. When the university was closed by the Japanese invasion, he went to Peiping and joined the Institute for Research in Chinese Architecture, as Research Director; a post he has held from 1931 to the present. He and his colleagues travelled widely in North China and, during the war, in West and Southwest China, searching out, photographing, and measuring temples, pagodas, bridges, tombs and other important architectural monuments. In 1946 Mr. Liang



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accepted the position of head of the Department of Architecture at China's leading university, Tsinghua, in Peiping, but will continue to direct the researches of the Institute. During the academic year 1946-7 he has been visiting professor at Yale University and, concurrently, Chinese member of the Architectural Advisory Commission for the United Nations Headquarters.

REFERENCES: The following persons may be consulted regarding the value of the work.

George Rowley, Professor of Chinese Art, Princeton University

Clarence Stein, Architect, New York City

Horace Jayne, Vice-Director, Metropolitan Museum, New York City

Langdon Warner, Professor of Chinese Art, Harvard University.

Fig. 8.4 Liang's book proposal for *A Pictorial History of Chinese Architecture*, for which he, on the second page, slated George Rowley (FECS Chair), Clarence Stein, Horace Jayne, and Langdon Warner (Fogg Advisor) for the press as references, 1947

Likewise, in the same year, Huang introduced Chinese poetry in his keynote speech "Chinese Architecture," also for a Western audience from the British Council in Shanghai:

I wonder whether our poet Lee Pei [701–762, from China's Tang

> *dynasty] were asked to look at what we call the works of architecture…Could you imagine that the great poet tried laboriously to find the abstract beauty of the rectangles, the vertical and horizontals, the interplay of the different planes? Or really interested in the curve of the roof, would he be so bothered because he could not find out the roof must be curved…he would probably write a poem…which had nothing to do with the building…but a moon, the trees, the hills and all the other irrelevant things conjured up in his mind. But whatever he had to write, we could not deny that his poem was not an appreciation of the building or shall I say architecture.*[813]

Huang also quoted in brief some passages from Cao Xueqin's famous Chinese novel *Dreams of the Red Chambers* (*Honglou Meng*; 紅樓夢) and from Confucius's book of rites, *Li Chi* (禮記), to explain how China's literati employed buildings to express a social order. For example, in the Forbidden City, "you could not take away a palace and look at independently of the other elements [because] all the buildings there must be considered as a group for it is a *poem* of imperial grandeur."[814]

Like many Chinese architects of their generation, Liang and Huang possessed seemingly irreconcilable contrasts. They were both consumed by mechanical aesthetics in the twentieth century through their desire for modernisation but beset by the loss of tradition in Chineseness and by failing to become "genuine modern architects" as Lai explained in his 2007 book *Studies in Modern Chinese Architectural History* (quoted in 8.1). As a result, they oscillated between embracing Western influences and asserting China's own cultural expressions, such as Chinese arts and literature, which, to the Chinese way of thinking, subsumed architecture.

"Therefore," as Liang said, "architecture cannot be separated from art."[815] In other words, the Chinese aesthetic sensibility regarding architecture tended to gravitate towards essentialised components that could be applied to a much wider range of building-related

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[813] Huang, "Chinese Architecture" [text in English].
[814] Ibid, emphasis added.
[815] Liang Sicheng Draws the Design of the Building of the United Nations 聯合國建大廈 梁思成打圖樣, *Small Daily* (Shanghai), 23 September 1947.

endeavours than any normative Western conception of architecture. Apart from Huang's examples in his speech about the poet Lee, another appropriate example of this Chinese aesthetic sensibility could be the tradition of the literati garden, where buildings may seem to be of a particular type but need to be understood within a much larger landscape. In this context, one would not need to articulate the term "architecture" directly to be either thinking of or talking about architecture. Students could not only listen to Huang talking about Corbusier, Mies, and Picasso in class, but also could go to Suzhou gardens to discover another modernity of flowing space after class. Huang clearly appreciated the ways in which various traditional art forms could inform Chinese architecture. Fond of Peking drama, Kunqu opera, and traditional Chinese painting, he ultimately sent Chen Congzhou (a senior high school teacher of Chinese literature at SJU) to study Chinese architectural history at the SRCA in Beijing with Zhu Qiqian (its founder) and Liang.[816] Upon returning to Shanghai, Chen returned to SJU to teach and later became best remembered as a home-grown master in China's history of traditional architecture and classical gardens.

Both Huang and Liang looked to Western and Chinese sources to marry modern ideas with tradition. Although Huang's practice, Five United, did not work out satisfactorily owing mostly to the short time its five members were together, Huang established another architectural office with young teaching fellows Li Dehua and Wang Jizhong (both his early architect-students at SJU) in 1951 and called it Craft-Build-Soil-Wood (*Gong-Jian-Tu-Mu*—literally Construction and Civil Engineering—*Jianzhushi Shiwusuo*; 工建土木建築事務所). In their 1956 design for the Tongji Faculty Club [Fig. 8.5], these students-turned-teachers incorporated elements of Chinese courtyard houses seen in the Jiangnan folk area, yet their design used a modern spatial treatment, architectural techniques, and colours.[817] Not unlike Huang's metaphor of prose and poetry,[818] Liang likened

[816] Chen Congzhou, "In Memory of Architect-Professor Huang Zuoshen 怀念建筑黄作燊教授," in Lu Yongyi and Qian Feng, eds. *Commemorative Accounts of Huang Zuoshen 黄作燊纪念文集* (Beijing: China Architecture & Building Press, 2012), 134.

[817] "Not only can you experience free design of the ground plan, flowing spaces, and various interesting interior spaces and detailed designs, but you can also feel the ingenious integration of modern architecture and traditional Chinese dwellings and gardens in the daily life space"; see Wang Jizhong and Li Dehua, "Tongji Faculty Club 同济大学教工俱乐部," *Architectural Journal*, no. 6 (1958): 18–19. The buildings were all loaded with brick walls, wooden roof trusses, and mechanical tile roofs; the second floor was made of reinforced concrete. Since the work was completed in 1958 at the height of Anti-Rightist Campaign, the editor added at the end of Wang and Li's article: "There are also many places that contain the concept of abstract art and tend to pursue forms one-sidedly."

[818] Huang, "Chinese Architecture [text in English]."

architectural design to writing an article:

> *If we want to use the fine traditions of our own architecture to design buildings suitable for our new China today, we must first be familiar with the 'grammar' and 'vocabulary' of our own architecture, otherwise we will not be able to write a Chinese 'article'.*[819]

On the other hand, Liang, as a Beaux-Arts-trained modernist, approached modern design through the lenses of grammar and vocabulary. He was interested in how the likes of Huang helped Chinese architecture become international in the modern period by means of what he called "architectural translation" in the 1950s. Framed this way, mechanical progress did not necessarily mean sacrificing traditions for the sake of a Chinese-style modern architecture.

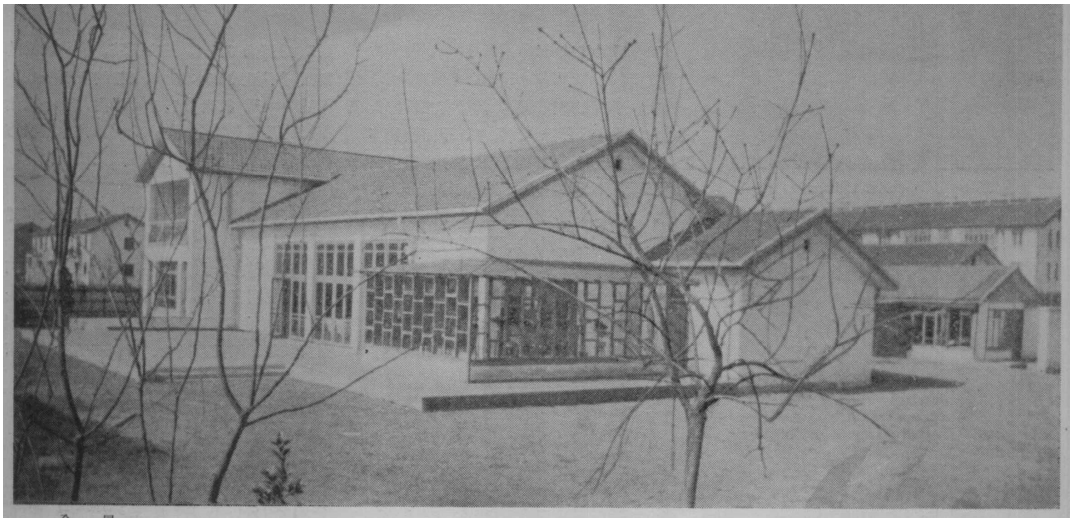

Fig. 8.5 Tongji Faculty Club, designed by SJU's TAC-like office, Craft-Build-Soil-Wood, 1956–1958

8.3 *Contemporary Building*: Toward an Archetype of Chinese Architects

> *I always thought that I was first of all a literati. I happened to be able to do architecture, and I learned to do architecture. From such a perspective, my vision of seeing things would be different.*[820]

[819] Liang, "The Characters of Chinese Architecture 中国建筑的特征," 39.
[820] Wang Shu, *Making a House* (*Zao Fangzi*; 造房子) (Changsha: Hunan Fine Arts Publishing House, 2016),

Although the 1952 reorganisation of higher education downplayed Huang's authority as SJU's pedagogical helmsman,[821] he still played a strong academic role in post-1949 China. When the Ten Great Architectural Works were launched in Beijing by the Chinese People's Political Consultative Conference (CPPCC) during the 1950s under the label of the National Day Projects, this was an opportunity that appealed to Chinese architects, especially those who, looking forward to a new People's Republic, had not left mainland China under Communist rule. Huang was not an exception. He rallied Tongji professors Feng Jizhong and Zhao Hanguang to propose a modernist structure with a glass curtain wall meant to "symbolise democratic transparency"[822] for the Great Hall of the People [Fig. 8.6].[823] Their design was not chosen to be built because they were ahead of their time. Nevertheless, this endeavour shows why Huang eventually favoured the term *contemporary* over *modern*, since the latter was *static* whereas the former, in contrast, was *dynamic*.

6. Wang Shu was the recipient of the 2012 Pritzker Architecture Prize and was the first Chinese architect to be so honoured. (Winner I. M. Pei, who received the prize in 1983, was born in China but lived and practised in the USA for 85 years. Pei passed away in 2019).

[821] The philosophy behind the new concept of Chinese higher education was the Marxist belief that education has a class character. For a study of the impact of the rearrangement in the 1950s on the subsequent course of higher education in China, see Rui Yang, "Tensions between the Global and the Local: A Comparative Illustration of the Reorganization of China's Higher Education in the 1950s and 1990s," *Higher Education* vol. 39, no. 3 (April 2000): 319–337. No longer was education a milieu in which one sought one's own highest development, but an instrument of the state designed to provide the personnel needed for national construction. Both Tongji and post–1949 Tsinghua had become training centres for professional engineers and skilled technicians rather than places of learning where knowledge was pursued for its own sake.

[822] Feng Jizhong, *Life of an Architect* 建築人生 (Oriental Press, Beijing, 2010), 153–154.

[823] In addition to the Great Hall of the People, the rest were the Museum of the Chinese Revolution and the Museum of Chinese History, the Military Museum of the Chinese People's Revolution, the National Agricultural Exhibition Hall, the Cultural Palace of Nationalities, the Nationalities Hotel, the Beijing Worker's Stadium, the Beijing Railway Station, the Diaoyutai Guest House, and the Overseas Chinese Mansion, totalling 640,000 square meters of floor space. The projects started in October 1958 and took only ten months to complete.

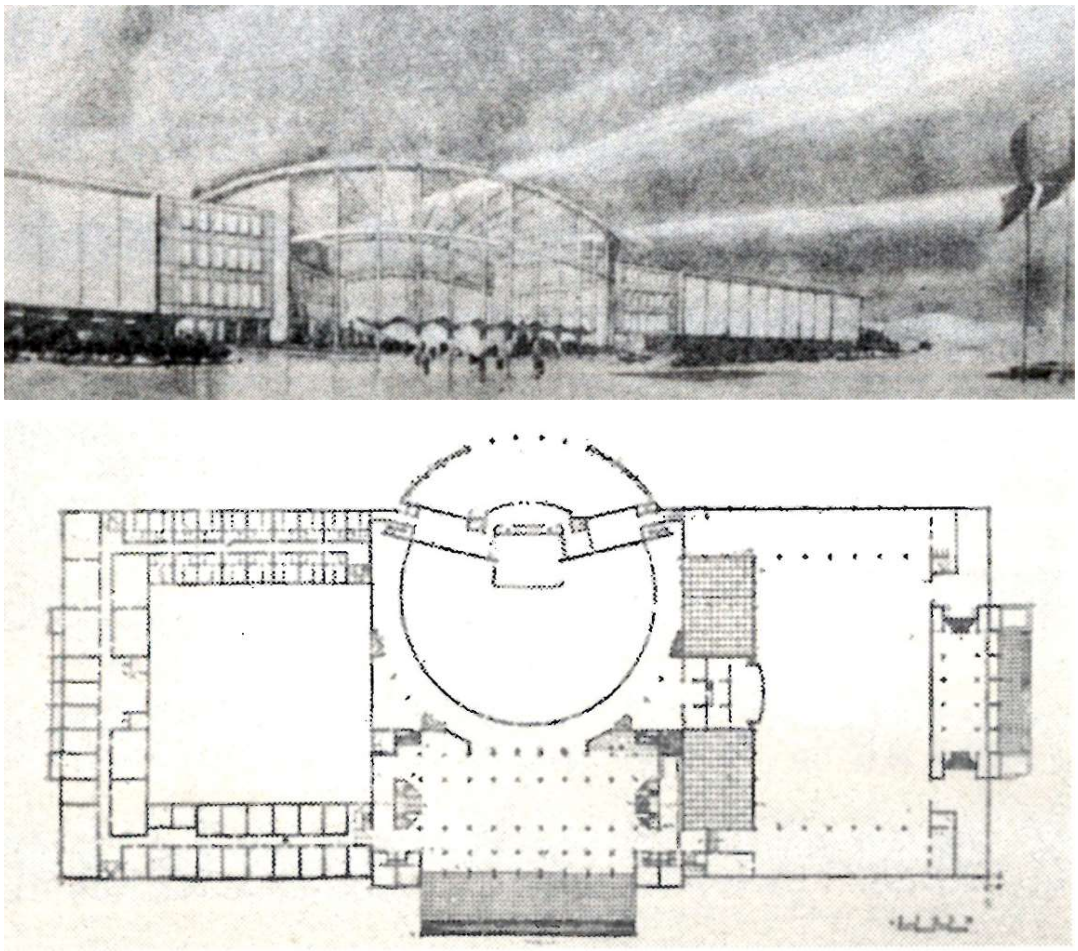

Fig. 8.6 Huang's proposal, on behalf of Tongji, for the Great Hall of the People, 1958. One also can see Liang's Monument to the People's Heroes peeping from the right side of the image (above), and its axial planning on a modernist layout (below). Although this design seemed to concern only skills and techniques, its ultimate goal was to achieve a socially justified architectural meaning.

On the other hand, Liang made it successfully to Tiananmen Square in Beijing. He completed another landmark in the Monument to the People's Heroes, a ten-storey obelisk on one of the world's largest open spaces. According to Liu Xiaoshi, a CCP administrator at Tsinghua's department of architectural engineering, Liang suggested a ranking system for the proposals for the Great Hall of the People received from across the whole nation, including Huang's: Chinese but modern (*zhong er xin*; 中而新), Western but modern (*xi er xin*; 西而新), Chinese and archaic (*zhong er gu*; 中而古), Western and archaic (*xi er gu*; 西而古), with the first being the most desirable and the last the least desirable. The chosen design—which had classic European columns and was submitted by the Beijing Planning Administration—was from Liang's lowest rank *Western and archaic*. Liang also

criticised this problematic option by calling it the "enlargement of a child."[824] "What is wrong with the whole thing?" Huang would answer himself in responding to Liang's trope from afar:

> *We took [buildings of foreign styles] quite rightly as signs of progress perhaps not knowing in what way. We wanted to learn. We began to wonder whether there was anything at all in our buildings [the humble native structure of brick and timber] really worthwhile … In fact in our whole cultural life, the faith in ourselves began to be shaken. There was time when everything labeled foreign was better than the native. In fact, it is still true to the present day. I hope that I would not be mistaken for advocating that things foreign are not necessarily good but I do regret that we should discard so much of our own heritage.*[825]

Half a century later, Feng recalled the design competition and critically revealed Tongji's progressive Chinese idea beyond Western training and modernist knowledge:

> *Because Chinese architecture does not look at the form but the idea, it is with the sub-body, the sub-body again, each other. There is a unified relationship. The north-south axis is its core. This is a logical unity of inner thought, not only a formal unity…Therefore, it is the unity of the mind, not necessarily visible, but such a thing…The form is required to be unified, to have contrast, or to have primary and secondary, all foreign and Western things. The Great Hall of the People, built later, is something from a foreign country, isn't it?*[826]

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[824] Liu Xiaoshi, interview notes, 20 May 1996, courtesy of Wang Jun. This "enlarged child," from Huang's point of view in his 1948 speech Chinese Architecture, is not unlike "one of the palaces [taken] out of the Forbidden City," which lose its essential relation to "the layout [that represents the] imperial system and the accompanying … ceremony and rites evolved through the ages, without which it would not be the same thing Confucius maintained to see a country properly ruled … The same could almost be said to architecture"; see Huang, "Chinese Architecture" [text in English].

[825] Ibid. The words in square brackets in this block quotation are also Huang's words from elsewhere in his Chinese Architecture speech notes.

[826] Feng Jizhong, "The Great Hall of the People in Beijing: A Proposal 北京人民大会堂方案," in Zhao Bing and Wang Mingxian, eds. The Centennial of Feng Jizhong: A Research Anthology 冯纪忠百年诞辰研究文集 (Beijing: China Architecture & Building Press, 2012), 255.

In this light, Feng deemed Huang's design to be Chinese in spirit, notwithstanding its strong modernist appearance. Framed this way, Tongji's proposal would be in the category of Liang's *Chinese but modern*.[827]

A building like the chosen design, from Huang's point of view in his 1948 speech Chinese Architecture [Fig. 8.7], "could be raised to architecture by the poetry in construction." However, it was this occidental conception—"Architecture is within that building"[828]—that failed to be "true [to] Chinese architecture" and became "architecture in quotation mark." Huang went on to explain:

> *[S]omething goes into turning a building to architecture comes from another source than the [architect-]builder. It is the [architect-]scholars who supplied that little, shall I say, kick…All the architectural efforts rendered by the [architect-]scholars were of unconscious nature…Therefore I would say that we [as architect-teachers] did think about* ***the art of building*** *but not knowing what*

[827] Huang would agree "Chinese but modern" was the best, although nothing then is said about the actual building. It is worthwhile to mention here a special news report of Yang Tingbao (1901–1982), a Chinese architect-builder of Liang's generation who also belonged to 'the Chinese contingent' at the University of Pennsylvania. In *The Evening Bulletin* (2 September 1925), Yang was reported to have told the Americans that rice was not his favourite food, and that became the amusing subtitle of "Chinese Student Gets High Honor: Boy Dislikes Rice": "The American idea that rice is the chief food of the Chinese is wrong. Many eat it in the districts most visited by American tourists, but in the province of Honan [Henan], where I lived, rice is eaten very little." See Ruan Xing, "Accidental Affinities: American Beaux-Arts in Twentieth-Century Chinese Architectural Education and Practice," *Journal of the Society of Architectural Historians* 61, no. 1 (2002): 44–45, later published as Ruan Xing, "Yang Tingbao, China's Modern Architect in the Twentieth Century," in *Chinese Architecture and the Beaux-Arts*, eds. Jeffrey W. Cody, Nancy S. Steinhardt, and Tony Atkin (Honolulu: University of Hawai'i Press, 2011), 166. In this light, Yang made a clear choice to identify common ground—between West and East—more than cultural differences. Huang would think otherwise. It was "the unique [Chinese] national characteristics such as honesty, simplicity, modesty, diligence, and hard work" that underscored the distinct Chineseness betrayed by a project like the Ministry building for Foreign Affairs in Nanjing (the Communist government's capital). It was designed in 1931 by Yang, who was in charge of the Nanjing branch of Kwan, Chu & Yang Architects and Engineers, *Jitai Gongchengsi*, after 1927.This design was made only a year after Zhao Shan and Robert Fan designed the "Executive Yuan building." Incorporating traditional-looking Chinese characteristics (such as the big roof) into modern programs in the 1930s, these Beaux-Arts-trained architect-builders were criticised by Huang in his Chinese Architecture speech (1948). Unlike Yang, Chinese or otherwise was never an either/or matter for Huang. Cultural affinity and difference are often intertwined to generate new architectures. Instead of overemphasising cultural differences and regionalism by removing Chinese labels, a more cosmopolitan model of architectural knowledge should be accepted; hence the virtues of Chinese modernity Huang slated for the Architecture Is Not Only Housing symposium (1949).

[828] This notion is related with Huang's definition of two separate things mentioned earlier in the same speech: "one is the building and the other is architecture as we have prose and poetry. A building will remain as a building as long as it lacks something to raise it into architecture. So we might say that architecture lies in the building. In such a case a building is a work of architecture"; see Huang, "Chinese Architecture [text in English]."

> *we did. We did not even bother to give a name to all this mental endeavour.*[829]

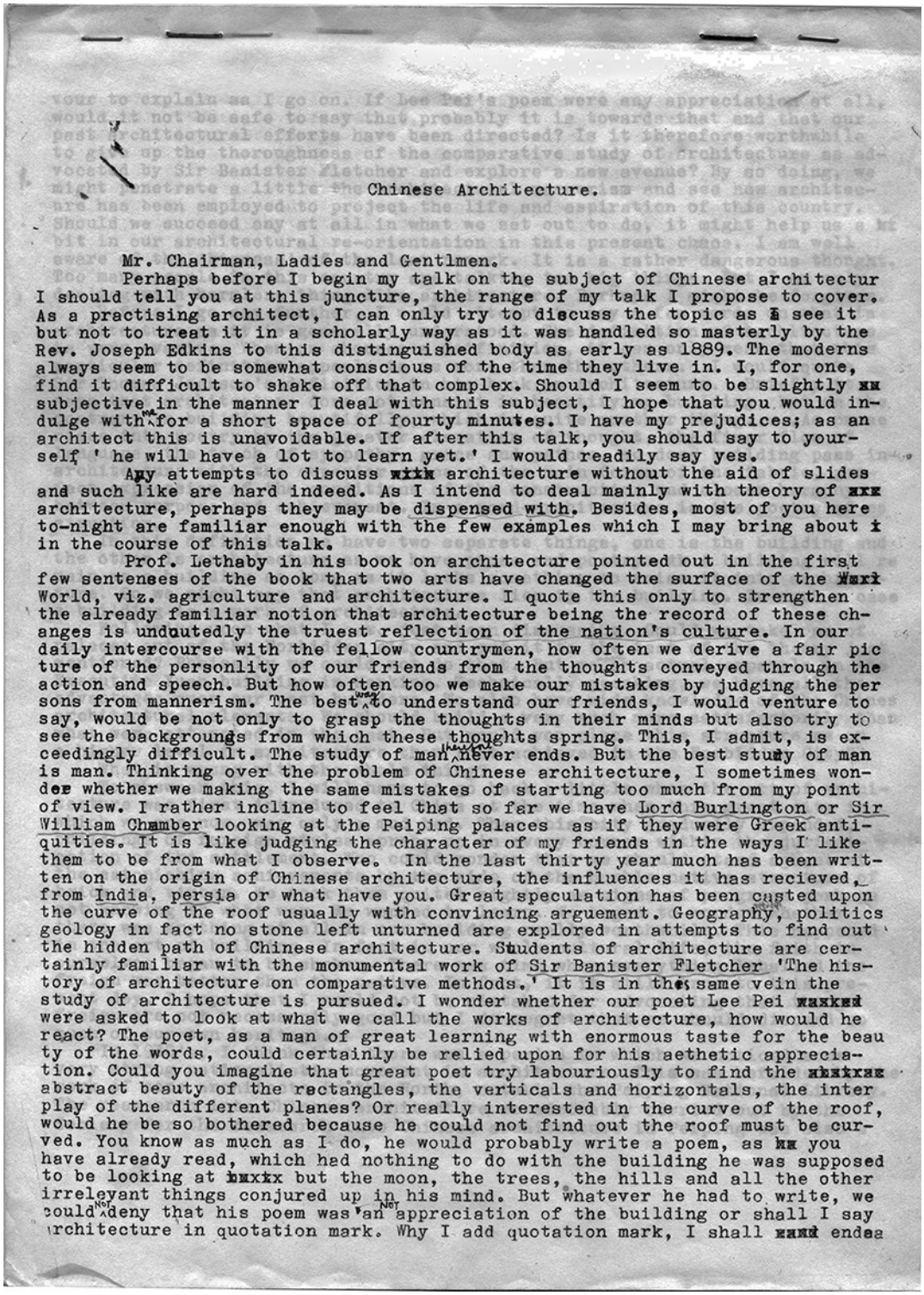
This project could be a 'Great Hall' but for Huang it was *not* 'of the People.' He said, "Building was only a means. The [architect-]scholars by means of the buildings tried to express the aspiration of the time."[830] While architect-builders could focus only on the *scientific* side of an architectural work, there was still much *popular* and *Chinese* "Arts" room left for architect-teachers to address. However, in practice there was a gap between "Social Science" and "Technical Science":

> *We now have two forces going to the making of Chinese architecture independently of each other. On the one hand, we have [architect-builders] supplying the physical needs and on the other hand, [architect-teachers] unconsciously applying the intellectual efforts. The builders leave their monuments behind for posterity while the scholars mislay their ideas among the moon, the trees, and the hills.*[831]

[829] Ibid., emphasis added. This is slightly different from and goes beyond Liang's "creation" (*chuangyi*; 創意) as opposed to "adaption," discussed in 7.3.2.1. Huang, in this "the art of building," would go further and use another word, "originality" (*yuanchuang*; 原創), as Li Dehua remembered; see Luo and Qian, "Remembering Huang Zuoshen 怀念黄作燊," 51; Luo and Li, "Department of Architectural Engineering of St. John's University, 1942–1952 原圣约翰大学的建筑工程系 1942—1952," 26.

[830] Huang, "Chinese Architecture [text in English]."

[831] Ibid.



Chinese Architecture.

Mr. Chairman, Ladies and Gentlmen.

Perhaps before I begin my talk on the subject of Chinese architectur I should tell you at this juncture, the range of my talk I propose to cover. As a practising architect, I can only try to discuss the topic as I see it but not to treat it in a scholarly way as it was handled so masterly by the Rev. Joseph Edkins to this distinguished body as early as 1889. The moderns always seem to be somewhat conscious of the time they live in. I, for one, find it difficult to shake off that complex. Should I seem to be slightly xx subjective in the manner I deal with this subject, I hope that you would indulge with for a short space of fourty minutes. I have my prejudices; as an architect this is unavoidable. If after this talk, you should say to yourself ' he will have a lot to learn yet.' I would readily say yes.

Any attempts to discuss xxxx architecture without the aid of slides and such like are hard indeed. As I intend to deal mainly with theory of xxx architecture, perhaps they may be dispensed with. Besides, most of you here to-night are familiar enough with the few examples which I may bring about x in the course of this talk.

Prof. Lethaby in his book on architecture pointed out in the first few sentenses of the book that two arts have changed the surface of the xxxx World, viz. agriculture and architecture. I quote this only to strengthen the already familiar notion that architecture being the record of these changes is undoutedly the truest reflection of the nation's culture. In our daily intercourse with the fellow countrymen, how often we derive a fair picture of the personlity of our friends from the thoughts conveyed through the action and speech. But how often too we make our mistakes by judging the persons from mannerism. The best way to understand our friends, I would venture to say, would be not only to grasp the thoughts in their minds but also try to see the backgrounds from which these thoughts spring. This, I admit, is exceedingly difficult. The study of man never ends. But the best study of man is man. Thinking over the problem of Chinese architecture, I sometimes wonder whether we making the same mistakes of starting too much from my point of view. I rather incline to feel that so far we have Lord Burlington or Sir William Chamber looking at the Peiping palaces as if they were Greek antiquities. It is like judging the character of my friends in the ways I like them to be from what I observe. In the last thirty year much has been written on the origin of Chinese architecture, the influences it has recieved, from India, persia or what have you. Great speculation has been casted upon the curve of the roof usually with convincing arguement. Geography, politics geology in fact no stone left unturned are explored in attempts to find out the hidden path of Chinese architecture. Students of architecture are certainly familiar with the monumental work of Sir Banister Fletcher 'The history of architecture on comparative methods.' It is in the same vein the study of architecture is pursued. I wonder whether our poet Lee Pei xxxxxx were asked to look at what we call the works of architecture, how would he react? The poet, as a man of great learning with enormous taste for the beauty of the words, could certainly be relied upon for his aethetic appreciation. Could you imagine that great poet try labouriously to find the xxxxxxx abstract beauty of the rectangles, the verticals and horizontals, the inter play of the different planes? Or really interested in the curve of the roof, would he be so bothered because he could not find out the roof must be curved. You know as much as I do, he would probably write a poem, as xx you have already read, which had nothing to do with the building he was supposed to be looking at xxxxx but the moon, the trees, the hills and all the other irrelevant things conjured up in his mind. But whatever he had to write, we could not deny that his poem was an appreciation of the building or shall I say architecture in quotation mark. Why I add quotation mark, I shall xxxx endea

Fig. 8.7 Huang's speech manuscript with his handwritten notes, 1948. On this first page, he underlined "Lord Burlington [Richard Boyle (3rd earl of Burlington, 1694–1753)]," "Sir William Chamber [*sic*] [1723–1796]," and "Sir Banister Fletcher [1866–1953]" in a discussion of Chinese architecture.

It was the desire to fulfil usefulness, stability, and aesthetics as a whole and thereby build a modern Chinese architecture that distinguished Huang, Liang, and their sort of architect-

teachers from other architect-builders in general. Once a finer scope is trained on the catch-all phrase "Chinese architect," as this thesis attempts to do, we can see a Chinese archetype of the architect as the literatus, distinctly different from the European and American archetypes of the hero, the saint, the avant-garde, and the expert.

Although many architect-builders had attempted to create a modern Chinese-style architecture by combining the plan layout and compositional devices of Western architecture with such elements of Chinese architecture as the curved roof, bracket set, and sculptured plinth, architect-teachers like Liang endeavoured to define what they saw as a "pure" language of Chinese architecture. Liang tried to do in his 1954 theory of architectural translatability.[832] In this theory, he said that to modernise China's architectural tradition was to translate its vocabulary and grammar using modern technology (usefulness) and material (stability) without losing its essential formal characteristics (aesthetics).

Borrowing 1938's MARS exhibition theme, SJU's architectural exhibition of student works in 1951 was also entitled "new architecture" (*xin jianjhu*). Huang described it as "neither traditional nor obsessed with futuristic mechanistic technique…[but] the expression of … logical outcome of applying such technique on a rational basis [the "scientific" quality of modern Chinese architecture] to create an orderly social background [the "Chinese" quality] to the difficult task of living and working [the "popular" quality]."[833] The entrance banner, which demonstrated how Huang defined the "contemporality" of architecture, read "new architecture is an architecture that is ever moving forward. It evolves by the objective conditions, expressing the progress of history, therefore not being allowed to stay in a particular historic phase" [Fig. 8.8].

[832] As noted in 1.3.3 and 6.3, this thread of work could be one of those Liang prepared for a relatively long time, approximately a decade in this entry. One can trace it in his *SRCA Bulletin* article The Two 'Grammar Textbooks' of Chinese Architecture in 1945; the Yenching University speech The Characters of Chinese Architecture in 1948 (shortly after his return from the USA); and the ASC inauguration oration in 1954 and its subsequent publication in *Architectural Journal* (ASC periodical) in the same year.

[833] Huang, "Architecture at St. John's" [text in English].

Fig. 8.8 SJU student-architect Li Dingyi pictured at the entrance of the "new architecture" exhibition of student works, 1951

Although modern architectural history is often written through the archetype of architects as cultural heroes, China's architect-teachers seemed to find resonance with the Chinese literati—centuries older than the Western historiography of modern architecture, which was born in the 1930s. These architects shared a much wider sphere of influence than those in the normative Euro-American conception of architecture. In this thesis, the Chinese literati of modern architecture include Huang at SJU and Liang at Tsinghua. As architect-teachers (in Huang's words, "architect-scholars"), they never began at zero. Rather, they stood on the shoulders of giants from both Chinese and Western traditions to survive contested discourses and elaborate upon makeshift modernities that provided three distinct *kicks* (per Huang's parlance quoted above) to contemporary building (*dangdai yingjian*) as it was taught at Chinese modern universities:

> *The first was based on a view of higher education as practical preparation for public service [society]. The second privileged "pure" scientific research [engineering], on the model of the German technical university. The third took the university's mission to be the*

elevation of public taste and the diffusion of a liberal, humanistic culture [art].[834]

By revealing that there is much agreement between the axioms established by Huang Zuoshen and Liang Sicheng, this comparative study has contributed knowledge in this field which would otherwise be little more than a whisper in terms of studies of the development of early modern architectural education in China. Huang and Liang's mutual ideas are unpacked in the preceding chapters and then summarised via three trilogies in the conclusion of this thesis. Their ideas can be summed up thus: There is a humanistic desideratum for architecture and all planning; the new technical possibilities of a modern-day China carried certain limitations with them; the new aesthetic of Chinese cultural expression was based on both physiological and psychological factors. Huang and Liang agreed on these principles—related to society, engineering, and art. This thesis has attempted to reveal the ways and means, individually and collectively, they applied them at St. John's University and Tsinghua University.

8.4 After 1952: Some Implications of This Thesis

Charles Chen (Huang's Five-United Partner and SJU colleague) expressed his concern at the Architecture Is Not Only Housing symposium, saying, "It is true that Chinese architects have shown the same ability as foreign architects, but their own tasks can be said to have not been achieved."[835] (In other words, while Chinese architects had had *scientific* success before 1949, they had not yet fulfilled their promise in the *popular* and *Chinese* arenas.) How should Chinese architects nowadays, so far removed from the dynamics of Liang and Huang all those decades ago, think that Chen's call to arms has relevance for them? With relations between the USA and China strained by trade and political competition, the COVID-19 pandemic, and Russia's invasion of Ukraine, in January 2022, the exhibition Building in China: A Century of Dialogues on Modern Architecture took place at the University of Pennsylvania. The venue told the story of Chinese modernism in two parts: one displaying archival dossiers and showing brief biographical information on each of the 23 Chinese architect-students at Penn,

[834] Laurence R. Veysey, *The Emergence of the American University* (Chicago, IL: University of Chicago Press, 1965), 13.
[835] "Architecture Is Not Only Housing: A Symposium 座談紀錄：建築不僅是造房子而已," 32.

photographs of them in Philadelphia, and reproductions of some of their work at the school (including some by Liang and Lin under the auspices of the Architectural Archives at Penn, although Lin was enrolled in the Department of Fine Arts); the other part focused on six recent projects of two contemporary Chinese architects—three from Chang Yungho (at the Beijing-based firm Atelier FCJZ) and three from Wang Shu (at the Hangzhou-based firm Amateur Architecture Studio), using drawings, models created for this exhibition, and photographs.

According to Clifford A. Pearson, the author of a review of this exhibition for *Architectural Record*, Chang and Wang "continue the struggle to balance modernism and Chinese characteristics…The twinned parts serve as bookends to a century of dialogues about East and West, and about modernism and traditionalism."[836] However, in the latest edition of *Modern Architecture: A Critical History* released by Kenneth Frampton in 2020, these Chinese architects and their contemporaries born in the 1950s, 1960s, and 1970s[837] represent a fully emerged regional school of like-minded practitioners that offers fresh perspectives on the well-trodden Western histories of the Beaux-Arts versus Modernism clash: either building over tabula rasa sites in the countryside or destroying pre-existing historical heritage in cities to replace it with decisively modern, yet often culturally and geographically inferior, buildings that could be built anywhere. These two assessments of contemporary Chinese architects show, in my opinion, that the so-called 'dialogues' are not limited to ones between "East and West" (*Dong-Xi*; 東西) or "Chinese and Western" (*Zhong-Xi*; 中西) but also include one amid Huang, Liang, and contemporary Chinese architects—a contested architectural discourse that reaches beyond preserving or overcoming Chinese-ness.

The Penn exhibition's curator, Lin Zhongjie, spoke of "a spectrum of approaches and an evolution of styles from neo-classical to modern."[838] From the perspective of this thesis,

[836] Clifford A. Pearson, "In New Exhibit, Architecture Bridges the U.S.-China Divide," 24 March 2022, https://www.architecturalrecord.com/articles/15589-in-new-penn-exhibition-architecture-bridges-the-us-china-divide.

[837] Chang and Wang's contemporaries include Liu Jiakun, along with the current most active generation of Chinese architects born in the 1970s such as Dong Gong of Vector Architects, Zhang Ke of ZAO/ standard architecture, Li Hu and Huang Wenjing of Open Architecture, and DnA_Design and Architecture (although Xu Tiantian, the founder of this small female-led, Beijing-based practice is not identified by name); see Kenneth Frampton, *Modern Architecture: A Critical History* (London: Thames & Hudson, 2020 [1980]).

[838] Quoted in Pearson, "In New Exhibit, Architecture Bridges the U.S.-China Divide," Lin is currently an

however, this view overlooks an archetype of Chinese architects as literati. As the exhibit featured a vocabulary associated only with Western ideologies, it ranged in building *types* (from houses and apartment buildings to railroad stations and educational facilities) but not in building *topics* (what Liang called *Ying Jian*—the built environment as a whole—or what Huang explored in his research-based architectural programming). The "new formalism," to borrow Pearson's words, of contemporary Chinese architects would not answer Chen's earlier concern that Chinese architects had not achieved their 'own tasks.' This can be seen through, for example, Chang's Studio Houses at the Dongqian Education Forum on the outskirts of Ningbo, based on a series of geometric exercises, or Wang's Ningbo History Museum, which marries monumental scale with the fine grain of materials like brick and tile. These works have come at the expense of Huang's call for Confucian values in good design and the social position of an architect. In arguing for a re-examination of Huang's and Liang's approaches to Chinese modernism, this thesis attempts to bridge two eras and the growing divide between Chinese modern (whole) men—as Liang reclaimed them from a half-a-man world—and China's modern architecture.

It is worth mentioning that this reflection is notably indebted to how Chang Hao, in his 1987 *Chinese Intellectuals in Crisis*, played down modern-day China's potential for a seemingly linear view of the world given its ineradicable cyclical view.[839] This recalls Yen Fu's mantra: "The greatest and most irreconcilable difference between Chinese and Western thinking is that the Chinese love the past and neglect the present, while Westerners strive in the present to surpass the past."[840] The implication is twofold: On the one hand, Chinse people/ architects have been commonly fascinated with the interactivities between old and new/ Western classical and Chinese traditional forms as juxtaposed at the Penn exhibition; on the other hand, it was the ability to excel in elastic recovery (rooted in the old dynastic cycle version of Chinese history) that enabled Huang's and Liang's efforts to emphasise the "social position of the architect." This ability allowed them to survive the Anti-Rightist Campaign (1957)—after their carefully

associate professor of city and regional planning at Penn's Weitzman School of Design and curated the exhibition along with Tong Ming of Southeast University School of Architecture in Nanjing and Li Xiangning of Tongji University CAUP in Shanghai.

[839] Chang Hao, *Chinese Intellectuals in Crisis: Search for Order and Meaning, 1890-1911* (Berkeley, Los Angeles and London: University of California Press, 1987), 52.

[840] Cited by James R. Pusey, *China and Charles Darwin* (Cambridge, Mass. and London: Harvard University Press, 1983), 51.

constructed curricula were dismantled blatantly at SJU and Tsinghua—and preserved their legacies even beyond their deaths (in 1975 and 1972, respectively) during the Great Proletarian Cultural Revolution for today's Chinese architecture community.

In addition to the hard-won flexibility and resiliency of architect-teachers, admittedly, the PRC's learning from the "Soviet, the big elder brother" (*Sulian laodage*; 蘇聯老大哥)[841] policy of imitating Stalinism's aversion to Constructivism and other modernist tendencies affected architect-builders considerably but architect-teachers only slightly since the latter were less concerned with how modern buildings should be designed than with the theories that (Chinese) architecture should embody. In the Party line aligned with the firm China-Soviet alliance, Liang asserted that "our buildings are 'new-democratic, that is, *national* [or Huang's *Chinese*, their priorities], scientific, and popular buildings."[842] Albeit not officially consigned by CPPCC in Beijing, 1959's National Day Projects took place also in Shanghai as part of the local authority's propaganda for the tenth Anniversary of the Founding of the People's Republic of China: At Tongji University, Huang led young teachers Zhao Hanguang and Wang Jizhong, along with students, to design a Three Thousand People Opera House that considered modernism by using the latest international structural technology, including suspended stands, cable roofs, and reinforced concrete.[843] Based on the national-ethnic form of Chinese architecture asserted by Liang in the 1950s, he and Lin published in the year of the 'college-department rearrangement':

> *The people of the country deserve to ask [people's] architects—and they also have reasons to believe—that, in a very short period of time, among all architectural designs in the country, the architecture of New China will inevitably achieve great achievements, and the design standards of architect[-builders who stay under the Communist rule] will inevitably significantly improve. Improve, because we will find our own traditional artistic characteristics again, and use the latest technology and materials to develop brilliant new buildings that are 'appreciated by the Chinese people' and worthy of*

[841] Fan, "A Classicist Architecture for Utopia: The Soviet Contacts," 93.
[842] Liang, "The National-Ethnic Form of Architecture 建築的民族形式," emphasis added.
[843] Hua Xiahong, "Professor Zhao Xiuheng talked about the study of the auditorium of Shanghai Opera House with 3,000 people 赵秀恒教授谈上海 3000 人歌剧院观众厅研究," *Oral History of Chinese Architecture, vol. 1: Rescuing History from Memory 中国建筑口述史文库（第一辑：抢救记忆中的历史）*, eds. Chen Bochao and Liu Siduo (Shanghai: Tongji University Press, 2018), 121.

*China in the Mao Zedong era. That is the architecture of New Democracy, that is, our '**national** and **popular**' architecture.*[844]

Still, Tongji's Opera House proposal had a traditional appearance full of ethnic styles [Fig. 8.9], as a tribute to China's successful completion of the first five-year plan (1953–1957) and the launch of the second one (1958–1962), dubbed the Great Leap Forward. A key problem in Chinese past and present conceptualisations is the tension or conflict between universal human progress and particular Chinese development, which is either erased from or incorporated into them.

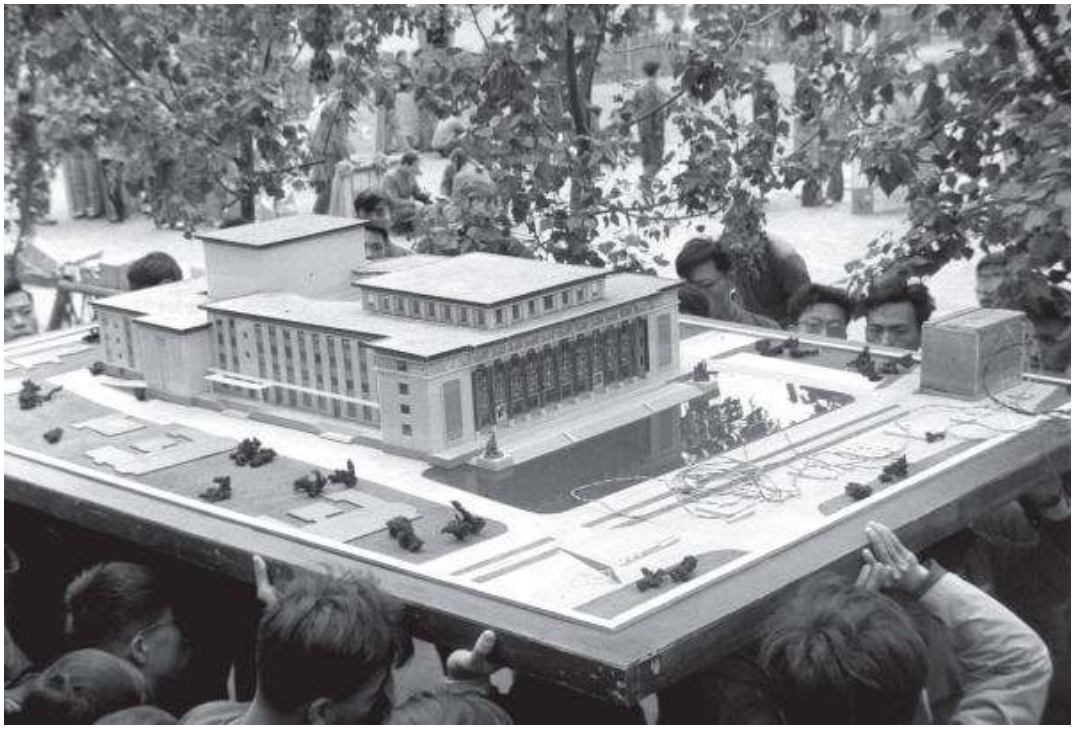


Fig. 8.9 The scheme model of Three Thousand People Opera House made by Tongji's architect-students under the instruction of Huang and other young student-turned-teachers, 1959. However, the design proposal was negated due to the Cultural Revolution and stayed permanently in the form of drawings and models.

On the other hand, in order to convert student-architects from Beaux-Arts formal modality to a modern functionalist mentality at Tsinghua, Liang—even after his 1946–1947 modernist pilgrimage in the USA and failure in recruiting modernist faculty like Wu, Wang, and Cheang—did not mind enlisting his fellow Penn alumnus Tong anew as he

[844] Liang Sicheng and Lin Huiyin, "The Architectural Tradition of the Motherland and the Current Construction Problems 祖國的建築傳統與當前的建設問題," *New Observation 新觀察*, vol. 4, no. 16 (1952): 16.

had done at NNU. In his letter to Tong [Fig. 8.10], Liang expressed that modern Chinese intellectuals needed to assert the particularity of Chinese history in the face of the overwhelming superiority of scientific civilisation and values. Although the introduction of the Soviet classicist method (at the time the only sanctioned method in the USSR) to China is sometimes rendered psychologically in terms of an identity crisis, at any rate, it was not fundamentally different from the existing architectural curricula in Chinese schools, most of which also had a French ancestry, acquired especially through the dissemination of the Penn-transcribed Beaux-Arts method.[845] In other words, when Beijing welcomed more than 20,000 Soviet experts almost immediately after 1949 to come to the mainland to help accelerate the country's industrialisation and its progress toward socialism, Liang and Huang had foreseen architect-builders' retreat (in both intellectual and practical areas) from the May Fourth Movement in 1919.

[845] Fan, "A Classicist Architecture for Utopia: The Soviet Contacts," 101–102.

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清華，六月六日。

老童：

恭喜你們也解放了。現在雖然稍遲了幾天，但我仍以"老區"的資格來向你致賀。清華比北平城早獲解放一個月，從解放的第一天起，解放軍的紀律就給了我們極深的印象。接着与中共方面的種種接觸，看見他們虛懷若谷，實事求是的精神，耳聞目見，無不使我們心悅誠服而興奮。中國這次真的革命成功了。中共政策才能把腐敗的中國從半封建半殖民地的狀況裡拯救出來。前途滿是光明。這不是 jargon，而是真誠老實的話。南京解放後，想你們亦也同感。

現在北方已安定下來，並且已展開了建設工作。北平是新中國的首都，以後需要大量的建築師，並且需要訓練大量的新建築師。我希望你早早的北來，華蓋可在平設一分事務所，先立下基礎。從清華及我個人的立場說，我懇求你實踐我們在重慶的口約，回來提攜母校的後進。我已對學生說了多少次你早已答應過來清華，他們都在切盼。清華建築系的師資太缺乏了，你若肯來，可以給我們無量的鼓勵。因此雙重原因，我懇切的求你毅然離開南京，來為母校養育後輩。我知中大也需要你，但在寧滬的建築師多，總可找个替身，而清華之需要老兄，却是迫切之至。

北來旅程的一切，政府都能為你準備，並盼早日賜覆。即候雙安。

弟思成 懇切拜上。

徽因附候。

這是梁思成教授寫給我父親的信，[illegible]，我認為[illegible]作為"佚文"編入梁先生文集。這封信字裡行間充滿了梁先生對新中國的誕生的興奮喜悅之情，也說明了當時北方高校廣招人才，積極參加新中國的建設。這一點我在序文中已經談到了。此信是[illegible]。[illegible]

Fig. 8.10 Dated 6 June 1949, Liang's letter to invite Tong to join his Tsinghua architecture faculty, in which the touching second paragraph reads, "Now Beijing has settled down and construction has begun. Beijing is the capital of new China, and it will need many architects in the future, and it will need to train a large number of new architects. I hope you come to the north early…Concerning Tsinghua and my personal position, I implore you to fulfil our promise in Chongqing and come back to support the progress of our alma mater. How often have I told my students that you promised to join us? And they are all looking forward to it. Tsinghua is too short of architect-teachers…I sincerely beg you to leave Nanjing resolutely to raise younger generations for your alma mater. I know that NCU also needs you…but Tsinghua needs you urgently."

"According to Mao Zedong," observed Wakeman, "once China moved from a semicolonial stage [the era of unequal treaties when the great powers shared China's human and natural resources among themselves] to a fully colonial position [the period of military occupation by Japan during the War of Resistance], a 'national bourgeoisie' did emerge."[846] In the fully exposed face of imperialism, however, two strands of that intellectual sector of Chinese society acted differently. The patriotic element of architect-teachers within the capital class was prepared to form a united front with the proletariat and peasantry against the Japanese to fight for a New Democracy. After the Japanese were defeated, their struggle continued against unalloyed capitalists—in which some architect-builders were also included—and their political arm, the KMT, who left for Free China (Hong Kong or Taiwan). They could then carry out a social revolution under the Communist Party and the people's democratic dictatorship to make the great leap forward into socialism on the mainland. When Liang and Lin had their article translated into Russian and Ukrainian in 1953[847] [Fig. 8.11], compared with the original Chinese version, they *added* first and end paragraphs showing a strong will to maintain world peace:

> *[first paragraph:] After liberation, the Chinese people began to rebuild their country. The buildings destroyed by the Japanese invaders and the KMT were carefully restored to meet the needs of the people in the most urgent living spaces such as factories, houses, and public buildings [in Liang's words in Letter 2: a bed for*

[846] Wakeman, "Chinese Modernity," 157.

[847] The ASC, established by Liang Sicheng in October 1953, took on the important task of PRC to carry out architectural academic exchanges with the outside world. Through participating in conferences, forming study tour groups, holding exhibitions and other channels, there were intensive overseas travel activities in the 1950s and 1960s. Most of the trips were related to UIA's activities, including the Soviet Union (1953, 1956, 1958), Poland (1956), DDR (East Germany, 1956), Czechoslovakia (1958), Cuba (1963), Mexico (1963), Brazil (1963) and France (1965), see Liu, "Liang Sicheng and International Architectural Exchange in the Early Years of the PRC, 1953–1965 梁思成与新中国早期的国际建筑交流（1953—1965）," 60–61.

everybody]. The restoration and development of economic life under the impetus of liberation proceeded with unexpected speed. The pace of building construction has also accelerated…[end paragraph:] The architects of new China work for the peace and happiness of the people [in Liang's words in Letter 2: peaceful dwelling and the happy pursuit of one's work]. They know that happiness does not come easily. This is why they, like the people of the whole country, resolutely safeguard the peace of the motherland and the world, so that people's livelihood infrastructure can be carried out at an incomparable speed. They do not allow anyone to destroy their own cultural traditions and civil construction, nor allow anyone to destroy the culture and construction of other peoples. They hope that the people of the world can live their own peaceful, happy and brand new life, and enrich each other's culture and lives.[848]

[848] ЛЯН СЫ-ЧЭН, "Великие традиции и наследство архитектуры Китая," Перевод с китайского языка М. Степанова, *Архитектура СССР*, no. 8 (1953): 22, 30.

Fig. 8.11 The Russian (top, translated from Chinese) and Ukrainian (bottom, translated from Russian) versions of Liang and Lin's 1952 *New Observation* article were published in 1953, during which Liang visited the Soviet Union to participate in Stalin's state funeral in March and stayed for several months.

The periodical below was given as a gift when visiting the Ukrainian Academy of Architecture. (However, Lin's name does not appear in the author column in both translations for an unknown reason.)

From a decaying dynastic society to an evolving colonial-capitalist one, Chinese architectural modernity—which Liang hoped could solve the problems of society with architects as whole men and Huang hoped could do so through concern for the social position of an architect—was less to be achieved through independent professional practice than through political leadership (whether of the KMT or the CCP). In this project, architect-teachers offered alternative modes of modernities by *making* architectural progressiveness *shift* in China's name (*Zhongguo de*; 中國的).[849] As far as makeshift modernities were concerned, for the Chinese architecture community after 1952, the most important result from the "Learning from the Soviet Union" was the justification it gave for using traditional forms to implement socialist ideology (*usefulness* and *aesthetics*); less important were the technical details (*stability*), which they already shared in considerable measure with their Soviet colleagues. Putting the tripartite formula in simpler terms, we should also rethink the currency of Huang's and Liang's makeshift contemporaneities and their further applicability for contemporary architects in China (which could bolster makeshift currencies motivated by the quest for greater status and marketability). One only needs to think of sustainable development in regard to *society*, climate change in regard to *engineering*, and LGBTQ (lesbian, gay, bisexual, transgender, and questioning or queer) issues in regard to *art* as a new agenda for today's architectural education and professional practice in China or otherwise around the globe. Seen in this light, although the Building in China exhibition's two parts seem to be separate exhibitions at first, the gap between them is analogous to China's leap from the difficult decades of the first half of the twentieth century to the ambitious years of the twenty-first.

[849] In Liang's original title for the 1952 article above, he spoke of "motherland" (*zuguo de*; 祖國的) or "domestic" (*guochan de*;國產的) architecture; see Liang Sicheng, "Congratulations to the first class of graduates from the Department of Architectur[al Engineering] at NNU 祝東北大學建築〔工程〕系第一班畢業生," *The Chinese Architect*, inaugural Issue (November 1932): Unpaginated.

Figure References

CHAPTER 1

Fig. 1.1 University Archives, the University of Pennsylvania

Fig. 1.2 *NNU Yearbook*, 1929

Fig. 1.3 The Memorial Hall of the Society for Research in Chinese Architecture, Tsinghua University

Fig. 1.4 *National Standardised Curriculum*, 1940

Fig. 1.5 University Archives, South China Institute of Technology

Fig. 1.6 The Memorial Hall of the Society for Research in Chinese Architecture, Tsinghua University

Fig. 1.7 Courtesy of Wang Shouzheng (Wang Dahong's eldest son)

Fig. 1.8 Courtesy of Yu Kui (the granddaughter of Liang and Lin)

Fig. 1.9 University Archives, Tsinghua University

Fig. 1.10 Archives and Records Management Section, United Nations Archives

Fig. 1.11 *Architectural Forum*, April 1947

Fig. 1.12 University Archives, Tsinghua University

Fig. 1.13 Courtesy of Lin Zhu (Liang's second wife)

Fig. 1.14 University Archives, Harvard University

Fig. 1.15 Courtesy of Jill E. Pearlman

PART 1

CHAPTER 2

Fig. 2.1 Courtesy of Huang Zhi (Huang's youngest son)

Fig. 2.2 Modern Architecture Research (MARS) Group Files, AA Library

Fig. 2.3 Courtesy of Huang Zhi

Fig. 2.4 Student Register, AA Archive (First and Fifth Year, 1933–1945)

CHAPTER 3

Fig. 3.1 Courtesy of Huang Zhi

Fig. 3.2 Courtesy of Ines Zalduendo

Fig. 3.3 Marcel Breuer Papers, Special Collections Research Centre, Syracuse University

Fig. 3.4 Marcel Breuer Papers, Special Collections Research Centre, Syracuse University

CHAPTER 4

Fig. 4.1 Courtesy of Huang Zhi

Fig. 4.2 Courtesy of Chang Yayun (Chang Chaokang's eldest daughter)

Fig. 4.3 Courtesy of Lu Yongyi

Fig. 4.4 Richard Paulick Papers, Architekturmuseum, Technische Universität München

Fig. 4.5 Richard Paulick Papers, Architekturmuseum, Technische Universität München

Fig. 4.6 Richard Paulick Papers, Architekturmuseum, Technische Universität München

Fig. 4.7 Courtesy of Wang Haoyu (upper); *St. John's University, Shanghai, 1879–1951*, 1955 (lower)

Fig. 4.8 Courtesy of Edward Denison

Fig. 4.9 *Old Buildings in Colleges and Universities of Shanghai*, 2017

Fig. 4.10 *Preface to A CALL*, 1941

Fig. 4.11 *Architectural Forum*, March 1941

Fig. 4.12 Richard Paulick Papers, Architekturmuseum, Technische Universität München

Fig. 4.13 Richard Paulick Papers, Architekturmuseum, Technische Universität München (upper); St. John's Minutes, Divinity Library Special Collections, Yale University (lower)

Fig. 4.14 Richard Paulick Papers, Architekturmuseum, Technische Universität München

Fig. 4.15 *The Chinese Architect*, December 1933

Fig. 4.16 Richard Paulick Papers, Architekturmuseum, Technische Universität München

Fig. 4.17 Courtesy of Huang Zhi

Fig. 4.18 Courtesy of Huang Zhi (upper); my own photograph taken at the exhibition, Tongji University, Shanghai (lower)

PART 2

CHAPTER 5

Fig. 5.1 King-Lui Wu Papers, Sterling Memorial Library, Yale University

Fig. 5.2 Courtesy of Yu Kui

Fig. 5.3 Proceedings, Far Eastern Culture and Society, Princeton University Bicentennial Conference (Series 2, Conference 7), Marquand Library of Art and Archaeology, Princeton University

Fig. 5.4 Liang, Ssu-ch'eng; Honorary Degree Records, AC106, Princeton University Archives, Department of Special Collections, Seeley G. Mudd Manuscript Library

Fig. 5.5 Proceedings, Planning Man's Physical Environment, Princeton University Bicentennial Conference (Series 2, Conference 5), Marquand Library of Art and Archaeology, Princeton University (Hard copy consulted at the main library at the University of Edinburgh via Inter-Library Loans service)

Fig. 5.6 Proceedings, Planning Man's Physical Environment, Princeton University Bicentennial Conference (Series 2, Conference 5), Marquand Library of Art and Archaeology, Princeton University

Fig. 5.7 Proceedings, Planning Man's Physical Environment, Princeton University Bicentennial Conference (Series 2, Conference 5), Marquand Library of Art and Archaeology, Princeton University

Fig. 5.8 The Memorial Hall of the Society for Research in Chinese Architecture, Tsinghua University

Fig. 5.9 Liang, Ssu-ch'eng; Honorary Degree Records, AC106, Princeton University Archives, Department of Special Collections, Seeley G. Mudd Manuscript Library

Fig. 5.10 Josep Lluis Sert Papers, Frances Loeb Library Special Collections, Graduate School of Design

CHAPTER 6

Fig. 6.1 The Memorial Hall of the Society for Research in Chinese Architecture, Tsinghua University

Fig. 6.2 The Memorial Hall of the Society for Research in Chinese Architecture, Tsinghua University

Fig. 6.3 *Architectural Record*, April 1947

Fig. 6.4 Archives and Records Management Section, United Nations Archives

Fig. 6.5 *A Workshop for Peace: Designing the United Nations Headquarters*, 1994

Fig. 6.6 Courtesy of Lin Zhu

Fig. 6.7 Wilma Cannon Fairbank Papers, Phillips Library, Peabody Essex Museum

Fig. 6.8 *TVA: Democracy on the March*, 1944

CHAPTER 7

Fig. 7.1 The Memorial Hall of the Society for Research in Chinese Architecture, Tsinghua University

Fig. 7.2 The Centre for Collections and Research, Cranbrook Academy of Art

Fig. 7.3 The Centre for Collections and Research, Cranbrook Academy of Art

Fig. 7.4 *Biography of Academician of Chinese Academy of Engineering: Liangyong's Search*, 2016

Fig. 7.5 The Memorial Hall of the Society for Research in Chinese Architecture, Tsinghua University

Fig. 7.6 Bentley Historical Library, University of Michigan

Fig. 7.7 Bentley Historical Library, University of Michigan

Fig. 7.8 Bentley Historical Library, University of Michigan

Fig. 7.9 University Archives, Harvard University (According to Liang's application to the Division of Fine Arts at the Fogg Museum of Art, these dossiers related to his previous study at the University of Pennsylvania were part of his Harvard application materials)

Fig. 7.10 University Archives, Harvard University

Fig. 7.11 University Archives, University of Pennsylvania

Fig. 7.12 Bentley Historical Library, University of Michigan

Fig. 7.13 The Memorial Hall of the Society for Research in Chinese Architecture, Tsinghua University

Fig. 7.14 Library of School of Architecture, Tsinghua University

Fig. 7.15 University Archives, Tsinghua University

Fig. 7.16 Reference Room, School of Architecture, Tsinghua University

Fig. 7.17 Library of School of Architecture, Tsinghua University

Fig. 7.18 *National Standardised Curriculum*, 1940

Fig. 7.19 *The Fellowship: The Untold Story of Frank Lloyd Wright and the Taliesin Fellowship*, 2006

Fig. 7.20 Library of School of Architecture, Tsinghua University

Fig. 7.21 The Centre for Collections and Research, Cranbrook Academy of Art

Fig. 7.22 *The Fellowship: The Untold Story of Frank Lloyd Wright and the Taliesin Fellowship*, 2006

Fig. 7.23 Reference Room, School of Architecture, Tsinghua University

Fig. 7.24 University Archives, Harvard University

Fig. 7.25 *Vastly More Than Brick and Mortar: Reinventing the Fogg Art Museum in the 1920s*, 2003

Fig. 7.26 Special Collection, Robert B. Haas Family Art Library, Yale University.

Fig. 7.27 University Archives, Harvard University

Fig. 7.28 Wilma Cannon Fairbank Papers, Phillips Library, Peabody Essex Museum

Fig. 7.29 Bentley Historical Library, University of Michigan

Fig. 7.30 The Centre for Collections and Research, Cranbrook Academy of Art

CHAPTER 8

Fig. 8.1 *People's Daily*, 8 April 1962

Fig. 8.2 Liang, Ssu-ch'eng; Honorary Degree Records, AC106, Princeton University Archives, Department of Special Collections, Seeley G. Mudd Manuscript Library

Fig. 8.3 The Memorial Hall of the Society for Research in Chinese Architecture, Tsinghua University

Fig. 8.4 Wilma Cannon Fairbank Papers, Phillips Library, Peabody Essex Museum

Fig. 8.5 *Architectural Journal*, June 1958

Fig. 8.6 Faculty Profile of Feng Jizhong, Tongji University

Fig. 8.7 Courtesy of Huang Zhi

Fig. 8.8 Courtesy of Lu Yongyi

Fig. 8.9 Courtesy of Hua Xiahong

Fig. 8.10 The Memorial Hall of the Society for Research in Chinese Architecture, Tsinghua University (donated by Tong Ming, Tong Jun's grandson)

Fig. 8.11 The Memorial Hall of the Society for Research in Chinese Architecture, Tsinghua University (Ukrainian version, donated by Zhu Changzhong, who studied his for his doctorate in city planning at Moscow Architectural Institute [State Academy] from 1952 to 1957 and returned at Tsinghua to teach with Liang in Beijing.)

Bibliography

Archival Sources

Architectural Association

Modern Architecture Research (MARS) Group Files, AA Library

Student Register, AA Archive

Bauhaus-Archiv

Walter Gropius Papers

British Architectural Library, Royal Institute of British Architects

Journal of the Royal Institute of British Architects

Canadian Centre for Architecture

Well Coates Papers

Cornell University

Clarence Stein papers, Division of Rare and Manuscript Collections

Harvard University

Josep Lluis Sert Papers, Frances Loeb Library Special Collections, Graduate School of Design

University Archives, Pusey Library

Institute of History and Philology, Academia Sinica, Taiwan

Fu Si-Nian Papers

Peabody Essex Museum

Wilma Cannon Fairbank Papers, Phillips Library

Princeton University

Liang, Ssu-ch'eng; Honorary Degree Records, AC106, Princeton University Archives, Department of Special Collections, Seeley G. Mudd Manuscript Library

Proceedings, Far Eastern Culture and Society, Princeton University Bicentennial Conference (Series 2, Conference 7), Marquand Library of Art & Archaeology
Proceedings, Planning Man's Physical Environment, Princeton University Bicentennial Conference (Series 2, Conference 5), Marquand Library of Art & Archaeology

Syracuse University
Marcel Breuer Papers, Special Collections Research Centre

Technische Universität München
Richard Paulick Papers, Architekturmuseum

Tongji University
Faculty Profiles

Tsinghua University
The Memorial Hall of the Society for Research in Chinese Architecture
University Archives

United Church of Canada Archives
Coates Family Papers

United Nations
Archives and Records Management Section
Audiovisual Library
Report of the Director General, United Nations Educational, Scientific and Cultural Organisation

University of Edinburgh
Conference Report, Far Eastern Culture and Society, Princeton University Bicentennial Conference (Series 2, Conference 7), Main Library
Conference Report, Planning Man's Physical Environment, Princeton University Bicentennial Conference (Series 2, Conference 5), Main Library

University of Michigan

Emil Lorch Papers, Bentley Historical Library
Wells Ira Bennett Papers, Bentley Historical Library

University of Pennsylvania
Paul Phillippe Cret Collection, the Kislak Centre for Special Collections, Rare Books and Manuscripts
University Archives
Warren Powers Laird Collection, the Architectural Archives, Stuart Weitzman School of Design

Yale University
King-Lui Wu Papers, Sterling Memorial Library
St. John's Minutes, Divinity Library Special Collections

Newspapers and Periodicals

Only materials that have been cited frequently are identified in the following list; for a complete understanding of the sources consulted, see the individual sources given in the footnotes.

American Architect
American Political Science Review
Architectural Association Journal (AA Files)
Architectural Forum
Architectural History
Architectural Journal 建筑学报
Architectural Record
Architectural Review
Bulletin of the Society for Research in Chinese Architecture (SRCA Bulletin) 中國營造學社彙刊
The Chinese Architect 中國建築
Daedalus
Daily Princetonian
Focus

Journal of Architectural Education
Journal of the Royal Institute of British Architects
Journal of the Society of Architectural Historians
Michiganensian
New York Times
Pencil Points (Progressive Architecture)
People's Daily (Beijing) 人民日报（北京）
Perspecta
Plan
Planning Perspectives
Proceedings of the American Academy of Arts and Sciences
Ta Kung Pao (Chongqing) 大公報（重慶）
Ta Kung Pao (Tianjin) 大公報（天津）
Taiwan Architect 建築師（台北）
The Architect (Beijing) 建筑师（北京）
The Architects' Journal
The Builder 建築月刊
The China Critic 中國評論周報
The Harvard Crimson
The Journal of Asian Studies
Tien Hsia Monthly 天下月刊
Time + Architecture 时代建筑
Town Planning Review
Tsinghua Alumni Correspondence 清華校友通訊
Wen Wei Pao (Shanghai) 文匯報（上海）
Yearbook of the Society of Beaux-Arts Architects

Unpublished Sources

This category includes dissertations/theses and exhibition catalogues.

For China's portion of this type of source, this thesis is indebted to the courtesy of those, both Chinese and foreign, who, based on the *guanxi* that I strove to establish, kindly

supplied self-criticism statements, interview notes, working diaries, personal correspondence, etc. that have generally been inaccessible to the public for the reasons explained in "The Problem of Fragmented Archives" (see 1.4.2 in Chapter 1) on the one hand, and, for those involving in-person fieldwork, otherwise unavailable to me due to the worldwide COVID-19 pandemic on the other.

Collard, Pete, ed. *Beyond Bauhaus: Modernism in Britain 1933–66*. London: RIBA Gallery, 2019. Published following the exhibition *Beyond Bauhaus: Modernism in Britain 1933–66* at RIBA Gallery, London (1 October 2019–1 February 2020).

Cormier, Leslie Humm. "Walter Gropius: Emigre Architect, Works and Refuge, England and America in the 30s." PhD thesis, Brown University, 1986.

Correspondence with Bruno Zevi. Private collection of Jill Pearlman.

Darling, Elizabeth. "Elizabeth Denby, Housing Consultant: Social Reform and Cultural Politics in the Inter-war Period." PhD thesis, University College London, 2000.

Huang Zuoshen's Self-Criticizing Essays of the Cultural Revolution. Private collection of Qian Feng.

Kammann, Christian. "Liang Sicheng and the Beginnings of Modern Chinese Architecture and Architectural Preservation." PhD Thesis, Eidgenössische Technische Hochschule (ETH Zürich), 2006.

Kögel, Eduard. "Zwei Poelzigschüler in der Emigration: Rudolf Hamburger und Richard Paulick zwischen Shanghai und Ost-Berlin (1930–1955)." PhD Thesis, Bauhaus-Universität Weimar, 2006.

Lecture Typescripts of Huang Zuoshen. Private collection of Huang Zhi (Huang's youngest son).

Liang Sicheng. "The National-Ethnic Form of Architecture 建築的民族形式." Lecture script at the meeting of architectural researchers (unpublished material). Dated on 22 January 1950.

Liu Guanghua, *Dream Hometown* (*Meng Xi Gu Yuan*; 梦系故园), unpublished manuscript.

Lu, Zhongkang. "Study on Architect Community in the Period of the Republic of China 民国时期建筑师群体研究." PhD thesis, Central China Normal University, 2009.

Notes of the Interviews with Harvard GSD Faculty. Private collection of Jill Pearlman.

Qian, Feng. "The Founder of Chinese Modern Architecture Education 中国现代建筑教育奠基人——黄作燊." Master's dissertation, Tongji University, 2001.

Wang, Chun-Hsiung and Wu Kuang-Ting. *A Study on the American Education of the Chinese First-Generation Architects with Especial Reference to the Graduates of the University of Pennsylvania*. Research project report NSC 882411H32009. Taiwan: National Science Council (NSC), 1999.

Wang, Haoyu. "Mainland Architects in Hong Kong after 1949: A Bifurcated History of Modern Chinese Architecture." PhD thesis, The University of Hong Kong, 2008.

Working Diary and Personal Ideology Statement of Liang Sicheng. Private collection of Lin Zhu (Liang's second wife).

Xu, Chang. "Design Foundation and Visual Arts 设计基础与视觉艺术." Master's dissertation, Tsinghua University, 1980.

Xu, Yihua. "Religion and Education: St. John's University as an Evangelizing Agency." PhD thesis, Princeton University, 1994.

Published Sources (contemporary)

"A Brief History of the Department of Architectural Engineering at Central University 中央大學建築工程系小史." *The Chinese Architect*, vol. 1, no. 2 (1933): 34.

"Cranbrook: An Interesting Experiment." *The American Magazine of Art*, vol. 22, no. 2 (February 1931): 142–143.

"House in Pittsburgh: Largest International Style residence in the U. S." *Architectural Forum* (March 1941): 160–170.

"Member's Column," *Architectural Association Journal* (February 1937).

"Modern Architectural Research." *The Architect's Journal* (26 April 1933): 550.

"Mr. E. A. A. Rowse." *Architectural Association Journal* (May 1938): 523.

"ON PLANNING MAN'S PHYSICAL ENVIRONMENT AT PRINCETON UNIVERSITY'S BICENTENNIAL CONFERENCE." *Architecture Record* (April 1947): 98–100.

"PLANNERS' PLATFORM." *Architectural Forum* (April 1947): 12–14.

"PLANNING FOR PEACE: Plans for United Nations Headquarters proceed on wartime speed schedules." *Architecture Record* (April 1947): 75.

"Symposium Record: Architecture Is Not Only Housing 座談紀錄：建築不僅是造房子而已." *Engineering 工程界*, vol. 4, no. 9 & 10 (1949): 31–33.

"The 'MARS' Group." *The Architect's Journal* (3 May 1933): 380.

Anderson, William. "Reviewed Work: *The City Is the People* by Henry S. Churchill."

American Political Science Review 40, no. 1 (1946): 142–143.

Atkinson, Robert. *Report on the Education of the Architect in the United States of America*. London: The Royal Institute of British Architects, 1923.

Bauer, Catherine. *Modern Housing*. Minneapolis, MN: University of Minnesota Press, 1934.

Bayer, Herbert, Walter Gropius and Ise Gropius, eds, *Bauhaus 1919–1928*. New York, NY: Museum of Modern Art (MoMA), 1938.

Bennett, Tim. "Architects and the Social System: AA Students' Discussion Group." *Architectural Association Journal* (March 1939): 213–214.

Bosworth Jr, Francke Huntington and Roy Childs Jones. *A Study of Architectural Schools*. New York, NY: Charles Scribner's Sons, 1932.

Butler, R. Cotterell. "A.A. School Co-operative Thesis Unit 15: Design for A Town." *Architectural Association Journal* (September 1938): 89–90.

Carter, Edward C. *Pacific Affairs*, vol. 11, no. 1 (1938): 110–13.

Chaund, William H. Architectural Effort and Chinese Nationalism: Being a Radical Interpretation of Modern Architecture As a Potent Factor in Civilisation. *Far Eastern Review*, vol. XV, no. 8 (1919): 533–536.

Chen Yanzhong (aka Chen, H. S.). "Introduction to Architecture 建築學概論." *Business Studies 工商學志*, vol. 6, no. 2, 1934: 4–6.

Chen, Mengjia. "The Establishment of Tsinghua University Cultural Relics Showroom 清華大學文物陳列室成立經過." *Ta Kung Pao (Tianjin)*, 1 May 1948.

Churchill, Henry S. *The City is the People*. New York, NY: Harcourt, Brace & Company, 1945.

Coates, Wells. "THE 'MARS' GROUP." *The Architects' Journal*. vol. 77, (May 3, 1933), 580–581.

Condliffe, J. B. *International Affairs (Royal Institute of International Affairs 1931–1939)* 17, no. 1 (1938): 138–39.

Coolidge, Charles A. "Herbert Langford Warren (1857–1917)." *Proceedings of the American Academy of Arts and Sciences*, vol. 68, no. 13 (December 1933): 689–691.

Creighton, Thomas H. *Building for Modern Man: A Symposium*. Princeton, NJ: Princeton University Press, 1949.

Cret, Paul P. "Modern Architecture." In *The Significance of the Fine Arts*, edited by Committee on Education, American Institute of Architects, 182–242. Boston, Mass.: Marshall Jones Company, 1923.

Cret, Paul P. “The Classic versus the Modernist.” *Yearbook of the Society of Beaux-Arts Architects* (1934): 113–116.

Fry, E. Maxwell. “Slum and the Land.” *The Architects’ Journal* (October 1933): 550–552.

Fry, E. Maxwell. “Walter Gropius.” *Architectural Review*. vol. 117, Iss. 699 (March 1955): 154–157.

Gropius, Walter and Ise (née Frank), ed. *Scope of Total Architecture*. New York, NY & Evanston, IL: Harper & Row, 1955.

Gropius, Walter. “Architecture at Harvard University.” *Architectural Record* (May 1937): 9–11.

Gropius, Walter. “Blueprint for an Architect’s Training.” *L'Architecture d'Aujourd'hui* (February 1950): 71–75.

Gropius, Walter. “Training the Architect.” *Twice a Year: A Semi-Annual Journal of Literature, The Arts and Civic Liberties*, no. 2 (1939): 142–151.

Hitchcock, Henry-Russell. “Modern Architecture in England.” In *Modern Architecture in England*, edited by Museum of Modern Art (MoMA), 25–42. New York, NY: MoMA, 1937.

Hopkinson, Charles. “Denman Waldo Ross (1853–1935).” *Proceedings of the American Academy of Arts and Sciences*, vol. 71, no. 10 (March 1937): 543–546.

Howe, George. “Training for the Practice of Architecture: A Speech Given before the Department in September, 1951.” *Perspecta*, vol. 1 (Summer 1952): 2–7.

Howe, George. “What is This Modern Architecture Trying to Express.” *American Architect* 137 (May 1930): 22–25, 106, 108.

Hudnut, Joseph. “What a Young Planner Ought to Know.” *Journal of the American Institute of Architects* vol. VII, no. 2 (February 1947): 59–67.

Hudnut, Joseph. *Memoranda to Harvard President, JB Conant on choosing either Gropius or Mies as Chair of Architecture at Harvard*, 1935. Harvard University Archive.

Jackson, Thomas G. “On True and False Ideas in the Education of an Architect.” In *Architecture a Profession or an Art: Thirteen Short Essays on the Qualifications and Training of Architects*, edited by R. Norman Shaw and Thomas G. Jackson, 205–239 (London: John Murray, 1892).

Jeanneret, Charles-Édouard (Le Corbusier). “The MARS Group Exhibition of the Elements of Modern Architecture: A Pictorial Record.” *Architectural Review* (March 1938): 109–116.

Lamberton, Mary. *St. John's University, Shanghai, 1879–1951*. New York, NY: United Board for Christian Colleges in China, 1955.

Latourette, Kenneth Scott. *A History of Christian Missions in China*. New York, NY: Russell & Russell, 1929.

Levenson, Joseph R. *Liang Ch'i-Ch'ao [Liang Qichao] and the Mind of Modern China*. Cambridge, Mass.: Harvard University Press, 1953.

Liang, Sicheng and Charles Chen (Chen Zhanxiang). *Proposal on the Location of the Central Administration District of the Central People's Government 關於中央人民政府行政中心區位置的建議*. Beijing: Tsinghua University, 1951.

Liang, Sicheng and Lin Huiyin. "Preface 序." In *A General Outline of Urban Planning 城市計劃大綱*, 1–4. Beijing: Long-Men Bookstore, 1951.

Liang, Sicheng and Lin Huiyin. "The Architectural Tradition of the Motherland and the Current Construction Problems 祖國的建築傳統與當前的建設問題." *New Observation 新觀察*, vol. 4, no. 16 (1952): 8–16.

Liang, Sicheng and Liu Zhiping. "Preface," in *Pictorial References for Architectural Design*. Beijing: Society of Research in Chinese Architecture, 1935.

Liang, Sicheng, Deng Yizhe, and Chen Mengjia. *Proposal for the Establishment of an Art History Research Laboratory 設立藝術史研究室計劃書*. Beijing: Tsinghua University, 1947.

Liang, Sicheng. "Architecture ⊂ (Social Science ∪ Technical Science ∪ Arts) 建築 ⊂（社會科學 ∪ 技術科學 ∪ 美術）." *People's Daily (Beijing)*, 8 April 1949.

Liang, Sicheng. "Beijing: A Masterpiece of City Planning 北京：都市計劃的無比傑作." *New Observation 新觀察*, vol. 2, no. 7–8 (April 1951): 15–16.

Liang, Sicheng. "Draft Plan of Academic Structure and Programme in the Department of Yingjian (Now Known as the Department of Architectural Engineering) at Tsinghua University 清華大學營建學系（現稱建築工程學系）學制及學程計劃草案." *Wen Wei Pao (Shanghai)*, 10–12 July 1949.

Liang, Sicheng. "Open Spandrel Bridges of Ancient China." *Pencil Points*, 19 (January 1938): 25–32; 19 (March 1938): 155–160.

Liang, Sicheng. "Substance and Form of the City and its Planning 城市的體形及其計劃." *People's Daily (Beijing)*, 11 June 1949.

Liang, Sicheng. "Talking of Tradition and Revolution while 'Useful, Economical, and

Aesthetically Pleasing when possible’ 從「適用、經濟、在可能條件下注意美觀」談到傳統與革新.” *Architectural Journal* (June 1959): 1–4.

Liang, Sicheng. “The Buddhist Temple and Official Palace of Tang dynasty as far as We know 我們所知道的唐代佛寺與宮殿.” *SRCA Bulletin*, vol. 3 no. 1 (March 1932): 75–114.

Liang, Sicheng. “The Characteristics of Chinese Architecture 中国建筑的特征.” *Architectural Journal*, no. 1 (1954): 36–39.

Liang, Sicheng. “The Discussion of Preservation or Demolishment of Beijing’s City Walls 關於北京城牆存廢問題的討論.” *New Construction 新建設*, vol. 2, no. 6 (July 1950): 32–34.

Liang, Sicheng. “The System and Order of Cities 市鎮的體系秩序.” *Ta Kung Pao (Chongqing)*, 7 October 1945.

Liang, Sicheng. “The Two ‘Grammar Textbooks’ of Chinese Architecture 中國建築之兩部「文法課本」.” *SRCA Bulletin*, vol. 7, no. 2 (October 1945): 1–8.

Liang, Sicheng. *A Han Terra: Cotta Model of a Three-story House*. Student Coursework, Division of Fine Arts, Fogg Museum of Art, Harvard University, 1927–1928.

Liang, Sicheng. *A History of Chinese Architecture 中國建築史*. Tianjin: Baihua Edition, 1998 [1944].

Liang, Sicheng. *Qing Structural Regulations 清式營造則例*, Beijing: SRCA, 1934.

Lilienthal, David E. *TVA: Democracy on the March*. London and New York: Penguin Book, 1944.

Lin, Huiyin. “Reference Materials on Modern Housing 現代住宅設計的參考.” *SRCA Bulletin*, vol. 7 no. 2 (1945): 1–61.

Lin, Huiyin. “Regarding Some Characteristics of Chinese Architecture 論中國建築之幾個特徵.” *SRCA Bulletin*, vol. 3 no. 1 (March 1932): 163–179.

Lorch, Emil. “New Departure in Study of Architectural Design.” *Brush and Pencil*, vol. 8, no. 5 (August 1901): 253–262.

Lorch, Emil. “The Architectural Student and His Relation to Professional Practice.” *The Annals of the American Academy of Political and Social Science*, vol. 101, The Ethics of the Professions and of Business (May 1922): 114–120.

MARS Group. *New Architecture: An Exhibition of the Elements of Modern Architecture*. London: New Birmingham Galleries, 1938.

Mei, Yiqi. “Colleges and Departments at Tsinghua 本校各院系略述.” *Tsinghua Alumni Correspondence*, Postwar no. 4 (June 1948): 1–7.

Mei, Yiqi. “Tsinghua in the Post-war Era 復員後之清華.” *Tsinghua Alumni Correspondence*, Postwar no. 1 (March 1947): 1–4.

Ministry of Education. *National Standardised Curriculum* (*Daxue Kemubiao*; 大學科目表). Chongqing: Zheng Zhong Bookstore (*Zhengzhong Shuju*), 1940.

Moore, Charles Herbert. “Training for the Practice of Architecture.” *Architectural Record* 49 (January 1921): 56–61.

Murphy, Henry K. “An Architectural Renaissance in China: The Utilisation in Modern Public Buildings of the Great Styles of the Past.” *Asia* 28 (June 1928): 468–475 & 507–509.

National Northeast University, *NNU Yearbook* (*Dongbei Daxue Gailan*; 東北大學概覽). Shengyang: NNU, 1929.

Newmeyer, Sarah (Publicity Director). “Design Principles Shown in Small Exhibition at Museum of Modern Art,” *MoMA Press Release*, 19 October 1945.

Newton, Marshall E. “A. E. MORGAN URGES CITIES BE SHRUNK; Architects, in Conference at Princeton, Discuss Planning of Man's Environment.” *New York Times*, 6 March 1947.

Panofsky, Erwin. “Three Decades of Art History in the United States: Impressions of a Transplanted European.” In *Meaning in the Visual Arts*, edited by Erwin Panofsky. Garden City, N. Y.: Doubleday Anchor Books, 1955.

Pei, Ieoh Ming (I. M. Pei), Museum for Chinese Art, Shanghai, China, *Progressive Architecture* (Feb 1948): 50–52.

Pevsner, Nicholas. *An Outline of European Architecture*. London and Aylesbury: Hazell, Watson & Viney Ltd., 1948 [1943].

Rivkin, Malcolm D. “Hudnut Drops Design 1, Based on Gropius Ideas: Gropius, Filipowski Protest the Action.” *The Harvard Crimson*, 23 February 1952.

Robertson, Howard. “The Mars Group.” *The Architect's Journal* (10 May 1933): 623.

Ross, Denman W. “Design as a Science.” *Proceedings of the American Academy of Arts and Sciences*, vol. 36, no. 21 (March 1901): 357–374.

Ross, Denman W. *A Theory of Pure Design: Harmony, Balance, Rhythm with Illustrations and Diagrams*. Boston, Mass.: Houghton Mifflin, 1907.

Rowse, E. A. A. The Unknown Town. *Focus*, no. 1 (Summer 1938): 17–23.

Rudolph, Paul. “Paul Rudolph.” *Perspecta*, vol. 1 (Summer 1952): 18–25.

Samuels, Gertrude. “What Kind of Capitol for the U.N.?: The architects say they will emphasize the functions of the buildings, not symbolism.” *New York Times*, 20 April 1947.

Sert, José Luis, *Can Our Cities Survive? An ABC of Urban Problems, Their Analysis, Their Solutions*. Cambridge, Mass.: Harvard University Press, 1942.

Shi, Linbing. “New Mayor’s Building in Shanghai 上海市政府新屋.” *The Chinese Architecture*, vol. 1, no. 6 (Special Issue, 1933): 25.

Sinnott, Edmund W. “Science and the Whole Man.” *American Scientist* 36, no. 1 (1948): 127–138.

Snow, Edgar. *Red Star Over China*. London: Victor Gollancz Ltd; New York, Random House, 1937.

Summerson, John. “The Mind of Wren.” In *Heavenly Mansions: And Other Essays on Architecture*, 51–86. London, Cresset Press, 1949.

Summerson, John. *The Architectural Association, 1847–1947*. London: Pleiades Books, 1947.

Suschitzky, Edith. “A University of Commercial Art.” *Commercial Art* (March 1931): 113–114.

Tong, Jun. “A Brief History of the Department of Architecture at Northeastern University 東北大學建築系小史.” *The Chinese Architect*, vol. 1, no. 1 (1933).

Tu, Yuqing. “Profit and Loss in the War.” In *Christian Voices in China*, edited by Chester Miao. New York, NY: Friendship Press, 1948.

Unit 15, “THE MARS EXHIBITION: REVIEWED BY STUDENTS IN UNIT 15 OF THE AA SCHOOL.” *Architectural Association Journal* (February 1938): 386–388.

Winslow, Peter (Richard Paulick). “Crisis Education.” *Voice of China*, vol.1, no.2, (April 1936): 10–12.

Wolff, Robert Jay. “Lazlo Moholy-Nagy (1895–1946).” *College Art Journal* 7, no. 1 (1947): 36–37.

Wolff, Robert Jay. *Elements of Design*. New York, NY: Museum of Modern Art (MoMA), 1945.

Wu, Kinglui. “Notes on Architecture Today.” *Perspecta*, vol. 5 (1959): 26–27+29–35.

Yang, Deren. “After Reading ‘the Half-A-Man World’ 讀「半個人的世界」書後.” *World Monthly 世界月刊 (Shanghai 1946)*, vol. 3, no. 6 (1948): 19–21.

Yorke, F. R. S. *The Modern House in England*. London: The Architectural Press, 1937.

Zevi, Bruno. “Architecture.” In *Encyclopedia of World Art*, vol. 1, 625–710. London:

McGraw-Hill Book Company, Inc., 1959.

Zevi, Bruno. *An Opinion on Architecture* (based on an earlier draft entitled *Preface to A CALL*). Boston: Century Press, 1941.

Published Sources (post-1950s)

Books

Alofsin, Anthony. *The Struggle for Modernism: Architecture, Landscape Architecture, and City Planning at Harvard*. New York, NY: W. W. Norton & Company, 2002.

Anker, Peder. *From Bauhaus to Ecohouse: A History of Ecological Design*. Baton Rouge, LA: Louisiana State University Press, 2010.

Bartlett, Nancy Ruth. *More Than a Handsome Box: Education in Architecture at the University of Michigan, 1876–1986*. Ann Arbor, MI: University of Michigan College of Architecture and Urban Planning, 1995.

Bauman, Zygmunt. *Liquid Modernity*. Cambridge, UK: Polity Press, 2012 [2000].

Behr, Shulamith and Marian Malet, eds. *Arts in Exile in Britain 1933–1945: Politics and Cultural Identity*. Amsterdam: Rodopi, 2005.

Bergdoll, Barry and Leah Dickerman, eds. *Bauhaus 1919–1933: Workshops for Modernity*. New York, NY: Museum of Modern Art (MoMA), 2009.

Berman, Marshall. *All That is Solid Melts into Air*. London, England: Penguin Books, 1988 [1982].

Bourdieu, Pierre. *The Logic of Practice*, translated by Richard Nice. Stanford, CA.: Stanford University Press, 1990.

Bowie, Theodore, ed. *Langdon Warner through His Letters*. Bloomington and London: Indiana University Press, 1966.

Brownlee, David Bruce. *Building the City Beautiful: the Benjamin Franklin Parkway and the Philadelphia Museum of Art*. Philadelphia, PA: Philadelphia Museum of Art, 1989.

Brush, Kathryn. *Vastly More Than Brick and Mortar: Reinventing the Fogg Art Museum in the 1920s*. Cambridge, Mass.: Harvard University Art Museums (Distributed by Yale University Pres), 2003.

Bush-Brown, Harold. *Beaux Arts to Bauhaus and beyond: An Architect's Perspective*. New York, NY: Whitney Library of Design, 1976.

Chakrabarty, Dipesh. *Provincializing Europe: Postcolonial Thought and Historical Difference*. Princeton, NJ: Princeton University Press, 2000.

Chang, Hao. *Chinese Intellectuals in Crisis: Search for Order and Meaning, 1890–1911*. Berkeley, Los Angeles and London: University of California Press, 1987.

Chen, Yuqing. *How Many Things Have Been Through 多少往事烟雨中*. Beijing, People's Literature Press, 2010.

Ching, Francis D. K., Mark M. Jarzombek and Vikramaditya Prakash. *A Global History of Architecture*. Hoboken, N.J.: John Wiley & Sons, Inc., 2017 [2007].

Cody, Jeffery W. *Building in China: Henry K. Murphy's Adaptive Architecture, 1914–1935*. Seattle: University of Washington Press, 2001.

Cody, Jeffrey W., Nancy S. Steinhardt and Tony Atkin, eds. *Chinese Architecture and the Beaux-Arts*. Honolulu: University of Hawai'i Press, 2011.

Cohen, Paul A. *Discovering History in China: American Historical Writing on the Recent Chinese Past*. New York, NY: Columbia University Press, 1984.

Cohen, Warren. *East Asian Art and American Culture: A Study in International Relations*. New York and Oxford, Columbia University Press, 1992.

Colomina, Beatriz, Ignacio G. Galán, Evangelos Kotsioris, and Anna-Maria Meister, eds. *Radical Pedagogies*. Cambridge, Mass. and London: MIT Press, 2022.

Commemorative Accounts of the 85th Birthday of Liang Sicheng 梁思成先生诞辰八十五周年纪念文集. Beijing: Tsinghua University Press, 1986.

Compilation Group of Tsinghua University's History. *The Manuscript of Tsinghua University's History 清华大学校史稿*. Beijing: Zhonghua Book Company, 1981.

Crinson, Mark and Jules Lubbock. *Architecture, Art or Profession? Three Hundred Years of Architectural Education in Britain*. Manchester and New York: Manchester University Press, 1994.

Cui, Yong. *Research of the Society for Research in Chinese Architecture 中国营造学社研究*. Nanjing: Southeast University Press, 2004.

Darling, Elizabeth. *Re-forming Britain: Narratives of Modernity before Reconstruction*. London and New York: Routledge, 2007.

Denison, Edward and Guang Yu Ren. *Luke Him Sau, Architect: China's Missing Modern*. Chichester: John Wiley & Sons Ltd., 2014.

Denison, Edward and Guang Yu Ren. *Modernism in China: Architectural Visions and Revolutions*. Chichester: John Wiley & Sons Ltd., 2008.

Denison, Edward and Guang Yu Ren. *Ultra-Modernism: Architecture and Modernity in Manchuria*. Hong Kong: Hong Kong University Press, 2016.

Denison, Edward. *Architecture and the Landscape of Modernity in China before 1949*. London and New York: Routledge, 2017.

Diefendorf, Jeffry M. *In the Wake of War: The Reconstruction of German Cities after World War II*. New York, NY: Oxford University Press, 1993.

Dong, Yue. *Republican Beijing: The City and Its Histories*. Berkeley, Los Angeles and London: University of California Press, 2003.

Du, Erqi. *Commemorative collection of the first, second, third, and fourth graduating class of the Department of Architecture of Tsinghua University 清华大学建筑系第一、二、三、四届毕业班纪念集*. Beijing, Tsinghua university Press, 2005.

Dudley, George. *A Workshop for Peace: Designing the United Nations Headquarters*. Cambridge, Mass.: MIT Press, 1994.

Eisenstadt, Shmuel N. *Modernisation: Protest and Change*. Englewood Cliffs, N.J.: Prentice-Hall, 1966.

Fairbank, John King. *China: A New History*. Cambridge, Mass.: The Belknap Press of Harvard University Press, 1992.

Fairbank, Wilma. *Liang and Lin: Partners in Exploring China's Architectural Past*. Philadelphia, PA: University of Pennsylvania Press, 1994.

Feng, Jizhong. *Life of an Architect 建筑人生*. Oriental Press, Beijing, 2010.

Feng, Jizhong. *Life of an Architect: Interviews with Feng Jizhong 建筑人生：冯纪忠访谈录*. Shanghai: Shanghai Scientific & Technical Publishers, 2003.

Fletcher, Banister. *Sir Banister Fletcher's Global History of Architecture*. London: Bloomsbury (in partnership with RIBA and the University of London), 2019 [1896].

Flierl, Thomas, ed. *Bauhaus - Shanghai - Stalinallee - Ha-Neu: Der Lebensweg des Architekten Richard Paulick 1903–1979*. Berlin: Lukas Verlag, 2020.

Forgács, Éva. *The Bauhaus Idea and Bauhaus Politics*. Translated by John Bátki. Budapest, London, New York: Central European University Press, 1995.

Frampton, Kenneth. *Modern Architecture: A Critical History*. London: Thames & Hudson, 2020 [1980].

Frank, Marie. *Denman Ross and American Design Theory*. Lebanon, NH: University Press of New England, 2011.

Friedland, Roger and Harold Zellman. *The Fellowship: The Untold Story of Frank Lloyd Wright and the Taliesin Fellowship*. New York, NY: Regan Books, 2006.

Gold, John R. *The Modern Architectural Research (MARS) Group, 1933–1957: An Annotated Bibliography*. Monticello, IL: Vance Bibliographies, 1987.

Guo, Daiheng, Gao Yilian, and Xia Lu. Chinese Master Architect: Liang Sicheng *一代宗师梁思成*. Beijing: China Architecture & Building Press, 2006.

Harbeson, John. *The Study of Architectural Design: With Special Reference to the Program of the Beaux-Arts Institute of Design*. New York, NY: The Pencil Points Press, 1926.

Harvey, David. *Paris: Capital of Modernity*. New York and London: Routledge, 2003.

Hayhoe, Ruth. *China's Universities, 1895–1995: A Century of Cultural Conflict*. New York and London: Garland Publishing, 1996.

Herdeg, Klaus W. *The Decorated Diagram: Harvard Architecture and the Failure of the Bauhaus Legacy*. Cambridge, Mass.: MIT Press, 1985.

Ho, Kanchih. *A History of the Modern Chinese Revolution* (China Knowledge Series translated by the English Faculty of the Western Languages Department of Peking University). Beijing: Foreign Languages Press, 1959.

Hou, Li and Wang Yibing. *Paulick in Shanghai: Postwar Planning and Rebuilding of a China's Contemporary Metropolis 鲍立克在上海——近代中国大都市的战后规划与重建*. Shanghai: Tongji University Press, 2016.

Hu, Zhigang. Study on *Liang Sicheng's Academic Practice (1928–1955) 梁思成的学术实践（1928—1955）*. Beijing: Zhonghua Book Company, 2017.

Huang, Jianli. *难展的双翼——中国国民党面对学生运动的困境与决策：1927–1949年*. Beijing: The Commercial Press, 2010.

Isaacs, Harold R. *Re-encounters in China: Notes of a Journey in a Time Capsule: Notes of a Journey in a Time Capsule*. Armonk, NY and London: M. E. Sharpe, 1985.

Isaacs, Reginald. *Gropius at/in Harvard*. Berlin: Bauhaus-Archive, 1983.

Isaacs, Reginald. *Gropius: An Illustrated Biography of the Creator of the Bauhaus*. New York, NY: Bulfinch Press, 1983.

Israel, John and Donald W. Klein. *Rebels and Bureaucrats: China's December 9ers*. Berkeley, Los Angeles and London: University of California Press, 1976.

Israel, John. *Lianda: A Chinese University in War and Revolution*. Stanford, CA: Stanford University Press, 1999.

Israel, John. *Student Nationalism in China, 1927–1937*. Stanford, CA: Stanford University Press, 1966.

Israel, John. The Idea of Liberal Education in China (Part II: Intellectual and Cultural Reform). In *The Limits of Reform in China*, edited by Ronald A. Morse, 87–118. Boulder, CO: Westview Press, 1983.

Jacques, Martin. *When China Rules the World: The Rise of the Middle Kingdom and the End of the Western World*. London: Allen Lane, 2009.

Kentgens-Craig, Margret. *The Bauhaus and America: First Contacts, 1919–1936*. Cambridge, Mass. and London: MIT Press, 1999.

Lai, Delin, ed. *Who's Who in Modern Chinese Architecture 近代哲匠录——中国近代重要建筑师、建筑事务所名录*. Beijing: China Water & Power Press, 2006.

Lai, Delin. *Changing Ideals in Modern China and Its Historiography of Architecture 中国近代思想史与建筑史学史*. Beijing: China Architecture & Building Press, 2016.

Lai, Delin. *Studies in Modern Chinese Architectural History 中国近代建筑史研究*. Beijing, Tsinghua University Press, 2007.

Lee, Ou-fan. *Shanghai Modern: The Flowering of a New Urban Culture in China, 1930–1945*. Cambridge, Mass. and London: Harvard University Press, 1999.

Li, Lincoln. *Student Nationalism in China, 1924–1949*. New York: State University of New York Press, 1994.

Liang, Sicheng and Fairbank, Wilma, ed. *A Pictorial History of Chinese Architecture: A Study of the Development of its Structural System and the Evolution of its Types*. Cambridge, Mass. and London: MIT Press, 1984.

Lin, Zhu. *Liang Sicheng, Lin Huiyin and I*. Beijing: Tsinghua University Press, 2004.

Lin, Zhu. *Liang Sicheng: A Confused Master*. Jinan: Shandong Pictorial Publishing House, 2001.

Lu, Yongyi and Qian Feng, eds. *Commemorative Accounts of Huang Zuoshen 黄作燊纪念文集*. Beijing: China Architecture & Building Press, 2012.

Lutz, Jessie G. *China and the Christian Colleges, 1850–1950*. Ithaca, NY: Cornell University Press, 1971.

MacCarthy, Fiona. *Walter Gropius: Visionary Founder of the Bauhaus*. London: Faber & Faber, 2019.

Marty, Myron A. *Communities of Frank Lloyd Wright: Taliesin and Beyond*. DeKalb, IL: Northern Illinois University Press, 2009.

Metzger, Thomas A. *Escape from Predicament: Neo-Confucianism and China's Evolving Political Culture*. New York, NY: Columbia University Press, 1977.

Ockman, Joan and Edward Eigen. *Architecture Culture, 1943–1968: A Documentary Anthology*. New York, NY: Columbia Books of Architecture/Rizzoli, 1993.

Ockman, Joan and Rebecca Williamson, eds. *Architecture School: Three Centuries of Educating Architects in North America*. Cambridge, Mass. and London: MIT Press, 2012.

Pan, Guxi, ed. *Memorial Symposium for 70 Anniversary of the Architecture Department of Southeast University 1927–1997 东南大学建築系成立七十周年纪念专集*. Beijing: China Architecture & Building Press, 1997.

Pearlman, Jill. *Inventing American Modernism: Joseph Hudnut, Walter Gropius, and the Bauhaus Legacy at Harvard*. Charlottesville, VA: University of Virginia Press, 2007.

Pepper, Suzanne. *Civil War in China: The Political Struggle 1945–1949*. Berkeley, Los Angeles and London: University of California Press, 1978.

Powers, Alan. *Bauhaus Goes West: Modern Art and Design in Britain and America*. London: Thames & Hudson, 2019.

Pusey, James R. *China and Charles Darwin*. Cambridge, Mass. and London: Harvard University Press, 1983.

Pye, Lucian W. *The Spirit of Chinese Politics*. Cambridge, Mass. And London, England: Harvard University Press, 1992.

Qian, Feng and Wu Jiang. *Education of Modern Architecture in China (1920–1980) 中国现代建筑教育史（1920—1980）*, Beijing: China Architecture & Building Press, 2008.

Rattansi, Ali. *Bauman and Contemporary Sociology: A Critical Analysis*. Manchester: Manchester University Press, 2017.

Rowe, Peter G. and Seng Kuan. *Architectural Encounters with Essence and Form in Modern China*. Cambridge, Mass.: MIT Press, 2002.

Rudolph, Lloyd I. and Susanne Hoeber Rudolph. *The Modernity of Tradition: Political Development in India*. Chicago: University of Chicago Press. 1967.

Sachsenmaier, Dominic, Jens Riedel with Shmuel N. Eisenstadt, eds. *Reflections on Multiple Modernities: European, Chinese, and Other Interpretations*. Leiden: Brill, 2002.

Schwartz, Benjamin I. *In Search of Wealth and Power: Yen Fu and the West*. Cambridge, Mass. and London: Harvard University Press, 1964.

Shan, Yong. *Historic Studies of Western Academicism of Architectural Education 西方学院派建筑教育史研究*. Nanjing: Southeast University Press, 2012.

Shellenbarger, Michael, ed. *Harmony in Diversity: The Architecture and Teaching of Ellis F. Lawrence*. Eugene, OR: University of Oregon Press, 1989.

Shih, Shumei. *The Lure of the Modern: Writing Modernism in Semicolonial China, 1917–1937*. Berkeley, CA: University of California Press, 2001.

Spence, Jonathan D. *The Search for Modern China*. London, Sydney, Auckland, Johannesburg: Hutchinson, 1st Edition, 1990.

St. John's University's Alumni Association. *St. John's University, 1879–1929*. Reprinted in Taipei, Taiwan, 1972.

Stern, Robert A. M. and Jimmy Stamp. *Pedagogy and Place: 100 Years of Architecture Education at Yale*. New Haven and London: Yale University Press, 2016.

Tafel, Edgar. *Apprentice to Genius: Years with Frank Lloyd Wright*. New York, NY: McGraw-Hill Book Company, 1979.

Tao, Yijun and Lou Chenghao. *Old Buildings in Colleges and Universities of Shanghai 走近上海高校老建筑* (Shanghai City Memory Series). Shanghai, Tongji University Press, 2017.

Tian, Xuezhe, Yu Jingzhi and Lu Xiangdong. *Formal Composition Analysis*. Beijing: China Architecture & Building Press, 2005.

Tournikiotis, Panayotis. *The Historiography of Modern Architecture*. Cambridge, Mass.: MIT Press, 1999.

Veysey, Laurence R. *The Emergence of the American University*. Chicago, IL: University of Chicago Press, 1965.

Wang, Gungwu. *The Chineseness of China: Selected Essays*. Oxford: Oxford University Press, 1992.

Wang, Hui. *An Anthology of Wang Hui 汪晖自选集*. Guilin: Guangxi Normal University Press, 1997.

Wang, Jun, *Beijing Record: A Physical and Political History of Planning Modern Beijing*. Singapore: World Scientific Publishing, 2011.

Wang, Jun. *Record of a City 城记*. Beijing: San Lian Bookshop, 2003.

Wang, Shu. *Making a House 造房子*. Changsha: Hunan Fine Arts Publishing House, 2016.

Wasserstrom, Jeffrey N. *Student Protests in Twentieth-Century China: The View from Shanghai*. Stanford, CA: Stanford University Press, 1991.

West, Philip. *Yenching University and Sino-Western Relations, 1916–1952*, Cambridge, Mass. And London, England: Harvard University Press, 2013.

Williams, Raymond. *Keywords: A Vocabulary of Culture and Society*. Oxford: Oxford University Press, 1976.

Wingler, Hans Maria. *Bauhaus: Weimar, Dessau, Berlin, Chicago*. Cambridge, Mass.: MIT Press, 1969.

Wright, Mary Clabaugh. *The Last Stand of Chinese Conservatism: The T'ung-Chih Restoration, 1862–1874*. New Haven and London: Yale University Press, 1957.

Wu, Liangyong. *Biography of Academician of Chinese Academy of Engineering: Liangyong's Search. Beijing 中国工程院院士传记：良镛求索*, Tsinghua University Press, 2016.

Xu, Subin. *The Beginning of Chinese Modern Architecture 近代中国建筑学的诞生*. Tianjin: Tianjin University Press, 2010.

Xu, Xintan and Sun Zhongzhi, eds. *Selected Historical Materials of Tsinghua University (vol. 4) 清华大学史料选编（第四卷）*. Beijing: Tsinghua University Press, 1994.

Xu, Yihua and Han Xinchang. *St. John's University on Jessfield Road 圣约翰大学——海上梵王渡*. Shijiazhuang: Hebei Education Publishing House, 2003.

Xu, Yihua, ed. *St. John's University (1879–1952) 上海圣约翰大学（1879–1952）*. Shanghai: Shanghai Renmin Chubanshe, 2009.

Yang, Bingde. *The Combination History of Sino-West Architectural Culture in Modern Times of China 中国近代中西建筑文化交融史* (Series of Research Library of Chinese Architectural Culture 中国建筑文化研究文库). Wuhan: Hubei Education Publishing House, 2003.

Yang, Yongsheng. *Four Masters of Architecture*. Beijing: China Architecture & Building Press, 1998.

Ye, Weili. *Seeking Modernity in China's Name: Chinese Students in the United States, 1900–1927*. Stanford, CA: Stanford University Press, 2001.

Yeh, Wen-Hsin. *The Alienated Academy: Culture and Politics in Republican China, 1919–1937*. Cambridge, Mass.: Harvard University Press, 1990.

Zamarian, Patrick. *The Architectural Association in the Postwar Years*. London: Lund Humphries Publishers Ltd, 2020.

Zhao Bing and Wang Mingxian, eds. *The Centennial of Feng Jizhong: A Research Anthology 冯纪忠百年诞辰研究文集* (Beijing: China Architecture & Building Press, 2012)

Zhao, Chen and Wu Kiang, eds. *Research on China's Modern Architectural Academia*.

Beijing: China Architecture & Building Press, 2003.

Zhu, Tao. *Liang Sicheng and His Time 梁思成与他的时代*. Guilin: Guangxi Normal University Press, 2015.

Book Chapters

Alofsin, Anthony. "Tempering the Ecole: Nathan Ricker at the University of Illinois, Langford Warren at Harvard, and Their Followers." In *The History of History in American Schools of Architecture, 1865–1975*, edited by Gwendolyn Wright and Janet Parks, 73–88. The Temple Hoyne Buell Centre for the Study of American Architecture, with Princeton Architectural Press, 1990.

Borchardt-Hume, Achim, "Two Bauhaus Histories." In *Albers and Moholy-Nagy: From the Bauhaus to the New World*, edited by Achim Borchardt-Hume, 66–78. New Haven and London: Yale University Press, 2006.

Brook, Timothy. "Toward Independence: Christianity in China Under the Japanese Occupation, 1937–1945." In *Christianity in China: From the Eighteenth Century to the Present*, edited by Daniel H. Bays, 317–337. Stanford, CA: Stanford University Press, 1996.

Chang, Shana. "Remembering Liang and Lin 回忆梁思成夫妇." In *Commemorative Accounts of the 85th Birthday of Liang Sicheng 梁思成先生诞辰八十五周年纪念文集*, edited by the Editorial Committee, 73–77. Beijing: Tsinghua University Press, 1986.

Chen, Zhanxiang. "A Memoir." In *Architect Is Not A Drawing Machine: Chen Zhanxiang, An Urban Planner Should Not Be Forgetten 建筑师不是描图机器——一个不该被遗忘的城市规划师陈占祥*, edited by Chen, Yanqing (Chen, Jr) and Wang Ruizhi, 4–19. Shenyang: Liaoning Education Press, 2005.

Chen, Zhi (1983). "Syueh Guan Jhong Si, Yeh Ji Gong Huei: Reminiscence of Yang Tingbao and Tong Jun 学贯中西，业绩共辉——忆杨老仁辉、童老伯潜." In *The Architect+ (III): The Voices in the Past 建筑师丛书(第三辑：逝去的声音)*, edited by Yi Na, 157–161. Beijing: China Architecture & Building Press, 2007.

Chen, Zhi (1983). "Yi Jing Gao Yuan, Cai Hua Heng Yi: Tribute to Tong Jun 意境高远，才华横溢——悼念童寯同志." In *The Architect+ (III): The Voices in the Past 建筑师丛书（第三辑：逝去的声音）*, edited by Yi Na, 153–156. Beijing: China

Architecture & Building Press, 2007.

Cohen, Paul A. “Moving Beyond ‘Tradition and Modernity’.” In *Discovering History in China: American Historical Writing on the Recent Chinese Past*, 57–96. New York, NY: Columbia University Press, 1984.

Darling, Elizabeth. “Into the World of Conscious Expression: Modernist Revolutionaries at the Architectural Association, 1933–39.” In *Man-Made Future: Planning, Education and Design in Mid-20th Century Britain*, edited by Iain Boyd Whyte, 157–173. London and New York: Routledge, 2007.

Denison, Edward. “Chinoiserie: An Unrequited Architectural Affair.” In *British Modernism and Chinoiserie*, edited by Anne Witchard, 199–227. Edinburgh: Edinburgh University Press, 2015.

Frank, Marie. “Hitchcock and Harvard: The Historical Context of Formalist Aesthetics.” In *Summerson and Hitchcock: Centenary Essays on Architectural Historiography*, edited by Frank Salmon, 221–242. New Haven and London: Yale University Press, 2006.

Furth, Charlotte. “Intellectual Change: from the Reform Movement to the May Fourth Movement, 1895–1920.” In *The Cambridge History of China* (vol. 12: Republican China, 1912–1949, Part 1), edited by John K. Fairbank, 322–405. Cambridge, UK: Cambridge University Press, 1983.

Gao, Yilian and Wang Menghui. “A Research of Liang Sicheng’s Thoughts on Preservation of Old Cities and City Planning 梁思成的古城保护及城市规划思想研究.” In *Academic Thoughts of Liang Sicheng: An Anthology 梁思成学术思想研究论文集*, edited by Gao Yilian, 34–69. Beijing: China Architecture & Building Press, 1996.

Gao, Yilian. “Meaningful Memories Unforgettable Lessons 深切的怀念 难忘的教诲.” In *Commemorative Accounts of the 85th Birthday of Liang Sicheng 梁思成先生诞辰八十五周年纪念文集*, 179–183. Beijing: Tsinghua University Press, 1986.

Guan, Zhaoye. “Remembering the Lessons I learned from Mr. Liang 忆梁先生对我的教诲.” In *Commemorative Accounts of the 85th Birthday of Liang Sicheng 梁思成先生诞辰八十五周年纪念文集*, 155–161. Beijing: Tsinghua University Press, 1986.

He, Jianming. “Chinese Culture Education at St. John’s University in Shanghai 上海圣约翰大学的中国文化教育.” In *Social Transformation and Church Universities 社*

会转型与教会大学, edited by Zhang Kaiyuan, 46–67. Wuhan: Hubei Education Publishing House, 1998.

Herrington, Susan. "Cornelia Hahn Oberlander: A Model Modern." In *Women, Modernity, and Landscape Architecture*, edited by Sonja Dümpelmann and John Beardsley, 185–202. London and New York: Routledge, 2015.

Hua, Xiahong. "Professor Zhao Xiuheng talked about the study of the auditorium of Shanghai Opera House with 3,000 people 赵秀恒教授谈上海 3000 人歌剧院观众厅研究." In *Oral History of Chinese Architecture (vol. 1: Rescuing History from Memory) 中国建筑口述史文库（第一辑：抢救记忆中的历史）*, edited by Chen Bochao and Liu Siduo, 117–116. Shanghai: Tongji University Press, 2018.

Israel, John. "The Beida-Tsinghau Connection: Yenching in the World of Beijing's Elite Universities." In *New Perspectives on Yenching University, 1916–1952: A Liberal Education for a New China*, edited by Arthur Lewis Rosenbaum, 295–311. Chicago: Imprint Publications, 2012.

Jordy, William H. "The Aftermath of the Bauhaus in America: Gropius, Mies, and Breuer." In *The Intellectual Migration: Europe and America, 1930–1960*, edited by Donald Fleming and Bernard Bailyn, 485–543. Cambridge, Mass.: Harvard University Press, 1969.

Lai, Delin. "Formation and Features of Liang Sicheng's Thoughts of Architectural Education 梁思成建筑教育思想的形成及特色." In *Academic Thoughts of Liang Sicheng: An Anthology 梁思成学术思想研究论文集*, edited by Gao Yilian, 126–130. Beijing: China Architecture & Building Press, 1996.

Lee, Ou-fan. "Modernity and Its Discontents: The Cultural Agenda of the May Fourth Movement." In *Perspectives on Modern China: Four Anniversaries*, edited by Kenneth Lieberthal, Joyce Kallgren, Roderick MacFarquhar, Frederic Wakeman, Jr. London and New York: Routledge, 1992.

Lin, Xuan. "Liang Sicheng's Architectural History Course 梁先生的建筑史课." In *Commemorative Accounts of the 85th Birthday of Liang Sicheng 梁思成先生诞辰八十五周年纪念文集*, edited by the Editorial Committee, 97–102. Beijing: Tsinghua University Press, 1986.

Liu, Jiafeng. "Same Bed, Different Dreams: The American Postwar Plan for China's Christian Colleges, 1943–1946." In *China's Christian Colleges: Cross-Cultural Connections, 1900–1950*, edited by Daniel H. Bays and Ellen Widmer, 218–240.

Stanford, CA: Stanford University Press, 2009.

Long, David G. De. “Eliel Saarinen and the Cranbrook Tradition in Architecture and Urban Design.” In *Design in America: The Cranbrook Vision, 1925–1950*, edited by Robert Judson Clark and Andrea P. A. Belloli, 47–90. New York, NY: Metropolitan Museum of Art, 1983.

Luo, Xiaowei and Qian Feng. “Remembering Huang Zuoshen 怀念黄作燊.” In *Memoirs of Hundred Architects 建筑百家回忆录续篇*, edited by Yang Yong-Sheng, 47–60. Beijing: China Water & Power Press, 2003.

Murphy, Henry K. “Architecture.” In *China*, edited by Harley Farnsworth MacNair, 363–371. Berkeley, CA: University of California Press, 1946.

Musgrove, Charles D. “Building a Dream: Constructing a National Capital in Nanjing, 1927–1937.” In *Remaking the Chinese City: Modernity and National Identity, 1900–1950*, edited by Joseph W. Esherick, 139–158. Honolulu: University of Hawai'i Press, 2000.

Nerdinger, Winfried. “From Bauhaus to Harvard: Walter Gropius and the Use of History.” In *The History of History in American Schools of Architecture, 1865–1975*, edited by Gwendolyn Wright and Janet Parks, 89–98. New York, NY: The Temple Hoyne Buell Centre for the Study of American Architecture, with Princeton Architectural Press, 1990.

Pagani, Catherine. “Chinese Material Culture and British Perceptions of China in the Mid-nineteenth Century.” In *Colonialism and the Object: Empire, Material Culture and the Museum*, edited by Tim Barringer and Tom Flynn, 28–40. London and New York: Routledge, 1998.

Perkins, Dwight H. “Introduction: The Persistence of the Past.” In *China's Modern Economy in Historical Perspective*, edited by Dwight H. Perkins, 1–18. Stanford, CA: Stanford University Press, 1975.

Rujivacharakul, Vimalin. “Architects as Cultural Heroes.” In *Cities in Motion: Interior, Coast, and Diaspora in Transnational China*, edited by David Strand, Sherman Cochran and Yeh Wen-Hsin, 133–153. Berkeley: Institute of East Asian Studies, University of California, 2007.

Schwartz, Benjamin I. “Themes in Intellectual History: May Fourth and After.” In *The Cambridge History of China* (vol. 12: Republican China, 1912–1949, Part 1), edited by John K. Fairbank, 406–50. Cambridge, UK: Cambridge University Press, 1983.

Summerson, John. “Introduction.” In *Modern Architecture in Britain*, edited by Trevor

Dannatt, 11–28. London, B.T. Batsford Ltd., 1959.

Summerson, John. “The MARS Group and the Thirties.” In *English Architecture Public and Private: Essays for Kerry Downes*, edited by John F. Bold and Edward Chaney, 303–309. London: Bloomsbury, 2003.

Tong, Jun. “Architectural Education 建筑教育.” In *Collected Writings of Tong Jun (vol. 1) 童寯文集（第一卷）*, edited by Yang Yong-Sheng, 112–117. Beijing: China Architecture & Building Press, 2000.

Wang, Haoyu. “Interview with Mr. Guo Dunli: On Learning Experience at St. John’s University and His Architectural Practice in Hong Kong 郭敦礼先生谈圣约翰大学学习及在港开业经历.” In *Oral History of Chinese Architecture (vol. 1: Rescuing History from Memory) 中国建筑口述史文库（第一辑：抢救记忆中的历史）*, edited by Chen Bochao and Liu Siduo, 103–116. Shanghai: Tongji University Press, 2018.

Wang, Haoyu. “Interviewing Mr. Luke Him Sau’s descendants in Hong Kong: A case study of a pioneer modern Chinese architect 陆谦受后人香港访谈录：中国近代建筑师个案研究.” In *The Proceeding of the 4th International Conference on Chinese Architectural History 第四届中国建筑史学国际讨论会论文集* (Shanghai: Tongji University, 2007), 244–255.

Wang, Qiming and Ru Jinghua. “Liang Sicheng was not a Conservative Person 梁先生不是保守的人.” In *Memoirs of Hundred Architects 建筑百家回忆录续篇*, edited by Yang Yong-Sheng, 91. Beijing: China Water & Power Press, 2003.

Wright, Gwendolyn. “History for Architects,” 13–52. In *The History of History in American Schools of Architecture, 1865–1975*, edited by Gwendolyn Wright and Janet Parks. The Temple Hoyne Buell Centre for the Study of American Architecture, with Princeton Architectural Press, 1990.

Wu, Liangyong. “Inheriting and Carrying Forward Liang Sicheng’s Academic and Educational Thoughts 继承和发扬梁思成学术和教育思想.” In *Academic Thoughts of Liang Sicheng: An Anthology 梁思成学术思想研究论文集*, edited by Gao Yilian, 1–4. Beijing: China Architecture & Building Press, 1996.

Wu, Liangyong. “Recalling the Last Ten Years of Lin Huiyin 林徽因的最后十年追忆.” In *Academic and Cultural Miscellany of Wu Liangyong 吴良镛学术文化随笔*, edited by Wu Liangyong, 290–305. Beijing: China Youth Publishing Group, 2002.

Wu, Liangyong. “Review and Prospect of Tsinghua’s Architecture Department 清华建筑系的回顾与前瞻.” In *Anthology of City Planning and Design 城市规划设计论文集*, edited by Hong Xin, 605–611. Beijing: Yanshan Press, 1988.

Wu, Liangyong. “The Lessons of Eliel Saarinen 沙里宁的教诲.” In *Academic and Cultural Miscellany of Wu Liangyong 吴良镛学术文化随笔*, edited by Wu Liangyong, 264–271. Beijing: China Youth Publishing Group, 2002.

Yang, Yong. “Liang Sicheng’s Educational Thoughts of Integrating Science and Humanity 梁思成理工与人文结合的教育思想.” In *Academic Thoughts of Liang Sicheng: An Anthology 梁思成学术思想研究论文集*, edited by Gao Yilian, 122–125. Beijing: China Architecture & Building Press, 1996.

Zhu, Zixuan. “To Profoundly Cherish the Memory of Liang Sicheng 深切怀念导师梁先生.” In *Commemorative Accounts of the 85th Birthday of Liang Sicheng 梁思成先生诞辰八十五周年纪念文集*, 147–150. Beijing: Tsinghua University Press, 1986.

Journal/ Magazine Articles

Alofsin, Anthony. “Toward a History of Teaching Architectural History: An Introduction to Herbert Langford Warren.” *Journal of Architectural Education*, vol. 37, no. 1 (Autumn 1983): 2–7.

Anker, Peder. “The Bauhaus of Nature.” *Modernism/modernity* 12, no. 2 (2005): 229–251.

Balmori, Diana. “Cranbrook: The Invisible Landscape.” *Journal of the Society of Architectural Historians*, vol. 53, no. 1 (March 1994): 30–60.

Barnett, Jonathan. “An Unpublished Interview with Walter Gropius, December 1960.” *Journal of the Society of Architectural Historians* 77, no. 4 (2018): 406–409.

Bergdoll, Barry. “Marcel Breuer: Bauhaus Tradition, Brutalist Invention.” *The Metropolitan Museum of Art Bulletin*, vol. 74, no. 1 (Summer, 2016): 4–39.

Charney, Wayne Michael, and John W. Stamper. “Nathan Clifford Richer and the Beginning of Architectural Education in Illinois.” *Illinois Historical Journal*, vol. 79, no. 4 (1986): 257–66.

Chen, Chen and Wang Ke. “A Review of the Architectural Design Education of Tong Jun in the “Shapingba Era (1937–1946) 「沙坪坝时代」童寯建筑设计教育评述

（1937—1946）.” *Huazhong Architecture 华中建筑*, no. 37 (2019): 118–127.

Chewning, J. A. “William Robert Ware at MIT and Columbia.” *Journal of Architectural Education* 33, no. 2 (1979): 25–29.

Chien-Min, Huang. “A Review of the Architectural Education in China 中國建築教育溯往.” *Taiwan Architect*, no. 131 (1985): 34–39.

Cody, Jeffrey W. “Review: Liang and Lin: Partners in Exploring China’s Architectural Past by Wilma Fairbank.” *Journal of the Society of Architectural Historians* (September 1997): 382–383.

Cody, Jeffrey W. Reviewed Work: Architectural Encounters With Essence and Form in Modern China by Peter Rowe, Seng Kuan. *Traditional Dwellings and Settlements Review* 15, no. 2 (2004): 80–81.

Cohen, Myron L. “Being Chinese: The Peripheralisation of Traditional Identity.” *Daedalus* 120, no. 2 (1991): 113–134.

Darling, Elizabeth. “Focus: A Little Magazine and Architectural Modernism in 1930s Britain.” *The Journal of Modern Periodical Studies* 3, no. 1 (2012): 39–63.

Darling, Elizabeth. “Institutionalizing English Modernism 1924–33: From the Vers Group to MARS.” *Architectural History* 55 (2012): 299–320.

Denison, Edward. “Chinese Whispers.” *AA Files*, no. 64 (2012): 133–141.

Diehl, Thomas. “Theory and Principle: Berthold Lubetkin’s Highpoint One and Highpoint Two.” *Journal of Architectural Education* 52, no. 4 (1999): 233–41.

Ding, Liyang. “Huang Zuoshen and the Bauhaus-Based Architectural Education at St. John’s University, Shanghai, 1942–1952.” *International Journal of Architectural Theory*, vol. 24, no. 39, Bauhaus Transfers (Special Issue 2019): 185–206.

Dong, Jianhong. “The Origin and Flow of Tongji Architecture Department 同济建筑系的源与流.” *Time + Architecture*, no. 2 (1993): 3–7.

Duara, Prasenjit. “Bifurcating Linear History: Nation and Histories in China and India.” *Positions: East Asia Cultures Critique*, vol. 1, no. 3 (1993): 779–804.

Eisenstadt, S. N. “Multiple Modernities.” *Daedalus* (Journal of the American Academy of Arts & Sciences) 129, no. 1 (2000): 1–29.

Eisenstadt, Shmuel N. “Intellectuals and Tradition.” *Daedalus* 101, no. 2 (1972): 1–19.

Fan, Hong. “Liang Sicheng and Northeast Architecture 梁思成与东北建筑.” *Social Science Front 社会科学战线*, no. 12 (2009): 109–112.

Frank, Marie. “Denman Waldo Ross and the Theory of Pure Design.” *American Art*, vol.

22, no. 3 (Fall 2008): 72–89.

Frank, Marie. “Emil Lorch: Pure Design and American Architectural Education.” *Journal of Architectural Education*, vol. 57, no. 4 (May 2004): 28–40.

Frank, Marie. “The Theory of Pure Design and American Architectural Education in the Early Twentieth Century.” *Journal of the Society of Architectural Historians*, vol. 67, no. 2 (June 2008): 248–273.

Gao, Yilian. “Prof. Lin Huiyin in My Memory 缅怀林徽因先生.” *Archicreation 建筑创作*, no. 5 (2004): 116–117.

Gao, Yilian. “The Pedagogy of Liang Sicheng 梁思成的办学思想.” *World Architecture 世界建筑*, no. 11 (2006): 134–135.

Geraniotis, Roula. “The University of Illinois and German Architectural Education.” *Journal of Architectural Education* 38, no. 4 (1985): 15–21.

Gold, John R. “Commoditie, Firmenes and Delight: Modernism, the MARS Group’s ‘New Architecture’ Exhibition (1938) and Imagery of the Urban Future.” *Planning Perspectives* 8:4 (1993): 357–376.

Gold, John R. “Creating the Charter of Athens: CIAM and the Functional City, 1933–43.” *Town Planning Review* 69, no. 3 (1998): 225–47.

Gold, John R. “The MARS Plans for London, 1933–1942: Plurality and Experimentation in the City Plans of the Early British Modern Movement.” *Town Planning Review* 66, no. 3 (1995): 243–267.

Goodman, Anna. “Making Prefabrication American: The Work of A. Lawrence Kocher.” *Journal of Architectural Education*, 71:1 (2017): 22–33.

Gregson, Robert. “The Head and the Heart of King-lui Wu, Architect.” *Connecticut Explored*, vol. 18, no. 2 (Spring 2020): 38–40.

Hsiao, Leah and Michael White. “The Bauhaus and China: Present, Past, and Future.” *West 86th: A Journal of Decorative Arts, Design History, and Material Culture*, vol. 22, no. 2 (Fall-Winter 2015):176–189.

Hsu, Immanuel C. Y. “The Reorganisation of Higher Education in Communist China, 1949–61.” *The China Quarterly*, no. 19 (1964): 128–160.

Huang, Yuanzhao. “Inclining to Experiment 兴业建筑——倾向于现代建筑的试验与操作.” *Architectural Worlds 世界建筑导报*, no. 5 (2014): 25–31.

Hunt, Michael H. “The American Remission of the Boxer Indemnity: A Reappraisal.” *The Journal of Asian Studies* 31, no. 3 (1972): 539–559.

Israel, John. “Reflections on the Modern Chinese Student Movement.” *Daedalus* 97, no. 1 (1968): 229–253.

Jordy, William H. “The Symbolic Essence of Modern European Architecture of the Twenties and Its Continuing Influence.” *Journal of the Society of Architectural Historians*, vol. 22, no. 3 (October 1963): 177–187.

Kelly, Rob Roy. “The Early Years of Graphic Design at Yale University.” *Design Issues*, vol. 17, no. 3 (Summer 2001): 3–14.

Kögel, Eduard. “Modern Vernacular: Walter Gropius and Chinese Architecture 地方化的现代主义——瓦尔特·格罗皮乌斯与中国建筑.” Translated by Wu Jingbin. *Time + Architecture*, no. 3 (2019): 50–54.

Korn, Arthur, Maxwell Fry, and Dennis Sharp. “The M.A.R.S. Plan for London.” *Perspecta* 13/14 (1971): 163–173.

Lai, Delin. “Composition and Elements: The Origins of Beaux-Arts and Liang Sicheng’s discourse of “Grammar－Vocabulary” and Chinese Modern Architecture 构图与要素：学院派来源与梁思成「文法—词汇」表述及中国现代建筑.” *The Architect*, no. 142 (2009): 431–475.

Lai, Delin. “Idealizing a Chinese Style: Rethinking Early Writings on Chinese Architecture and the Design of the National Central Museum in Nanjing.” *Journal of the Society of Architectural Historians* 73, no. 1 (2014): 61–90.

Lai, Delin. “In the Vanguard of China’s Modern Architectural Education: The Architecture Major at Jiangsu Province’s Suzhou Industrial Specialised School 中国现代建筑教育的先行者——江苏省立苏州工业专门学校建筑科.” *Architectural History and Theory 建筑历史与理论*, no. 5 (1994): 82–88.

Lai, Delin. “The Transplantation of a Profession: The Emergence of Architects and the Development of Architectural Education in Modern China 學科的外來移植：中國近代建築人才的出現和建築教育的發展.” *The Study of Art History 藝術史研究*, no. 7 (2005): 431–475.

Lapping, Mark B. “Toward A Social Theory of the Built Environment: Frank Lloyd Wright and Broadacre City.” *Environmental Review*, vol. 3, no. 3 (Spring 1979): 11–23.

Lerner, Fern. “Foundations for Design Education: Continuing the Bauhaus Vorkurs Vision.” *Studies in Art Education*, vol. 46, no. 3 (Spring 2005): 211–226.

Lewis, James. “Walter Gropius in England 1934–37: Adaptation, Expectation and Reality.”

Docomomo Journal, no. 40 (2009): 4–7.

Li, Hou. “Transnational Migration of Bauhaus Education: From Dessau, Harvard GSD to St. John’s of Shanghai 包豪斯教育的跨国迁徙——从德绍、哈佛设计学院到上海圣约翰大学.” *Time + Architecture*, no. 3 (2019): 12–19.

Li, Shen and Jin Lei. “Journeys of the Pioneers: Remembering Some Early Female Architects in China 先行者的歌——记我国早期的几位女建筑师.” *Archicreation 建筑创作*, no. 4 (2002): 74–75.

Li, Shiqiao. “Writing a Modern Chinese Architectural History: Liang Sicheng and Liang Qichao.” *Journal of Architectural Education* 56, no. 1 (2002): 35–45.

Li, Zongshan. “Memories of my father Li Yishi 回忆我的父亲李毅士.” *Historical Review 史林*, no. S1 (2010): 62–67.

Lin, Wei-Cheng. “Preserving China: Liang Sicheng’s Survey Photos from the 1930s and 1940s.” *Visual Resources* 27 no. 2 (2011): 129–145.

Lin, Wei-Cheng. “Untranslatable Iconicity in Liang Sicheng’s Theory of Architectural Translatability.” *Art in Translation*, 5:2 (2013): 219–250.

Lin, Yuan. “Bauhaus, Architecture, and I: An Interview with Mr. Chang Chaokang 包浩斯、建築和我：專訪張肇康先生.” *Unitas: A Literary Monthly 聯合文學*, no. 99 (January 1993). 222–228.

Liu, C. Y. “Asian Art Collection: From Exotica to Art and History. *Record of the Art Museum, Princeton University*, 55(1/2) (1996), 125–134.

Liu, Yishi. “Liang Sicheng and International Architectural Exchange in the Early Years of the PRC, 1953–1965 梁思成与新中国早期的国际建筑交流（1953—1965）.” *Architectural Journal*, no. 634 (September 2021), 60–69.

Lu, Yongyi. “On Teaching History of World Architecture in Tongji: An Interview with Professor Luo Xiao 同济外国建筑史教学的路程：访罗小未教授.” *Time + Architecture*, no. 6 (2004): 27–29.

Luo, Xiaowei and Li Dehua. “Department of Architectural Engineering of St. John’s University, 1942–1952 原圣约翰大学的建筑工程系 1942—1952.” *Time + Architecture*, no. 6 (2004): 24–26.

Lutz, Jessie G. “December 9, 1935: Student Nationalism and the China Christian Colleges.” *The Journal of Asian Studies* 26, no. 4 (1967): 627–648.

Lutz, Jessie G. “The Chinese Student Movement of 1945–1949.” *The Journal of Asian Studies* 31, no. 1 (1971): 89–110.

Pearlman, Jill. “Joseph Hudnut and the Unlikely Beginnings of Post-modern Urbanism at the Harvard Bauhaus.” *Planning Perspectives*, 15:3 (2000): 201–239.

Pearlman, Jill. “Joseph Hudnut's Other Modernism at the ‘Harvard Bauhaus’.” *Journal of the Society of Architectural Historians*, vol. 56, no. 4 (December 1997): 452–477.

Perry, Elizabeth J. “Managing Student Protest in Republican China: Yenching and St. John’s Compared.” *Frontiers History China* 8, no. 1 (2013): 3–31.

Perry, Elizabeth J. “Managing Student Protest in Republican China: Yenching and St. John’s Compared 民国时期的学生运动应对——燕京大学与圣约翰大学之比较.” *China Scholarship 中国学术*, vol. 11, no. 2 (2015): 204–230.

Powers, Alan. “Exhibition 58: ‘Modern Architecture in England,’ Museum of Modern Art, 1937.” *Architectural History* 56 (2013): 277–98.

Qian, Feng, Lai Delin, and Wang Haoyu. “Chinese Modern Architectural Students (Part 5) 中国近代大学建筑系毕业生（连载五）.” *Building Review 建築業導報*, no. 7 (2005): 91–99.

Qian, Feng. “A Reading of the Design of St. John’s University’s Department of Architecture with Reference to a Set of Early Designs for a Technical School 从一组早期校舍作品解读圣约翰大学建筑系的设计思想.” *Time + Architecture* no. 3 (2011): 134–141.

Qian, Feng. “The Historical Origins and Early Development of Modern Architecture Idea in Tongji 同济现代建筑思想的渊源与早期发展.” *Time + Architecture*, no. 6 (2004): 18–23.

Rasmussen, Briley. DESIGN is Everywhere: Elements of Design and MoMA’s Evolving Design Pedagogy. *Journal of Design History*, vol. 35, Issue 1 (March 2022): 35–52.

Ruan, Xing. “Accidental Affinities: American Beaux-Arts in Twentieth-Century Chinese Architectural Education and Practice.” *Journal of the Society of Architectural Historians* 61, no. 1 (2002): 30–47.

Schwartz, Benjamin I. “A Brief Defense of Political and Intellectual History... with Particular Reference to Non-Western Cultures.” *Daedalus* 100, no. 1 (1971): 98–112.

Schwartz, Benjamin I. “Culture, Modernity, and Nationalism: Further Reflections.” *Daedalus* 122, no. 3 (1993): 207–226.

Schwartz, Benjamin I. “The Limits of ‘Tradition versus Modernity’ as Categories of Explanation: The Case of the Chinese Intellectuals.” *Daedalus* 101, no. 2 (1972): 71–88.

Searing, Helen. “Henry-Russell Hitchcock: The Architectural Historian as Critic and Connoisseur.” *Studies in the History of Art*, vol. 35, Symposium Papers XIX: The Architectural Historian in America (1990): 251–263.

Song, Kun and Liu Zhao. “Lau Fook Tai [Liu Futai], One of the First Generation of Architects and the Pioneer of Modern Architectural Education of China 我国第一代建筑师和建筑教育先驱刘福泰.” *The Architect*, no. 6 (2014): 91–98.

Stamp, Gavin and Ernő Goldfinger. “Conversation with Ernő Goldfinger.” *Journal (Thirties Society)*, no. 2 (1982): 19–24.

Sun, Lung-Kee. Chinese Intellectuals’ Notion of “Epoch” (Shidai) in the Post-May Fourth Era. *Chinese Studies in History*, 20:2 (1986): 44–74.

Tan, Sor-Hoon. “China’s pragmatist experiment: Hu Shih’s pragmatism and Dewey’s influence in China.” *Metaphilosophy* 35, no. 1/2 (2004): 44–64.

Thompson, John B. “Editor’s Introduction.” In Pierre Bourdieu, *Language and Symbolic Power*, translated by Gino Raymond and Matthew Adamson. Cambridge, Mass.: Harvard University Press, 1991.

Tong, Ming. “Modern Chinese Architecture as a Paradigm Shift: Reflections on Architectural Education at the University of Pennsylvania and the American Beaux-Arts 范式转型中的中国近代建筑——关于宾大建筑教育与美式布扎的反思.” *Architectural Journal*, no. 8 (2018): 68–78.

Wang, Guixiang. “A Few Archives of Early Chinese Architectural Students at the University of Pennsylvania 美国宾夕法尼亚大学早期中国建筑留学生的几件史料.” *Essays on the History of Architecture 建筑史论文集*, no. 17 (2002), 193–202.

Wang, Guixiang. “A Few Archives of Early Chinese Architectural Students at the University of Pennsylvania 建筑学专业早期中国留美生与宾夕法尼亚大学建筑教育.” *Essays on the History of Architecture 建筑史论文集*, no. 19 (2003), 218–238.

Wang, Jizhong and Li Dehua. “Tongji Faculty Club 同济大学教工俱乐部.” *Architectural Journal*, no. 6 (June 1958): 18–19.

Wang, Qiming. “Recalling Liang Sicheng’s Pedagogical Stories 忆梁思成先生教学事例数则.” *Traditional Chinese Architecture and Gardens 古建园林技术*, no. 3 (2001): 19–21.

Williams, Betty Lou. “Japanese Aesthetic Influences on Early 20th-Century Art Education: Arthur Wesley Dow and Ernest Fenollosa.” *Visual Arts Research*, vol. 39,

no. 2 (Winter 2013): 104–115.

Wittkower, Rudolf. “The Changing Concept of Proportion.” *Daedalus*, vol. 89, no. 1, The Visual Arts Today (Winter, 1960): 199–215.

Wong, Sidney. “Background and Influences on Liang Sicheng’s Planning Thoughts.” *Planning and Development, Journal of the Hong Kong Institute of Planners*, no. 27 (2012): 61–75.

Wong, Sidney. “Searching for a modern, humanistic planning model in China: The planning ideas of Liang Sicheng, 1930–1952.” *Journal of Architectural and Planning Research* 32:4 (Winter 2015): 324–345.

Wong, Sidney. “The Planning Connection between Clarence Stein and Liang Sicheng in Republican China.” *Planning Perspectives* 28:3 (2013): 421–439.

Wu, Hong. “The Bauhaus in China: A Different Growth of a Migrant Culture 包豪斯在中国——一个迁徙文化的异生长.” *Art Observation 美术观察*, no. 1 (2015): 6–7.

Wu, Jiang. “包豪斯及现代建筑思想在上海的影响.” *Deutschland-Studien 德国研究*, no. 3 (2000): 33–37.

Xu, Huan. “Northeast University’s Architectural Education and its Pedagogical System (1928–1931) 东北大学建筑系及其教学体系述评（1928–1931）.” *Architectural Journal*, no. 1 (2007): 95–97.

Xu, Subin. “The Beginning of Modern Chinese Architecture Education and the Architectural Program of Suzhou Industrial Specialised School [SISS] 中国近代建筑教育的起始和苏州工专建筑科.” *South Architecture 南方建筑*, no. 3 (1994): 17–19.

Xu, Yihua. “St. John’s University, Shanghai as an Evangelising Agency.” *Studies in World Christianity* 12, no. 1 (2006): 23–49.

Yang, Rui. “Tensions between the Global and the Local: A Comparative Illustration of the Reorganization of China’s Higher Education in the 1950s and 1990s.” *Higher Education*, vol. 39, no. 3 (April 2000): 319–337.

Yao, Yaxin and Tian Qian. “Origin of the Research for Chinese Art History in Tsinghua University: From the Plan of Art Department to the Foundation of Tsinghua Museum 清华大学艺术史研究探源——从筹设艺术系到组建文物馆.” *Journal of Harbin Institute of Technology (Social Sciences Edition) 哈尔滨工业大学学报（社会科学版）*, no. 4 (2006): 18–24.

Zhang, Chunyan. “The Spread and Paths of the Bauhaus in China 包豪斯在中国传播的

阶段和路径." *Chinese Art 中国艺术*, no. 1 (2019): 38–43.

Zhang, Chunyan. "The Spread of the Bauhaus in China 包豪斯在中国的传播." *Theory and History of Art 美术学研究*, no. 7 (2018): 325–335.

Zhang, Jingyu and Du Yiming. "The Development of Urban Design in Chinese Architectural Education——An Interview with Zhu Zixuan 城市设计在中国建筑教育中的发展——访谈清华大学建筑学院朱自煊先生." *Design Community* 住区, no. 4 (2017): 120–125.

Zhang, Yiwei and Gu Daqing. "Origins and Deviations: Two Adaptations of the Bauhaus Preliminary Course in China's Architectural Education 溯源与流变：包豪斯初步课程在中国建筑教育的两次引进." *The Architect*, no. 2 (2019): 55–63.

Zhu, Tao. "Building Big, with No Regret." *AA Files*, no. 63 (2011): 104–110.

Internet Sources

"TASK: A Magazine for the Younger Generation of Architecture." Accessed 24th May 2020. https://www.gsd.harvard.edu/exhibition/i-m-pei-at-the-gsd/.

A. Alfred Taubman College of Architecture and Urban Planning, University of Michigan. "History: Explore the History of the Architecture and Urban Planning Programs at the University of Michigan." Accessed 26 September 2020. https://taubmancollege.umich.edu/about/history.

Bottoms, Edward. AA History. Last modified 20th April, 2020. https://www.aaschool.ac.uk/AASCHOOL/LIBRARY/aahistory.php.

China Design Museum. "Bauhaus in China." Accessed 20th June 2020. http://www.bauhaus-imaginista.org/articles/3880/bauhaus-in-china.

Fiona MacCarthy. "Walter Gropius in Britain." Accessed on 16 March 2021. https://www.tate.org.uk/tate-etc/issue-45-spring-2019/walter-gropius-bauhaus-britain.

Goldberger, Paul. "ALBERT MAYER, 83, ARCHITECT AND HOUSING PLANNER, DIES." *New York Times*, 16 October 1981. https://www.nytimes.com/1981/10/16/obituaries/albert-mayer-83-architect-and-housing-planner-dies.html.

Goldberger, Paul. "The Cranbrook Vision." *The New York Times Magazine*, 8 April 1984. https://www.nytimes.com/1984/04/08/magazine/the-cranbrook-vision.html.

Hong, Cheng. “Tsinghua University and U of I –The first Chinese modern architect from U of I.” Urbana-Champaign Independent Media Centre. Last modified March 2014. http://publici.ucimc.org/2014/03/tsinghua-university-and-u-of-i-the-first-chinese-modern-architect-from-u-of-i/.

Lesser, Wendy. “The Importance of the Personal,” *Places Journal*, September 2022. Accessed on 7 September 2022. https://placesjournal.org/article/elizabeth-bauer-mock.

Lutyens, Dominic. “The Design Geniuses Who Fled Turmoil.” Last modified 1st April 2019. https://www.bbc.com/culture/article/20190329-the-design-geniuses-who-fled-turmoil.

Pearson, Clifford A. “In New Exhibit, Architecture Bridges the U.S.-China Divide.” 24 March 2022. https://www.architecturalrecord.com/articles/15589-in-new-penn-exhibition-architecture-bridges-the-us-china-divide.

Tate. “Robert Jay Wolff (1905–1978).” Accessed 8 September 2020. https://www.tate.org.uk/art/artists/robert-jay-wolff-2162.

The Chicago Architectural Club. “The Club.” Accessed 27 September 2020. http://chicagoarchitecturalclub.org/The-Club.

Whyte, William. “MARS group (act. 1933–1957).” Oxford Dictionary of National Biography. 4th October 2007. Accessed 4th July 2020.

Author’s Work

Chang, Chin-Wei. “A Ground between Beaux-Arts, Modernism, and Chineseness: Tracing Modernities in China’s Architectural Education and Practice, 1919–1949.” *Charrette* 4(2) (Autumn 2017): 59–71.

Chang, Chin-Wei. “China and the Bauhaus: Encounters and Reactions.” In *The Routledge Companion to Architectural Pedagogies of the Global South*, edited by Harriet Harriss, Ashraf M. Salama, and Ane Gonzalez Lara, 133–144. London and New York: Routledge, 2022.

Chang, Chin-Wei. “High Modernists at Harvard University GSD: I. M. Pei, Walter Gropius, and TAC’s Huatung/Tunghai University 哈佛设计学院的高端现代主义者：贝聿铭、葛罗培斯、以及建筑师合作社的华东／东海大学.” In *I. M. Pei: Architectural Exploration 贝聿铭：建筑探索*, edited by Huang Chien-Ming. Nanjing: Jiansu Phoenix Scientific Technology Press, 2021. The article is based on

author's presentation, per the same title, at a 2017 international event: "Rethinking Pei: A Centenary Symposium," jointly organised by Graduate School of Design (GSD) at Harvard University and the Faculty of Architecture at the University of Hong Kong (HKU), Hong Kong, 14–15 December.

Chang, Chin-Wei. "Joseph Hudnut, William Wurster, and Urban Design at Harvard and Berkeley." Paper presented at Re-Imagining the city – The (Im)possibility of Design Forum, a symposium jointly organised by the School of Architecture and Landscape Architecture (SALA) and The School of Community and Regional Planning (SCARP) at the University of British Columbia (UBC), Vancouver, British Columbia, Canada, 10–11 March 2016.

Chang, Chin-Wei. "Manifests of Bauhaus on the Mainland: Historical Landing of China's Modernities in Arts, Crafts, and Architecture." In *Taking a Stand? Debating the Bauhaus and Modernism*, edited by Andrea Bärnreuther, 295–313. Berlin: Bauhaus-Archiv / Museum für Gestaltung & Munich: Edition Metzel, 2021.

Chang, Chin-Wei. "Oriental MIT & Chimera: Reconstructing A Bauhaus-scape of Modern Architecture in Taiwan 東方ＭＩＴ與奇美拉：重構一個台灣現代建築的包浩斯群像." In *Bauhaus in Taiwan 包浩斯在臺灣*, edited by the National Taiwan Craft Research and Development Institute (NTCRI), 68–118. Taipei: National Taiwan Craft Research and Development Institute, April 2022.

Chang, Chin-Wei. "Rethinking the Little Prince: Dahong Wang and his Modern, Chinese(-ness), Architecture 再／重思小王子：王大閎與他的現代、中國、建築." *Fun Matter 放築塾代誌*, no. 37 (July 2018): 22–35.