



ARTICLE

Organizational Improvisation, Architectural “Piggybacking,” and Masonic Networking in the International Settlement, Shanghai: Building an Anglican Cathedral, 1864–1869

Ying Yong Ding 

Sam McKinstry

Peiran Su 

Abstract

This study provides a business history of the construction project to build a large Anglican church in colonial Shanghai in the 1860s. Employing three theoretical lenses, it focusses on the project’s management, setting it in its social, political, economic and architectural contexts. As well as analysing the project’s progress in detail, the paper discloses circumstances that were being faced more generally by resident British and international traders in Shanghai at this unsettled time. It also identifies forces which would in due course influence the long process of change leading to the eventual transformation both of Shanghai and of China itself, enhancing our understanding of the region’s economic history.

Keywords: Chinese Treaty Ports; international merchants; extraterritoriality

Introduction

The economic and business history of Treaty Port colonialism in China, from its beginnings in the 1840s to its unwinding over the first half of the twentieth century, has been deeply and widely researched.¹ However, there remain opportunities for fresh perspectives and insights. The field of architecture offers one such window. Banister Fletcher, in 1905, reminded us that architecture “is the outcome of conditions intimately bound up with the history of the human

Corresponding author: Peiran Su; Email: psu@audencia.com

1. See for example: Rawski, *Chinese Dominance*; Rawski and Li, eds., *Chinese History*; Bickers, *Britain in China, Scramble for China, Out of China, China Bound*; Jones, *Merchants to Multinationals*; Van de Ven, *Maritime Customs*; Muhlhahn, *Making China Modern*.

© The Author(s), 2024. Published by Cambridge University Press on behalf of Business History Conference.

race”²; and it follows that the investigation of architecture’s history can enlighten us concerning the circumstances of its creation.³

Historians of business and accounting have recently begun to utilize architecture to shed light on aspects of the business world.⁴ Approaches have ranged from the investigation of architectural symbolism relative to the projection of organizational power to the study of the business side of architectural practices themselves but also include examining financial constraints on architectural quality. The present study will involve aspects of each.

Our study focuses on mid-nineteenth century Shanghai, a Treaty Port since 1843, where the British lived and worked in their local “Settlement” on the Bund by the River Huangpu, in white, two-story, arch-verandaed homes and offices adjacent to their compounds. By treaty, they held UK, not Chinese citizenship (“extraterritorial” status) with land ownership and control remaining with the Chinese. The architectural history of Shanghai itself, with its striking and constantly mutating built environment, has recently attracted the intense interest of architects and architectural historians. Denison and Ren’s superbly and lavishly illustrated historical review of the buildings of Shanghai, past and present, is an important work. From here we learn that the low-rise buildings of the British settlement, discussed previously, were in the “compradoric” style of architecture, so named because compradors (Chinese middlemen) were required to engage and control local builders in erecting them.⁵

Another important work by Roskam focuses on the politics of Shanghai’s architecture in the unstable environment of extraterritoriality and national zoning. Roskam explains that as confidence in the Treaty Port trading system strengthened after the Second Opium War (1856–1860), the erection of public buildings and infrastructure was begun by the spatially ambitious but economically less significant French, followed by the dominant British merchant community in their respective areas⁶; this new architecture was intended to impress the importance, power, and cultures of the two groups upon the host nation and upon each other.⁷

The creation of new public infrastructure had more obvious and direct effects: it produced economic activity and value in the growing city, sometimes when international trade was low, and it called upon, at times, mutually distrustful British and Chinese enterprises and workforces to collaborate. Roskam has also discussed some of the labor difficulties that

2. Fletcher, *History of Architecture*, viii.

3. However, we have been sagely advised by Rappaport (1990) that in the area of architectural symbolism, there are users’ meanings and designers’ meanings, and thus we should not conflate these or assume without evidence that our own interpretations are the intended ones.

4. For example: Willis, *Form Follows Finance*; McKinstry, *Status Building*; McKinstry and Wallace, *Cullen, Lochhead and Brown*; McKinstry, *Building on the Past*; Mutch, *Modernist Architecture*; McKinstry and Ding, *William Conradi*; McKinstry and Ding, *Business Success*; Kerr, Robinson, and Elliott, *Modernism and Postmodernism*; Barnes and Newton, *National Provincial Bank*.

5. Denison and Ren, *Building Shanghai*, 47.

6. Roskam, *Improvised City*.

7. We are also aware of the conservation efforts of Professor Wu Jiang in Shanghai (see Jiang, *History*), which are less directly relevant to our study.

intermittently occurred, yet it was the synthesis of local and imported technologies and know-how that would prove indispensable in advancing the port’s physical and economic growth.⁸

A major development in the British Settlement of Shanghai (merged with the much smaller American Settlement to become the International Settlement in 1863) was the building of a large Anglican Church, Holy Trinity, from 1864 to 1869, raised in status to a cathedral in 1875 on the appointment of the city’s first Anglican Bishop.⁹ Buildings such as this were erected across the Empire to provide a public space for Christian worship and mission while also providing the mercantile community with a prominent symbol of “home” as they worked in far distant, sometimes alien, places. These churches also made visible and thus spread the influence of Anglican Christianity, the national Church of England, linked as it was with the British State and Crown.¹⁰ In due course, the presence of this new church building in Shanghai would itself project the power and culture of the British; however, it would first have to be constructed in the face of many managerial difficulties that would call for levels of resilience and inventiveness that provide a window into the mindset of those involved from the two communities that brought it to fruition as well as an insight into contemporary local economic conditions.

This paper will make use of three avenues of business analysis to explore what happened in Shanghai to bring the Trinity project (as we call it) to a successful conclusion. The first of these is the notion of “improvisation” in management, particularly in construction management. We will also explore how the management practice we refer to as “piggybacking” was employed in the architectural process at Trinity, Shanghai. Third, we will explore the role of Freemasonry in the project’s realization. Shanghai was, historically, an early center of Freemasonry in nineteenth-century China. The present case provides a historical application of the theoretical insights we examine in order to assist in creating a business history of the church’s genesis and construction. Architects tend only to be interested in archiving designs and drawings, seldom leaving business or financial records,¹¹ and, without the survival of the papers of Holy Trinity’s architect, William Kidner, which include extremely rare construction reports, our study would not have been possible.

The paper will enrich our understanding of an important area of the economy, construction that has not been much attended to by business and economic historians. It also uses the research material to enable a better and broader appreciation of Shanghai’s often difficult, contemporaneous, localized economic and trading conditions to emerge. We discuss types of flexible and innovative response that, aside from the Trinity project, were often called for in doing business in the Chinese environment. These responses will also be linked to wider long-term trends in Shanghai’s and China’s economic history. We also, as we proceed, comment on the visual and symbolic impact that Holy Trinity was intended to make, as against what it has made, from the time it was built until the present day.

8. Roskam, *Improvised City*, 118–121.

9. Bremner, *Imperial Gothic*, 109, 294, 295; Wright, *Twentieth Century Impressions*, 330.

10. The British Embassy in Shanghai provided the predecessor of Holy Trinity with its first building committee trustees (Wright, *Twentieth Century Impressions*, 330).

11. See McKinstry and Wallace, *Cullen, Lochhead and Brown*, and McKinstry and Ding, *Conradi* for coverage of this point.

Advancing the Trinity Project

Cathedrals and churches fulfilled several overarching objectives within the “colonies.” In his recent work on ecclesiastical architecture and Empire, Bremner notes at length “that religion had become a central plank in Britain’s wider imperial ‘mission’ by the 1840s...not concerned merely with developing the world commercially...but with ‘improving’ it through the inculcation of key civilizational institutions such as Christianity.”¹² The propagation of the faith was intended to operate by means of the civilizing effect of trade, which was believed to improve human behavior by reducing opportunities for idleness and mischief, facilitating the conversion process. It is likely that the notion of trade as a civilizing factor owed much to Smith’s *The Wealth of Nations*, which, as Phillipson has noted, was rooted in his earlier empirical works of moral philosophy.¹³ As Brown has also recently shown, such ideas were consonant with the wide prevalence of the theological notion of “Providence,” namely, that the Empire was expanding as a result of the outworking of Divine will, a view held at the highest levels of British life, including by Queen Victoria.¹⁴

After the British victory in the Second Opium War, where they had received French military assistance, there were further signs that Shanghai and its international trade were settling down. Although there was still some resentment in the minds of the Chinese population in the city at the (predominantly British) overseas presence, by whom some of them were employed, at governmental level, the appointment of Chinese-speaking Robert Hart, a UK diplomat, as Inspector General of the Qing government’s Maritime Customs Service, which he had joined in 1859, made an immediate difference.¹⁵ Starting first in Shanghai, then in all the Treaty Ports, Hart stabilized and reorganized the service, employing a mixed international staff, which substantially increased Chinese customs revenues through the elimination of corruption and thus enhanced government stability, which in turn built trust at governmental level in the British and their intentions.

It was against this improving political background that in 1860, the congregation of Holy Trinity Church, which had existed in Shanghai since 1847, decided that “a large and permanent church, worthy of the port,” should be built on the site of their old building, which had been destroyed in a storm, causing them to be in temporary premises.¹⁶ Amid some uncertainty among the British, United States, and other “extraterritorial” European nations represented locally, this was a confident vote in Shanghai’s continuing future as a British trading center and as a node of Christian witness.¹⁷ The city’s Episcopal (Anglican) Church Society, in 1863, wrote to George Gilbert Scott (1811–1878) in London, Britain’s preeminent architect and the leading Gothic specialist of his day, regarding designs for a new church. At this point, the

12. Bremner, *Imperial Gothic*. 9. These views were fully expressed by Bishop Samuel Wilberforce, see 203.

13. Smith, *Wealth of Nations*. Phillipson, *Adam Smith*.

14. Brown, *Providence and Empire*. Metanarratives such as these were not without challenge within the British political elite. For example, W.E. Gladstone and Richard Cobden denounced the Opium Wars. See Morley, *Life of Gladstone*, 660.

15. Drew, “Sir Robert Hart”; Van de Ven, “Maritime Customs.”

16. Wright, *Treaty Ports*, 331.

17. The Anglican Church Missionary Society worked cooperatively with other Protestant missionary societies in China (Wright, *Treaty Ports*, 332).

Gothic style, developed in the Middle Ages and featuring the pointed arch, was considered de rigueur for a new British church in a British settlement overseas, as indeed it was at this time in Britain itself. It was to house 800 people at a cost of £20,000. Scott wrote back, confirming his willingness to provide designs, eventually sending drawings in an “early 13th century Gothic Style” in November 1864. Scott’s custom was for such commissions to be pro deo, that is, to make no charge.¹⁸ It should be borne in mind that the time taken to deliver a letter, and thus plans, depended on the sea journey from Britain to Shanghai, which took up to two and a half months.¹⁹

Meantime, Scott, with the agreement of the Shanghai church authorities, had, to obviate the problems of distance and time, chosen an assistant, William Kidner (1841–1900), to oversee the church’s construction. Kidner was already on his way to Shanghai by sea in early 1864. His surviving correspondence reveals that he wrote on February 12 from Malta to his sister in Somerset, again writing on February 25, having left Egypt.²⁰ This suggests that he would have arrived by some point in April. Kidner, son of a West Country farmer (not a Scot, as stated by Roskam), had been a part-time architecture pupil of Professor T.L. Donaldson at London University. Prior to this, he had gained experience in a building firm, going on to become an Associate of the Institute of British Architects, and clearly had impressed Scott, in whose office he had lately worked.²¹

Scott’s designs, however, when they arrived, did not include a spire and only provided seating for 460, with a long chancel being provided. The chancel of a church is at the opposite end from the front entrance to the building and is the focal point of the church’s nave, its general seating area. Information is lacking, but it would have been in character for Scott to see the cost target of £20,000 for this size of church as incapable of producing a building “worthy” of the port and adjusting his design accordingly.²² Omitting or deferring a spire was at this time commonly done in church-building projects in the United Kingdom in recognition of financial constraints but left open the opportunity to provide one later when resources became available.²³ Kidner was soon at work altering the designs while an extra 20,000 taels (worth some £7,000) were being raised for the necessary amendments.²⁴

Scott’s original design does not survive and has been the subject of much speculation, but it may be inferred from what was eventually built, together with later major clues contained in Wright’s informative history of the Treaty Ports. In an article on “The Anglican Communion” by Venerable Archdeacon Banister of Shanghai, Shanghai Cathedral is described as having a

18. Bremner, *Imperial Gothic*; see pages 91 and 98 for other pro deo examples.

19. Roskam, *Improvvised City*, 94–97.

20. Kidner Letters, William to Ann, February 12 and 25, 1864.

21. Dictionary of Scottish Architects, William Kidner. The basis of Kidner’s inclusion is that he designed, later, several buildings in Scotland.

22. Scott, *Recollections*, 87. Here, Scott rails against cheap churches not worthy of their purpose. Bremner notes that Scott earlier expressed the view that £15,000 was not enough for the first phase of St John’s Cathedral, Newfoundland; see *Imperial Gothic* 93.

23. For example, at Scott’s St Mary Abbott, Kensington, begun 1869. See Stamp, *Steam Age Gothic*, 71.

24. The rate of exchange used throughout this paper is taken from Port Catalogues, 1873. The expanded budget of £27,000 is equivalent to some £3m today.

chancel that was “not as long as was intended by the architect” and also that the design was “modified locally to meet the climatic conditions.”²⁵

Clearly, Kidner’s revisions to the design, as revealed by his surviving plan, consisted of shortening the Scott-designed chancel (likely made long by Scott in anticipation of the church’s future adoption as a cathedral), in order to devote resources and space to extending the nave to accommodate the desired seating for 800.²⁶ In his revised plan, Kidner removed the chancel by substituting a shorter “apse,” a semicircular end space, to replace it. He then designed a cloister-like roofed and arcaded walkway along the two external walls of his lengthened nave, linking these to a porch at the main door to protect the congregation while outside from the strong sun and the at times heavy Chinese rain.

A further complication was that Scott had designed the church to be built in stone.²⁷ The local stone in Shanghai was a hard granite rock, which was slow and expensive to work, so Kidner decided instead to propose a building of brick walls and stone dressings, constructional materials that had been used in China for thousands of years.²⁸ Both Scott and Kidner in their designs for Holy Trinity adhered to the symbolic characteristics of the medieval architecture on which Gothic cathedrals and churches were invariably based. The designs for Shanghai, before and after Kidner’s changes, remained cruciform in plan, with the lengthened nave, shortened chancel, and two transepts that were provided forming the shape of the cross. Another symbolic device was to evoke, in the three large lancet windows of the chancel, which all the congregation would face, the threefold nature of the Holy Trinity, after which the church was named. It was to be “a builded prayer in stone and lime, a standing creed.”²⁹

The progress of the project from the point that Scott’s design was received in late 1864 onward was fraught with delays and difficulties (discussed later). On January 10, 1866, Kidner’s revised designs, having first been sent to Scott, were approved by the church Trustees and on March 21, 1866, the building contract was signed, when a build time of eighteen months was committed to by S.C. Farnham, a local ship repairer and builder of small vessels, there being no anglophone builders in Shanghai.³⁰ The completion date for the church was December 30, 1867. However, due to delays, it was only able to be opened and dedicated for use on August 1, 1869.³¹ We analyze the difficulties concerned and the management initiatives that resulted in the church eventually coming to be built.

25. Wright, *Twentieth Century Impressions*, 331.

26. Roskam, *Improvised City*, 97.

27. Roskam, *Improvised City*, 95.

28. *North China Herald*, Kidner discusses the intractability of local granite in his report to the Trustees dated February 9, 1867.

29. A phrase coined by Bishop Forbes of Brechin on planning, with Scott, St Paul’s Church, Dundee (completed 1863) for an Episcopalian (Anglican Communion) congregation, which also had a cruciform plan and three lancets in the chancel: <http://anglicanhistory.org/scotland/apforbes/perry/chapter4.html>, accessed November 22, 2023.

30. *North China Herald*, Kidner’s report to Trustees’ meeting, February 9, 1867.

31. In view of the scarcity of builders, there could be no competitive tendering process. An architect’s specification of materials and methods would be provided to Farnham, standard Scott practice.

Aspects of Management Theory and Methodology

We now outline each of the three theoretical perspectives to be used in our analysis.

Managerial Improvisation

The literature of managerial improvisation is well developed.³² Because our study focuses on construction, we have paid extra attention to recent papers on improvisation in this specialist field. Of direct relevance is the recent study by Hamzeh et al., which is motivated by a desire to improve construction practice. They state that “improvisation is the act of dealing with the unexpected without having the luxury of preparation.” They continue, “Organisational improvisation can be performed either by an organization as a whole or by one or more of its members.”³³ This, as we discuss, is of particular importance to the Trinity project.

These authors note that delay and misfortune are commonplace in business, especially in the area of large engineering or construction works.³⁴ There are two parties affected by misfortune in such cases: the client and the contractor, together with any agents they may have. The client invariably includes in his contract with his supplier legal provisions for lateness, including penalty or liquidated damages clauses related to the duration of delays in cases of contractor culpability. However, it has been recognized more recently that both parties to the contract have a central goal in common: to bring the project to full fruition; so, in many ways they operate as a single informal operation in order to further together its timely completion. This approach has been referred to in the recent literature as creating a “hybrid” organization. As we showed elsewhere, different legal entities from the Victorian period, which had a common objective on occasions, combined information and accounting data for mutual benefit, as was also to prove the case in Shanghai.³⁵ Further, delays and misfortunes often bring into play the exercise of managerial improvisation in overcoming setbacks, as we discuss.

A presupposition of Hamzeh et al.’s research is that workplace improvisation may be beneficially analyzed from three points of view: 1) its antecedents, 2) behaviors, and 3) consequences. *Antecedents* are the circumstances that call for improvisation, the nonsupply of all necessary prerequisites at the outset frequently being a major cause: the “incomplete kit” perspective. *Behaviors* are the resultant improvisations. Their speed or novelty may be influenced by “stiff” or flexible organizations. *Consequences* examines the benefits or costs of the improvisations and their success in helping finish projects. We use these distinctions in our analysis to help us evaluate what was achieved and by whom.³⁶

Using these three distinctions, we have produced a summary analysis of improvisatory steps taken in connection with the project (Table 1).

32. See Pressing, “Improvisation”; Mintzberg, *Rise and Fall*; Chelariu, “Learning to Improvise”; Leyburne, “Managing Change.”

33. Hamzeh et al., “Understanding Improvisation,” 62.

34. Hamzeh et al., “Understanding Improvisation,” 61.

35. McKinstry and Ding, “Hybridised Control.”

36. Hamzeh et al., “Understanding Improvisation,” 65–66.

Table 1. List of project improvisations

	Situations	Antecedents/causes	Behaviors	Consequences
1	Unsuitability of Scott's plans	Lack of communication re: geographical distance	Kidner replans building with "cloisters" and extra accommodation	Additional costs, added value
2	Stone not suitable	As above	Kidner redesigns in red brick and white stone	Lower cost, added value
3	Manual piling too slow	Newly emerging constraint	Novel solution: mechanical piling	Lower cost, added value
4	Soft ground found on site of tower	Newly emerging constraint	Novel solution: change site of tower	Avoid future subsidence
5	Liquidation of Shanghai Brick Company at outset of production	Newly emerging constraint	Persuasion of "new" Brick Company owners to take over	Stoppage of further delays
6	Collapse of new Brick Company after 200,000 bricks produced	Newly emerging constraint	Persuasion of Chunsheng Li to take over as new brick suppliers	Stoppage of further delays
7	Assessment of local bricklaying practices	Newly emerging constraint	Evaluation and acceptance of local bonding practices	Neutral consequences
8	Funds shortage	Newly emerging constraint	Covering of work surfaces against frost re delay	Protection of works
9	Strike of all masons for wage increases	Newly emerging constraint	Eventual concession of wage increase—loss borne by Farnham, contractor	Late completion of works

Sources: North China Herald and Market Report, February 9 and November 4, 1867, Kidner's progress reports to Trustees.

As noted in Table 1, the initial problem of lack of communication due to time and distance resulted in Scott producing plans that did not accommodate the required numbers, did not provide external cover against the weather conditions, and specified a stone building that was impractical in the local circumstances, without providing a design for a spire (Situations 1 and 2). Because these matters would ideally have been resolved in advance in a noninternational situation, these may be classed as "antecedents" of the "incomplete kit" type.³⁷

The rest of the improvisatory responses (Situations 3 to 9 inclusive) were called out by "newly emerging constraints," to borrow an expression coined by Hamzeh et al. This type of constraint would have been well-nigh impossible to predict, and, as we will see, these shed light on conditions on site, the building trade, and the economy generally in Shanghai at the time. As discussed previously, in our analysis, we differentiate between improvisatory acts that were "novel" and those that were "repetitive" in character.

Regarding Situations 1 and 2 in Table 1, we consider that Kidner was involved in substantial architectural creation in what he did. The general style of the building, which Bremner refers to as "Lombardic Gothic," with its Northern Italianate combination of pointed arches and distinctive early thirteenth-century corbeled edges to roofs, remained unaltered from Scott's design. This style may have owed its inspiration to the well-known but unsuccessful

37. Ronen. "Incomplete Kit."

competition design by William Burges, a London acquaintance of Scott, for the Crimea Memorial Church at Constantinople of 1858.³⁸ Kidner kept this style of detailing but at the same time altered the building’s massing and overall form in elongating the nave while shortening the chancel, while covered cloisters were also added externally. This required the visual rebalancing and proportioning of form, which was successfully done, as the building shows, using his artistic judgement.

Another considerable achievement was Kidner’s redesign of the building’s main fabric in red brick with white stone dressings, because the local granite was too hard and expensive to work and could not be used for the whole structure. As well as requiring Kidner to undertake the study of different suppliers and qualities of Chinese brick to substitute for this, he also had to decide on the placing, width, and profile of the narrow, horizontal white stone molding that was to run around all the walls at middle height to drive off rain; the edgings of gables were also made in white stone. This in its own right was an important design element of the church as built, standing out crisply against the red brick. As well as deciding on the use of granite pillars throughout the church, Kidner also found some supplies of softer white stone for areas of delicate internal carving. Not mentioned by Kidner, but clear from the church as built, the arched voussoirs of the red brick window openings were composed of alternating red and black bricks. Kidner had in fact produced a structure of three colors, red, black, and white, utilizing “constructional polychromy” in the manner advocated by John Ruskin in his “Stones of Venice” of 1838 and often used in Britain.³⁹ Kidner deserves a great deal of credit for the aesthetic quality of his achievement, which we classify as “novel” in creative terms.

Situation 3 was straightforward. The slow progress of manual piling was, because of the hardness of the ground, abandoned and substituted with mechanical piling, with the piles being hammered most probably with the help of steam engines.⁴⁰ Although no longer novel in British construction practice, this was a more efficient and advanced development for Shanghai, but it seems likely that such devices would be in use elsewhere reasonably locally and were likely suggested by Farnham, the contractor. To an extent, this was novel.

Situation 4 was also neat and fitting: medieval, spired, church towers in the United Kingdom were sometimes built separately from their churches, because they could not be put up on their intended sites, usually due to ground conditions.⁴¹ So, likewise, the future spire and tower at Shanghai was moved to the other side of the church, where the ground was harder. This probably involved Kidner’s knowledge of historical churches and some minor weighing of the tower’s exact placing for aesthetic purposes. This was thus a “repetitive” step but one that still called for specialist knowledge. The tower and spire were not started until 1893.⁴²

The collapse of the Shanghai Brick Company at the outset of the contract prevented J.C. Farnham from receiving supplies of the carefully chosen, locally supplied red bricks, which were required as soon as the piling of the church’s site was complete, necessitating further improvisation (Situation 5). During the time piling was in progress, as Kidner put it,

38. Bremner, *Imperial Gothic*, 136–137.

39. Ruskin, *Stones of Venice*.

40. North China Herald, Kidner’s report to Trustees of February 9, 1867.

41. Friar, *Companion*, 456.

42. Wright, *Twentieth Century Impressions*, 331. With its transient expatriate attenders, Holy Trinity was never a wealthy church. Shanghai Mercury, *Shanghai by Day and Night*, 20–24.

“some enterprising gentlemen undertook to work the plant and clay pits of the defunct Brick Company and to supply us with bricks for our Church.”⁴³ Further details are now gone, but it is clear that informal networking and discussions had taken place, in an act of improvisation that reached into the international community within Shanghai and persuaded investors to step forward. This was no mean achievement, where the key managers of J.C. Farnham, with its long-standing local contacts, took the lead. Unfortunately, the new owners decided, after supplying 200,000 bricks (out of a final figure of 6 million bricks required, just over 3 percent) that they would incur more losses by carrying on and decided to terminate the business. Kidner added that “unfortunately the new Company supplied us so slowly that the bricklayers were compelled to stop work, and the five-foot basement was not completed until the end of September [1866].”⁴⁴

This crisis thus ushered in Situation 6, over which Kidner was forced to research importing the bricks from Foochow or Japan, but the samples received were not suitable. This time, an action was taken that is clear enough in its effect, but the buildup to which is not now known in detail. To put it in Kidner’s own words, “Eventually an arrangement was effected with Chunsheng Li to manufacture at the Company’s factory 6,000,000—the number we estimated would be required to complete the building. He set to work in earnest and has now satisfactorily executed his contract so that no further hindrance can occur to the works as far as the supply of bricks is concerned.”⁴⁵

Making allowance for pre-Pinyin transliteration, often a problem in English-language research on China,⁴⁶ we have identified Li as 李春生, Chunsheng Li (1838–1924), a highly regarded comprador at first operating from Amoy, his home city, with Elles and Company from 1858, selling tea to Dent’s in Shanghai.⁴⁷ The ground on which the new Holy Trinity was to stand had been donated to the church to build its predecessor buildings by Thomas Chay Beale (d. 1857),⁴⁸ Dent’s former business partner, a plausible reason for Li’s involvement.⁴⁹

Situation 7 is not mentioned separately in the reports to the Church Trustees, but it is obvious that architect and contractor would have become involved in assessing Chinese bricklaying techniques and their suitability for aesthetic and construction purposes, ultimately accepting these, to which there was no alternative. Recent research on Victorian-era brick technology in Shanghai has clarified that Chinese laying of brick walls as at Holy Trinity employed three-quarter Chinese brick lengths as “closers” compared with English quarter-brick closers and with

43. North China Herald, Kidner’s report to Trustees of February 9, 1867.

44. North China Herald, Kidner’s report to Trustees of February 9, 1867.

45. North China Herald, Kidner’s Report to Trustees of February 9, 1867.

46. Denison and Ren, *Building Shanghai*, 7.

47. From: *Encyclopaedia of Taiwan* (online) *Chunsheng Li*, accessed November 21, 2023, <https://web.archive.org/web/20120507222430/http://taiwanpedia.culture.tw/en/content?ID=3625>.

48. Grafton, *Freemasonry*, 36.

49. Following his father, Li had become a Christian in 1852 and would thus take satisfaction in advancing the faith in China by solving Holy Trinity’s brick supply problem. Renowned for his business acumen and his skill with “foreigners,” Li would go on to base himself in Taiwan in 1868, at first as comprador to tea trader John Dodd, with whom he opened up the Taiwanese tea trade. Li went on to become very rich as a merchant. He later wrote works of philosophy and Christian theology and became a civic leader in Taipei, involving himself in building projects, later helping to effect a peaceful takeover by the Japanese. His residence there explains his absence from the annals of the Treaty Ports and his fame in Taiwan. From *Encyclopaedia of Taiwan*.

different transverse bonds. The authors of this recent study also state that, remarkably, the Holy Trinity bricks used at Shanghai were the only ones they could find there that were the standard size in general use in Britain at the time and the thickest produced in the port to date.⁵⁰ Builders were able to have bricks made locally to any size, but the British norm was preferred by Kidner. Holy Trinity's brickwork thus represents some compromise with UK standards and practices, a blending of technologies, but which worked both from structural and aesthetic points of view.⁵¹ This choice was important but perhaps enforced.

After all the many drawbacks were overcome, as discussed previously, and just as all conditions seemed to point toward steady progress to completion, there was a further hiatus that caused ongoing improvisation (Situation 8). At the commencement of 1867, all the stonemasons began a strike for higher wages, and it took some time before the contractors could arrange to proceed with the work. The delay was caused by Farnham finding it difficult to obtain a good and regular supply of skilled craftsmen, which was only done at considerable financial loss to the contractor. Clearly, the church Trustees had concluded a contract at the outset, which held Farnham responsible for delays with his own workforce, which was standard practice in the United Kingdom, and he had to accede to their demands. As Kidner also observed, "At other times large numbers left us through some petty misunderstanding with their foremen or squabbles among themselves. Then again the discharge of a few bad workmen would sometimes cause us the loss of a whole gang, and in consequence of a custom which prevails among them, that every man must begin and finish the particular piece of work on which he is engaged, we were frequently compelled to send away men who were very useful."⁵² Perhaps surprisingly, we discover that in Qing China, the Chinese trade guilds had many of the characteristics of trade unions, which were becoming increasingly powerful at the same time in Britain. There were heavy penalties under Chinese law for going on strike, but somehow this was avoided in this instance.⁵³ By remarkable coincidence, there was an almost simultaneous strike of masons, seeking to enforce a "closed shop" of union members taking place at Glasgow University, which was being rebuilt to the designs of Gilbert Scott.⁵⁴

As the contractor struggled with the supply of masons, which would have involved the frequent rescheduling of this trade with interlocking building trades, especially bricklaying, other problems gathered in the background (Situation 9). In March 1867, Kidner had detailed Shanghai's worsening economic circumstances in a letter to his sister: "The losses on tea & silk have been enormous and shirtings & other imports have also lost considerably," he confided. He doubted the prediction that 1867 would be a better year than 1866, which had also been poor. He was proved right when in June 1867 the supply of funds to further the project dried up. Kidner reported that from this time on, "the works were carried on with less spirit and activity than formerly, until the beginning of September, when they were altogether suspended." It is not known whether the supply of funds raised had been underestimated

50. Shu, "Western Construction."

51. Shu et al., "China's Brick History."

52. *North China Herald*, Kidner's Report to Trustees of November 4, 1867.

53. Roskam, *Improvvised City*, 118–119.

54. McKinstry and Ding, "William Conradi."

or whether promisors of funds were simply unable to provide them as intended. To follow on from the myriad small adjustments to schedules caused by these new circumstances, Kidner noted in November 1867 that “The walls have been covered up with straw to protect them in some measure from the effects of rain, but if the work is not resumed at once a more substantial covering must be substituted, or the heavy rains and frosts which we may expect during the winter months will cause considerable damage.”⁵⁵ Through a series of small improvisations stemming from what appears to have been a “stop/start” situation as money arrived, the project carried on toward completion as imported heating systems, stained glass windows, tiled pavements, and “other costly fittings” came in from England and were able to be fitted under cover of a completed roof. The church was opened on August 1, 1869.

Our utilization of an improvisatory framework for this study shows effectively the challenging nature of building in Shanghai at this time by highlighting the sources and timings of the difficulties. Seven out of nine of the problems identified (Situations 3 to 9) were “newly emerging,” only appearing after the church was replanned and redesigned by Kidner (Situations 1 and 2) and the contract with the builder was signed and work started. Of these, it is unlikely any could have been foreseen. The project was therefore difficult from the start, with no let-up until completion. In terms of who was the prime mover in the solving of Situations 3 to 9, Situations 3, 5, 6, and 9 fell largely to Farnham, with 4 and 7 falling to Kidner and 8 falling to the Trustees. Situation 4 required a collaborative solution, but in reality, as it was Kidner’s contractual obligation to ensure that the building was completed in line with the plans and specifications, both builder and architect had to collaborate and communicate frequently and harmoniously so that the project was completed late but not too late for the client. Flexibility of organization, predictably, helped in improvisation. This reinforces the argument that construction projects, irrespective of the contractual lines of responsibility, are best treated as joint responsibilities in practice, indeed, as “hybrid” projects.

Thus, we contend, that an “improvisatory” analytical framework can work well for historians in evaluating causation and contributions. We conclude that both Kidner and Farnham made timely and appropriate improvisatory responses that involved considerable experience and skill.

Architectural “Piggybacking”

What Kidner did for Scott in his Shanghai sojourn may be described metaphorically as “piggybacking.” This conveys the notion of a “carrier” and a “rider.” The analogy is clear: Kidner can be seen as the “carrier” of Scott’s design in Shanghai, with Scott being the “rider,” benefitting from Kidner’s resident architectural skills and opportunities to access the local knowledge required to deliver it. By seeing the arrangement through this lens, we are able to make an assessment of how successfully the Scott/Kidner liaison met the presumed criteria of both parties.

At the time, Scott’s office was famously in a state of almost permanent overstretch, as it processed the vast volume of commissions large and small that came its way as Victorian

55. *North China Herald*, Kidner’s Report to Trustees of November 4, 1867.

Britain built itself.⁵⁶ Scott himself was so busy with clients he was hard to access even by his own staff. His office of around thirty people provided architectural supervision and support for construction projects employing many thousands all over Britain.⁵⁷ Starting an office in Shanghai or anywhere else overseas was out of the question, especially for a single building, even on a temporary basis. The lines of communication were too long in the 1860s, before the era of subsea cables made swift transcontinental dialogue possible. So, there were nil geographical coverage, very limited human resources, and limited, perhaps zero, foreign market knowledge, compounded by the unsettled state of Chinese society in the 1860s, which represented unquantifiable risks.

Kidner took up the challenge of providing the lack of all three elements by going to Shanghai to erect Holy Trinity Church to Scott's designs. It is clear from his surviving correspondence with family members that it was his intention to build up a local practice at the same time. His brother James, trained as a builder and architectural surveyor, joined William in 1866, writing home that "we have lots of jobs in hand which have been going on for some time but no new jobs."⁵⁸ Although there were episodes of fluctuating demand in Shanghai, as shown above, earnings from the Trinity project would be available from 1865 to 1869 to Kidner as executant architect at some 5 percent of total costs, known to exceed £26,000, namely, £1,300, added to which there would be income from the other jobs referred to by James and doubtless related to the mercantile community's more utilitarian buildings. The income from the church project alone would average £250 per year, compared with the annual salary of £150 for a clerk of works in Scott's employ at this time.

Among Kidner's other jobs, we know that he designed a new court for the Shanghai Racquet Club, of which he was a member, in 1866.⁵⁹ He also wrote a report on the construction of the French Embassy, built to "Gallicize" the French area, newly completed and, ignominiously, already with structural problems, in 1867.⁶⁰ That year, he acted as executant architect to the new Masonic Hall on the Bund, with design inputs to original plans by George Clark, the mason, who had since left Shanghai. The year 1867 also saw him design a prison for the British Consulate and a church at Hankow. In 1874, he designed a new building for the American Consulate, which was unbuilt, the size of a large villa. His talents were given free rein in his 1876 design for the office of the Hongkong and Shanghai Bank, an opulently detailed and very substantial Renaissance-style palazzo. There followed a new office for the Mercantile Bank of India in Shanghai in 1877.⁶¹

As well as hoping for a successful career in Shanghai, which he had achieved by the time he left in 1877, he probably also hoped for an interesting and enjoyable social life. His letters home speak of his participation in tennis, trips along the Chinese rivers shooting fowl, and

56. Jackson, *Recollections*, 58–61; Cole, *Scott* 79. The Scott family managed to take a long holiday in 1859, the first since 1835.

57. Ding and McKinstry, "Business Success."

58. Kidner letters. James to Ann, October 24, 1866.

59. Kidner Letters, James to Ann, May 23, 1867.

60. Roskam, *Improvvised City*, 90–91.

61. Izumai, "Scottish Architects," 94.

participation in shooting contests as a member of the local Shanghai Militia, a volunteer organization, one of a number that had started up in the Treaty Ports.⁶² This was both recreational as well as a safeguard against attacks by residual supporters of the Taiping Rebellion, which had dwindled by 1864. By 1866, James Kidner, who had trained as a builder and surveyor, had come out to Shanghai to join his brother as the Trinity project got off the ground. The brothers were practiced marksmen, doubtless related to their farming roots. James Kidner's correspondence with his sister shows that there were rifle shooting contests between expatriate staff at the various Treaty Ports, where William Kidner frequently emerged as winner, justifying his reputation as "the finest shot in China."

A reciprocity of business advantage for both Scott and Kidner was aimed for through "piggybacking" and achieved through the Trinity project. The risk for Scott always lay in the quality dimension but was much reduced through Scott having chosen Kidner, a former employee first. Later Kidner was required by the Holy Trinity authorities to send his amendments to Scott's designs to Scott for comment before commencement of work. We are entitled to assume that the client was pleased with these in advance of Scott seeing them. When Scott received Kidner's revised designs, he praised his work, glad that Kidner "so thoroughly understood his views and...appeared to be capable of carrying them out satisfactorily."⁶³ At the Masonic foundation stone laying ceremony for the Church held on May 24, 1866, it was made clear that in Shanghai, the designs for the church were seen as a joint production of Scott and Kidner, the inscription on the foundation stone reading: "Architects: G.G. Scott Esq., R.A. and William Kidner, Esq."⁶⁴

An arrangement such as this was very satisfactory to Scott. At St. John's, Newfoundland, where Scott had also designed a new Anglican cathedral, he had employed a Scots assistant, William Hay, a former trainee, to supervise the building of its nave on site in 1847.⁶⁵ Scott was able to piggyback again in Christchurch, New Zealand, employing a resident architect, Benjamin Mountford, a former pupil, to erect his designs for Christchurch Cathedral in 1864.⁶⁶ Two years later, his plans for Bombay University were cut down without permission on cost grounds, being carried out by resident architects George Twigg-Molecey and Walter Paris. Angry at the discourtesy of failing to give him the opportunity to revise his plans, Scott was not slow in expressing his displeasure and washing his hands of the commission.⁶⁷

Present-day computerized communications and travel by jet plane have long rendered international architectural piggybacking redundant, as has the presence of a local architectural profession in the former "colonies." At the time, it was commonly used by architects where they could, to keep control of their designs.

62. Kidner Letters, to Ann from James, October 24, 1866; November 24, 1866.

63. Stamp, *Steam Age* 158. While Kidner was in Scott's office prior to sailing for Shanghai, Scott had completed Wellington College Chapel in Berkshire in red brick and white stone, so Kidner was very much in tune with his tastes. See also Cole, *Scott*, 225.

64. Gratton, *Freemasonry*, 34.

65. Dictionary of Scottish Architects, entry on William Hay.

66. Stamp, *Steam Age Gothic*.

67. *Ibid.*

Masonic Networking in Shanghai

Freemasonry,⁶⁸ widespread in Britain, became strong across the Empire. Colonial merchants frequently employed ex-public schoolboys, who had often joined "old boy" Masonic lodges named after their schools.⁶⁹ Gratton's history⁷⁰ advises that when Kidner arrived in Shanghai in 1864 there were already three Lodges of English origin there, the Northern Lodge of China (from 1843) and two newer ones.⁷¹ Kidner joined the Northern Lodge soon after arriving and the following year was commissioned to take over the existing project to erect a new Masonic Hall, making design amendments. The project cost a substantial 40,000 taels, some £13,000. At the splendid Masonic Dedication ceremony of September 17, 1865, Kidner attended as "Deputy Grand Superintendent of Works."⁷² There was a Masonic Foundation Stone laying Ceremony for Holy Trinity Church on September 27, 1866, where "Bro. William Kidner" was the "Acting Grand Superintendent of Works." The "Builder with the Plans" was "Bro. S. C. Farnham," the contractor. A magnificent procession of Shanghai's Freemasons, a military band, the Shanghai Volunteers, seamen and marines, the New Church Trustees, the Municipal Council, the Commissioner of Customs, representatives of the American and French consulates, and a cordon of six policemen paraded the streets. Kidner would go on to become Master of the Northern Lodge of China for 1871.⁷³

Whether his Freemasonry generated business advantage to Kidner cannot be evidenced. When he gained the Masonic Hall commission, he was one of only two architects in Shanghai, the other a new arrival and Kidner with Scott's commission to build Holy Trinity, reason enough to be chosen. Also, deal making in Shanghai, as Rawski reminds us, was largely done by Chinese compradors, trading with Chinese firms and reducing potential masonic influence generally.⁷⁴ S.C. Farnham receiving the building contract for the church is unlikely to have had anything to do with Kidner or Farnham being Freemasons. Farnham was the nearest equivalent to a British builder. Certainly, Shanghai's English Freemasons donated stained glass windows to Holy Trinity.⁷⁵

Undoubtedly, Freemasonry in the colonies provided social activity, diversionary ritual and welcome spectacle while abroad, reinforcing British identity and culture.⁷⁶ Kidner's experience supports the assertion of Harland-Jacobs that Freemasonry was a pillar of Empire in that sense.⁷⁷ It also supports the view of Burt, who found no evidence of Victorian masonic networking opportunities influencing business dealings.⁷⁸ Robertson reaches a similar conclusion.⁷⁹

68. Freemasonry is an international fraternal movement, which meets for social and charitable purposes in local "lodges," its ritual being based on the ancient craft practices of guilds of stonemasons.

69. Harland Jacobs, *Builders of Empire*. See also Rich, *Elixir of Empire* and Griggs, "Influence."

70. Gratton, *Freemasonry*.

71. Gratton, *Freemasonry*.

72. Gratton, *Freemasonry*, 22–23.

73. Gratton, *Freemasonry*, 32–36.

74. Rawski, "Chinese Dominance."

75. Darwent, *Shanghai*, 25.

76. Kidner met his wife through Shanghai masonic connections. Kidner letters, introduction.

77. Harland Jacobs, *Builders of Empire*.

78. Burt, "Victorian Freemasonry."

79. Robertson, "Contribution."

Improvisation, Piggybacking, and Masonic Networking: Summing Up

At Holy Trinity, management improvisation was a necessary part of managing under pressure. Piggybacking, in Kidner's case, was geared to satisfying his client and his principal, Scott, and to building his career. Masonic connections involved socializing and networking under the scrutiny of Shanghai's small British community. We conclude that Kidner and Farnham handled their respective architectural and managerial duties with great distinction, that Kidner achieved his career aims through the Trinity project (while Farnham lost money), but that both men enhanced their social and commercial reputations among Shanghai's UK community and Freemasons as a result.

Closing Discussion: The Shanghai Economic Environment of the 1860s and Its Implications

Although there were some aspects of Shanghai's situation that were improving in the 1860s as a result of the reducing threats of war, in other ways it was an unsettled era, as the progress of the Trinity project suggests. Table 2 presents some customs statistics for the period.

The data in Table 2 encapsulate an uneven pattern in the export trade for the years shown, with 1863 being an outstanding year for export duties received by the Chinese Government as a result of high export volumes. These fall dramatically in 1864 to 488K, recovering in 1865, with 1866 showing the lowest level in the period at 418K, rising to 517K in 1867 and recovering further to £584k in 1868. This pattern is consistent with the financial fortunes of the Trinity project from the commencement of its building phase in March 1866, at the low point for tea and silk export business noted by Kidner. However, there is recovery in 1867, with trade the highest for five years in 1868, corroborating that the project's funding lapse and subsequent recovery were linked with trade fluctuations.

There were several broad reasons for these fluctuations: relocations of large numbers of Chinese from the country to Shanghai to avoid the ravages of the Taiping Rebellion and back to the country after the Rebellion stopped (in 1864) had caused speculative housing investment and subsequent losses. In addition, in 1865, a global depression coincided with the American Civil War, and this caused an immediate recession in Shanghai.⁸⁰

The Chinese building trade was unsettled in the 1860s. At this stage, Chinese building practice did not distinguish between the design and building processes, which were all carried

Table 2. Exports and export duties for Shanghai, 1863–1865 (in thousand taels)

	1863	1864	1865	1866	1867	1868
Native exports	n.a.	28,513	29,373	24,757	28,247	37,014
Export duties	756	488	521	418	517	584

Notes: n.a. = not available; 3 taels = £1.

Source: Chinese Maritime Customs Returns, 1873.

80. Denison and Ren, *Building Shanghai*, 66.

out by the builder. Also associated with the Taiping Rebellion, there was an influx of rural Chinese tradesmen into Shanghai over the period and subsequently, which Roskam equates with the generation of friction within the building industry. As he puts it, “Different dialects, building methods and levels of experience further complicated...design and construction.” As an example, Roskam cites the use of the *gong*, a Chinese measurement of length of 1,673 meters in parts of Shanghai, amidst other systems of measurement used in the city and neighborhood.⁸¹

The various guilds of building trades in Shanghai were very powerful. These were organized locally and centered on the Lu Ban Temple, shrine of a patron saint of carpentry, responding to threats they perceived to their business as a result of the influx of tradesmen from country areas and arising from the requirement for buildings by the international trading community. Attempts were made by Shanghai tradesmen to exclude nonlocals from house building business in the city, restricting these outsiders to work for the international traders. Some guilds struck up alliances with guilds of associated trades. Overall, there were inconsistencies of methods in building, language difficulties, and suspicion among the international community that Chinese builders and workmen in Shanghai were unreliable.⁸²

The Trinity project was, with hindsight, unlikely to be easy and, among the difficulties we analyzed earlier, was a range of restrictive practices among stonemasons that slowed progress. It seems remarkable, given the high quality of the finished building, that it was not carried out by a builder (see Figure 1). S.C. Farnham & Co were in the ship repairing and shipbuilding trade, with a shipyard and foundry.⁸³ Farnham had 13 office staff in 1874. As a result of their small size and the fact that they employed indigenous manual workers, including woodworkers for ship work, they could easily adapt to the construction of timber roofs for buildings and other tasks.⁸⁴ Farnham took the risk that managing a different mix of trades while acting as builders, backed up by Kidner, could be successfully achieved but frustrated by the difficulties they met through brick supply problems, exacerbated by the demands of hard-to-come-by stonemasons.⁸⁵

Farnham suffered the financial penalty of having to pay more wages for masons than were priced into their contract with the church trustees. The firm completed the project late but honorably, showing commendable flexibility and patience, perhaps influenced by S.C. Farnham’s Masonic membership and loyalty to Queen and country. The firm went on to merge with a competitor, Boyd, in 1901.⁸⁶ Its successor firms existed successfully until their business was taken over by the Communist government in 1950.⁸⁷

It is also noteworthy in summarizing the Trinity project, that, whereas extraterritorial UK entrepreneurs had failed to supply bricks, despite a welcome willingness to help out, the entrepreneur who came to the rescue, Chunsheng Li, was a Chinese businessman. His successors in Shanghai became more and more numerous, emulating western technology and

81. Roskam, *Improvised City*, 118

82. Roskam, 119.

83. Graces Guide, S.C. Farnham & Co.

84. North China Herald, November 4, 1867. The roof timbers were prepared in Farnham’s yard.

85. After Holy Trinity’s opening, an American partner in Farnham was turned down for a rent-free seat, in revenge for which he stood up in the pulpit and sang “The Star-Spangled Banner.” Shanghai Mercury, *Shanghai by Day and Night*, 1902, 23.

86. Graces Guide, Farnham and Boyd.

87. Graces Guide, Boyd and Company of Shanghai.



Figure 1. Interior of Holy Trinity, 1869, prior to opening, showing the quality of the bricks and bricklaying. Note: By permission of University of Bristol, Historical Photographs of China, Fr 01 -128, c2018.

creating lasting success with Chinese capital. He confirms the contemporary importance and versatility of compradors as highlighted by Rawski, Bickers, and others.⁸⁸

Chinese labor power could be considerable, as was shown at Trinity. There, the Chinese masons had their way, while a brilliant Chinese comprador saved the day by making a defunct brickworks produce a huge quantity of high-quality bespoke-size red bricks (see Figure 2). This was all possible because a British-nationality shipbuilder, overseen by a talented immigrant architect, managed the resultant unplanned situation from one of near-chaos to a highly satisfactory conclusion. Underlying their achievements were what we now refer to as managerial improvisation and architectural piggybacking, in a context of Masonic social networking.⁸⁹

It is appropriate to conclude by noting with Muhlmann, in his recent history of modern China, that the Treaty Ports came to be regarded by the Nationalists after 1912 with resentment

88. Rawski, *Chinese Dominance*; Bickers, *Scramble for China*.

89. Izumeda, "Architects Abroad." This article provides information on some of Kidner's work post-Shanghai.



Figure 2. Exterior of Holy Trinity, post-1893.

Note: By permission of University of Bristol, Historical Photographs of China, LD01-100, c2013.

as seats of foreign privilege and constraints on Chinese growth.⁹⁰ This paper has confirmed that the international firms were not the only beneficiaries of Treaty Port business, as Rawski has also contended, with much of the profits of dealings going to compradors and Chinese suppliers. Indeed, at Holy Trinity, Farnham was the only party that lost money.⁹¹ In contrast,

90. Muhlmann, *Making China Modern*, 119.

91. Rawski, "Chinese Dominance"

the ports, especially Shanghai, may now be seen as the source from which modern-day China's prosperity has come, aided early on by the development of the western technologies of the railway, international telegraph, and an infusion of western-style manufacturing technology, media, and cultural industries.⁹² It was here that the successors of Chunsheng Li and his fellow Chinese port manufacturers, traders, and merchants emulated the international traders and adopted their innovations, which they then introduced in their own factories, ship repair, and shipbuilding yards. They took Shanghai and China forward economically in the pre-Communist years and beyond. Indeed, Chinese governments of recent decades, while ambivalent about colonialism, have put the Chinese ports at the heart of their economic policy.⁹³

Not to be forgotten either are the Chinese working class labor movements, centered on Shanghai, especially the guilds, who proved to be fine craftsmen but tough negotiators on the Trinity project.⁹⁴ As Selden put it, "the Chinese labor movement was born in the craft workshop, not the dark satanic mills."⁹⁵ Their successors became very closely involved in China's subsequent political change and economic progress, becoming a major force in shaping the country's new future.

Epilogue

Still standing today, Holy Trinity Cathedral has been subjected to remarkable fluctuations in popularity and fortune. It was admired by its socially and racially mixed congregation⁹⁶ from 1869 for its very British red-brick, un-Chinese muscular Gothic form and the Christian symbolism of its cross plan and "Trinitarian" triple-lancet windows. The admiration likely grew when its tower and spire were built in 1893, greatly increasing the church's footprint and visual impact. While members of the congregation might see the spire as "pointing up to God," it is as likely to have been regarded by locals as an intrusive symbol of British power. Its spire was vandalized and then destroyed in the Cultural Revolution of the 1960s and 1970s for that very reason; then, the whole church was recently restored with Communist government money by the officially recognized Chinese Three-Self Church movement, who use it as a church and see it as a symbol of Chinese Christianity, erected and restored by Chinese hands.⁹⁷

YING YONG DING, School of Business and Creative Industries, University of the West of Scotland, Paisley, UK. E-mail: ying.ding@uws.ac.uk

SAM MCKINSTRY, independent scholar, Glasgow, UK. E-mail: sammckinstry2004@yahoo.co.uk

PEIRAN SU, Audencia Business School, Nantes, France. E-mail: psu@audencia.com

92. Muhlmann, *Making China Modern*, 130.

93. Muhlmann, *Making China Modern*, 119.

94. Roskam, *Improvised City*, 118–120

95. Selden, *Labour Unrest*, 72.

96. Bickers, *Scramble for China*, 126.

97. Kidner Papers, postscript; Los Angeles Times, *Shanghai's Red Church Rises Once Again*, February 27, 2011.

Bibliography of Works Cited

Books

- Bickers, R. *Britain in China*, London: Allen Lane/Penguin, 1999.
- . *China Bound: John Swire & Sons and Its World*, New York: Bloomsbury, 2020.
- . *Out of China: How the Chinese Ended the Era of Western Domination*, London: Allen Lane, 2017.
- Bickers, R. *The Scramble for China: Foreign Devils in the Qing Empire, 1832-1914*, London: Allen Lane/Penguin, 2011.
- Bremner, G.A. *Imperial Gothic: Religious Architecture and High Anglican Culture in the British Empire c. 1840-1870*, New Haven, CT, and London: Paul Mellon Centre, Cambridge University Press, 2013.
- Brown, Stuart. *Providence and Empire: Religion, Politics and Society in the United Kingdom 1813-1914*, London: Routledge, 2008.
- Cole, David. *The Work of Sir Gilbert Scott*, London: The Architectural Press, 1980.
- Darwent, Charles. *Shanghai: A Handbook for Travellers and Residents*, 2nd ed, Tientsin, China: n.p., 1920.
- Denison, Edward, and Guang Yu Ren. *Building Shanghai: The Story of China's Gateway*, London: Wiley-Academy, 2006.
- Friar, Stephen. *A Companion to the English Parish Church*, Stroud, UK: Sutton Publishing, 1996.
- Gratton, Frederick M. *Freemasonry in Shanghai and Northern China*, 2nd ed, Shanghai: North-China Herald, 1900.
- Harland-Jacobs, Jessica. *Builders of Empire: Freemasonry and British Imperialism*, Chapel Hill: University of North Carolina Press, 2007.
- Jackson, Basil H, ed., *Recollections of Thomas Graham Jackson*, Oxford: Oxford University Press, 1950, 59–61.
- Jones, Geoffrey. *Merchants to Multinationals: British Trading Companies in the Nineteenth and Twentieth Centuries*, Oxford: Oxford University Press, 2002.
- Mintzberg, Henry. *The Rise and Fall of Strategic Planning*, New York: Free Press, 1994.
- Morley, John. *The Life of William Ewart Gladstone*, London: Edward Lloyd, 1908.
- Muhlhann, Klaus. *Making China Modern: From the Great Qing to Xi Jinping*, Cambridge, MA, and London, UK: Harvard University Press, 2019.
- Phillipson, Nicholas. *Adam Smith: An Enlightened Life*, London: Penguin Books, 2010.
- Rappaport, Amos. *The Meaning of the Built Environment: A Nonverbal Communication Approach*, Tucson: University of Arizona Press, 1990.
- Rawski, Thomas, and Li, Lillian, eds. *Chinese History in Economic Perspective*, Berkeley: University of California Press, 1992.
- Rich, Paul. *Elixir of Empire: English Public Schools, Ritualism, Freemasonry and Imperialism*, London: Regency Press, 1989.
- Roskam, Cole. *Improvised City: Architecture and Governance in Shanghai, 1843-1937*, Seattle: University of Washington Press, 2018.
- Ruskin, John. *The Stones of Venice*, London: Pallas Athene, 2000.
- Shanghai by Day and Night, Shanghai: Mercury Press, 1902.
- Smith, Adam. *The Wealth of Nations*, Harmondsworth, UK: Penguin Books, 1980. First published 1776.
- Stamp, Gavin, ed., *Personal and Professional Recollections: The Autobiography of the Victorian Architect Sir George Gilbert Scott*, Stamford, UK: Paul Watkins, 1995.
- Stamp, Gavin. *Gothic for the Steam Age: An Illustrated Biography of George Gilbert Scott*, London: Aurum Press, 2015.

- Van de Ven, H. *Breaking with the Past: The Maritime Customs Service and the Global Origins of Modernity in China*, New York: Columbia University Press, 2014.
- Willis, C. *Form Follows Finance; Skyscrapers and Skylines in New York and Chicago*, New York: Springer, 1995.
- Wright, Arnold. *Twentieth Century Impressions of Hong Kong, Shanghai and Other Treaty Ports of China*, London: Lloyds Greater Britain Publishing, 1908.
- Wu, Jiang. *A History of Shanghai Architecture 1840-1949*, Shanghai: Tongji University Press, 2008.

Articles and Chapters in Books

- Barnes, V., and L. Newton. "Symbolism in Bank Marketing and Architecture: The Headquarters of National Provincial Bank of England," *Management and Organizational History* 14 (2019): 213–244.
- Burt, Roger. "Freemasonry and Business Networking During the Victorian Period," *Economic History Review* 56 (2003): 657–688.
- Chelariu, Cristian, Wesley Johnston, and Louise Young. "Learning to Improvise, Improvising to Learn: A Process Responding to Complex Environments," *Journal of Business Research* 55 (2002): 141–147.
- Griggs, Clive. "The Influence of British Public Schools on British Imperialism," *British Journal of Sociology of Education* 15 (1994): 129–136.
- Drew, Edward. "Sir Robert Hart and His Life Work in China," *The Journal of Race Development*, 4 (1913): 1–33.
- Hamzeh, Farook, Farah Faek, and Hasnaa Al Hussein. "Understanding Improvisation in Construction Through Antecedents, Behaviours and Consequences," *Construction Management and Economics* 37 (2019): 61–71.
- Izumeda, Hideo. "Scottish Architects in the Far East 1840-1870," *Architectural Heritage* 2, (1991): 93–98.
- Kerr, R., S.K. Robinson, and C. Elliott. "Modernism, Postmodernism and Corporate Power: Historicizing the Architectural Typology of the Corporate Campus," *Management and Organizational History* 11 (2016): 123–146.
- Leybourne, Stephen. "Managing Change by Abandoning Planning and Embracing Improvisation," *Journal of General Management* 31 (2006): 11–29.
- McKinstry, S., and K. Wallace. "Cullen, Lochhead and Brown, Architects: The Business, Financial and Accounting History of a Non-Profit Maximising Firm," *Accounting, Business and Financial History* 20 (2004): 183–208.
- McKinstry, Sam, and Ying Yong Ding. "'Hybridised' Financial Control in the Victorian Construction industry: George Gilbert Scott's Rebuilding of Glasgow University, 1864–1872," *Accounting History* 20 (2015): 206–227.
- . "Business Success and the Architectural Practice of Sir George Gilbert Scott, c.1845-1878: A Study in Hard Work, Sound Management and Networks of Trust," *Business History* 59 (2017): 928–950.
- . "The Making of a Victorian Clerk of Works: William Conradi and the Rebuilding of Glasgow University, 1866-72," *Scottish Business and Industrial History* 30 (2015): 4–27.
- McKinstry, Sam. "Re-framing a 'Subfusc' Institute: Building on the Past for the Present at Chartered Accountants' Hall, London, 1965-1970," *Critical Perspectives on Accounting*, 19 (2008): 1384–1413.
- . "Status Building: Some Reflections on the Architectural History of Chartered Accountants' Hall, London, 1889-1893," *Accounting, Organizations and Society* 22 (1997): 779–798.
- Mutch, A. "Modernist Architecture and Scientific Management: Owen Williams, the Boots 'Wets' Building and the Importance of Practice," *Management and Organizational History* 6 (2011): 328–344.

- Pressing, Jeff. "Improvisation, Methods and Models," in *Generative Processes in Music: The Psychology of Performance, Improvisation and Composition*, ed. John Sloboda, Oxford, UK: Clarendon Press, 1988, 129–156.
- Rawski, Thomas. "Chinese dominance of treaty port commerce and its implications, 1860-1875," *Explorations in Economic History* 7 (1969): 451–473.
- Robertson, Alan. "The Contribution of Freemasons to Social and Economic Development in North Worcestershire c 1760-1824," *Midland History* 45 (2020): 55–74.
- Ronen, Boaz. "The Complete Kit Concept," *International Journal of Production Research* 30 (1992): 2457–2466.
- Selden, Mark. "Labour Unrest in China, 1831-1990," *Review (Fernand Braudel Center)* 18 (1995): 69–86.
- Shu, C. X., E. Cantisani, F. Fratini, K.L. Rasmussen, L. Rovero, G. Stipo, and S. Vettori. "China's Brick History and Conservation: Laboratory Results of Shanghai Samples from 19th to 20th Century," *Construction and Building Materials* 151 (2017): 789–800.
- Shu, Changxue. "Towards Western Construction in China: Shanghai Brickwork and Printed Technical Resources, 1843-1936," *Construction History* 33 (2018): 83–110.
- Terpstra, V., and Chwo-Ming J. Yu "Piggybacking: A Quick Road to Internationalisation," *International Marketing Review* 7 (1990): 52–62.

Newspaper

Los Angeles Times.

Archives

- Dictionary of Scottish Architects, Edinburgh, Scotland.
- Grace's Guide To British Industrial History, Boyd and Company of Shanghai.
- Grace's Guide To British Industrial History, Farnham and Boyd, Shanghai.
- Grace's Guide To British Industrial History, S.C. Farnham & Co, Shanghai.
- Port Catalogues of the Chinese Customs collection at the Austro-Hungarian Universal Exhibition, Vienna, 1873, China.

Unpublished Materials

- Kidner, Simon, and James Kidner. *An Architect in Shanghai. The letters of William Kidner, ARIBA and James Kidner, 1864-1874*.
- North China Herald and Market Report, November 4, 1867. William Kidner's progress report to the Trustees of the Shanghai Holy Trinity Church.
- North China Herald and Market Report, February 9, 1867. William Kidner's progress report to the Trustees of the Shanghai Holy Trinity Church.

Cite this article: Ding, Ying Yong, Sam McKinstry, and Peiran Su. "Organizational Improvisation, Architectural 'Piggybacking,' and Masonic Networking in the International Settlement, Shanghai: Building an Anglican Cathedral, 1864–1869." *Enterprise & Society* (2024): 1–23.