Book Reviews

Venezia e il Rinascimento
MANFREDO TAFURI, 1986
Turin, Einandi
312pp., Lire 45,000. ISBN 88 06 588915

The recently published *Venezia e il Rinascimento* deals with the history of certain aspects of sixteenth-century Venetian architecture. It also seeks to deal with the evolving spaces and fabric of the city from a point of view which is not restricted by the prejudices and limits of the mere specialist.

Does it represent 'a sudden turn to a new branch of knowledge' with vivid figures and 'violent jolts', as the words of Elias Canetti suggest on the first page of the book? Without giving an unequivocal answer to the question, we can nevertheless state that the book certainly offers an example of historical 'practice' in the sense described by Michel de Certeau: the understanding and analysis of the materials which the research has identified as pertinent in terms of 'place'; the choice of the objects of consideration with reference to 'place', or discovering those objects in 'place'. Tafuri's book is the result of a systematic attempt to set the history of an environment within the history of its institutions, and the religious and intellectual development of that place. He pays close attention not only to visible forms but also to reasons behind the choices which produced the forms, the alternatives that were rejected, and the projects never carried through. Thus the protagonist of the study is Venetian society between the end of the fifteenth and the end of the sixteenth centuries. *Venezia* is seen as physical and cultural space, as an object of study, but also as a pretext and a problem. And the *Rinascimento* is a word which the author sees as embodying his intention to go beyond the traditional use of known historical categories and conceive of them as metaphors rather than 'containers'. The two terms of the title correspond to abstractions which are both antithetical and similar: they both contain immense accumulations of meaning.

This study shows how Venice, against a background of a rapidly changing Europe, attempted to 'withstand change and maintain contact with its origins'. and how it became a 'symbol' of this kind of resistance. At the same time the study explores the significance of the presence of cultural patterns and projects developed elsewhere (particularly in Rome) for a city whose natural and man-made environment, and whose political, institutional and religious life were so unique and conditioning.

The themes of the book and its supporting evidence attribute equal weight to the forward-looking and novel, and to the conservative and anachronistic forces at work in the city. It is a history in which documentary sources, contemporary evidence, chronicles, writings, fragments, drawings and parts of buildings have all been used to provide the basis for a 're-reading' and greater understanding. The book does not set out to be all-embracing in scope: it has seven chapters, each one dealing with one of the problems or set of problems which characterise sixteenth century Venice.

The first chapter, 'The patrician mentality and *res aedificatoria*; covers ground already covered by the author elsewhere, and more than any other it sets the tone for

his research and philological investigation of an 'institution of knowledge'. The chapter deals with the importance attributed to the activity of building by certain Venetian patricians, the extent to which individual buildings were ostentatious gestures, or reflections of justice, equality or original simplicity. The second and third chapters, 'San Salvador, a temple *in visceribus urbis*' and 'Religious anxiety and architecture', feature important artistic figures: Fra' Giocondo, Giorgio Spavento and Tullio Lombardo in the first case, the Jacopo Sansovino and Sebastiano in the second. They are studied in terms of their professional activity and their works are set in the context of the signs of political and religious renewal visible in Venice and throughout Europe in the early decades of the century. The subject of the fourth chapter are the *Scuole Grandi*—those of San Marco, San Giovanni Evangelista, San Rocco and the Misericordia. The chapter examines their expenditure, their investments, their building activity, their choice of *proto* (the Lombardos, Scarpagino, Jacopo Sansovino) and the political reasons for their show of wealth and architectural presence.

If the first part of the book shows that politics and religion form 'a practically indivisible unit' in Venice, in the second part (the fifth, sixth and seventh chapters) the author examines the nature of the institutional and intellectual changes which make it possible to identify a connection between science, politics and architecture. The theory unfolds through the examination of personalities and examples. The doges Andrea Gritti and Leonardo Dona', Domenica Morosini, Nicholò Zen, Jacopo Contarini and the Academia della Fama appear as the leading protagonists in the political debate on the one hand; Daniele Barbaro, Andrea Palladio, Vincenzo Scamozzi, Antonio da Ponte and Alvise Cornaro represent architectural culture on the other. The author thus traces the terms of debate over the *imago urbis* in the last twenty years of the century, a dynamic period in which, between phases of crisis and renewal, a vast number of urban projects were prepared for the central and outlying areas of Venice.

I believe that the quality of its interpretation makes *Venezia e il Rinascimento* a remarkably new contribution to the study of Venice, a field which for some years now has attracted much attention: the fact that it is also a highly original study of the history of architecture makes it doubly recommendable to English-speaking readers.

But at the same time, strangely enough, it was the curious sensation of reading an exciting story I already knew which made me decide that Tafuri's book should be brought to the attention of readers of *Construction History*. Already known? In what sense? Not so much that some of the themes have already been partially explored by the author in notes and articles published in specialist journals (which the English reader may not have come across). Nor even the personal factor: that I have myself researched similar themes and have worked closely with Tafuri on many of these problems: that is not necessarily a reason to recommend this book to others.

Rather it is my conviction that this study represents a fundamentally significant stage in the development of Tafuri's research into the architecture of Renaissance which makes me think that the English-speaking reader will find the book especially interesting. It constitutes an elegant and systematic development of a rich and coherent body of work which began with *Teorie e Storia dell'Architettura*, published in 1968, and continued with *Architettura dell'Umanismo* (1969), through a 'tense' and to some extent uneasy relationship with Venice in his study of *Jacopo Sansovino* (1972), to the microhistory of the church of San Francesco della Vigna of 1983 (see *Construction History*, No. 2, 1985); in all, a superabundance of work on documents, plans, buildings, and personalities which certainly marks a new achievement in the historiography of Venice, and particularly of its architecture.

So this book is potentially fascinating, both for those who are concerned with specific aspects of construction history and also for those who know the author's previous publications; and finally, for those who love Italy and are interested both in her architectural culture and the on-going debate about 'history'.

DONATELLA CALABI, *University Institute of Architecture, Venice.*

Building the Industrial City
MARTIN DOUGHTY (Ed.), 1986
Leicester, Leicester University Press,
xii+212pp., illus., £27.50 ISBN 0 7185 1238 3

Martin Doughty has provided a book about the provision of some Victorian and Edwardian working class housing. It consists of an extended introduction by the editor, followed by four detailed studies of places and events in parts of northern Britain. The emphasis is on ways in which land, finance and the building industry were brought together to spark prodigious urban growth. The theme was once a source of fascination and anxiety when it mushroomed from the ground before the eyes of bemused citizens, and to this day it retains the power to stimulate.

As editor, Doughty sets the scene with a brisk overview of recent research on the organization and development of the nineteenth century building industry. The target is that great ill-defined land populated by dimly-visible figures of departed developers and builders who once engaged in now-obscure methods of development. Doughty clears a number of useful paths through the tortuous undergrowth, although, if the figure of speech may be extended, the time is not yet ripe for the complete development of a new edifice of understanding on such a difficult site. After outlining the work of economic historians on building cycles and firms he examines inputs to the industry in the form of provision of land and sources of finance. Expenditure of firms is discussed in respect of wage levels and materials costs. Challenges facing researchers are identified, including the need for more empirical research into the structure and practices of the industry before 1850, regional studies, improved comparability between studies, and the application of generalised theoretical propositions to the growing mass of historical information.

The first contribution following the introduction is Jane Springett's historical-geographical work on land development and house building in Huddersfield from 1770 to 1911. The study, which forms part of a doctoral thesis, examines house production in terms of a behavioural decision-making process involving mainly the landowner, developer, builder and investor. The local context and the process of building provision are described, drawing heavily on papers from the Ramsden Estate. The process was found, not surprisingly, to have been transformed during the course of the period. From being a small-scale, *ad hoc* and informal activity it grew to be more complex and run by professionals with new motives and skills.

The second study is of building societies in the West Riding of Yorkshire and their contribution to housing provision in the nineteenth century, by Michael Yeadell. The organization and development of building societies and their influence on house quantity and quality are discussed. The study employs early records of societies to build up a densely-detailed picture of financial practices and organisation. In this may

be seen the evolution of small terminating societies which built, into larger (and later, permanent) societies removed from direct involvement in building. Yeadell concludes that building societies were an important vehicle of middle class ethos and financial advance.

The scene now crosses the Pennines to Liverpool where Thomas Roberts explores Welsh influence on the Victorian building industry of that city. Here is an enthusiastic treatment of what might be termed a species of vertically-integrated enterprise organized on ethnic lines. Welsh religion, social cohesion, entrepreneurial skill, labour and materials combined to create a multitude of houses. The contribution of the migrant community is hammered home again and again: "The Welsh were the most able, well-equipped and best connected to provide the necessary resources . . . ", "Welsh initiative produced a house plan which complied with the provisions of the new legislation . . . "; "*By* 1850 seventy timber merchants were established in the town, many of whom were Welsh." Some doubt remains whether, as claimed, this can be said to have led to a distinctive Welsh influence on house form.

The final study in the collection is Richard Rodger's lucid and broad account of the Victorian building industry and the housing of the Scottish working class. The circumstances which produced Scotland's notorious housing conditions are discussed with particular reference to land tenure, weak and unstable effective demand for housing, and the structure of the building industry. If Roberts enthused about the Welsh, Rodger scarcely does the same for the Scots, whose building controls and legal framework are both found guilty of encouraging bad housing.

The diversity of approaches to the subject to be found in *Building the Industrial City* serves to extend understanding of development processes, and the context in which work was undertaken on site. The book also—and this is no criticism—serves to remind us how complicated and varied by time and place the processes were, and how much remains to be uncovered. The book is enhanced by photographs and figures which help to link statistical abstractions with the tangible world of people's homes.

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The Statue of Liberty
BERTRAND LEMOINE, 1986
Mardaga, Brussels, 232pp., 244FF.
ISBN 2 87009 260 1

In Britain we are so accustomed to political stability that the grand passions and dreams which accompany national birth or re-birth seem overblown and exaggerated. This book reminds us of the French sympathy for and assistance with American Independence, and of the upheavals in France in the succeeding century, traversing royal, revolutionary, imperial, republican and communal regimes. The origin of the Statue of Liberty in democratic republican ideals and expedients, and the fragility of the republican cause after the Franco-Prussian War, explain its dual nature: a symbolic expression of French admiration for the American achievement of republican liberty and also a dramatic gesture to bind the nascent Third Republic to the hearts of the Nation. But booming America, bent on riches, could not understand the gesture, either as a symbol or as actuality. It was those who came to America after 1886 who adopted it as their symbol of a new found transatlantic Liberty and nationality.

The centenary last year of the inauguration of 'Liberty bringing Light to the World' has revived interest in this surreal monument. Frederic Auguste Bartholdi's statue has been restored through a 'Franco-American Committee', like the one established for its creation, but with a reversal of impetus. In 1986 Americans took the lead in preserving the statue whereas the French had largely forgotten that it was their fraternal gift to a Nation which enshrined their political desires. This book has a resemblance to its subject, being simultaneously valuable and expedient but, as in 1886, the New World half drags feet of clay.

The book has dual French and English texts, plus many illustrations, and it is attractively designed. It is essentially an account of the genesis of the statue as culled from the plentiful documents preserved on both sides of the Atlantic and this documentation seems to have been capably researched and portrayed. The book therefore is not primarily an exploration of the statue itself or of its aesthetic and material provenance, fabrication and existence.

There are areas in which this approach serves well. For instance the book gives a clear picture of the incomprehension with which New York and America greeted this gift from the French Nation and of the appeals to less than noble sentiments which proved necessary to cajole the Americans to finance the site, base and pedestal as their role in this political affirmation. The sluggishness and parsimony of their response are reflected in the sequence of designs for the pedestal prepared by Richard Morris Hunt, reproduced in the book which show the aesthetic consequences of its reduction in height. This example also shows what may be a consequence of putting two texts in one book: the text is too brief and the reproductions too indistinct to enable the reader to follow the argument with conviction.

There are also areas where a documentary study alone proves frustrating. For instance we are told that both the head and the arm were relocated after the 'Eiffel et Cie' armature was complete, causing structural problems, which were inadequately solved at the time, have caused deformations since, and have only been properly resolved during the recent restoration. There is almost no exploration of what aesthetic correction Bartholdi sought, whether it was made before or after the trial erection in Paris or even on site in New York.

In addition to the statue itself Bartholdi left many maquettes, reduced scale models and copies as well as sketches and photographs, and the fabrication of the statue was recorded with an extended sequence of photographs. Thus there exists a material as well as a paper archive and, if this had been researched with a sculptor's eye, we might comprehend more of Bartholdi's and the fabricator's technical and aesthetic aims and working method.

The book contains more compelling images: for instance of the trial erection in Paris, with Liberty caged in a Lilliputian scaffold from the bust down, her gigantic gestures seen defiant above the roof line: Jules Verne could have seen it, but neither H.G. Wells nor Magritte. But as regards the text, Bertrand Lemoine has been very poorly served by the translation which seems to have been made from a tourist's pocket dictionary; the proof reading and punctuation also suffer lapses. The translation is always simplistic:– 'La torche exposé à New York' becoming 'The torch exposed in New York'; sometimes silly:– '. . . le monument s'identifiera à l'aspect de la forteresse' becoming 'the monument would have the air of a fortress'; often misleading:– 'Le fer est adopté de préférence à la fonte . . . ' becoming 'Iron was used straight from the foundry'; and sometimes reversing the sense:– 'Pourtant la souscription piétine du côté Americain . . . ' becoming 'However the fund was doing well on the American side . . . '.

This standard of translation is hard to explain given the scholarly background to the book and makes the English text untrustworthy.

Despite these technical snags the book gives an evocative account of Bartholdi's achievement, propelled by both idealistic zeal and self interest: a sculpture of surreal but classic grandeur, able to outlive the circumstances of its creation and focus the mythic sensibilities of succeeding generations. The book does raise the question of the extent to which a history derived primarily from a literary investigation can adequately portray a subject of potent aesthetic and material presence.

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A Concrete Atlantis, US Industrial Building and European Modern Architecture 1900–1925
REYNER BANHAM, 1986
Cambridge, Mass, MIT Press
x+266pp., illus., £16.50.
ISBN 0 262 02244 3

This is a book that both intrigues and infuriates. It offers the prospect of one of the sages of the modern movement exploring the origins of the high principles expounded by Gropius and Le Corbusier. Such figures drew inspiration from mundane 'daylight' factories and grain elevators (often referred to as silos in Britain) built in concrete during the early years of this century in the United States. Banham states his thesis on page 3: "this book will argue that there is a causal, cultural, and conscious connection between such masterworks of explicit architectural modernism as the Cité de Refuge or the Villa Savoye and the utilitarian structures of a certain period and type of North American industry". The theme cuts through the traditional and discredited accounts of the development of the modern movement. It should appeal to historians of construction through the prospect of an architectural historian taking building technology seriously, while latter-day modernists might anticipate a down-to-earth justification for their belief in functionalism and the aesthetic worth of pure, undecorated forms.

A Concrete Atlantis is arranged into three sections. The first considers the evolution of the American daylight factory at the turn of the century. Traditional brick or stone buildings with steel or composite internal structures become supplanted by patent concrete systems, permitting walls to be largely replaced by windows. Ernest L. Ransome is the key figure in this development, the "apparent inventor of the concrete frame in its American version and thus of the true Daylight factory." He was a descendant of the English engineering firm, Ransome's of Ipswich, who made artificial stone in the middle decades of the nineteenth century as a supplement to their better known output of lawnmowers and other engineering products. Banham emphasises the pragmatic rather than the revolutionary nature of Ransome's achievement, drawing upon the examples of factories in Cincinnati and Buffalo. The incorporation of simplified classical references in some of the columns and cornices is explained by the industrialists and designers retaining "traditional usages that were still serviceable" and from working in provincial towns and cities away from the self-conscious architectural world of New York or Chicago.

Amidst evocative descriptions of buildings and valuable information on the development of tile and concrete construction, the author tends to nibble away at rather than directly attack the fundamental issue within his book. Are the strident qualities seen in concrete factories and elevators the consequence of the building structure being directly attuned to a particular function, in the kind of vernacular response observed in a timber-framed medieval barn? Or were the structures consciously designed to achieve a bold expression of the modern, industrial age? Or were they part of a commercial image, contrived to help sell Packard cars or Kellogg Corn Flakes? The answer lies in an intriguing combination of motives, but Banham doesn't look into company archives for his answers; instead he draws broad conclusions and occasionally reverts to the patronising generalisations all too characteristic of architectural historians dealing with industrial buildings. He dismisses the use of segmental arches and rustication on concrete factories as evidence of an "insecure, philistine, or nouveau riche local society".

Rather than accept Banham's often highly subjective deductions it is more productive to dwell on the historical insights provided by his consideration of individual structures. The form of the concrete elevator evolved through a series of experiments following efforts to use steel or tiled construction. The first full-sized elevator with cylindrical concrete bins, at Duluth, collapsed twice between 1900 and 1903. Frank H. Peavey was responsible for erecting the first successful concrete bin purely as a structural experiment, at Minneapolis in 1899. In the following spring it withstood the vacuum created when its first load of grain was discharged, in front of an assembled crowd.

The analysis of selected American grain elevators undermines the descriptions that accompanied their illustration in European modernist publications, such as the *Jahrbuch des Deutschen Werkbundes*. The form of the storage bins is not directly exposed as a direct expression of function. Viewed from outside the series of drums forming most elevators appear to be interlocked; in fact the exposed, curved walls are not the grain containers themselves. They are crescents of concrete, bracing a smaller series of drums hidden inside, which do not intersect each other. Another feature apparent in the Washburn-Crosby Group of concrete elevators at Buffalo (developed from before 1906 to around 1916) is that some of the cylinders are not containers for grain at all. Some support the 'legs' which swing out with the bucket conveyors which discharge grain from moored-up ships while one has windows to provide offices for the workforce.

Banham agrees that concerns of image influenced the design of American elevators, but he then recounts how European modernists were transfixed by their superficial appearance of bold, simplistic shapes. Poorly reproduced photographs presented them as massive abstract sculptures with a functional justification, and hence as worthy models for an utopian vision of an architecture defined by 'natural law' rather than the practicalities of bulk handling and commerce. To strengthen this polemical message Le Corbusier doctored some of the images that he used in *Vers une Architecture*, printed in book form in 1923. He erased a line of pediments from an elevator in Buenos Aires which was then miscaptioned as being 'Canadian'.

The third section of *A Concrete Atlantis* relates rather uneasily to the coverage of American daylight factories and elevators. It starts with a visit to one of the icons of European modernism, the Fagus factory in northwest Germany with Banham emphasising the traditional elements in the design of Gropius and Meyer's office block of 1913–14. The aim in noting every decorative detail and the use of traditional materials appears to be to emphasise the advanced state of American industrial architecture

relative to European modernism. The other European building that Banham considers is the Fiat-Lingotto car factory in Turin. He presents a case study as to how American industrial architecture became applied as a symbol for rationality rather than as an approach to achieving rationality. His conclusion is that the 500m long multi-storey car factory marks an outdated application of the American principles of the concrete daylight factory.

The case for classifying Lingotto as an 'antiquated Americanism' is weak. Banham dilutes the role of Giacomo Matte-Trucco, Fiat's Director of Production, in its design stating "the visual evidence, inside and out, seems almost overwhelmingly to indicate the presence of American designers or consultants on the team". No documentary support is given for this theory beyond the fact that Fiat's Director had once visited Detroit. He fails to note Matte-Trucco's education as an engineer at Milan Polytechnic, an institution with a long involvement in providing a training in factory layout and design and the use of concrete construction. Furthermore Banham condemns as outdated the pattern of car production at Lingotto, whereby cars were fabricated as the chassis progressed up through the building, the completed vehicle being tested on the track on the roof. At the time of the construction of the Lingotto plant, from 1916, the multi-storey system was still favoured for its economy in the use of land and in the provision of services. Several plants were built on this type of layout in Britain during the following decade. It is only by hindsight, with the near universal adoption of north-lit single storey sheds for car production, that the system can be condemned as outdated.

A Concrete Atlantis ends without a conclusion, with rather sparse notes and no bibliography. In the introduction the author states that his elevators and daylight factories 'deserve a better fate than to be left to the industrial archaeologists'. Certainly such building types merit a broad architectural analysis in relation to the history of the modern movement. However, Banham's arguments and descriptions would have gained considerably from a consistent consideration of how such buildings were commissioned, designed and used, to balance his preoccupation with the visual appeal of vast and decaying structures, stripped alike of their machinery and of evidence of their operation.

MICHAEL STRATTON, *Institute of Industrial Archaeology.*

The History of Civil Engineering Since 1600: an annotated bibliography
DARWIN H. STAPLETON (with the assistance of ROGER L. SHUMAKER), 1986
New York, Garland xxxiii+232pp., $60.
ISBN 0 8240 8948 0

Some years ago, Darwin Stapleton edited *The Engineering Drawings of Benjamin Henry Latrobe* (New Haven, Conn., 1980) and in so doing he came to grips with the complex nature of the practice of civil engineering. The present *Bibliography* demonstrates his understanding of the complexity of civil engineering history since 1600. The book is divided into six sections (Background and General Works; Renaissance to 1750; Industrial Revolution; Victorian Era and Second Industrial Revolution; Modern; and Recent), with each section broken down into topical divisions. These cover subjects such as the professionalisation and institutionalisation of civil engineering practice; research and education; the profession's political, social, and economic

context, and its relationships with business and government; and various types of public works and engineering projects, such as lighthouses, dams, canals, aqueducts, bridges, and railroads. Also included are techniques such as surveying, cartography, and tunnelling, and areas of theoretical and practical knowledge.

Stapleton's introduction gives his criteria for inclusion in the bibliography. Starting with a broad definition of 'civil engineering' he has favoured "scholarly articles, based on original research and addressing significant historical questions" (including some scholarly editions of nineteenth century primary sources), but not historical works published before 1900 nor literature for 'buffs'. Recognizing the enormous literature on canals and railways, for these subjects he provides a section of references to bibliographies and includes specific works on individual projects only when they are of 'major significance', for instance, the Erie and Suez canals. Many references in French and German are given, as well as English-language materials on non-Western subjects, for example, the brief and well-illustrated *Bridges in China* by Mao Yi-Sheng (Peking, 1978).

Of special interest to readers of *Construction History* will be the sections on 'Building Construction', although the number of references here is small because few works have been produced by those who consider themselves primarily historians of construction. However, readers, will be relieved to find that other sections of the bibliography contain references to works that they would consider 'construction history'.

Stapleton's 'Bibliographical Essay' provides a useful overview of the field. He divides the literature into three categories. First, narrative and descriptive works such as biographies, autobiographies, institutional histories, general historical surveys, and specific project histories. Second, urban engineering histories—the best of which in recent years have focused upon entire civil engineering systems, "the city's above-and below-ground built environment"; and, third, social history which, in an increasingly sophisticated form has pointed out not only the social costs and implications of particular technical choices, but also the political, economic, and cultural contexts in which these decisions were made. He notes a number of areas for future research: biographical studies of important modern figures; the relationship between the physical sciences, instrumentation, and civil engineering; and the politics of major public works and architectural projects.

In the organisation of the bibliography, the editor is to be commended both for his judgement and for the scope and depth of his bibliographical research. His succinct annotations often cite other authorities' comments about the work and alert the reader to bibliographies contained in it. A thorough author and name index provides a rough quantitative indication of major figures in the history of civil engineering, as well as its most prolific scholars.

The only shortcoming of the book is its price, although its scholarly value will undoubtedly increase as historians of every aspect of civil engineering find 'Stapleton' indispensable to their research. In the 'Bibliographical Essay', the editor observes that "civil engineering has changed the rhythm of the day," and one can easily make a similar claim about this *Bibliography*: the work will change the character of scholarship in the history of the field as it enriches—and improves—the endeavours of construction historians.

JANE MORLEY, *University of Pennsylvania.*

Survey of London, Vol. XLII: Southern Kensington: Kensington Square to Earls Court

HERMIONE HOBHOUSE (General Editor), 1986
London, Athlone Press for the Greater London Council,
xxiv+502 pp. 152 plates, £60
ISBN 0 485 48242 7

The forty-second volume of the *Survey of London*, in keeping with the superlative standards of research and presentation achieved in earlier volumes in the series, stands as a fitting tribute to the imaginative support for the *Survey* given by the London County Council and latterly the Greater London Council. This volume is the last book to be published by the GLC; whatever regrets one might have about the demise of that institution it is encouraging to know that the *Survey* will continue, under the auspices of the Royal Commission on Historical Monuments.

Volume 42 is the fourth and final volume covering the growth of Kensington, dealing with the area south of the High Street to the Old Brompton Road, and west from Gloucester Road to the District Line Olympia extension. The period extends from the seventeenth century, with William of Orange's decision to remove his Court from the dirty air of Whitehall to the rural purity of Kensington Palace, to the twentieth, when residents as early as 1923 were complaining that the High Street was "virtually impassable for ordinary foot passengers" due to the pressure of trippers and shoppers 'disgorged' by the underground railway. The seemingly unstoppable outward growth of the metropolis came under a variety of pressures which combined to shape this distinctive part of west London; local authority street and improvement schemes in the 1860s, the arrival of the railways, and the prodigious success of retailing (notably John Barker & Co, Derry & Toms and Pontings) all influenced the pattern of development along and immediately behind the south side of the High Street. To the south and west these factors and the ambitions (and not infrequent failures) of estate owners, developers and builders—men such as the second, third and fourth Barons Kensington who dominated landownership in the area with an estate of 210 acres, and builders such as Sir Charles Freake, Taylor & Cummings, Thomas Hussey and Peto Brothers—resulted in the familiar distinctly middle-class, urban environment of villas, terraces and flats.

This story is told at an astonishing level of detail, despite the inability of the available public records (unlike those in Scotland) to do more than provide a framework around which to hang occasional detail or conjecture. The whole volume is a tribute both to traditional scholarship and to an imaginative and sometimes ingenious mining of materials. However the public records, as the text at one point complains, frequently conceal the reality that lay behind them. So the Middlesex Deeds Registry provides an abundance of names—of estate owners, developers and builders—but provides little hard fact as to the business or financial relatonships between them. Moreover these materials do not allow any real assessment of the business skills (in their broadest sense) which underpinned the process of development. We do not know, in any systematic way, where developers or builders found their finance, or whether they made a profit from their activities in the area. It is impossible to gauge the scale of a particular builder's operations: the public records cannot tell us about the capital of building firms, the size of their labour force, their organisation, or their methods of building. It is only rarely, when for example a bankruptcy (such as Corbett & McClymont's in 1878) or a legal dispute over an estate leads to court proceedings, that

information supporting an analysis of this kind comes to light. Even more rarely do developers or builders, such as the ubiquitous Willett family, or C. A. Daws & Son, enter the picture with a substantial body of their own records from which the researcher can work.

This deficiency in the sources is compounded by the organisation of the *Survey*: its emphasis on particular localities and streets makes it difficult to gauge the overall process of development within the area. To some extent this is overcome by a final retrospective chapter which reviews the development of south Kensington. Here the district surveyor's returns are used to plot the building cycle in the district against that of the metropolis as a whole, while the same source is used to gauge the scale of the average (unnamed) building firm. In general south Kensington (unlike the northern part) conformed to the general cycle, and as elsewhere in the country its builders increasingly operated on a larger scale compared to the 1850s. Even here however we learn little more about individual firms; few are actually discussed and, where they are, it is usually on the basis of the reports of trade journals and newspapers. Some interesting questions raised in the text (for example, the activities and structure of the Building Department of John Barker & Co, which was responsible for the building of the new Derry & Toms' and Barker's stores in the 1920s and '30s) are regrettably not taken up. However these criticisms are for the most part the fault of the sources and not the authors.

So for the historian of the building industry the *Survey* offers both joy and frustration. Joy, in that unlike other similar (but less distinguished) surveys it attempts at every stage to identify all the parties (particularly builders) involved in the development process, rather than restricting itself to the adulation of architects and their acolytes. Frustration, in that largely as a consequence of the sources the majority of the builders are no more than names, permitting no real analysis of the structure of the industry whose fortune was primarily responsible for determining the areas's growth.

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