

THE ARCHITECTURAL REVIEW

A Magazine of Architecture & Decoration



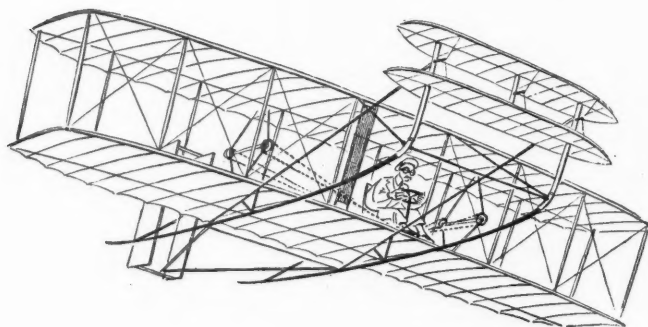
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Vol. XCIII

March 1943

No. 555



THEY STARED AT SEAGULLS...and then....



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The Architectural Review

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Vol. XCIII

No. 555



INDUSTRY

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The technique of industrial location

By P. Sargant Florence

Amongst the problems with which the Central Planning Authority will be faced, one of the most urgent, but also the most complicated, is the location of industry. Here, if anywhere, vested interests will operate to attract or deter factories from regions or sites. Arguments of all sorts will be used—scientific, bogus-scientific and frankly emotional. The planner will have to examine them, with tact, but also with knowledge. But where can he obtain knowledge on which to base his decisions? There is no accepted set of criteria. What industries can be shifted at all? What local circumstances favour particular industries? What industries seem to choose alliance? What industries exclude each other? There are many more questions of this kind which need precise answers, before a Central Planning Authority can settle down to work on industrial location. Now no such answers can be given without exact statistical data, and to obtain data, a special technique of statistics must be worked out. Professor Philip Sargant Florence has for a considerable time been engaged on this work. The following article is the first complete presentation of his technique—set forth in the form of eight tables with comments to explain their functions and uses.



The population census regions of Britain

INTRODUCTION

Before plans for redistributing the population of Britain can be considered practical, it is obvious that the location of industry must also be planned. With very few exceptions adult persons must live in the areas where they work. Hence the distribution of the population and the distribution of industry must correspond. Which is cause and which is effect in this correspondence depends on the type of industry. Some industries, such as the extractive, must take place where the natural resources of soil and minerals exist; here population follows the industry. Other industries, such as shopkeeping must live, like residentiary canons, where their services are required by the congregation of people. But between the extractive and the residentiary industries there are many industries—mainly manufacturing—whose location is not obviously determined; and it is upon those "foot-loose" industries that planners of new towns usually rely for the employment of householders.

Before planning the houses and institutions for a community in a given area, it is as well to make sure that industries will find it practicable and the State will find it desirable to place factories in that area. It must be remembered that Britain's population will, over the next fifty years or so, be fairly stationary at first, and then probably decline. More industry in one place will therefore mean less industry in another, and the advantages

and disadvantages of such redistribution must be carefully weighed. Industrially Britain is not (in any sense of the word) a clean slate and before planning to blue-print a redistribution of population and industry, it is essential to analyse the existing distribution of industry and to understand the intricacies of its whys and wherefores, rational or irrational. Our slogan might well be finger-prints before blue-prints.

In the past factories have been placed almost entirely at the will of private business, usually based on (often shallow) estimates of economic costs and profitability. Certainly the criteria then used for placing factories were not the same criteria as the community would use now. Today we stress the need for security and health of the workers and for wider amenities. Nevertheless certain basic economies must be maintained, if not in terms of money cost and profits at least in terms of man-power and natural resources. And it is a probability that the existing and therefore the surviving distribution of factories for different industries may be the result, at least partly, of some such underlying economies.

We must search the facts for these economies, and, if found, may then ask whether an equivalent economy could not be obtained by a different location that would satisfy modern criteria as well. But we must start with the present facts of industrial location and especially the trend of the

facts. These facts are recorded and accessible in the Census of Population, the Census of Production, the Employment Statistics of the Ministry of Labour, and a growing number of private surveys.

To summarize facts about the location of industries and the industrial structure of localities, a series of statistical measures have been worked out under my supervision, one by one as the need arose. These measures, though all based on a single and simple principle, have never yet been presented as a whole. For the guidance of those who have not followed the somewhat piece-meal publication of the statistical technique* it is worth while defining here and now the whole series of measures using for illustration the actual position of British industries as recorded in the Census of Population for 1931. The principle on which all these measures are built up is comparison between a particular local distribution and a basic general distribution. The grouping of industries is taken over from the Census. So is the grouping of areas. The map on this page shows the Census regions of England, Scotland and Wales.

* The first approach to the method appeared in 1929 in my "Statistical Methods in Economics and Political Science," pp. 327-8, and later references are in my "Economic Research and Industrial Policy" (*Economic Journal*, December, 1937). Cf. also the P.E.P. Report on Location of Industry, Appendices 1 and 2.

TABLE A: THE LOCATION PATTERN OF INDUSTRY

The first step in comparing local and general distributions is to calculate the basic distribution of the occupied population of the country as a whole over the sixteen Census regions. This distribution is set out in Column *b* of Tables A

and B. If the total occupied population of the country is taken as 100, then the occupied population of Greater London stands at 19.6, that of the south east at 11.3 and so on. Since 90.5 per cent. of all males over 14 are occupied (and 98.3 per

cent. of men of paterfamilias age, 25 to 45), this gives a fair picture of the distribution of the general population. The local concentration or "localization" of any particular industry in any particular place can then easily be shown by

splitting up the population occupied in this industry on the same percentage principle as applied to the total occupied population (Column c) and then dividing each regional figure thus obtained by the figure for the total occupied population in the same area. The quotient resulting (Column d) from this division if above 1 shows that a greater, if below 1 that a smaller proportion of workers for the industry under consideration live in the region than the proportion of the country's total occupied population in that region.

If no such division were made, it would be impossible to say for instance whether the fairly high proportion of builders shown by Table A (Col. c) in region N. IV (Lancashire and Cheshire) indicated a "localization" or not. The proportion is 11.4 per cent., the third highest in any region. But comparing this figure to the proportion of the total occupied in that region (14.8 per cent.) it is found that in fact builders are rather less frequent in the region than might be expected from its share of the total occupied population. By dividing 11.4 per cent. by 14.8 per cent., a quotient of 0.8 is obtained.

Building, however, does not as a whole show any very great deviations locally from the basic pattern. There is no quotient higher than 1.5 and none lower than 0.6. For a real localization we may turn to motor and cycle accessories (Columns e and f). In this industry region MI (the West Midlands), claims 72.2 per cent. of all workers. But the region contains only 10.3 per cent. of workers in all industries. So the location quotient is as high as $72.2 \div 10.3 = 7.0$. There is no limit to the possible size of the quotient and where the basic all-industry percentage is low (e.g., in Wales II or Scotland I), the quotient may be very high. The quotient serves to grade areas into those where a particular industry is comparatively scarce or under-represented, fairly represented, over-represented, or definitely concentrated and localized. The precise amount of the figure (in contrast to the coefficient described below) is of minor importance.

Table A measures the location pattern of industry. By dividing the local percentage of the total of workers in one particular industry by the local percentage of the total of workers in all industry, a location quotient is arrived at which shows the concentration of the given industry in the given area. Where the location quotient is above 1.0, the particular industry may be said (without implying disapproval) to be over-represented, where below under-represented.

Regions. (a)	Total Occupied Population. (b)	Building. Location Quotient (d) (=c÷b) (c)	Motor and Cycle Accessories. Location Quotient (f) (=e÷b) (e)
Total : ALL AREAS.	100.0	100.0	100.0
Greater London (City of London and Metropolitan Police District, i.e. about 15 miles radius from Charing Cross) ...	19.6	24.5 (1.3)	20.1 (1.0)
South East (Beds, Berks, Bucks, Essex, Hants, Herts, Kent, Oxon, Surrey, Sussex—except parts of Greater London) ...	11.3	16.6 (1.5)	2.2 (0.2)
N. I : Northumberland and Durham ...	4.4	3.1 (0.7)	0.2 (0.0)
N. II : Cumberland, Westmorland and East and North Riding ...	2.7	2.3 (0.9)	0.2 (0.1)
N. III : York City and W. Riding ...	7.9	5.6 (0.7)	0.8 (0.1)
N. IV : Lancashire and Cheshire ...	14.8	11.4 (0.8)	1.4 (0.1)
M. I : West Midlands (Glos, Hereford, Salop, Staffs, Warwick, Worcs)	10.3	9.8 (1.0)	72.2 (7.0)
M. II : East Midlands (Derby, Leicester, Northants, Notts) ...	5.4	4.6 (0.8)	1.2 (0.2)
East (Cambs, Hunts, Lincs, Rutland, Norfolk, Suffolk) ...	3.8	3.6 (1.0)	0.6 (0.2)
South West (Cornwall, Devon, Dorset, Somerset, Wilts) ...	4.3	5.6 (1.3)	0.2 (0.1)
Wales I : South (Brecknock, Carmarthen, Glamorgan, Monmouth)	3.7	2.3 (0.6)	0.1 (0.0)
Wales II : North (rest of Wales) ...	1.4	1.4 (1.0)	0.1 (0.1)
Scotland I : S.E. (Berwickshire, Dumfriesshire, Kirkcudbright, Peebles, Roxburgh, Selkirk, Wigtownshire) ...	0.5	0.4 (0.8)	0.0 (0.0)
Scotland II : East (Clackmannanshire, Dundee City, East Lothian, Edinburgh City, Fife, Midlothian, Stirlingshire, West Lothian) ...	2.9	2.5 (0.8)	0.2 (0.1)
Scotland III : S.W. (Ayrshire, Dumbartonshire, Lanarkshire, Renfrewshire) ...	5.0	4.3 (0.8)	0.4 (0.1)
Scotland IV : Highlands (rest of Scotland) ...	2.0	1.9 (0.9)	0.1 (0.0)

TABLE B: COEFFICIENTS OF LOCALIZATION

The contrast between the fairly similar regional distribution of builders and total occupied population and the very dissimilar distribution of accessories makers, suggested that a useful single figure might be worked out to indicate the degree of dissimilarity of the regional distribution of particular industries from the general pattern of population. Such a figure is obtainable, as shown in Table B, from the same sort of data as already used in Table A. Columns (a), (b) and (c) of this table repeat Columns (a), (b) and (c) of Table A. But instead of dividing the percentages for the particular industry by the all-industry percentages, we subtract the all-industry percentages to give plus or minus deviations. This allows the more populous regions to carry their appropriate weight in the final figure. This figure, which is to measure the degree of dissimilarity of location of the particular industry from location of industry in general is reached very simply. It is the sum of the plus, or of the minus deviations. The two sums should be identical since the two columns of percentages that are differentiated both add up to 100.

The sum divided by a hundred, since it is a sum of percentages, may be called the coefficient of localization. For any given industry the figure will vary slightly according to the number of areas used in the calculation. The more the areas taken the more accurate but more tedious the calculation. In any case the coefficient cannot exceed 1.00 or fall below 0.00. Within these limits different patterns of industrial location are very clearly indicated. Table B shows the coefficient of localization of the motor and cycle accessories industry to be as high as .624. From Table A readers may work out for themselves the coefficient of localization for building. Only in three regions does the percentage of builders (Column c) exceed that for the total occupied population (Column b). Greater London has a plus deviation of 4.9, south-east one of 5.8, south-west one of

Table B measures coefficients of localization, that is the degree of local concentration of each particular industry as compared with the distribution of the working population as a whole. As in Table A workers are distributed among areas as percentages of total workers. The coefficient of localization is then arrived at by adding up the plus-differences or the minus-differences of the local percentages of workers in a particular industry from the corresponding local percentages of workers in all industry, and dividing the sum by 100. Complete coincidence of the distribution of the particular industry with that of industry in general results in a coefficient of localization of 0, complete differentiation approaches 1.

Region. (a)	Total Occupied Population. (b)	Motor and Cycle Accessories. Deviation (d) (=c-b) (c)
ALL AREAS ...	100.0	100.0
Greater London (City of London and Metropolitan Police District, i.e. about 15 miles radius from Charing Cross) ...	19.6	20.1 (+0.5)
South East (Beds, Berks, Bucks, Essex, Hants, Herts, Kent, Oxon, Surrey, Sussex—except parts of Greater London) ...	11.3	2.2 (-9.1)
N. I : Northumberland and Durham ...	4.4	0.2 (-4.2)
N. II : Cumberland, Westmorland and East and North Riding ...	2.7	0.2 (-2.5)
N. III : York City and W. Riding ...	7.9	0.8 (-7.1)
N. IV : Lancashire and Cheshire ...	14.8	1.4 (-13.4)
M. I : West Midlands (Glos, Hereford, Salop, Staffs, Warwick, Worcs) ...	10.3	72.2 (+61.9)
M. II : East Midlands (Derby, Leicester, Northants, Notts) ...	5.4	1.2 (-4.2)
East (Cambs, Hunts, Lincs, Rutland, Norfolk, Suffolk) ...	3.8	0.6 (-3.2)
South West (Cornwall, Devon, Dorset, Somerset, Wilts) ...	4.3	0.2 (-4.1)
Wales I : South (Brecknock, Carmarthen, Glamorgan, Monmouth) ...	3.7	0.1 (-3.6)
Wales II : North (rest of Wales) ...	1.4	0.1 (-1.3)
Scotland I : S.E. (Berwickshire, Dumfriesshire, Kirkcudbright, Peebles, Roxburgh, Selkirk, Wigtownshire) ...	0.5	0.0 (-0.5)
Scotland II : East (Clackmannanshire, Dundee City, East Lothian, Edinburgh City, Fife, Midlothian, Stirlingshire, West Lothian) ...	2.9	0.2 (-2.7)
Scotland III : S.W. (Ayrshire, Dumbartonshire, Lanarkshire, Renfrewshire) ...	5.0	0.4 (-4.6)
Scotland IV : Highlands (rest of Scotland) ...	2.0	0.1 (-1.9)
Total of Deviations ...		(+62.4) (-62.4)
Coefficient of Localization ...		.624

1.8. The coefficient of localization is thus $(4.9 + 5.3 + 1.3) \div 100 = 115$. This low figure registers the fact that building activity is spread fairly evenly over the population and that there is little concentration or localization in specific regions.

TABLE C: LINKAGE OR GEOGRAPHICAL ASSOCIATION

The coefficient of localization compares the geographical distribution of a particular industry with that of industry in general. Often, however, it is the geographical association of one particular industry with another particular industry that is the point of practical interest. In planning a new location for any one industry it is essential to know, for instance, whether the plan will involve displacements of other industries too. To measure this possible linkage between industries a coefficient can be worked out by similar methods as the coefficient of localization. The only change is that the presumably linked industry takes the place of industry in general. In Table C the distribution over regions of the non-ferrous tube and pipe industry (Column *b*) is thus compared not with the distribution of all industry but with the distribution of the motor and cycle accessories industry (Column *c*). Column *d* lists the deviations arrived at for each region by subtracting the percentage figure for the motor and cycle accessories industry from that of the tube and pipe industry. If, for argument sake, in the West Midlands there were only 7 per cent. and not 73 per cent. of the tube and pipe workers of Britain, as against the 72.2 per cent. of the motor and cycle accessories workers, then the deviation would be 72.2 minus 7 equals plus 65.2. As it is, there is no region in which the deviation is more than 15, and only two in which it exceeds 5. The total of deviations is an unusually low figure which suggests a close linking between the two industries compared. At the bottom of Column *d* total linkage coefficient is worked out by adding the plus (or minus) deviations and subtracting them from 1. The coefficient of linkage between tube and pipe industry and the motor and cycle accessories industry is 1 minus .168 equals .832. This is comparatively high, as complete linkage would measure 1, complete independence 0, and indicates grounds for believing the two industries to be locally co-operative. It is particularly striking that almost three-quarters of all workers in each of these industries are occupied in the West Midland region.

Table C measures the linkage (or geographical association) of two industries. The coefficient of linkage is the sum divided by 100 and subtracted from unity of the plus-differences or the minus-differences of the local percentages of workers in a particular industry from the corresponding local percentages of workers in another particular industry. Complete coincidence of the distribution of the two industries then gives a linkage coefficient of 1, complete differentiation approaches 0.

Region. (a)	Non-ferrous Tube and Pipe. (b)	Motor and Cycle Accessories (c)	Deviation (d) (=b-c)
ALL AREAS	100.0	100.0	
Greater London (City of London and Metropolitan Police District, i.e. about 15 miles radius from Charing Cross)	6.3	20.1	(-13.8)
South East (Beds, Berks, Bucks, Essex, Hants, Herts, Kent, Oxon, Surrey, Sussex—except parts of Greater London)	0.7	2.2	(-1.5)
N. I: Northumberland and Durham	1.1	0.2	(+0.9)
N. II: Cumberland, Westmorland and East and North Riding	0.1	0.2	(-0.1)
N. III: York City and W. Riding	7.9	0.8	(+7.1)
N. IV: Lancashire and Cheshire	6.0	1.4	(+4.6)
M. I: West Midlands (Glos, Hereford, Salop, Staffs, Warwick, Worcs)	73.0	72.2	(+0.8)
M. II: East Midlands (Derby, Leicester, Northants, Notts)	0.5	1.2	(-0.7)
East (Cams, Hunts, Lincs, Rutland, Norfolk, Suffolk)	0.0	0.6	(-0.6)
South West (Cornwall, Devon, Dorset, Somerset, Wilts)	0.3	0.2	(+0.1)
Wales I: South (Brecknock, Carmarthen, Glamorgan, Monmouth)	0.1	0.1	(0.0)
Wales II: North (rest of Wales)	2.1	0.1	(+2.0)
Scotland I: S.E. (Berwickshire, Dumfriesshire, Kirkcudbright, Peebles, Roxburgh, Selkirk, Wigtownshire)	0.0	0.0	(0.0)
Scotland II: East (Clackmannanshire, Dundee City, East Lothian, Edinburgh City, Fife, Midlothian, Stirlingshire, West Lothian)	0.1	0.2	(-0.1)
Scotland III: S.W. (Ayrshire, Dumbartonshire, Lanarkshire, Renfrewshire)	1.7	0.4	(+1.3)
Scotland IV: Highlands (rest of Scotland)	0.1	0.1	(0.0)
Total of Deviations	{		(+16.8) (-16.8)
Coefficient of Linkage			1 - .168 = .832

TABLE D: DEGREE AND REGIONS OF LOCALIZATION

Calculations of linkage coefficients are still in progress, but the location quotients and the coefficients of localization of a number of particular industries may be conveniently set forth in the manner of Table D on the following page, where all the more important localized industries of Britain (occupying 30,000 or more and with a coefficient over .40) are brought together. The calculation is based on the detailed statistics published in the Appendix to the P.E.P. Report on the Location of Industry. The degree of localization of tin plate in Wales I (South Wales) and jute in Scotland II, actually Dundee, is remarkable.

At the other end of the scale many large industries have a low coefficient of localization. The coefficients for the distributive trades and for services are, as might be expected, low. For distribution generally it is as low as .06; but low coefficients are also found for building = .11; baking (bread, flour, confectionery and biscuits) = .11; and brewing (with malting and distilling) = .10. These coefficients suggest that several manufacturing industries are almost as residential as services.

Table D, which appears at the top of page 62, includes only those among the larger British industries whose coefficient of localization exceeds 40 per cent.

Rank	Larger Industries (30,000 or over occupied)	Coefficient of Localization	Census Regions with Location Quotients over 2	Rank	Larger Industries (30,000 or over occupied)	Coefficient of Localization	Census Regions with Location Quotients over 2
1st	Jute	0.93	Scot. I : 29.9 (Dundee, etc.)	13th	Textile Finishing	0.58	N. IV : 3.4 (Lancashire), N. III : 2.4 (West Riding), M. II : 2.5 (Nottingham, Leicester, etc.)
2nd	Tinplate	0.91	Wales I : 25.6 (Swansea area, etc.)	14th	Puddling Furnaces and Rolling Mills	0.52	N. II : 5.1 (Middlesbrough area, Workington, etc.), N. III : 3.6 (Sheffield area), Wales I : 3.3 (South Wales), Scot. III : 2.7 (Glasgow area)
3rd	Wool, Worsted and Shoddy	0.76	N. III : 10.2 (West Riding), Scot. I : 7.4 (counties of Peebles & Selkirk)	15th	Musical Instruments	0.50	Greater London : 3.6.
4th	Cotton Weaving	0.75	N. IV : 6.0 (Lancashire, etc.)	16th	Coal Mines... ..	0.50	Wales I : 5.4 (South Wales), N. I : 4.4 (Northumberland and Durham), M. II : 2.2 (Notts, Derby and Leics), N. III : 2.1 (South-West Yorkshire)
5th	Iron and Steel Tubes	0.72	Scot. III : 5.8 (Glasgow area, etc.), M. I : 5.2 (Black Country, etc.), Wales I : 2.3 (Newport, etc.)	17th	Brass, etc., Foundries and Cast Metal Finishing	0.47	M. I : 4.9 (Birmingham, etc.)
6th	Earthenware, China, Porcelain	0.70	M. I : 7.7 (Stoke-on-Trent, etc.)	18th	Hat and Cap	0.47	S.E. : 3.3 (Luton, etc.), N. IV : 2.5 (Stockport and Manchester area, etc.)
7th	Cotton, Carding and Spinning	0.70	N. IV : 5.7 (Lancashire, etc.)	19th	Silk Throwing, Spinning and Weaving	0.47	M. II : 5.0 (Derby and Nottingham area), N. III : 2.2 (Bradford area, etc.)
8th	Textile Machinery and Accessories	0.65	N. IV : 4.4 (Lancashire, etc.), N. III : 2.8 (West Riding)	20th	Shipbuilding	0.47	N. I : 6.0 (Northumberland and Durham), Scot. III : 4.8 (Glasgow area, etc.)
9th	Hosiery and other Knitted Goods	0.65	M. II : 11.8 (Leicester, Nottingham, etc.), Scot. I : 7.1 (Counties of Roxburgh & Dumfries, etc.)	21st	Precious Metals, Jewellery and Plate	0.42	M. I : 3.6 (Birmingham, etc.), N. III : 2.6 (Sheffield, etc.)
10th	Sea Fishing	0.64	Scot. IV : 13.6 (East Coast, Shetlands), E. : 6.6 (Grimsby & East Anglia), N. II : 4.6 (Hull, etc.), Wales II : 3.2 (North & Central Wales)	22nd	Soap, Candles and Glycerine	0.41	N. IV : 3.3 (Mersey area, etc.)
11th	Small Tools, Needles and Pins	0.62	N. III : 5.0 (Sheffield, etc.), M. I : 4.0 (Redditch, etc.)	23rd	Boots and Shoes (not Rubber)	0.41	M. II : 7.1 (Northampton, Leicester, etc.)
12th	Carpets and Rugs	0.60	Scot. III : 4.6 (Glasgow area, Ayrshire, etc.), M. I : 3.6 (Kidderminster), N. III : 2.8 (Halifax area, etc.)				

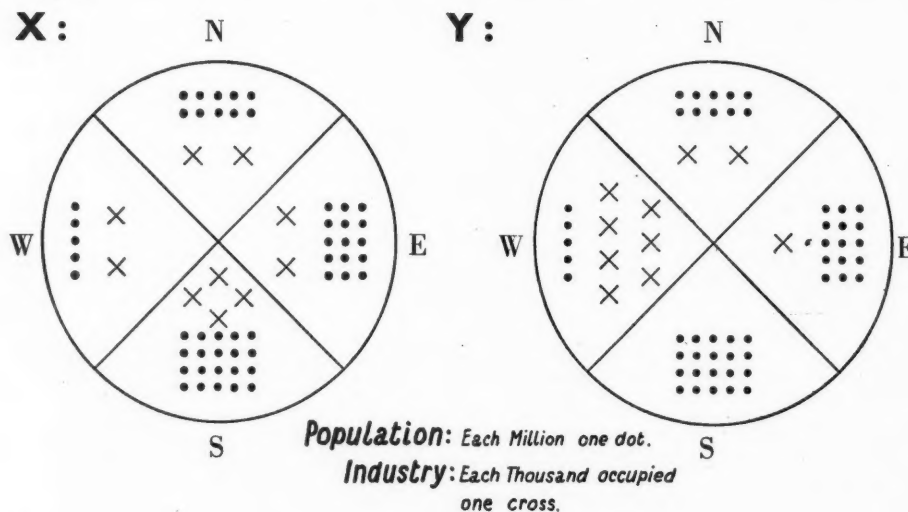
TABLE E: GRAPHICAL REPRESENTATION OF LOCATION QUOTIENT AND COEFFICIENT OF LOCALIZATION

Table E gives two diagrams representing the distribution over four areas of the population and of two imaginary industries X and Y. The diagrams show industry Y to be much more highly localized than industry X.

An idea of what the specific location quotients and coefficients of localization of two imaginary industries are, is given in Table E.

The whole country is represented by a circle, and is divided by two diagonal lines into four equal areas: west, north, east and south. The population of these areas is assumed to be 5, 10, 15 and 20 million persons, each million represented by one dot.

The persons occupied in two particular industries under measurement—one thousand represented by a cross—are distributed differently, as shown in the two separate circles X and Y, and the figures below. The distribution of industry X shows location quotients in west, north, east and south of 2.0, 1.0, 0.7 and 1.0; and (since west has a deviation from population of +10 per cent. and east of -10 per cent.) this industry has a coefficient of localization of .1. The distribution of industry Y shows location quotients of 7, 1, 0.3 and 0. West has a deviation from population of 70 - 10 per cent. = 60 per cent., east a deviation of 10 - 30 = -20 per cent., south a deviation of 0 - 40 = -40 per cent.; the coefficient of localization for industry Y is therefore .6. The two diagrams show industry Y to be much more highly localized than industry X.



	Population.		Industry X.				Industry Y.			
	Dots.	Per cent. of Total.	Crosses.	Per cent. of Total.	Location Quotients.	Per cent. Deviation from Population.	Crosses.	Per cent. of Total.	Location Quotients.	Per cent. Deviation from Population.
W	5	10	2	20	(2.0)	+10	7	70	(7.0)	+60
N	10	20	2	20	(1.0)	—	2	20	(1.0)	—
E	15	30	2	20	(0.7)	—10	1	10	(0.3)	—20
S... ..	20	40	4	40	(1.0)	—	0	0	(0)	—40
Total for country	50	100	10	100	—	+10 —10	10	100	—	+60 —60
Coefficient of Localization = Sum of plus (or minus) deviations divided by 100						.1	.6			

TABLE F: THE INDUSTRIAL STRUCTURE AND COEFFICIENT OF SPECIALIZATION OF LOCALITIES

Hitherto the location of industries has been viewed from the standpoint of the industry not from that of the locality. But the subject of a plan is just as likely to be a locality as an industry. As affairs now stand in Britain, planning in the first instance is in point of fact confined to local authorities, and the immediate problem of industrial location presents itself as the question what industries should be encouraged or discouraged from settling in given localities. To answer this question rationally it is necessary to know the industrial structure or composition of the particular area no less than the location pattern of particular industries. Of outstanding importance is the question in what industries a locality specializes and is over-represented and in what sort of industries it is under-represented.

For this purpose a statistical technique has been worked out similar to that establishing the coefficient of localization. The only difference is a reversal of the roles of industry and locality. In Table F the columns refer to a few illustrative places and the rows to a complete classification of industries, in contrast to Tables A and B, where the columns referred to a few illustrative industries while the rows covered every Census Region in Great Britain. It is the distribution of workers among all orders of industry—the whole industrial structure—that is now the focus of interest. From this a coefficient of specialization may be derived as follows:

When workers are distributed among industries as percentages of total workers in given areas and in the whole country, the coefficient of specialization is the sum of the plus (or the minus) differences of the industry percentages in a particular area from the corresponding industry percentages of workers in the whole country. Since this is a sum of percentages it is divided by 100. Complete coincidence of the distribution of industries (*i.e.*, the industrial structure) of a particular area or locality with the distribution or structure of a whole country gives a coefficient of 0, complete differentiation, or specialization, approaches a coefficient of 1.

It will be noticed from Table F that a cathedral but also an industrial city like Coventry is more specialized than a cathedral but also a county and market city like Worcester. The coefficient of the former is .436, of the latter .280. The greater the sub-division of industries the more accurate the coefficient, but even a mere nineteen-

fold classification as given in Table F brings out significant differences in industrial and country towns. The under-representation in services, including commerce and transport, is particularly marked in Coventry. This seems to be typical of industrial conurbations.* Residentiary manufac-

tures and services cannot, however, be reduced in any place below a certain proportion, hence the coefficient of specialization never in practice rises much above .5.

* See Wensley and Florence "Recent Industrial Concentration," *Review of Economic Studies*, June, 1940.

Table F measures the industrial structure of a few picked localities. Each column gives the percentages of workers occupied in 19 groups of industries out of the total of persons occupied in the locality. Wherever an industry is more highly represented in the locality than in the whole of Britain, the plus deviation is given in brackets. These plus deviations are added up at the bottom of the column. They yield when divided by 100 the coefficient of specialization of the locality.

Order of Industry.	Great Britain.	South Wales Region.	City of Worcester.	City of Coventry.
Total Occupied	100.0	100.0	100.0	100.0
I & II : Agriculture and Fishing	6.0	4.4	1.5	0.4
III : Mining and Quarrying	6.4	31.2 (+24.8)	0.2	0.8
IV : Manufacture of Bricks, Pottery, Glass	1.1	0.3	1.8 (+ 0.7)	0.2
V : Manufacture of Chemicals, etc. ...	1.1	0.4	0.1	0.2
VI : 1-3 Manufacture of Metals, early processes	2.5	9.0 (+ 6.5)	3.6 (+ 1.1)	2.5
VI : 4-10 Manufacture of Metals, later processes	9.2	3.3	12.1 (+ 2.9)	50.5 (+41.3)
VII : Manufacture of Textiles	6.3	0.2	1.2	8.4 (+ 2.1)
VIII : Manufacture of Leather	0.4	0.1	1.2 (+ 0.8)	0.1
IX : Manufacture of Clothing (including Shoes)	4.2	1.5	11.2 (+ 7.0)	1.4
X : Manufacture of Food, Drink, Tobacco ...	3.4	2.1	4.2 (+ 0.8)	1.1
XI : Woodworking	1.5	0.6	1.4	0.4
XII : Manufacture of Paper, Stationery, Printing	2.4	0.7	2.0	1.4
XIV : Other Manufacturing... ..	1.1	0.2	0.6	0.2
XIII : Building... ..	5.3	3.3	5.0	4.5
XV : Gas, Water, Electricity	1.2	0.8	1.6 (+ 0.4)	1.4 (+ 0.2)
XVI : Transport, Communications	6.9	9.0 (+ 2.1)	8.5 (+ 1.6)	2.3
XVII : Commerce and Finance	15.8	13.2	19.5 (+ 3.7)	11.2
XVIII to XXI : Services. (Public, Professional and Personal)	24.4	19.0	33.3 (+ 8.9)	12.3
XXII : Industry not stated	0.8	0.8	0.9 (+ 0.1)	0.7
Total of Plus Deviations	—	(+33.4)	(+28.0)	(+43.6)
Coefficient of Specialization	—	.334	.280	.436

THE PLANNER'S USE OF TABLES A TO F

With the two sets of measures before him, giving the location characteristics or pattern of an industry on the one hand, and the industrial characteristics or structure of an area on the other, the planner can begin to make his blue-print. His main task is to marry—for as happy a life ever after as possible—industrial needs and local area needs.

The coefficient of localization will help to tell him whether an industry is residentiary and determined by the distribution of population, or foot-loose—and therefore a possible determinant for a future redistribution of population and a potent force to plan with. The location quotient will help to tell him what sort of areas suit the needs of an industry. The coefficient of linkage will help to tell the planner with what other industries an industry needs to be geographically associated: it will help to tell him, for instance, what industries are practicable in the countryside as associable with agriculture.*

The practicability of locating an industry in one area or another cannot, of course, be decided on this statistical description of the facts alone. Such statistics only help in suggesting, or in confirming or rejecting, economic reasoning based on the industry's technique and use of resources in materials, power and labour, its markets, and its organization such as the size of its factories. These basic factors can often themselves be

* Statement in *Industry and Rural Life*, Faber and Faber, 1942, pp. 42-47.

statistically measured, and where possible should be tabulated for the planner's guidance.

It was earlier pointed out, for instance, that certain manufactures such as brewing, baking and building appear from their low coefficients of localization to be almost as residentiary as services. In planning the location of these industries it should not, of course, be accepted that what is, should be. The fact that these industries are dispersed similarly to the population, does not imply that they always should be. The planner must first inquire why the facts are as they are.

The case of these three industries beginning with *b*—the three B's—is interesting, and has for a long time caught the attention of economists. They are all so-called weight-gaining industries. In the process of production things get more difficult to transport. Malt and hops are cheaply transported, but the resultant beer is heavy. Flour and yeast are also cheap to transport, but the resultant bread is bulky and unfortunately liable to go stale quickly, and eventually (or rather not so very eventually) to putrify. As for normal building operations the resultant product cannot be moved at all.

This weight-gaining or rather portability-losing is the main reason for the dispersal of breweries, bakeries and building activities, and of similar industries such as mineral waters (localization coefficient on regional basis .07) too. But in the absence of portability-losing there are often good economic reasons for not dispersing a particular

industry into all "populated places."

There are the obvious cases of the extractive industries like sea-fishing and coal-mining (see Table D), where the material extracted is concentrated away from centres of population; and of industries like puddling furnaces and rolling-mills (see Table D) "rooted" to extraction because the materials are costly to transport. In both cases the product, unlike that of the brewing, baking and building industries, is more portable than the material or the source of material.

But obvious as "rooting" may be as an explanation of localization, it does not seem to be the main cause *in fact* for a high coefficient. The majority of the twenty-three main localized industries given in Table C are not "rooted" industries. It appears that concentration of an industry *anywhere* is in itself economical, apart from location in *some* particular place, so long as that concentration is within a reasonable distance (say hundred to two hundred miles) of materials and markets, or the ports for materials and markets. Large-scale production of one sort of commodity (concentrated either in one or a few production centres, each containing fair-sized factories or a series of smaller workshops or both) probably brings economies through the availability *on the spot* of specialized labour, technical advice and supervision, and of specialized marketing,

* This is a more homely phrase than the American "material-oriented" and is officially blessed by use in the recent report of the Scott Committee.

storage, transport and financial facilities. These economies counterbalance the extra costs of the transport of materials to a few production centres and of products from those few centres to the market. This is probably the main current reason, as against historical reasons, for the high localization coefficients recorded in Table D for such industries as Jute, Wool, Cotton Weaving and Spinning, Pottery, Hosiery, Carpets and Rugs, Hats and Caps, Silk, Boots and Shoes. The con-

centration of other industries, usually smaller, such as Textile Machinery and Textile Finishing is linked to the larger concentrations such as Cotton Spinning and Weaving in Region N.IV (Lancashire and Cheshire).

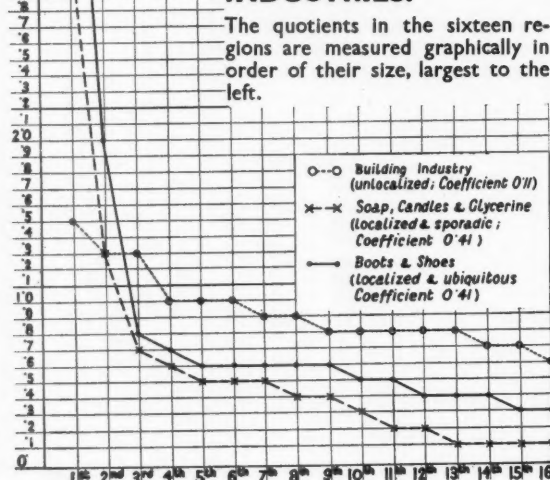
These industries could be shifted to other locations within tolerable transport costs limits, but since they all probably gain economically by concentration at any such reasonable centre they would, if shifted, have to be shifted *en bloc* with their linkages, and not piecemeal workshop by workshop. In planning industries for a particular town one should beware, therefore, of supposing that any and every industry making consumers' goods and not rooted somewhere in particular, could have a place in the area. It is, of course, risky for a community to rely on one main industry only for the full employment of its members, but in the effort to diversify industries there is a sore temptation for planners to be ready to place any sort of foot-loose industry in the area they are planning for.

To resist such temptation a special scrutiny should be made of the *ubiquity* of various industries. A low coefficient of localization implies ubiquity, a high coefficient of localization a sporadic or lop-sided location. But industries with roughly the same *medium* coefficients may be more or may be less ubiquitous or lop-sided. When planners consider placing a medium localized industry in any given area, they must be sure that the industry is either fairly ubiquitous or that, if it is lop-sided, the "lops" (where the industry is absent) do not occur for good reasons in their particular area.

The facts as to the relative evenness or lop-sidedness of three industries, building, soap and candle-making, and boot and shoe-making, are graphically presented in Table G. Their location quotients in the sixteen Census Regions of Britain (without worrying about their differences of population) are simply arranged in order of their magni-

tude from left to right. Region 1 is the region in which an industry is most over-represented, Region 16 the one in which it is most under-represented. The regional columns do not therefore stand for the same geographical units in the case of the three industries considered. Region 1 is South-East England for the building industry, N.IV (Lancashire and Cheshire, etc.) for the soap industry, Midland II (Northants, Leicester, etc.) for the boot and shoe industry. Region 16 is Wales I (South Wales) for the building industry, East, Wales I or II or Scotland I for soap, N.I or Scotland II for boots and shoes. The precise magnitude of the quotients for each region is shown as vertical distances from the base-line. The curves joining the quotients must, according to the arrangement of the graph, all go downward: but great differences appear in the height at which the curve starts and its steepness and slope. In Table G the comparative evenness or absence of localization in the distribution of building over the regions is clearly brought out as against the cliff-like or lop-sided distribution of the soap and the shoe industries. And yet these two industries have not more than a fair degree of localization. The coefficient of both, as given in Table D, is .41. Although, however, their coefficient is identical, the two industries differ considerably in their ubiquity. There are no regions in which the location quotient for the shoe industry is less than 0.3, but there are six regions where the quotients are lower than 0.3 in the soap industry. Further industries with a somewhat similar medium coefficient of localization can be found that have location quotients even of 0 in several regions. The steam locomotive and railway plant industry, for instance, has a coefficient of localization of 0.38 but a quotient of 0.1 in two regions and 0.0 in three regions. Represented as a curve in Table G its distribution would show a dip or "lop" right down to the base-line.

TABLE G: GRAPHICAL PRESENTATION OF DIFFERENT PATTERNS FORMED BY LOCATION QUOTIENTS OF THREE INDUSTRIES.



CONCLUSIONS

Sufficient has perhaps been said of the uses of formulae and graphical diagrams in distinguishing the different types or "patterns" of industry. The pattern of any industry must be carefully studied before that industry is planned to be located anywhere. The need for some patterns is obvious: extraction from a particular portion of the earth's surface or roots in such extraction; or immediate service to a community resident in a particular portion of the earth surface. The need for other patterns particularly in the location of foot-loose industries is not so obvious. But if planning is to fulfil its purposes efficiently, these needs of an industry must come to be understood.

Over against the needs of an industry must be set the needs of the locality in which the industry is planned.

In the first instance parts of the locality or area must be segregated which for reasons of inaccessibility, configuration, natural amenity or special qualities (e.g., fertility) should not be thrown open to industry. When that part of the area that may be developed further is determined, the question arises what industries are to be selected or rejected. There the measures already described indicating the industrial structure and specialization of a locality are of great practical use. They help to tell the planner what are the needs of the area to be developed in the light of modern criteria of welfare. If greater social amenities are sought, abnormally low proportions of workers in service industries, such as are found in industrial conurbations, will show up existing deficiency. If security from severe unemployment is sought, high specialization and an abnormal proportion of workers in any one industry is obviously putting too many eggs in one basket. The risk of unemployment depends, of course, on the type of industry specialized in. Some industries fluctuate seasonally or cyclically more than others. Some employ only men or only persons in the prime of life. Some are declining, others growing. If a community is to have a balanced and stable employment, the industries it is proposed to introduce must therefore be analysed further.

Such an analysis of the balance of various

industries is now being undertaken by the West Midland Group on Post-War Reconstruction in conjunction with an analysis of the same industries' location characteristics, organization and use of resources. The whole process may, perhaps, be compared to a medical diagnosis and prescription of treatment. The industrial structure of a community is examined first like a general medical overhaul. If the community is diagnosed as specializing in, and relying upon industries that are unstable or declining or unbalanced in employment, other industries with known opposite characteristics can then be indicated to make up these deficiencies.

Examples of a sick community that leap to the mind are any one of the depressed areas of pre-war days. Let us choose South Wales. Table F shows the South Wales region to specialize in mining and the early processes of metal manufacturing. Table H divides this group into four main constituent industries and shows that they are (1) subject to *cyclical fluctuation* as measured by the fall in employment from the peak year of 1929 to the trough year 1932; (2) *declining generally* as measured by the fall in employment from 1923 to an average of the three years, 1936, 1937 and 1938; (3) unbalanced in employing practically no women. If South Wales is to offer security of employment and a higher family standard of living, the industries to be prescribed must therefore be cyclically stable, growing and offering

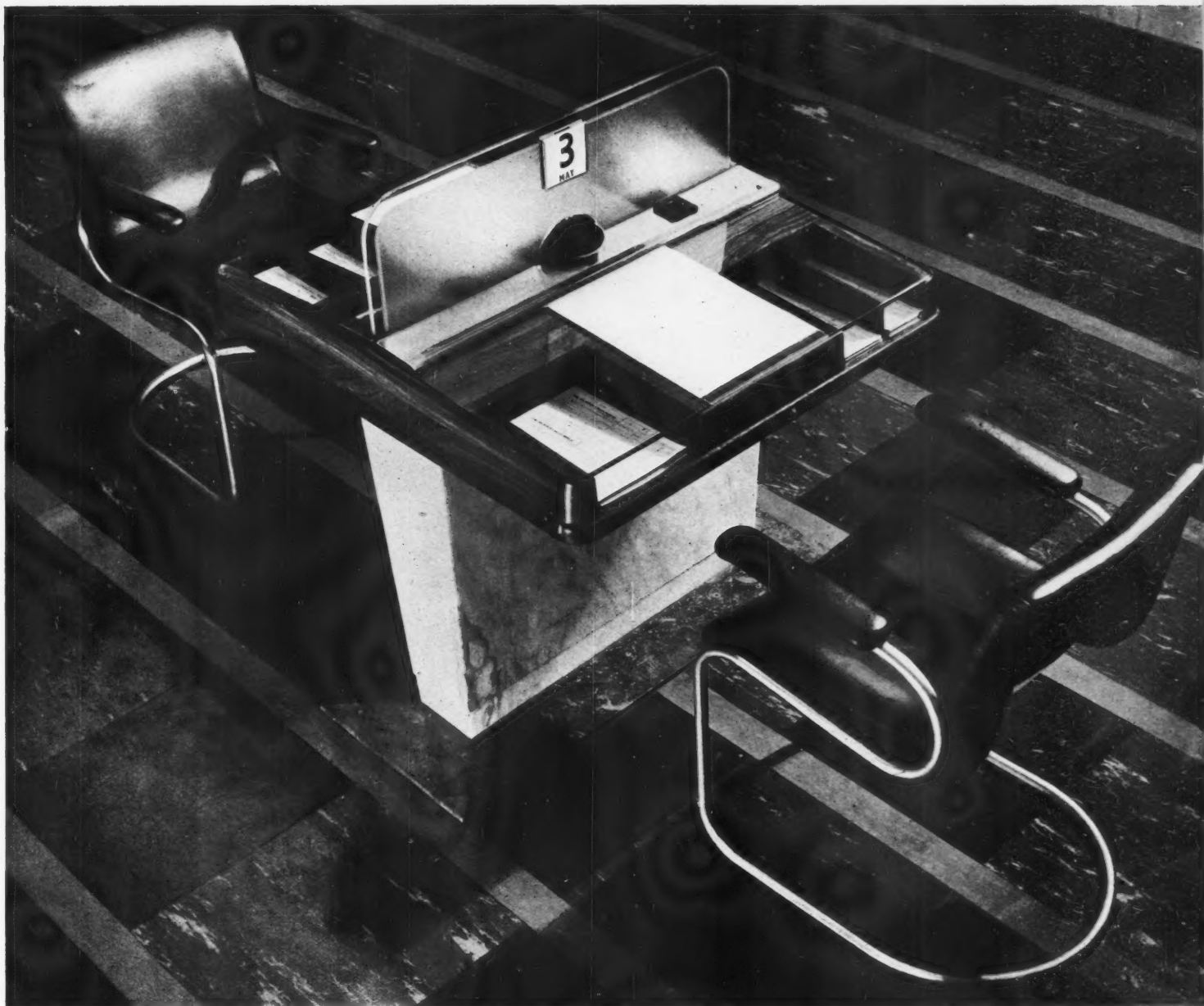
large-scale employment to women. They must also, of course, fit in with the economic resources of South Wales including coal and ports.

It should be noted that specialization in itself is not counted as unhealthy. Coventry is more specialized in its industrial structure than South Wales. But its speciality is the later metal processes, e.g., engineering and motor car manufacture, and this industry group is neither declining nor restricted to the employment of men. Hence the position of Coventry though somewhat risky does not necessarily call for the preventive action required if South Wales is to be free from the incubus of unemployment and poverty.

To sum up. Planning the location of an industry is in essence the fitting of an industry to a locality or of a locality to an industry. The specific needs and characteristics of industries and of localities must therefore be accurately known. If the need of a locality be fuller and more stable employment and its characteristics include unbalanced specialization in men's industries then the right fit is an industry needing the resources of that locality and characterized by stability and the employment of women. In actual cases, of course, it may be difficult and complicated to balance and dovetail industries successfully. But this article is written in the hope that the measures it suggests and illustrates may prove useful in the accurate assessment of local and industrial needs and characteristics, however complicated.

TABLE H: CHARACTERISTICS OF INDUSTRIES IN WHICH SOUTH WALES SPECIALIZES

Industries in Mining and Early Process Metal Group.	Location Quotient in South Wales (W I) Region.	Cyclical Fluctuation, 1929 to 1932.	Trend of Employment, 1923 to 1936-8.	Proportion of Men to total Occupied, Per cent.
Iron and Steel Rolling, Foundry, etc....	{ Rolling 3.3 Foundry 2.6 }	-29%	-7.7%	97.6
Tinplate	25.6	-34%	-31.7%	89.0
Blast Furnaces	5.7	-40%	-40.2%	98.8
Coal Mining	5.4	-29%	-42.7%	99.4



BANK

Stephenson and Turner

GENERAL—The administrative office and the Royal Bank Branch of the English, Scottish and Australian Bank in Melbourne are situated at the corner of Elizabeth Street and Collins Street, two of the main streets of the city. The building is known as the Royal Bank because it occupies the site of the headquarters of that banking business incorporated into the E.S. and A. in 1927.

PLANNING—The Royal Bank has ten floors above ground and two below. The sub-basement is devoted to ventilation, air-conditioning and electrical equipment, the basement, ground floor and part of the first floor are occupied by the Royal Bank Branch, the remainder of the first floor and the second and third floors by the administrative offices, including the General Manager's and Chief Inspector's suite. Floors four to eight are let to tenants. The ninth floor houses the staff dining rooms and the kitchen serving them. The Banking Hall, 3 and 4, has the ledger clerks' and tellers' cubicles with low glass screens without grilles, 10, thus creating an unusual feeling of lightness and friendly intimacy between clients and staff. The staff dining room on the ninth floor is seventy-five feet long and equipped to seat 150 at a time. Two whole sides of the room can be opened up in glazed folding doors towards balconies, 11. The view to the south and west ranges over Port Melbourne to the distant bay.

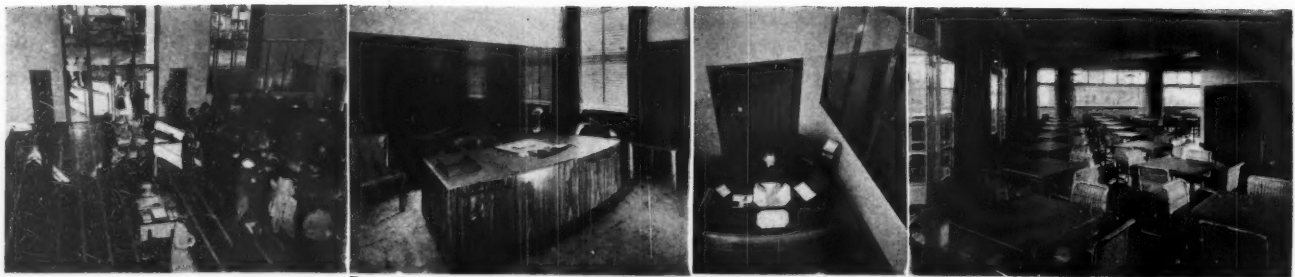
CONSTRUCTION—The most interesting point is the columnless design of the Banking Hall on the ground floor. It is achieved by means of two girders sixty feet long,



2, the exterior of the English, Scottish and Australian Bank in Melbourne. 1 shows two clients' desks in the great Banking Hall.



3



4

5

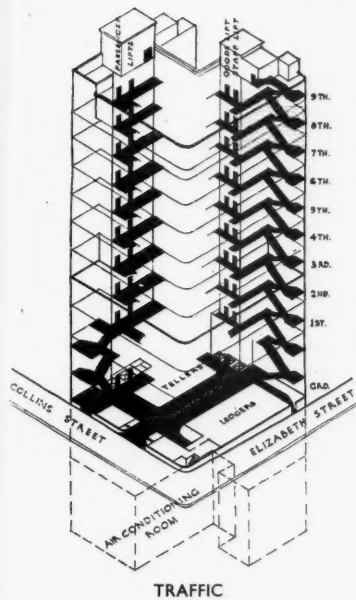
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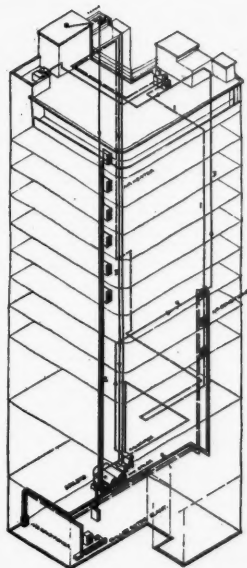
BANK

six feet deep, and weighing seventy tons. The maximum thickness of plates of these girders is nine and a half inch. On them the upper floors rest.

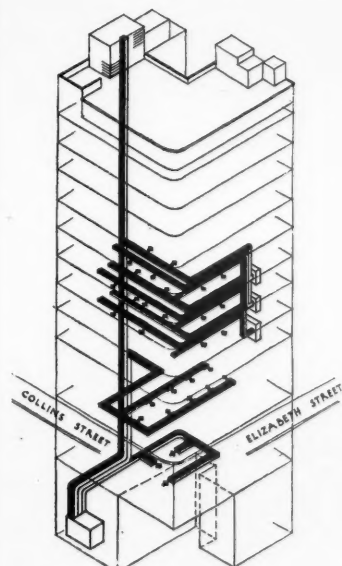
EQUIPMENT—The offices on the lower floors are completely air-conditioned. The system adopted has been worked out in co-operation with experts in the United States, and is operated to keep the inside temperature at 72°F. and humidity at 49° throughout the day. Under extreme conditions of summer heat the system will maintain a temperature 15—20° below outside. The upper floors are served by a system of ventilation providing to all rooms air which is washed and either warmed or cooled according to requirements. Extract systems of ventilation have been provided for the basements, kitchen and lavatories throughout the building. There are five lifts: two for high-speed passenger traffic, one for goods, one for staff use, and a cash lift to be used in conjunction with the strong rooms in the basement. A careful study has been made to reduce noise. Acoustic plaster and acoustic tiles have been widely used to absorb sound and reduce reverberation. For the same purpose close fitting double windows of light metal have been fitted throughout the building. Artificial lighting



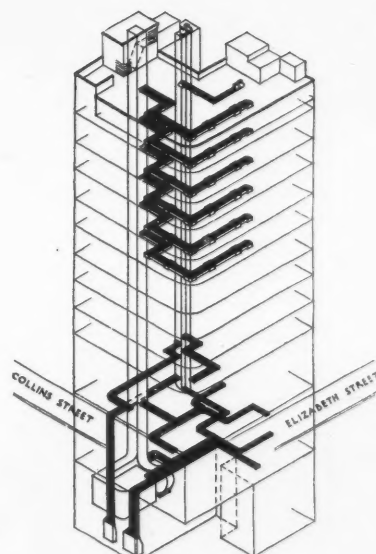
TRAFFIC



HEATING



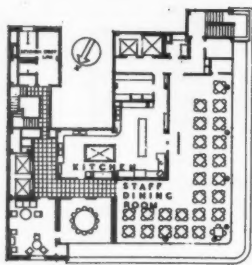
AIR-CONDITIONING



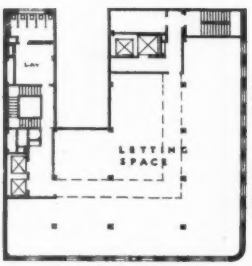
VENTILATION



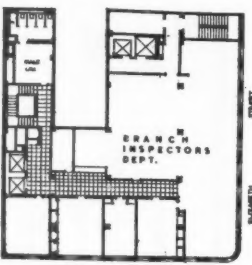
The Banking Hall, 3 and 4, has glass screens to create a feeling of spaciousness. The colour scheme is dark red, blue and dark parchment. 5 is the Chief Inspector's office, 6 that of the Sub-Manager, 9 the main office of the General Manager's department. In these offices the woodwork is Black Bean, the carpeting and curtains predominantly green. On the top floor is the large and airy staff dining room, 7 and 8, opening with long folding glass doors on to balconies with splendid views towards the bay. Venetian blinds give the room coolness in the summer, and an intimacy difficult to achieve on so large a scale.



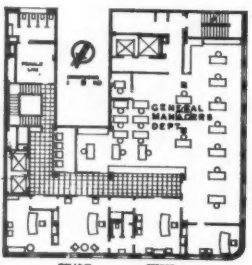
NINTH FLOOR



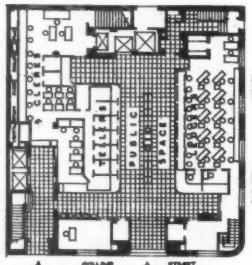
TYPICAL FLOOR



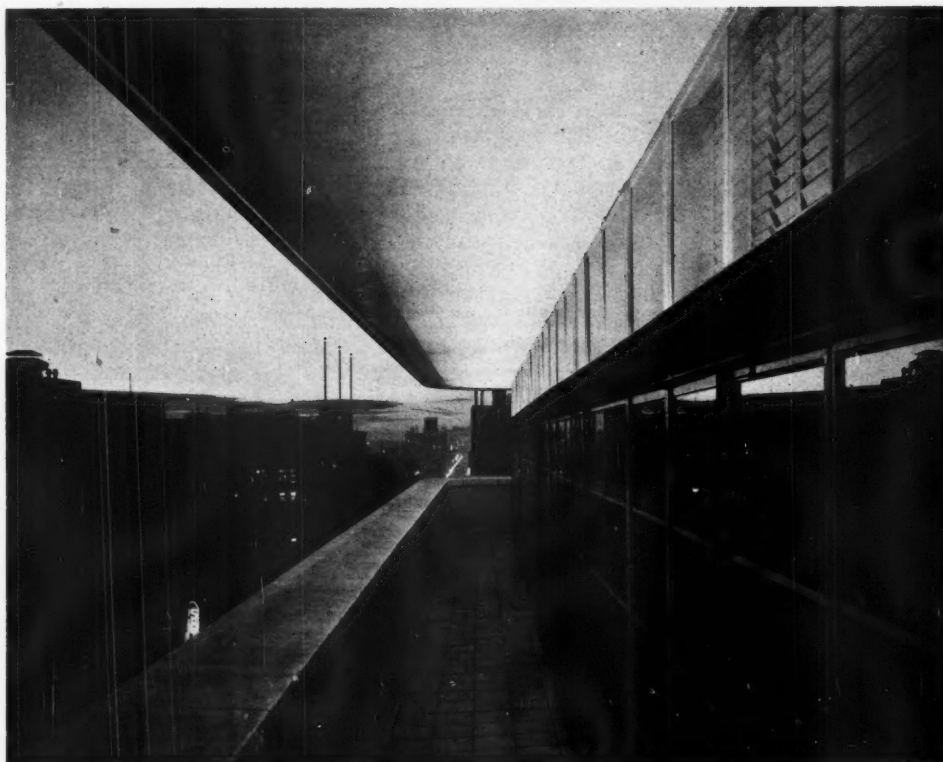
THIRD FLOOR



SECOND FLOOR



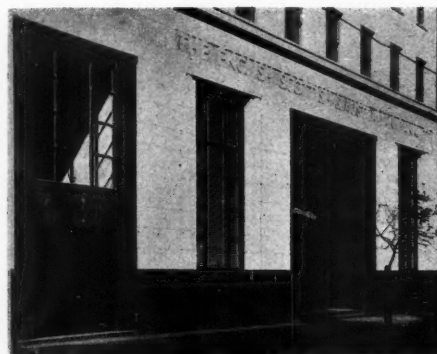
GROUND FLOOR



for the Banking Hall is a combination of strong neon tubing in the central bay of the ceiling and separate "down lights" firing concentratedly on to the working spaces for tellers and ledger clerks. Ledger machines have individual lamps.

EXTERIOR AND INTERIOR FINISHES—The building, 2, is faced in Stawell freestone on a base of polished Dromana green granite. The great bronze doors of the main entrance, 12, have solid cast bronze medallions with the heraldic devices of England, Scotland and Australia modelled by O. L. Steen, of Sydney. The colour scheme of the Banking Hall, 3 and 4, is dominated by the blue and deep parchment colours of walls and ceiling. The curtains are deep red, the rubber flooring deep red and light blue. The woodwork is Black Bean which goes particularly well with the Wombeyan marble, the stainless steel metalwork and the glass screens. The General Manager's suite, 6 and 9, has Black Bean panelled walls, green carpeting and curtains, and Black Bean furniture with leather coverings.

10 shows the pleasant effect of the glass screens as sole separation between clients and staff. The lettering also blends well with the general character of order and clarity. The details of the exterior, 12, are somewhat traditional. The bronze medallions of the main entrance door have the heraldic devices of England, Scotland and Australia. 11 shows one of the long balconies in front of the staff dining room with its view towards the sea.



12



10

Henry James and his architect

By John Russell

AUTHORS generally choose to live in houses reasonably congruous with themselves. Descartes, for instance, at Endegeest, with his cherry trees and servants in livery; the birch forests and preliminary turrets of Tolstoy's estate at Yasnaya Polyana; the orderly farmhouse and the nursery garden which André Gide has laid out at Cuverville—there is nothing inapposite in these. And although I have never been to Ferney or to Abbotsford, I am confident that there and everywhere where authors have chosen to settle, there has been this nice adjustment of house to householder. So it is with Henry James; himself a connoisseur and intimate admirer of France and Italy, he yet narrowed his choice, first to England, then to the county of Sussex, then to the neighbourhood of Rye, and within Rye itself to the sea-smelling, rose-rounded cube of Lamb House. In his search, and in the final arrangement of his prize, he was assisted by Edward Warren, an architect of wide accomplishment, who was for many years his intimate friend; and there is a large body of not yet published letters in which Henry James, writing to Edward and Margaret Warren, stands in the dual role of friend and householder. In their total they are a new statement about Henry James.

One does not look ordinarily to the work of Max Beerbohm for a statement of first principles: yet in one of his essays he makes a distinction which seems to me to bear directly upon the biography of Henry James. "Mankind," he says, "is divisible into two great classes—hosts and guests." Henry James was the most eager, the most readily gratified of guests; in the winter of 1878-9, for instance, he dined out 107 times; and in the earlier pages of his published correspondence one finds him lunching with Tennyson, drinking tea with George Eliot, dining with Gladstone and bowling away between meals to see Meredith. Even breakfast was a visiting occasion; attention, withdrawn from fried sole and marmalade, was given rather to some acquaintance who would later step along to the Temple, the Home Office, the Foreign Office, or the House of Commons. This London story, with local variations, could be told of Paris and Rome; in virtue of his friendship with Paul Bourget, for example, he became quite particularly a favoured guest in France. All this did not at first conflict with a life which was already organized exclusively in terms of writing; but later, and when he was finally disabused of his chances as a playwright, an addition of needs decided him to settle upon a house of his own. In this way began his translation from guest into host; and much as one may enjoy and be grateful for the work of his guest-period, it is only at this second stage that he begins to emerge at his full stature; only at Rye could his towering and compassionate energy play freely upon the great subjects which he had always wished to attempt.

He was, on his own admission, a "cockney convaincu"; and even when most content at Rye he would often steam up to London in one of the trains whose special traits and rival ad-

vantages he delighted to chronicle on his visitors' behalf. Town and seacoast had always been reciprocal pleasures: he had never liked London in summer. In 1887 it seemed to him to contain nothing but "stuffy midsummer heat, smoke, circulars, bills, the one sauce that Talleyrand commemorated, and reverberations of the grotesque Jubilee." Nor was it ever satisfactory to work in other people's houses; for work had precedence in his mind and "I always need," he wrote to Mrs. George Hunter, "some small literary bower other than the British bedroom." Finally, in 1895 he decided on Sussex, and wrote to Edward Warren in terms which left no doubt of his satisfaction: "I pray the Saturday and Sunday" (on which the Warrens were to come) "may be as exquisitely fine as this, in which the beauty of everything shines. There is an extraordinarily high tide in the river and it spreads in great silver-blue nappes, as seen from the opera-box, as I call the terrace. And to-morrow there is to be a regatta." These pleasures of the general Sussex scene never failed to please him; but in his tenure of Point Hill at Playden, itself on a sharp bluff looking across to Rye, there could be no permanence; winning as it was, it could not be his own. "As the end of my tether approaches," he wrote, "I distinctly droop, and am not even—or at all—cheered by having taken the Vicarage at Rye from the 28th. I may have Point Hill again in September and am attached to Rye for the interval. I love the whole place, but the Vicarage is a sad drop, though the least that is feasible here. There is nothing else." James at this time was a keen bicyclist, and delighted to introduce into his normally fastidious speech the rude stumpy phrases of the wheeler; on his bicycle he widely explored the country about Rye, but nowhere found a suitable untenanted house. "I've been—biked—to Bride, Brookland, New Romney, Lydd, etc. Exquisite melancholy Bride, where I looked up your signatures; but I've been so steeped in work—as never before—that I've done less, explored less than I hope to do after a bit." In another letter there is a passage which foreshadows the most painful of the Warren letters—those in which he describes, now in deprecation, now with pitiful directness, the contraction of his physical powers. "I envy you your day to Bodley's on the wheel. I haven't wheeled much lately—owing to heat and other things. I 'transpire' so that I find myself the next day exhausted and relaxed for work. But that will pass."

The mention of G. F. Bodley, whose pupil Warren had been, is followed by early evidence that James hoped to engage the professional services of his friend; he now urgently required a house in which he could modestly entertain and uninterruptedly set to his work. Neither need was now properly met: he felt bound to thank Margaret Warren "for venturing to face the resources of Point Hill as a poor bachelor only knows how to organize them"; and "I say the 18th or 19th rather than the previous week because I shall by then be a little more conscious of the complete cessation of certain present-and-still-to-go-on-a-



HENRY JAMES

Born New York 1843, school days in Europe, especially England, France and Switzerland. After 1869 mostly in England. 1877 *The American*, 1879 *Daisy Miller*, 1881 *Portrait of a Lady*, 1886 *The Bostonians*. Buys Lamb House, Rye, in 1897. 1903 *The Ambassadors*, 1904 *The Golden Bowl*, 1907 *The High Bid*, *The Middle Years* 1914. Chose to adopt British nationality at the beginning of the last war. Died in 1916.



EDWARD P. WARREN

Born 1856. Articled to Bodley and Garner. Friend of Bodley whose memorial he designed after Bodley's death, and whose *Life and Work* he wrote. Active member of the Art Workers' Guild and the Society for the Protection of Ancient Buildings. Much careful restoration work to Oxford Colleges (e.g., Magdalen Tower). In one of his additions to Balliol are the first bathrooms ever supplied for undergraduates. Principal works: Church of the Good Shepherd, Brighton, St. Clement's, Bradford, Elmhurst, Hants, Bedales School, Radcliffe Infirmary, Oxford, Hanover House, St. John's Wood (flats), Townshend House, Regents Park (for Ricketts and Shannon; pulled down), Breach House, Cholsey, Berks (for himself), Shelley House, Chelsea Embankment (for St. John Hornby), plans for British Residential Hostel, Cité Universitaire, Paris, not executed. Died in 1937.



LAMB HOUSE, RYE, the house which Henry James acquired in 1897, and in which *The Ambassadors* and *The Golden Bowl* were written. The house was built in the early eighteenth century. The Lamb family were the virtual rulers of Rye from the eighteenth into the nineteenth century.

while encumbrments—in the shape of hours to be rigidly ‘put in.’ I shall have put them all in, i.e. I shall have finished my book. I can offer you nothing but food, and lodging, conversation, strolls, the terrace, the garden, the kailyard and affection—but you know the worst. Delightful exceedingly your plan of the cliff-clutching palace you so charmingly sketch. You must build it for me somewhere; but not, I’m afraid, so close to where Point Hill will mock at us. It’s a most ingenious exploitation of the space—and Cooper has almost offered it to me, without however naming anything so vulgar as a price. The latter, I opine, wd. be high.” Meanwhile his pleasure in Point Hill and its neighbourhood grew steadily; “P.H. is just the very thing for these particular weeks. I love it tenderly and enjoy every hour. It turns its back too squarely on the sunset—and on Mr. Cooper’s wide and contemplative windows—but I don’t think it has another fault.”

Point Hill was the property of Sir Reginald Blomfield, and stood high upon the cliff which was formerly the coastline of Rye; and in this house, first glimpsed by Sir Reginald between overs on the Rye Cricket Ground, James took a particular pleasure. “It turns its back too squarely on the sunset,” he wrote, “but I don’t think it has another fault. The little terrace is as amiable as a person—as some persons. In short I cherish the whole thing.” Nor could he find a substitute: “I think you misremember a little the comparative—indeed the extreme—inferiority of the position of the flagstaff cottage, which I have carefully examined. The hilltop just there recedes—in a horrid little alcove—in a vicious way and just deprives the little site of everything given to the place by the circumstance that it so markedly, like the prow of a ship, *protrudes*—of any but a narrow view, the vision of Rye (it hasn’t a glimpse of Rye or of anything to the Rye!).” Thigh-deep in pendent clauses, he moved to a gloomy conclusion: “Here, to my sense, it is Point Hill or nothing!” Survival on these terms was admittedly impossible; and when in

September, 1896, he wrote to the Warrens on the birth of their son Christopher, it was from the Vicarage at Rye.

“This is brave and brilliant news,” he wrote, “and I heartily congratulate everyone concerned—even the dear little man himself. My particular love, please, to your wife and the assurance of my friendliest, my most sympathetic participation, if that be not too bold a figure of speech.” But later, “it’s rather dark and moist and tame here; the glory has distinctly departed; but I struggle on till the 25th.”

This need of Rye was more than fancy; Edmund Gosse, for instance, has described the sudden revival of confidence with which Henry James responded to the novelty of Sussex life, and how “his whole moral and intellectual nature seemed to burgeon and expand in the delicious liberty of country life.” It was while exploring with the Warrens that he struck upon Lamb House; and in it he recaptured not simply the fine bloom of English living but something also which had previously been lacking from his experience of it—“les situations nettes”; and for all that its fortunate owner seemed hale, content and a stay-at-home, spies were disposed about the town and deputed to give warning of any instability in his tenure.

Lamb House straddles the top of the village street of Rye, opposing to its uneven surface the regular square lines of a small plain house built about 1705. Only the garden-room or library, a vivid quasi-Palladian addition, gives to the decent conformity of the rest of the house a dash of original high spirits. The property includes a small garden and lawn, with red walls covered with espaliers and a light wooden shelter where James worked in summer. The whole is within smell of the sea, and seemed to him ideal.

A winter passed. He finished “The Spoils of Poynton” and began “What Maisie Knew”; despairing of Sussex, he lingered in London throughout the summer. The image of Venice re-entered his mind; but even in Italy he had come to detest the idea of a borrowed roof and looked rather (as he had written to Alice James in 1890) “for a little cheap and private refuge independent of hotels, etc., which every year grow more disagreeable and German and tiresome to face.” He thought of Torquay, but went to Bournemouth (there is something in this conjunction almost as incongruous as the choice of Debussy, who took refuge in the Grand Hotel at Eastbourne when flying from a Parisian scandal). Perhaps the Diamond Jubilee was the decisive factor; to James, who had not enjoyed its predecessor, it was in June, 1897, “already, amid the bare benches and the mere bousculade of the preparations, a thing to fly from.” Wearying of the English pleasure resort, he went to stay with his cousin, Mrs. George Hunter, in Suffolk. Even here the awkwardness of his condition as perpetual guest pursued him. “As regards your kind proposal that I should come over,” he wrote, “I am looking it well in the face—studying with great patience its slightly complicated features. I am not here, alas, on a visiting basis—haven’t even clothes to my back that are presentable in polite society. . . . At the same time, to miss you all would be, I confess, to my heart, a complication the more rather than the less. Therefore let me nurse, at all events provisionally, the fond hope of being able perhaps to trundle over, on the victim of many punctures and on—say—Saturday, September 4th.” A place-name such as Bawdsey, where the Warrens were staying, tempted him to emerge from his “crude, small quarters”; but the journeys natural to the homeless writer took up much irrevocable time—“I mention this to explain the interval of supposititious repose over which I this morning focus the turrets and banners of Bawdsey.” Bawdsey Manor, a Gothic castle of no great antiquity, would have delighted him, but although he assured the Warrens that he would “really like, most particularly, to achieve the spin to Bawdsey,” the letters of this period show him driven to renounce all “domiciliary visits” and feebly hoping to see his friends “‘machine’ it over here”; they nicely measure the discontent of his station—for all that it was “viewy and breezy” and he pleasantly conscious of “tall

church towers on low, loveable horizons.” Three weeks later the confinement and cramp of his visiting days were suddenly ended; apprised by an ironmonger of the imminent vacation of Lamb House, he had instantly posted to Rye.

“All my good impression of it is confirmed,” he wrote, “and all my inclination to take it—I feel in fact doomed to do so. But I shall immensely value the chance to ask you, on the spot and in its presence, two or three questions—absolutely helpless ones for myself unaided—as to conditions and condition. There will at the best be later on things to do—which, oh, how I shall want you to do! But the place is to me a teetotal charm!” Gentle and discursive in their ordinary flow, the letters now become restless and precisan, as he fastened upon each in order of the householder’s cares. In general no stipulation of the late owner’s heir could displease him; Edward Warren could remember only one pause in the even course of business—for James, yielding in all else, would not accept to take over the family dog. He raised both arms; concern, affection and regret were evident; “alas,” he said, “I have myself an elderly matron of the same tribe.” He could not always be at Rye, though he was for ever settling into the “classic 4.26” from Charing Cross, putting up at the George, and making his favourite sweeps by bicycle. Yet even in Northumberland, in a house whose converted feudal scheme was sufficiently remote from that of Lamb House, a new sense of anchorage sustained him. “I am indeed *beatus*,” he wrote; “it is really a pleasant consciousness to have: and there was much of that in signing my address, yesterday, for the fun of it, for the first time in the village school visitors’ book here: H.J.-L.H., R., etc. And I have bought two maps, five prints and a chest of drawers!”

Work soon began at Rye. Structurally there was not much to be done, but the nice internal adjustment of the house remained for years a source of fancy and speculation. Thus in December, 1897, he wrote, enclosing the lease of the house—sending indeed “the emblazoned document” by hand; on the same sheet of paper he asked if any buyer could be found for his redundant greenhouse; or if Warren could trace a certain Swedish marble, once seen, and now essential within the house; and often he turned for advice to Margaret Warren. There had been much talk, for instance, of curtains; and in March, 1898, he acknowledged, while inviting her for a seasonable excursion (“Won’t you come to the Academy with me, for your *first* go?”) that her choice had been a happy one. “I shall feel always quite draped and shrouded by your hand—as if you had disposed all the folds and given them their irresistible drop.”

These curtain-letters are rich in ancillary matter; one, for instance, records a calamitous evening engagement. “I recovered—fairly, thank you—as soon, on Sunday night, as I got into the air. But I was rudely threatened with disaster in consequence of my long shaking-up and internal mixture of lemonade and ‘dash,’ strong tea, strong wine and strong coffee—aggravated by the effort to keep at Mrs. B—’s serene level. I had to bolt. But in the a.m. I was all there.” Another has more poignant interest: “Could you I wonder very kindly ask (but whom? Mrs. Blomfield?) if one of the red houses (the larger the better) would be lettable this summer to poor dear Leslie Stephen and his family—children—who seem vaguely to hanker after Rye?” Sir Leslie Stephen had lately been bereaved of his second wife, and was left with three small children. In this passing aside, one sees, as through the reverse end of a telescope, a little girl who, twenty years later, as Virginia Woolf, most nobly and as between equals, was to pay to Henry James a tribute as fine as any in the language.

No detail was too tiny for James. “The idea of a wardrobe for the clear space (I mean, by you constructed) is full of charm; it seems to me indeed the thing to do—unless, indeed, the space is good *bed-space*: which, as it is the space opposite the windows, is rather the stretch of wall I had thought of for my little couch. In that case, clearly—tapestry!” The Warrens were great travellers and specialized in the brief visits on

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foot or by bicycle which James, the most leisurely of tourists, would call "your brave Belgian dash" or "your French fandango." From the time of their honeymoon he followed all their raids with cries of sympathy and encouragement, and often he shared in the profits. "Lamb House," he wrote of one gift, "will contain no object more precious or more endeared by association. I hope the search for it gave you a little Flemish fun."

Even on the "sleeping and fasting basis," which James eagerly accepted for his first week in his own home, the house seemed to him "just divine." "Let me tell you with all the authority of my intenser experience now, how beautifully and perfectly all the work of the house comes home to me, more and more, as done; the windows in particular are a pure and peerless joy. But everything is exquisite! and the house of a liveability! You must come and test that, narrowly." Some-

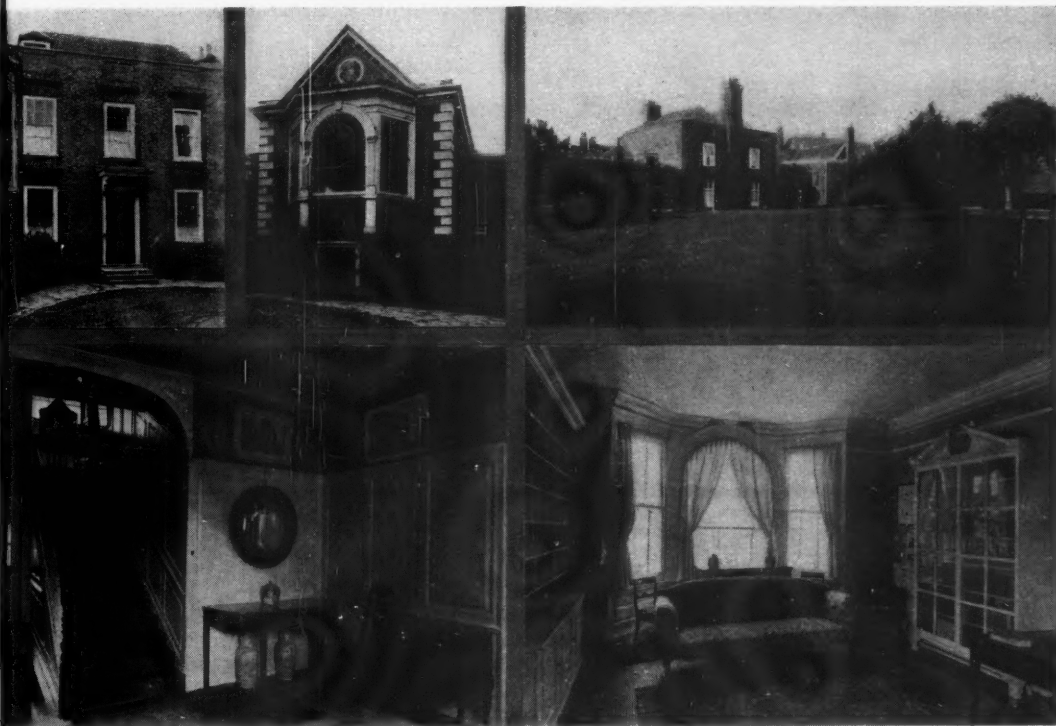
just as he knows that I'm going away for three months. And the idiotic fatuity of wishing to exchange 'a job' at Chatham for a month in and month out, year in and year out *certainly*, and really most easy and indulged place here. Of course, at the bottom of such things is the blind young desire for more 'life'—heigho!—and for the flaring nocturnal streets of Chatham." James was sensitive to good work of any kind, and even of the defaulting G.G. he felt bound to say, "He was, alas, a very good little cultivator." Such reverses were rare, and in the autumn of the same year he wrote of a nurse whom the Warrens had taken with them to Berkshire, "I am delighted that Harriet has such resource and is so complete. I had a haunting fear that she was in her box as a snail in its shell—that, in short, she had no back, but was all facade, architecturally speaking, and loosely rolling eye. It's a new

and they arrived with very decent promptness and operated with intelligence and tact. The inflamed material—morsels of *beams* going under the 'stove,' which has been nobly hot for six weeks—as well as other compromised and compromising elements dropped (while the men tore away fireplace, grate, tiles, hearth, brickwork and all, leaving a gaping void) down into the *pocket* beside the flue of the dining-room chimney, and there began (inside, naturally) to burn the dining-room walls. So a great square cavity had to be pickaxed from the dining-room in the portion above the mantel, through which the burning portion, which was not large but very active, was got at and quenched and extracted. Voilà! The brave pumpers departed with the early dawn. But I was sickened by the little desolation and defacement—the house befouled and topsy-turvy—and couldn't sleep."

Few people have not recently known fires more serious than this, and one wonders with what result Henry James would have trained his whole armament of heart and tongue upon the present ruin of Lamb House. But it was a sizeable misfortune, and when repairs were set in train, they and the craftsmen in charge of them became the object of continual comment. His calligraphy broadened, and he so loaded his pen with ink that the words stood out in relief on the page; there was a royal profusion of underlining, and pun and allusion cracked above and below the plain sense of his letters. "As for your emendation plan for the drawing-room fireplace—the brick piers, arch, etc., as per drawing—I rapturously and gratefully applaud and adopt it. It is the thing—the blessed thing! *Damn* the expense! I shall supplicate the royal Gname (Gname? What a gname!) to let me have it without the abatement of a brick. What fun we shall still have. I will write again after seeing King. . . . Am I better of the fatal night? Why, my dear Edward, the 'spring' of that new mantel-arch is alone worth it all. Keep Gname up to that; make him soar à la Brunelleschi." Housewarming, which in its figurative sense had been his pride, became now literally his daily concern. "I simply had while King was here (I feel my house will have the well-known and much-desired peace, i.e. absence of history, of the reigns of the good Kings) 'baskets' rather on the brain—as by a high flight for positively ideal security. But I *wholly* revert to the idea as you again present it to me and as I redundantly wired it to you, i.e. the same register in the oak bedroom, the similar (somewhat larger) one, raised somewhat higher in its hearthstone, in the green room, and the new open grate and basket only in the dining-room."

James was anxious to go to Italy, and confidently left the paragon in charge. "King will have told you that he arranged with the extremely intelligent and competent young Williams Bourn to do the work he requires, and the latter is ready to start on it as soon as a detailed plan comes. H.J.: 'You require nothing but that—the detailed plan?' W.B.: 'Lord Bless you, Sir, no. I've never seen such plans to work from as Mr. Warren's.' So Adonis waits—and understands." (A peculiar quality of Warren's work was indeed his perfect intimacy with all the material of architecture; the Home Bursar of All Souls, himself the guardian of a beautiful and delicate fabric, paid recently a tribute to Warren's double gift of learning and sympathy. Warren had grown up under the influence of William Morris, and was an enthusiast for the Art Workers' Guild. He had a large academic connection at both Oxford and Cambridge, and was particularly skilled at restoration—architectural dentistry, as he called it. The many-sided skill required in this served him well during the war years, when he supervised the erection and running of hospitals at Corfu, Salonika and Monastir.)

Specifying the exact hour of his train, James left on the instant. "I shall write to you often, I foresee, letters of an absolutely unanswerable sort." He could not resist a final conceit. One of the workmen at Lamb House chanced to be called James. "Oh, if I could only just put a 'James' more promptly beside you as well as beneath you! James wd. in that case really be beside himself! What more natural?" In the event, we profit



The front of Lamb House, the Court Room lying at right angles to the house on top of the street, the garden side of the house, the entrance hall, and the interior of the Court Room. The Court Room in which Henry James used to work was hit by a bomb and destroyed, except for the lower part of the base.

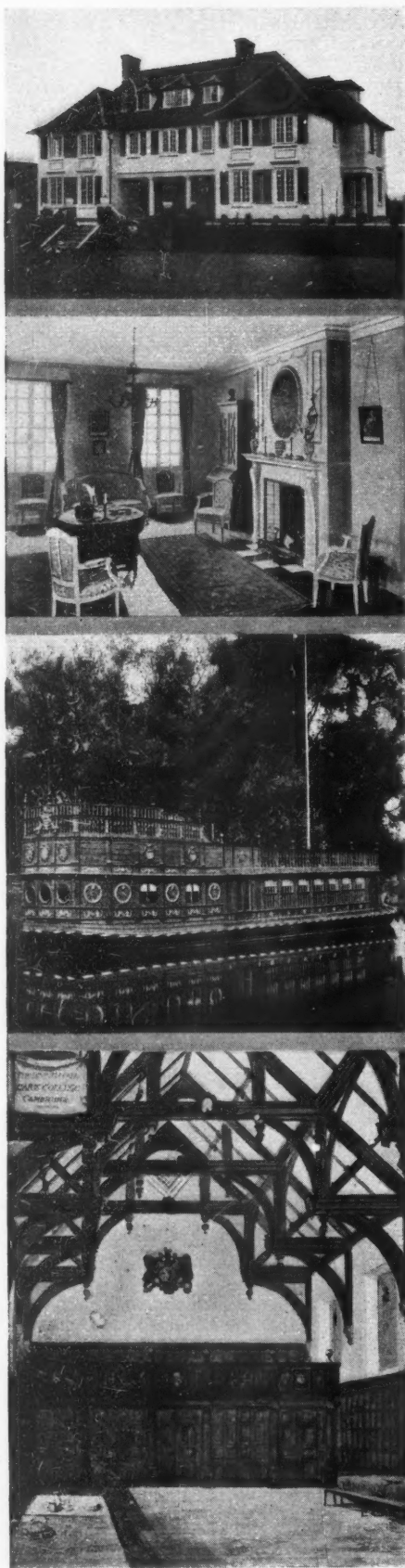
thing of this success seemed to him to attach itself to everything concerned with Rye; and he was strangely content with the simplest of its amenities. "A solitary stroll to the wondrous sands," rounded off by "tea at the Golf Club," did not satisfy Jacques-Emile Blanche, who was openly incredulous of James's pleasure in the company of the many derelict figures encompassed by a provincial town. Yet James gave to each of them the sympathy which, as a younger man, he had withheld from his neighbours at Malvern and Leighton Buzzard. Thus one letter records "a spin to Appledore this afternoon, with rather a nice elderly retired soldier—"surgeon-colonel"—who has taken Whitefriars for a year and who is a good deal of a resource. . . . That old house has possibilities—especially of collapse."

James had been early pleased by the historical accident of a Royal George's stay at Lamb House—"the dazzling record," as he called it, "of the intimate relations between the House of Lamb and the House of Hanover." He became a collector of Georges, and his gardener, George Gammon, was initially the immediate jewel of his set. In the first spring of his tenancy, however, he wrote in a new style of this egregious handyman. "I owe you hearty thanks for your prompt communication to me of the really asinine machinations of the interesting little G.G. He is an even bigger fool than I had thought him, which is saying much. . . . I shall see him to-morrow—he has his whole Sunday off with me!—and temper mercy with justice. It's a nasty little move, however,

proof of how much at Rye one can get for a shilling!"

He could never sufficiently press the Warrens to come and stay. "Lamb House aches in all its old timbers and flushes in all its new bricks for your presence. At the station, I need scarce add, shall I vividly stand, and restlessly perambulate." Any amendment in the train service to Rye was instantly made known. "You don't perhaps know of our brand-new better afternoon down train? I allude to the 5.15 from St. Paul's, Chatham and Dover line; due here at 7.9, and coming by Maidstone, swift, without a ghost of a change, though it briefly stops there, at Ashford. Try it—I took it the other day, with high advantage." With the same generous feeling he wrote of a favourite train that it had "been knocked, cynically, off." No one could more variously invest a weekend proposal. "Give my love to Margaret, please, and tell her how much I hope she may find that special trio of days in her chords."

In February, 1899, there occurred a scene of violence at Rye; the house caught unobtrusively on fire. On the following morning, James settled to write a full account. "I sat up late writing letters—in the green room . . . and towards 1.30, after an odour had long puzzled me, I found smoke coming up through the boards of the floor, near the fireplace. I roused Smith, got a pry, an axe—*que sais-je?*—and getting portions of the planks up, found fire under and behind the hearth and 'stove.' We rushed for police and fire brigade,



SOME OF E. P. WARREN'S WORKS

Top: Breach House, Cholsey, Berks., exterior and interior as illustrated in THE ARCHITECTURAL REVIEW of 1906. Centre: the Magdalen College barge of 1886-87. Bottom: the dining hall of Caius College, Cambridge, 1909.

handsomely from the separation of the correspondents, for James, as vividly as Goethe or Taine, responded to Italy; and in the speckled grey sheets of these letters from Florence, from Naples, or from an inn on the Campagna, some part of his pleasure continues to vibrate. Social and æsthetic pleasures disputed his allegiance; he went to Pompeii to see the new excavation; to Florence, to hear Madame Peruzzi's news of her father; and to Castel Gandolfo, where Mrs. Humphrey Ward was "doing an Italian novel." No means were spared by intending hosts to wrest from him any days of solitude; one even "despatched to me his mother-in-law and daughter, to bodily snatch me hence and make me come." Later, when the Warrens were planning a parallel tour, he was full of instruction: "bring thin clothes, as well as thicker ones. You will much transpire; but Margaret will also want, against moments of chill, a good little British jacket. Give her my love and tell her to excuse my moments of maternalism. Drink no local water—even still. Drink the excellent *Nocera*—the liquid I like best." A new directness began to warm into his style. Of Waldo Story, then gravely ill, he wrote, "He may only want change and escape (from such a huge system and workshop of marmoreal bedizenment of billionaires). He is changed, lean, symptomatic, and *bad about himself*." The Villa Barberini at Castel Gandolfo in particular pleased him; yet even here "with Florence still to put in, I am homesick for L.H."; and he broke in upon another pæan, "How good will it also all be—all the same—when we're gathered together to talk it all over under the (*The*) mulberry tree!"

Meanwhile at Lamb House "a state of general fireplace villainy" was put down; and from the Hotel de l'Europe in Rome James acknowledged an interim report. "Bravo! Bravissimo! I assent to—que dis-je?—I applaud with frenzy everything—and desire no money spared for any complete and total rectification of study and east bedroom fire-traps. . . . The servants' bedroom chimney *doesn't* matter for the present—it remains fireless." And on returning he declared that "even after Italian palaces the trodden Lambkin holds up its head." There remained from this episode a tradition of Warren's omniscience which ran through James's family and friends and settled among the inhabitants of Rye; the polymath had become a pantomath. Vidler, for instance, the steward of the "Mermaid," called at Lamb House to ask if James would enquire of Warren "the name of the stuff for *cleaning* the black paint off the stone Tudor-rose chimney-arch of the dining-room. You kindly named it to him, and he wrote it on his shirt-cuff. But he then forgot it and it is away in the Ewigkeit." (In 1910 he wrote from Symond's Hotel in Brook Street, on his sister-in-law's behalf, for "the name of the grate and firearms people in Great Titchfield Street from whom you got things for me; and whether, also, they fabricate good and artistic door-knobs and cupboard or closet or *drawer*-knobs—and if not who does?")

Once back at Rye he looked forward to a rare span of tranquillity: "Homage, homage," he wrote, "to the master builder; especially of new chimney-corners! The deep peace *now* (*absit omen!*) with which I see (for I already *begin* to see) the classic torch of Bryant and May applied to the neat but perishable creation of the housemaid." Fire-lighting on this Jamesian scale could now proceed freely; already he was bringing the subjects of his last period within range of his long-maturing mammalian process. Like an elephant, he took several years to produce, and became increasingly unready to leave Rye; sometimes he declared himself a candidate for the "tethered and ovine species," "altogether a poor affair," fit only for "a few noonday crawls in the sun," but in general these working years were spent in a happy

alternation of company and solitude. When bicycling became impossible for him, he took to motoring; Edith Wharton has recorded with what relief he took to this pastime in hot weather, driving for hours, until the slow declension of the sun could be toasted in a glass of mineral water; and in the later Warren letters "motorific" is his highest adjective of praise.

Pleasure in Lamb House gave a particular edge to his interest when in 1903 Warren's own house, Breach House, at Cholsey, in Berkshire, was completed and required to be christened. James's sense of style bore powerfully upon this problem. "I really want to make the point that I don't think in the least badly of 'Breaches'; I, on the contrary, think remarkably well. . . . What if your friends do speak of Breaches sometimes as Trousers? What care if they do? But they *won't*—for the *a* in the word (which guards the sound from breeches—britches) makes all the difference. And the name, good and old, very old, I should think, and rare, and appurtenant and ingrained. I cast my vote in short for Breaches (I like to write it)." Later he proposed the amendment which was finally adopted: "If you are still a little backward on the B. question, why not compromise on *Breach* (one leg of the trouser)?"

In the Edwardian years at Rye he became so settled in his "tight and consistent hermitage" that a journey even to "the fell Brighton" called for commemoration. He began slowly to pass in review the whole body of his work; but with the failure of his collected edition and the onset of the illness which then rarely left him, he entered upon a cruel acclivity of pain. Though responsive as ever to the Warrens' travelling, he protested that "in the cold autumn of the year (and of my existence)" he missed "nothing but the (after all long lost) sense of existential space." Household news, the very chaff of correspondence, he would detail as patiently as ever; "the front garden is exceedingly improved and the new greenhouse essentially better. Such are the items of our small-beer chronicle." He was not always happy in his staff. "I shall be utterly alone, and but equivocally served (a 'professional' at last—culinary—from the a.m. only, in the house, but will all her vices still to reveal)." But more often his house was full and he secretly content to see such a congress of "blest old friends"; "Rye is always Rye," he wrote, "and L.H. is always L.H. . . . but the character of a 'cosmopolite centre' invests us more and more, and the old calm life is a dim memory. We rank with Rome, Venice and Monte Carlo—that at least is the way we are drifting." Delightedly shuttling between these two extremes, he never tired of repeating to Warren how well his work had been done. "I don't want the season wholly to spoil without having had a little look round at it, as L.H. deals in it, with you; that is, if you can now stand my very tranquil tenor. (I don't mean by that that I have become, as the newspapers say, 'voiceful,' but only that my days are of the very mildest movement.) . . . Do say, if you are not in Aquitaine or Estremadura, that you will show yourself."

In this way, a great writer and a great connoisseur of our civilization was borne peacefully through his last lustrum until in the autumn of 1914 he stood out as the spokesman of his adopted land. He alone, in Percy Lubbock's words, "had language worthy of the time . . . he gave us what we lacked—a voice." The capture for England of one formerly so restless must be accredited at least in part to Edward Warren; for Warren had known how to insinuate at Rye the claims of English living; and those who know the enlargement of life which comes from reading Henry James will readily echo this exordium from one of his letters to his architect—

"Dear and Incomparable Edward,

Gratitude mingles with compassion and admiration with tenderness. You *are* a Classic."

BOMB DAMAGE TO NOTABLE BUILDINGS

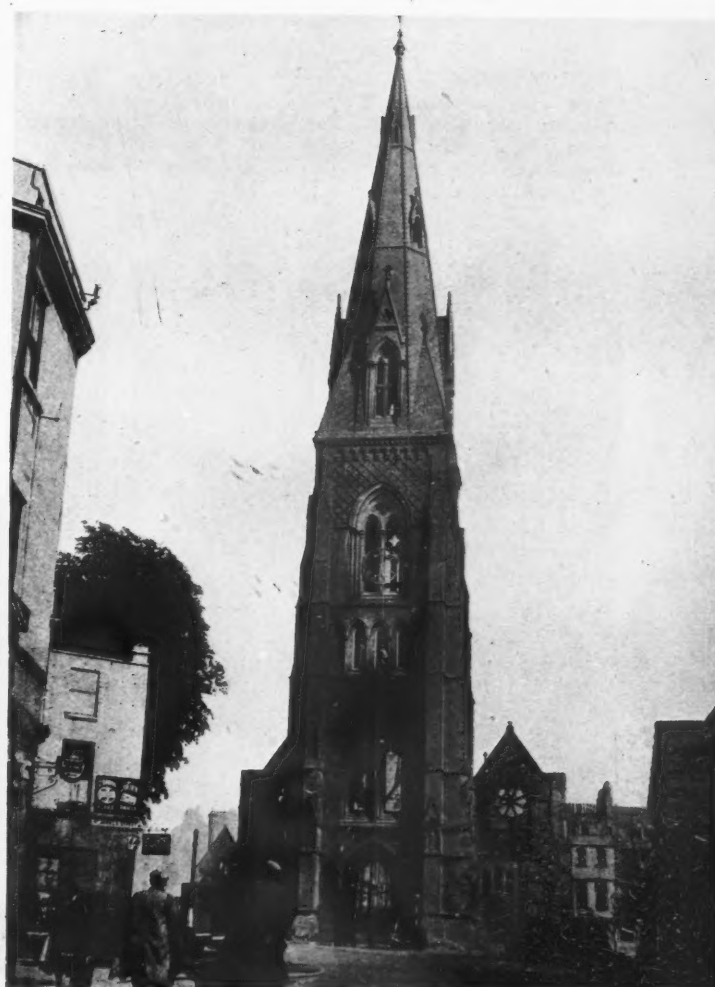
BATH

SECOND INSTALMENT

ST. MARY MAGDALEN CHAPEL, Holloway, is a partly medieval building whose interest is overshadowed by the later and greater glories of the Georgian city. It belonged to a leper hospital, rebuilt as an idiot asylum by Prior Cantlow of Bath, about 1489. A little of Cantlow's excellent Perpendicular work survives, and in the porch is a rhymed inscription in English recording his benefaction. The hospital was rebuilt in 1760, the date of the buildings seen on the left. In 1823 another reconstruction was carried out from which the pinnaced summit of the tower probably dates. The chapel was shattered by blast but most of the features of interest survive.



ST. ANDREW'S CHURCH, Walcot, was a handsome piece of Early English, designed by Sir Gilbert Scott towards the end of his life and completed by John Oldrid Scott, surely the most loyal son and successor any architect ever had. The tower may be compared with those at St. Mary Abbots, Kensington, and new St. Mary's, Stoke Newington, in both of which Oldrid Scott had a hand. There is something impressive about the sublime indifference of the Gothic mind to the architectural traditions of a locality. Exclusive belief in a style could hardly show itself more hard-boiled than in this parsonical steeple, rising up behind the great sweep of Royal Crescent. The church was completely burnt-out, as the photograph of the interior, seen through the west door, shows.



BOMB DAMAGE TO NOTABLE BUILDINGS

ABBEY CHURCH HOUSE. This is a building largely of seventeenth century date with later alterations, situated in the old part of the City, where many fine mansions mark the gradual progress from vernacular Renaissance to the more polished Palladian of the eighteenth century. Some account has already been given, in a first instalment of illustrations of bomb damage, to the more famous of the City's buildings, most of which lie in the more modern parts of the City. But the older part suffered severely. A high explosive bomb caused one of the walls of Abbey Church House to collapse, exposing the early seventeenth century panelling of a room on the first floor.



SEYMOUR STREET is one of the minor treasures of Bath's architecture; in any other city it would rank high as an example of graceful and original street design. Every alternate house has a Venetian window on the first floor and a three-light group to correspond on the second. The houses between are conventional, but the street as a whole certainly gains by this somewhat capricious alternation.

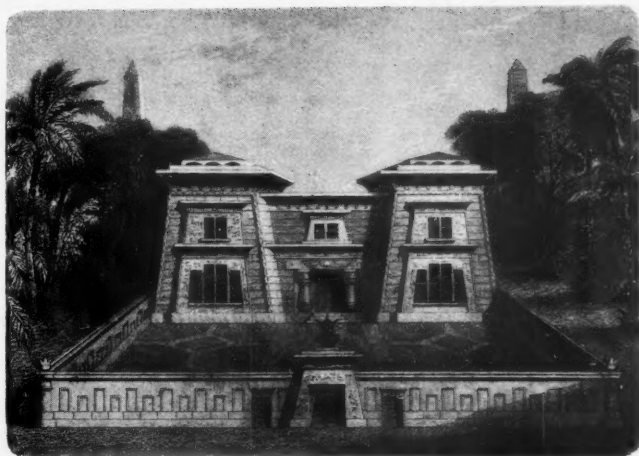


BENNETT STREET leads eastward from John Wood's famous Circus, a portion of which is seen on the right, and is probably about the same date, 1769. The corner houses in the Circus return into Bennett Street where some of them break their Doric order into a handsome porch. Mrs. Piozzi (Johnsonian Mrs. Thrale) took a house here in 1787.



NORTHAMPTON STREET runs sharply down towards Gilbert Scott's church (see previous page). It has suffered severely from fire and blast, and a number of the houses on the right have been completely gutted. The houses vary in date and size, the lower part of the street, with its three-window fronts on the Palladian pattern, being rather more pretentious than the upper part, where the houses are more in the nature of substantial cottages. Above Northampton Street, the built-up area breaks off into open space and elegant serpentine terraces.





Equipment for treasure-hunts

All through last year a series of articles by Mr. Donner appeared in *THE ARCHITECTURAL REVIEW* which was called *Treasure Hunt*. Its object was to make readers aware of the peculiarities, the instructive and entertaining qualities of that chiefly Victorian and post-Victorian architecture, which surrounds us all, where we live and where we work, but which is, in spite or just because of its ubiquity, hardly ever looked at. It was suggested that the vernacular of the nineteenth century deserves some attention, not only for historical reasons, but also and especially because of its healthy and candid love of the ornamental and the fantastic. Methods were suggested in the *Treasure Hunt* articles by which nineteenth century buildings might be appreciated, understood and dated. The following article introduces a method not so far used: the pattern-book. If by studying the twenty-two pictures illustrating it, you can acquire or strengthen your feeling for the character of 1840 architecture and the motifs and details expressing it, you will have gone a long way towards listening to, and perhaps sympathizing with, buildings that may exist in your neighbourhood and have until now been mute to you.

The end of the pattern-books

By Peter F. R. Donner

ARCHITECTURAL pattern-books came to be conceived as soon as the normal vernacular of the Middle Ages was replaced by the revived style of a remote past which, to be handled competently, had to be learnt in spirit and details. Thus Italy, in the fifteenth and sixteenth centuries, taught herself the orders of Antiquity, and thus the North from the second half of the sixteenth century learnt Roman and Italian rule from books translated or written by learned architects or amateurs. John Shute's book of 1563 is the first of these books in English. Most of them were lavish and costly publications, and this state of affairs remained unaltered, as long as classical architecture chiefly catered for a wealthy aristocracy. The beginnings of the cheap and popular pattern-book belong to the middle of the eighteenth century. By then a certain antiquarian knowledge had filtered down into the middle classes, merchants wanted country houses and suburban villas in correct styles, and builders of little erudition had to supply them. Thus between 1750 and 1830 a flood of pattern-books appeared, some strictly architectural, others (the innumerable Builders' Companions, Builders' Manuals, etc.) more technical and practical, others again more concerned with furnishing: chairs, settees, beds, fireplaces, candelabra, window-drapings, etc., than with architecture proper. Chippendale's and Sheraton's works are of this third order, most of Batty Langley's of the second, Chambers's, Adam's, Soane's, Papworth's, P. F. Robinson's of the first. By 1840 the vogue was over. The first architectural magazines appeared for those who wanted to see the work of living architects. Archaeological information was administered by special text-books, and the builders' and engineers' text-books had no longer picturesque ambitions.

Thus Richard Brown's *Domestic Architecture* of 1841 stands at the end of a long and distinguished tradition. In every way it suggests the decline and fall of the pattern-book. It is a clumsy quarto tome, in weight and fullness of text like an antiquarian handbook. Lovingly its reader thinks back to the grace of Langley and Decker and Chippendale. Its full title is as ponderous as its outside appearance: *Domestic Architecture, containing a History of the Science, and the Principle of Designing Public Edifices, Private Dwelling Houses, Country Mansions and Suburban Villas*. It is dedicated to the Earl of Devon and pre-faced from Exeter. Brown, who calls himself a professor of architecture, is hardly known now. He published *The Principles of Practical Perspective* in 1815 (second edition 1835), *The Rudiments of Drawing Cabinet and Upholstery Furniture* in 1822, and *Sacred Architecture, its Rise, Progress and Present State* in 1845. He ran an Architectural Academy at his house, 4, Wells Street, Oxford Street, during the thirties. It is, perhaps, on the

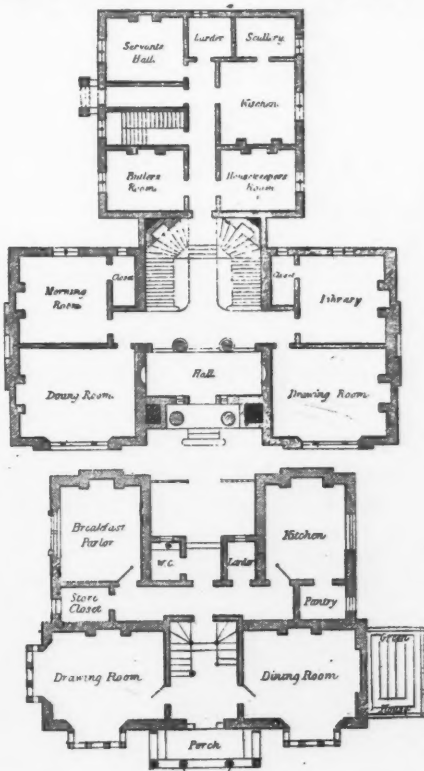
strength of this that he chooses to call himself a professor. The City Librarian of Exeter could not find out more about him. His only work mentioned in *Domestic Architecture* is the gate lodges of Holland House, London, built in a Jacobean style in 1831. He was not a great designer nor a great writer. He is far from discriminating. It is as a specimen that his book is so very enlightening. In it all the current varieties of architectural expression are enumerated without any apparent selective system.

Here is Brown's own list of them: "First, we had the primitive British huts; next, Roman villas, on the invasion of Julius Caesar; third, Saxon houses, in the time of Alfred the Great; fourth, the Norman castles, during Stephen's reign; fifth, Plantagenet castles and banqueting halls, reign of Edward III; sixth, Lancastrian castellated mansions, and half-timbered houses during Henry VI; seventh, Tudor manor houses and halls, during Henry VIII; eighth, Tudor half-timbered cottages and town houses, period, Elizabeth; ninth, Stuart mansions, reign James I;

tenth, Florentine mansions, time James I; eleventh, Anglo-Italian mansions, by Inigo Jones, reign of Charles I; twelfth, Flemish town houses, reign of William III; thirteenth, Chinese casinos, by Sir William Chambers, reign of George III; fourteenth, Anglo-Grecian villas, by Stuart, George II, and during the reign of George IV, the Arabian, Mahomedan, Indian, Moresque and Egyptian styles were introduced into England."

All these varieties are illustrated in plan and elevation in the second part of the book, the first consisting of a history of architecture in 65 pages, a long introduction on the qualifications of the architect and the principles of designing public and private dwellings, and 47 dissertations on such matters as whether a place is healthy or unhealthy; the water good or bad, and the nature of the soil suitable for the growth of plants and vegetation. The employer and the architect are also informed in these dissertations "as to the style of architecture that is appropriate to particular sites." "For those who have not acquired a knowledge of the practical part, the most important matters essential to be known by them and attended to in the erection of a country mansion are laid down, and the qualities of the materials to be used by the builder is explained, alike important to be known by the private gentleman and the architect." Heating, ventilation, roofing, etc., are thus treated in some detail.

It is the second part of the book with which the following pages are concerned. It is in a singular contrast to the first. It looks as though Brown had attached to an architectural text-book a voluminous pattern-book. The contrast is explained by the public which he is addressing. He says on page 6: "The object of the author in this work is . . . to excite a desire for cultivating taste, and to enforce the necessity of those noblemen and gentlemen who may be about to build, being acquainted with the theoretical parts of composition, so as to be enabled to decide respecting the abilities of the architect whom they may employ on that edifice where large sums of money are to be expended; whether such person be experimentally acquainted with the requisite internal conveniences of a mansion, the practical knowledge as to the construction of the building, the qualities of the different materials and, lastly, though not the least, whether he possess an excellent architectural taste and genius, so that his design when built may meet with approval of those who are competent judges." The literary style is abominable, but the sense is obvious enough; sales promotion just as Robert Adam's and Isaac Ware's folios had been. But as Brown writes in 1841, he considers it a necessity for



Ground plans of Egyptian Pavilion (top) and Elizabethan Cottage (bottom)

* It will be noted that the term Gothic does not appear in this list. Brown names as his reason for this omission that "the Gothic . . . exclusively belongs to sacred architecture, and not to domestic."

getting jobs to show off his antiquarian competence by a historical introduction and the historical and geographical completeness of his examples.

It is here that he goes so pathetically and illuminatingly astray. He starts off with such accepted styles as the Cottage ornée, Tudor, Elizabethan, Jacobean and Grecian, and descriptions of correct details and suitable scenery. But he ends with Persian, Chinese and Burmese designs accompanied by texts which deal exclusively with the peculiarities of domestic architecture in these countries. This is puzzling; for there were such buildings as Sezincote and the Brighton Pavilion. Yet Brown nowhere alludes to as much as the possibility of clients wanting these styles for English sites. Was his interest in them then purely archaeological? Hardly; one may safely assume from the tenor of the book that his phlegmatic objectivity was intended as a specially subtle temptation.

What makes one strongly suspect this is the curious fact that, in spite of all the scholarship displayed in such descriptions as those of the Pompeian house or the Taj Mahal, Brown's ground plans are without exception blatantly English of the Anglo-Palladian tradition. This leads to the most entertaining hybrids. The Venetian Summer Residence has a purely Georgian plan, the Swiss Cottage is a Greek cross with a central staircase, the Plantagenet house has a spacious circular staircase with Robert Adam niches, and in the Egyptian Pavilion a centre hall and a baroque two-flight staircase separate two identical wings. Whatever style is assumed, the symmetry of Palladian origin must be kept.

Brown is, of course, aware of this discordance between plan and elevation. He calls it his purpose to adapt "the plans of all the various architectural styles to the English climate, and modern arrangements, in accordance with the customs followed and established in our habitations, rather than with the foreign modes or the habits of the English in ancient times." And, in fact, this adaptation is sometimes not without quaintness and charm. Yet there is no reason for magnifying Brown's talents and personal importance. He was a bad architect, coarse and insensitive, as he was a bad scholar. 1840 is no excuse for talking about "Palladio, Leone, Baptiste, and Piranesi" (p. 72), meaning Palladio, Alberti, again Alberti, and Piranesi. The interest of his book lies in something quite different.

The nineteenth century is the age of historicism. Architectural historicism was complete by 1830. Its component parts are the Palladian tradition, the Greek Revival of Stuart and Revett, the Gothic Revival of Strawberry Hill, the Chinese of Chambers, the Hindoo of Nash's Pavilion, the Italianate of Nash's Cronkhill, the old English cottage of Nash's Blaise Castle, and the Elizabethan of Shaw, Hunt and Loudon. But there are only a few pattern-books as complete as Brown's. As it stands and as it is here presented, it forms a model identification chart for the 1840 Treasure Hunter, in the sense of our series of articles last year.

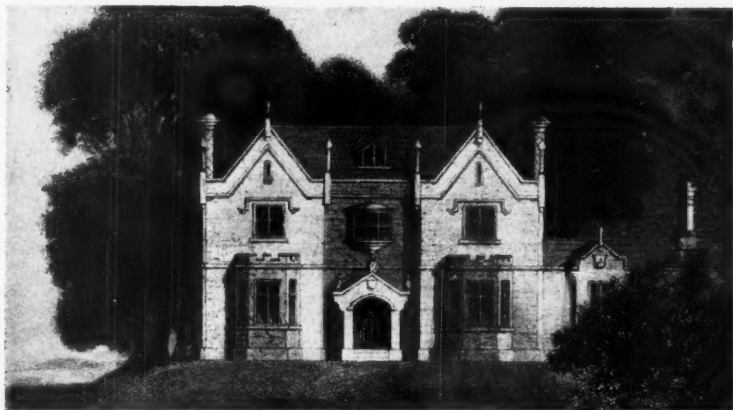
Cottage Ornée was a term frequently used in early nineteenth century pattern-books. Brown says of his that it is "designed and appropriated for a small and retired family, of moderate income, and rural habits." It should be "composed of irregular and diversified parts . . . some to be seen entire, whilst others partially hid by overhanging branches of trees, or enwrapped in ivy climbing over the roof, and up the chimney shafts, or otherwise hanging in festoons. It should have "polygonal bay-windows, and a projecting rustic porch." The "rough columns" of this "should have Virginia creepers with sweet clematis, and China roses planted near them, to which they will climb and grow up." The "cottage ornée should be built in a picturesque or sylvan situation, on inclined ground, and in front craggy rocks, where water is seen falling in sprays between the masses of stone. . . . On one side may be a dell, and at the back a romantic mount." Brown evidently knows what he is talking about. He must

have designed and built cottages. His advice is sound, the picture pleasing. There is only one more in the book which conveys the same impression of reality, the *Tudor Suburban Residence*. Brown recommends it for such "salubrious and bracing . . . Elysian spots" as Herne Hill, Shooter's Hill and Blackheath. Cottage building was indeed prospering in the southeastern suburbs of London about 1840. The word suburban is still used in the Roman sense, without any of our connotations. Such villas, Brown says, should be built "on a knoll, with lofty elm trees on the back of the northern aspect, and a plantation on the left, among which the offices are to be concealed." The same style appears in some pictures of larger houses. There is, for instance, the *Tudor Mansion, Style Henry VIII*, which should be put up in "landscapes of rich foliage" and provided with bay-windows and an "oriel window above the ground floor." For "there cannot be conceived an architectural form more cheerful

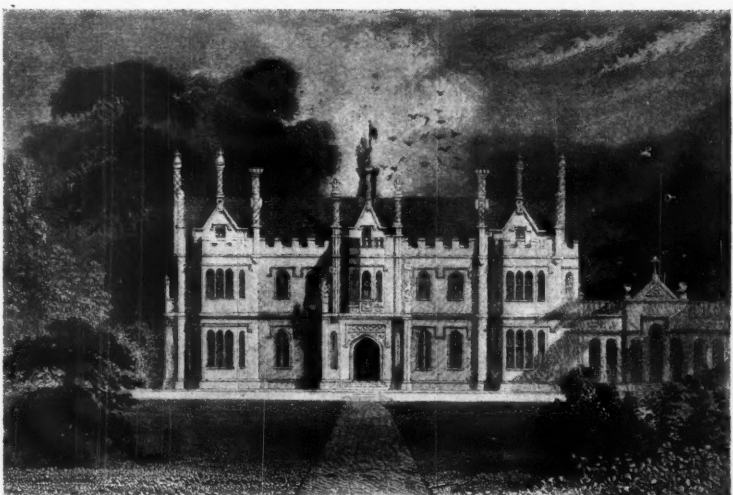
to the interior or more decorative to the exterior than an oriel window . . . to say nothing of its splendour when the glass is florissed imagery." Of similar character is the Elizabethan mansion not here reproduced—Elizabethan had been added to Grecian and Gothic as a permissible style about 1830—and the *Mansion in the Stuart Style, James I.* Brown's text here, as in the previous examples, is straightforward description for the use of clients. Jacobean, e.g., to him means "a grotesque Doric porch and an oriel window, decorated on each side with niches, and a series of terminal or inverted pilasters of Italian workmanship, of the most enriched and picturesque forms, and piled above each other, as if determined to render the attraction more piquante, like a foreign word dropped into an English sentence." This is not without grace, a rare quality in Brown's writing. We find it again in the text to his *Chateau in the Flemish Style*. We should probably define this kind of design as Scottish Baronial.



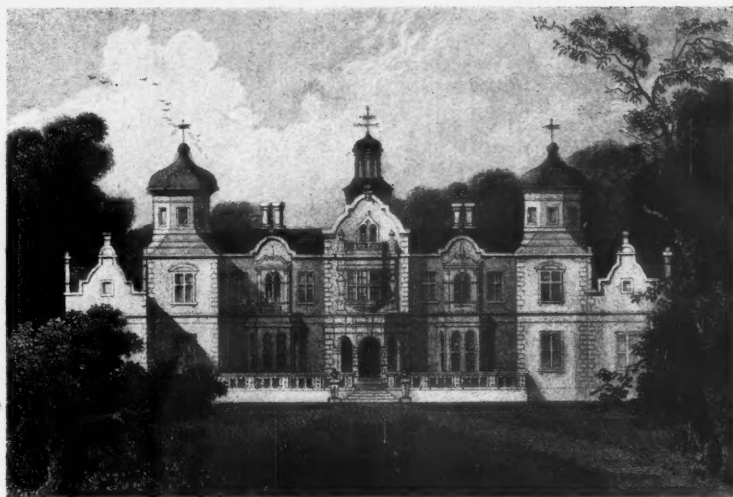
Cottage Ornée



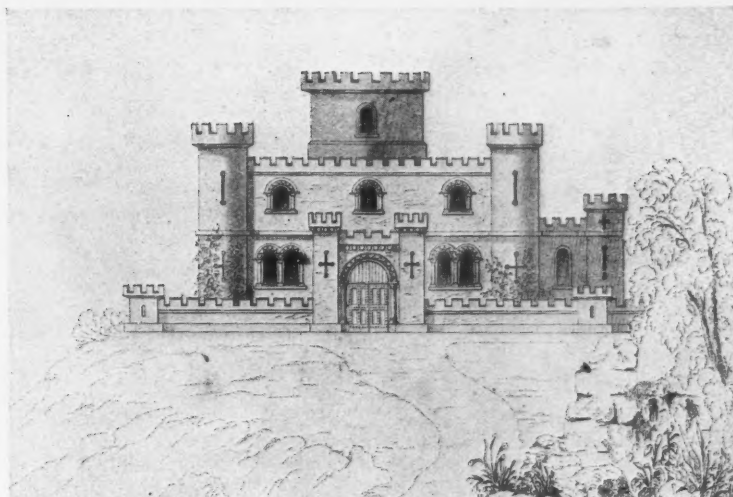
Tudor Suburban Residence



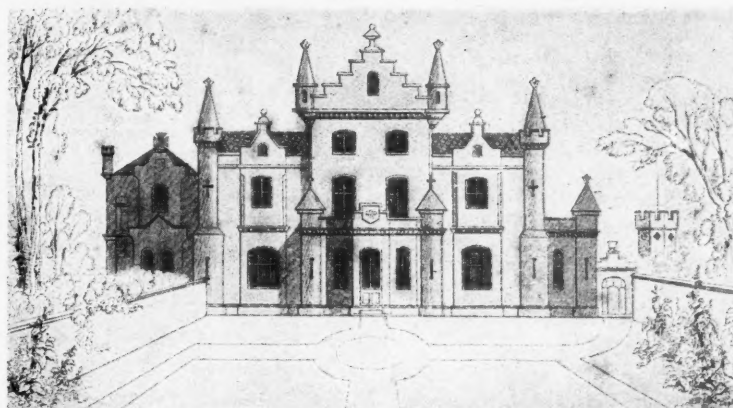
Tudor Mansion, Style Henry VIII



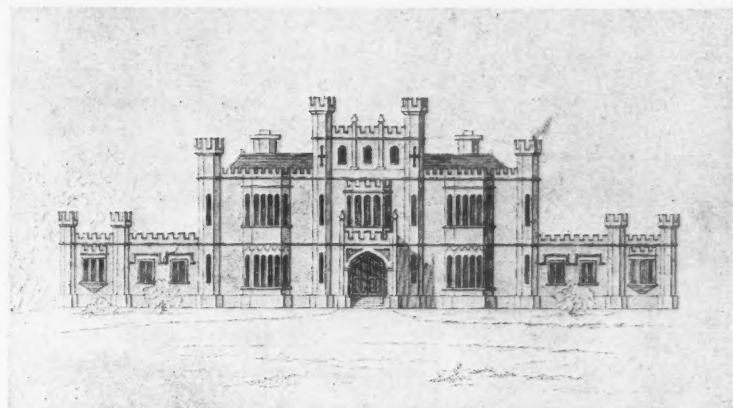
Mansion in the Stuart Style, James I



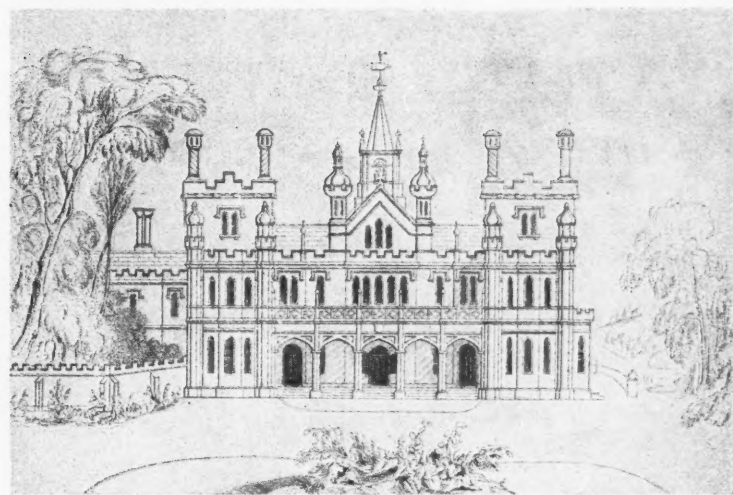
Norman Feudal Castle



Chateau in the Flemish Style



Lancastrian Embattled Mansion



Tudor Mansion, Henry VIII Style



Tudor Cottage, Elizabethan

And Brown, in fact, had the felicitous idea of accompanying it by Scott's description of Tully Veolan from Waverley with its "high stepped roofs and narrow gables, with lines indented into steps and corners decorated with turrets." Brown's plans of these sixteenth and early seventeenth century houses are blends of the old and the new. He never carries his antiquarian ambitions into the ground plan. With regard to the Tudor Mansion, Henry VIII Style, he says frankly that he has attempted "to combine modern arrangements with elegance, and . . . an ancient quadrangular plan." We can take it that the same applies to the Norman Feudal Castle. The symmetrical fenestration is un-medieval enough. But Brown here prefers not to show a plan at all. Of the Lancastrian Embattled Mansion also nothing but an elevation is illustrated. It is entirely 1840 in character, as are all Brown's designs so far reproduced.

Somewhat different is the case of the Tudor Cottage,

Elizabethan. Here every feature, though it has a foundation in 1840 usage, is heightened by the enthusiasm of an architect freed from considerations of site, price and materials. Brown for his other Tudor designs had looked firmly at accepted fashions; now he starts throwing side glances at the style of the romantic folly. But they are no more than side glances yet. Take the Swiss Cottage. He begins his text with a passage from Childe Harold, and places his design into a dramatically alpine scenery. But he says explicitly that such cottages would be ideally adapted for "such situations as Torquay, Babbiscombe, Linton and Ilfracombe." In fact, Swiss cottages of c. 1840, as is well known, abound all over England. So Brown may have hoped to get away with his glorified version of the accepted theme. His Pompeian Suburban Villa is also decidedly overcharged. And Brown's text here—this brings us to an important change in his tactics—deals entirely with tricladium, tablinum, fauces and the other

parts of the real Pompeian house. So just as he loads his pictures with detail, he has loaded his text with scholarship. The fact that the one has nothing whatsoever to do with the other is concealed. The design shows the variety of grouping which characterizes 1840. The forms are handled clumsily but not without knowledge. Yet Brown appears not to have liked them. For in another place he writes of the "decrease of taste" which came with the seventeenth and eighteenth centuries. "The chaste and vigorous feeling which distinguished the works of the earlier architects was then . . . nearly extinct, and English architecture becoming in all its ramifications rapidly degenerate."

Brown as a personality is curiously evasive. If he really considers the classical revival deplorable, and wishes to be taken as a Gothickist, why should he have put in the Anglo-Grecian Museum and made it an occasion for paying special tribute to Sir John Soane, of whose style not much more than the incised line



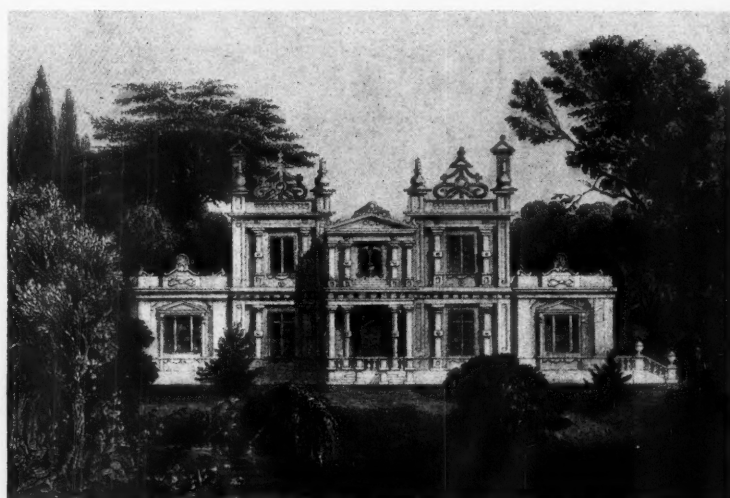
Swiss Cottage



Grecian Villa



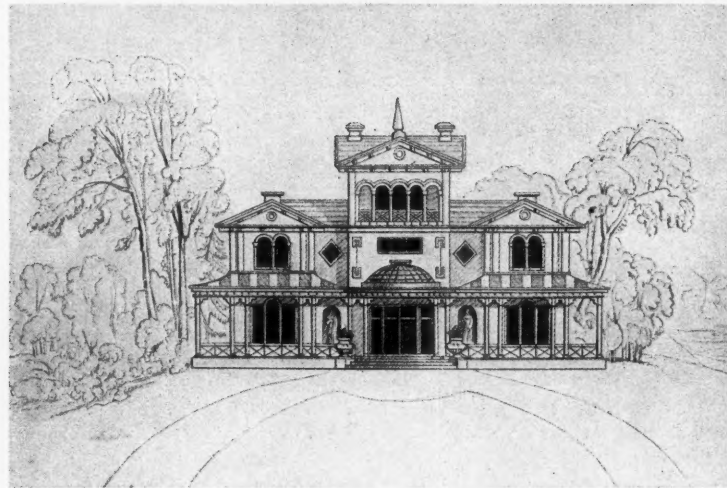
Pompeian Suburban Villa



Villa in the Florentine Style



Anglo-Grecian Museum



Venetian Summer Residence

decoration is reminiscent? This is what Brown writes: "About the beginning of this century, a new style of architecture appeared in England from the designs of Sir John Soane, composed from the classic, Grecian, and those styles at Etruria and Tivoli in Italy. This compounded style may be studied as containing much that is extremely beautiful, and as evincing a more playful fancy, if not a more refined genius, than had been exhibited in England for centuries." So what is Brown's real character? The answer is probably that he was both a muddled thinker and an unscrupulous opportunist, prepared to do and praise all styles, and to get a job now by the seeming scholarship of his texts and now by the seeming brilliancy of his designs. So his Grecian Villa presents him as the correct classicist and at the same time as the Homer scholar who can

go into details of Alcinous's Palace. Again, the Villa in the Florentine Style, with its bastard Flemish-Elizabethan details, is in flat contradiction to the text on Petrarch's Villa at Arquà. Brown must have been in complete ignorance of what a fourteenth century house in the Veneto can possibly have looked like. But ignorance cannot excuse his treatment of the Venetian Summer Residence. He talks glibly about the Ducal Palace, with which he may not have been familiar, but also of Sansovino and Longhena, whose works he must have known, at least in illustrations. Yet there is his picture with Georgian plan, English verandahs and typically Early-Victorian Italianate arcuated windows. Only once he despairs of maintaining his pretended unity of period sources and modern requirements. For the Anglo-Italian Villa he cannot suggest a period

name. He cannot smuggle it in as anything but modern. So he apologetically writes: "It is not Roman, because all the details are Greek; neither is it Athenian, for some of the windows have arched heads; and, further, the villa is covered with a Tuscan roof. What is this edifice then, if neither of the above characters, but an Italian composition, formed and adapted to the locality, to the climate and customs of England." But it is very rare for Brown to be so frank.

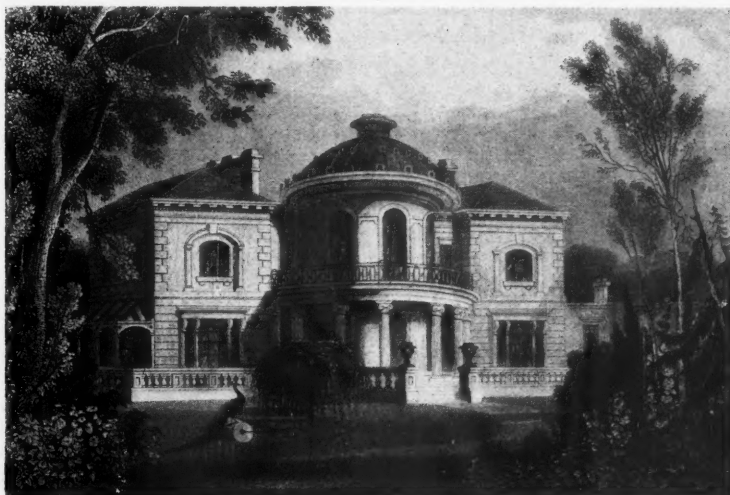
Take the Villa in the Roman Style. With unashamed face he presents as an illustration to a text on Diocletian's Palace, the Villa Borghese and the Villa Este at Tivoli a picture of debased Dixhuitième style, a style incidentally which about 1840 was still very rare in England. Maybe he uses it just in order to be complete. The same attitude must explain



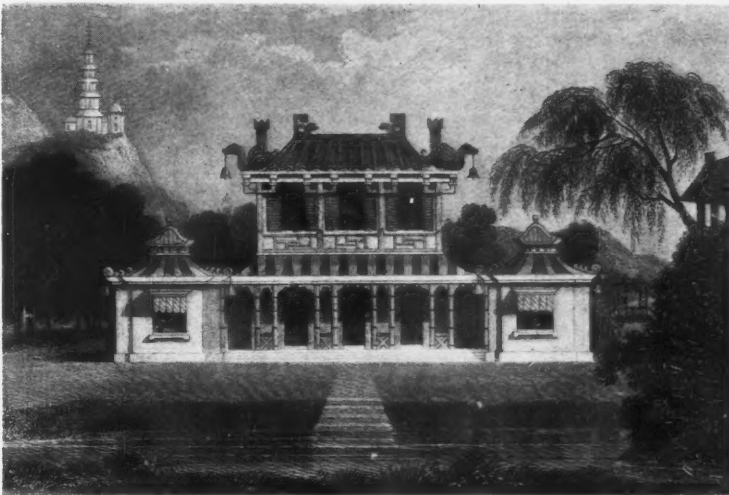
Anglo-Italian Villa



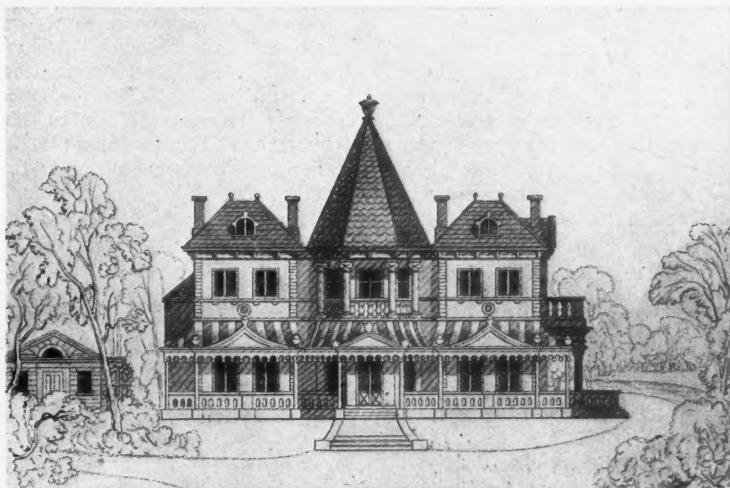
Persian Pavilion



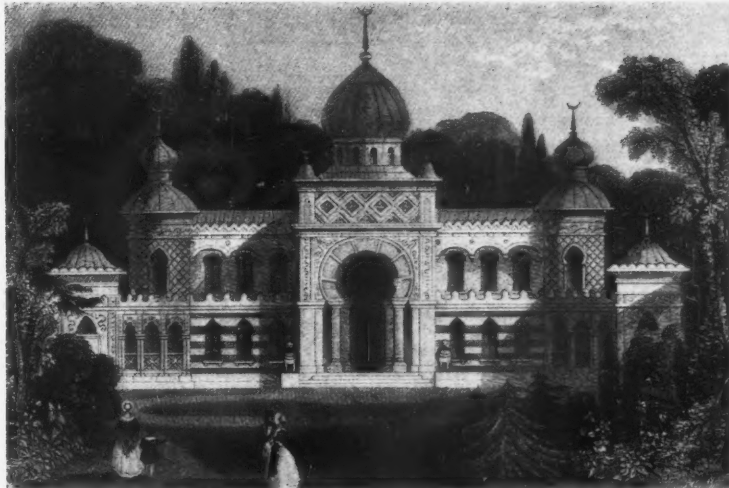
Villa in the Roman Style



Chinese Casino



French Suburban Chateau



Palatial Building in the Morisco-Spanish Style

the French Suburban Chateau (a delightful name). For the French Renaissance did not become popular in English architecture before the eighties. In plan, the Roman and the French villa are similar; neither goes beyond English Georgian traditions. This makes Brown's remark on his Roman villa all the more cryptic. He writes: "As to the present Roman mansions, they differ from those of antiquity, while ours of the present day are a close approximation to their antique architecture, and in their principal parts closely resemble them in their majestic disposition"—a masterpiece of purposeful obscurity. He seems to have felt in need of such portentous phrases to cover up his delight in hybrid detail. There is, perhaps, no better example in the whole book of his cheerful, though heavy-handed mixing of styles than the priceless Egyptian

Pavilion with its Tudor windows (see headpiece to this article). It is neither correct from the antiquarian's point of view, nor at all related to the restrained handling of Egyptian detail by Brown's contemporaries. But it is jolly and done with so much gusto that Brown may very well have hoped by it to tempt some wealthy and adventurous country gentleman into commissioning something of the kind. Not, of course, as a house to live in, but—the title says it—as a pavilion, a piece of bold adornment for a garden. The same hopes may account for Brown's oriental designs. Here again he covers up his architectural ambitions by learned texts. The Persian Pavilion, illustrating a description of Shah Abbas's Palace, may indeed look as if taken straight out of a travel book, but the Chinese Casino is, in spite of a text compiled from Gutzlaff's and

Barrow's reports on Chinese domestic architecture, a sheer folly. Similarly the Palatial Building in the Morisco-Spanish Style has no points of contact with the Alhambra referred to in the text as "the prototype of our annexed design." Now that is downright cheating, and we know, after having studied his book, what made him cheat. He hoped to get the better of both worlds, the scholar's fame and the practical architect's success. But his hopes never came true. He never rose to distinction and is now rightly forgotten. Most of his scholarship was bogus, and as a designer he was too stodgy to make his follies look convincing. But take him as a representative of his age, and he becomes portentously significant. Few contemporary books give so complete a picture of architectural reality and nostalgia in a pedestrian bourgeois world.

the cyma and the hollyhock

By the Hon. Lionel Brett

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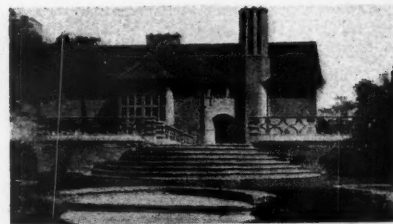
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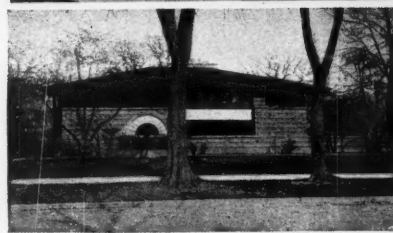
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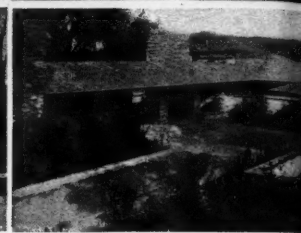
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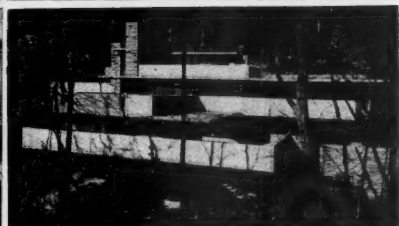
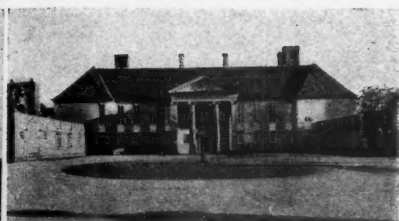


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him, Wright colossally bestrides two ages, and like him may well do his greatest work at the end.

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During the nineteenth century, after all, each had its pioneers and each had its snobs. But the English pioneers, like Paxton and Brunel, were mere engineers, people whom the aristocracy had never heard of and certainly never connected with Architecture. America by contrast was still, except for the anglicized Eastern fringe, a land of pioneers; the Middle Western aristocracy had no antique pretensions; the Chicago Fair had not yet educated them out of their natural vision. It was still smart to be new, not yet smarter to be old. This, combined with obvious psychological differences, set Wright and Lutyens on their divergent paths. The results have been unlucky for English architecture. The Wright-Lutyens touch, the friendly texture of local materials, the big fire, the beamed ceiling, the ingle nook, the loose organic plan—for all these qualities the English look back with Lutyens, the Americans forward with Wright. The modern movement, exiled from England for thirty years, returns unrecognized and misunderstood as the bleak and rootless "Modernismus." The choice, for the average Englishman, is between this austerity and the cosiness of the Lutyens past. For the American it is between the prim and proper Colonial past and the freedom and easiness of the Wrightian future. The sooner we Anglo-Saxons get thoroughly "mixed up together," the better for our architecture.

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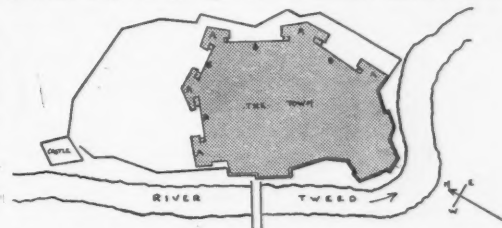


the fortifications of Berwick-upon-Tweed

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The historical importance and geographical position of Berwick in the sixteenth century was considerable. It will be remembered that up to 1603 England and Scotland were separate kingdoms, and that for centuries before the Borders had been "debatable land." A glance at a map of the physical features of Britain will show how Berwick guarded the East Coast route—barring the path of an invading army from either England or Scotland. Hence it was of crucial strategic value to whichever country held it—a fact sufficiently impressed on the present day visitor by the formidable nature of its fortifications.

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But it is the inner wall, built by Elizabeth, which is of such absorbing interest. There was about 1560 a very real danger of invasion from Scotland, backed by the help of France. Elizabeth regarded Berwick as the "chief key of her realm" and immediately decided to strengthen its fortifications. The old Edwardian wall was in such a state of hopeless disrepair that it was thought advisable to build an entirely new wall on a much shorter circuit. By this time the new and terrible weapon of gunpowder was beginning to be a real force in warfare, and any system of defence had to take it into account. The old system of a wall supported at intervals by towers was therefore superseded by the new "curtain and bastion" mode of defence.

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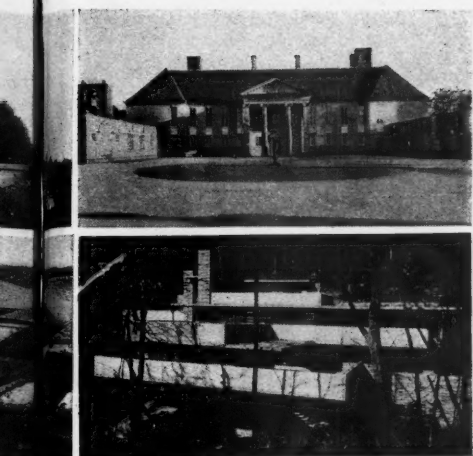


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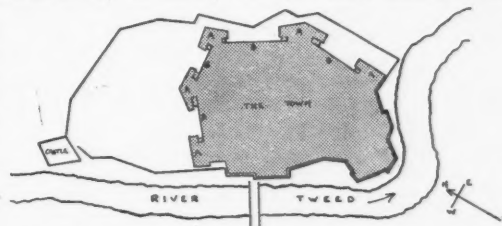


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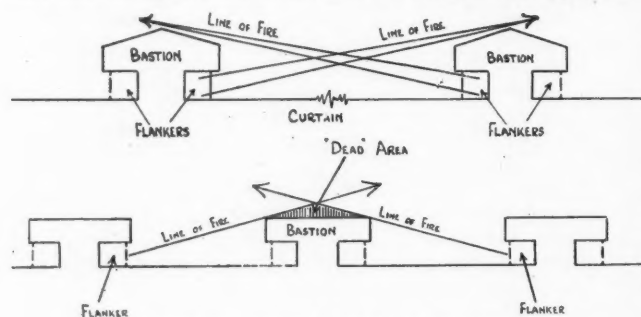
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who helped to develop the new method although he had been dead eight years when his own native town was fortified. In 1545 Antwerp's defences were remodelled on the new system for Charles V by Paciotto d'Urbino. The bastions here are small with short flanks and faces, and spaced at long intervals.

The French were not long in copying the Italians. In 1594 Errard of Bois le Duc published a book on the subject, but he had already been preceded by de la Treille as early as 1557. It was just about this time that the Elizabethan fortifications at Berwick were begun to the



Bastions constructed rightly and wrongly.

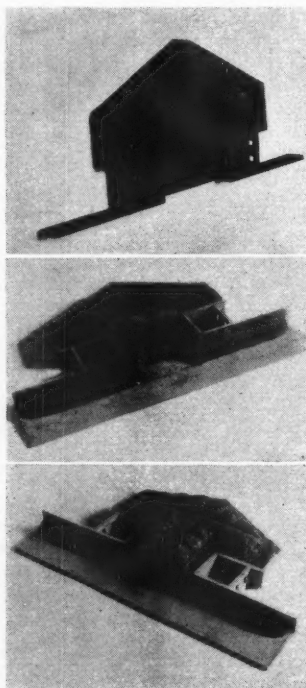
Each bastion had two "flankers" or enclosed court-yards in each of which were mounted two guns. These could enfilade the curtain much more effectively than guns mounted on the curtain itself, and direct their fire to the salient angle of the bastion opposite. As one stands in the flanker, one can see how well the angle of the bastion has been aligned (see the photographs at the foot of this page). It is interesting to note why the bastions were designed to this particular shape. The reasons are three. First of all the flanker is tucked safely away at the back of the bastion. Secondly, any cannon ball striking the face of the bastion would tend to be deflected by the angle and so do less damage. But the most important reason is the third. Suppose the bastion was made to the shape shown in the lower of the two drawings. There would then be a "dead" area which could not be covered by the fire of the flankers, and once an enemy had penetrated to the face of the bastion it would be a much simpler operation to storm it.

The wall was twenty-two feet high and twelve feet thick at the base. It was faced and backed with stone, with a rubble filling. As this was not considered strong enough, a backing of earth thirty feet thick was added, entrance to the flankers being obtained by tunnels. Round the whole wall ran a sentry walk, now unfortunately hidden from sight. In later times the earthen rampart was regarded by the townspeople as a convenient rubbish dump, which had later to be covered with soil and sown with grass to prevent the spread of disease. Thus the sentry walk cannot now be seen except at one of the bastions where the Office of Works has excavated a small portion to reveal some typical Elizabethan brickwork.

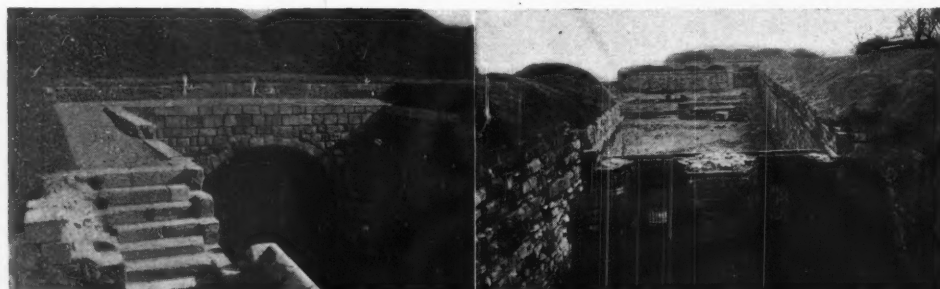
The bastions, too, have been considerably altered since the sixteenth century. At a later period they were completely filled in, and later still huge mounds of earth piled on them. On these the guns were mounted. The three stages in the development of the bastions can be seen in the models illustrated on the right.

Whether these new defences would have proved their worth will never be known, for the threatened invasion never came. For thirty years the garrison patrolled the wall, and then came the Union of the Crowns. The guns were dismantled, the garrison disbanded, but the wall remains, a living testimony to a queen and people grimly determined to resist all attempts at invasion.

L. P. HALL



To the right three models of one of the bastions of Berwick; top, in its original state; centre, with a backing of earth; bottom, with mounds piled up later to serve as gun supports. Of the two photographs below the one on the left shows a flanker with the sentry walk recently unearthed and a vault beneath that may have housed arms and powder. The right-hand photograph gives a view along the curtain wall from one flanker to the next.



the home of a best-seller

TO pry into the privacy of the famous has always been a popular delight, and it has never been more easily (if vicariously) satisfied than during the last ten years. Books describing the struggles of popular novelists with their neighbours, their hot-water boilers or the laying of their crazy paving, were always sure of a ready sale, while if we were ignorant of the colour of Ginger Rogers' bedroom curtains, of the tobacco preferred by Noel Coward or of the breed of dog favoured by Godfrey Winn it was certainly not from lack of information on these subjects. Modern advertising methods also have made us familiar with the even more intimate bodily secrets of the great.

Things were very different fifty years ago. It is doubtful, for instance, if many of the vast late-Victorian reading public could have described the appointments of Hughenden, Farringford or Gadshill. Such matters were not considered fit for the eye of vulgar curiosity. The Great Victorians may not have been in the modern sense "publicity-minded," but they were shrewd enough to keep quiet about the homelier details of Olympus.

It is for this reason that the personal apartments of the famous figures of this period have, when preserved intact, such an irresistible fascination. They were not like those self-conscious settings of to-day, arranged with white-washed twigs and twinkling witch-balls for the next visit of a society photographer. They were homes, reflecting without distortion the private tastes of their owners.

One of the best-preserved but less celebrated of such places is Mason Croft, the house in Strat-

sermons in seats



1



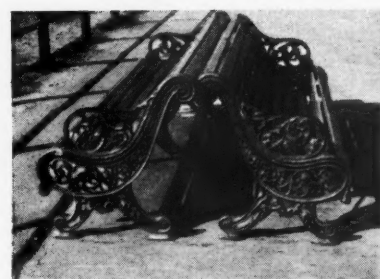
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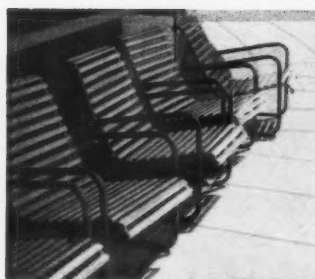
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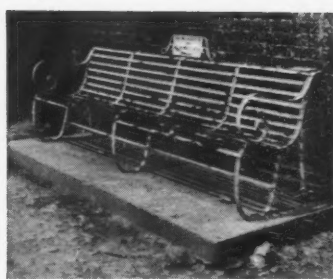
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6



7



8

Planning is popularly thought of as an activity involving always bigger and bigger combinations. This accounts for the LITTLE MAN'S distaste for it, for once regimentation starts in he is not sanguine of his ability to resist—hence for him freedom is purely a *laissez-faire* product, depending on no one in authority taking notice of him. Yet the real test of planning will always be (according to the English idea) whether it gives more freedom of action to the individual. At its best it involves an attitude of mind, to illustrate which nothing is too small. The municipal seat, for instance. In the top row it is seen merely as a thing, and in the bottom the planning mind is at work disposing of it in twos, tens or hundreds of thousands. 1. The full-blooded Victorian article. To-day we are beginning to appreciate this, both the functionalism (notice the body-comfort of the seat in section) and the self-confidence of Victorian industrial art. But the grossness of its standards led in the end to 2, the puritan reaction: "simplicity," sweetness and light, arts and crafts, the dignity of hand-work against machine reproduction (though, of course, it isn't handwork really)—what might be called the Gimson-Barnsley period. Uncomfortable as a protest. But this was only a phase. The end is a re-integration between machine processes and the classical conscience. Much too much stress has been laid on the revolutionary nature of the Modern Movement. 3 might be a product of the Empire. The new elegance is more like a return to the eighteenth century taste of the earlier industrial revolution of which the exquisite iron seats, 4, at South Harting are an early nineteenth century example. It would be truer to say that the Victorian period was the revolutionary period, and that now we are picking up the earlier tradition of economy and elegance and applying it to mass production. But alas, "we" are not all doing that. Inside the community different groups are at various stages of development. The Victorian borough engineer who laid out this sort of strong stuff, 5, has gone, but municipal architecture is still the victim of its past. The sweeping out of the devil of stiffness and formality has let in the seven other devils of aimless banality. Before the war ends and "Official Architecture" comes into its own, we have got to get municipal authority harnessed to the old classical tradition represented by the modern movement with its ideal of achieving individual freedom by self-discipline. In terms of chairs, single seats deliberately arranged in rows, 7, as they are in the park so that no individual takes advantage of another, is a far more suitable and individual treatment than the well-meant but horrible Folkestone cliff scene, 6. When the chairs are occupied they provide a decorative fringe. There is, besides single chairs, another method of multiplying any requirement, and this is the duplication of standard parts, 8. Compare 8 and 4: 8 shows 4 lengthened by one section, a treatment which could be continued to any length. And now compare 7 and 8. It is as though the Victorian epoch had never existed. 7 seems to have sprung out of 8 by natural development. The standard of comfort and elegance is the same, and so is the enthusiasm for bent metal.

ford-on-Avon which was for nearly 25 years the home of Marie Corelli, and which remains to-day unaltered in the smallest way since her death in 1924.

Marie Corelli was a writer whose works suffered from what Edmund Gosse has called "the taint of popularity." She was in fact, perhaps, the most successful writer of "best-sellers" ever known. Her world-wide fame was won moreover without the modern aids of book-clubs, film-rights, agents or "blurbs." She was sensitive to criticism, and sent out no review copies of her works. Among her friends she numbered some of the greatest figures of a great age—

Ellen Terry and Lord Tennyson, Beerbohm Tree, Thomas Lipton and Labouchère, Robert Brown-



ing and Burne-Jones. Ella Wheeler Wilcox knelt at her feet in homage, Mark Twain visited her from Oxford in a specially chartered train, George Meredith is reported to have read one of her books

with tears in his eyes. Oscar Wilde told a warder at Reading Gaol that she wrote well enough to be a fellow-prisoner, and Gladstone was once so enchanted by her company that he left Mrs. Gladstone seated outside in her carriage for over two hours.

But although Marie Corelli was one of the great personalities of her time, perhaps no more than a handful of her thousands of readers could have known anything of her private life and surroundings. Certainly no casual visitor to Mason Croft could have penetrated beyond the front door, where the tactful butler, standing firmly upon a mat embroidered

with the word "Welcome," turned away all but her intimate friends. Not that Marie Corelli was a recluse. She was not averse to publicity provided that it showed the correct degree of deference,



and her public life was a constant series of "causes célèbres," cam-

paigns against town-councils, feuds with publishers, and skirmishes with critics. Sincere, impulsive, lively, didactic, humourless, vain—Marie Corelli was all of these, and her house bears everywhere the unmistakable stamp of her romantic and restless personality.

It is a comfortable, elderly, brick-built house, with a gabled garden front and a rather flat street facade built on in the eighteenth century. The sash windows are closely curtained and the brickwork is almost completely obscured by a jungle of creepers and a profusion of blossom from the window boxes. A flagpole over the porch and the initials M.C. in coloured glass above the front door are the only points of emphasis in an otherwise reserved facade. To the passer-by it is an uncommunicative house, but within its walls lie interiors in which the "full-blooded, Turkey-carpeted" spirit of the author is reflected even more clearly than in the pages of her books.

Marie Corelli wished Mason Croft to become at her death a national shrine of literature. In her will she entrusted the house

into the care of trustees ("not to include a resident of Stratford-on-Avon") who were to place it when required at the disposal of any person distinguished in science or the arts visiting Stratford ("not including actors, actresses or anyone connected with the stage.") Nothing was to be sold; all books, furniture, curios and household goods were to be kept intact.

Her orders have been strictly obeyed, and nothing has been moved since the day of her death. Her servants, who have remained on in the house, still dust and polish so that everything should remain "just as Miss Corelli liked it," and it is their devoted care, their refusal to accept the fact that the rooms are no longer used, which has prevented the house from becoming merely a museum. On the ground floor lies a hall, a dining-room, a stone-floored kitchen, a morning room and a salon leading out into a winter-garden which is furnished, as an unkind friend of Marie Corelli's remarked, like a tea-room at the Earls Court Exhibition. The palm pots and bamboo chairs stand stiffly

round beneath the bright eyes of an elderly little dove in a corner cage—the only survivor of Marie Corelli's pets. A fine staircase leads up to the first floor which contains Marie Corelli's own bedroom and library and three other bedrooms. Above are the servants' quarters. Every room is crowded to capacity with every variety and style of furniture, antique lanterns, Jacobean chests, art-nouveau panelling, bamboo tables, beaten copper fireplace surrounds, gilt chairs, pianos, harps and stools. Every shelf is crammed with vases, ornaments, curios and yellowing photographs of Edwardian notabilities signed in fading sloping scripts. The walls are closely hung with pictures in every medium. Prominent among them is a full-length of Edward VII, one of Marie Corelli's admirers.

Here and there particular objects catch the eye. A small stuffed alligator holding in his paws a tray to receive visiting cards, a drawing by Burne-Jones, a photograph of Sir Thomas Lip-ton, heavily moustached and wooden-faced, her silver inkstand and jewelled pen, the tablecloth

embroidered with the names of her books, the elaborate white three-piece suite in her bedroom gleaming palely against the faded wallpaper. Most romantic of all, perhaps, is the gondola in which, propelled by her homesick gondolier, she used to glide upon the Avon, and which to-day lies stored in a dark corridor.

The rooms of Mason Croft have the faults and virtues of their owner. They are florid, tasteless, muddled, even absurd. But they are also so sincere, lively and highly coloured, that they make Anne Hathaway's cottage seem in comparison about as exciting as a tea-cosy.

Yet the queues of pilgrims so confidently anticipated by Marie Corelli have dwindled to nothing, and to-day her house is as neglected by the public as are her books. It is, however, well worthy of its keep, not only for its associations with a famous novelist, but principally because in its silent crowded rooms is recaptured with such vivid and detailed accuracy the spirit of the age in which she wrote.

HUGH CASSON

BOOKS

Philadelphia Symposium

STUDIES IN THE ARTS AND ARCHITECTURE. By various authors. Philadelphia (University of Pennsylvania Press) and London (Oxford University Press). 8s.

IT seems to be a growing habit in America for universities to celebrate their anniversaries by holding a symposium on some selected subject, the speeches or lectures then being published in the form of a commemorative volume. The result is often a very readable book, but not one which is easy to summarize in a review. The present volume, the record of a bicentennial conference held at the University of Pennsylvania, contains twelve contributions which vary in subject-matter from the archaeology of pre-classical Greece to "The Engineering Aspects of Steel in Structures." But all, in some degree, touch on the theoretical aspects of art, and the best of them have some reference to architecture. The four classical archaeologists are anxious to justify the social relevance of their activities in a democratic society. Francis Taylor, the Director of the Metropolitan Museum of Art, suggests that they cannot accomplish the purpose of democracy (which, quoting Thomas Mann, he defines as "to elevate mankind, to teach it to think, to set it free") by sitting in their studies "fooling with the bones of our ancestors." There has never been a time in the world's history, he says, "when it has been so necessary as now to proclaim the great undeniable truths of the humanistic tradition." The knowledge of this tradition is, he claims, the peculiar treasure of the archaeologist, and it is his duty to share it with his fellow men. His colleague, Charles Morey, Professor of Art and Archaeology at Princeton, uses this peculiar treasure to minimize the achievements of contemporary art, which he finds monotonously pessimistic. "Distaste for clear definition of form . . . a corresponding abhorrence of clear thinking . . . cocktails of garish colour . . . the casting overboard of civilized tradition . . . solemn canonizations of negro carving . . . the pasting on canvas of the actual contents of the wastebasket . . . the final human degradation of Surrealism . . ."—one had forgotten that anyone

outside Germany still spoke this language of negation. It is too much for Mr. Taylor, who suggests that if at the present time the archaeologists fail to find human values in the art of their contemporaries, it is largely their own fault. He sees them as so many Foolish Virgins, recklessly burning in their ancient lamps the oil meant for the torch of Prometheus.

The next four contributions to this symposium deal with social aspects of art. Again, the views expressed are mutually inconsistent. Dixon Ryan Fox, the President of Union College, tries to find some explanation for the fact that America has not yet developed a characteristic art of its own. He says, in effect, that America has been too busy getting rich quick, and he is not prepared to condemn his country for this preoccupation. "Materialist standards of success have been traditional in this country. There was really a fine idealism in this objective, material prosperity for everybody and more prosperity for the competent. It was bought at a sacrifice, but it was something worth having." As for the future, "if a relative decline in population signifies that American opportunity, as we have known it, is being used up, and the promise of material accumulation to the individual is thereby reduced, then we may have time for art and will undoubtedly find it more attractive than we have in the past." This naively philistine view of art as something a nation may or may not "have time for" is corrected to some extent by the next contributor, John Burchard (an architectural engineer and Director of the Massachusetts Institute of Technology), who realizes that something more than leisure is involved—something which he calls "solidarity of view as to the objectives of the culture plus a spirit of co-operation rather than one of competition." These conditions are only possible "when the intelligence of production is synchronized with the intelligence of a distribution that yields to each man his earnings but neither bonus nor dole." Mr. Burchard realizes that a vital departure from tradition is involved in these prerequisites of a cultural renaissance, but he sees signs of it in modern architecture—whose greatness he finds, not in the Empire State Building but in a social experiment like the little Resettlement town in Chandler, Arizona. His point of view is strongly supported by an extremely interesting essay on "Social Organization in the City Plan" which Professor Leopold Arnaud

(Columbia University) contributes to the volume. This is mainly an examination of medieval architecture as an expression of the community life of the city, and it shows that it was the physical plan of the medieval city which made possible a complete community life, and thereby fostered the growth of those factors of solidarity and co-operation recognized as essential by Mr. Burchard. Decentralization to make possible the formation of such co-operative units is recognized as one of the essential necessities of future development. The relation of the artist to such a unified community life is given further definition in an interesting contribution from Theodore Spencer, Associate Professor of English at Harvard University.

The last four essays are concerned with questions of a more technical nature. Professor Joseph Hudnut (Harvard) gives a brief outline of the history of iron and steel construction in architecture. Mr. George Howe gives a closer view of the development of metal as a structural element in architecture, and Mr. Frederick H. Frankland discusses the engineering aspects of steel in structures. None of these essays adds very much to our knowledge, but they are all practical and forward-looking summaries by architects of experience and distinction. Finally, a famous American architect, Dr. Harvey Corbett, discusses the proposition that "the skyscraper and the automobile have made the modern city"; it is a chastened and urbane conclusion to a symposium which has at times threatened the temper and digestion of the reader. Its point of view may be indicated by this significant confession: "Personally I am not so keen about skyscrapers as I used to be. I am just finishing out two of them in New York at the present moment; perhaps these will be among the last of those multi-storied monstrosities of which we Americans seem to be so proud."

One general impression conveyed by this volume is worth noting: it is not the academicians, but the technologists who are the most humane and the most optimistic in their outlook. Immersed in the practical problems of to-day rather than in the deductions to be made from the history of the past, they find grounds for confidence. They seem to say: We have the materials and the means for a new culture; give us social relevance and social unity and all will be well.

HERBERT READ

Portuguese Baroque

After coasting the wall of the great garden, we turned suddenly the corner, and discovered one of the vast fronts of the convent of Mafra, appearing like a street of palaces. I cannot pretend that the style of the building is such as a lover of pure Grecian architecture would approve; the windows and doors are many of them fantastically shaped, but at least well proportioned. I was admiring their ample range as we drove rapidly along, when, upon wheeling round the lofty square pavilion which flanks the edifice, the grand facade, extending above eight hundred feet, opened to my view. The centre is formed by the porticoes of the church, richly adorned with columns, niches and bas-reliefs of marble. On each side two towers, somewhat resembling those of St. Paul's in London, rise to the height of near two hundred feet, and, joining on to the enormous corps de logis, the palace terminates to the right and left by its stately pavilions. These towers are light, airy and clustered with pillars, remarkably beautiful; but their form in general borders too much on a sort of pagoda-ish style, and wants solemnity. My eyes ranged along the vast extent of palace on each side till they were tired, and I was glad to turn them from the glare of marble and confusion of sculptured ornaments to the blue expanse of the distant ocean.

To screen ourselves from the sun, which darted powerfully on our heads, we entered the church. The first coup-d'œil is very imposing. The high altar, adorned with two majestic columns of reddish variegated marble, each a single block, above thirty feet in height, immediately fixes the eye. To-morrow being the festival of St. Augustine, whose followers are the actual possessors of this monastery, all the golden candelabra were displayed, and tapers lighted. After pausing a few minutes in the midst of this bright illumination, we visited the collateral chapels, each enriched with highly finished bassi-relievi and stately portals of black and yellow marble, richly veined, and so highly polished as to reflect objects like a mirror. Never did I behold such an assemblage of beautiful marble as gleamed above, below, and around us. The pavement, the vaulted ceiling, the dome, and even the topmost lantern, is incrustated with the same costly and durable materials. Roses of white marble and wreaths of palm-branches, most exquisitely sculptured, enrich every part of the edifice.

Having satisfied our curiosity by examining the various ornaments of the altars, we followed our conductor through a long coved gallery into the sacristy, a magnificent vaulted hall, panelled with some beautiful varieties of alabaster and porphyry, and carpeted, as well as a chapel adjoining it, in a style of the utmost magnificence. We traversed several more halls and chapels, adorned with equal splendour, till we were fatigued and bewildered like errant knights in the mazes of an enchanted palace. I began to think there was no end to these spacious apartments. The monk who preceded us, a good-natured, slobbering greybeard, to give our young legs an opportunity of stretching themselves, trotted along with such expedition that the Marquis and Verdeil wished him in purgatory. To be sure, we advanced at a most rapid rate, striding from one end to the other of a dormitory, six hundred feet in length, in a minute or two. These vast corridors, and the cells with which they communicate, three hundred in number, are all arched in the most sumptuous and solid manner. Every cell, or rather chamber, for they are sufficiently spacious, lofty, and well lighted, to merit that appellation, is furnished with tables and cabinets of Brazil-wood.

After coffee we hurried to vespers in the great church of the convent, and advancing between the range of illuminated chapels, took our places in the royal tribune. We were no sooner seated than the monks entered in procession, preceding their Abbot, who ascended his throne. The service was chanted with the most imposing solemnity to the awful sound of organs, for there are no fewer than six in the church, all of an enormous size. It was almost nine when the monks, after chanting a most solemn and sonorous hymn in praise of the venerable father, St. Augustine, quitted the choir. We followed their procession through lofty chapels and arched cloisters, which, by a glimmering light, appeared to have neither roof nor termination, till it entered an octagon forty feet in diameter, with fountains in the four principal angles. The monks, after dispersing to wash their hands at the several fountains, again resumed their order, and passed two-and-two under a portal thirty feet high into a vast hall, communicating with their refectory by another portal of the same lofty dimensions. Here the procession made a pause, for this chamber is consecrated to the remembrance of the departed, and styled the Hall De Profundis. The moment allotted to this solemn supplication being passed, every one took his place at the long tables in the refectory, which are made of Brazil-wood, and covered with the whitest linen. Each monk had his glass carafe of water and wine, his plate of apples and salad set before him; neither fish nor flesh were served up, the vigil of St. Augustine's day being observed as a fast with the utmost strictness. To enjoy at a glance this singular and majestic spectacle, we retreated to a vestibule preceding the octagon, and from thence looked through all the portals down the long row of lamps into the refectory, which, owing to its vast length of full two hundred feet, seemed ending in a point. After remaining a few minutes to enjoy this perspective, four monks advanced with torches to light us out of the convent, and bade us good-night with many bows and genuflections.

WILLIAM BECKFORD (*Italy, Spain and Portugal, 1787*)

Tracing Cloth—Dressing Cloth

We have received an appeal from the Directorate of Salvage and Recovery pointing out that tracing cloth, after being boiled, can be put to excellent use by hospitals for bandages and dressings. Architects are invited to offer any tracing cloth which is no longer needed, to local hospitals, most of which have laundries to boil the cloth.

The Witt Drawings

We are all starved for visual enjoyment. Buildings and their interiors are sandbagged, or shuttered or camouflaged, museums and art galleries are closed; new architecture has ceased to appear. The excellently arranged exhibition at the Victoria and Albert Museum of nearly two hundred drawings from the collection of Sir Robert and Lady Witt would have been an event in peace-time. It is now being appreciated with a poignancy impossible as long as the National Gallery's and the Tate Gallery's pictures were on show every day, and the drawings of the British Museum available to the curious. To lend such a large number is a very generous gesture indeed. Risk seems so much less alarming, where from a collection only a few items are exposed to the dangers of London, while others are kept safe in their hiding-places.

To the architect and the architecturally-minded, interest will be focused not only on the architectural phantasies of the Baroque (Galli Bibbiena, Canaletto, Bellotto, Guardi, Thornhill), the delicate realism of Israel Silvestre's *Villa di Papa Giulio* and Cotman's *St. Jacques, Dieppe*, and the roll of architecture in some decorative drawings such as Castiglione's, but also on the decorative boldness altogether of the two best-represented centuries—1550-1750—which makes our murals to-day all look underfed.

"End of Pain"

In the caption to figure 28 of Mr. Klingender's article on tokens last month some lines were omitted reducing sense to nonsense. The caption should have read (the omitted words in italics): "End of Pain—a token issued by *Paine's and Spence's reactionary adversaries*, illustrated erroneously in the standard literature under the name of Spence, and often copied."

The significance of this complete as against our incomplete caption will be clear to anybody who has read Mr. Klingender's article attentively. On page 45, footnote 13, he explicitly mentions the confusion which has arisen out of the fact that Spence's dies were acquired after his bankruptcy by Skidmore who mixed them up with his own. But Skidmore cannot have cared much for policy one way or another. Otherwise he would not have used so indiscriminately his own anti-jacobin patterns, such as those in figure 28, as obverses for Spence's pro-French reverses. Our figures 13 and 14 illustrate two more of these "Spence" designs issued in an anti-Spence and anti-French spirit after

The Editor,

THE ARCHITECTURAL REVIEW

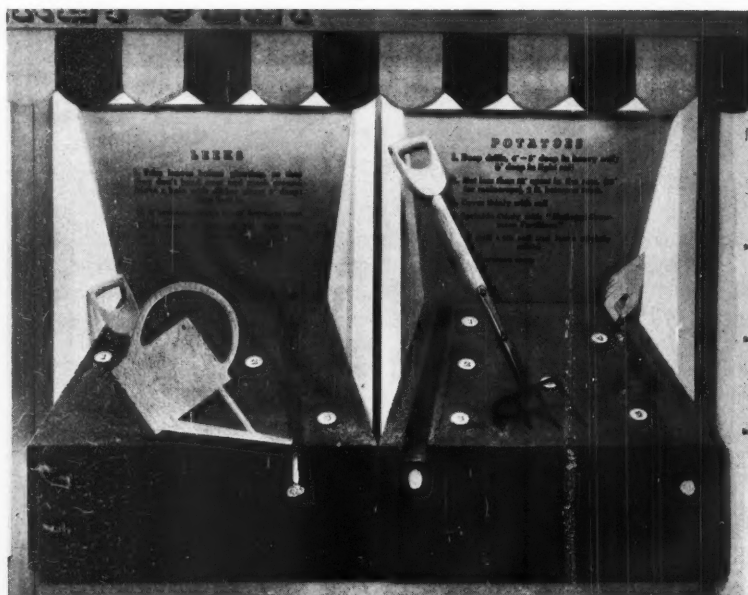
SIR,

Mr. Carter in his explanation of, or his apology for, Soviet Architecture (THE ARCHITECTURAL REVIEW, November, 1942), has turned a penetrating light on the whole philosophy of modern architecture. "The psychological adjustment caused by the war," he says, "has undermined some of our unjustified confidence that a new architecture can be created on the slim backs of a few courageous intellectuals without the broad influence of popular taste constantly beating against the intellectual front controlling and modifying it."

The general theme of his article is that the aesthetic principle of Socialist Realism has achieved an architecture that is an expression of the spirit of socialism; that the architect by living and experiencing socialism both physically and spiritually has succeeded in interpreting the visibility and inspiration of socialist enterprise; that modern architecture on the other hand is being launched from an intellectual vacuum as an unsolicited imposition on the world at large.

These assertions seem to call for a careful reconsideration of the principles of modern architecture and of

[continued on page xliiv]



PLANT CAREFULLY. The right half of one of the bays of the Dig for Victory exhibition designed by B. Katz and F. H. K. Henrion for the Ministry of Information, to be toured by the Ministry of Agriculture. The show, of uncommon excellence in its display technique, is discussed on this page.

Spence had lost control of his shop.

Dig for Victory

The high standard of the Ministry of Information's exhibition work cannot be emphasized too often and too strongly. A technique which only

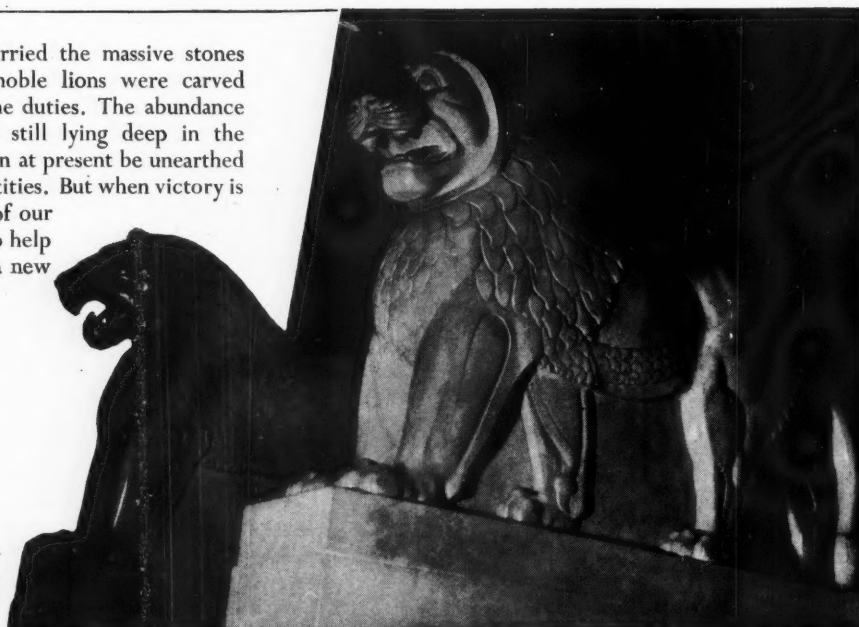
seven or eight years ago was regarded as revolutionary in the exhibition stand of such go-ahead firms as Venesta and Ascot Heaters at trade fairs and which made of the MARS exhibition in 1936 a thrilling and much debated event, has here quietly become official policy of a Govern-

ment department, and, since the Ministry of Information designs and builds up exhibitions for other ministries as well, of several departments. There is this Dig for Victory show on tour now as a central feature of agricultural exhibitions. It was designed by B. Katz (architect) and F. H. K. Henrion (display designer). It proves—amongst other things—how wrong it is to consider the surrealist as a man who keeps away from everyday facts in a rarified atmosphere strictly of his own. An unmistakably surrealist spirit here pervades a show as matter of fact as will impress any north-country farmer.

The exhibition consists of twelve bays which fold up for travelling, each twelve feet wide, with side panels three feet wide. All show-cases can be lifted for transport. To show good digging, sowing, planting and storing, special three-dimensional diagrams were constructed of which two are illustrated on this page. You see the various procedures at the same time in plan and section, captions are short and clear, humorous drawings (by D. Langdon, Lewitt and Him and P. Falconer) accompany them and the soil which is shown in section with spades and forks stuck in looks as if it had been brought straight from the Vale of Evesham, although it is a composition material specially evolved by the display contractors.

The men who quarried the massive stones from which these noble lions were carved are called to wartime duties. The abundance of 'Hopton-Wood' still lying deep in the Heart of England can at present be unearthed only in limited quantities. But when victory is won, this treasure of our land will be there to help grace the fabric of a new and better Britain.

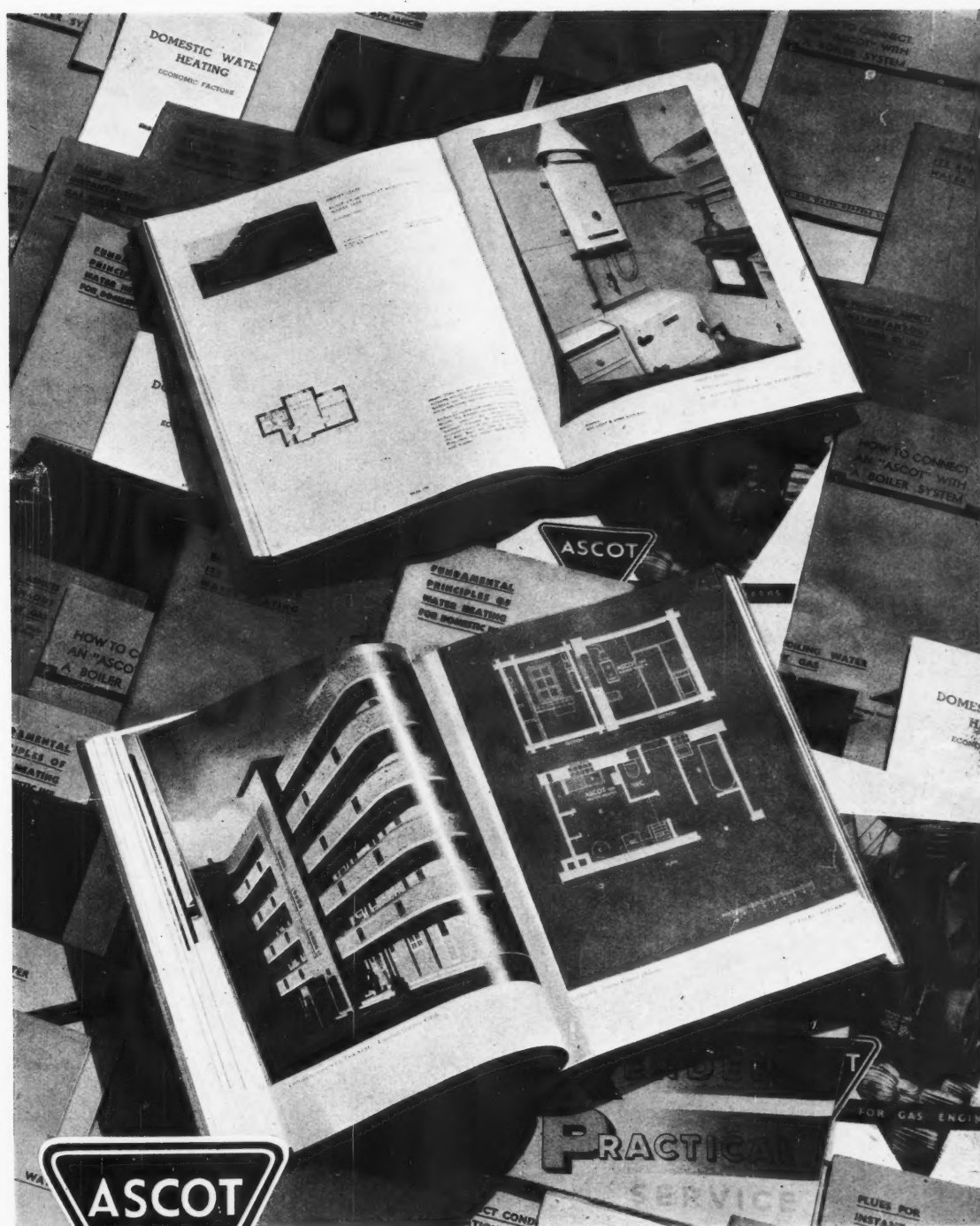
SHEFFIELD CITY HALL
Architect: E. VINCENT HARRIS,
A.R.A., F.R.I.B.A.
Sculptor: JOHN HODGE.



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Shown above are some of the many technical books dealing with the Ascot Heater in peace and war building and reconstruction. They include special publications on Architectural and Building problems and have been highly valued by the recipients. Over 500,000 were in circulation before the war.

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continued from page xliii]

the terms of reference of would-be exponents of modern architecture.

During recent years modern architecture has passed from the literal interpretation of functionalism with the simple equation "fitness for purpose equals beauty" to a wider interpretation including "beauty" as a calculated function, and, it seems, to a point beyond that, although of the most recent developments of architectural thought nothing has yet been committed to print. These most recent developments arose from a sense of urgency which made excessive subtlety of design appear slightly unreal. It was no doubt all right for rich clients, who wanted reinforced, sliding and folding houses, but for the majority of architects there would be no time for the unloading of such fancy ideas.

In any case, some young architects began to ask themselves, would the man in the street, for whom they would be building, appreciate such cold-blooded aesthetics? They knew he would understand that their architecture was sunny and easy to clean and sometimes practical, but would he get the same kick out of a *Fondation Suisse* or a house of the Poissy type as they did? Would he appreciate the penetration of planes; the biological functions; the dynamic qualities; the whole gamut of the "new" architectural

emotions? And besides, weren't they getting just a little pompous about relatively simple things? Practically an entire vocabulary had been built up to enable those who wrote about modern architecture and art to discuss the æsthetic, spiritual, mechanical, psychic and other kind of appeal there might be adjudged to be. Their visits to the Cork Street galleries were no longer quite so enjoyable as they used to be, and they would come away wondering how the bus conductor would react to abstract reliefs or to the more frivolous entanglements of naked bodies, chests of drawers and wireless sets.

The proper function of the author, the artist and musician, they felt—and Tim Bennett spoke out for them—was to create a new folk or popular art: to compete with the Academy by producing pictures good for everybody; and to compose good music for the jazz band and cinema organ as well as for the concert hall. So the conclusion to which they came was that for humanist reasons they would have to forswear some of the pleasures of an ethereal æsthetic. While the new architecture should observe the discipline of the old concept of functionalism, humanism should take its place with beauty, as one of the arbitrary, but necessary functions.

How does this attitude of some younger English architects compare

with Socialist Realism, as Mr. Carter describes it? The comparison is difficult for anyone not familiar with life in Soviet Russia. But Mr. Carter's article is furnished with photographs. These at least one may regard as a test of the meaning of Socialist Realism. Now to my eyes, they do not corroborate at all Mr. Carter's otherwise plausible theory of the blessings of the architect's constant active participation in the tastes and emotions of the people. However "big-boned" and "characteristic of a hearty enthusiasm and a rough demonstrative affection for a downright statement" these Russian buildings may be, and even though they may have "a chesty, slim uprightness and self confidence," to me they are, I am afraid, just as ugly as the examples of Capitalist Realism in England.

For realistic, in Mr. Carter's sense, are our flash pubs, cinemas and restaurants. That much is certain. They have nothing to do with socialism, but then I cannot see a direct expression of socialism in the Palace of the Soviets either. So the problem is that the public in England like a Capitalist realism, just as they like a Socialist realism in Russia, and that both brands tend to produce bad architecture. Now, if that is so, we shall have to decide whether bad architecture is bad for people, and, if it is,

whether it should be tolerated. Thus the question merges in a much larger one of public education. If there is a need for public education in architecture, music and literature, as well as ethics and citizenship, how can that education be effected? The best architectural education would presumably be by providing good architecture. How can it be provided? By control? Control can only eliminate the more obvious horrors, and should not, I think, attempt more, otherwise it is bound to produce a sterile architecture. Whatever the answer may be, however, if Mr. Carter's Russian examples and England's popular cafés represent Realism, then it is not to be found in Realism.

There is, I think, one alternative to Realism. This, however, is challenged by Mr. Carter: "... they (the New York parkways schemes, and some parts of TVA etc.) have been in fact imposed, even if benevolently imposed, solutions, and are sterile unless it is considered desirable to run the world by benevolent impositions (which of course many people do think desirable)." I don't know whether it is desirable to run the world by benevolent impositions, but I do believe that for some time to come it will be unavoidable. In Russia, anyway, it is still considered necessary to run the

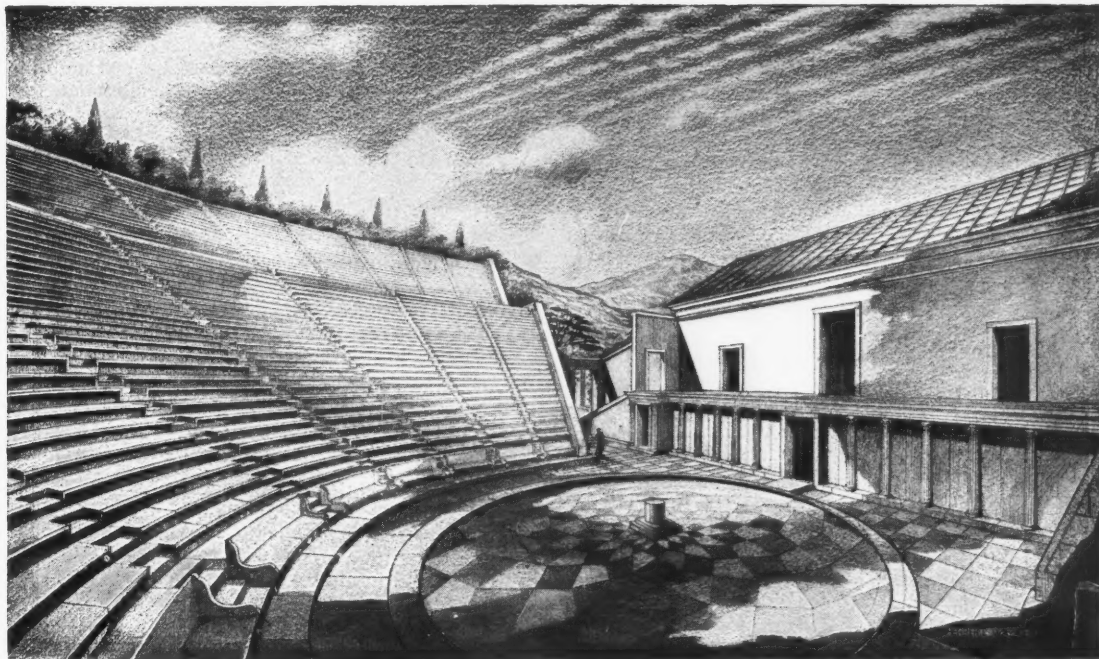
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An impression of the Theatre reconstructed by the artist

THE THEATRE, EPIDAUROS

Generally, Greek theatres were hollowed out of the side of a hill near a city, and were intended for use in the daytime. The auditorium, which surrounded about two-thirds of the orchestra, rose in tiers of seats cut out of the solid rock. These seats were sometimes faced with marble. The orchestra was a complete circle, and here the chorus danced and chanted while the players enacted the drama on the stage which was usually a raised wooden platform with a permanent architectural background. Opinion differs as to the height of these stages above the orchestra, but they seem to have varied quite considerably by a process of development

from a low platform, more of a table, in the earliest periods. At Epidauros, the stage was supported by a wall 12 ft. high. The circle of the orchestra, still intact, is about 66 ft. across. Overall, the Theatre is 373 ft. in diameter; 32 rows of seats form the lower division of the auditorium, which is separated from the upper division (consisting of 20 rows) by a broad passage. Access to all parts of the Theatre was given by 24 flights of steps diverging as radii from bottom to top.

• • •

Polycleitos was the designer of this, the best preserved of all Greek theatres, in the fourth century B.C.

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country by benevolent impositions, and while socialism is passing through this critical stage, it must depend on the integrity of a few benevolent despots. If socialism should come to this country, the dissemination of power will be at a lower level than that in Russia, but however ideal our concept of socialism may be, the power of control will be in the hands of the elected few and depend for its proper use on their integrity. Admittedly in theory the elected representatives will only hold office so long as they discharge their duties faithfully, but in practice it will not always work out that way. The population will be, and is, handicapped in its ability to express and organize itself by the limited number of people who have what is known as "education." This fact, that any future socialist state will at first, to a large extent, be at the mercy of those who are educated (however imperfect that education may be), is, to my mind, too often underestimated by a certain school of intellectual socialists. They tend to belittle their own value to socialism, claiming that socialism can only come as the result of proletarian action, a claim which is surely not justified by Russian history. In fact their importance cannot be over-emphasized; maybe in the past they have been woolly-headed, but until such time

as the broad mass of the population is fortunate enough to receive a reasonable education, the ship of state must rely on their intelligence.

Mr. Carter contends that "a new architecture cannot be created on the slim backs of a few courageous intellectuals without the broad influence of popular taste constantly beating against the intellectual front controlling and modifying it." Perhaps not, but to risk a quibble, a new architecture cannot be created anyway; a fashion may be created; an architecture must surely be evolved. Modern architecture has not been the brain child of any one individual, whether he be a Corbusier, Wright or Gropius. It is the natural outcome of a machine era, which appeared quite independently in all industrial countries. Architects can create stunts and mannerisms that may become clichés, but they cannot create a new architecture. The new architecture must be evolved through usage, and it is for the intellectuals, confident, if not courageous, to direct the process of evolution from their experience of public needs. They must be aware of their responsibility and be confident in their ability to contribute to the New Folk or Popular Art an architecture that is at once human and disciplined.

I remain, Sir,

Yours faithfully,

R. M. MAITLAND

The Building Illustrated

BANK

Architects: Stephenson & Turner

The general contractor was E. A. Watts, who was also responsible for the plumbing. Principal sub-contractors were as follows: York Air-Conditioning & Refrigeration Aust. Pty. Ltd., air conditioning; Gardner & Naylor Pty. Ltd., heating and ventilation; Waygood-Otis Aust. Pty. Ltd., lifts; James Bell Mineral Products Pty. Ltd., acoustic materials; Chubb's Australian Co. Ltd., aluminium windows; K-M Steel Manufacturing Co., and Crittall Manufacturing Co., steel windows; Claude Neon Lights (Vic.) and O. J. Nilsen & Co. Pty. Ltd., lighting; British General Electric Co. and James McEwan & Co. Pty. Ltd., lighting fittings (the latter were also responsible for the door furniture); Myer Emporium Ltd., curtains; Picton, Hopkins & Sons Pty. Ltd., fibrous plaster ceilings and plastering; Brooks Robinson Pty. Ltd., banking chamber fittings; Dunlop Perduan Rubber Co., rubber flooring; Wunderlich Ltd., inner entrance doors and screen; Australian Metal Products Pty. Ltd., stainless steel lift

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