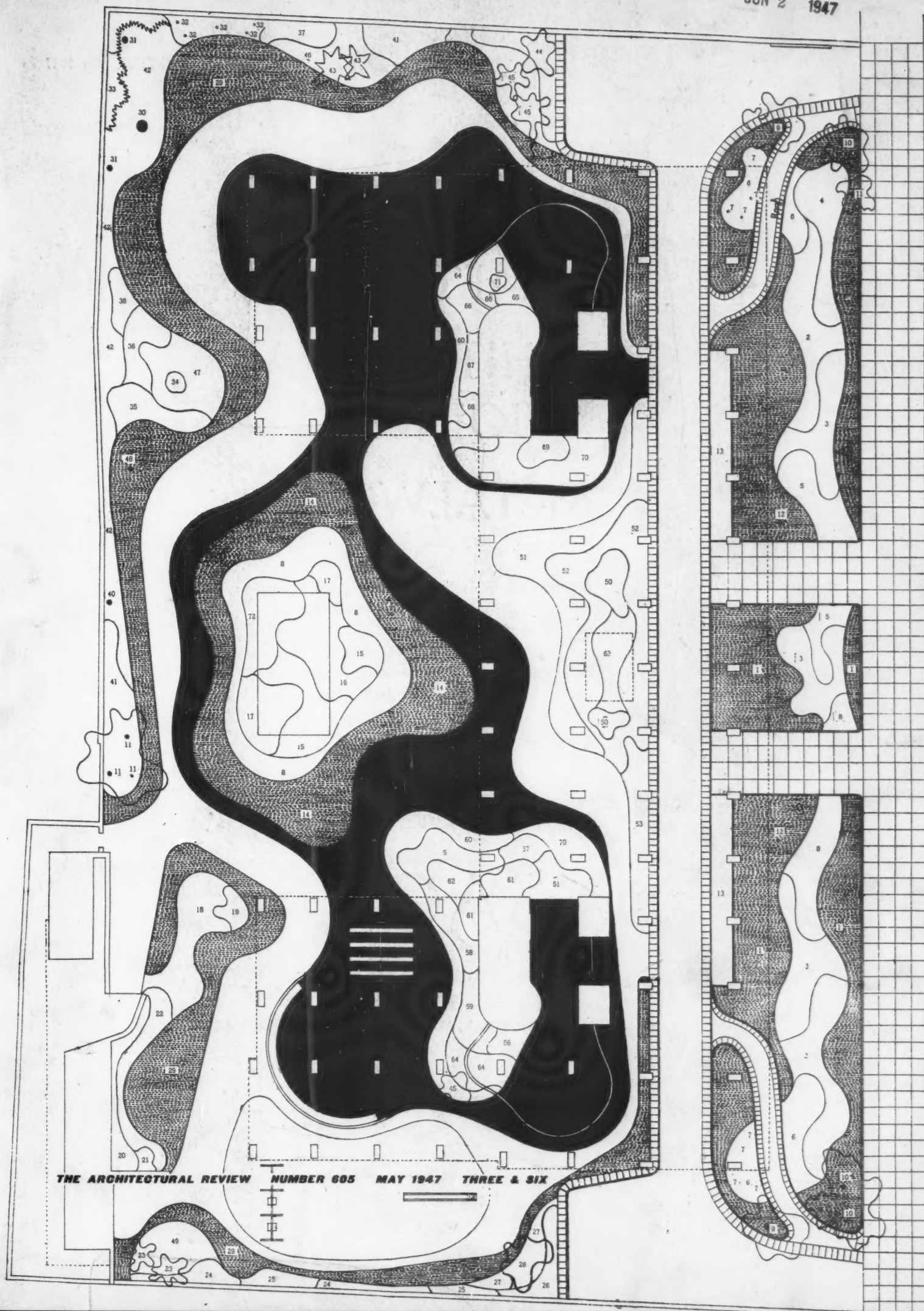


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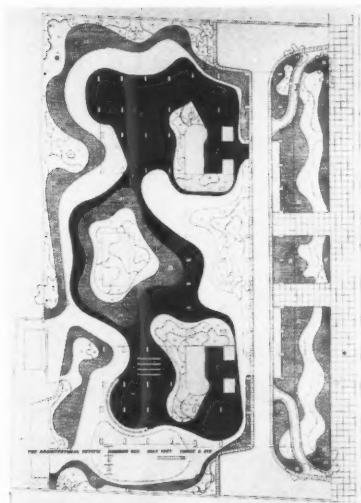
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THE ARCHITECTURAL REVIEW

VOLUME C1 NUMBER 605

May 1947



The Cover. This month's cover shows the plan of the garden designed by Burle Marx for an apartment house by Rino Levi at São Paulo, Brazil. (An article on the work of Marx begins on page 165). The building is on pilotis, so that the garden covers the whole site. The dark area represents the stone mosaic pavement known as *pedra Portuguesa*. Numerals refer to plant species.

KEY TO PLANTS 1 *Paspalum notatum*; 2 *Helichrysum petiolatum*; 3 *Iresine Herbstii*; 4 *Chlorophytum comosum*; 5 *Hypoestes sanguinolenta*; 6 *Sanchezia nobilis*; 7 *Cordyline terminalis*; 8 *Poa trivialis*; 9 *Cassia macranthera*; 10 *Tibouchina Sellowiana*; 11 *Tibouchina granulosa*; 12 *Tibouchina pulchra*; 13 *Strobilanthes Dyerianus*; 14 *Oplismenus imbecilis*; 15 *Rhododendron indicum (rosa)*; 16 *Rhododendron indicum (carmine)*; 17 *Rhododendron indicum (salmao)*; 18 *Hemerocallis flava*; 19 *Moraea bicolor*; 20 *Plumbago capensis*; 21 *Musa coccinea*; 22 *Salvia splendens*; 23 *Musa rosacea*; 24 *Aralia chinensis*; 25 *Acalypha Wilkesiana var. musaica*; 26 *Acalypha Wilkesiana var. obovata*; 27 *Xanthosoma violaceum*; 28 *Philodendron Eichleri*; 29 *Stenotaphrum americanum*; 30 *Cereus Jamacaru*; 31 *Yucca Ehembergii*; 32 *Cordyline dracaenoides*; 33 *Yucca aloifolia*; 34 *Beaucarnea recurvata*; 35 *Euphorbia splendens*; 36 *Euphorbia fulgens*; 37 *Pedilanthus Smallii*; 38 *Pedilanthus tithymaloides*; 39 *Tibouchina mutabilis*; 40 *Cassia multijuga*; 41 *Brunfelsia Hopeana*; 42 *Poinsettia pulcherrima*; 43 *Agave attenuata*; 44 *Philodendron undulatum*; 45 *Philodendron bipinnatifidum*; 46 *Mesembryanthemum aurantiacum*; 47 *Mesembryanthemum roseum*; 48 *Dracaena umbra-culifera*; 49 *Cassia bicaeularis*; 50 *Tetrapanax papyriferus*; 51 *Zebrina pendula*; 52 *Calathea Litzzei*; 53 *Wedelia paludosa*; 54 *Heliconia angustifolia*; 55 *Aspidistra elatior*; 56 *Philodendron gloriosum*; 57 *Stromanthe sanguinea*; 58 *Calathea picturata*; 59 *Calathea cylindrica*; 60 *Ophiopogon Japonicus*; 61 *Clerodendron fallax*; 62 *Jacobinia chrysostephana*; 63 *Dracaena deremensis*; 64 *Dieffenbachia picta*; 65 *Fittonia argyoneura*; 66 *Panicum latissimum*; 67 *Polypodium crassifolium*; 68 *Jacobinia magnifica*; 69 *Pachystachys coccinea*; 70 *Impatiens Sultani*; 71 *Calathea zebrina*; 72 *Rhododendron indicum*.

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THREE SHILLINGS AND SIXPENCE



The English landscape gardeners of the eighteenth century, in sweeping away the parterre and bringing the fields up to the house, sought an effect of contrast between the suavity of classical architecture and the rudeness of wild, or at least only half-tamed, nature. Contrast is to-day, as it was then, one of the fundamentals of gardening, and in its pursuit the gardeners of Brazil are especially fortunate, for their climate has favoured them with plant forms which contrast as strongly with each other as with the forms of modern architecture. This photograph shows plants chosen by Burle Marx (on whose work an article will be found on page 165) massed in front of the wall of a house by Lucio Costa in Rio de Janeiro.

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RAILROAD COMFORT AND PATENT FURNITURE

by Sigfried Giedion

THE furniture of the ruling taste,* like the painting of the ruling taste, is an outgrowth of fashion. Every period shapes life to its own image and drapes it in forms peculiar to itself. By a historical necessity, each fashion—indeed every style—is bounded within its own limited time. But across and beyond this circumscribed period there enters another factor, of fluctuating intensity. This is the quantum of constituent elements, of the fresh impulses generated within the period. In them lies the historical import of an era. They can wither from memory, it may be for centuries, as did the antique heritage. But at a certain time they come up once again in man's consciousness, reaffirm their reality, and form the solid ground for new departures. So, for instance, the Renaissance used antiquity as its springboard, and so in recent decades, the study of primitive man furthered insight into repressed instincts.

It was the ill fortune of the nineteenth century that the art and furniture of its ruling taste seldom found an outlook upon the absolute, the genuinely inventive. In the course of time, artistic and historical voyages may reveal other aspects, as the surrealist painters have already discovered. The mixture of banality and *haut goût*, naturalism and eeriness, which pervades the nineteenth century can arouse a certain nostalgia. Its interiors, with their gloomy light, their heavy curtains and carpets, their dark wood, and their horror of the void, breathe a peculiar warmth and disquiet. All in all, they reflect the profound pessimism that hangs over the whole realm of feeling in this period. That is one face of the century, a direction opposite to that of practical life, to the aggressiveness and optimism of industry.

The realm of feeling remained under the spell of that sombre, chaotically splintered, often mendacious side. Taste was robbed of its emotional security, and gyrated periodically in vicious circles. Thus, in the 'thirties, the 'sixties, and the 'nineties, the rococo manner was adopted again and again in various ways without ever adding anything but transitory trimmings.

There is no difference between the pseudo-monumentality of the buildings and that of the furniture. Both belong to the transitory phenomena, unquickened by the blood of true inventiveness. Yet they dominated the feeling of their day and mercilessly stifled every impulse that sprang from the deeper sources of the period.

The unexplored complex of patent furniture stands apart from the ruling taste. It called forth nearly all the constituent powers of the century. It revealed the century as it liked to relax when wearing none of its masks. This patent furniture tackled problems in a manner completely new to the century.

How did it come about?

A unifying trend runs through the still unreckoned solutions. Furniture was dissected into separate elements, into separate planes. These movable elements, which a governing mechanism linked and regulated, enabled the furniture to change in adaptation to the body and various postures. It was thus endowed with a flexibility unknown before, and ceased to be a rigid, static implement. Not by accident did the problem of mechanically operated artificial limbs draw so strong an interest at this time. Patent furniture could perform alternate functions. What interests us more, it could take on any desired position of the human body, change from this position, and return to the normal. Comfort actively wrested by adaptation to the body, as against comfort passively derived from sinking back into cushions—here is the whole difference between the constituent furniture and the transitory furniture of the last century.

The basic problem of patent furniture was above all a problem of motion. The Americans of about 1850 to 1893 drew upon an almost inexhaustible fantasy to solve the motion problem

for furniture. Often they were not at all interested in the special use their chair was to serve; they simply wished to contrive a new mechanism, such as a seat that would incline and be fixed backward or forward. And so the American Patent Office would introduce a new category, such as "tilting chairs." Abundant as the solutions were, this problem of motion was by no means simple. The European furniture of about 1920 likewise sought to adapt to the contours of the human body. But there dissection into separate planes fell short in almost every attempt. One stays anchored in the unvarying position of the frame of these pieces; one is not carried back—as in the American office chair or barber's chair—from the reclining position to the normal which permits one to rise without effort.

In the four decades from 1850 to 1890 no activity of everyday life was taken for granted. An unbridled inventive urge shaped everything anew. Furniture, like other things, underwent the process of transformation. This called for an independence of feeling and the courage to see with new and untried eyes. These very qualities made the nation's vigour at that stage. No conventions cramped the combinatory faculties of the inventors, whether they developed types for new purposes or whether they endowed existing types with an undreamed-of convertibility and mobility.

The America which exhibited at the international exhibitions between 1851 and 1889 was not ashamed of its non-"artistic" furniture, which, seen beside the pompous European display pieces, no more caught the eye than did the simple² revolver of the American, Samuel Colt, beside the hand-chased pistols of the French smiths. A page from the catalogue of the Parisian international exposition of 1878³ tells us in what lay the American's pride at that time: perforated veneer seats, office desks, adjustable book supports, an automatic sofa spring-bed and lounge, a combined rocking chair and cradle.

A glance over the publications of the United States Patent Office shows what ramified subdivisions had become necessary in every category. Some 70 different subdivisions were added, in the 'seventies, solely for chairs of different purposes. The Patent Office in Washington is the only place where this movement can be surveyed. Until 1926, the original models remained sheltered there. As a whole they offered a rare vista over American inventiveness in a most original field, and they seemed destined to form the nucleus of a museum of the American way of living. They might have stood witness for one of the most vital periods in the shaping of America. The prosperous 1920's, however, could spare neither the room nor the money for their further preservation. They were sold as so many odds and ends. A baffling lack of historical consciousness is demonstrated in the fact that these models were treated as so much rubbish.

That this constituent furniture of the nineteenth century should so far have passed unnoticed in history one can understand; it slips through the meshes of an approach confined to purely formal and stylistic criteria. It was created as the functional answer to definite problems—functional solutions, it is true, but whose veritable meaning has roots lying deep in the fundamental nature and habits of man.

railroads and patent furniture

The French report on the Centennial Exposition of 1876 at Philadelphia is a thorough guide to the tools, machines,



The seat with a reversible back, in England most familiar in the form used in trams, has a long history. Here it is seen in a detail from the Werl altarpiece by the Master of Flémalle, painted in 1438.

* This article is a section of a chapter entitled *The Constituent Furniture of the Nineteenth Century* in Dr. Giedion's new book on the impact of mechanization which is to be published in the United States by the Oxford University Press. The section following it deals with G. M. Pullman's contribution to the concept of luxury in travel.

furniture, and other implements there displayed.* The reporter, looking for an adequate term to explain their peculiarity to the French public, could find no other expression for it than "Pullman car style." He was alluding to simple outlines and plane surfaces, free of ornamental overgrowth. These are the characteristics that naturally emerge in the course of mechanized production. To the European of 1870 or 1880, who used mechanization to simulate handwork, plain furniture must have appeared as something out of ken, as something not yet named, that best was to be labelled after the most popular product of the American development: the Pullman car.

Instinctively the right word was chosen. The sleeping-car associated with Pullman's name is almost the sole survivor of the immense group of patent furniture. The sleeping-car alone has continued to develop without break to this day. All the other categories—excepting purely technical furniture—suffered a setback around 1893 from which they never recovered.

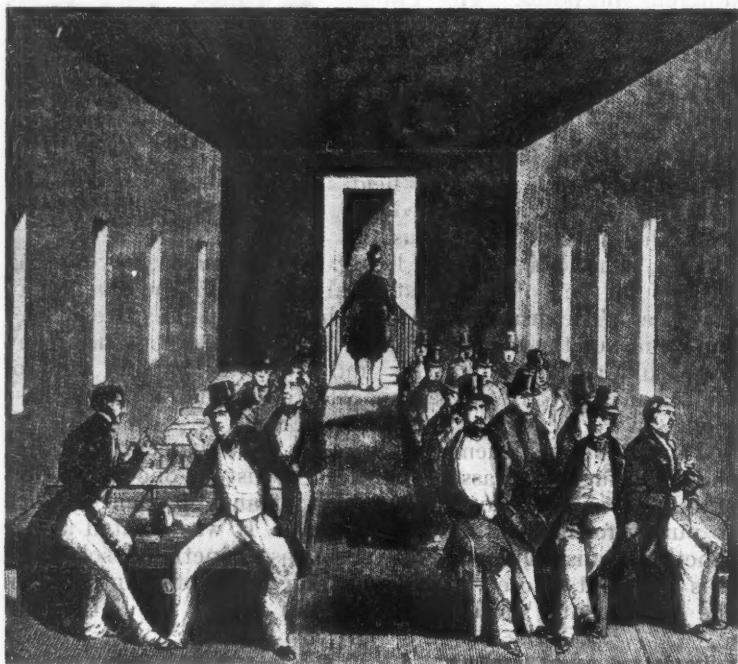
To the contemporary of 1855 all these ventures in building barbers', dentists', and invalids' chairs that would be comfortable, suited to function and to physiological demands, ranked on a par with the patent reclining railroad chairs. Even the now forgotten models of convertible sofas and folding beds were regarded as important as the earliest, trail-breaking patents for the upper berth.

If we probe the now commonplace notion of the "sleeping-car" and ask: Of what elements does it really consist? we find them in two widespread types of furniture—the convertible seat for the lower berth and the folding bed for the upper. And putting the same question for the ordinary American coach, it too proves to be based on a particular type of patent furniture that was elaborately developed, the reclining chair. Sleeping-car and coach, parlour car and dining car, are typical products of the American movement. They sprang from patent furniture, from the aspiration to create a new type of comfort.

Even to-day a wide gap separates the American conceptions of the traveller's comfort from the European.

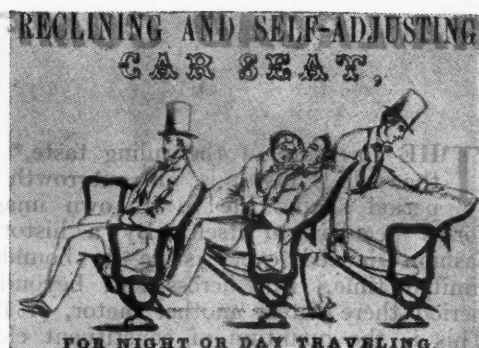
the traveller's comfort

The extraordinary comfort that has slowly developed in American travel undoubtedly had something to do with the great distances. Overproduction—private lines competing against one another—also was a contributing factor. But the basic reasons must be sought in another sphere; they are to be found in sociological ground. The explanation lies in the divergent political attitudes that prevailed in Europe and in America in the 'thirties, when railroads came into being.



The men's compartment of an American railroad coach, 1847. The upholstered seats are separated by an iron rail, over which the back-rest, a plain iron bar, moves backward or forward. As Dickens noted, there is "a great deal of wall."

The upper figure, from a trade card in the Bella C. Landauer Collection of the New York Historical Society, shows a reclining and self-adjusting railway seat of 1855. The convex side of the curved back-rest supports the spine by day, the concave side the head and shoulders at night. The lower figure, from another card, dating from 1857, in the same collection, shows the uses of an adjustable rest which could be fitted to the seat.



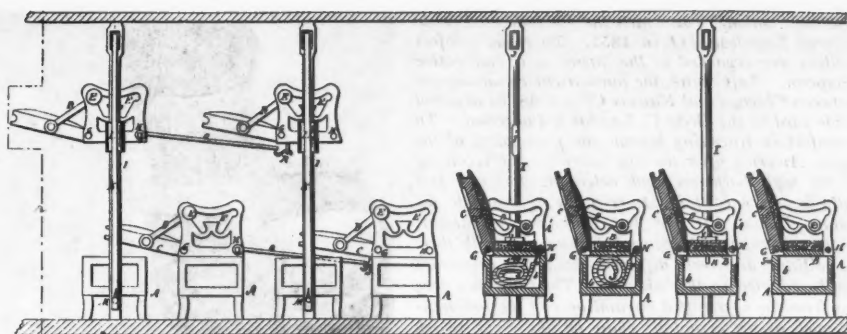
Distance was not the decisive factor. As early as 1836, six years after the opening of the first American passenger and freight line, a 13-mile stretch between Baltimore and Ellicott, a rudimentary sleeping-car was rigged up for a night journey of a few hours on the Cumberland Valley Railroad, to-day a section of the Pennsylvania. A passenger coach was divided into compartments each containing three simple bunks, one above the other.⁵ Neither was it, as one might think, competition that decisively stimulated this development. Rather, it was the attitude toward comfort which so sharply differentiated the American from the European trends.

The way each country met the question of comfort and of segregation into classes around 1830 mirrors the attitude of the ruling groups to the people as a whole. Over France and Germany at this period, the Restoration reigned, giving absolute privilege to its ruling classes. The railroad cars were built on the principle that the masses deserved little consideration. More than 80 per cent. of those who travelled sat huddled together on rough-hewn wooden seats, and countries with four classes also used cattle cars for passengers. Only the upper strata of society could afford any degree of comfort.

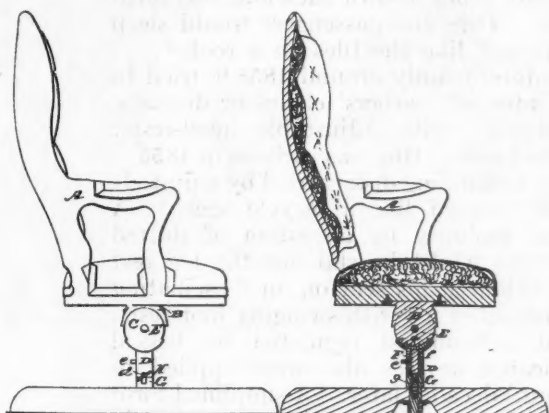
In these things, the birthmarks often linger on long after their original causes have vanished. On the Continent to this day the "wooden" class has survived. True, the space allotted to the individual has tripled since the 'forties, the wooden benches have been somewhat fitted to the shape of the body—but they remain stiff and immovable, as at the outset.

America had one travel class only (except for Negroes and later for immigrants). European observers between 1830 and 1860 are constantly surprised that the United States had not two, three, or four passenger classes, but only one. Although it had certainly no superfluous window space and was simple and even primitive, the American coach of the 'forties revealed a regard for human dignity and, in the upholstered benches, a rudimentary attempt at comfort. For all its simplicity it reflected the democratic ways of the time, for everyone knew: "No other shall have any better than I." And this democratic conception lived on into the mid-'sixties, until Pullman became one of the first to arouse in the American public an inclination for luxury. The notion endures, even to-day, that every person who travels is entitled to a minimum of comfort. This standard—a coach class with fully adjustable seats—no other country has rivalled.

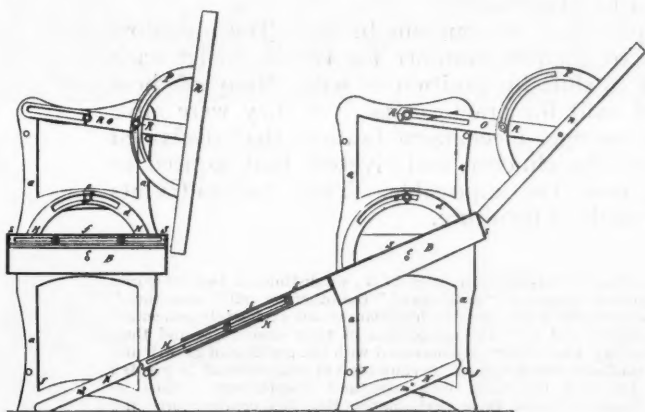
As the cause which had greater weight than all the others in developing comfort in American travel, we may point to the fact that the energetic construction of American railroads in the second half of the 'fifties coincided in time with the efflorescence of patent furniture. It was a fortunate era, eager with the spirit of pioneering and enterprise, when men did not fear to take chances or to answer with their own person.



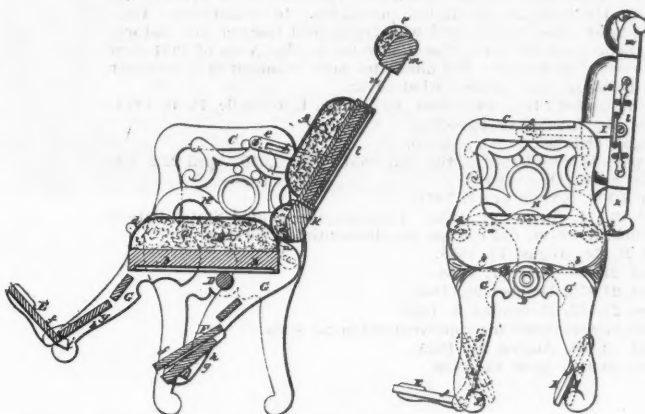
A composite sketch, comprising two inventor's patent drawings of 1858. Every second bench was to be hoisted ceilingward, after which all benches would unfold to form beds.



This "recumbent seat for railway carriages," dating from 1855, terminated in a metal disk clamped between two plates and pivoted, tilting backward and forward.

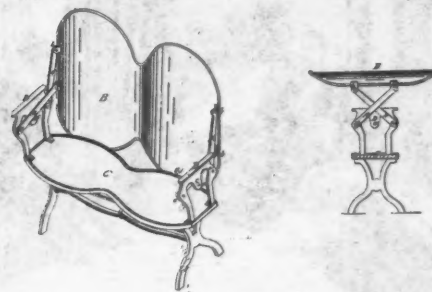


An adjustable railroad seat of 1858, in the upright position on the left and with leg rest extended and back tilted for semi-recumbency on the right.



Another adjustable seat, also of 1858, which has hinged foot-rests and mobile back-rests and head-rests.

Below, the second United States patent for an adjustable railroad seat, 1851. The back-rest was adjusted by an "arrangement of two levers . . . , so that any required height of back may be carried and reversed from and to either side of the seat" and secured "firmly in its position at any required angle."



the coach and the adjustable seat

The American coach of the 'forties was simple; yet it started with a dignified conception of man and in the quest for comfort. Technically described, seat and back-rest became independent of one another. True, the back consisted of no more than a bar, a prop for one's spine, but a mobile bar which the passenger could swing over so that he might always sit facing the direction of travel. In pattern this swing bar was nothing new. Placed before the hearth, the Gothic swing-bar bench of the fifteenth century allowed one to sit with either one's face or one's back to the fire. The swing backs found to-day on American trains and street cars derive from this simple rail of the 'forties, which at the same time opened the way for the future mobility of the rail-road seat. Soon afterward, the 'fifties were to develop in rapid sequence whole series of solutions, often fantastic.

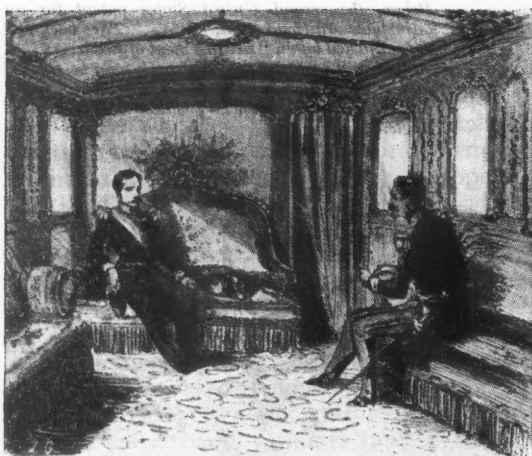
Starting from the swing back, the earliest patents (1851)⁶ contemplated means of setting the back-rest for height as well as for inclination. It became adjustable, for example by "an arrangement of two levers in a cross position," and was secured "firmly in its position at any required angle."

Thence grew the desire to build seats that one might adapt for day or night travelling by the device of a back-rest whose front and rear followed different curves. In its normal position, for day travel, the convex side supported the spine, whilst at night time the concave side supported the head and shoulders—"the outside turned inside . . . at the same time raised high enough to support the head and body equally well for night riding."⁸ A small advertisement for this patent has by chance been preserved, clearly illustrating the adaptation of the day and night positions.

Comfort was to be attained, whether by complicated mechanisms or by simple devices like the "railroad rest" (1857) that the passenger brought with him and hooked on. Soon another problem moved rapidly to the fore, and attention turned to the convertible armchair. What had originally been invented for invalid chairs was now to be transplanted to every railroad seat.

Toward the close of the 'fifties, inventors seemed possessed with the idea that the railroad seat, within its narrow space, must be made as comfortable, as adjustable, as convertible as was humanly possible. Not satisfied "to adjust the seat to any position required,"⁹ they were ambitious to make "the seats . . . adjustable for night travel so as to form a comfortable berth,"¹⁰ that is, to transform seats into beds with no loss in numbers. It was like squaring the circle, and proved insoluble. But there is something appealing in these often freakish ideas: a desire to find the democratic solution that will allow everybody to enjoy an equal share of comfort.

Everyone was entitled to a bed. One inventor proposed a "swinging frame," which would be upright and reach the ceiling during the day, and which at night could be lowered like a drawbridge to offer the traveller a slightly inclined plane on which he might stretch out.¹¹ Another suggested "constructing every alternate seat in two distinct parts"—one, the frame, remaining fixed; the other being raised on guiding columns or posts. "In this manner the seats are enabled to be converted into comfortable double sleeping



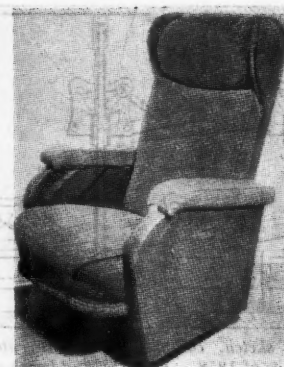
coupe du salon



Kansas City, St Joseph



Left top, the "salon" car which the Chemin de Fer de l'Est offered Napoleon III in 1857. To enjoy comfort in travelling was regarded in the 'fifties as a prerogative of the emperor. Left centre, the parlour-car in an express train between Chicago and Kansas City, 1888, as depicted by a trade card in the Bella C. Landauer Collection. To enjoy comfort in travelling became the prerogative of the wealthy in America after the late 'sixties; the revolving chair with high back-rest and extending foot-rest had originally been regarded in America as appropriate for everybody. Bottom left, the first Pullman parlour-car, 1875; the revolving and adjustable armchairs with their simple outlines are very different from the exuberant forms to be adopted in the 'nineties. They are also very different from the overstuffed streamliners of the nineteen-thirties, such as the aeroplane chair on the right, which exhibits an artificial heaviness of appearance that perpetuates the showiness of nineteenth century ruling taste.



couches situated upon horizontal planes at different elevations, the backs of the several seats being thrown back and sustained . . . to effect this result." Thus the passengers would sleep in two tiers, which overlapped like the tiles on a roof.¹²

A whole string of inventors, mainly around 1858,¹³ tried to devise railroad seats as, later on, barbers' chairs or dentists' chairs came to be designed: with adjustable head-rests, hinged backs, and swing foot-rests. One—as early as in 1855—mounted his swivel seat on a clamping disk carried by a post. It could tilt backward and forward like a bicycle seat.¹⁴ A second inventor aimed at mobility by a system of slotted hemicycles and thumbscrews whilst he slid out the leg rest telescopically.¹⁰ A third balanced his seat on an "oscillating pedestal."⁹ A fourth constructed his with swinging foot-rests, an adjustable back, and a head-rest regulated by helical springs.¹⁵ These complicated devices also were applied to barbers' chairs, but not until decades later. A simplified form of this type of armchair with extensible foot-rests appeared in the 'eighties in the parlour car, destined for wealthier passengers. It was then in current use; an advertisement shows a gentleman travelling at ease between Chicago and Kansas City in 1888. The patents of the 'fifties intended the comfort of their seats to be shared by everybody.

The attempts pile up, too numerous to list. The inventors were determined to conquer comfort for travel, to let each passenger be free to shift his position at will. Many of these types were found unfit for practical use, yet they were alive with an original, savage, mechanical fantasy that disdained the hard and fast, the clinched and riveted, that aspired to realize anything, even the impossible. These railroad seats are the Jules Verniads of furniture.

references

¹ As outlined in *Space, Time and Architecture*, page 17 ff., we distinguish two categories of historical facts. One category we call "constituent," the other we call "transitory." The distinction becomes necessary if one sees the historian as not exclusively concerned with single styles and periods and with the comparison of their similarities and their differences: if one sees history, like biology, as concerned with the problem of growth and development—not to be confused with progress. Certain tools of analysis must be granted to the historian, and he must use them with care and discernment. Thus he draws a line around the short-lived facts, those performances that lack creative force and invention. They are the "transitory" facts. For contemporaries they may hold the fascination of a fireworks display and succeed in taking over the centre of the stage, as did the ruling taste in painting, architecture, or furniture during the nineteenth century. The "constituent" facts, on the other hand, are marked by creative force and invention; by accumulation and accretion they form the core of historical growth. Surveying the nineteenth century, the historian who has accepted history as a problem of growth is inevitably led to find in patent furniture the constituent furniture of its period. To appreciate its character, its ties with the late Gothic period have to be laid open. Constituent and transitory facts are closely connected with typological research into history.

² At least from the aesthetic point of view. The *Illustrated London News* of 1851 does not mention the Colt revolver, but describes and illustrates each ornament of these other objects, worthless to-day from any point of view whatsoever.

³ Official catalogue of the United States exhibitors, Exposition Universelle, Paris, 1878.

⁴ Quoted in *Space, Time and Architecture*, page 263.

⁵ *Pullman News* (Chicago: October, 1940), page 43.

⁶ Three United States patents were issued in the year 1851: No. 8,050, April 22; No. 8,508, November 11; No. 8,583, December 9.

⁷ United States Patent 8,508, November 11, 1851.

⁸ United States Patent 13,471, August 21, 1855. Compare also United States Patent 12,644, April 3, 1855, which, however, did not use the differentiated curving.

⁹ United States Patent 21,178, August 17, 1858.

¹⁰ United States Patent 21,052, July 27, 1858.

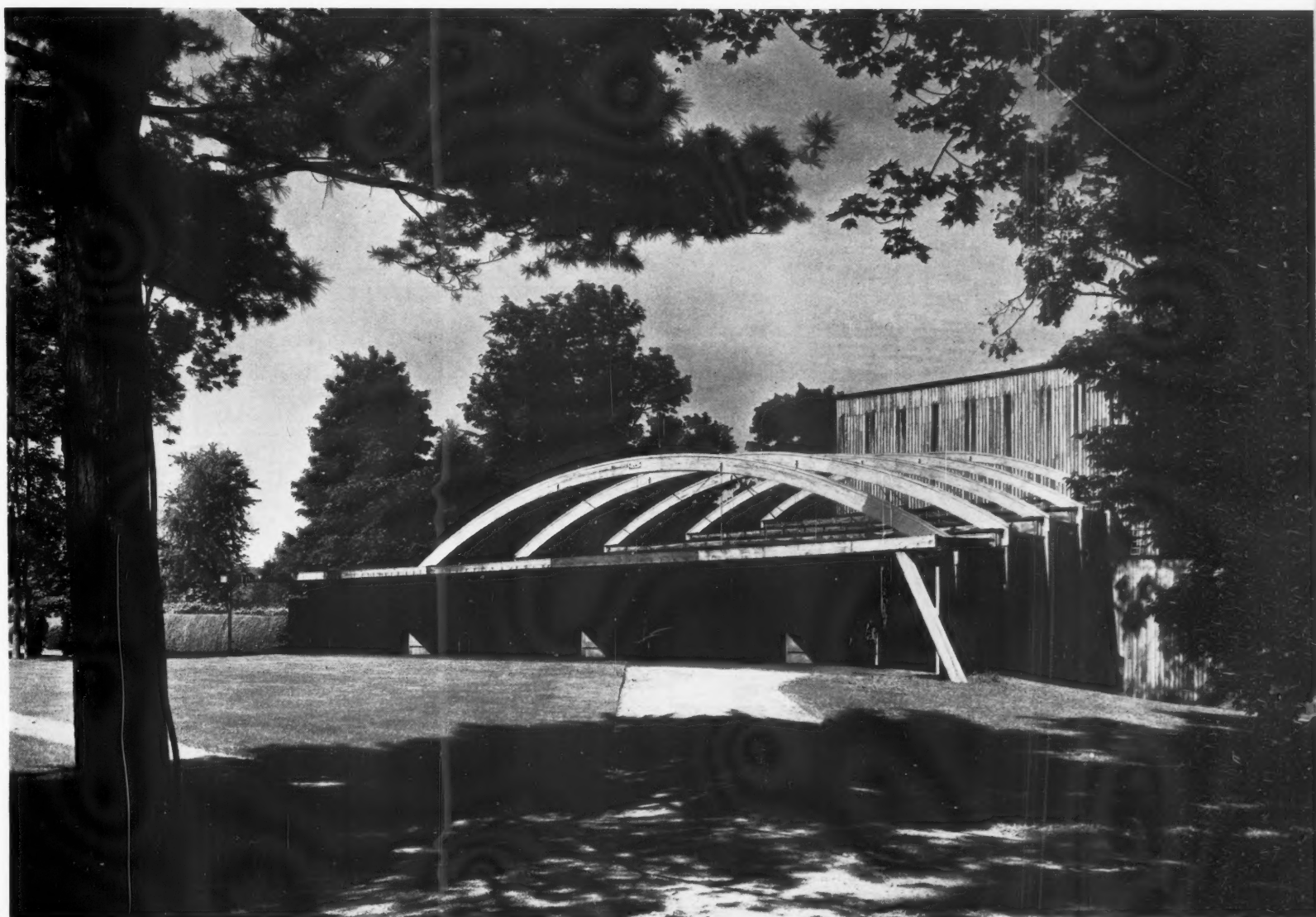
¹¹ United States Patent 21,870, October 26, 1858.

¹² United States Patent 21,985, November 2, 1858.

¹³ In 1858, thirteen patents were issued for improvements in car seats.

¹⁴ United States Patent 13,464, August 21, 1855.

¹⁵ United States Patent 19,910, April 18, 1858.

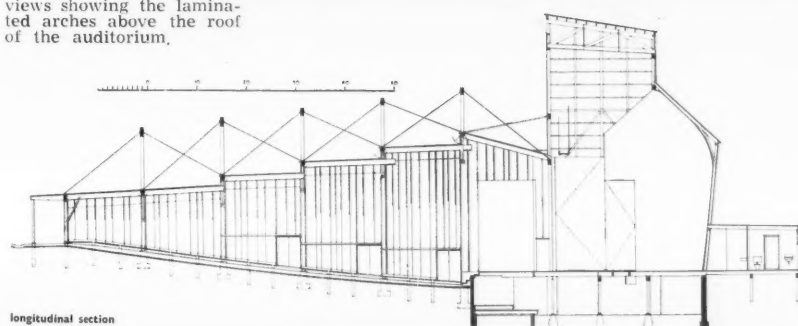


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1 and 2, two exterior views showing the laminated arches above the roof of the auditorium.



longitudinal section

TANGLEWOOD OPERA HOUSE

ELIEL AND EERO SAARINEN : ARCHITECTS

This building, at Lenox, Massachusetts, was designed for small operas and concerts before audiences of up to 1,200, and had to be built as economically as possible. In order to achieve the best acoustics with the most economical means, the volume and the shape of the auditorium were so designed that no sound absorbing material had to be added to give the auditorium the right reverberation time; the laminated arches above the roof were necessary to achieve the right volume for the auditorium. The slope of the various parts of the roof was designed to break up the sound waves and distribute them equally to the whole auditorium. The exposed studs, of random size and placed at random distances, are thus accounted for by acoustical considerations. A tarvia floor was chosen because of its cheapness and its acoustical properties.

A central high stage with two wings was used. A plaster cyclorama was found to be most economical; a compromise between the best shape for lighting and the best for acoustics was arrived at by sloping the rear wall backward and by flattening the middle portion. The proscenium arch is hinged and can be swung back to become part of the orchestra shell when the building is used for concerts, while the orchestra pit can be covered by raising its own platform floor to the level of the stage floor, thus making room for an orchestra of 110 within the concert shell. There are two side stages accessible from the stage wings. No finish was used on any of the woodwork except paint on the structural trusses, the metal tension rods and the doors. The ventilation in the auditorium is by a slot at ground level and wood louvres just below the ceiling.

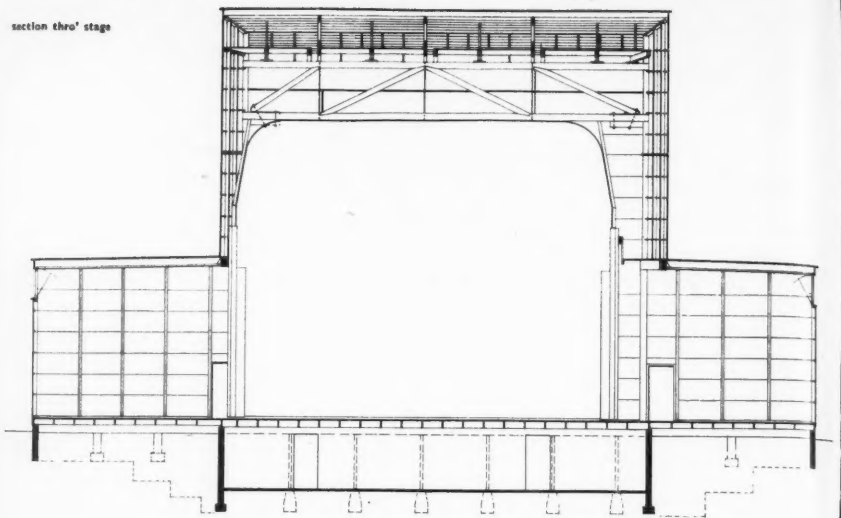


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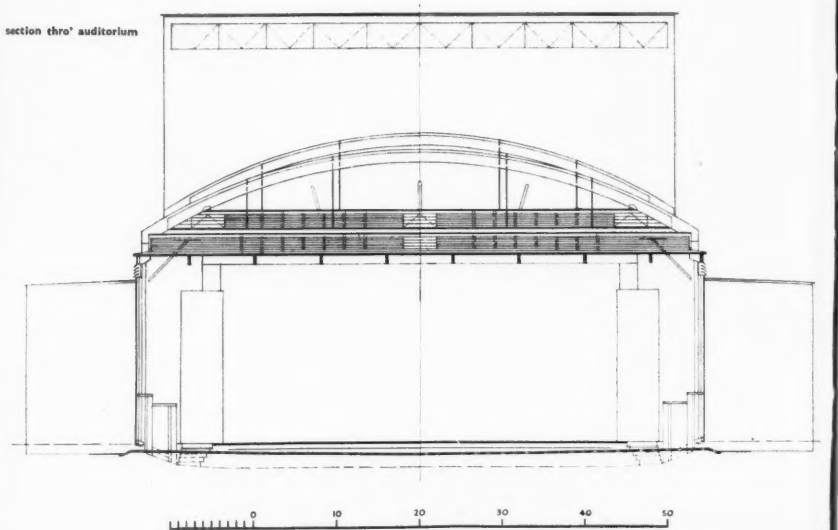


4

section thro' stage



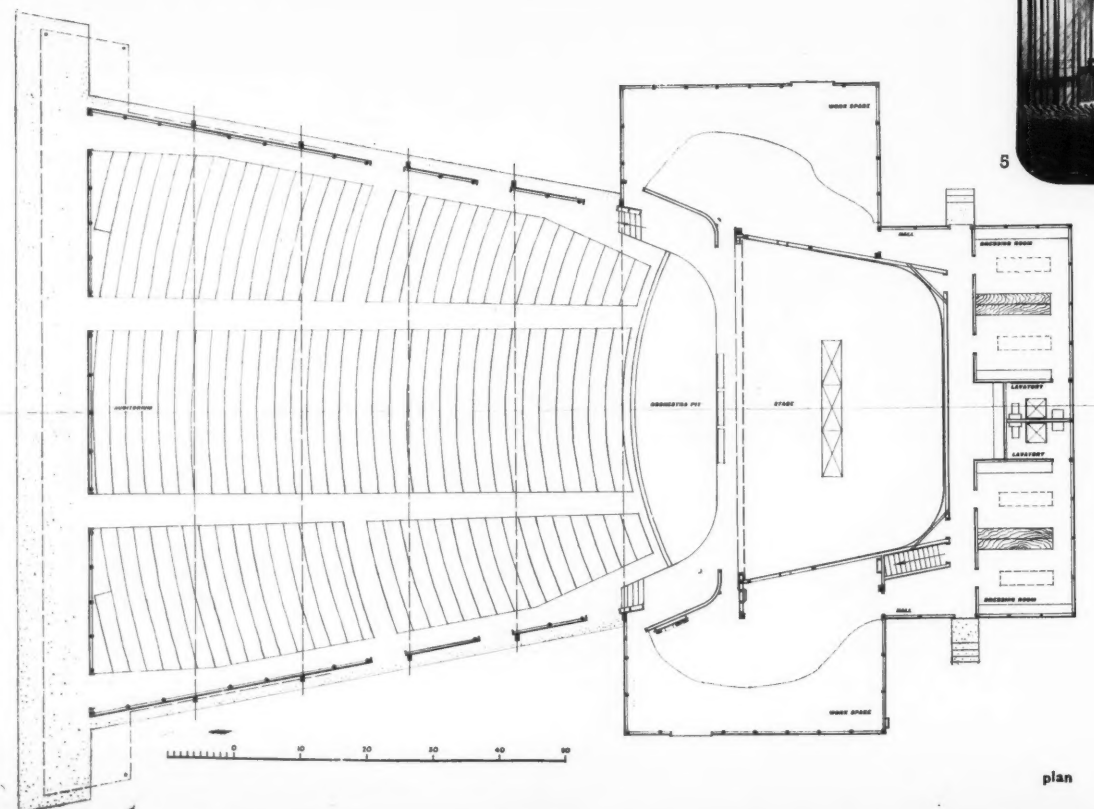
section thro' auditorium



3, the side of the auditorium, with the stage section behind. 4, general view of exterior. 5, the interior, looking towards the stage.



5



plan

The Modern Garden in Brazil

by Claude Vincent

"All gardening," said Pope, "is painting." As a historical generalization the dictum admits of exceptions; baroque gardening was in some ways more akin to geometry, from which, Wren and his contemporaries held, "natural beauty" proceeded. Its truth, considered as a description of the contemporary situation as Pope saw, needs no stressing in these pages; the founder of the English school of landscape gardening, William Kent, began his career as a painter—and remained so much a painter that even his architecture, as Mr. John Summerson has pointed out, is painting. But Pope's words become most suggestive when we consider them in another sense, as a critical pronouncement of the sort whose real value is to be assessed in relation to the problems of our own day. We have heard much about the divorce between the arts of painting and architecture. Must their reconciliation mean topographical murals in the town hall? Or is it the painter's eye, rather than his brush, that can bring about that so desirable end? The following article, which discusses and illustrates the work of the Brazilian painter-gardener Burle Marx, provides those who would answer the second question in the affirmative with some of the evidence for which they have been waiting.

THE modern architect too often forgets that to the less advanced citizen hyacinths are quite as necessary as bread. In other words, the air-conditioned skyscrapers of the New City, or the ferro-concrete houses going up in more modern suburbs may be practical and may have unquestionable elegance—but they lack the humanity which comes from contact with organic shapes and colours. They are brightly-shining machines but they have not come to life. Le Corbusier himself has deplored this, saying of the New York skyscrapers that they lack "the tree, that friend of Man, symbol of all organic creation."

This is where Brazil with its tropical climate has shown the way to the rest of the world. Even the first modern building, the ABI Press Association in Rio, was planned with a roof garden, and no modern structure is designed to-day without a plant somewhere, green and cool, to rest the eyes from the blinding Rio sun. Sometimes the very shape of a building is conditioned by the fact that the architect has decided to grow a creeper up a wall, or to include an interior transverse garden in a series of apartments.

In the nineteenth century the landscape gardener Glaziou was commissioned to replan the Imperial Palace garden at Quinta de Boa Vista, as well as private parks belonging to such wealthy citizens as the Guinles' with their Larangeiras home, or the Barão de São Clemente, with his estates up in Nova Friburgo. Though trained in France, Glaziou was actually closer to the English landscape gardener in spirit. He laid out undulating parklands and he did not hesitate to transplant shrubs and trees from other lands, sometimes with the happiest results. But he was followed by gardeners who were closer to the French tradition of formal gardens, stemming from Lenôtre down to the nineteenth century *places* and *parterres*—and this influence on Brazil culminated in such arid and senseless expanses as Agache's Praça Paris, with its clipped *figus-bush* animals and birds and its lack of shade-giving trees. To make matters worse, most gardeners in Brazil are Portuguese who came to this country as unskilled workmen, untrained for a profession which needs not only green fingers but real knowledge. They have tended to copy the straight and symmetrical plantings they found already



Two waterside gardens designed by Burle Marx. That in the upper photograph is on an estate at Petropolis; the house dates from the eighteenth century, so that this garden is a Brazilian equivalent of the English picturesque garden of the era to which the house belongs, but with a free use of the flowers for which the English landscapists had no use. The lower photograph shows part of the garden of a house by Lucio Costa.

laid out, and few have the inspiration to depart from such monotonous practice. There are no schools in which they can learn, for except for an orchid lovers' club, there are no garden clubs in Brazil.

Three men in particular are responsible for the quite radical change which has taken place in modern gardens here to-day—three pioneers, one of whom is dead. They are Lucio Costa, Attilio Corrêa Lima, and the great authority on the whole subject—the versatile Brazilian painter, Roberto Burle Marx.

How much these men were influenced by the gardens of the monasteries of the North, where plants encroach on cloister and patio, I do not know. Certainly Lucio Costa, whose influence has been widespread in Brazil, was steeped in colonial culture, and he is constantly adapting old techniques to fit modern needs—he it was who designed a whole wall of a new apartment house in a ceramic trellis brick like wrought iron-work from Portugal so that he could grow creepers through it and produce a cool effect on the hottest day. Costa's influence is immense, and when you discover some new plastic effect you find nearly always, on questioning the architects, that Costa, directly or indirectly, had something to do with it. When Roberto Burle Marx told me that it was after Costa had visited his garden in Leme that he asked him to design a garden for a modern Rio house, I was not at all surprised. And it is very probable that Attilio Corrêa Lima, the young and brilliant architect of the Santos Dumont airport building, came under Costa's influence as well.

Corrêa Lima was an enthusiastic gardener. This man, with his wide interests and his great culture, acquired outside Brazil as well as in his sculptor father's home, never for an instant forgot the beauty of his country, and his house in the Rio Comprido possessed a nursery garden with a wealth of tropical plants. All his projects, such as the re-modelling of Recife, of Goiania, and the project for Barra Mansa, were designed with gardens; and when he won the contest for the building of the Santos Dumont, it was with a plan which already included a garden, whose full beauty he never lived to see—for he crashed tragically in a plane disaster some three years ago. To-day, when the weary traveller stands in the immigration queue to have his finger-prints taken before, dirty-fingered, he can enter this beautiful country, he can at least know the joy of looking out through the plate glass window to where, over a parabolic pergola of white ferro-concrete, exquisite green trails of bouganvillea creeper curl gracefully, and where great banners of banana leaves signal cool messages of welcome. The garden is a permanent memory to a gifted pioneer.

There is no doubt, however, that the real creator of the modern garden is Roberto Burle Marx. He too is a man of great culture and book-knowledge. But he is also a man whose eyes light up as he shows you a new colour achieved in his keyboard of tones in anthuria plants—he alone has the secret, it seems, of their hybridization—and who almost reverently picks up a tin which once held butter and which now has a tiny, close-furled leaf in it which, he says, he is sure will be purple when it uncurls next week—one of the hundreds of new-veined hybrid *Tinhorões* (arums of the calladium family) he has created in the course of years, in his nursery garden surrounding his old house in Leme. To go through this garden is an experience few people would ever forget.

Eleven years ago, the garden he designed for Lucio Costa was put on show, and three months later he was invited to design the public gardens for the city of Pernambuco. Since then he has never looked back. He has shelves full of the plans of the countless gardens he has completed.

Burle Marx is best known in London by his beautifully constructed drawings of Santa Teresa Hill in Rio, and by some oils which, though showing an affinity with the modern French school, are preponderantly Brazilian in colour sense. Some of these are flower paintings; others, such as the one of

two fish that look like musical instruments on a plate, are recognisably French in subject, though they show a high degree of imagination in treatment and design.

When asked how it happened that such an established painter as he is turned to landscape gardening, he says quietly that he has always loved creating and painting in all their forms and that for him gardening is painting with plants. He finds a need to establish contrasts, to play off volumes against planes, colours against colours, light against shade—and he revels in the interplay of shape and texture, whether his medium is paint, scrapework or growing foliage and flowers. Sometimes he feels impelled to show off a plant, giving it true value from all angles, placing it dominantly so that whether you look at it from above from a roof, or look up to it from lying on the grass, it has a new and unusual importance. A friend once told him he had never noticed the shape of a bulrush till making a trip to Pampulha, where Burle Marx had planted a quite ordinary clump of bulrushes in the lake by Niemayer's Yacht Club. Another friend began to realise that the yucca, one of the most common of tropical plants, was extremely decorative—but not till Burle Marx had insisted on his gardeners leaving uncut the dried brown turned-back leaves of the plant, so that the effect of the yucca was that of the leg of a Chinese bantam cock, with feathers growing raggedly down it.

Handicapped by the lack of painter-gardeners to carry out his wishes, Burle Marx does his best to explain his art to the Portuguese workmen. He cannot talk to them in terms of painting—it would be Chinese to them. So he uses metaphors like this simile of the cock for the yucca. Sometimes such pictorial ideas sink into their minds and they may think him crazy but they try to carry out his wishes. Other times he is not so fortunate, as for example in the case of a garden he designed for a house in the State of Minas. Here he had thought out a wonderful scheme for lilac trees and purple leaves and flowers—a garden which should combine all shades of violet from the palest to the deepest hue, to form a picture against one of Niemayer's houses. He had not reckoned with the lady of the house, for whom purple signified mourning, and gradually he noticed that the purple plants were being removed and pink ones were being substituted.

It is for this reason that he hardly ever plants annuals. And, whenever he can, he includes in the contract the right to revise the garden at given intervals, so that he can supervise the plastic scheme as it changes with the growth of the plants. I know for instance that one of his roof gardens has lacked the care he would like to have given it. It is pretty to-day, but as it has developed some plants have taken over, as it were, and now dominate the whole in a way that was never intended.

Burle Marx's gardens combine with extraordinary success plants and rocks and *pedra Portuguesa*, the famous Portuguese stone mosaic pavements which are such a feature in Rio. They also make use of light and shade and of existing water and rock formations. He is now working on a garden to grow underneath a ten-storey apartment house in São Paulo by Rino Levi. The building is on pilotis. He has so designed the garden that in the most shaded section *pedra Portuguesa* in deep brown and white, together with plants which love shade, predominate. Plants which like temperate light are placed where they will flourish best, and in the outer sections where the sun falls directly on the ground there will be an absolute blaze of bright red and yellow flowers. They will form a wonderful contrast with a semicircular wall of blue and white *azuleijos* designed specially for this garden—*azuleijos* which, when completed by the Osirarte studios, will be quite unlike any tile pictures hitherto used in any country in the world. This contrast of blue with the bright reds and yellows of the plants is typical of his work, denoting as it does the hand of the painter-gardener.

Burle Marx's gardens are always worked out as logically as though they were a building itself—and with as much care

THE ROOF GARDEN



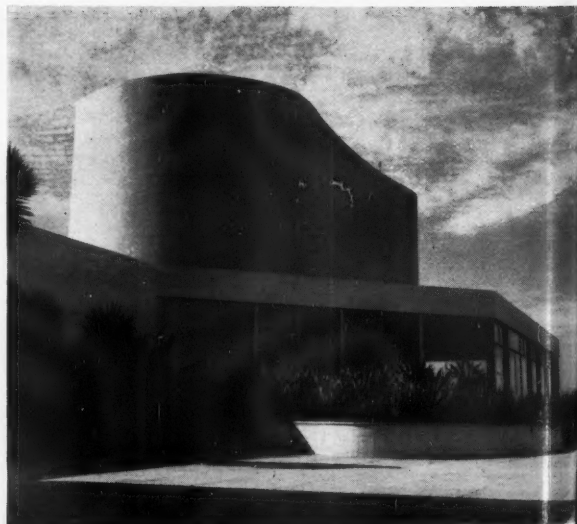
The three photographs on this page show the roof garden, designed by Burle Marx, of the Resurgen Insurance Building at Rio de Janeiro (Marcelo Roberto, architect). This garden, which was planned in 1938, is to be reckoned among Marx's most successful achievements. For colour effect it relies chiefly on the contrast of the red foliage of *iresima herbstii* with the green of the *capinh* (a coarse Brazilian grass). The big clump in the pool is *cyperus papyrus*.





PLANT FORMS AND ARCHITECTURE

Above, the garden of the Ministry of Education building at Rio, in which tropical plants, azuleijos and modern architecture are brought into new and exciting relationships. Right, the roof of the A.B.I. building. On the facing page: upper photograph, the Ministry of Education as seen from the A.B.I. with a yucca in the foreground, lower photograph, part of the garden of a private house at São Paulo. All these gardens were designed by Burle Marx.





A PRIVATE GARDEN



KEY TO PLANTS

- 1 Equisetum ramosissimum
- 2 Thalia sp.
- 3 Pontederia cordata
- 4 Cyperus giganteus
- 5 Nymphaea ampla
- 6 Nymphaea Rudgeana
- 7 Nymphaea caerulea
- 8 Gramineae cespitosas
- 9 Eragrostis curvula
- 10 Moraea bicolor
- 11 Moraea iridioides
- 12 Paspalum notatum
- 13 Grama diferente
- 14 Cassia bicapsularis
- 15 Erythroxylon gonocladum
- 16 Crematos pulcher
- 17 Allamanda nobilis
- 18 Canna indica
- 19 Tecoma lpe.
- 20 Tecoma impetiginosa
- 21 Thunbergia laurifolia
- 22 Tecoma stans
- 23 Erythrina reticulata
- 24 Hemigraphis colorata
- 25 Verbena chamaedryfolia
- 26 Heticonia psittacorum
- 27 Anthurium affine

- 28 Cassia latispila
- 29 Tibouchina multiflora
- 30 Lobelia exaltata
- 31 Mimosa Calodendron
- 32 Laelia flava
- 33 Laelia rupestris
- 34 Thrichocereus Campos Portoi
- 35 Alstromeria plantaginea
- 36 Bifrenaria tyrianthina
- 37 Bulbophyllum Weddellii
- 38 Epidendrum inversum
- 39 Corytholoma magnificum
- 40 Lychnophora affinis
- 41 Stachybarpheta glabra
- 42 Vellozia compacta
- 43 Clusia Arrudoe
- 44 Cavanillesia arborea
- 45 Myrciaria cauliflora
- 46 Sterculia Chicha
- 47 Erythrina Mulungu
- 48 Tibouchina pulchra
- 49 Tibouchina mutabilis
- 50 Cassia speciosa
- 51 Tibouchina Sellowiana
- 52 Tibouchina semidecandra
- 53 Cecropia spec.
- 54 Joannesia Princeps
- 55 Cecropia hololeuca
- 56 Vochysia Tucanorum

- 57 Prunus sphaerocarpa
- 58 Tibouchina hieracioides
- 59 Gomphrena officinalis
- 60 Mandevilla illustris
- 61 Dejanira erubescens
- 62 Calolisanthus amplissimus
- 63 Calolisanthus pulcherrimus
- 64 Mesosetum ferrugineum
- 65 Ctenium cirrosum
- 66 Paspalum stellatum
- 67 Rynchospora spec.
- 68 Bulbostylis paradoxa
- 69 Iresine Herbstil
- 70 Coreopsis grandiflora
- 71 Plumbago capensis
- 72 Ixora coccinea
- 73 Ixora spec.
- 74 Cassia sylvestris
- 75 Verbena hybrida
- 76 Calliandra brevipes
- 77 Calliandra Tweedii
- 78 Poinsettia pulcherrima
- 79 Tibouchina canescens
- 80 Strelitzia augusta
- 81 Strelitzia Reginae
- 82 Datura suaveolens
- 83 Datura sanguinea
- 84 Oxalis spec.
- 85 Acanthaceae

House at Pampulha, designed by Oscar Niemayer; garden by Burle Marx. The predominant hue in this garden, of which a detailed plan is reproduced above, is purple.



and attention to detail. For instance, on his drawing board at present is a plan in preparation for the Zoological Gardens of Rio, on which he is working in close collaboration with his famous botanist friend, Dr. Mello Barreto from Minas Gerais. Here, in definite sections, you can find a garden which starts by being sand, growing exclusively sand plants, as though it were situated by the sea. Then, going inland, you come to marsh plants, so that the birds of the marsh shall feel at home there. Further still and you have the surprise of coming to other imagined regions of country combining flora and fauna appropriate to each, rock plants with rock-loving animals, aquatic plants such as the *Victoria Regia* and lotus and papyrus in the district where water birds and crocodiles have their home. About the idea there is something of the Hamburg Zoo and something of Whipsnade, but neither of these—though Whipsnade, indeed, is memorable for its modern buildings—has a series of gardens painted by a Burle Marx.

How is it that Burle Marx is able to plan gardens with such a wealth of unusual plants? His great speciality, as one can see in his nurseries, is the creation of various forms of calladium leaves and of anthuria. But in his house in Leme he has a card catalogue of hundreds of unusual—and usual—plants, from all over the continent of South America. He has too, in his garden, a water plant he discovered in Belo Horizonte and which actually bears his name.

In part his botanical facility, as one might call it, is due to his close collaboration and friendship with the learned and brilliant botanist, Dr. Mello Barreto. But he himself has taken many trips into the interior, on the look-out for something new and wonderful. His eyes lit up as he told me of a trip he took a short while ago to the Rio das Mortes, where he suddenly came on a tree with the most brilliant cobalt blue flower, blazing in the midst of tropical green.

He has discovered what soil this tree likes—an acid soil it seems—and he has collected seeds from the flowers. Now he has planted them, and though it will be some time before he can hope for results, he is already planning to use this cobalt flower—wonder next to yellow or orange flowering plants so that the blue shall sing to its full effect. He describes, too, the delights of a garden he planned for the spa town of Araxa, where his flowering trees, planted scientifically, make a music of pinks and white and purples and mauves—paineiras, jacarandas, and the glorious quaresma tree—which can only be appreciated when you are up in the hills above. Here too in Araxa he transplanted eight hundred square metres of ironstone rock from Minas Gerais, so that the rock plants he wanted growing round the spa waters should have the soil they love. Araxa has terrible buildings, so that the job here was to compensate for the lack of beauty, as far as possible, by the most imaginative garden which it was possible to create.

Luckily his work for more modern buildings has, as a rule, been helped rather than hindered by the form of the building



A general view and a detail of the garden designed by Burle Marx in the public square in front of the town hall at Petropolis. The carpet bedding is patterned in coloured foliage, red, yellow, green, and silver.

itself. The ABI press building garden was laid out somewhat more formally than others because, though this is the first modern building in Rio, it is not as daring as later buildings by the three architect brothers, Marcelo, Milton and Mauricio Roberto, who won the competition for the ABI when two of them were still at school. In one of their later blocks, the Reseguros Insurance Building in the Avenida Marechal Camara, there is a clubroom and a roof garden which faces the wonderful Guanabara Bay and looks over to the panorama of Niteroi Hills on the other side. This roof garden was already planned with a water background. Burle Marx designed an abstract shaped pool in which he placed a clump of *cyperus papyrus*, which has never looked more beautiful in any garden of ancient Egypt than it does, sprouting up from this roof towards the Rio sky. To-day this garden, with its velvet-textured red *Iresima Herbstii* foliage against the crisp green *capinh* (the Brazilian version of coarse grass) and a full-grown jungle tree waving above a concrete pergola, is one of Burle Marx's most successful achievements, though it was planned as long

Plan of a garden designed by Ubi Bava, one of Burle Marx's pupils, at Cataguazes in the state of Minas Gerais. This garden was commissioned by the owner of a textile factory to serve as a place of relaxation for his workers. The oblong building is a concert platform with acoustic shell.

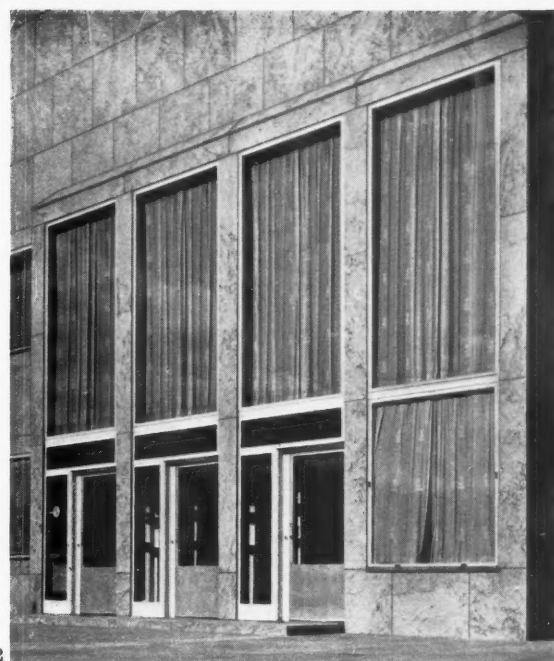


ago as 1938. Even the *Ministerio de Educação* itself would not be the perfect building it is without the wonderful way in which the garden under the pilotis harmonises with the *Portinari azulejos* walls, whilst low-growing palms make patterns against the pale pink granite pilotis and the shining leaves of silvered foliage glisten brilliantly against the dull red velvet of the *iresima*. As for the roof garden of the *Ministerio*, it has now grown so high that, looking up at the building from below, you have the mysterious feeling of some strange jungle rising fantastically into the sky and bringing the rain clouds down to the level of the two blue funnels which enclose the lift shafts and the water cisterns of what is still the most beautiful skyscraper in Rio.

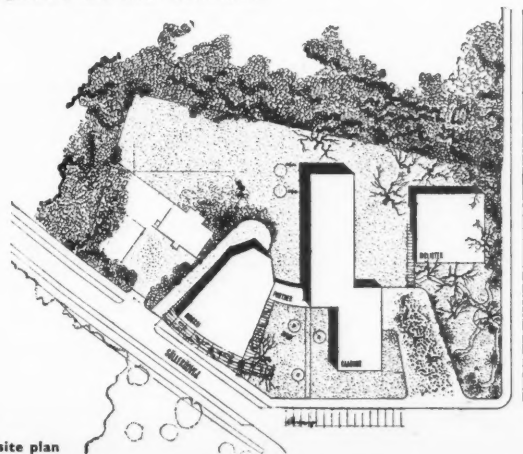
Burle Marx is so prolific and so imaginative a creator that ideas spring from his mind with the same profusion that you find in the flora of the country. While he loves and appreciates foreign flowers—the pansy, the sweet pea, the roses of an English garden—he rarely makes use of them. They are not indigenous and he is making gardens which will be easy to keep up in a country which has no garden clubs. It is to the *mato* that he goes for his inspiration—to the untravelled jungle. From it he takes plants which, in their own surroundings, may be just weeds. There is a story told of a garden he once designed for a man who wished to buy his own plants, and who sent to one of the most expensive florists in Rio to procure them. The list cost him a fortune and when the plants arrived, the gardener viewed them with amazement—most of them were *mato* plants of which, till then, he had thought less than nothing at all.

Burle Marx does not work alone. His old house in Leme is a beehive of industry where artists, designers and craftsmen work in close and harmonious co-operation. It is in this house, for instance, that the design for a particularly beautiful garden sundial in Portuguese stone mosaic was worked out by his friend the artist Oscar Meira for a garden in São Paulo. It is here too that in conjunction with his designer, he has worked on the new garden for Marcelo Roberto's airport buildings (illustrated in *THE ARCHITECTURAL REVIEW*, March 1947)—an extensive and decorative scheme far wider in scope than Corrêa Lima's garden, and one which can only be considered when examining the airport lay-out as a whole. And it was as a young collaborator of his that another, lesser known gardener, the architect Ubi Bava, started. As long ago as the days of the public gardens in Pernambuco, Ubi Bava was doing work for Burle Marx, and learning much which he did not immediately use; he was studying painting at the time, and subsequently took a course in architecture. Although it is as an architect and artist that he is best known, he has designed, within the past two years, one or two sizeable gardens. The most interesting of these is the public square designed at the special request of Senhor Peixoto, owner of a textile factory in the town of Cataguazes in the state of Minas Gerais. The square is the place of relaxation for his workers and he has not only paid for it but is working on its completion himself, while the factory hands have shown their appreciation by subscribing for a portrait bust of his father, by the Brazilian sculptor Pedrosa, which is in the square to-day. At one end of the square there is a concert shell and platform, covered outside with grey and inside with rose ceramic mosaic—all set beautifully into the shell by Senhor Peixoto himself. And round the base of the rose mosaic grows a copper-coloured foliage chosen specially for its metallic value. Between the shell and the square proper is a Portuguese stone mosaic of a 'cellist', designed by the young sculptor Ceschiatti; then comes the garden itself, with trees and lake, from which music can be heard with added pleasure. This garden, set in the midst of busily-humming factories, is both aesthetically and sociologically one of the most interesting of its kind. Thus, this disciple of Burle Marx, whilst owing so much to the man who taught him, is branching out on his own; if he knows anything about plants, it is certain that he has learned it in Leme. It is worth remarking that Senhor Peixoto's own private garden was designed by Burle Marx himself; the house, too, is said to be one of Niemayer's most perfectly finished achievements, though at present it is difficult to get a clear picture of what it is like.

From this survey it will be seen that though Brazil has no Chelsea Flower Show and no Garden Clubs, she is evolving a garden which can form a living accompaniment to the modern buildings for which she is already so famous. Thus the garden is regaining its place in the life of modern man; it is acquiring a humanity which the formal gardens of the nineteenth century had entirely lost. It may well be that the influence of such men as Roberto Burle Marx will grow not only within Brazil but even in other countries where the climate is completely different; once the idea of the modern garden designed according to their principles has been postulated, its variations need have no limit.



1. view from south-west, with main offices wing on right and assembly hall wing beyond. 2. detail of main entrance. 3. general view from north-west.



TOWN HALL AT SOLLEROD

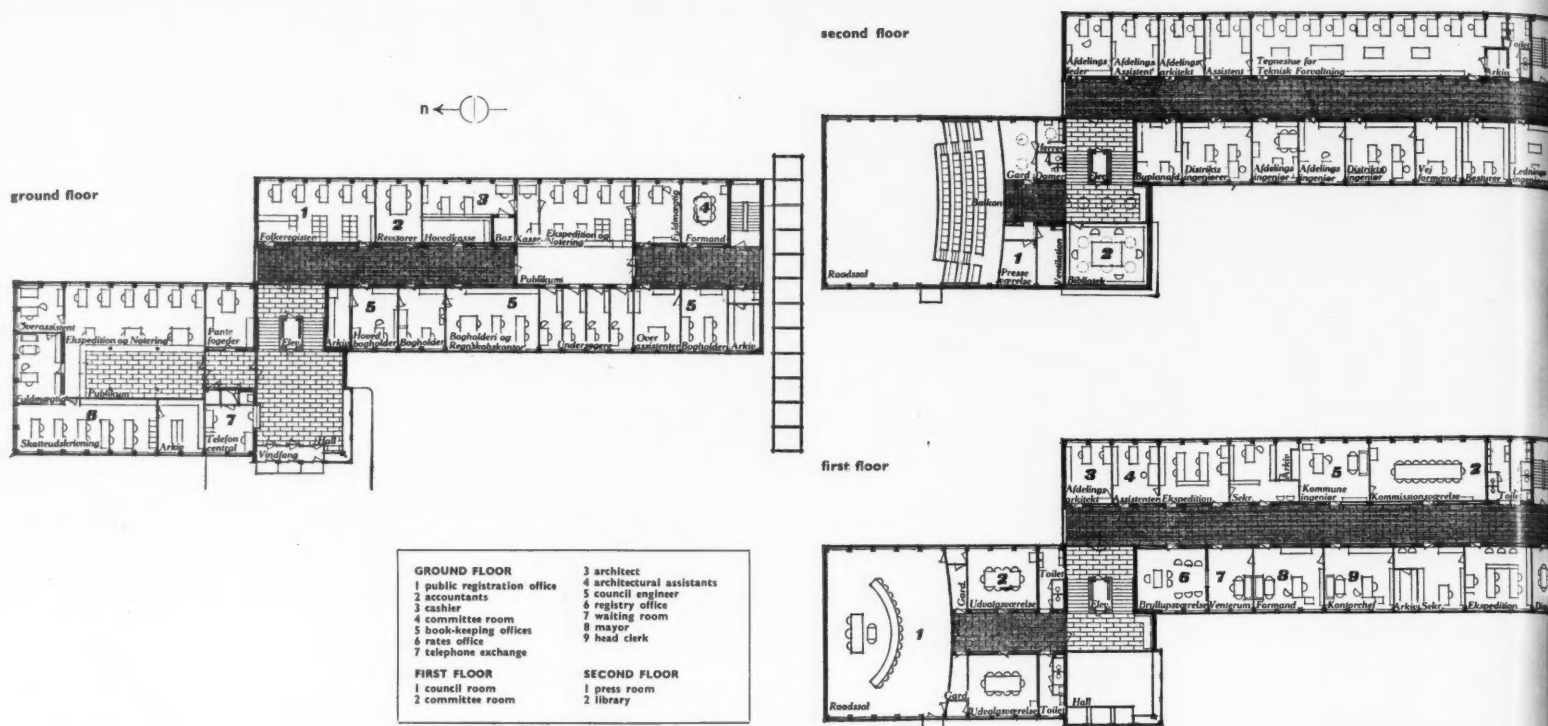
ARNE JACOBSEN & FLEMMING LASSEN: ARCHITECTS

The town hall at Sollerod, Denmark, is the result of a competition held in 1939. The programme for the competition included a cinema and a municipal library, but owing to the war neither of these was built. It is necessary to bear in mind that the town-hall is part of a greater scheme, and the full effect depends on the realisation of this as a connected whole. The site has a very fine situation just outside a forest, by the main road to Copenhagen. The competition was held because it was agreed that the fine site on the edge of the forest called for architecture of distinction. Sollerod is a borough some 30 miles to the north of Copenhagen. The building contains the municipal administration offices and the assembly room and committee rooms for the parish council. The latter have been placed in the northern wing, so that they may be used without interference from the rest of the building. The floors of the two wings are separated, with the main staircase forming the connection.

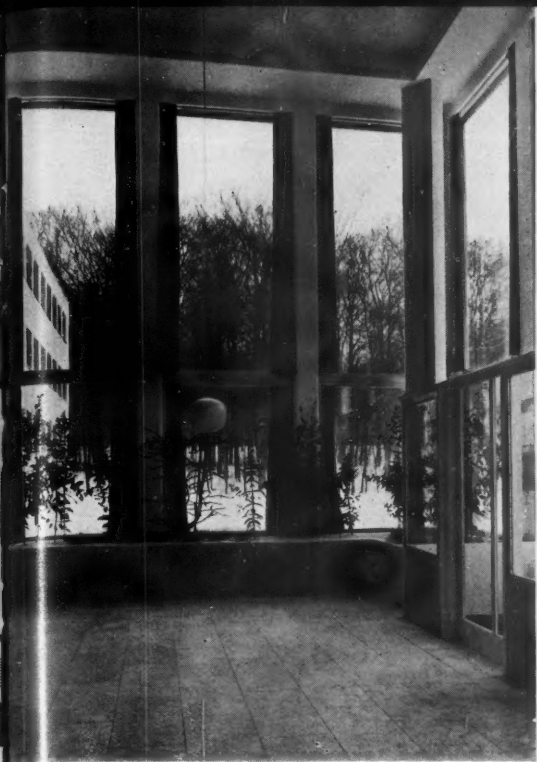
The building is of reinforced concrete frame construction, with insulating tile block infilling. The double walls of the corridors are tiled, and within them run the vertical ventilation pipes. The roof of the northern wing is of steel construction, while the other roofs are of normal timber construction with fibre-board roofing. Facade and roof are linked by means of a sort of sloping cornice, made of reinforced concrete and



TOWN HALL AT SOLLEROD



4, the stair
floor level
hall. 6,
ing over
waiting r



5,6

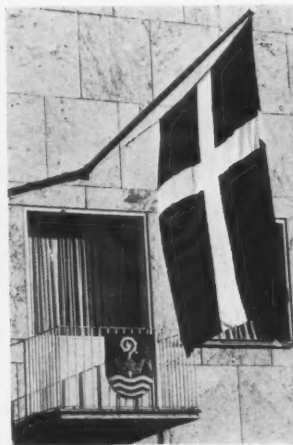
faced with the same marble as is used on the facades.

External walls are greeny-white Norwegian marble; windows of steel with double frames. The flooring is blanc-clair marble in the entrance hall and on the staircases; in the offices the floor covering is grey linoleum. The corridors have flooring of oak and walls and ceilings panelled with birch acoustic plywood. In the assembly room the walls are panelled with cuban mahogany. Here the flooring too is mahogany, while the furniture is upholstered with oxhide. The oval sounding board under the ceiling in the assembly room has a double function: besides serving an acoustical purpose it contributes to the lighting effect, the lamps lighting the ceiling being hidden above it. The back wall was decorated by Knud Agger with a mural showing a typical landscape from the neighbourhood.



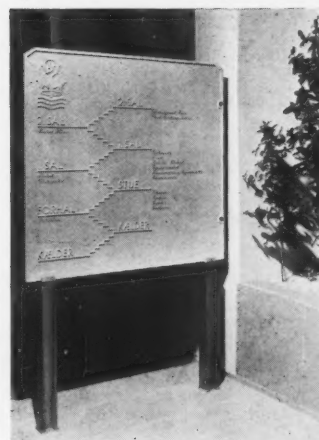
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4, the stairs and lift shaft at ground floor level. 5, the main entrance hall. 6, view from first floor landing over entrance hall. 7, public waiting room.



8,9

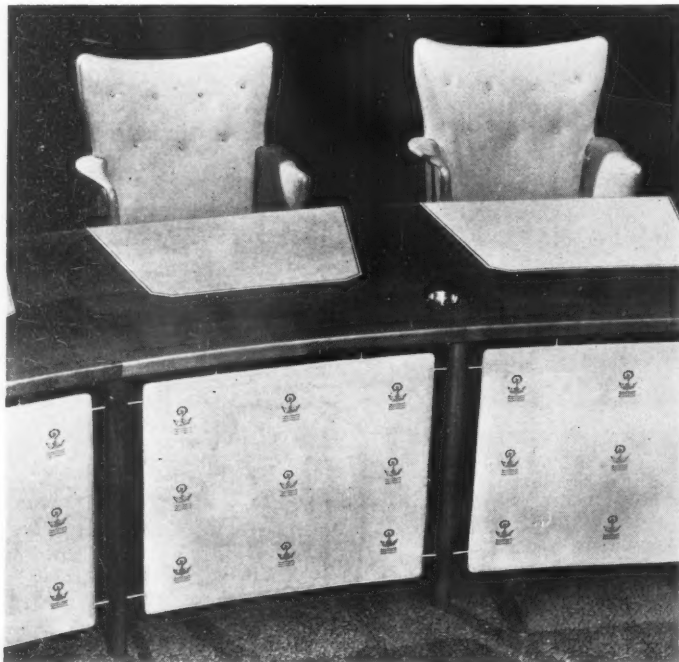
8, detail of main entrance. 9, balcony to council room façade. 10, stairs diagram in entrance hall. 11, lift control board.



10, 11

TOWN HALL AT SOLLEROD

12. detail of the council room seating, which is upholstered in oxbide.
13. general view of the council room from the gallery, showing the oval sounding board, which serves also to conceal the lights, under the ceiling.
14. view towards the gallery; the walls are panelled with Cuban mahogany.



12, 13



14

RECONSTRUCTION IN THE U.S.S.R.

The Union of Soviet Socialist Republics covers one-sixth of the earth's surface. For this reason alone, the progress of architecture and town-planning in the Union would always be a matter of first-rate public interest, but it is especially so at the present moment when the huge task of post-war reconstruction is getting under way. In the war Russia suffered greater destruction than any other country of her cities and villages, her farmlands and industrial installations, and she must now rebuild on a commensurate scale. With the object of showing how she is setting about rebuilding, THE ARCHITECTURAL REVIEW invited three leading Russian architects, who are themselves playing important parts in this drama of reconstruction, to write about what they are doing. Their articles occupy the following pages, with illustrations chosen by the authors.

The interest that Russian architecture and town-planning arouse in the world outside is of two kinds. The first is a technical interest in the methods and organization employed to rebuild on such a scale in the one country in the world equipped both to plan largely and to ensure that plans are fully carried out; the second is an æsthetic interest in the visible results of the same planning. On the first aspect of the subject, our Russian contributors can be left to speak for themselves; on the second, some comment is perhaps called for, if only because it is the artistic taste shown in contemporary Russian architecture—and, for that matter, in the other arts as well—which other nations find most puzzling. They rightly link this aspect, too, with the fact that in Russia central direction of the national life and economy is the ruling factor. They see Russia as the prime example of a country where no building takes place but by order of the State, and the designer—town-planner, architect or decorator—is wholly dependent on the State; and seeing that, according to sophisticated European standards, Russian buildings appear bourgeois and retrogressive, they wonder whether this is the inevitable result of extensive State patronage—whether the rule of the official does not by its nature result in levelling down to an uninspired mediocrity. They wonder this, in many cases, with something more than an academic interest, because State patronage is increasing with them too and they ask whether Russia's present is a pattern of their future.

Whether their trepidation is justified or not, there is another angle from which Russian architecture must be regarded. Russia is not only a foreign country, but is more foreign than most countries, and her problems are in few respects comparable with ours. It is therefore essential to judge Russian architecture according to its own conditions, rather than to condemn it for not reaching standards it never aimed at. If we seek *absolute* standards, it may well be that the best of our own and of Western European architecture rests on values of a more absolute kind; but even so it is not enough to condemn the Russian as "bad." "Bad" architecture is too often merely what the critic does not himself like. The uniformly eclectic style of contemporary Russian architecture, which to our eyes appears pretentious, naive and exceedingly bourgeois in taste, is based—we must give this much credit to the Russian regime—on something deeper than the preferences of her own or any other leaders of taste. It is, one may safely say, the result of the tacit acceptance of a policy based on a psychological need, perhaps more than anything else on a need not to outpace the slow growth of popular understanding. It may be that for a generation architecture employing a familiar symbolism will be needed in Russia before pure architectural form is able to evolve a response from a sophisticated public, as it is beginning to do in Western Europe and America now. An architecture of pure form was adopted by the Russians immediately after the revolution as a proof of their emancipation. But they soon saw that by doing so they had got out of touch with the nature of most people's response to architectural art, and were

only depriving architecture of the chance to play a proper part in symbolising—to people to whom symbols meant much—the solidity and security of their new society. This may not seem a complete answer to those who think that the only way of getting “good” architecture is to build “good” buildings, whatever the public’s reaction to them. But the Russians have never accepted an absolute good—the Marxist dialectic postulates standards that are always evolving according to the conflicting current of events. Nor have they hesitated to indulge in curious and apparently retrogressive means to achieve theoretically obtainable ends. These words, in any case, are not meant as an apology for contemporary Russian architecture, which is its own apology and is confident enough in its ability to stand on its own broad feet. It is supremely important that what goes on in Russia should be known abroad, whether it be understood or misunderstood. The text and pictures that follow are presented, without further comment or explanation, as an item of contemporary history.

1 **Some Thoughts on Reconstruction** **By David Arkin**

THE destruction of towns and cities, though a stark fact of contemporary history experienced by millions of people, is perhaps still inadequately comprehended in its architectural implications. The ancient Romans counted time “Ab urbe condite.” “Ab urbe destructa” is how their new history will be counted by numberless towns and cities of Europe, devastated by the barbarians of the twentieth century.

But after destruction comes restoration. “To build”—one of man’s most primitive needs—is to-day a prepotent bidding of the times. A new city-building era has started. On the ruins of old towns and cities the architect and the builder have to reconsider anew everything they had known about the art of building cities. For this is not only a matter of healing the grave wounds of war but also of creating new entities. It is not individual buildings we are to rehabilitate but cities in their entirety. This simple and vital premise defines the nature of this New Era in architecture.

Since the Great Soviet Revolution in 1917, the development of city-building in the Soviet Union has placed a most important instrument in the hands of the architect, and the name of this instrument is Plan—the planned organization of a city and of its erection, knowing no such impediments as private ownership of land and profit-yielding real estate. The experience gained in the reconstruction of old and the building of new towns will, beyond doubt, be of great assistance in the present vast work of rehabilitation. At the same time the architect is faced with wholly new problems.

In Stalingrad, a city stretching along the bank of the Volga for over twelve miles (not counting the suburbs), not a single building is left standing. And Sevastopol offers a similar picture of total devastation. Novorossiisk, Voronezh and Smolensk too are destroyed. The most ancient city in north-west Russia, Novgorod, with its eleventh and twelfth century churches, has been reduced to a pile of rubble. The small but picturesque town of Istra, near Moscow, has been razed by fire. More than half of the buildings in such large Russian cities as Rostov and in such Ukrainian centres as Chernigov and Poltava have been wrecked. Tremendous destruction was done in Minsk, the capital of Bielorrussia. And this martyrology could be continued ad infinitum.

In setting about the rehabilitation of destroyed cities the Soviet architect is first and foremost guided by the basic principle—in restoring a city not to repeat the past but to improve it, and correct the shortcomings in the city’s old structure. At the same time it must be remembered that life does not tolerate abstract schemes. A city is a living organism and town planning cannot be subordinated to “paper,” office-chair formulas, even though they be elaborated by the most capable and experienced of planners. The architect’s aim is not to depersonalize a city to fit it to abstract “ideal” street layout, transport and settlement schemes and so forth but to promote development of the finest individual features of the city in question. This individual approach, however, does not preclude a number of general tasks in architectural-planning methods.

Stalingrad formerly had no good embankments as there was actually no water frontage. This city, standing on the bank of the great Russian river, was cut off from the Volga by a railway which, intersecting the city, ran along the river-edge, dividing the city blocks from the bank. In the new planning of Stalingrad this railway is to be shifted outside the city precincts, so as to open up access to the Volga

for a number of streets. A line of wide embankments is to be laid along the water-edge. The city will be able to make full use of all the advantages of its natural situation on the edge of the great river. In Kharkov and Rostov it is now possible to by-pass the transit railway lines and, by reconstructing the whole transport junction, to relieve these cities from too close proximity to the railways. The new street layout will allow for a new solution of a very important problem—the nature and allocation of city squares. In the old planning the squares were often merely the points of intersection of main city roads. Yet the life of Soviet cities calls for a city square as a forum, as a centre for national celebration and gatherings, as the city’s social centre. Squares standing at the intersection of streets do not meet with these requirements. In Smolensk, Voronezh, Stalingrad, Rostov and other cities, squares of independent architectural significance are being designed, having nothing in common with ordinary street junctions.

Needless to say, without the necessary building materials even the finest projects and schemes for city reconstruction will fail to yield the needed results. The unprecedented scale of devastation and reconstruction demands a veritable revolution in the building industry. One of the elements in this revolution is the development of prefabricated housing. Under the prevailing conditions the widest possible utilization of diverse local building materials is of particular importance in the U.S.S.R.

The most vital economic principle of to-day and to-morrow is utmost use of local raw material sources for building work. Abstract technical schemes must be avoided in the choice of forms of construction and materials, just as in city and town planning. In the U.S.S.R. local building material resources are of a highly diverse nature, and their use will, beyond all question, widely expand technical opportunities in building developments and stimulate new forms of construction. Of equal importance is the development of prefabrication of major elements of houses for assembly on the building site. Prefabrication, on the other hand, does not preclude the development and modernization of building technique based on the “old” materials—brick and stone.

During the past twenty or thirty years we have read in European and American literature on architecture and city planning no few expressions of doubt, sometimes offered to readers in slick publicistic form, concerning the basic natural law of a city as the principal form for the settlement of people. “Will our cities survive?” was a question put more than once, and more than once did we hear a negative reply, at times veiled in the form of poetic prophecy, at times supported by hard statistics. “Octopus-city,” “Monster-city,” “Modern Leviathan,” “City of the Dead,” “Necropolis,” what endless epithets have been tagged to modern cities by their judges! But side by side with these pessimistic definitions there were plenty of apologists for the modern city. To some it appeared an æsthetic ideal, the crown of human civilization. Poets of Urbs believed that asphalt was more convenient and more modern than green meadows; that “modern man” feels more at home under the lights of electric suns than under the real sun; that conditioned air can successfully replace the ozone of pinewoods.

From these two extremes were drawn definite architectural conclusions; Soviet architects named these two antipodal conceptions “urbanism” and “disurbanism.” The urbanists urged a maximum concentration of cities, the building of city blocks with gigantic house-

massifs, to make the whole city a colossal "residential machine." The disurbanists, foretelling the "death of the city," advanced their own prescriptions: decentralization of settlement, communities along the roads, the gradual and systematic "dispersal" of cities, and their ultimate replacement by the "even settlement of people throughout the country."

To-day, when the destinies of towns and cities are being weighed not in the scales of abstract theories and philosophical Utopian day-dreaming but in the grim reality of life which has passed through the greatest war in the history of mankind, a correct appraisal of the mistakes in both these divergent conceptions is possible.

From the viewpoint of its architectural structure the modern city—the city of the nineteenth and twentieth centuries—suffers deep-seated inherent defects. One such defect is the betrayal of nature; in the forms into which it has moulded itself in latest time the city barred man from nature with a dead wall. The artificial environment created by the city has not replaced for man that greatest joy of living—communion with nature. Those who accepted this artificial environment as a kind of aesthetic ideal found painful disillusionment lying in wait for them.

Does this imply, then, that the modern city is dying, and that the disurbanists were right in offering to "disperse" it, to help its natural death? This is by no means the case. Cities will live, strengthened and developed by a new social structure and a new town-planning. The theory of disurbanism is a bookish abstraction built up on a lifeless Utopian scheme. The city will live, as it is the most economic form of human consociation. Mankind cannot implement its basic social, economic and cultural functions without that concentration of settlement which we call the city. Economics are decisive factors. And it is these factors—and not abstract dreamings of "even settlement" amidst Nature—that determine the type and form of settlement. The city will exist and develop, and the aim is not to "help the death" of the city but to heal the modern city of its defects.

In restoring enemy-destroyed towns and cities we can avoid everything that led the city and its inhabitants away from contact with nature and imprisoned its life in cells of stone and asphalt. We have the opportunity for direct transport trunklines, intersecting towns and offering the shortest routes for communication between their different

parts. Residential blocks, no longer surrounded with asphalt and macadam, will be spared the fumes of gasoline and the roar of motors. The vanishing conception of "architectural landscape" will be reinstated and return as a city feature. City building will take into account any special natural features, the contours of the ground, the presence of rivers, and architecture will be called not to "screen" nature but, on the contrary, to emphasize its beauty. The pattern of the city landscape will be composed of the contrasted combination of residential blocks, with their intimate architecture, and the monumental public edifices of the city centre.

The greatest traditions of the past will live on not as historical reminiscences (as was the case in nineteenth century architecture) but in an organic new creation on a national soil—national in its fullest reference to the people. The architecture of our time has often erred, and still errs, by virtue of its bookish, rationalistically-artificial attitude towards the problem of new forms. The art of town and city planning is not only an art of linking up buildings in space but also of binding them closely and continuously in time. The task of the city builder is to blend the novelty of modern times, of new architectural forms, with the most vital traditions of the past. The new architecture is not to be created like some artificial chemical preparation, like a "homunculus" born in the test-tubes of modern alchemists. Should not our lawful objections be aroused by buildings calculated for any and every country, clime and latitude? Like any art, architecture tolerates no depersonalized "mean average." There can be no universal schemes suitable for any and every country, for any geographical belt, for any local conditions. The creative task of the modern architect is to give architectural expression to the people's, the locality's, the city's individuality, and not to hide this individuality behind a simplified screen of reinforced concrete, glass and metal.

In the architect's hands are powerful means of technique and within his grasp great aesthetic possibilities. New methods in the planning and construction of residential blocks, the planned allocation of service and cultural and welfare institutions throughout the city's territory, the introduction of green massifs in the city pattern, and finally, the building of cities and towns as integral architectural ensembles of squares, streets, embankments and parks—to-day all this is reality in the city where both master and manager are the people themselves.

2 The Reconstruction of Urban Centres By A. Bunin

A SOVIET urban centre is neither a business "city" nor a desolate "refuge" or preservation ground, deliberately created to conserve works of architectural art. A Soviet architect conceives his city centre first of all as the place where the public life of the urban population is mainly concentrated. Therefore a spacious public square, destined to serve as a stage for mass demonstrations and public festivities, constitutes the nucleus of almost every city centre. As a rule, the square is encircled with imposing administrative and public buildings whose architecture reflects the great social and political ideas of the Soviet State, as well as the grandeur of its historical past. That is why the German invaders destroyed urban centres with the same fury as industrial or military objectives.

The conditions prevailing in U.S.S.R. make the demand for public buildings, of which urban centres are formed, grow at an ever increasing rate. Only in the smaller towns is a single centre (like the market

place of a medieval town) sufficient; the larger towns and cities are necessarily multi-centred. In addition to the main centres, local centres are springing up around Regional Soviet Buildings, railway stations, theatres and other public buildings of importance. Local centres are connected with the main centre by means of traffic thoroughfares.

What are the fundamental problems of reconstruction and how are they solved? The problem of communications and traffic is among the first to be tackled because, in an overwhelming majority of cases, the centre of a city is at the same time its most important traffic centre. In one series of projects the general plan of the city centre is designed as a crossing point of the city's main thoroughfares. In Rostov the huge Engels Street, stretching along the bank of the river Don, is crossed at right angles by Voroshilov Street, with the main square of the city and the building of the Provincial Executive Committee at their point of intersection. The example of Rostov represents the simplest kind of cross-

Model of project by Boris Yofan for the reconstruction of Novorossiysk. Three-quarters of this Black Sea port was destroyed by the Germans.

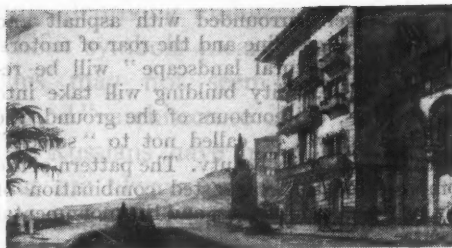


ing, owing to the rectangular planning scheme of the city's streets. A rather peculiar and more complicated crossing has been provided for Kalinin where the system of three radial arteries, existing since the eighteenth century, is crossed by the now considerably lengthened Uritsky Street connecting the railway terminus with the newly designed public square. The Stalingrad project provides not one but two crossings. The main traffic artery of that gigantic city, which spreads along the bank of Volga for fifty kilometres, is naturally constituted by the railway line with an electric train service. The motor highway running alongside the railway is expected to carry part of the transit

and local traffic. But Stalingrad needs transverse communication as well, and to ensure it a rectilinear avenue has been provided to connect the railway terminus and the airport with the passenger river port on Volga. So in the case of Stalingrad the traffic centre is transferred from the city's central area to its precincts—viz., the railway station square. Having thus successfully disengaged the central part of the city from the heaviest traffic, the planners (K. Alabyan, N. Polyakov and others) were able to design the second pair of the main planning axes of the city's centre. According to their project an imposingly broad avenue, named after Generalissimo Stalin, stretches along the river bank, with



Elevation of the curved side of the semicircular Soviet Square at Kalinin, with the twin pavilions flanking the main street. Nicholas Colley, architect.



Project for the reconstruction of the quay-side area at Tuapse. Alexis Shtshusev and Alexander Mukhin, architects.

the city's main square—that of the Fallen Heroes—adjacent to it. The shorter streets run from that square towards the railway station and the river.

In addition to through roads, enabling the urban traffic to cross the city centre in a rectilinear direction, some projects make use of circular by-passes. In some instances these have been designed to relieve the traffic in the central districts of the city, while in others, in accordance with varying local conditions, they have been treated as festive avenues, circular boulevards or esplanades, surrounding the central quarters, or the ancient city walls, or kremlins, where these remain. It is certain that the green belt and circular esplanade of the Sofia District in Novgorod will have a very fine appearance when completed. This ring was suggested by the radial structure of the city's plan. According to Alexis Shtshusev's conception, the deep moat surrounding the kremlin will once again be filled with water, allowing the ancient walls to tower over the sides of the moat amidst the foliage of old trees. With the construction of a second bridge, spanning the river Volkhov, the circular esplanade will certainly acquire a considerable importance as a traffic artery, its chief role, however, residing in the emphasis it will give to the central "ensemble"—an absolutely essential circumstance, because with the territorial expansion of a city its former centres lose their unconditional superiority.

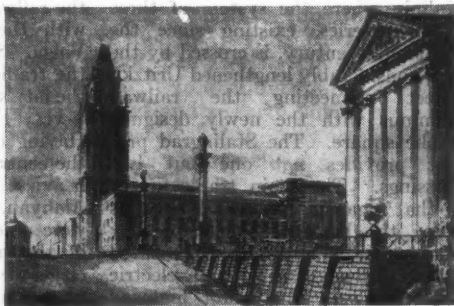
Secondly, there is the problem of access to the river. Le Corbusier expressed a popular notion when he said that a river is the city's back porch. Soviet town planners hold a directly opposite view and "the fight for the riverside" has become one of the foremost problems in the process of reconstruction. In the Stalingrad project the entire length of the city's centre follows the river bank. Along the crest of the upper bank of the Volga a boulevard has been laid out, with white staircases leading down its green turfed slopes. The best part of the riverside plateau, between the Volga and the Tzaritza, has been reserved for a spacious square containing the Defence Museum. In Stalingrad we find an optimal location of the urban centre. But it is by no means always that an urban centre is made to adjoin the river directly. For instance, in Rostov the best buildings have for

years been going up along Engels Street, far from the river, and it is here that the rectangular and somewhat diffused centre of the city came to form itself in course of time—a hard fact which it was impossible to ignore. Accordingly, in planning a new centre, Vladimir Semenov provided outlets to the riverside by means of two terraced parks cutting right through the agglomeration of residential blocks.

The town centre of the port of Tuapse has been provided with an original outlet to the sea. Following the axis of the peninsula in the direction from the central square towards the sea, Alexis Shtshusev has laid out a trapezoidal ground-boulevard opening itself against the perspective of the sea expanse; further, by means of a viaduct elevated over the port railway line, access is provided directly to the sea and the seaside public park. Leo Rudnev goes even further in his project for the city of Voronezh. To improve water transport facilities the project provides a dam across the river, converting the shallow and narrow river line into a vast pool one and a half kilometres wide. This being so it was decided to open the perspective of the river Voronezh from the centre of the city and to erect the largest buildings in a manner to make the city turn its face towards the river. In the central part of the city a hillside boulevard has been laid out following the curves of the upper bank of the river, while parallel to it a tree-lined embankment runs close to the water.

All the projects illustrated extensive public parks in different parts of the cities concerned. The area of greenery for public use goes up to 20-22 and even 25 square metres per head, the largest parks wherever possible being laid out in the central sections of the city. Thus one comes across broad green rings, rectilinear strips crossing the city's centre on the principle of the east-west diameter in Paris, with emphatically expressed park crossings, and, lastly, large isolated patches. It should not escape notice that the authors of the projects by no means always geometrize the plans of the public parks—a circumstance in which the projects under review differ from the Royal Academy proposals for the parks of Greater London, in which Englishmen, the world's greatest experts in the landscape layout of parks, have suddenly departed from their time-honoured traditions.

The most complicated problem



Project for the reconstruction of the University Square at Voronezh. Leo Rudnev, architect.

in the reconstruction of urban centres is, however, the aesthetic one. In every case it is imperative that the urban centre should be an entity and contain the largest and most imposing edifices, possessing an expressive silhouette and a clearly perceptible individuality. Architecturally, the centre of a city represents its centre of gravity. And so contrast comes to be the chief means of attaining aesthetic expression. At the same time the local conditions in a country as vast as Russia confront architects with very diverse problems. Whether a city stands on level ground or on a hilly site is a question of the greatest import, because in the first instance the city's centre has to be provided with considerable architectural

to it a deliberately modest and neutral form free from any noticeable imitation of ancient styles.

An ability to preserve the atmosphere of old-established cities is well exemplified in the project for the reconstruction of the central part of Smolensk, designed by the late George Goltz, and in that for the city of Kalinin worked out under the direction of Nicholas Colley. There exists in Kalinin an excellently designed system of three radial thoroughfares. The angle formed by the two external ones is equal to 30 degrees—which falls within the scope of optical possibilities of the human eye. From the semicircular Soviet Square situated at the starting point of the three radial thoroughfares the



A stadium for Stalingrad, designed to accommodate 40,000 spectators; the east facade. Nicholas Colley, architect.

verticals, whereas in the second the high buildings need not be so high. Of even greater importance is the nature of the city's inheritance in works of architectural art. Stalingrad, for example, is devoid of any valuable artistic legacy, whereas Novgorod boasts a great number of architectural works possessing a monumental artistic value, the majority of which are crowded in the city's centre, i.e., in the kremlin and the Vetche Square, where in olden days the populace assembled to discuss the affairs of State. Accordingly, the authors of the respective reconstruction projects, Karo Alabyan and Alexis Shtshusev, found themselves confronted by quite different problems.

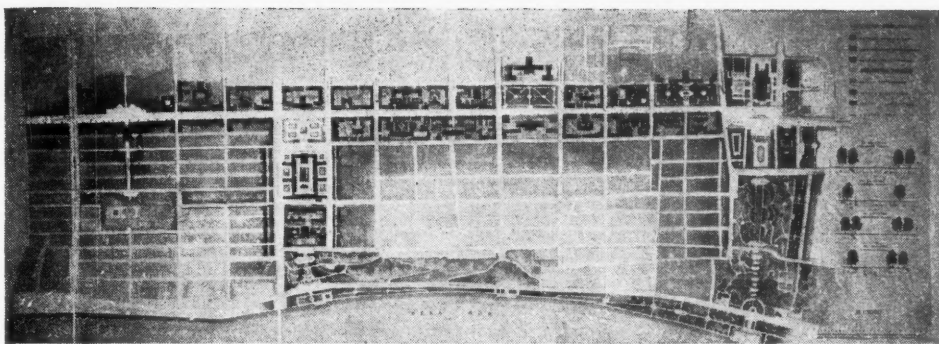
In the case of Stalingrad the architect was in a position to plan new buildings in complete disregard of everything except the approved town-planning scheme and the character of the prevailing landscape. In the case of Novgorod the designer enjoyed no such freedom. Nevertheless, it is extremely difficult to decide which of the two opposite problems has been the more laborious and honourable to solve, because only a really great artist could play a secondary architectural role in a worthy manner amidst a host of architectural chef-d'œuvres. Alexis Shtshusev has proved not to be lacking in the requisite qualities. Mindful of the fact that the churches and the kremlin of Novgorod are of relatively insignificant height, Shtshusev limited his building scheme in the central part of the city to houses of two or three storeys. The project provides for the restoration of all the ancient monumental buildings of Novgorod except those altogether destroyed, and in order to reinforce their architectural expressiveness a radius equal to at least twice the height of the building in question will be left clear around each. Most interesting from an aesthetic point of view, however, is the manner in which Shtshusev solved the problem of residential architecture by giving

three avenues are seen at once and consequently the central part of the city reveals itself in much the same way as Rome does when viewed from the Piazza del Popolo. This close resemblance to the Roman radial system suggested a similar layout. And so to flank the central street Colley designed two elegant pavilions adorned with columns and somewhat reminiscent of the churches of Santa Maria in Monte Santo and Santa Maria de Miracoli. But there is no trace of an attempt to copy these churches. On the contrary, sensing

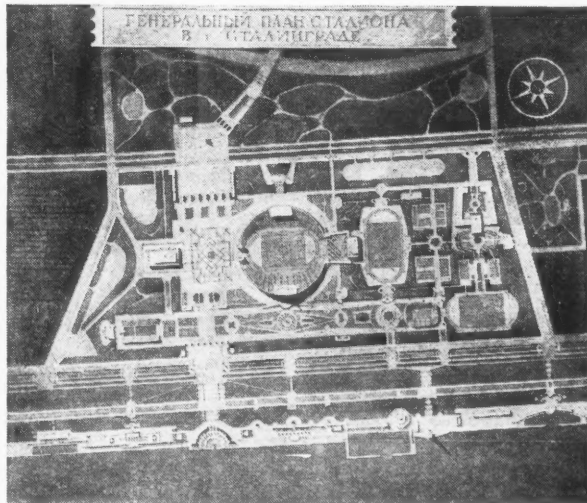
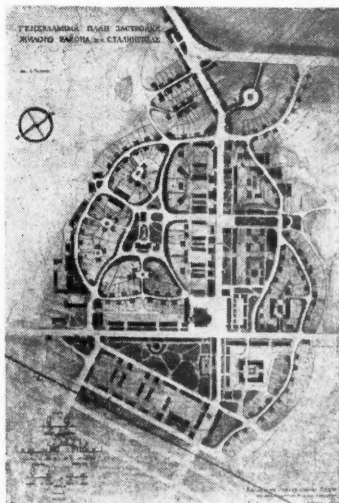
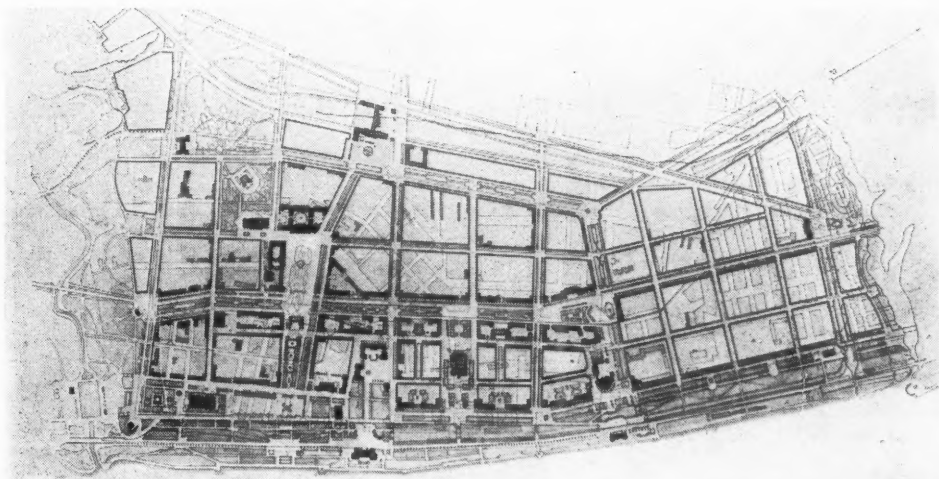


Design for the memorial to the defence of Stalingrad. G. Zakharov and Z. Tchernyshova, architects.

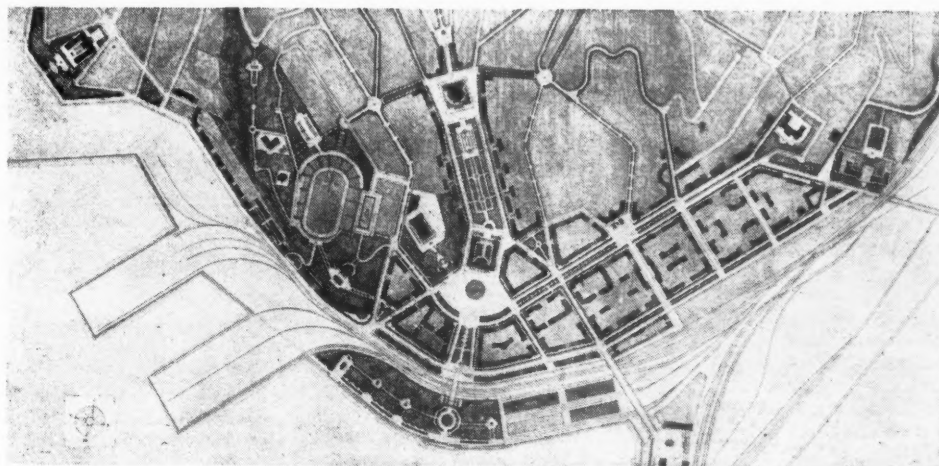
the atmosphere of Tver (as Kalinin then was) in the days of the illustrious Kazakov (1738-1813), Colley and his collaborators treated the two pavilions not in the ponderous manner of the Roman baroque, but in a pure classicism reminiscent of the early Kazakov. To complete the composition of the main thoroughfare, once terminated by a picturesque belfry on the other side of the river Timaka, it is proposed to erect a memorial, in commemoration of the Great Patriotic War, which will take the form of a cylindrical tower of white stone crowned with a lofty gilded spire.



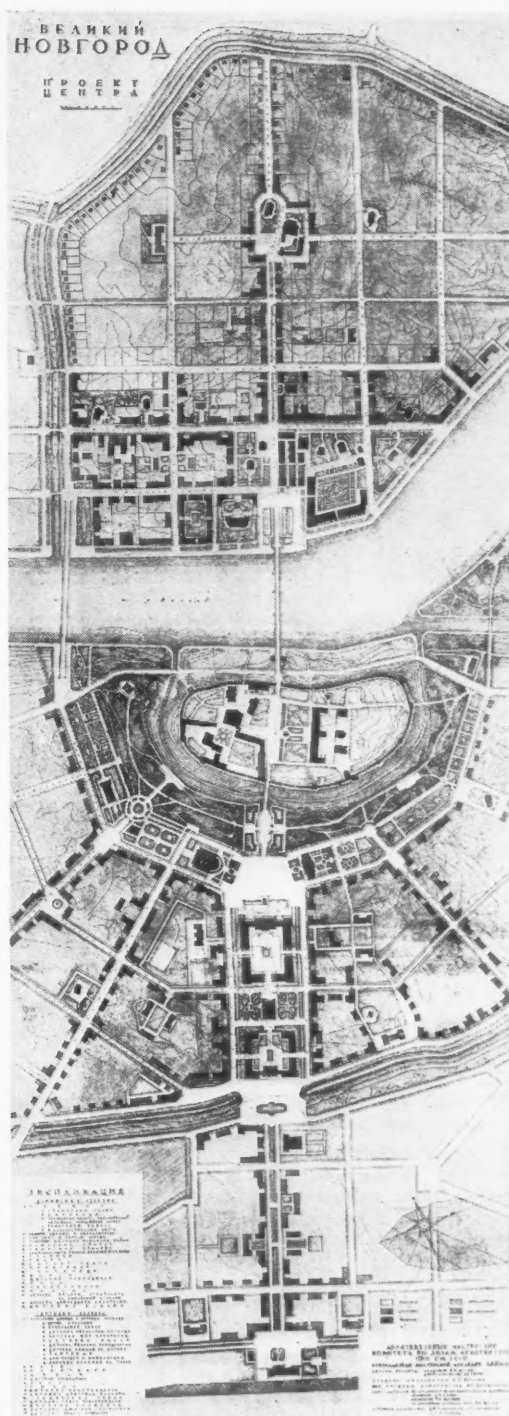
Rostov-on-Don General plan for the city's centre, by Vladimir Semenov, in which the city is designed to face the river with a system of boulevards lining the embankment.



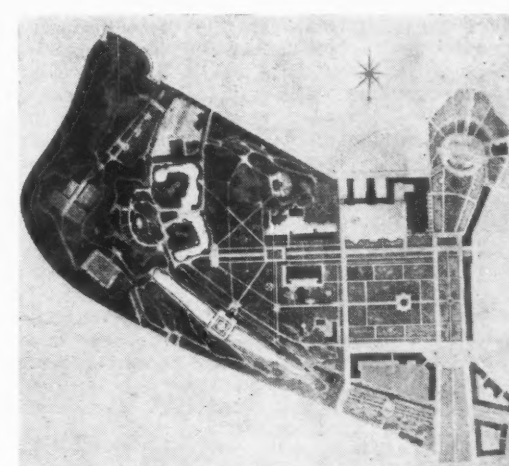
Stalingrad Here again the city is re-orientated towards the river, while the railway has been moved to the outskirts. Top, general plan by Karo Alabyan; lower left, residential quarters, and right, stadium for 40,000 spectators, both by Nicholas Colley.



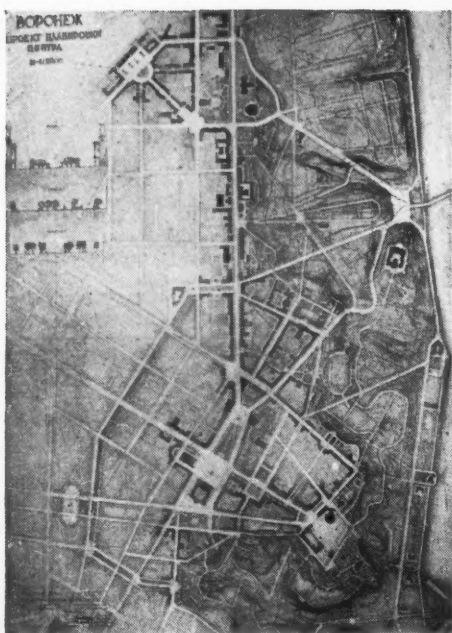
Tuapse Plan for a radical reconstruction of the town, by Alexis Shtshusev and Alexander Mukhin, providing for a combined terminus for sea and land communications.



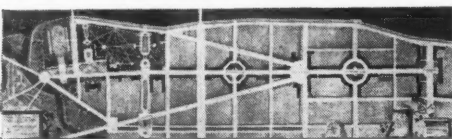
Novgorod Project by Alexis Shtshusev. The Kremlin with the cathedral of Sancta Sophia constitutes the centre of the town.



Smolensk The Central Park. The new plan, by George Goltz, follows the radial scheme underlying the old town.



Voronezh General plan by Leo Rudnev, with a broad boulevard, public buildings, and one of the main squares on the river bank.



Kalinin (Formerly Tver). Plan of the Soviet Square, by Nicholas Colley. The radial avenues are part of the eighteenth century plan by Kozakov.



Novorossiysk General plan for the centre of the town, of which three-quarters was destroyed, by Boris Yofan. This provides for a fundamental reconstruction, bringing the residential quarters closer to the sea and developing parks and gardens on an extensive scale.

3 Reconstruction and Housing

By N. Bylinkin

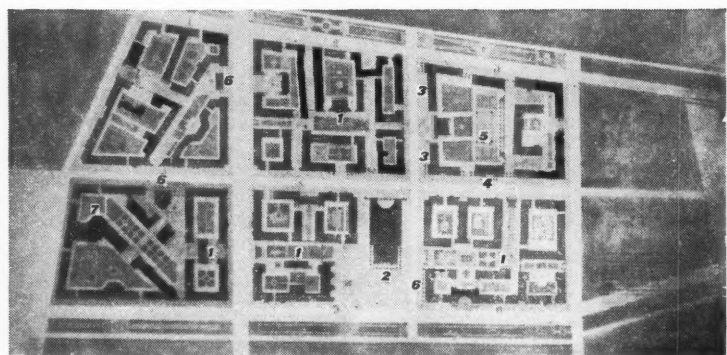
THE reconstruction of Stalingrad, Smolensk, Rostov-on-Don, Voronezh, Minsk, Sebastopol and many other cities of the Soviet Union is progressing at top speed. Homes, schools, kindergartens, theatres—everything burnt down or blown up by the German invaders—are now being restored. However tragic the havoc of devastation may have been, the destruction wrought by the enemy has—as befits the dialectical principle—permitted the introduction of considerable improvements into the planning of the towns concerned.

In the initial stage of rehabilitation considerations of economics are particularly acute and complicated. It should be kept in mind that the building industries of the U.S.S.R. were among those which suffered most. A vast number of brick factories and timber mills were lost in White Russia, together with that country's cement mills and the famous cement mills of Novorossiysk, while heavy damage was caused to factories and works producing building materials in the regions of Moscow, Kiev, Poltava, etc.

It is to help this initial stage of restoration work that the Academy of Architecture of the U.S.S.R., as the central research institution in the field of civic construction, has carried out a special combined investigation of the natural and industrial resources of individual cities under reconstruction and their respective hinterlands,

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Stalingrad Residential quarter in the centre of the city: Karo Alabyan and Mikhail Sinyavsky, architects. 1, kindergartens and nurseries; 2, theatre; 3, schools; 4, youth club; 5, swimming pool; 6, shops; 7, the building where General Paulus was taken prisoner.



Elevations to street of residential blocks in Stalingrad: Karo Alabyan and Mikhail Sinyavsky, architects.

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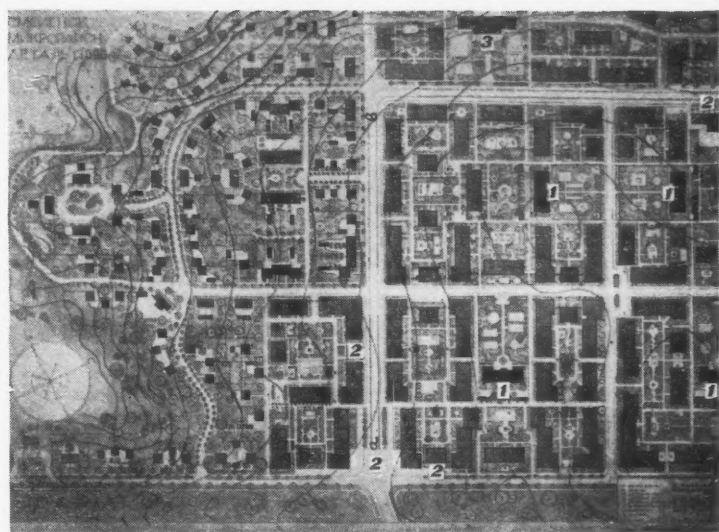
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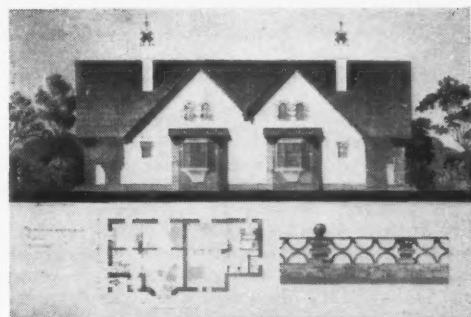
Figure 1 represents the scheme for the reconstruction of six quarters in the central part of Stalingrad. The preliminary plan, by K. Alabyan, M. Sinyavsky and others, reflects the principles just mentioned. All the six quarters are encircled by traffic highways while the drives separating the quarters from each other serve the local traffic alone. The sites are laid out after the principle of residential compounds. Such compounds permit the division of the space inside the quarters into open grounds appertaining to each compound individually. A bitter continental climate marked by strong winds necessitates such methods of development. The residential buildings are of four storeys, or in some cases of three. The accepted density per hectare of built-up area is 265 people gross and 400 net. Fifty per cent. of the ground covered by each quarter is left open for gardening and greenery. The scheme provides for kindergartens and nurseries, which are located on the ground floors of the residential blocks whenever the adjacent territory allows a normal organization of children's playgrounds; the designers were somewhat limited by the presence on the grounds concerned of damaged but repairable buildings. Inside the quarter there is a club building with stage and theatre facilities sufficient to serve not only the population of the six quarters concerned but also that of the neighbouring residential quarters.

Figures 2, 3 and 4 represent eleva-



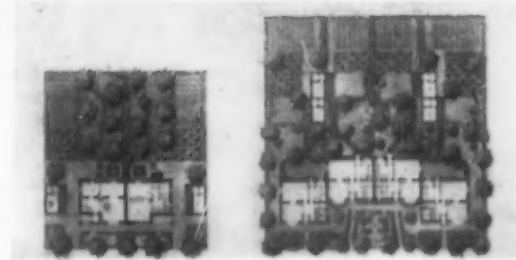
Smolensk Residential quarters: George Goltz and Nikolai Bylinkin, architects. 1, kindergartens and nurseries; 2, shops; 3, schools.

Right, two-flat house designed by Nikolai Bylinkin, with ceramic details to elevation and fencing. Below, three different elevations for the same plan, by George Goltz and Nikolai Safronov, and a single-flat house by Yuri Shmemon.



Above, elevation to main street of residential buildings; Nikolai Bylinkin, George Goltz and Nikolai Beseda, architects.

Right, site plans for a two-flat cottage and a four-flat house; Nikolai Bylinkin, architect.





Project for the reconstruction of the quay-side area at Tuapse. Alexis Shtshusev and Alexander Mukhin, architects.

the city's main square—that of the Fallen Heroes—adjacent to it. The shorter streets run from that square towards the railway station and the river.

In addition to through roads, enabling the urban traffic to cross the city centre in a rectilinear direction, some projects make use of circular by-passes. In some instances these have been designed to relieve the traffic in the central districts of the city, while in others, in accordance with varying local conditions, they have been treated as festive avenues, circular boulevards or esplanades, surrounding the central quarters, or the ancient city walls, or kremlins, where these remain. It is certain that the green belt and circular esplanade of the Sofia District in Novgorod will have a very fine appearance when completed. This ring was suggested by the radial structure of the city's plan. According to Alexis Shtshusev's conception, the deep moat surrounding the kremlin will once again be filled with water, allowing the ancient walls to tower over the sides of the moat amidst the foliage of old trees. With the construction of a second bridge, spanning the river Volkhov, the circular esplanade will certainly acquire a considerable importance as a traffic artery, its chief role, however, residing in the emphasis it will give to the central "ensemble"—an absolutely essential circumstance, because with the territorial expansion of a city its former centres lose their unconditional superiority.

Secondly, there is the problem of access to the river. Le Corbusier expressed a popular notion when he said that a river is the city's back porch. Soviet town planners hold a directly opposite view and "the fight for the riverside" has become one of the foremost problems in the process of reconstruction. In the Stalingrad project the entire length of the city's centre follows the river bank. Along the crest of the upper bank of the Volga a boulevard has been laid out, with white staircases leading down its green turfed slopes. The best part of the riverside plateau, between the Volga and the Tzaritza, has been reserved for a spacious square containing the Defence Museum. In Stalingrad we find an optimal location of the urban centre. But it is by no means always that an urban centre is made to adjoin the river directly. For instance, in Rostov the best buildings have for

years been going up along Engels Street, far from the river, and it is here that the rectangular and somewhat diffused centre of the city came to form itself in course of time—a hard fact which it was impossible to ignore. Accordingly, in planning a new centre, Vladimir Semenov provided outlets to the riverside by means of two terraced parks cutting right through the agglomeration of residential blocks.

The town centre of the port of Tuapse has been provided with an original outlet to the sea. Following the axis of the peninsula in the direction from the central square towards the sea, Alexis Shtshusev has laid out a trapezoidal ground-boulevard opening itself against the perspective of the sea expanse; further, by means of a viaduct elevated over the port railway line, access is provided directly to the sea and the seaside public park. Leo Rudnev goes even further in his project for the city of Voronezh. To improve water transport facilities the project provides a dam across the river, converting the shallow and narrow river line into a vast pool one and a half kilometres wide. This being so it was decided to open the perspective of the river Voronezh from the centre of the city and to erect the largest buildings in a manner to make the city turn its face towards the river. In the central part of the city a hillside boulevard has been laid out following the curves of the upper bank of the river, while parallel to it a tree-lined embankment runs close to the water.

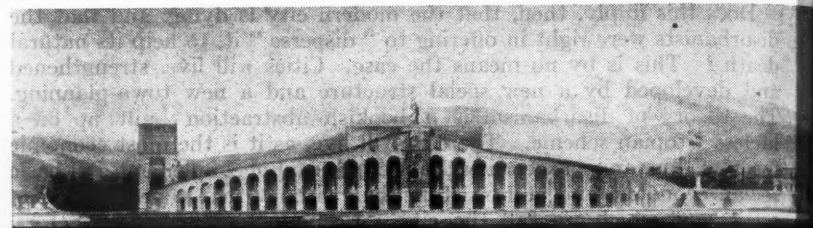
All the projects illustrated extensive public parks in different parts of the cities concerned. The area of greenery for public use goes up to 20-22 and even 25 square metres per head, the largest parks wherever possible being laid out in the central sections of the city. Thus one comes across broad green rings, rectilinear strips crossing the city's centre on the principle of the east-west diameter in Paris, with emphatically expressed park crossings, and, lastly, large isolated patches. It should not escape notice that the authors of the projects by no means always geometrize the plans of the public parks—a circumstance in which the projects under review differ from the Royal Academy proposals for the parks of Greater London, in which Englishmen, the world's greatest experts in the landscape layout of parks, have suddenly departed from their time-honoured traditions.

The most complicated problem



Project for the reconstruction of the University Square at Voronezh. Leo Rudnev, architect.

in the reconstruction of urban centres is, however, the aesthetic one. In every case it is imperative that the urban centre should be an entity and contain the largest and most imposing edifices, possessing an expressive silhouette and a clearly perceptible individuality. Architecturally, the centre of a city represents its centre of gravity. And so contrast comes to be the chief means of attaining aesthetic expression. At the same time the local conditions in a country as vast as Russia confront architects with very diverse problems. Whether a city stands on level ground or on a hilly site is a question of the greatest import, because in the first instance the city's centre has to be provided with considerable architectural



A stadium for Stalingrad, designed to accommodate 40,000 spectators; the east facade. Nicholas Colley, architect.

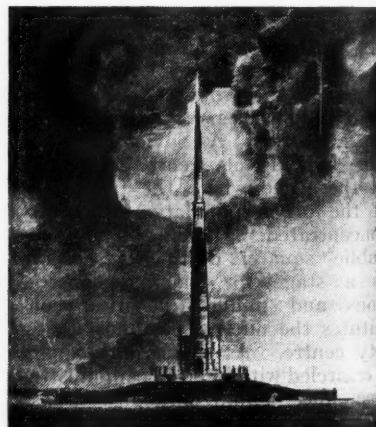
verticals, whereas in the second the high buildings need not be so high. Of even greater importance is the nature of the city's inheritance in works of architectural art. Stalingrad, for example, is devoid of any valuable artistic legacy, whereas Novgorod boasts a great number of architectural works possessing a monumental artistic value, the majority of which are crowded in the city's centre, i.e., in the kremlin and the Vetche Square, where in olden days the populace assembled to discuss the affairs of State. Accordingly, the authors of the respective reconstruction projects, Karo Alabyan and Alexis Shtshusev, found themselves confronted by quite different problems.

In the case of Stalingrad the architect was in a position to plan new buildings in complete disregard of everything except the approved town-planning scheme and the character of the prevailing landscape. In the case of Novgorod the designer enjoyed no such freedom. Nevertheless, it is extremely difficult to decide which of the two opposite problems has been the more laborious and honourable to solve, because only a really great artist could play a secondary architectural role in a worthy manner amidst a host of architectural chef-d'œuvres. Alexis Shtshusev has proved not to be lacking in the requisite qualities. Mindful of the fact that the churches and the kremlin of Novgorod are of relatively insignificant height, Shtshusev limited his building scheme in the central part of the city to houses of two or three storeys. The project provides for the restoration of all the ancient monumental buildings of Novgorod except those altogether destroyed, and in order to reinforce their architectural expressiveness a radius equal to at least twice the height of the building in question will be left clear around each. Most interesting from an aesthetic point of view, however, is the manner in which Shtshusev solved the problem of residential architecture by giving

to it a deliberately modest and neutral form free from any noticeable imitation of ancient styles.

An ability to preserve the atmosphere of old-established cities is well exemplified in the project for the reconstruction of the central part of Smolensk, designed by the late George Goltz, and in that for the city of Kalinin worked out under the direction of Nicholas Colley. There exists in Kalinin an excellently designed system of three radial thoroughfares. The angle formed by the two external ones is equal to 30 degrees—which falls within the scope of optical possibilities of the human eye. From the semicircular Soviet Square situated at the starting point of the three radial thoroughfares the

three avenues are seen at once and consequently the central part of the city reveals itself in much the same way as Rome does when viewed from the Piazza del Popolo. This close resemblance to the Roman radial system suggested a similar layout. And so to flank the central street Colley designed two elegant pavilions adorned with columns and somewhat reminiscent of the churches of Santa Maria in Monte Santo and Santa Maria de Miracoli. But there is no trace of an attempt to copy these churches. On the contrary, sensing



Design for the memorial to the defence of Stalingrad. G. Zakharov and Z. Tchernyshova, architects.

the atmosphere of Tver (as Kalinin then was) in the days of the illustrious Kazakov (1738-1813), Colley and his collaborators treated the two pavilions not in the ponderous manner of the Roman baroque, but in a pure classicism reminiscent of the early Kazakov. To complete the composition of the main thoroughfare, once terminated by a picturesque belfry on the other side of the river Timaka, it is proposed to erect a memorial, in commemoration of the Great Patriotic War, which will take the form of a cylindrical tower of white stone crowned with a lofty gilded spire.

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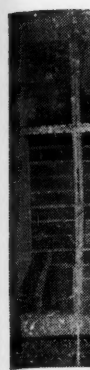
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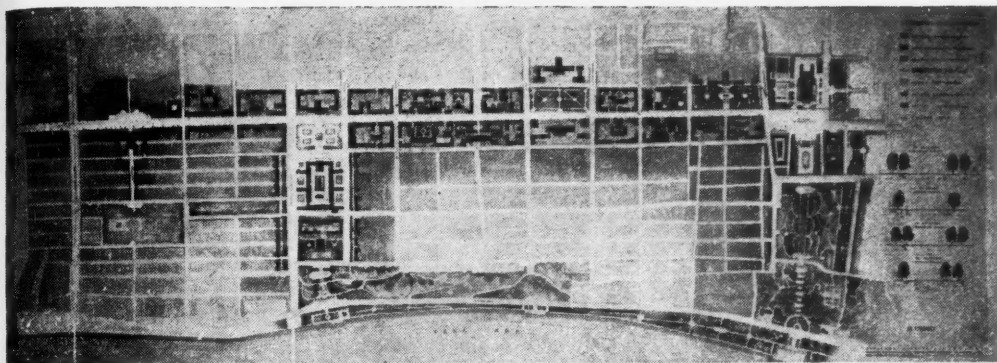
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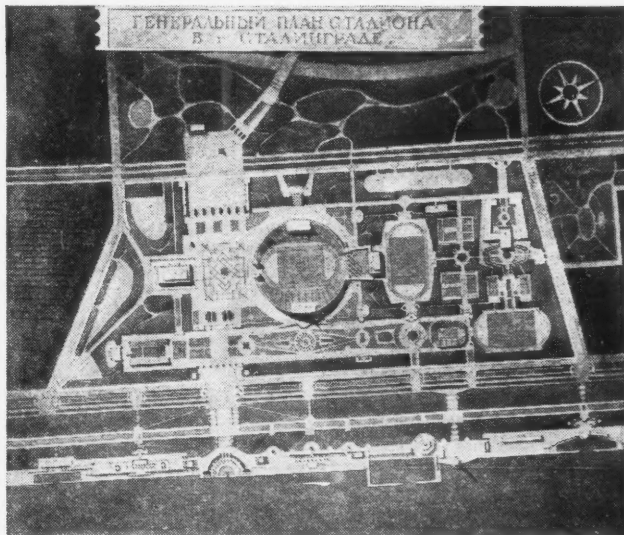
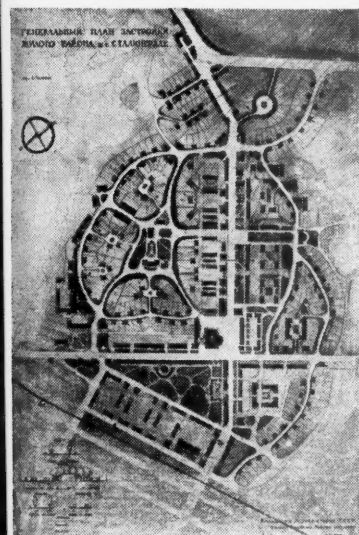
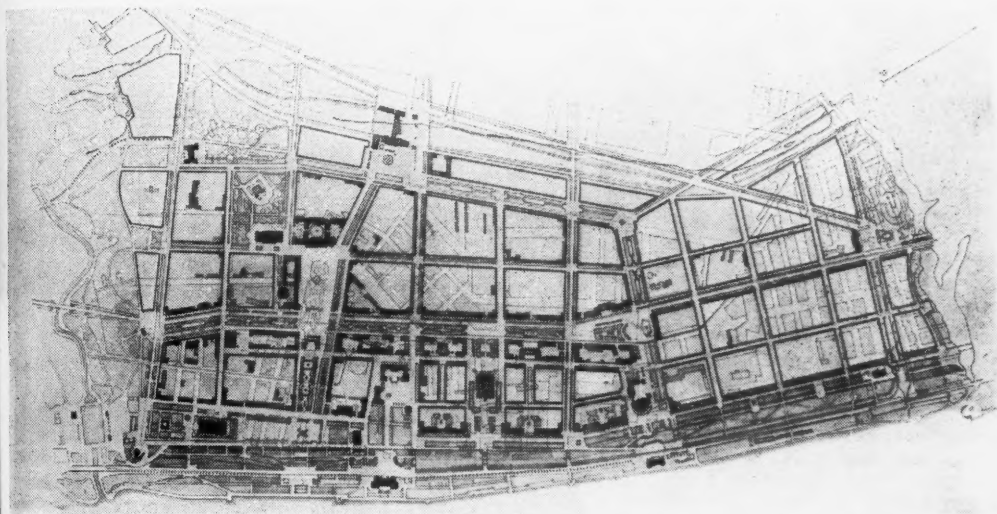
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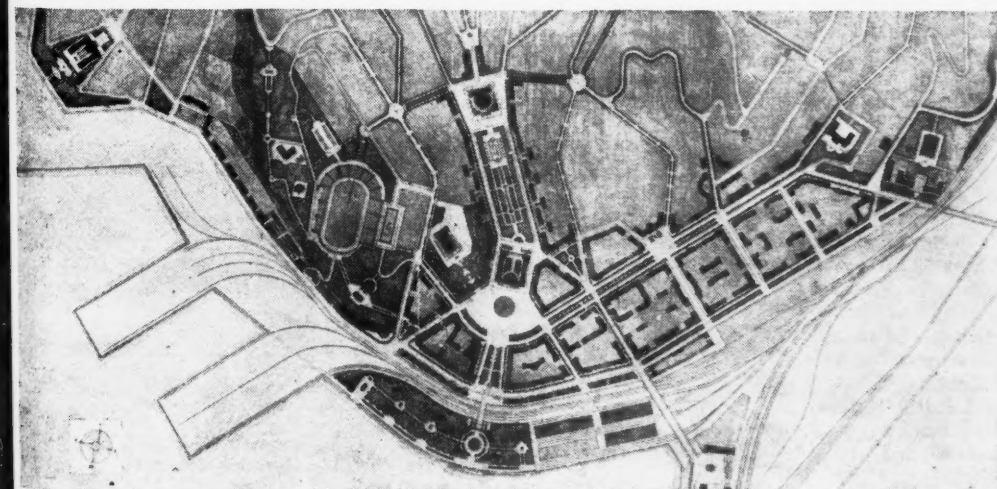
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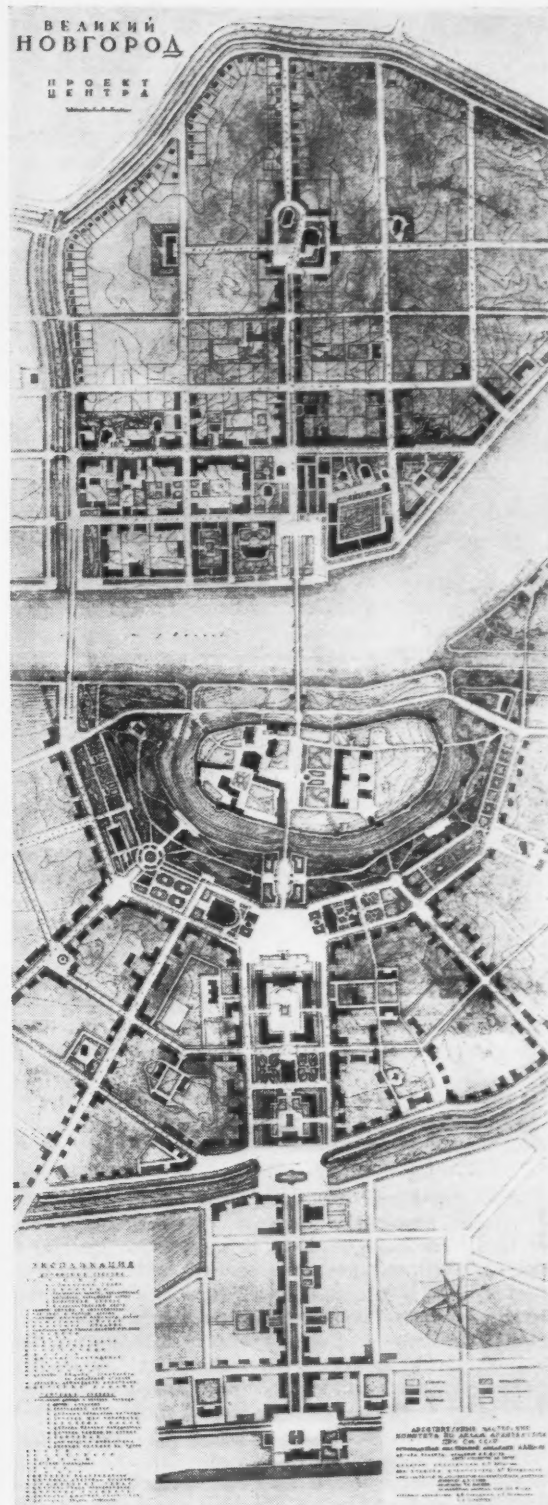
Rostov-on-Don General plan for the city's centre, by Vladimir Semenov, in which the city is designed to face the river with a system of boulevards lining the embankment.



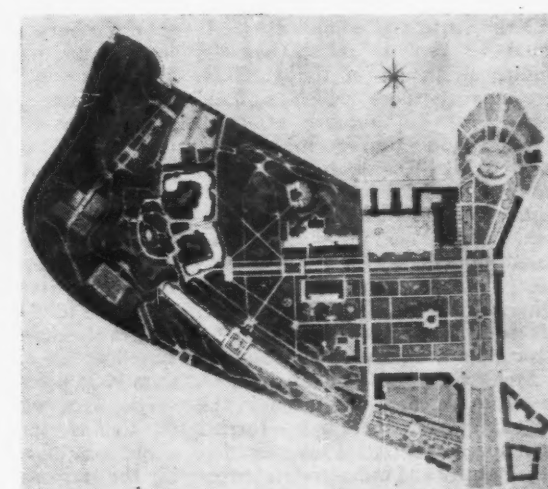
Stalingrad Here again the city is re-orientated towards the river, while the railway has been moved to the outskirts. Top, general plan by Karo Alabyan; lower left, residential quarters, and right, stadium for 40,000 spectators, both by Nicholas Colley.



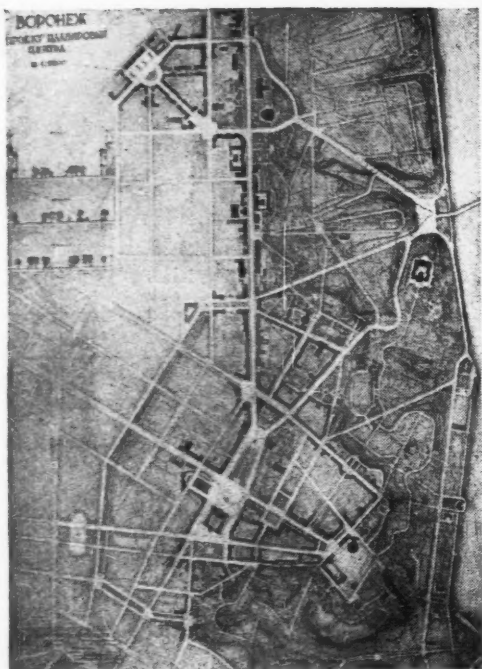
Tuapse Plan for a radical reconstruction of the town, by Alexis Shtshusev and Alexander Mukhin, providing for a combined terminus for sea and land communications.



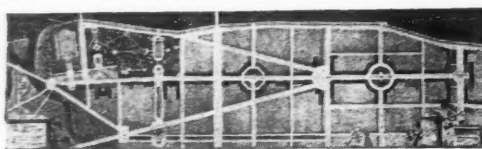
Novgorod Project by Alexis Shtshusev. The Kremlin with the cathedral of Santa Sophia constitutes the centre of the town.



Smolensk The Central Park. The new plan, by George Goltz, follows the radial scheme underlying the old town.



Voronezh General plan by Leo Rudnev, with a broad boulevard, public buildings, and one of the main squares on the river bank.



Kalinin (Formerly Tver). Plan of the Soviet Square, by Nicholas Colley. The radial avenues are part of the eighteenth century plan by Kozakov.



Novorossiysk General plan for the centre of the town, of which three-quarters was destroyed, by Boris Yofan. This provides for a fundamental reconstruction, bringing the residential quarters closer to the sea and developing parks and gardens on an extensive scale.

3 Reconstruction and Housing

By N. Bylinkin

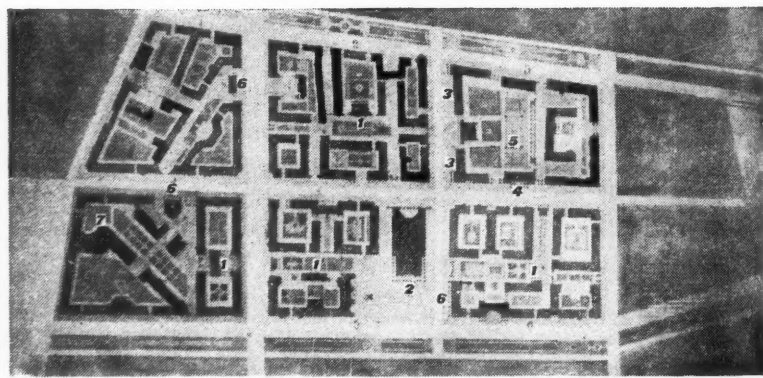
THE reconstruction of Stalingrad, Smolensk, Rostov-on-Don, Voronezh, Minsk, Sebastopol and many other cities of the Soviet Union is progressing at top speed. Homes, schools, kindergartens, theatres—everything burnt down or blown up by the German invaders—are now being restored. However tragic the havoc of devastation may have been, the destruction wrought by the enemy has—as befits the dialectical principle—permitted the introduction of considerable improvements into the planning of the towns concerned.

In the initial stage of rehabilitation considerations of economics are particularly acute and complicated. It should be kept in mind that the building industries of the U.S.S.R. were among those which suffered most. A vast number of brick factories and timber mills were lost in White Russia, together with that country's cement mills and the famous cement mills of Novorossiysk, while heavy damage was caused to factories and works producing building materials in the regions of Moscow, Kiev, Poltava, etc.

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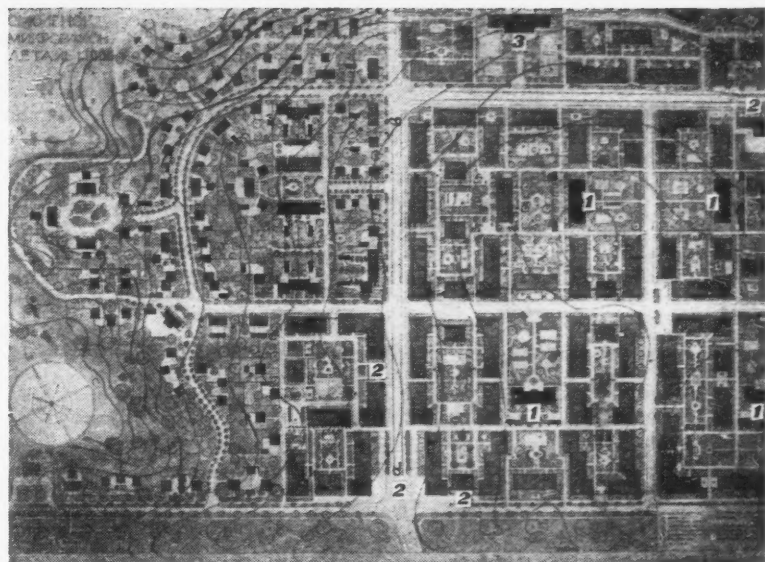
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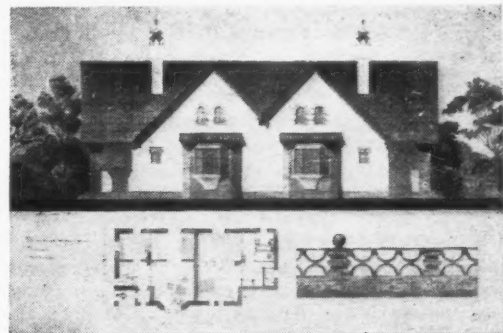
It seems to us, on the other hand, that the historical law which decrees that the well-fed cannot understand the hungry will not allow of exceptions, even if people are made to live in "neighbourhoods." Nor are we able to accept the idea that the city as a great architectural phenomenon is to be ignored. In Soviet society the city shelters no social contradictions and we are not alarmed by the prospect of an eventual loss of urban patriotism on the part of the city's population. We accept the idea of a "micro-region" as a means of clear-cut and rational development, both functional and architectural, for the residential areas of a city—but nothing more.

Figure 1 represents the scheme for the reconstruction of six quarters in the central part of Stalingrad. The preliminary plan, by K. Alabyan, M. Sinyavsky and others, reflects the principles just mentioned. All the six quarters are encircled by traffic highways while the drives separating the quarters from each other serve the local traffic alone. The sites are laid out after the principle of residential compounds. Such compounds permit the division of the space inside the quarters into open grounds appertaining to each compound individually. A bitter continental climate marked by strong winds necessitates such methods of development. The residential buildings are of four storeys, or in some cases of three. The accepted density per hectare of built-up area is 265 people gross and 400 net. Fifty per cent. of the ground covered by each quarter is left open for gardening and greenery. The scheme provides for kindergartens and nurseries, which are located on the ground floors of the residential blocks whenever the adjacent territory allows a normal organization of children's playgrounds; the designers were somewhat limited by the presence on the grounds concerned of damaged but repairable buildings. Inside the quarter there is a club building with stage and theatre facilities sufficient to serve not only the population of the six quarters concerned but also that of the neighbouring residential quarters.

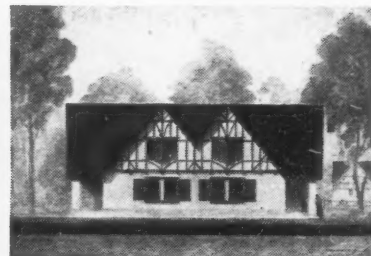
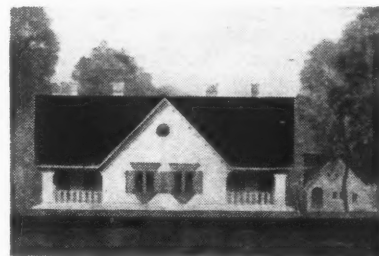
Figures 2, 3 and 4 represent eleva-



Smolensk Residential quarters: George Goltz and Nikolai Bylinkin, architects. 1, kindergartens and nurseries; 2, shops; 3, schools.

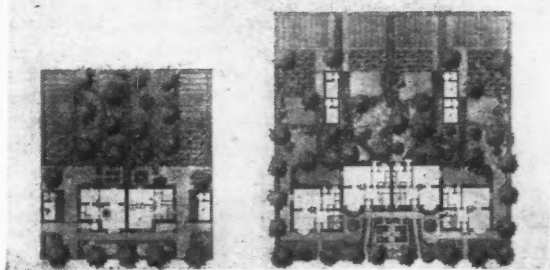


Right, two-flat house designed by Nikolai Bylinkin, with ceramic details to elevation and fencing. Below, three different elevations for the same plan, by George Goltz and Nikolai Safronov, and a single-flat house by Yuri Shmemon.



Above, elevation to main street of residential buildings; Nikolai Bylinkin, George Goltz and Nikolai Beseda, architects.

Right, site plans for a two-flat cottage and a four-flat house; Nikolai Bylinkin, architect.



tions of buildings lining this residential quarter. It will be noticed that their composition has been determined not only by the considerations of orientation but also by the significance of the streets and highways making up the basic planning network of the city.

A Soviet citizen does not live confined to his residential quarter, to his compound or region, and his psychology and interests are never limited by such categories. He necessarily regards the city in its entirety as his home, because there always are festive occasions when we have our streets, passages and city squares fully at our disposal as a stage for public merry-making and mass demonstrations. There are days when Robespierre's dream of a public theatre in which the people act both the part of audience and stage cast comes true. The collective existence of Soviet citizens in their cities constitutes one of the most important features of their life outlook. And it seems impossible to us to shut ourselves off from it and turn the backs of our residential quarters to it. Our traffic arteries do not serve the purpose of traffic alone, and therefore their architectural make-up must be subjected to the creation of that other and greater organism—the city in its entirety. Even though we agree with Auguste Perret's dictum that "an architect is a person essentially thinking in terms of material and construction"—the ideas with which modern Soviet architects are imbued are closely connected with the Red Army's heroism, with the courage and tenacity of such heroic cities as Stalingrad, Odessa, Sebastopol, Leningrad. It is therefore only natural we should express this in architectural terms, in central city squares dedicated to outstanding events of the World War. And the modest background of residential quarters should contrast with public edifices—not in a passive and indifferent manner, but in such a way as to ensure that it plays its proper part in the city as a whole.

For the city of Smolensk George Goltz and N. Bylinkin designed a residential community with a population of 20,000. Figure 5 represents a part of their project. The place of the region in the city's general plan, together with the existing network of streets, the presence of buildings which escaped damage and the lie of the land, necessitated a division of the area into two building zones. The hilly and broken western and north-western parts of the area comprised the first zone of development. This is laid out with one- and two-family houses, with houses accommodating four families scattered here and there, while the street plan is adapted to the contours of the ground. The allocation of site area to each one-family house varies from 800 to 1,000 sq. metres; to the two-family house from 800 to 1,200, and to each block of four flats from 600 to 800 sq. metres. The second zone, comprising two-storeyed and partly three- or four-storeyed residential buildings, is separated from the first by a not too busy traffic highway. The latter circumstance made it essential to place such buildings as schools,

kindergartens and nurseries in their own respective zones.

The varied height of the houses made it possible to centralize the water supply and drainage systems for the whole residential community.

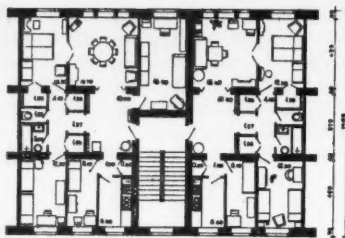
Figures 6, 7, 8, 9 and 10 give examples of the residential architecture of the two zones (both cottage and multi-storeyed buildings). Figures 11 and 12 show the composition of the main street of residential buildings. Figure 13 represents a typical site plan for two-family and four-family houses in the first zone. Figures 14 and 15 are plans of two-storeyed apartment houses. Figure 16 shows the type of architecture used for public buildings such as kindergartens and nurseries.

An experimental project carried out in Moscow by the Research Institute of Mass Construction of the Academy of Architecture of U.S.S.R., furnishes yet another example of a small residential area (Figure 17). A public bath-and-laundry compound is here being built in the precincts of the residential quarter. It is nowhere more than 600 metres from the buildings it serves, and thus makes it possible to design the latter to minimum standards without reducing the general level of domestic convenience.

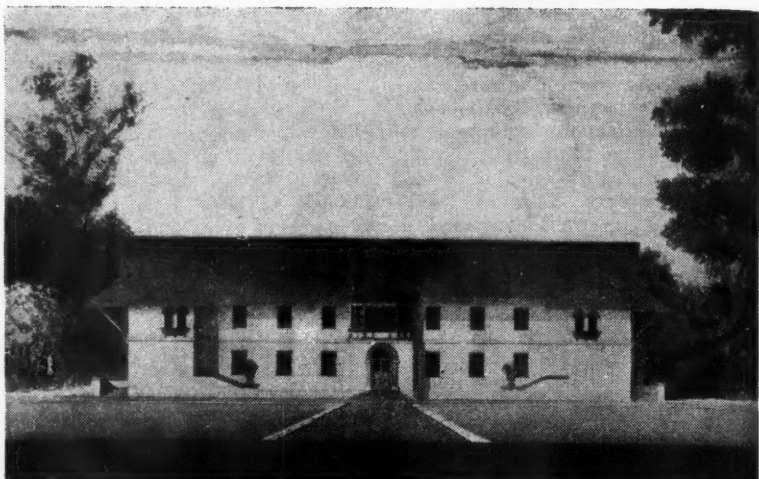
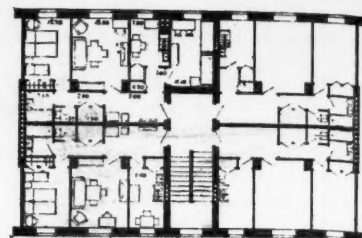
The composition of this residential quarter, which is to house workers in the building trade, is based on residential blocks around open courts. It includes the requisite number of kindergartens and nurseries, while stores and shopping centres are planned in the ground floors of the residential buildings, facing the broad green avenue. The already existing regional school stands well outside the traffic lanes and at the same time close to the region under construction. The club building has been designed to serve the population of the region itself and also that of the neighbouring quarters. The total area is 10 hectares, with a density of population of 300 per hectare. All the residential houses and public buildings are to be centrally heated from a common boiler station located in the northern section of the settlement.

Besides serving as a testing ground for ideas in the field of design, this experimental development scheme in Moscow presents an opportunity to test new types of construction. Some of the buildings will be faced with stucco, while others are to be built of slag-and-concrete blocks painted with special multi-tinted silicate colours specially evolved by the Laboratory of Facing Materials of the Academy of Architecture of U.S.S.R. to resist atmospheric changes.

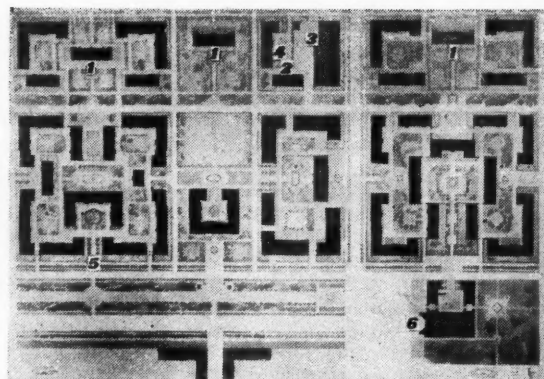
The architecture of the settlement at Izmailovo (Figures 18, 19 and 20) is based on a minute consideration of specific needs and of the scale of two- or three-storeyed residential buildings. It is by a free use of balconies, by differently finished entrances, by varying proportions and a studied colour-scheme that we try to obtain the effect of privacy so essential in domestic architecture, while much attention has been paid to the possibilities inherent in trees, flowers, and the use of ceramics, stone and metal for lesser architectural features.



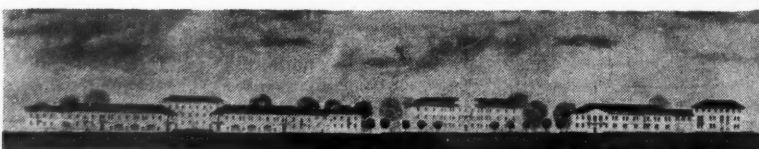
Two type-plans of flats in multi-apartment houses, that on the left by Alexei Zaltsman, on the right by Leonid Bumazhny. Both at Smolensk.



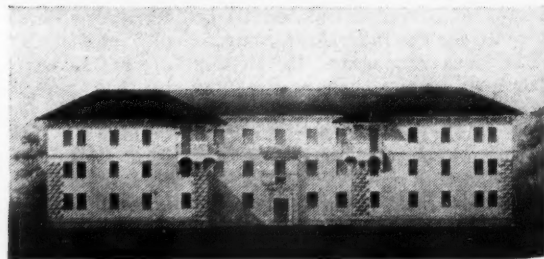
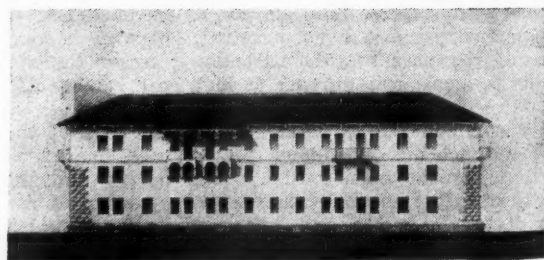
Kindergarten for seventy-five children in Smolensk, seen from the service premises; Nikolai Bylinkin, architect.



Moscow Plan for experimental community settlement for building workers at Izmailovo, Moscow; N. Naumov, architect. 1, kindergartens and nurseries; 2, central boiler-house; 3, bath-house and laundry centre; 4, garage; 5, shops; 6, club.



General view of housing at Izmailovo. The buildings face on to a green road.



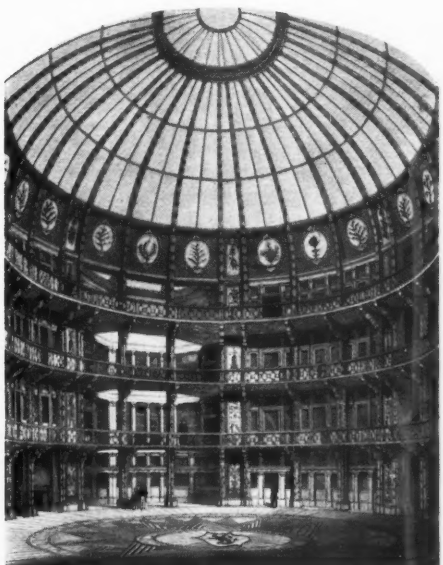
Two blocks of flats for the Izmailovo community settlement, the upper by Leonid Bumazhny, the lower by N. Naumov.

LONDON COAL EXCHANGE

The Crystal Palace, King's Cross Station: these have been accepted in the twentieth century as the highest Victorian achievements in glass and iron (even though the principals at King's Cross were originally wood). As they were built just at the mid-century they seemed to mark a particular point of development in the architectural use of new materials and also in the expressive employment of engineering elements. The London Coal Exchange in Lower Thames Street opposite Billingsgate, built 1847-49 by J. D. Bunning, while hardly a lost or even a particularly inconspicuous monument, has in this connection great relevance and interest, both technical and aesthetic. Although the exterior is wholly—or was apparently intended to be wholly*—of masonry, the interior domed court is not only a completely consistent articulated structure of cast-iron and glass, but also has a scheme of both integral and applied ornamentation of symbolic as well as decorative significance, which is vastly more elaborate than the refinements of form by which Lewis Cubitt gave an almost Georgian distinction to King's Cross or the simple semi-functional repeated motifs which must have provided on the great scale of Paxton's Crystal Palace a lace-like delicacy when painted throughout with Owen Jones' pale blue highlighted with touches of orange and red. Whether the elaborate architectural expression at which Bunning aimed in the court of the Coal Exchange succeeds as well as Cubitt's and Paxton's simpler and more severe effects must be a matter of taste; but that he set out to provide within the frame of current technical possibilities, and with very slight reference to the styles of the past, an architectural solution as rich and allusive as the Victorians expected Architecture with a capital A to be, is immediately evident to the casual visitor, and becomes much clearer when the various details are individually studied. The Coal Exchange is more truly a Victorian monument of architecture than King's Cross or the Crystal Palace. It opens the way to Paddington, the Oxford University Museum and the Leeds Corn Exchange as they do not.

Since the nineteen-forties are less easily satisfied by un-leavened functionalism in architecture than were the nineteen-twenties, it is particularly worth while to study to-day such Victorian monuments as combine a maximum of originality, both technical and aesthetic, with a serious attempt like Bunning's to achieve richness of effect and allusion in a way that is suited to a modern age. There is, I trust, little danger that anyone today will try to imitate the Coal Exchange itself; but a consideration of its aesthetic success or lack of success may be not without value. Nor is it without significance that the Coal Exchange was built for a public body, the Corporation of the City of London, by its own official architect. If the Coal Exchange is a sort of masterpiece it is not merely a Victorian one but a masterpiece of bureaucratic architecture as well—if that is not a contradiction in terms.

* The inconspicuous iron colonnettes in the ground floor windows must have been an afterthought as they are not shown in the original design.



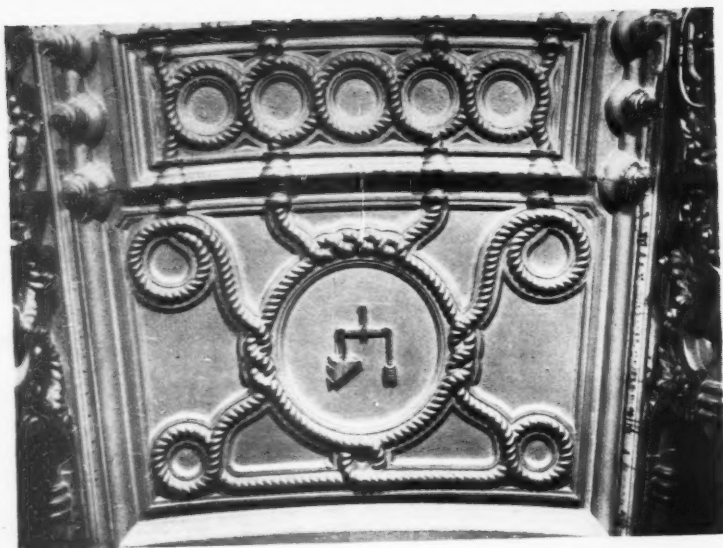
notes on the illustrations

1
Perspective of the Coal Exchange by J. D. Bunning, 1847. The chief criticism of the building as a whole is that there is no integration—indeed practically no relation—between the exterior and the interior. The exterior is not without its own interest however: the perspective composition centered on a corner tower, which was just coming into general use for Gothic churches, is most skilfully associated with an essentially academic parti; the Mannerist detail is used with dignity and assurance, suggesting that Bunning (who can have had few relevant published documents at his disposal) had employed in Italy a rather independent eye in filling his sketch-book; above all the scale of relief is particularly well suited to the difficult visual conditions of the London atmosphere, so that the building is still clearly visible as an architectural entity after a century of grime and smoke. Bunning was architect to the City from 1843 to his death in 1863. His production included the Smithfield Meat Market, familiar to-day as the Caledonian Market; the Fish Market at Billingsgate across Thames Street, replaced by his successor Horace Jones's Market which exists to-day; the design of the towers of the destroyed Hungerford Suspension Bridge; and some cemetery and orphanage work. Only the Caledonian Market has any particular interest.

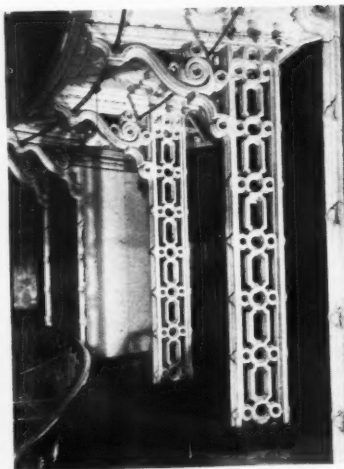
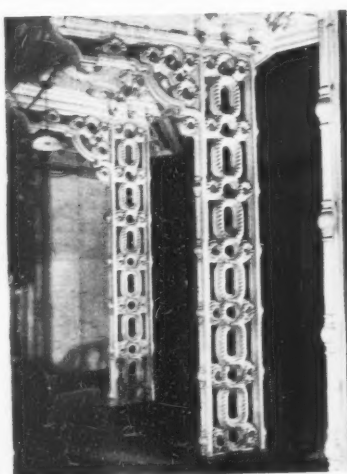
2
The court of the Coal Exchange (from George Godwin, *Buildings and Monuments, Modern and Medieval*, London, 1850). However the exterior may mask the plan, the interior reveals it completely. Around the circular court, where the actual exchange operations take place, are a series of offices with glass doors and windows in wooden frames to provide as much light as possible from the glass dome. The outer sides of the offices take such shapes as the rhomboidal site permits and receive additional light from exterior windows located where the academic facade composition requires them to be. Galleries provide access to the three upper ranges of offices, and these galleries are reached by four staircases in bays that break the continuous range of offices. The large domed space (60 ft. in diameter and 74 ft. from the floor to the central eye) bears no resemblance to the domed spaces of the past. The thirty-two ribs (each cast in one piece 42½ ft. long and weighing some two tons) continue the lines of the three ranges of slender vertical supports which likewise carry the iron plates of the gallery floors on integral brackets. Every fourth bay is a narrow one filled with painted arabesque panels at each level; the blank panels below the glazed area in the dome are likewise decorated with painting. All the iron is richly moulded, but the sections of the supports are so handled that when seen from the centre they appear very slight, delicate, and simple; while when seen laterally they are sturdy and ornate. The glass of the dome was ground plate (now all blasted out) and that of the central oculus amber. The ironwork is to-day, and perhaps always was, painted cream, which enhances its lacy richness; the encaustic panels, however, have darkened, so that they are now, unfortunately, all a varnishy brown; though their colours presumably were once light and gay. The floor is an elaborate compass pattern of different inlaid woods, now very poorly maintained. The cast iron was supplied by Messrs. Dewar, of Old Street, in all about 3,000 tons. The total cost was £40,000, and the general contractor for all but the iron, William Trego.



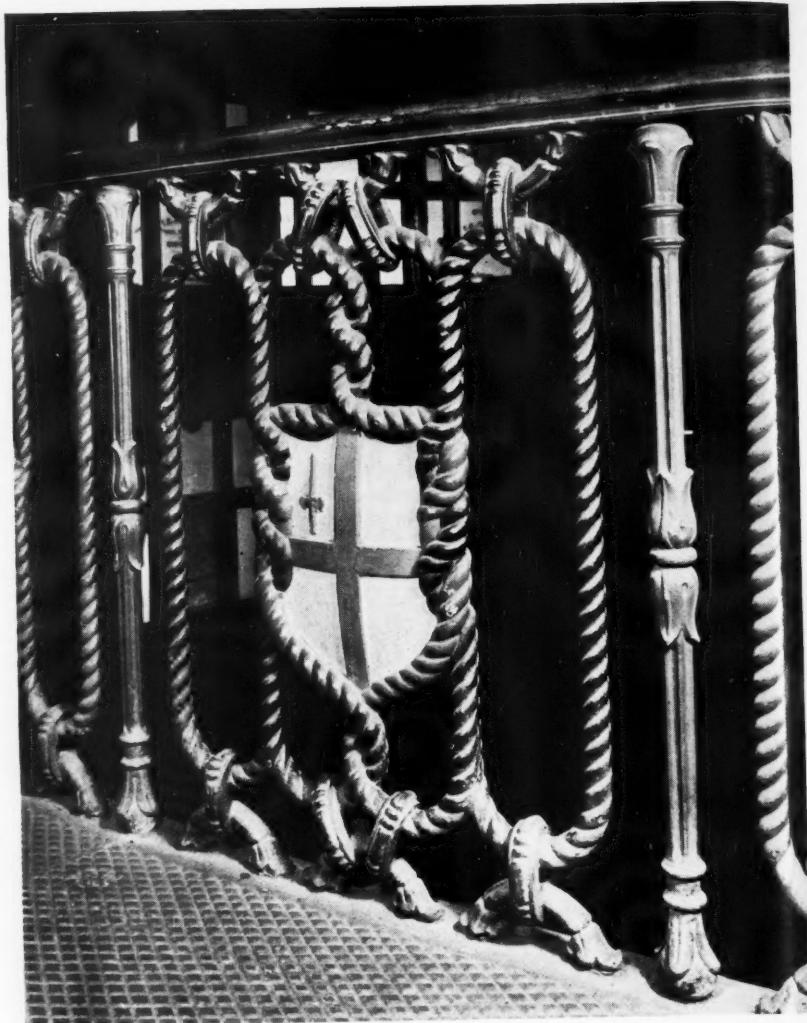
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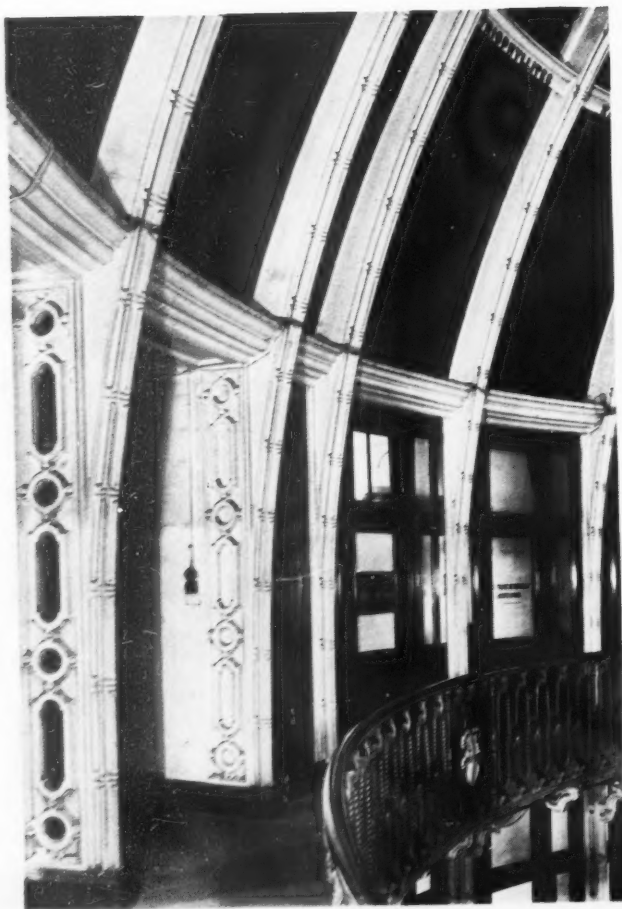
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London Coal Exchange

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3 The underside of one of the iron slabs of the gallery at the entrance. The building was opened with much ceremony. The card of invitation was "solid enamelled" with an engraved view of the exterior, like Fig. 1. The card of admission was on lace paper with a coloured group of fossil ferns (compare Fig. 10), an attractive reference to the iconographic scheme of part of the decoration, and provided a map of the Billingsgate district on the back to assist West End guests in reaching the site. The press of distinguished guests was such that the coal factors were relegated to the top gallery, leading to the quip that "the coal sellers were in the attic."

4 The ground floor supports. The inspiration perhaps is Northern Mannerist (i.e., strapwork), but the decorative theme, symbolizing the ropes used in coal mining and also on the coaling ships which brought the coal to London, is used with great virtuosity throughout and with a real feeling for the special character of a material that is cast in a mould.

5 The underside of a typical gallery slab. More rope: indeed the contemporary critic in *The Builder*, September 29, 1849, remarked: "The ornamented portions . . . display in almost too great profusion the rope form." The central motif is alternately a coal-balance as here, and an anchor. Note that the bolt bosses are at once functional and decorative. Such heavy bosses would be good engineering practice with a cast metal and they certainly give fine relief to the design. It is perhaps too much to claim that the rope patterns serve intentionally as ribs to strengthen the slabs, but there is little doubt that in fact they do.

6 The first floor supports. Richer and also somewhat more delicate than those on the ground floor. The open grid with thick members is probably stronger than a plate without apertures and of even thickness would be; it is certainly more suited to the casting process.

7 The second floor supports. The rope is omitted and the underlying strapwork character of the ornamental treatment is more visible. The technical comment in the caption of Fig. 6 still holds good, however.

8 The balcony railings. The City arms are in white and red; and the tiny note of clear red suggests how effective the painted arabesques may have been when their colours were fresh.

9 The third floor with the springing of the dome ribs. Extremely elegant, like certain details of late Gothic vaulting, is the tangential relationship of the portion of each member which serves as third floor support to the portion which is the main rib of the dome. The mouldings of the horizontal members serve to keep all parts in scale. Note the careful avoidance of sharp concavities, always good practice with castings which will be stressed, since cracks may start in them. The "fat" quality of the mouldings is better engineering practice than the sharp, supposedly "metallic," definition twentieth century taste has preferred.

10 The painted panels of the dome. Melhado, from Bunning's office, designed the tree fern panels on the basis of coal fossils he studied in the British Museum. This makes a fine display of rather Ruskinian geology, with each tree fern labelled above in gold and black. The panels were executed in encaustic by Lang, who was then decorating several of the West End clubs. The rather conventionally Italian and underscaled arabesque surrounding the fine tree ferns are doubtless of his design rather than of Bunning's or Melhado's. The narrow panels contain trophies of coalminer's tools, rather like the panoplies of arms and the *trophées d'église* of the eighteenth century, but with a new industrial, even proletarian, significance.

11 One of the desks on the floor of the Exchange. Presumably another reference to coal fossils, but less closely based on Melhado's researches among the tree ferns at the British Museum. Wooden top on cast-iron supports at standing height.

12 One of the collieries included in the first floor arabesque panels. The contemporary critic remarked in *The Builder* that the lower panels were "less satisfactory in execution" than the tree ferns in the dome. This is certainly true as regards the conventional ornament, but there is considerable charm in Lang's little industrial landscape. The ground floor arabesques in painted tiles with irrelevant personifications are probably not original.

HENRY-RUSSELL HITCHCOCK

BOOKS

The Detritus of History

SYRIA. By Robin Fedden. Robert Hale. 21s.

THIS is the best book that has been written on the most fascinating of all the Middle East countries since Gertrude Bell's *The Desert and the Sown*. A word of comparison between the two books is worth while, because it throws an interesting light on the changed attitude of the traveller in remote places since the first of them was written in 1907. The difference between the two may be defined as a difference between a horizontal and a vertical viewpoint.

Gertrude Bell, when she made her celebrated journeys, unrolled the map, so to speak, as she went. She pursued her way around a strictly horizontal plane, and in her writings she reveals topographical character just as she came on it in her travels. Despite her archaeological enthusiasm, the physical excrescences that history has left on the land only loom up as a background to the tale of the traveller's progress. But Mr. Fedden explores the same land from the viewpoint of history itself. With foreknowledge of the country he is setting out to discover—with its topography already spread out before him—he explores it vertically, travelling back and forth over it in time.

In contrast to Miss Bell's, Mr. Fedden's viewpoint is that of the detached observer, conscious of local character and topography as the detritus of history. He is, however, a great deal more than a mere historian, for the historian is apt to be interested in the present only for the sake of the evidence it gives him about the life of the past, but Mr. Fedden has a civilized man's capacity of enjoying things and places for their own sake also, and one of the delightful qualities of his book is the way he brings out the flavour and personality of a city like Damascus, a landscape like that of the Alawite mountains or an abandoned settlement like Kalat Seman.

The structure of the book is nevertheless an historical one. Each epoch in Syria's history is successively dealt with in relation to the particular part of the country in which it left its deepest mark. And no country lends itself to this kind of survey in time as well as space so aptly as Syria, a land overlaid with the remains of a succession of civilizations which, coming and going, have left behind them a whole museum of beauties: Roman cities in the desert where goats now browse along the streets of decapitated pillars, vaulted reservoirs, on the water from which the life of populous Byzantine towns depended, now choked with the dust of the Palmyrene steppe, and crusader castles whose hill-top walls seem outcrops of the landscape itself—to say nothing of the flourishing bazaars and secretively court-yarded houses that speak for the continuity of everyday life through centuries of upheaval.

Mr. Fedden writes about all these with charm and distinction, and with that affection for his subject without which knowledge never blossoms into understand-

ing. The photographs, which are excellent though too few, support him well; not so the ugly jacket. He seems, unlike so many historians, to have no pet periods, for the quality of the book is sustained from beginning to end. Only in the last chapter does he descend from his historical pedestal and concern himself with the rights and wrongs of French policy in Syria. His sentiments are unexceptionable, but controversial journalism is one thing and topographical literature another. As a master of the latter, Mr. Fedden would be difficult to surpass.

J. M. RICHARDS

The Soul of Suburbia

THE CASTLES ON THE GROUND. By J. M. Richards. Architectural Press. 8s. 6d.

OPENING this book, I thought that Mr. J. M. Richards could be up to no possible good. But having read it, I found that I had been in accord with him almost from first to last. Lookers-out for reaction need not put their noses inside the stormy John Piper cover; they can pin nothing on the author. So what is it all about? It is not so much a study of architecture as a study of human values. It is not a plea for the tile-hung gable with the terra-cotta dragon, but a reminder that the life beneath and around such things possesses character and quality and that even if you despise the dragon you cannot be contemptuous of the human scene in which he plays his tiny part. There is, however, more to it; for Mr. Richards will not allow that the suburbia which he depicts would be the same without the dragon—still less, that it would be better. May a man not keep a dragon?

The theme is psychological. Mr. Richards's suburbia is a dense, leafy jungle, and this jungle is "a hide-out for fantasy." The suburb "gives to the people who live in it some of the things that they . . . demand from their environment: in particular, two things, a sense of belonging to a fairly sympathetic world and an opportunity of making out of that world something personal to themselves—in fact an outlet for their idealistic and creative instincts." This is, I think, profoundly true; but so near a truth to most of us that it is hard to objectify. However, this is where Mr. Richards scores an absolute hit. He does succeed, quite wonderfully, in defining values which have got overlaid in the welter of those "progressive" ideas of which we have become the complacent slaves. He sees that the suburb—with its houses, its lawns, its manners and customs, its atmosphere—is something real and should not, probably cannot, be planned away.

The artifice Mr. Richards employs in bringing the



Damascus from the air showing the Great Mosque. From Robin Fedden's *Syria*, reviewed above.

suburban picture into focus is very remarkable. Writing, not in England but in the Near East, he has cast his mind over to the fringe of London and drawn up in its net a great draft of visual images, sharper and more exact, perhaps, than if he had been writing in Wimbledon or Tufnell Park. Here is an example:

"The sunlight coming through the bottle glass of the front door falls in irregular blotches on the cocoon mat made by blind ex-service men, on the fumed oak hatstand and on the wall-rack holding a variety of walking-sticks collected on summer holidays, including one with a spiked ferrule and a sprig of edelweiss cut in the wood below the handle. These blotches of sunlight make the narrow hall seem rather dark by contrast. It smells faintly of furniture polish and somewhat more faintly of the American cloth of which the hood of a folding perambulator is made. . . ."

Yes, that is suburbia. It is also one's own childhood. It is the house of one's aunt or of the people at "Dunvegan," or it is the "private side" at one's preparatory school. And I cannot help suspecting that Mr. Richards's attachment to suburbia really begins with childhood experiences of his own—those experiences which make almost any environment precious to us in later life. If I am wrong I apologize. But when, in the last chapter, Mr. Richards looks wistfully through the dark into a lighted room where tea is in preparation on a polished gate-leg table, is he not really looking into his own past? He is certainly looking into mine!

Nostalgia is unquestionably one of the most effective motivators in the world, capable as it is of sudden conversion into powerful, extraverted points of view. Alberti's nostalgia for Rome, Viollet-le-Duc's for the middle ages, provided the dynamite for revolutions in architecture. Our own nascent nostalgia for secure, cosy, smooth, wayward, prim, happy suburbia may, in the alchemy of events, bear extraordinary and unexpected fruit.

I have said that this book is not really about architecture; indeed, the author himself warns us that "the suburban style is not a style of architecture." And it may be that architecture is wholly irrelevant. For the people who make suburbia are not the people who built it. The building of suburbia is a subject which Mr. Richards evades, knowing too well, perhaps, that it would throw a dirty spanner into the works. For nobody, I think, can ever idealize the process by which most of our suburbs came into existence. When Ruskin wrote of "those pitiful concretions of lime and clay which spring up in mildewed forwardness out of the kneaded fields about our capital," he was thinking of a process which is the more despicable the closer one looks at it. For what is the average inner suburb, in origin, but a crude investment of spare capital by somebody as uninterested in the ground itself as in the lives of the people who shall live on it? That somebody having quitted the speculation the very moment a profit could be obtained, half-a-dozen nobodys have played the same game with the individual plots, each scrambling out with his petty margin of gold. That is the essence of the Victorian suburbs, and those created by the Building Societies are not so very much more inspiring. The results are irredeemably bad. There is the ineradicable framework of suburbia round which suburban life is woven. There is the curse on suburbia which, for all Mr. Richards's felicitous insight and creative eloquence, cannot be forgotten or condoned.

JOHN SUMMERSON

U.S. Sociological

EDUCATION FOR RURAL AMERICA. By Floyd W. Reeves. University of Chicago Press. 2 dollars 50 cents.

THE book contains papers read at a conference in Chicago held in 1944. The first four deal with social, economic and planning matters affecting rural communities. The remaining seven deal with matters of organisation, which, all but one, are more interesting to the student of Americana than to the architect or planner. But in one of these financial studies, data are given which interest the planner: the minimum number of pupils per teacher and of teachers per school is given as a function of *per capita* cost of education. No school under seven teachers and 210 pupils passed that test. For a full curriculum, ten teachers and about 300 pupils were required. Yet in actual fact not less than 75 per cent. of all U.S. rural schools have only one or two teachers. A very grim picture of waste and decline emerges: while the birth-rate in rural areas is twice that of urban areas, and the population increases, opportunities for employment in agriculture are on the wane through mechanisation and the policy of controlled scarcity. At the same time 84 per cent. of the rural population live actually on farms. Nor is farming carried on on the richest soils, but paradoxically, the poorer the farmers, the further they drift on to marginal land, exploiting

it to the point of risking soil erosion. In a paper by the Tennessee Valley Authority's Director of Personnel the lesson is clearly appreciated: the Authority bases its school programme on a full syllabus for "resource education," the consciousness of natural resources and their full planned use.

It is a fact that these American publications tend to show us our own problems as under a magnifying glass. The need for planning education in areas of thinly spread farming, the unbalance in totally agricultural districts, the need of planning for, rather than against, the drift of rural population to the towns, soil erosion, marginal agriculture and subsistence farming, all these are problems that face our rural planners, but in magnitude they are as the river Wye is to the Tennessee.

GERHARD ROSENBERG

U.S. Historical

BOSTON AFTER BULFINCH. An account of its Architecture, 1800-1900. By Walter H. Kilham. New York: Harvard Press. (London: Geoffrey Cumberlege). 20s.

THIS very brief book, 104 pages of text and 60-odd illustrations, gives a surprisingly vivid picture of a century of American architecture. Boston has always felt itself to be something apart and the rest of the country has smiled at its "Bo(a)sting," some of which indubitably creeps into these pages; yet there *was* reason for pride. Old prints, good and bad photos, taken as a panorama, show a city of solid worth (they loved granite), sober on the whole, graceful occasionally, rarely exuberant; some kind of frugal restraint. These genial pages, which seldom become turgid, and are infrequently interrupted by appendix-like sections of pure data, describe the evolution of Boston from a small town of brick houses into an enormous city dotted by ponderous public and commercial buildings. Boston avoided skyscrapers; it set a limit of 125 feet on its aspirations. Boston failed to take full advantage of all its natural features, but it did lay out parkways and squares. It was among the first to form a Metropolitan District of itself and its suburbs. It made good use of the principle of excess condemnation in planning its market. It had an air-conditioned theatre in the 1840's characteristically called a "Lecture Hall," and in the 1860's a skating rink with artificial ice.

It is gratifying to find that the author pays homage to a wide variety of building types: churches, museums, libraries, of course, but there are also office buildings, markets, warehouses, hospitals, hotels and schools—even railroad stations. Residential architecture plays but a small role. It must also be remarked that Mr. Kilham shows more interest in the earlier examples of each type than in the later; for instance, the highly original Boston Storage Warehouse by Chamberlin and Whidden and South Station are both omitted. Somewhat surprisingly, the churches come out badly. Even Richardson's Trinity Church, though twice illustrated, is not shown to advantage either time.

The layout of the plates is deplorable; someone slipped badly, even to the extent of printing the plan of the Quincy Market five plates after the elevation. There are no references from the text to the plates, and the captions are reduced to a minimum. The serious reader is left to complete them himself by seeking out the architect and the date in the text. It is regrettable, too, that an out-of-date stylistic analysis is employed. Confusing as the history of the nineteenth century is, and aware as the author may be of the value of the view *en grand*, more effort might have been expended on a synthesis. The period between the Greek and Romanesque Revivals is handled under the following heads: "American Gothic," "Plain American," "The French Influence," and "Victorian Gothic." The general reader will not find his conception of nineteenth century architecture made any clearer in these pages. On the other hand, the student will find many dates and facts, and brief biographies of Parris, Rogers, Young, Willard, Bryant and others. Although this book is not meant to rival the great works on London, Bath, or Paris, we welcome it as the newest in what should become a broadening stream of monographs on the architectural history of individual cities.

The history of Boston architecture in the nineteenth century still remains to be written, but anyone, particularly a foreigner, will get a reasonably good idea of a nineteenth century American city from the plates. He will see its exciting variety (some of the street scenes show three or four different scales used on the same block); he will taste the robust exuberance of certain decades and savour the quiet elegance of others. Pretentiousness, vulgarity, and noble simplicity were exhibited in Boston, as in all America and—who will deny it?—as in Europe.

C. L. V. MEEKS

SHORTER NOTICES

PURITAN ARCHITECTURE. By Martin S. Briggs. Lutterworth Press. 8s. 6d.

Any addition to the meagre literature of the architecture of Dissent is to be welcomed. In plan and purpose this book resembles Ronald P. Jones's little *Nonconformist Church Architecture* of 1914, but it is two or three times as long and correspondingly more detailed. The first, historical section, which is well illustrated with photographs, plans and Mr. Briggs's own excellent sketches, contains information that has not been readily accessible before. But it also contains things that one would hardly expect from a writer of Mr. Briggs's knowledge and experience. Thus Thomas Archer is referred to as "one of Wren's pupils," and we are told, in italics, that "no Anglican church erected between the reigns of Charles I and William IV . . . was built in the Gothic style." In the second section, entitled "The Future," there is much practical advice about the internal appointments of nonconformist churches which any architect called on to design one would do well to study. But he need not look at the illustrations; unlike "some of the wilder efforts in church design abroad," Mr. Briggs's choice examples of contemporary church design in England do not, alas, "have to be seen to be believed."

ENGLISH CHURCH MONUMENTS, 1510-1840. By Katherine A. Esdaile, with an introduction by Sacheverell Sitwell. Batsford. 21s.

This is a book that everyone who has already "discovered" post-Reformation church monuments will want to possess. He will want to possess it because Mrs. Esdaile is indisputably the most learned authority on the subject, and because he will expect to find in it a hundred hints for future expeditions. And in this expectation he will not be disappointed. But the book is, avowedly, intended for the general reader; what will he make of it? Certainly he too will want to possess it, because it is sumptuously illustrated (and he will not be aware of the rather serious gaps in the selection of types shown). Yet having acquired it he will be likely to find himself in difficulties. Ironically enough, these difficulties are, one guesses, the direct result of a special attempt made to cater for his tastes. The general reader, the argument would appear to run, is a timid bloke, and what frightens him most of all is anything that looks like History; therefore, chronological treatment is to be avoided at all costs. It is most regrettable that these mistaken ideas should have led to so great a diminution in the readability of a book which ought to have been in its way an Event.

Other Books Received

[Inclusion of a book in the following list does not preclude its being reviewed in a future issue. Nor is the list necessarily complete up to the publication date of the current issue.]

COUNTY TOWN. By Janet Glaisyer, T. Brennan, W. Ritchie and P. Sargent Florence. John Murray. 21s.

ACOUSTICS FOR ARCHITECTS. By E. G. Richardson. Edward Arnold and Co. 5s.

VISUAL PLEASURES FROM EVERYDAY THINGS. By Nikolaus Pevsner. B. T. Batsford for The Council for Visual Education. 9d.

ART AND EVERYMAN. By Hervey Adams. B. T. Batsford for The Council for Visual Education. 1s.

ARCHITECTURE AS A COMMUNAL ART. By Sir Charles Reilly. B. T. Batsford for The Council for Visual Education. 9d.

THE FUTURE CITIZEN AND HIS SURROUNDINGS. By W. F. Morris. B. T. Batsford for The Council for Visual Education. 6d.

ARCHITECTURAL MODELS. By Robert Forman. The Studio. 3s.

VIA OLD ENGLAND. By L. W. Fussell. L. W. Fussell. 7s. 6d.

RECONSTRUCTION AND THE HOME. By Howard Robertson. The Studio. 7s. 6d.

DESIGN FOR USE IN CANADIAN PRODUCTS. By Donald W. Buchanan. National Gallery of Canada. 25 cents.

A SHORT HISTORY OF ST. MARY ABCHURCH. By The Rev. R. M. La Porte-Payne. Blades, East and Blades. 5s.

THE CHURCHES OF THE CAPTIVITY IN MALAYA. By Rev. J. N. Lewis Bryan. Society for Promoting Christian Knowledge. 25s.

ON TRUST FOR THE NATION. By Clough Williams-Ellis. Paul Elek. 25s.

THE GEOMETRY OF ART AND LIFE. By Matila Ghyka. Sheed and Ward. \$4.00.

ARKITEKTEN, PROFESSOR HACK KAMPMANN'S REJSE-BREVE OG SKITSER. Bianco Lunos Bogtrykkeri Arhks., Copenhagen.

BUILDING AND STRUCTURAL TABLES. By Frederick Hyde Blake. Chapman and Hall. 21s.

CITY AND REGIONAL PLANNING PAPERS. By Alfred Bettman. Harvard University Press (London: Geoffrey Cumberlege). 25s. 6d.

HOSPITALS: INTEGRATED DESIGN. By Isadore Rosenfield. Reinhold Publishing Corporation. \$10.75.

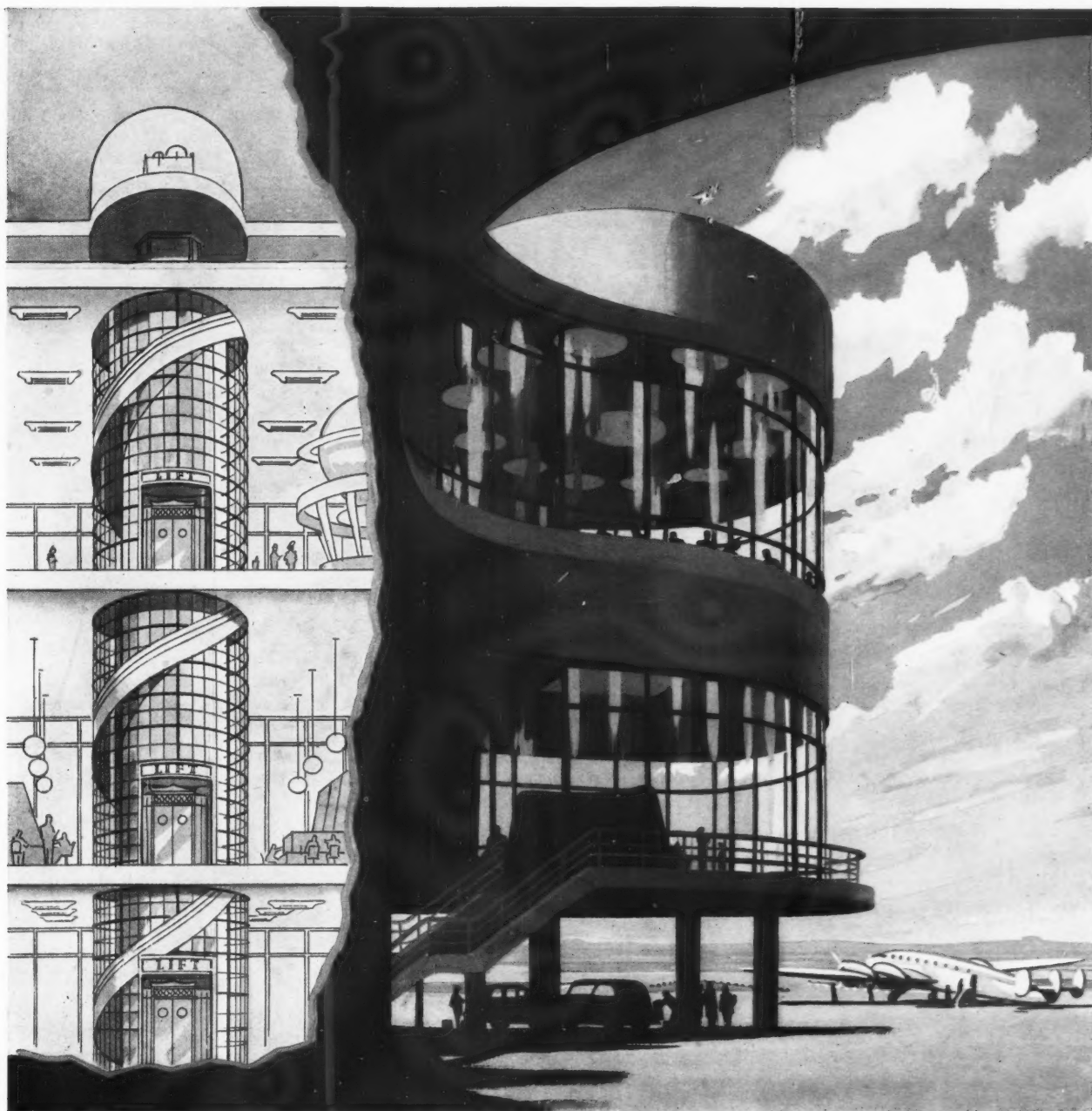
SURVEYING THEORY AND PRACTICE. By John Clayton Tracy. John Wiley and Sons. \$7.50.

HEATING AND VENTILATING. By Louis J. Overton. The Sutherland Publishing Co. 16s.

A GUIDE TO OFFICIAL PUBLICATIONS ON BUILDING. By Colin Penn. The Architectural Press for The Royal Institute of British Architects. 6s.

THE ENGLISH LOCAL GOVERNMENT SYSTEM. By J. H. Warren. George Allen and Unwin. 7s. 6d.

VENEERED WALNUT FURNITURE. By R. W. Symonds. John Tiranti. 6s.



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ANTHOLOGY

The Literary Man's Ideal

Your house should not command much outlook ; it should be set deep and green, though upon rising ground or, if possible, crowning a knoll, for the sake of drainage. Yet it must be open to the east, or you will miss the sunrise ; sunset occurring so much later, you can go up a few steps and look the other way. A house of more than two stories is a mere barrack ; indeed the ideal is of one story, raised upon cellars. If the rooms are large, the house may be small : a single room, lofty, spacious, and lightsome, is more palatial than a castleful of cabinets and cupboards. Yet size in a house, and some extent and intricacy of corridor, is certainly delightful to the flesh. The reception room should be, if possible, a place of many recesses, which are "petty retiring places for conference" ; but it must have one long wall with a divan : for a day spent upon a divan, among a world of cushions, is as full of diversion as travel. The eating-room, in the French mode, should be ad hoc : unfurnished, but with a buffet, the table, necessary chairs, one or two of Canaletto's etchings, and a tile fire-place for the winter. In neither of these public places should there be anything beyond a shelf or two of books ; but the passages may be one library from end to end, and the stair, if there be one, lined with volumes in old leather, very brightly carpeted, and leading half-way up, and by way of landing, to a windowed recess with a fire-place ; this window, almost alone in the house, should command a handsome prospect. Husband and wife must each possess a studio ; on the woman's sanctuary I hesitate to dwell, and turn to the man's. The walls are shelved waist-high for books, and the top thus forms a continuous table running round the wall. Above are prints, a large map of the neighbourhood, a Corot and a Claude or two. The room is very spacious, and the five tables and two chairs are but as islands. One table is for actual work, one close by for references in use ; one, very large, for MSS. or proofs that wait their turn ; one kept clear for an occasion ; and the fifth is the map table, groaning under a collection of large-scale maps and charts. Of all books these are the least wearisome to read and the richest in matter ; the course of roads and rivers, the contour lines and the forests in the maps—the reefs, soundings, anchors, sailing marks and little pilot-pictures in the charts—and, in both, the bead-roll of names, make them of all printed matter the most fit to stimulate and satisfy the fancy. The chair in which you write is very low and easy, and backed into a corner ; at one elbow the fire twinkles ; close at the other, if you are a little inhumane, your cage of silver-bills are twittering into song. . . .

I have left to the last the little room for winter evenings. This should be furnished in warm positive colours, and sofas and floor thick with rich furs. The hearth, where you burn wood of aromatic quality on silver dogs, tiled round about with Bible pictures ; the seats deep and easy ; a single Titian in a gold frame ; a white bust or so upon a bracket ; a rack for the journals of the week ; a table for the books of the year ; and close in a corner the three shelves full of eternal books that never weary : Shakespeare, Molière, Montaigne, Lamb, Sterne, De Musset's comedies (the one volume open at *Carmosine* and the other at *Fantasio*) ; the *Arabian Nights*, and kindred stories, in Weber's solemn volumes ; Borrow's *Bible in Spain*, the *Pilgrim's Progress*, *Guy Mannering* and *Rob Roy*, *Monte Cristo* and the *Vicomte de Bragelonne*, immortal Boswell sole among biographers, Chaucer, Herrick, and the *State Trials*.

ROBERT LOUIS STEVENSON (*Essays of Travel*).

MARGINALIA

A Plan for Chiswick House

Attention was drawn to the deplorable state of Chiswick House and gardens in December's *Marginalia*. Since then there have been various rumours of plans for the preservation of Lord Burlington's villa, but so far no detailed scheme of an "official" nature has been made public. However, a number of interested parties, including THE ARCHITECTURAL REVIEW, have recently received an illustrated document entitled *A Plan for Chiswick House* which puts forward a private view that merits consideration. Its author, C. Phillimore, hopes "that it may help to crystallize general opinion and co-ordinate the efforts which are being directed by so many individuals to the preservation of Lord Burlington's masterpiece." This would certainly be a valuable service.

In his epistle to Burlington Pope wrote "Tis use alone that sanctifies expense," and the first question to be answered in relation to the future of Chiswick House is to what use it can be put. Mr. Phillimore proposes that it should be turned into a museum, with furnishings of its own period acquired

by gift or loan—a precedent exists at Montacute—and that it should occasionally be used for temporary exhibitions, "preferably bearing some relation to its history and associations and to the eighteenth century in general." Since the cost of restoring and maintaining the whole house as it stands would be prohibitive, Mr. Phillimore suggests that the wings added by Wyatt in 1788 should be demolished. On aesthetic grounds this proposal has everything to recommend it, for, as Mr. Phillimore says, the extra storey of these wings "crushes the portico and makes the dome insignificant," while internally the loss of scale and balance resulting from them is even more striking. To implement the plan Mr. Phillimore suggests "the formation of a body of, say, six Trustees of the Villa . . . , the formation of an Executive Committee to include nominees of the local authority and representatives of other interested bodies, such as the Georgian Group, and the formation of the 'Friends of Chiswick House' in the same way that there are 'Friends' of the Fitzwilliam, Canterbury Cathedral, etc."

This is, at any rate, a possible

solution, whether or not it is the right one. One thing is certain, and that is that if Chiswick House is to be saved something must be done about it very soon.

Regency Brighton

The Regency Society of Brighton and Hove has issued a report on the architecture of the two towns. This is not, as one might expect, a record of war damage, for, as the report says, "by a singular good fortune none of the most distinguished streets or sections of either town suffered war damage. The only losses of architectural importance were three houses in Park Crescent, three in the upper part of Chichester Place and four in Norfolk Square." It is, rather, designed as a counter-measure against peace damage of the sort exemplified in the pre-war years by the demolition of Gloucester Place, and includes lists of the buildings which the Society considers most worth preserving.

There are four lists in all, distinguished as follows : (a) groups of buildings of special distinction which should be considered as a single composition and

in which the destruction or alteration of one house would spoil the uniformity of the facades ; (b) similar groups of buildings not of special distinction but nevertheless worth preserving ; (c) individual buildings of special merit ; (d) individual buildings not of special distinction but nevertheless worth preserving. This is a sensible enough classification, but one could wish that the authors of the report had expanded and even subdivided the second and fourth headings. As they stand, many people will ask, Is any building "not of special distinction" worth preserving ? The answer is, of course, that a building may be of inferior quality *per se* and yet make its own unique contribution to the scene ; or it may be the only building of its period in the neighbourhood and thus of value as a historical document. The Brighton and Hove Regency Society is no doubt aware of the difficulties with which the whole question of preservation bristles ; it has, at any rate, produced a most useful report, interpreting the term "Regency" in the broadest sense.

TRANSLATIONS

For the convenience of its foreign readers THE ARCHITECTURAL REVIEW will in future contain brief synopses of its principal contents translated into French, German and Russian. Other languages will be used from time to time as the contents of any particular issue may seem to be of special interest to those speaking them.

Résumés Français

The Architectural Review, Mai 1947

Page 159. *Comfort dans les chemins de fer et mobilier ajustable par Sigfried Giedion.* Dr. Giedion soutient la thèse dans son article que l'art n'a pas contribué autant au développement de la culture du 19. siècle que les inventions techniques. Le Mobilier ajustable, créé en Amérique dans la seconde moitié du 19. siècle, est sans rapport avec le goût dominant dans le mobilier de la même époque. Mais ce mobilier est étroitement lié avec les wagons-lit, wagons-salon et wagons-restaurant, tous des produits américains typiques. Ils sont tous le résultat du désir de produire un type de confort nouveau. En Europe des wagons ont été construits dans l'idée qu'on n'a pas besoin de penser au confort des masses. La classe en bois existe même jusqu'à ce jour. L'Amérique avait une seule classe la meilleure preuve du sentiment démocratique de ces jours : "Personne ne sera plus à son aise que moi."

Page 163 : *Une nouvelle maison d'Opera a Lennox, Massachusetts, U.S.A.* Architects : Messrs. E. et E. Saarinen. Décrit et illustré.

Page 165 : *Le Jardin moderne au Brésil par Claude Vincent.* Le jardin moderne au Brésil, qui a été développé d'après les principes du jardin anglais, est l'oeuvre de trois pionniers, l'un desquels est mort. Ce sont Lucio Costa, Attilio Correa Lima et surtout le peintre Roberto Burle Marx. Pour Marx jardinage signifie peindre avec des plantes. Il aime les contrastes, il oppose les volumes aux plans, les couleurs aux couleurs, la lumière à l'ombre. Ses jardins dans leur combinaison de plantes, de rochers et de Pedra Portuguesa, le fameux dallage portugais, sont une création aussi logique qu'un édifice. Il travaille avec Dr. Mello Barreto le botaniste célèbre. Ses jardins-terrasses sont parmi ses créations les plus réussies. Son disciple et collaborateur, l'architecte Ubi Bava, travaille dans le même esprit. Bien que le Brésil n'ait ni exposition de fleurs, ni sociétés horticoles il a créé un jardin qui est à juste titre l'égal de ses plus fameux édifices modernes.

Page 173 : *Le nouveau Hôtel de ville a Solerod, Danmarc.* Architects : Messrs. A. Jacobsen et F. Lassen. Décrit et illustré.

Page 177 : *Reconstruction en U.S.S.R.* L'Architectural Review s'est adressée à trois éminents architectes russes, les priant de donner leurs opinions sur le problème de la reconstruction. Leurs articles et les illustrations qu'ils ont choisies, sont publiés dans les pages suivantes.

Page 178 : *Des Idées concernant la Reconstruction par David Arkin.* L'Etendue

sans précédent de destruction et de reconstruction en U.S.S.R. exige une révolution totale dans l'industrie du bâtiment. Malgré la théorie de "Contreurbanisme" les villes survivront étant la forme la plus économique pour vivre en société. Mais on ne peut établir un plan de valeur universelle pour tous les pays, même pas pour chaque ville dans un seul pays.

Page 179: *Reconstruction des Centres Urbains* par A. Bunin. Le centre de la ville est en U.S.S.R. la place ou la vie publique de la population est concentrée. Naturellement les grandes villes ont besoin de plusieurs centres. En faisant l'analyse des villes de Rostov, Stalingrad, Novgorod et Kalinin Mr. Bunin prouve que le problème et par conséquent sa solution est différent pour l'architecte urban dans chacune de ces villes.

Page 182: *Quartiers d'Habitation dans les Villes en Reconstruction* par N. Bylinkin. Un grand nombre de manufactures de briques et d'entreprise de bois et de ciment ayant été détruits pendant la guerre l'Académie d'Architecture de U.S.S.R. a fait des recherches concernant les ressources naturelles et industrielles dans plusieurs villes et dans leur arrière-pays quant à la production de matériaux de construction. Les quartiers d'habitation sont construits d'après les principes de 1930-35, mais comme ils doivent être adoptés aux besoins de groupes individuels ils diffèrent naturellement dans les différentes villes grandes et petites.

Page 185: *La Bourse à Charbon à Londres* par Henry-Russell Hitchcock. Le 20. siècle regarde le Crystal Palace et King's Cross Station à Londres comme les meilleures réalisations d'architecture en ver et en fer de l'époque Victorienne. Mais la bourse à charbon à Londres bâtie en 1847-49 par J. D. Bunning, avec un intérieur en fonte et en ver est sous certains rapports de plus grande importance que ces deux bâtiments. C'est de la bourse à charbon que dérivent Paddington Station à Londres, le Musée de l'Université à Oxford et la halle aux blés à Leeds.

Deutsche Zusammenfassung

The Architectural Review, Mai 1947

Seite 159: *Eisenbahn-Bequemlichkeit und Patentmöbel von Sigfried Giedion*. Dr. Giedion führt in seinem Aufsatz, seiner Theorie gemäss aus, dass die bedeutendsten Beiträge zur Kultur des 19. Jahrhunderts weniger dem Bereich der Kunst als dem technischer Erfindungen angehören. Bewegliche, verstellbare Patentmöbel, die in Amerika in der zweiten Hälfte des 19. Jahrhunderts gemacht wurden, sind von der Geschmacksrichtung in der Wohnungseinrichtung der gleichen Zeit völlig unbeeinflusst. Aber diese Möbel stehen im engsten Zusammenhang mit Schlaf-Personen- und Speisewagen, typisch amerikanischen Erzeugnissen. Sie entsprechen sämtlich dem Wunsch, eine neue Art von Bequemlichkeit zu schaffen. Auf dem Europäischen Kontinent wurden Eisenbahnwagen nach dem Prinzip gebaut, dass man auf die grosse Masse der Bevölkerung keine Rücksicht zu nehmen habe. Bis auf den heutigen Tag hat sich die "Holzklasse" behauptet. Amerika hatte nur eine einzige Wagenklasse, die dem demokratischen Prinzip der Zeit entsprach: "Niemand soll es besser haben als ich."

Seite 163: *Ein neues Opernhaus in Lenox, Massachusetts U.S.A.* (E. & E. Saarinen, Erbauer) beschrieben und illustriert.

Seite 165: *Der moderne Garten in Brasilien* von Claude Vincent. Der moderne Garten in Brasilien, der im wesentlichen auf einer Weiterentwicklung der Grundsätze englischer Landschaftsgärtnerei beruht, ist das Werk dreier Pioniere, von denen der eine nicht mehr am Leben ist, Lucio Costa, Attilio Correia Lima und namentlich der Maler Roberto Burle Marx. Für Marx bedeutet Gärtnern Malen mit Pflanzen. Er liebt Kontraste, er setzt Massen gegen Flächen, Farben gegen Farben, Licht gegen Schatten. Seine Gärten sind in ihrer Kombination von Pflanzen, Felsen und Pedra Portuguesa, dem bekannten portugiesischen Steinboden, nicht weniger logisch im Aufbau als ein Gebäude. Er

arbeitet zusammen mit dem vorzüglichen Botaniker Dr. Mello Barreto. Seine Dachgärten gehören zu seinen schönsten Werken. Sein Schüler und Mitarbeiter Ubi Bava arbeitet im gleichen Sinne. Obgleich Brasilien weder Blumen ausstellungen noch Vereinigungen von Pflanzenzüchtern und Gärtnern hat, hat es einen Gartentypus geschaffen, der auf der Höhe seiner mit Recht so berühmten modernen Häuser steht.

Seite 173: *Eine neue Stadthalle in Sollerod, Dänemark*, Architekten: A. Jacobsen und F. Lassen, beschrieben und illustriert.

Seite 177: *Wiederaufbau in U.S.S.R.* Die "Architectural Review" hat drei führende russische Architekten aufgefordert, sich zur Frage des Wiederaufbaus zu äussern. Ihre Aufsätze und die von ihnen gewählten Illustrationen folgen nachstehend.

Seite 178: *Gedanken zum Wiederaufbau von David Arkin*. Die beispiellose Zerstörung und der notwendige Wiederaufbau in U.S.S.R. fordern eine tatsächliche Umwälzung in der Bauindustrie. Städte werden weiterleben, trotz der Tendenz "los von der Grosstadt," da sie die ökonomischste Form menschlichen Zusammenlebens sind. Aber es gibt keinen allgemein gültigen Plan für alle Länder ja nicht einmal für alle Städte im gleichen Land.

Seite 179: *Wiederherstellung von Stadtmittelpunkten von A. Bunin*. Der Mittelpunkt jeder Stadt in U.S.S.R. ist der Platz, auf dem sich das öffentliche Leben der Einwohner konzentriert. Grosse Städte müssen mehrere Hauptplätze haben. An den Beispielen von Rostov, Stalingrad, Novgorod und Kalinin beweist der Verfasser, wie verschieden in jeder dieser Städte das Problem ist und wie verschieden demzufolge die Lösung für den Städtebauer.

Seite 182: *Bau von Wohnhäusern in neu zu erbauenden Städten von N. Bylinkin*. Da während des Krieges eine grosse Anzahl von Ziegeleien und Säge und Zementmühlen zerstört wurden, hat die Akademie für Architektur in U.S.S.R. die natürlichen und industriellen Hilfsquellen in verschiedenen Städten und in

ihrem Hinterland für die Erzeugung von Baumaterial untersucht. Wohnhäuser werden nach den Grundsätzen von 1930-35 gebaut, aber da sie den Bedürfnissen verschiedener Gruppen der Bevölkerung angepasst sind, sind sie naturgemäss von Stadt zu Stadt verschieden.

Seite 185: *Die Kohlenbörse in London von Henry-Russell Hitchcock*. Der Krystallpalast und King's Cross Station wurden im 20ten Jahrhundert als die Spitzenleistungen der Victorianischen Epoche im Glas- und Eisenbau angesehen. Aber die Londoner Kohlenbörse, 1847-49 von J. D. Bunning erbaut, deren Innenbau eine vollkommen artikulierte Struktur von Gusseisen und Glas aufweist, ist in gewisser Hinsicht von grösserer Bedeutung. Sie weist den Weg, der zu Paddington Station, dem Universitätsmuseum in Oxford und der Kornbörse in Leeds führt, was für die beiden Eingangs genannten Gebäude nicht gilt.

Краткое содержание статей

Стр. 159. Зигфрид Гидион. Удобство путешествия по железной дороге и "патентованная" мебель.

Так называемая "патентованная" мебель, созданная в Америке во второй половине XIX-го века, находится вне всякой связи с господствовавшими в то время вкусами. Она тесно связана с такими типичными продуктами американской промышленности, возникшими из стремления создать новые виды комфорта, как спальный вагон, салон-вагон и вагон-ресторан. Ее конструкция и оформление определяются условиями передвижения. Следует отметить различие подхода к задаче на европейском континенте и в США. На европейском континенте удобство путешествия для широких масс не считалось вопросом, заслуживающим серьезного внимания, и в результате вагоны с твердыми деревянными сиденьями для пассажиров низших классов существуют по сей день. С другой стороны, в Америке, с ее демократическими формами жизни, имеется

[continued on page 192]



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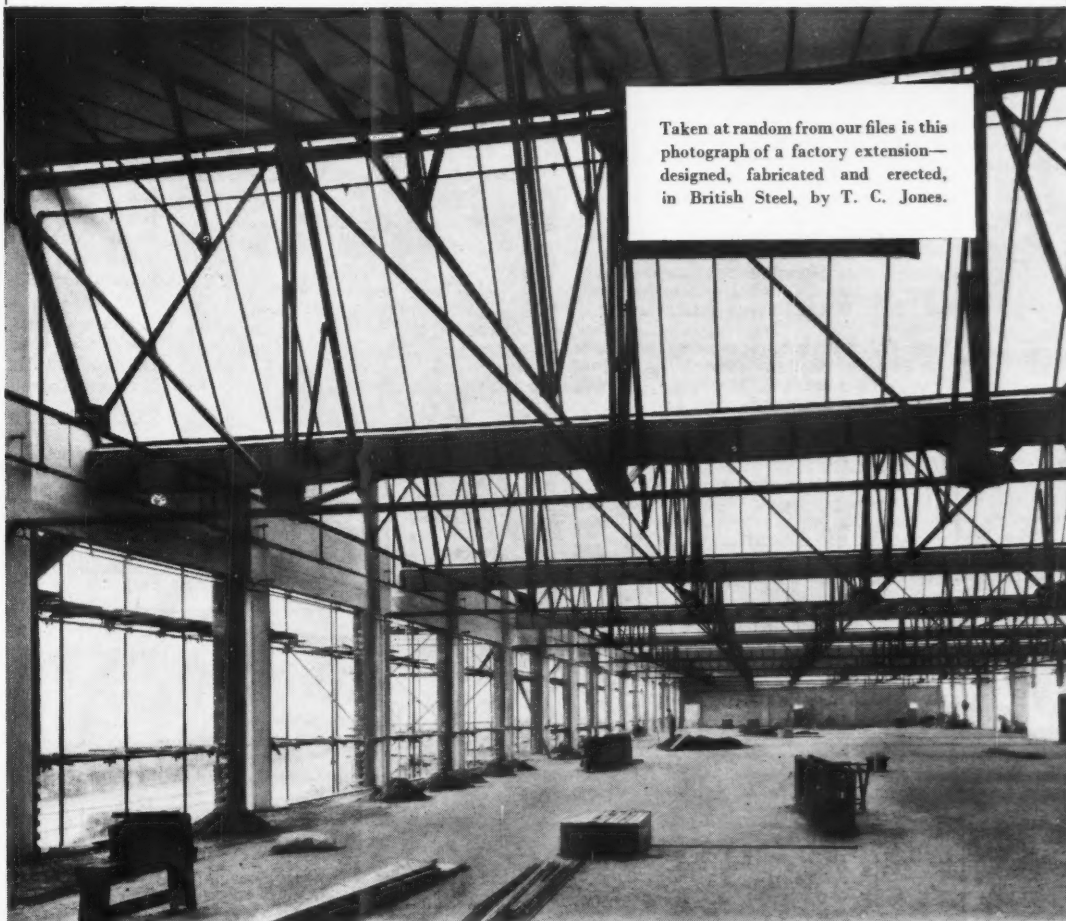
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continued from page 190]
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Стр. 163. Иллюстрированное описание нового оперного театра в Леноксе, Массачусет, САШ (Архитекторы Е. и А. Сааринен).

Стр. 165. Клод Винсент. Новые сады в Бразилии.

Радикальное изменение в планировке садов в Бразилии является плодом творчества трех пионеров, одного из которых уже нет в живых: Лючио Коста, Атилио Корреа Лима, а в особенности художник-живописец Роберто Бурле Марке. Для Марке садоводство это живопись в растениях. Он любит создавать контрасты, противопоставляя объемы плоскостям, сталкивая друг с другом краски и подчеркивая свет-тень. Сады его, с их подбором растений, скал и знаменитых португальских каменных настилов "Педра", логично спланированы как единое цельное сооружение. Он работает в тесном сотрудничестве с блестящим ботаником Д-р Мелло Барreto. Наиболее успешное его достижение это его сады на крышах домов. Его ученик и сотрудник архитектор Уби Бава работает в том же духе. Несмотря на то, что Бразилия не имеет ни выставок цветов, ни садоводческих клубов, она создает новый стиль сада — живого аккомпанимента ее знаменитых новых построек.

Стр. 173. Иллюстрированное описание нового здания Городского Самоуправления в Золлероде, Дания (Архитекторы А. Якобсен и Ф. Лассен).

Стр. 177. Восстановительная работа в СССР.

Редакция "Архитектурного Обозрения" ("Архитектурал Ревью") пригласила выдающихся русских архитекторов изложить свои взгляды на восстановительную работу. Их статьи, с избранными авторами иллюстрациями, напечатаны ниже.

Стр. 178. Давид Аркин. Некоторые мысли о восстановлении.

Неслыханные опустошения, равно как и небывалый масштаб восстановительных работ, в СССР требуют истинной революции в строительной промышленности. Вопреки всем теориям деурбанизации, города будут жить, ибо они являются наиболее экономной формой общежития. Однако здесь не могут иметь места универсальные схемы, применимые ко всем странам или даже ко всем городам одной и той же страны.

Стр. 179. М. Бунин. Восстановление городских центров.

В СССР городской центр является прежде всего местом сосредоточия общественной жизни населения. Города большого размера должны по необходимости иметь несколько центров. Анализируя задачу для Ростова, Новгорода и Калинин, автор показывает на этих примерах насколько различны бывают условия, а потому насколько различны должны быть решения этой задачи, даваемые архитектором-планировщиком.

Стр. 182. Н. Былинкин. Архитектура жилых домов в восстанавливаемых городах.

Огромное число кирпичных и цементных заводов и лесопилок было разрушено во время войны. В виду этого Академия Архитектуры СССР произвела исследования естественных и искусственных строительных материалов в городах и прилегающих к ним районах. Жилые кварталы возводятся по тем же общим принципам как и в 1930-35 годах. Все же они должны быть различны в разных городах, отвечая культурным и домашне-хозяйственным потребностям различных групп населения.

Стр. 185. Генри Рассел Хитчкок. Лондонская Угольная Биржа.

Хрустальный Дворец (Кристал Палас) и

вокзал Кингс Кросс были признаны в XX веке высшим достижением Викторианского периода в архитектуре железа и стекла. Однако Лондонская Угольная Биржа, построенная Ж. Д. Бунингом в 1847-49 гг., со своей последовательной и ясно отчеканенной архитектурой из чугуна и стекла, является в некоторых отношениях более важной чем эти две постройки, ибо она открывает пути, ведущие к Паддингтонскому вокзалу, Музею Оксфордского Университета и Лондонской Хлебной Бирже.

Correction

The photographs of Graham Sutherland's Crucifixion on page 106 of the March 1947 issue of THE ARCHITECTURAL REVIEW should have been credited to Felix H. Man.

Acknowledgments

The photographs of Tanglewood Opera House are by Gottsch-Schleisner, New York; of the Town Hall at Solerod by Strüwing; of the London Coal Exchange by Helmut Gernsheim. The original perspective of the Coal Exchange is reproduced by courtesy of the R.I.B.A. Photographs illustrating *The Modern Garden in Brazil* are by Marcel Gautherot.

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