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THE ARCHITECTURAL REVIEW

DECEMBER 1950

Décembre 1950

Page 339: Introduction, par la Rédaction. THE ARCHITECTURAL REVIEW entreprend dans ce numéro la tâche d'examiner la scène américaine. En agissant ainsi, elle est convaincue que ce qui se passe à présent, et doit se passer à l'avenir, aux Etats-Unis, est d'une importance suprême pour le reste du monde, car 'une renaissance d'art au nouveau monde pourrait révolutionner l'aspect de l'ancien.' Actuellement, il y a lieu d'affirmer que l'Amérique n'a produit aucune culture indigène à elle-même; il peut sembler à l'Européen, désenchanté enfin du culte matérialiste, que les Etats-Unis 'bien loin de créer un nouveau genre de monde, ont simplement augmenté à la n^{ème} puissance le potentiel de l'ancien, en prêtant aux vertus et aux vices du matérialisme un genre de "isme" gigantesque, n'impliquant rien de nouveau autre que le "géantisme," de sorte que le nouveau monde n'est réellement que l'ancien tracé en caricature.' Jusqu'à quel point peut-on établir le bien-fondé de cette accusation? LA REVUE maintient que la preuve peut en être fournie, tout simplement, par l'œil: elle est convaincue que le paysage qu'une communauté déterminée arrive à se créer, que ce soit par des actes de commission ou d'omission, est le résultat de la 'volonté de forme' de cette communauté, de son aspiration à régler sa vie d'une manière donnée. La grande question qui se pose est celle-ci: le peuple américain aspire-t-il à façonner son environnement (de la même façon dont les autres peuples ont fait preuve de vouloir le faire)? A-t-il abandonné l'idéal de former son milieu? Ou se peut-il qu'il ne soit pas encore devenu conscient de posséder un milieu?

Page 345: La Scène Américaine, par Christopher Tunnard. En préparant ce numéro, LA REVUE a jugé utile de choisir pour la plupart de ses collaborateurs des experts prêtant fidélité au passé et au delà de l'Atlantique. Christopher Tunnard, qui décrit dans cet article l'impression que produit la scène américaine à quelqu'un auquel de multiples aspects de l'ambiance européenne sont familiers, est Directeur d'Etudes sur l'Urbanisme, à Université de Yale, et d'origine anglaise. Ainsi qu'il le fait remarquer, on peut avec justice qualifier la cité américaine, avec son plan universel quadrillé, et selon le degré de sa forme à deux dimensions, d'éléments produits en série: le plus souvent, une cité ne diffère d'une autre que par des différences d'emplacement; les surprises visuelles sont généralement limitées au profil de l'horizon. Les endroits où 'la cité signifie quelque chose de plus que le commerce et revêt un caractère spécial' sont bien rares. Selon Tunnard, ce qui frappe l'imagination plus que toute autre chose en Amérique, ce sont probablement les accomplissements des ingénieurs; il en prend deux comme objets de discussion parmi les exemples les plus phénoménaux du génie américain de pousser à bout la besogne—la 'Grand Central Station,' à New-York, avec ses 200 magasins et 14,000 bureaux dominant la voie ferrée, et la 'Chicago River,' dont les ingénieurs ont inversé le cours, pour que ses eaux se déversent maintenant dans le Golfe du Mexique et non plus dans les Grands Lacs. Dans la sphère de l'architecture, proprement dite, les bâtiments agréables à l'œil sont assez fréquents, mais le véritable complexe architectural y est extrêmement rare. Parmi les exceptions, les villes nouvelles en voie de construction par l'initiative privée sont importantes, et Tunnard en décrit une—Park Forest, près de Chicago. Mais en général, conclut-il, l'urbanisme s'en trouve encore à la phase éducative, ou à celle des 'contrôles,' et le public américain est loin d'être persuadé que l'entrepreneur spéculatif n'est pas à même de satisfaire ses exigences d'une bonne vie.

Page 360: Examen de la Cité Américaine. Cette partie de LA REVUE illustre, au moyen de clichés, la cité américaine—y compris ses abords et ses

faubourgs—du point de vue de l'automobiliste et du piéton.

Page 371: Récapitulation, par Saul Steinberg. L'artiste américain Saul Steinberg, d'origine roumaine, fut formé comme architecte à Milan. Grâce à son instruction en cette matière et à son héritage européen, 'il est le seul parmi tous les artistes américains qui semble se rendre compte du fait que New-York n'est pas une cité moderne, mais simplement le rêve de la cité moderne qui hantait l'imagination au milieu du dix-neuvième siècle.' LA REVUE salue en lui le grand artiste créateur que les Américains attendent depuis si longtemps.

Page 376: Etude Spécifique. Toute perspective urbaine est composée en très grande partie d'éléments qui ont été généralement considérés jusqu'ici comme indignes de l'attention de l'urbaniste—de telles particularités, par exemple, que les lampadaires, les boîtes aux lettres, les bouches d'incendie, les affiches et ainsi de suite. Ainsi que LA REVUE l'a déjà affirmé, ce n'est qu'en prenant en considération de pareils détails qu'il devient possible de créer une ambiance artistique. Nous choisissons et examinons ici un certain nombre des objets qui contribuent à la formation de la scène urbaine américaine.

Page 386: Orientation Actuelle, par Henry-Russell Hitchcock. Dans cet article, Henry-Russell Hitchcock, qui est professeur d'art et directeur du Musée des Beaux-Arts, Smith College, Massachusetts passe en revue la scène architecturale américaine telle qu'elle lui apparaît en l'hiver 1950. Dans cette dernière, dit-il, 'la plupart des éléments de la scène de 1850 et de celles de 1750 et 1850 peuvent y être identifiés, intacts au moins en certains traits reconnaissables, et beaucoup plus intacts encore en concept.' Parmi les plus nouveaux développements sur lesquels il s'étend assez longuement, il faut citer l'intrusion récente, dans les universités même les plus conservatrices, du style moderne, ainsi que les nouvelles tendances en fait d'architecture routière, telles que le 'motel' et le cinéma en plein air, destinés à satisfaire les besoins créés par l'ère de l'automobile.

Page 399: Le Régime du Mécanisme Economique, par Winston Weisman. Le complexe architectural à New-York connu sous le nom de 'Rockefeller Centre' doit son existence à un groupe de personnes qui s'étaient réunies en janvier 1926 pour discuter la possibilité de créer un nouveau théâtre de l'opéra. L'histoire du développement ultérieur de ce projet, ainsi qu'elle est racontée ici pour la première fois, révèle le rôle joué dans des entreprises de cette envergure par certaines forces économiques (et en grande partie dérobées aux regards du public profane) si puissantes que l'architecte est contraint de renoncer à tout contrôle effectif en faveur de ce qui semble être, en toute apparence, une agence non-humaine.

Page 407: La Voie Technologique, par Gerhard Kallmann. Il existe une école de pensée architecturale qui estime que la réapparition de la forme organique dans l'architecture représente le phénomène le plus important de l'ère actuelle. Gerhard Kallmann soutient le point de vue opposé: de même que Buckminster Fuller, l'architecte et théoricien américain qui commença à se faire une grande renommée avec sa maison Dymaxion, il croit que l'architecture future doit émaner de l'abord scientifique à la solution des problèmes technologiques et humains de la construction. Elle sera, maintient-il, 'une architecture de clôture continue'—c.à.d. une architecture dans laquelle des unités, ou des agrégations d'unités beaucoup plus grandes qu'aujourd'hui seront construites à l'abri des forces de la nature—et il suggère que les germes d'une telle architecture sont déjà apparents aux Etats-Unis. 'Il se peut,' conclut-il, 'que les Américains, au milieu de leur somnambulisme dans les zones soi-disant non-idéologiques de la technologie, soient

en train de pénétrer jusqu'aux nouvelles frontières de l'architecture, au delà desquelles l'artiste contemporain, au déclin de la tradition de la renaissance, n'ose toujours pas s'aventurer.'

AVIS AUX PERSONNES DESIRANT S'ABONNER À LA REVUE

Le papier n'étant plus rationné en Angleterre en ce qui concerne l'exportation, les abonnements à THE ARCHITECTURAL REVIEW peuvent être maintenant acceptés pour la France et autres pays étrangers.

Le prix d'abonnement, franco de port, est de £2.0.0 par an, payable d'avance, et les ordres d'abonnement peuvent être envoyés soit directement aux Editeurs, The Architectural Press, 9 Queen Anne's Gate, Londres, S.W.1, soit par l'intermédiaire des principaux dépositaires de journaux et agences d'abonnement français.

Dezember 1950

Seite 339: Die amerikanische Umwelt. Von der Redaktion. Die Absicht der REVIEW ist in dieser Nummer die Architektur-Situation in Amerika zu untersuchen. Angesichts der heutigen Entwicklung kann man die Behauptung aufstellen, dass Amerika keine eigene Kultur geschaffen hat, wenigstens erscheint dem Europäer, der vom Materialismus enttäuscht ist, dass 'die Amerikaner weit davon entfernt der Welt ein neues Gesicht zu geben, nur die alten Möglichkeiten missbraucht haben, indem sie die Vorzüge und Mängel des Materialismus ins Gigantische gesteigert haben. Nichts ist neu als allein der Masstab, so dass die neue Welt nichts anderes ist als eine Karikatur der alten.' Wie weit kann die Berechtigung dieses Vorwurfs bewiesen werden? Die REVIEW glaubt, dass vom Visuellen her eine Antwort auf diese Frage gegeben werden kann, sie glaubt, dass die Umwelt, die eine Gesellschaft geschaffen hat, die Verwirklichung des Formwillems dieser Gesellschaft ist, ihres Willens das Leben in gewissem Sinne zu gestalten. Die Frage entsteht: Hat das amerikanische Volk seine Umwelt gestaltet im gleichen Masse wie andere Völker dies getan haben? Hat es das Ideal seine Umwelt zu gestalten verworfen? Oder ist es noch nicht zur Erkenntnis durchgedrungen, dass es eine Umwelt hat?

Seite 345: Die amerikanische Umwelt von Christopher Tunnard. Die REVIEW hat mit Absicht als Mitarbeiter für diese Nummer Bürger beider Welten, der europäischen und der amerikanischen, aufgefordert, sich zu dieser Frage zu äussern. Christopher Tunnard, der den Eindruck schildert, den Amerika auf jemand macht, der mit den Zuständen in Europa vertraut ist, ist beides: Professor für Städtebau an der Yale-Universität und Engländer seiner Abstammung nach. Die amerikanische Stadt mit ihrem Schachbrettplan kann soweit ihre zweidimensionale Form in Frage kommt, als ein Massenprodukt angesehen werden. Verschiedenheiten zwischen zwei Städten sind in den meisten Fällen nur Verschiedenheiten der Lage und des äusseren Rahmens; visuelle Ueberraschungen beschränken sich im allgemeinen auf die Silhouette der Stadt. 'Städte, die nicht nur durch den Verkehr bedingt sind und ihren besonderen Charakter haben, sind selten.' Professor Tunnard ist der Ansicht, dass die Arbeiten des Ingenieurs den Beschauer in Amerika am stärksten beeinflussen, und er untersucht zwei der gewaltigsten Anlagen, die in Amerika geschaffen worden sind: Den grossen Hauptbahnhof in New York mit seinen 200 Läden und 14,000 Büreauräumen, der sich über den Schienensträngen erhebt, und den Fluss

von Chicago, dessen Lauf von Ingenieuren umgeleitet wurde und dessen Fluten sich jetzt in den Golf von Mexiko ergießen und nicht mehr in die grossen Seen. Es fehlt in Amerika nicht an ansprechenden Häusern, aber ein geschlossenes architektonisches Gesamtbild ist ausserordentlich selten. Zu den Ausnahmen gehören allein die neuen Städte, die von privatem Unternehmungsgestirbt geschaffen wurden; Tunnard beschreibt eine dieser neuen Städte: Park Forest in der Nähe von Chicago. Aber im allgemeinen stecken planmässige Anlagen noch in den allerersten Stadien, und das amerikanische Publikum hat noch nicht begriffen, dass der Bauspekulant seine ästhetischen Bedürfnisse nicht befriedigen kann.

Seite 360: *Die amerikanische Stadt.* Eine Serie von photographischen Aufnahmen, die die amerikanische Stadt einschliesslich ihrer Vororte veranschaulichen, vom Standpunkt des Motorradfahrers und des Fussgängers aufgenommen.

Seite 371: *Steinbergs amerikanische Stadt.* Der amerikanische Zeichner Saul Steinberg ist Rumäne von Geburt und wurde in Mailand als Architekt ausgebildet. Dank seiner europäischen Abstammung und Ausbildung scheint er der einzige unter den amerikanischen Künstlern zu sein, der sich darüber klar ist, dass 'New York keine moderne Stadt ist, sondern nur die Idee einer modernen Stadt aus der Mitte des 19. Jahrhunderts.' Die Review begrüsst ihn als den grossen schöpferischen Künstler, auf den Amerika so lange warten musste.

Seite 376: *Details.* Das Gesicht jeder Stadt besteht aus Einzelheiten, die man bisher im allgemeinen als ausserhalb des Interessenskreises des Städtebauers angesehen hat, Dinge wie Beleuchtungskörper, Briefkästen, Feuerhydranten, Plakate u.s.w. Die Review hat auch an anderer Stelle die Rolle betont, die diese Gegenstände im Gesamtbild der Stadt spielen. Eine Reihe von Gegenständen dieser Art wird hier aus dem Stadtganzen herausgehoben und untersucht.

Seite 386: *Wie die Dinge liegen von Henry-Russell Hitchcock.* Im vorliegenden Aufsatz untersucht Henry-Russell Hitchcock, Kunsthistoriker und Direktor des Museum of Art, Smith College, Northampton, Mass., das amerikanische Stadtbild, wie es ihm im Winter 1950 erscheint. Nach seinem Dafürhalten 'können viele Elemente aus der Zeit um 1650, 1750 und 1850 nachgewiesen werden in einzelnen Beispielen und mehr noch in der Gesamtaufassung.' Bezeichnend für die moderne Entwicklung ist, dass selbst die konservativen Universitäten sich nicht länger gegen den modernen Stil sperren konnten. Die Entwicklung der Architektur der Landstrasse wahrnehmbar im 'Motel' und im Freiluft-Kino entspricht den Bedürfnissen des Jahrhunderts, das im Zeichen des Automobils steht.

Seite 399: *Wege des Preismechanismus von Winston Weisman.* Der Gebäude-Komplex in New York, der unter dem Namen Rockefeller Centre bekannt ist, dankt seine Existenz einer Gruppe von Männern, der sich im Januar 1926, zwecks Errichtung einer neuen Oper zusammengeschlossen hatte. Die Geschichte dieses Planes wird hier zum ersten Mal ausführlich erzählt. Sie deckt auf, von welcher Bedeutung in Unternehmen dieses Umfangs mächtige (und dem Laienpublikum zumeist verborgene) ökonomische Kräfte sind. Sie sind so stark, dass der Architekt gezwungen ist, auf die tatsächliche Kontrolle zu verzichten, zu Gunsten einer geheimnisvollen Macht, die scheinbar ausserhalb des Menschlich-Allzumenschlichen steht.

Seite 407: *Technologische Fragen von Gerhard Kallmann.* In gewissen Architektenkreisen wird angenommen, dass das Wiederauftreten von organischen Formen in der Architektur das bedeutendste Phänomen unserer Zeit ist. Gerhard Kallmann ist entgegengesetzter Ansicht. Buckminster Fuller, dem amerikanischen Architekten und Theoretiker folgend, der durch sein Dymaxion-Haus bekannt wurde, glaubt er, dass die Architektur der Zukunft in einer wissenschaftlichen Behandlung und in Lösungen technologischer und menschlicher Probleme im Bau begründet ist. Er glaubt an 'eine in sich geschlossene Architektur' d.h. an eine Architektur, in der sehr viel grössere Einheiten als je zuvor gegen die Kräfte der Natur immun gemacht werden, und er deutet an, dass Keime dieser Architektur bereits in den Staaten zu finden sind. 'Vielleicht' fährt er fort, 'werden die Amerikaner schlafwandelnd in den anscheinend unideologischen Bereich der Technologie eindringen und zu neuen Grenzen der Architektur vorstossen, vor denen der Künstler unserer Zeit, der immer noch im Bann

der Renaissance—Tradition steht, ängstlich zurückschreckt.'

FUER ZUKUENFTIGE ABONNENTEN

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Декабрь 1950 г.

КРАТКОЕ СОДЕРЖАНИЕ СТАТЕЙ

Стр. 339: РЕДАКЦИЯ. ВВЕДЕНИЕ.

В этом номере редакция АРХИТЕКТУРАЛ РЕВЬЮ намеривается рассмотреть положение архитектуры в Америке. В настоящее время можно предположить, что Америка не создала своей собственной коренной культуры. Европейским странам, разочарованным в материализме, может казаться, что Соединенные Штаты вместо создания "нового света", только безмерно увеличили потенциальное богатство старого. Увеличив до гигантских размеров добродетели и пороки материализма, они ничего не прибавили нового, за исключением их размера: таким образом, "новый свет" является только карикатурой старого. Есть ли какое нибудь основание для этого обвинения? Архитекторал Ревью считает, что ответ на этот вопрос можно видеть простым глазом. Наш журнал находит, что ландшафт, созданный обществом, сознательно или бессознательно является результатом стремления общества предать жизни известную форму. Главный вопрос состоит в том, хочет ли народ Соединенных Штатов (как другие народы выявили свое определенное желание) предать форму своему окружению? отказались ли они от этого идеала? или вопрос об окружении не встал еще перед ними?

Стр. 345: КРИСТОФОР ТАННАРД. ЛАНДШАФТ АМЕРИКИ.

Составляя этот выпуск, РЕВЬЮ умышленно пригласило большинство сотрудников из среды архитектурных экспертов обеих сторон Атлантики; и Кристофор Таннард, директор планировки зданий Ейльского Университета и англичанин по происхождению, описывает впечатление, которое производит американский город на европейца. Американский город с его симметричным планом, может быть охарактеризован, как продукт массового производства; разницей между одним городом и другим чаще всего является отличительный ландшафт; видимые неожиданности ландшафта обычно заключаются в очертании линии горизонта. Места, где "город представляет собою нечто большее чем коммерческое предприятие и обладает особым характером", являются редкостью. Больше всего, что поражает воображение, говорит Таннард, это — инженерное искусство, и он особенно отличает два феноменальных примера американского гения — способность быстрого выполнения решения, — Главная Центральная Станция в Нью-Йорке с ее двумястами магазинов и четырнадцатью тысячами коитов, возвышающихся над железнодорожными путями, и река Чикаго, курс течения которой был изменен инженерами так, что теперь она впадает в Мексиканский залив вместо Великих озер. В сфере чисто архитектурного искусства интересные постройки встречаются довольно часто, но архитектурное единство стиля "en mass" очень редко можно встретить. Среди исключений нужно подчеркнуть новые города, построенные частными предприятиями, и Таннард описывает один из них Парк Форест, близ Чикаго. Но в общем, он приходит к заключению, что планирование в Соединенных Штатах находится все еще в стадии изучения, и, американская публика должна еще убедиться, что спекулятивный строитель не может удовлетворить их потребностей в комфортабельных жилищах.

Стр. 360: ИЛЛЮСТРИРОВАННЫЙ ПРИМЕР: АМЕРИКАНСКИЙ ГОРОД.

Это картинное изображение, иллюстрированное с помощью фотографий американского города, включая окрестности и окраины, как их видит автомобилист и пешеход.

Стр. 371: РЕЗЮМЕ.

Американский художник Саул Штайнберг, румын по происхождению, получил свое образование в Милане. Благодаря своей архитектурной тренировке и европейской наследственности, "он один из всех американских художников понимает, что Нью-Йорк не является современным городом, а только мечтой о нем; мечта, которая преследовала воображение людей в середине девятнадцатого века". АРХИТЕКТУРАЛ РЕВЬЮ приветствует его, как великого художника-творца, которого Америка так долго ждала.

Стр. 376: ИЛЛЮСТРАЦИЯ ДЕТАЛЕЙ.

Всякий вид города, главным образом, состоит из отдельных подробностей, которые, до сих пор, считались не достойными внимания планировщика, как то: ламповые столбы, почтовые ящики, пожарные гидранты, об'явления и т.д. Наш журнал еще раньше указывал, что только, принимая во внимание такие детали можно достигнуть искусства в окружении. Мы приводим и разбираем некоторые предметы, которые составляют американский городской ландшафт.

Стр. 386: ГЕНРИ-РАССЕЛ ХИЧКОН. ПО ПУТИ К НОВОМУ ОКРУЖЕНИЮ.

В этой статье профессор Генри-Рассел Хичкон директор музея искусств, Смит колледж Массачусеттс, делает обзор американской архитектуры, как она ему представляется зимой 1950 г. Он говорит, "что большинство элементов вида 1650 г., 1750 г. и 1850 г. могут быть опознаны, по крайней мере узнаваемы по отдельным предметам, не смотря на разницу в концепции, которая изменилась за этот период. Среди более новых усовершенствований, о которых он подробно пишет, является недавнее вторжение современного стиля даже в консервативные университеты и новое улучшение в придорожной архитектуре, как например "мотел" (придорожный отель для мотористов) и кино на открытом воздухе, созданные для удобства автомобильного века.

Стр. 399: ВИНСТОН ВАЙСМАН. СИЛА КАПИТАЛА.

Архитектурный комплекс в Нью-Йорке, известный под именем Рокфеллеровского Центра, обязан своему существованию группе людей, которые, в январе 1926 г., собрались для обсуждения возможности постройки нового здания оперы. История дальнейшего развития проекта, как это впервые здесь полностью рассказано, раскрывает ту роль, которую играли в предприятиях крупные экономические силы (неизвестные для обыкновенной публики), могущество которых так велико, что архитектор вынужден был передать эффективный контроль какому то бездушному агентству.

Стр. 407: ГЕРГАРД КАЛЛМАНН. ПРИ ПОМОЩИ ТЕХНОЛОГИИ.

Существует движение в архитектуре, которое считает, что вторичное появление органических форм в архитектуре является самым важным явлением нашего времени. Гергард Каллманн придерживается противоположного взгляда: идя по стопам американского архитектора и теоретика Бакминстера Фуллера, который прославился своим "Димаксион Хаус": он считает, что архитектура будущего должна поставить себе задачу разрешить технологические и человеческие задачи строительства путем научного подхода. Он утверждает, что тогда "архитектура станет неспиривно связанной средой" — т.е. архитектура в которой более крупные единицы или совокупности единиц являются более чем когда либо независимыми от внешней среды, и Каллманн полагает, что зачатки такой архитектуры уже заложены в Соединенных Штатах. Он заключает, что "возможно, что американцы, слепо блуждая в неидеологической технике, проникают в новые пределы архитектуры, за которые современный художник, придерживающийся традиций возрождения, все еще страшится вступить."

ОБЪЯВЛЕНИЕ ПОДПИСЧИКАМ

Ввиду того, что в Англии ограничение бумаги для экспорта больше не существует, "АРХИТЕКТУРАЛ РЕВЬЮ" восстановил прием подписки для СССР и других зарубежных стран.

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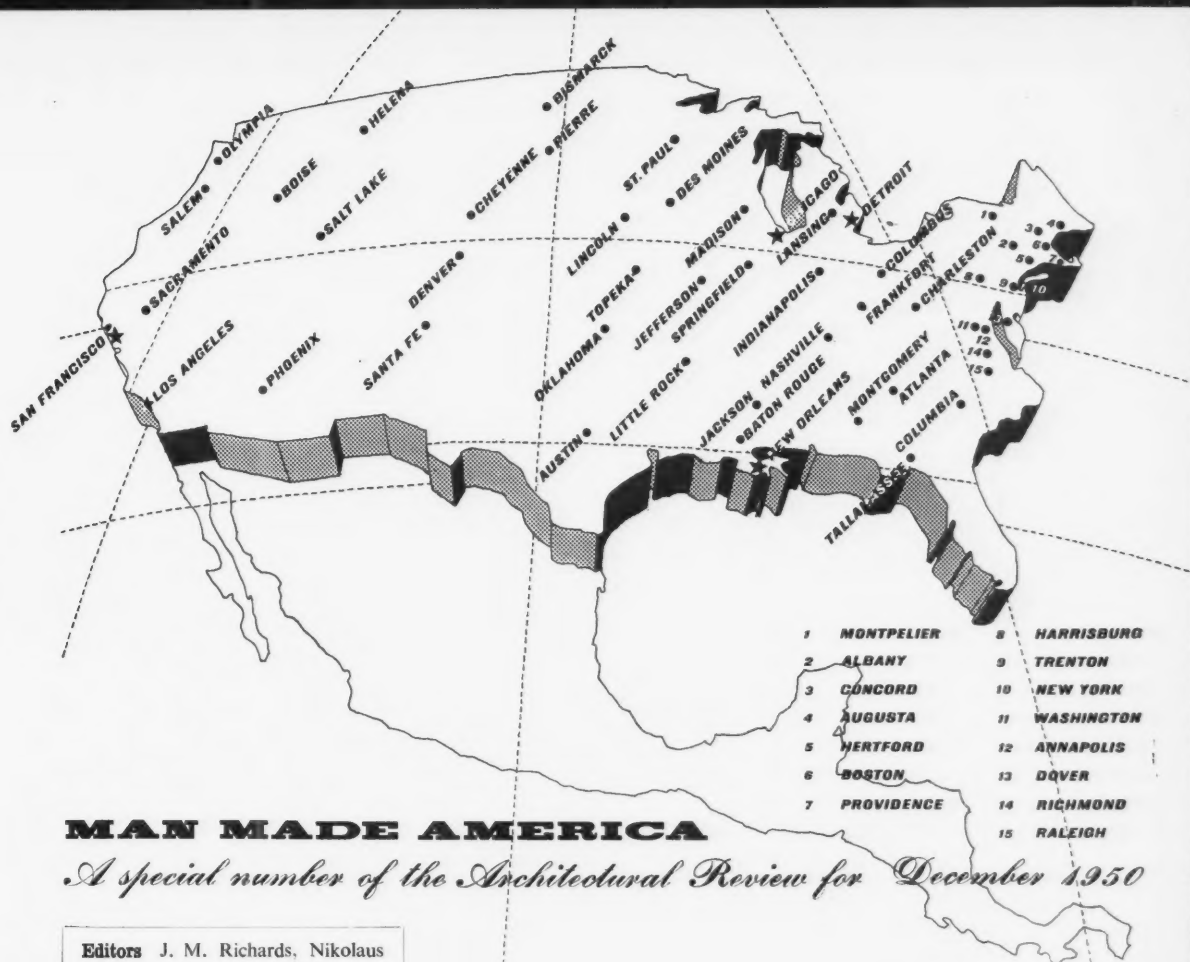
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MAN MADE AMERICA

A special number of the Architectural Review for December 1950

Editors J. M. Richards, Nikolaus Pevsner, Ian McCallum, Osbert Lancaster, H. de C. Hastings

Assistant

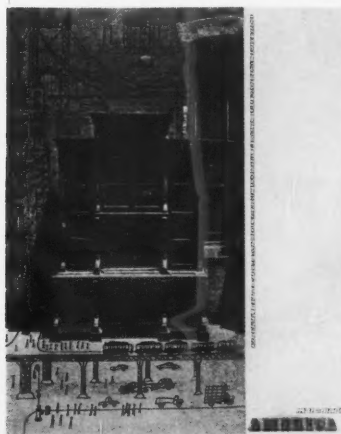
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The Cover is from a drawing by Saul Steinberg, who alone of American artists has realized and communicated the essentially anachronic quality of the great American city—the fact that 'New York is not a modern city but only the dream of a modern city that haunted the imagination of the mid-nineteenth century.' Further drawings by Steinberg are on pages 344, 360 and 371-375.



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Main street in a typical American town—typical at any rate to the outsider. To the observant American regional distinctions no doubt make it possible for him to place it with relative accuracy. What is important about it (apart from the genius of the photographer, Walker Evans) is the conglomeration of objects—buildings, telegraph poles, street lamps, letter boxes, advertisements, signs, monuments—scattered, to an even more marked extent than they are everywhere else in the world, without any eye for ensemble. It is the purpose of this issue to investigate the mess that is man-made America, to attempt to discover why it has happened, and what, if anything, is likely to be done about it.

1

introduction

The U.S. may be said, with only slight exaggeration, to be the one country in the world from which all visitors return as authors. Since the phenomenon is continually being remarked upon—on a faintly plaintive note by Americans—and since this special number is one more example of the process at work, some discussion of the causes may be rewarding.

The chief, indeed it may be said the only, really important reason for writing about anything is that the writer feels he has something essential to say. What is it that most writers seem to want to say about the United States of America? One recurrent theme presents the nation as an enormous conundrum, to which the authors try, but in the long run usually fail, to provide an answer. The reasons generally given for the failure are that the youthfulness of the nation makes any definite conclusions about its tendencies premature; or that its size and complexity make any generalizations useless. Both are true enough so far as they go. Time, however, is surely relative in the development of nations. Though the U.S. may still behave as though it were young, idealizing as it does, and for very good reasons, the qualities of youth, its position as the wealthiest as well as one of the most powerful nations in the world suggests that a little more attention might be paid to the more solid attributes of maturity, not to mention the wisdom that accrues to old age. Besides, for the U.S. to count its years as a nation from the Declaration of Independence is false arithmetic. It was not, after all, founded by a race of savages. The pioneers, rough-hewn though they may have been, were sensitive and often cultivated people with roots in the old world, as later immigrants have had likewise. The foundation of the U.S. may indeed be recent, but its collective experience of nationhood is vast.

As to the extent of the land, the complexity of geography and the admixture of cultures and races in the U.S., generalizations are indeed dangerous, but these factors are not peculiar to America, they are common to many nations. It is here particularly that the would-be author is driven to generalize, only to find himself stuck in a quagmire of hypotheses. For where other nations have produced out of the melting-pot some sort of shape which can be called a culture, the U.S. melting-pot continues to seethe, its steam rising to form that eternally fascinating symbol of

promise, the question mark. The mere pressure of events suggests that if an answer does not appear soon, the U.S. might conceivably go down to history as one of the great might-have-beens of all time. This could be an unsuccessful story of a gigantic sort and, in that sense, pleasingly American, but in every other sense a tragedy, a major tragedy for civilization, unthinkable were it not that the symptoms are there, can be scrutinized, diagnosed—just how is suggested in this issue of the REVIEW.

Of course they are only symptoms. The best people have symptoms. It is when the patient ignores the symptoms that the trouble gets hold, and this, some would say, is the danger with the present patient. Europeans rather than Americans are the ones who show themselves uneasy about the health of the States. U.S. citizens are on the whole alarmingly complacent, and from their own point of view with good reason, for they would be less than human if they did not treat the European, and particularly the British, tendency to carp and cavil as an example of envy in a green-eyed world.

Yet admitting that the British are human too and not immune from petty jealousies, the fact remains that mere sour-grapes do not begin to account for the depth of European misgivings about the U.S. Before defining these, however, let us dispose once and for all of the dog-bite-dog business of national prejudice by reminding the parties in the case of the real position between them. Which is that without also accusing himself neither side can accuse the other of any crime whatsoever, since America and Europe are Siamese twins sharing their many organs, functions and histories. It is not merely that the American continent is peopled by Europeans paying tribute to the ideals of Christendom and sharing with the rest of Christendom common standards of value; it is at least as much that the European continent is peopled by Americans, in the sense that somewhere inside every European is an American—somewhere inside every Englishman is the original American—in whom is still maintained the vision of the New Jerusalem which for so long has haunted European history—the 'new world' where the errors, inequities and uglinesses of the old can be written off and human society get itself a new deal, not just a re-shuffle. Thus psychologically as well as historically Europeans must be said to be identified with the American adventure, bound up in the outcome thereof, personally implicated, indeed, to the point where transition to or from American nationality can be made by the individual without feeling that he is renouncing his loyalties in any way that matters except to the Commissioners of Inland Revenue.

It is in this spirit that the REVIEW sets out to examine the American scene. It is in this spirit that the European utters his misgivings, such as they are. In the spirit, that is to say, of one who is to an enormous extent responsible for, and implicated in, the result; an attitude the true-blue American may find irritating until he realizes, as we hope he does, that it is the highest compliment one society could pay another.

These misgivings find perhaps their strongest support in the European feeling that for all its success story, and all its undeniable qualities, the American way of life is concerned fundamentally with thinking bigger, going faster, rising

higher, than the Old World; with improving on the Old World, that is to say merely quantitatively. To the thoughtful European the trouble with the U.S. is not that it has spurned, but that it has not spurned the Old World; that far from creating a new kind of world it has merely raised to the power of 'n' the potential of the old, lending to the virtues and vices of materialism a kind of giantism in which there is nothing new except the giantism, so that the new world is merely the old one drawn in caricature. At the very moment when the exhausted European had seen through the error of materialism, America, he is inclined to feel, has given it a build-up that may enable it to stagger through the twentieth century, postponing at one stroke the revival of civilization and threatening the survival of man—irony indeed to the European whose American dream was always of a Europe purged of its materialism. Hence arises that feeling of disillusion with the New World, with the American Dream, with the American Way of Life, which made Van Gogh, for instance, say that there was no future in America—that the true American was still to be found in Europe amongst those who through art and the like struggled to start a 'new sort of life' and make Blake's 'new sort' of man.

What the REVIEW is trying to say in this issue is that there is a way in which such accusations can be most accurately and precisely proved or disproved, and that it lies in the most literal sense *out there* under the eye of anyone who takes the trouble to look. In other words, the picture a nation creates of itself out of, and upon, its landscape is a more realistic self-portrait than many of us like to admit. The REVIEW has said this before, has tried indeed to demonstrate the theory with reference to English examples, but the theory, although it would have been regarded in the eighteenth century as self-evident, has all the force to-day of a new idea and England does not take kindly to new ideas, while the U.S. does. Thus it seems to us doubly good to try it out on the U.S. In the U.S., if anywhere, its significance might be appreciated. Once the significance of the theory is accepted the conclusions which follow are fascinating.

Briefly, the theory is that the landscape, regarded as the full complement of townships, roads, railways, electricity grids, clearings, afforestation schemes, backyards, real estate ventures, wastes, wilds, ornamental parkways, ribbon developments—the landscape, whether created consciously or unconsciously, by acts of commission or omission, by a given society, is in the nature of things a realization in three dimensions of that society's *form-will*—a realization of its will to shape life in a certain way; and that it provides a picture of that society from which informed analysis should be able to draw accurate conclusions.

The idea is ambitious and one that can be no more than introduced in an issue like this*—the REVIEW'S object is more than satisfied if it starts something others will take up in more detail. Here it has sought to do no more than to give a general and very superficial view of the most significant aspects of the man-made

* It has, however, been paid some attention in the pages of the REVIEW in connection with the endeavour to arouse the desire and the will to form (or re-form) the physical environment of Britain. First principles have been restated in reassessments of eighteenth century landscape theory (which is now recognized to have been Britain's major contribution to aesthetics), in studies of the Functional Tradition, such as the special number for January 1950; contemporary wrongdoing has been analysed in relation to the Norfolk Broads, the Thames and other places, urban and rural; a beginning has been made on the groundwork for a new technique of study in several recent contributions by Gordon Cullen.

American scene and draw first conclusions therefrom, and for this purpose the REVIEW has selected its observers from that small field of experts most of whom may be said to be ambinational—owing loyalties that is to both sides of the Atlantic. A merely British view might be interesting, but would be open to accusations of prejudice and provincialism; by mere familiarity the purely American view might be blind to the kind of detail that is most significant. But the qualifications required include, as well as objectivity, sympathy and affection, so that the observer needs to be rather a special person in rather a special position. The qualifications of our observers are set out in detail on page 418 and the reader is asked to study them. They are extremely significant in themselves.

Fortunately for our purpose no other country in the world has publicized itself, by one or other of the visual techniques which are available to contemporary societies, more than the United States of America. Through the motion picture, fictional and documentary, through magazines and books, the world's millions have received a two-dimensional picture of a vast landscape which, so far as such things go, is amazingly complete. A visitor arriving for the first time in the country has a strange impression of having seen everything before—down to the last lamp-post and fire-hydrant, but of having seen it in a dream—the two-dimensional dream-world of celluloid and printer's ink. Not until he is able to move about in the landscape can he understand it as a living work of art, and assess what we have called the 'form-will' of the nation that fashioned it.

And yet immense as is the effort made everywhere to distinguish cultural tendencies as they manifest themselves in the arts of painting, sculpture, music, and even architecture, when it comes to the greatest community art of all, the man-made urban and rural landscape, nobody seems to give the matter a second thought. In the U.S. especially there are few signs of a desire to analyse the existing state of affairs and even fewer of an intention to do something about it. Moreover, where other countries have at least a tradition of the art, and consequently some first principles to fall back on, the United States has not. As a basis upon which to build up a theory and practice, what does she have?

Speaking from the outside, as the Editors are bound to do, there are five characteristic physical features of the American man-made landscape which stand out. The first and most obvious one is the grid-iron plan, which but for that most unrepresentative city, Washington, and certain areas like the centre of Detroit and the old quarter of New Orleans, is standard from coast to coast. Arising as a direct result of this phenomenon are the tree-embowered, community-gardened suburbs, which in their straight streets, magnificent trees, absence of fences, and multiplicity of individual buildings, provide an object-lesson for the world in the right relationship of unity to anarchy. The third and fourth are really two aspects of the same thing, namely town centres. The third is what happens inside town centres. Here, another kind of visual unity has been imposed on another kind of anarchy. A fantastic agglomeration of objects—advertisements, water-tanks, side walls, back walls and 'architectural' front walls, two-storey buildings next to twenty-storey buildings—thanks, in spite of its faults, to the grid-iron which lines

them up at right angles to one another, combine and re-combine as the spectator moves through them into cubist compositions, often of unearthly beauty.

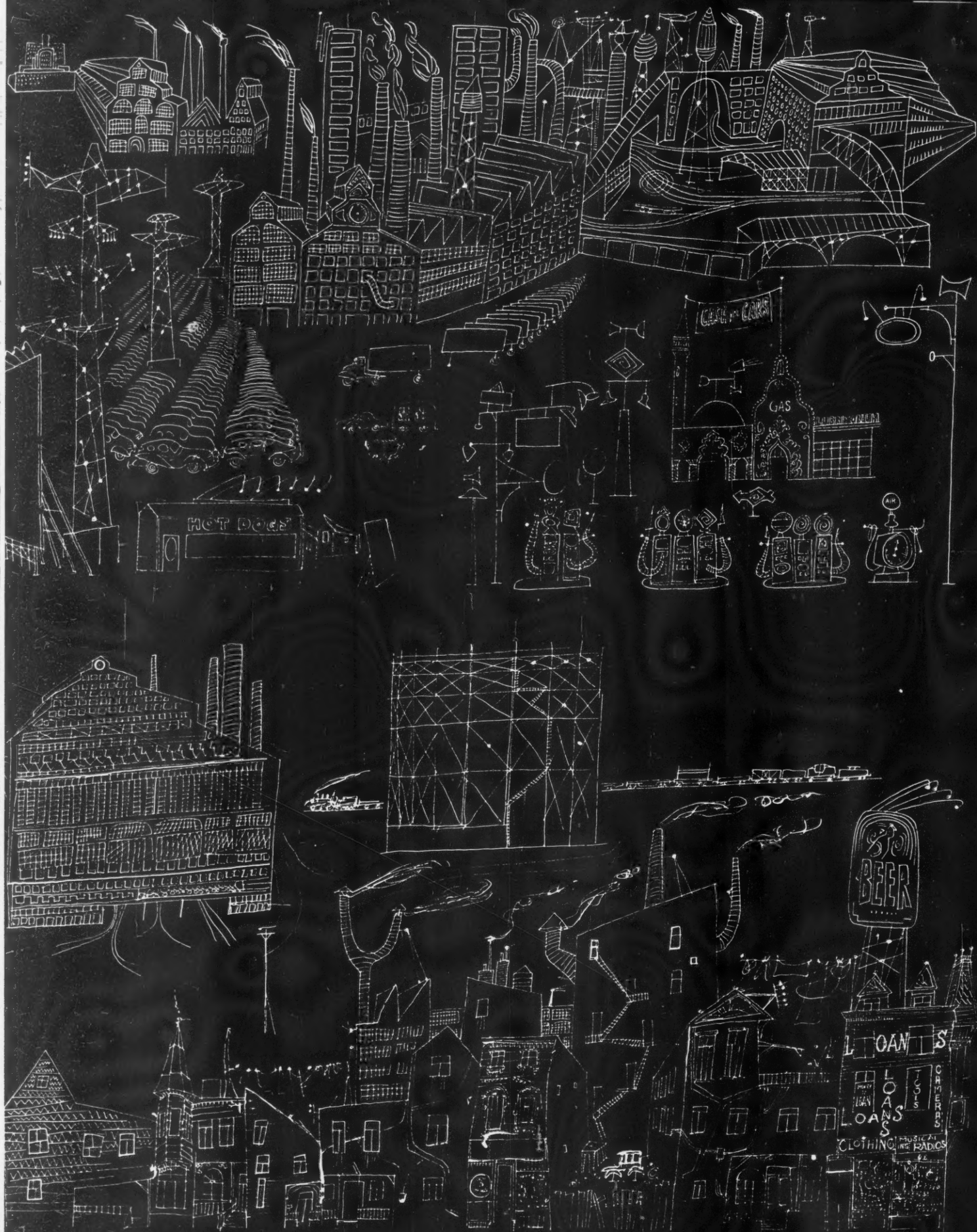
The fourth characteristic is unique to America. It is the strange effect of the skyscraper districts seen from a distance, sometimes pyramidal (e.g. Cincinnati, Philadelphia, Pittsburgh), sometimes cliff-like (e.g. Chicago lake-shore) and sometimes a mixture of both (cliff-like—New York from the Triborough Bridge; pyramidal—New York from Staten Island). Certain lights transform these effects from urban into what appear to be geological phenomena. The New York skyline is justly celebrated, but a hundred other cities run it very close.

The fifth outstanding contribution of the American scene to the art of urban landscape are the vast projects such as, in New York, the Grand Central Station complex and the Rockefeller Centre, or in Chicago the Merchandise Mart (paralleled, in the sphere of rural landscape, by the TVA), which, by controlling or excluding the vagaries of nature, create on a hitherto unknown scale an artificial environment, specially designed to suit the activities carried on within it.

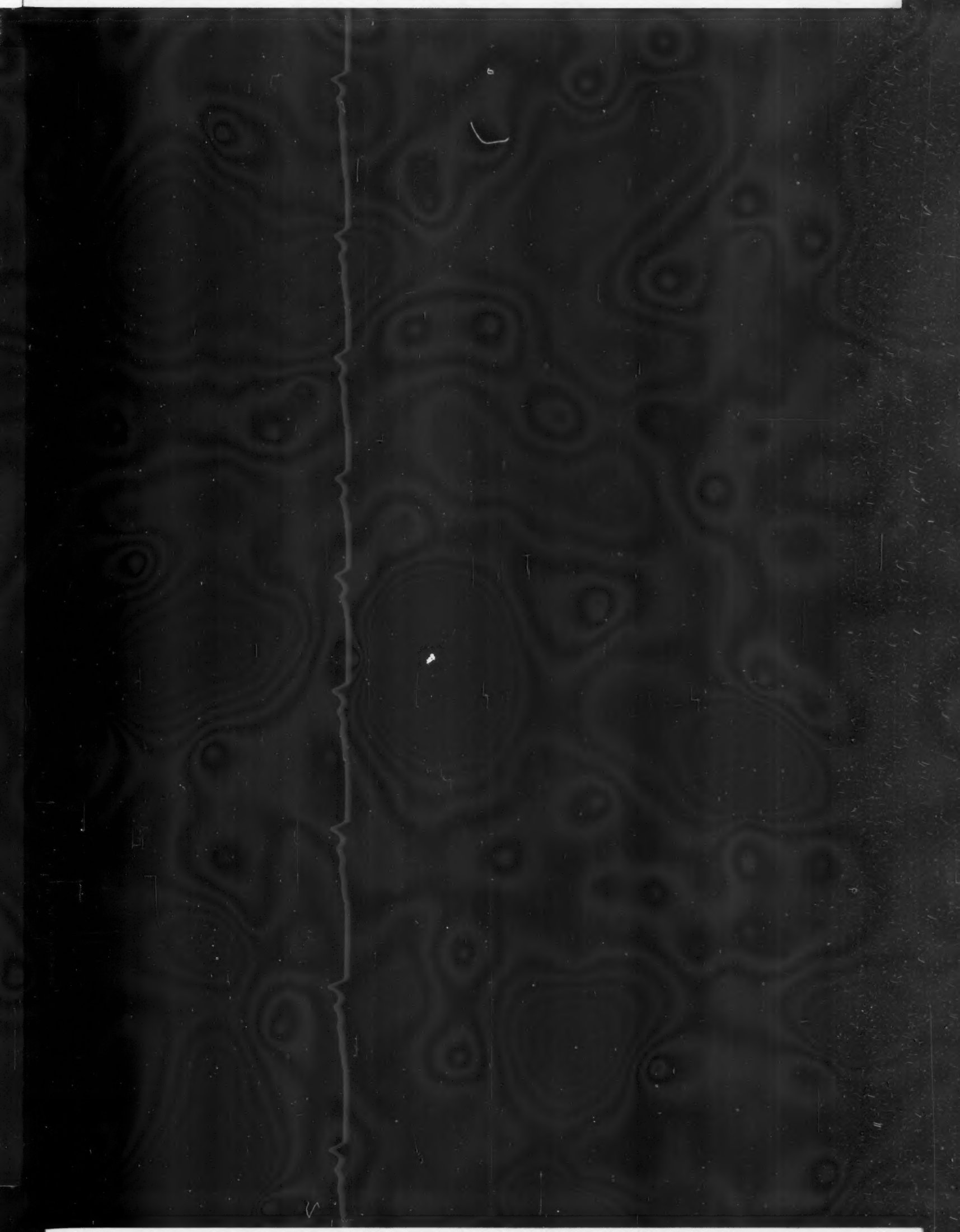
If these five features made up the entire man-made scene it could be argued that squalid as their detail is, and serious the functional deficiencies they represent, they do reflect a vigour and grandeur which is the result of activity untrammelled by forethought, in other words that no conscious practice of the art of landscape was called for. However, there are other characteristics that stand out, and which by no stretch of the imagination can be called a contribution to the art of landscape. Forgetting the evocative squalor of such a street as Third Avenue, New York, so reminiscent of continental Europe, there are vast areas that fill the interstices between the suburbs and the city centres, not to mention the highways between cities, where not anarchy but visual chaos reigns.

If there were signs that these areas were gradually diminishing, to be replaced by a rewarding environment, all would be well. But no sooner does renovation and reconstruction occur in one place than blight spreads over another. This process is familiar to all industrialized nations. Elsewhere, when it has been halted at all, it has been found to be possible only by means of control through town-planning—by, in fact, the community evidencing a conscious will to control and form its environment.

Where does the United States stand in this matter? Does it wish (as other communities in the world to-day have shown they do) to be directly instrumental in moulding its own environment, in such a way as to reflect a visual ideal—a concept of what constitutes order and propriety in the environment—or has the American community rejected a visual ideal, in favour of a *laissez-faire* environment—a universe of uncontrollable chaos sparsely inhabited by happy accidents? As we contend the implications go deeper than is suggested by their overt preoccupation with the terminology of territorial planning, deeper even than their apparent preoccupation with the things that meet the eye.



Without Saul Steinberg the U S would possess no critic of the community art of townscape. With him it has the most witty, perceptive and devastating critic in the world. The drawing above formed part of a mural by Steinberg in an exhibition *For Modern Living* held last year in Detroit. A biography of the artist on page 371, precedes some of his latest, and most brilliant, wordless commentaries.





'It's all very well,' the voice of the air seemed to say, if I may so take it up; 'it's all very well to "criticize," but you distinctly take an interest and are the victim of your interest, be the grounds of your perversity what they will. You can't escape from it, and don't you see that this, precisely, is what *makes* an adventure for you (an adventure, I admit, as with some strident, battered, questionable beauty, truly some "bold bad" charmer), of almost any odd stroll, or waste half-hour, or other promiscuous passage, that results for you in an impression? . . . It might have struck you that great cities, with the eyes of the world on them, as the phrase is, should be capable either of a proper form or (failing this) of a proper compunction; which tributes to propriety were (on the part of American cities) equally wanting. This made you remark, precisely, that nothing was wanting, on the other hand, to that analogy with the character of the bad bold beauty, the creature the most blatant of whose pretensions is that she is one of those to whom everything is always forgiven. On what ground "forgiven"? of course you ask; but note that you ask it while you're in the very act of forgiving. Oh yes, you are; you've as much as said so yourself. So there it all is; arrange it as you can. Poor dear bad bold beauty; there must indeed be something about her . . . !'

Henry James, *The American Scene*.

Of course there is 'something about her', but it probably cannot be told. I do not believe that the city can be conveyed adequately by words or pictures; it must be experienced, as one experiences a theatrical performance. James is the only writer who ever came close to the proper form of communication; his engaging method of having buildings talk to the reader and to each other, his imagining of what might have been, his cross-references to another continent, all add up to the almost perfect realization. Fear of change, and sometimes fear of people, alone unfitted him for the role of interpreter; the sight of an Italian immigrant on Boston's Beacon Hill would send him hurrying back to the more reassuring atmosphere of Dartmouth Street or Commonwealth Avenue. Even so, *The American Scene* is the most acute description (naturally it is the most literate) of the visible American city.

Du sublime au ridicule il n'y a qu'un pas. It is wiser to underline the presence of atmosphere than to try to describe it. Better still perhaps it should be left to the painter, who, together with the historian, has the only genuine opportunity to convey the truth about the American city and its culture.

A few things can be said. The American community is not a standardized product like the American automobile. It may usually have its tallest buildings in the centre and its smallest houses on the periphery—easily recognizable and recurring phenomena; it may use standardized building materials and motifs on banks and shopfronts, so that Main Street in an Ohio town becomes a model of Elm Street

in Massachusetts; it may employ standardized fixtures supplied by the General Electric or the American Bridge company. National advertising spells out Pepsicola on billboards from coast to coast or in the sky; mobile America looks the same everywhere; dress is almost standardized. Neither can we look for many differences in plan, the grid-iron having long ago triumphed over other forms. (The two-dimensional form of the American city can with accuracy be called mass-produced.)

The differences are by contrast subtle, and only sometimes spectacular. They are to be found oftenest in the setting, which sometimes dominates and frequently changes the whole character of cities. To realize this, one has only to see the north-western community of Portland, with Mount Hood commanding the urban view, separated from and yet a part of the city; or the mountain copper towns where man and his works are rendered insignificant by nature; or a city of the plains country, where one's apartment on the edge of town may look over miles of cornfields and the surroundings are known before they are seen; or a New England manufacturing town, so green with trees that from above it seems more forest than community; or a southern city, sweltering in the humidity of a languorous atmosphere where moss-draped oaks and water cypresses invest the scene with fantasy.

It can be argued here of course that such differences are not confined to the United States, and that they occur in other even narrower zones . . . the contrast between Berne's setting and that of Clermont-Ferrand, both regional capitals, is quite as strong as that between Denver and Topeka; but in America this diversity of setting is important because it throws the search for comfort and the familiar into sharp contrast with the organic fact of unchanging nature.

Within the city the ground plan is immediately recognized. Nothing is accidental, few streets will run askew. Dissatisfied with familiarity we look up, and here the skyline, which Le Corbusier and Thomas Sharp consider so important in any city, transforms the view. A broken line, blank side-walls . . . windowless in anticipation of a neighbour that never came, huge signs on steel frames, the pencil form of taller buildings, a wisp of black smoke or white steam, an over-all tone of grey if the structures rise to any height. Not the grey, blue and whitish-yellow of Paris, but darker anonymous grey with an occasional brick-faced building, punctuated by the flash of glass in sunlight. At night, the tall buildings of the central city glitter with electricity, the rhythm changing as late workers leave and the cleaners move from floor to floor.

These accidental views are a source of pleasure, and all the more because the whole city is rarely seen in silhouette. Exceptions are places which can be seen across the water, like Miami, San Francisco, some of the Mississippi river towns and New York; or cities which can be seen across the plains. Sometimes a New England town will rear up in the distance, seen from a motorway, as for instance Hartford the state capital of Connecticut, or Bethlehem the steel capital of Pennsylvania, lying visible in a bowl. And sometimes . . . but it is a rare prospect . . . within the city's grid, a street may cut clear to the horizon, to stir the imagination strangely, or widen out to encompass the waters of a harbour or a lake.

To find other aspects of the picturesque in the American city one must be a student of human relations, or else . . . and this is the architect's task . . . journey rather widely in search of a few rare treasures. Many journeys have I made, in company with those who love architecture, to some unguided spot where suddenly the city becomes something more than commerce and takes on special character. The situation is usually fortuitous but there is always some element of order present wherein the seeds of urban beauty seem to lie. It may be the 'air-bridged harbour' of Manhattan seen through the pearly

mists that soften every contour¹; or a street of brownstone fronts in Brooklyn, punctuated by a startling church of the 70's, whose terra-cotta facing and rose-purple glass strike uncompromising Calvinism into the rows of French detail. Or it may be one of the few entirely ordered complexes, now disappearing, such as the public square in Baltimore where the monument to Washington by Mills proudly avers the great period in American culture when all the arts were one. Or it may be a city's fringe, where the naive gardens and unarchitectural houses of those who supply the central markets offer the stimulus of a loudly coloured folk art, making the timid inner suburbs seem pale and sickly replicas of a monument called Taste.

These are all fragments . . . scenes that the painters have sometimes caught in their search for the picturesque, carefully selected visions from the broad mass of the urban landscape. For every significant view there are miles and miles of insignificant building, until the eye is arrested by a Brooklyn Bridge, a lively street market, or a strange collection of building materials and window details that can be put on canvas or caught by the camera. The painters have made us see more clearly what is in the city by piquing our curiosity; they have not yet shown us the city that could be. A collection of urban scenes by Hopper, Shahn, Stella and Gugliemi gives rise to melancholy feelings. This is due to the painters' special preoccupations; the American city itself is seldom melancholy, in spite of slums, smoke and paper-blown urban wastes; next to the Italian or the Mexican city it is perhaps the most active and exciting theatre of life to be found in the West.

There is something else to be found in the urban scene if the visitor is equipped with a vision to penetrate the architectural icing on the cake. This is the creations of bold but usually uncelebrated engineers whose special imagination has brought new forms (or better, new *arrangements*) into urban life. Making the city work is usually an unspectacular job, but in the following examples one's imagination cannot but be stirred . . . this is more a matter of historical understanding rather than of visual experience, since much of what has been done cannot be comprehended by the eye.

It is no accident that the European first thinks of skyscrapers and superhighways when he thinks of the American city. It is the boldness in these creations which appeals . . . they represent the sum-total of American enterprise, ingenuity of getting things done . . . and perhaps (let us face it) they are the most significant aspects of American urbanism. Certainly they are the monuments by which historians will judge us, and are already beginning to judge us.

But the total 'arrangement' has not been celebrated by historians², and to descend with Thomas Wolfe into Grand Central Station, for instance, is to find something typically American, not wholly seen but felt as atmosphere. Here the voice of the air speaks loud and clearly—and the twentieth century city, perhaps even the city of the future, seems to find its perfect expression:

'The station, as he entered it, was murmurous
With the immense and distant sound of time.
Great, slanted beams of moted light
Fell ponderously athwart the station's floor,
And the calm voice of time
Hovered along the walls and ceiling
Of that mighty room. . . .'³

The Railroad Station.

¹ From a ferry boat jockeying across the river or gliding on a calm day to Staten Island—once the scene of comfortable summer villas—the towers may be fiercely silhouetted against a black sky or dreamily fragile in a bank of vapour, catching the sunlight on a thousand panes of glass and glittering like a diadem on grey velvet. This is New York's chief beauty, and one of eternal variety. There are a thousand minor beauties of architecture and engineering, ranging from the municipal asphalt plant to the remaining fragments of the Astor Colonnade, but the mass is the chief, the pride—and it will remain unique now that the brief period of the tall building is giving place to other ways.—C.T.

² A book on the Grand Central complex has recently been published. The author is David Marshall, and although a popular account, it includes much information that has been useful to historians.

³ *A Stone, A Leaf, A Door*. Poems by Thomas Wolfe. Selected and arranged in verse by John S. Barnes. Scribner's, 1945.

The Grand Central complex is much more than a railway station; in fact, the sight of a train is rare. It is a place occupied daily by a group exceeding the population of a major city (370,000 people) and a yearly number exceeding that of the Soviet Union—yet it has no inhabitants. One can buy all the necessities of life there (and all the luxuries), do business, sleep and leave anonymously with all the other anonymous guests. It is quiet, so quiet that one longs for the sound of a locomotive, which will never be heard because the steam train has been banished forever from this precinct. It is most certainly the only railroad station where a bishop could speak from a balcony to hushed thousands in the concourse below appealing for \$10,000,000 to complete the building of the Cathedral of St. John the Divine. (The Episcopal church has seldom launched a campaign so successfully.) Under the blue vault there is the feeling of being in a vast Beaux Arts cathedral. Nothing is bared, no structural members show, no space-time depot this—yet. . . .

It is the hidden engineering which is the marvel—the engineering which provides access to 200 shops and 14,000 offices in eighteen buildings, besides providing the framework for New York's most magnificent street of buildings—Park Avenue. The station arrangements were daring enough—the first and perhaps the last to bring in the tracks on a double-deck fan cut deep into the heart of Manhattan's granite; but the idea of covering the tracks with streets and buildings towering above was a major inspiration as well as a profitable speculation. Walking along Park Avenue one is reminded that these apartment towers and luxury hotels are not built on the level ground only by the thin line of their expansion joints along the pavement which separates them from the bridge on which the street is carried.

To stand one foot on the pavement and one on the doorsill of a building is to feel a slight vibration only in the pavement as a train roars by underneath. The buildings are raised on independent steel columns sunk down to bedrock on layers of asbestos and lead; Grand Central itself is built upon the same bridgework that carries the track.

The recent obituaries of Col. William Wilgus gave a measure of tribute to his engineering innovations at Grand Central. It was undoubtedly he who conceived of tracks, streets, bridges and buildings all in a single structural entity; the double-deck track fan to save space and the loop connection to circulate the trains. It was he who worked out all the details with the first official architects, Reed & Stem, but to these winners of the competition for the new station goes the credit for the device of looping Park Avenue around the station on 'exterior circumferential elevated driveways' instead of through the centre of the station athwart the concourse as Wilgus had suggested. It was probably the architect Whitney Warren, cousin of William K. Vanderbilt, the railroad czar, who planned the 'low monumental effect' of the station itself and attended to the selection of the interior marbles. New Yorkers can perhaps be glad that a more famous architect, Stanford White, did not win the competition. His building would have been 60 stories high (the tallest then existing) crowned by a jet of steam shooting 300 feet into the air; at night red lights were to play on this vaporous column to guide all shipping into New York harbour.

The building of this modern precinct, so much before its time, was hastened by a train wreck in 1902 in the smoke-filled tunnel which had previously fed Grand Central depot. As a result of this, the state legislature decreed that after 1910 no steam train would enter Manhattan on tracks used mainly for passenger traffic. This had been the start of Wilgus' thinking. The new station was thrown open to the public in 1913; in 1917 the upper level loop was put into service; and in 1927 the lower level loop, which takes suburban trains, was finally completed. It is the most comfortable, convenient and efficient

arrangement for travellers ever devised—the planning is compact, but not crowded, and somehow, in spite of, or perhaps because of, Whitney Warren, the interior proportions are strikingly perfect. It was the first building in America to propose ramps instead of stairways for large crowds; and advocates of advanced construction may find there ten galleries with ceilings, walls and floors of glass, rising one on top of another at the eastern and western ends to give a series of views into the heart of the city.

The engineer makes our lives convenient; he also improves our health. If I should place the Grand Central–Park Avenue complex at the head of our list of significant urban facilities, I should certainly next include the Chicago River (I would not include either if it did not also contribute to our aesthetic enjoyment of the city). In Chicago there is to be found the most impressive American street (Michigan Boulevard, a western Prince's Street), but the visitor would do well to walk along it as far as the river for a special reason.

Chicago presents all sorts of visual effects which New York cannot offer. For one thing, the city can be seen from the Outer Drive—one doesn't have to cross a bay or a river to get that impression. At dusk, driving up from the University, past Mies's Promontory apartments, the Loop district suddenly comes into full view, Grant Park making a quieter foreground to the black towers, which carry in places enormous electric advertising signs to give a shimmering pattern of light on the highest levels. Then there are the effects of the wild Chicago weather. In a snowstorm blowing in from the Lake, each particle is etched against the Wrigley Building flooded by a battery of searchlights from below—a spectacular sight. One feels very close to the elements in Chicago and very sure that skyscrapers are gimcracks; playthings of the moment in that city 'whose only permanence is change'.

But the River and its Sanitary Canal is the social conscience of Chicago and the reason that its miles of beaches are so safe from water-borne disease. As one stands on the bridge that takes Michigan Avenue across the Chicago River, it is as well to know that here there is more than meets the eye. True, the eye is kept busy enough. A rough circle of towers, individually placed, is all around—the Wrigley Building, the Tribune Tower, which Col. McCormick is now busy trying to make safe from atomic bombs, and the London Guarantee Building are the principal eye-catchers. If one is lucky enough to be thereabouts when a ship is passing through, several bridges may be raised, while the city's mighty traffic flow stands still. But the most significant phenomenon seems insignificant enough—it is the murky water itself, glazed over or steaming on a foggy day; for this river, which until 1900 poured into the Great Lakes, now runs into the Gulf of Mexico. Engineers have reversed the flow. In 1900 the drainage canal was completed after twenty years of planning, seven years of labour and fifty million dollars in cost. Previously floods would sweep down the Chicago and empty stockyard wastes into the lake; when the reversal was completed deaths from typhoid dropped to almost nothing. Cutting through the watershed to the Desplaines River accomplished this; nor was that all. The Sanitary District became a vast regional scheme, taking over the watersheds of nearby rivers and reversing their flow to prevent the sewage from towns along the shore flowing into the lake. This is the safeguard for Chicago's thirty-two miles of sandy beaches, the envy of other lakeside cities like Cleveland, where a larger river pours industrial waste to pollute the waters of Lake Erie for miles offshore.

The Chicago River thus becomes a man-made facility in a fantastic setting of architectural hedonism. Its thread alone provides the unity—this part of the city forms a cross-roads; the magnificent main street cuts through, the two-level Wacker Drive snakes along its 'banks' and the buildings that have clustered here can be seen with foreground. I would not give away this view for anything in Europe—

so violent, brittle and emotional is the prospect that one cannot fail to respond to its extraordinary challenge.

The situations providing an aesthetic and intellectual stimulus are quite rare. I have mentioned two of them. New complexes will appear in time and perhaps the East River Drive in New York is one, with its succession of covered decks, tunnels and views. The West Side Highway, completed earlier, is not of this class; the engineering is a feat—covering the railroad and creating a great parkway to replace Riverside Drive, but the uninteresting park landscape that covers much of the surface dulls the view. San Francisco's Golden Gate Bridge is magnificent, but with this we arrive at the single engineering accomplishment and by definition, our 'significant arrangement' requires more than engineering structure. Significant form in American cities seems to be accompanied always by a story—it is a narrative picture, if you like, in observing which the spectator must understand something of American history, American ways and American enterprise. On a street in modern Rome we may be able to observe: 'Here Caesar walked'; in megalopolis we can sometimes say 'Here someone—now who was it?—had an idea'.

If the significant urban forms (and of latter years the rural forms too) are to be found among the triumphs of engineering and of science, are we to infer that architectural forms are not contributing to our visual pleasure as they should? Yes and no. We can find many pleasing buildings in almost any community; but *the architectural complex* is extremely rare. The opportunity for creating planes in recession is absent, except as one looks up or from a height, as in New York City. One of my favourite views is of the towers of our University, as seen from a height of three stories in the architectural students' drafting room. There, as if cut from cardboard, the buildings in all their fantasy (they are created in a style known as Collegiate Gothic) recede into the distance in a fascinating interplay. Divorced from prejudice or sentiment, this view is good; while on the ground nothing of the sort is apparent. The trouble is that American architecture is built in bands around a block; there are no nooks, no inner and outer courts, no precincts. Where the very heart of the city lies we find—a street *corner*, not a square or plaza. Hollywood and Vine, Fourth and Main, Broadway and 42nd Street—these angular points are symbols of the city's central core. We start from there, walking with architecture above us and across the way—we see *along* an architectural framework, but seldom *into* one.

This situation stems not only from the plan (for even the grid can be broken up intelligently) but from the desire for frontage. Architects chafe under this restriction; one of them remarked to me recently that urban thinking would have to extend beyond property lines before architecture worthy of the name could ever arise. Some architects are now being given the opportunity to work in spacial freedom: a limited example is the new Skidmore, Owings & Merrill apartment house which runs down the centre of a New York block. Better illustrations of the escape from the street as arbiter are the housing superblocks, public and private, of the last fifteen years. Release from frontage requirements here has, in these early years, resulted in the perversely diagonal saw-tooth arrangement which ignores the bounding avenues completely; that this has been done in the name of orientation makes the pseudo-scientific architectural approach seem more than ever irrational. Site planning of the superblock will, however, improve in time.

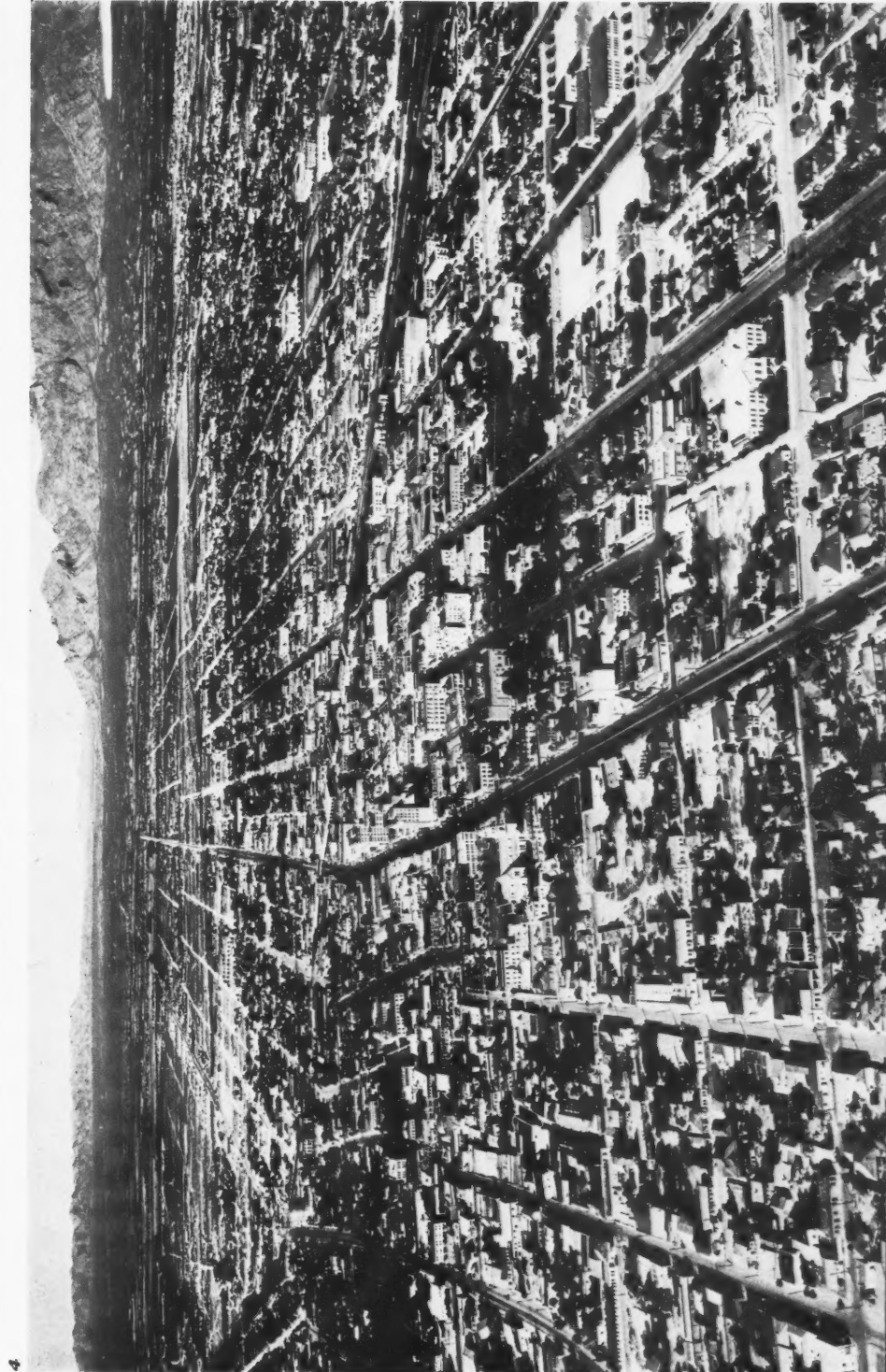
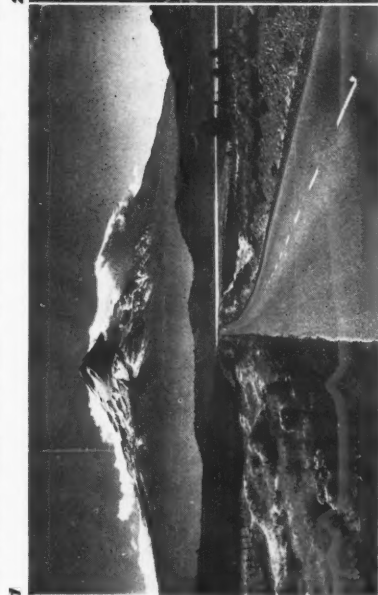
Perhaps Americans can develop what Dudok calls the 'form-will', perhaps not. So long as building is dedicated to comfort, as James thought it was so many years ago, all other possibilities of an American architecture will be set aside. Convenient the town is not, in a planning sense. The separation of auto-

[contd. on page 357.]

These illustrations can be considered as complementary to the article by Professor Tunnard, whose captions accompany them. They fall into three groups. Scene one gives a surface impression of a few outstanding characteristics of the American landscape, missing out the more obvious ones like Washington or New York. Scene two lifts the lid off some remarkable, and typically American, works of engineering genius which have had a fundamental though not immediately visible effect on the landscape. Scene three summarizes a few of the attempts that have been, or are being, made to create or re-create propriety in the physical environment, with a passing glance at a city which seems intent on destroying it.

Scene one

North-west the lonely highways, **1**, are superbly maintained for cross-country travel. The landscape is exposed to view everywhere, unlike the closely planted feeling of the Eastern parkways. A town can be seen miles before it is reached. Mount Shasta in the background. **2**, Grand Coulee dam, which will make new towns possible in formerly arid reaches of the north-west. **3**, Butte, Montana, a copper town, company-controlled. These mountain towns use the grid layout, even where it is manifestly illogical. The supreme example of unwise use of the grid pattern is on the hills of San Francisco.



South-west Tucson, Arizona, **4**. From the centre, long straight tree-topped streets run out for miles into the desert. Houses in town take boarders, tourist camps make a fringe. The university extends for many blocks with its buildings and athletic fields. All around and up into the hills are mansions of stone or stucco in the styles of Spain, Morocco, Italy, California and Mexico. Dude-ranching is the second largest industry.

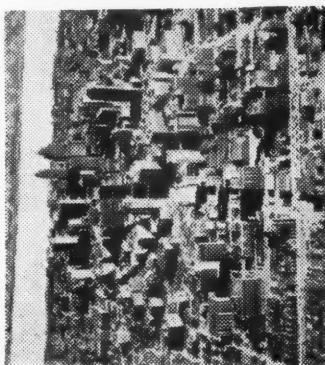
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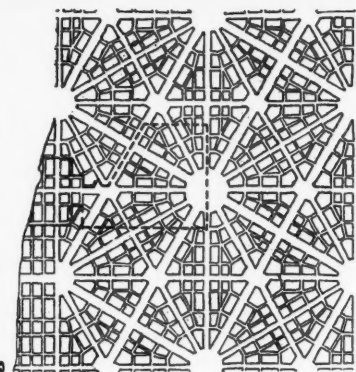
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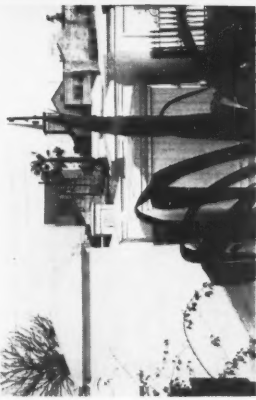


mid-west Chicago, Illinois. 5. Here is the earliest and most spectacular of the waterfront parks. The leafy northern suburbs where the wealthier citizens live stretch out into the distance, ending at Lake Forest . . . one of the most exclusive suburbs in the country. The curvilinear streets were designed by Frederick Law Olmsted, but most of Chicago is patterned on the grid. Not far back from the lake with its beautiful green fringe the slums begin. They are Chicago's worst and ever-present problem. 6. Kansas City, Missouri. Typical mid-western metropolis, with the river dimly seen in the background. The river-fronts are poorly treated in most of the cities which have them, although St. Louis, Missouri, is about to create a large park on the edge of the downtown district along the Mississippi. 7. Detroit, Michigan. A city that has grown up in this century to a metropolis. Part of Judge Woodward's plan for the centre of Detroit, made in 1807, is shown in 8. Though derived from L'Enfant's plan for Washington, where L'Enfant superimposed his stars on a gridiron pattern, Woodward made his stars dominate the whole layout. Only the area marked by the dotted line in the centre of the drawing was ever carried out, and 9 is a photograph of it as it is today. With its buildings of all heights, indiscriminately mixed, it has very little to show of the baroque formality originally envisaged. Apart from this one element Detroit is a typical northern city blown out to gigantic proportions by the presence of Ford, General Motors and other automobile companies on the periphery.

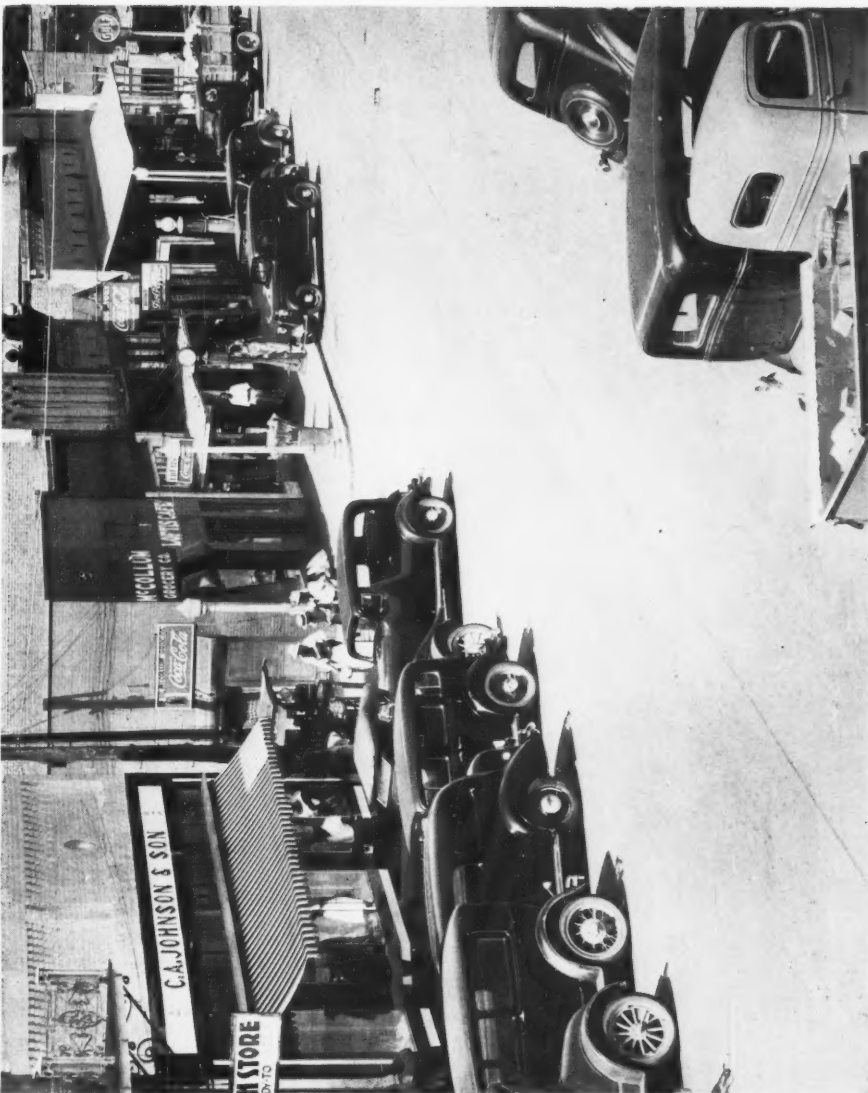
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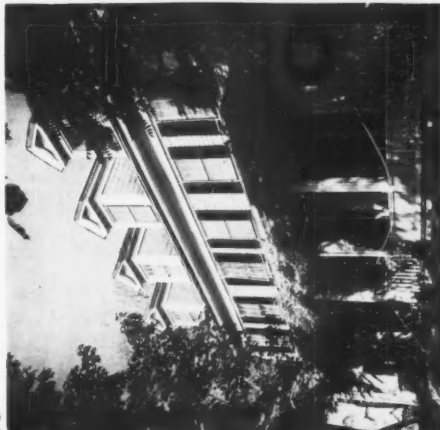
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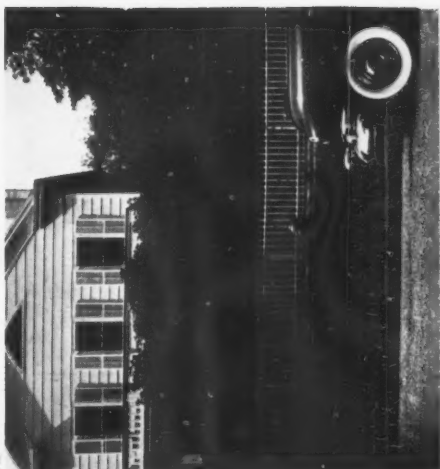
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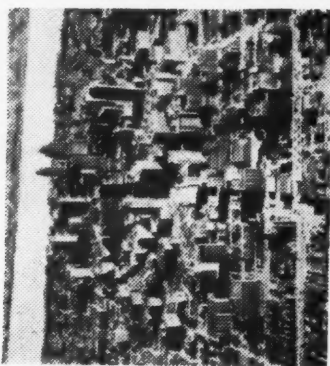
south The south has been poor since the Civil War, but industry is beginning to expand there because of cheap land and labour. **10**, company town 'boxes', low-grade housing for operatives in the new factories. **11**, cemetery in New Orleans, where the dead are buried above ground because of the high-water table. New Orleans is hot, humid and languorous; but concessions to northern 'vigour' have been made, and its main commercial artery, Canal Street, has ripped off its beautiful iron balconies (which helped to make the climate bearable by providing arcades in the street) to appear like any other street in any other city. One main street in a small southern town, **12**, is like any other. This is what one sees in driving through Georgia, Alabama and Mississippi . . . not the fine houses of Charleston, Savannah and Natchez, which are off the beaten track.

north-east Hancock, New Hampshire, **13**. This looks like a country road, but is actually in the heart of a New England town. Large early nineteenth century houses are set well back from the street, and around the corner is lurking a Bulfinch church. Trees make all the difference in New England, and the forest belt, once magnificent, which still stretches out to Ohio, ensures that trees will flourish even in the cities. **14** and **15**, two examples of the ubiquitous, white-painted frame houses, both in the Federal style; the first at Cambridge, Massachusetts and the second at Southampton, Long Island, a town famous for its machine-finished hedges and general air of trim.

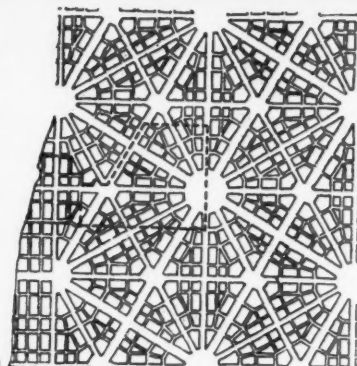


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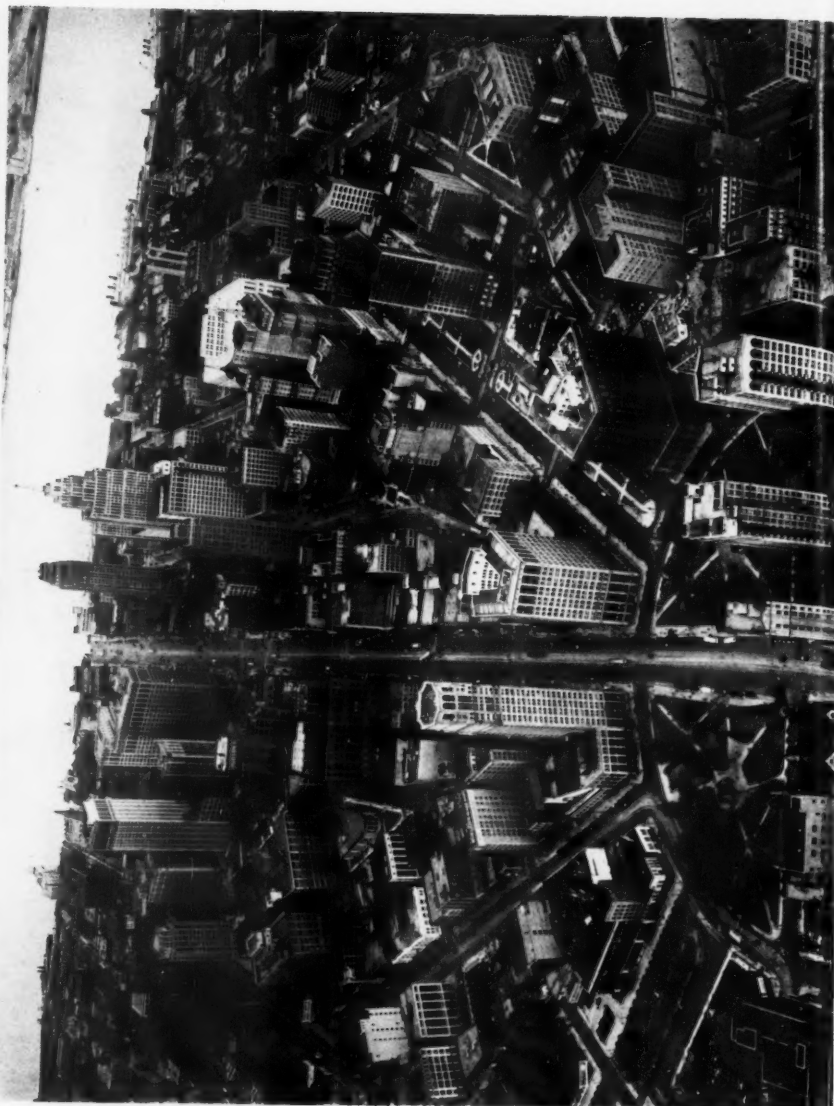
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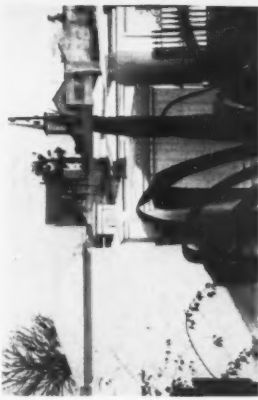
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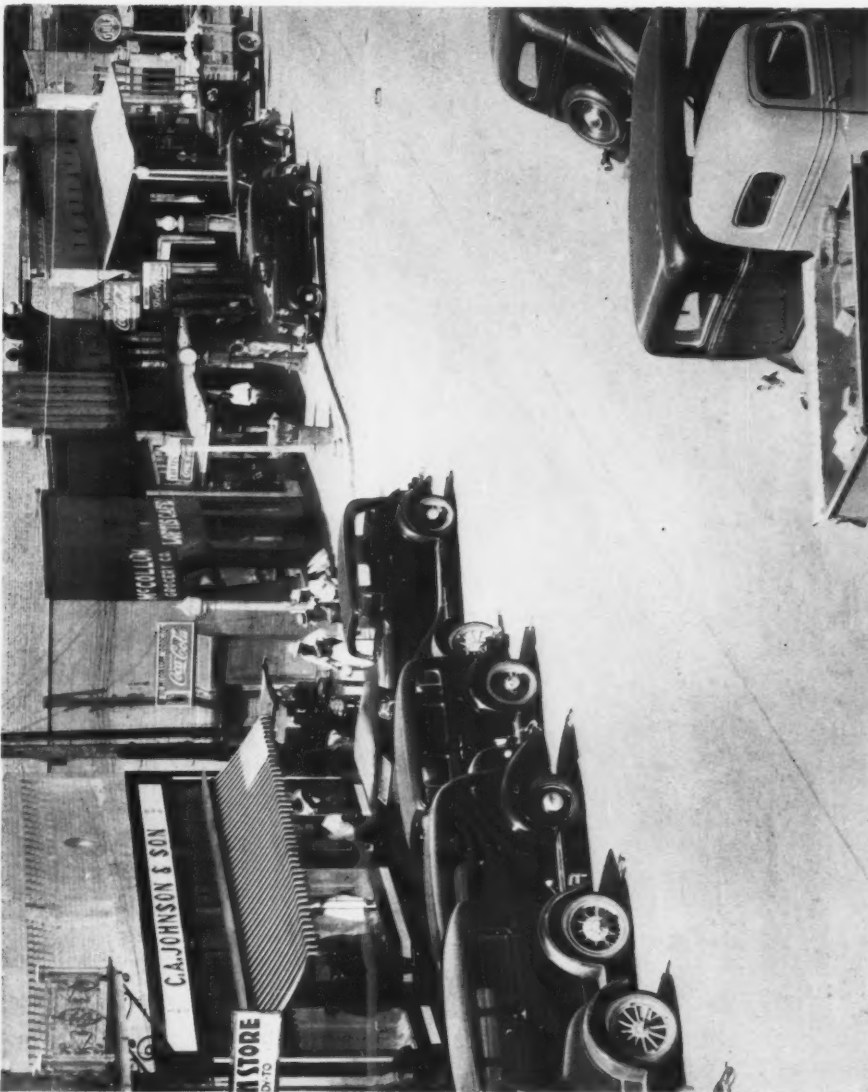
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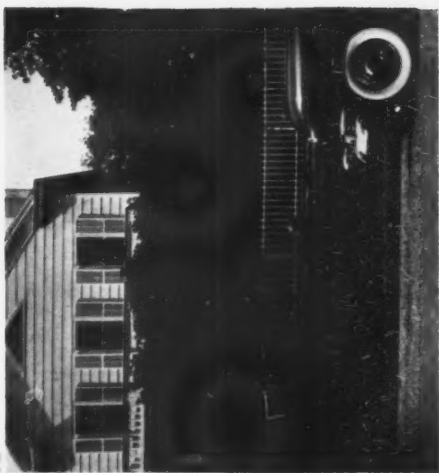
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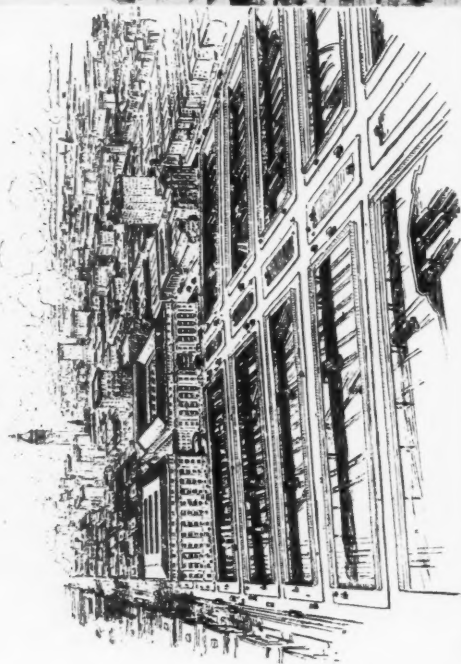
scene two

Landmarks which typify the scale of American city building and are as remarkable in their way as the skyscraper, though surprisingly little known, are the great engineering feats such as the Grand Central Station complex in New York and the Chicago River undertaking. No real understanding of the American city is possible without a knowledge of them, yet because they are more in the nature of mechanisms than works of art, they tend to be taken for granted or entirely ignored.

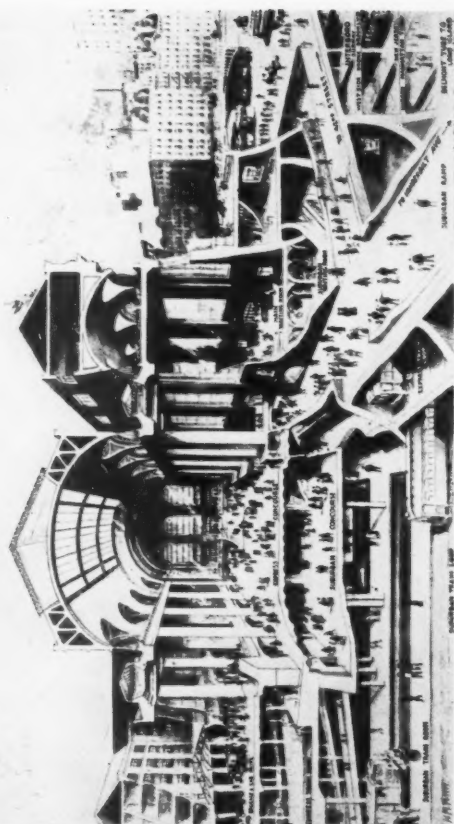
Grand central station New York, is 'occupied daily by a group exceeding the population of a major city (370,000 people) and a yearly number exceeding that of the Soviet Union—yet it has no inhabitants,' neither has it any (visible) trains. The railway lines run (on two levels) from platforms below the concourse straight down the centre of Park Avenue. **18**, the scheme as it might have looked but for the brilliant idea of Colonel William Wilgus to make railway lines, streets, bridges and buildings one structural entity. Park Avenue is, in fact, one long bridge straddling the railway lines, separated by expansion joints from the (non-basement) buildings whose pile foundations go straight through to bed-rock. **17**, an early drawing attempting to show the compactness of the station and approaches.

chicago river Chicago though the second largest city in the United States is only half the size of New York and, as the accompanying article points out, can be seen, as a city, much more readily. Running right through its centre is the Chicago River. This conventional looking waterway represents another feat of American imagination and engineering skill. For, until 1900, polluted by stockyard and by factory wastes, it flowed into the lake. After twenty years of planning, seven years of labour and an expenditure of fifty million dollars, the flow was reversed and the Chicago River was made to run into the Gulf of Mexico. As a result of this, and further schemes worked out on a regional scale, the

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MAN MADE AMERICA

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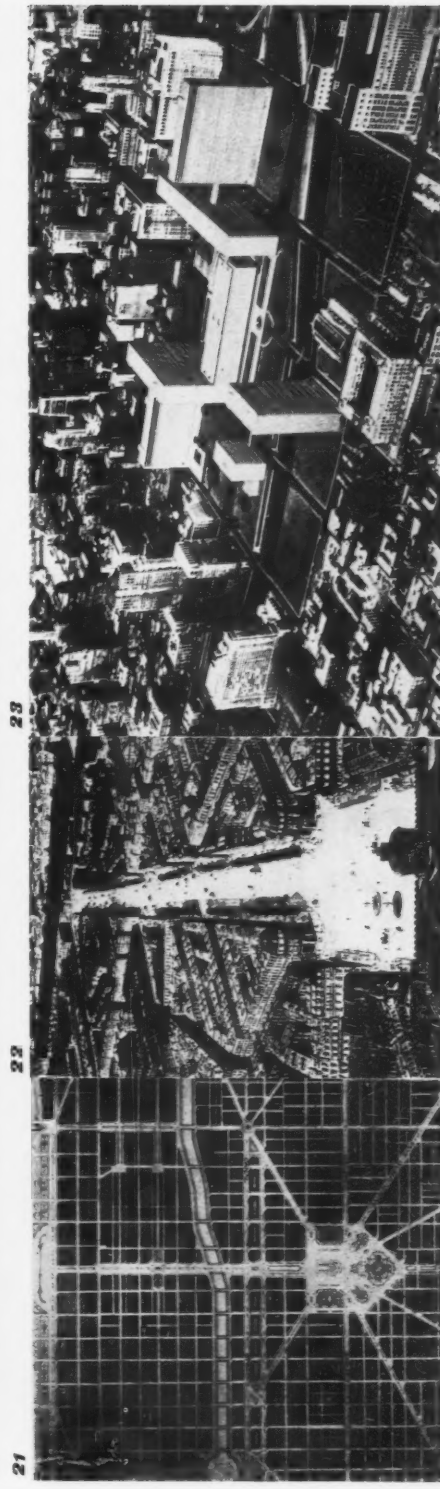
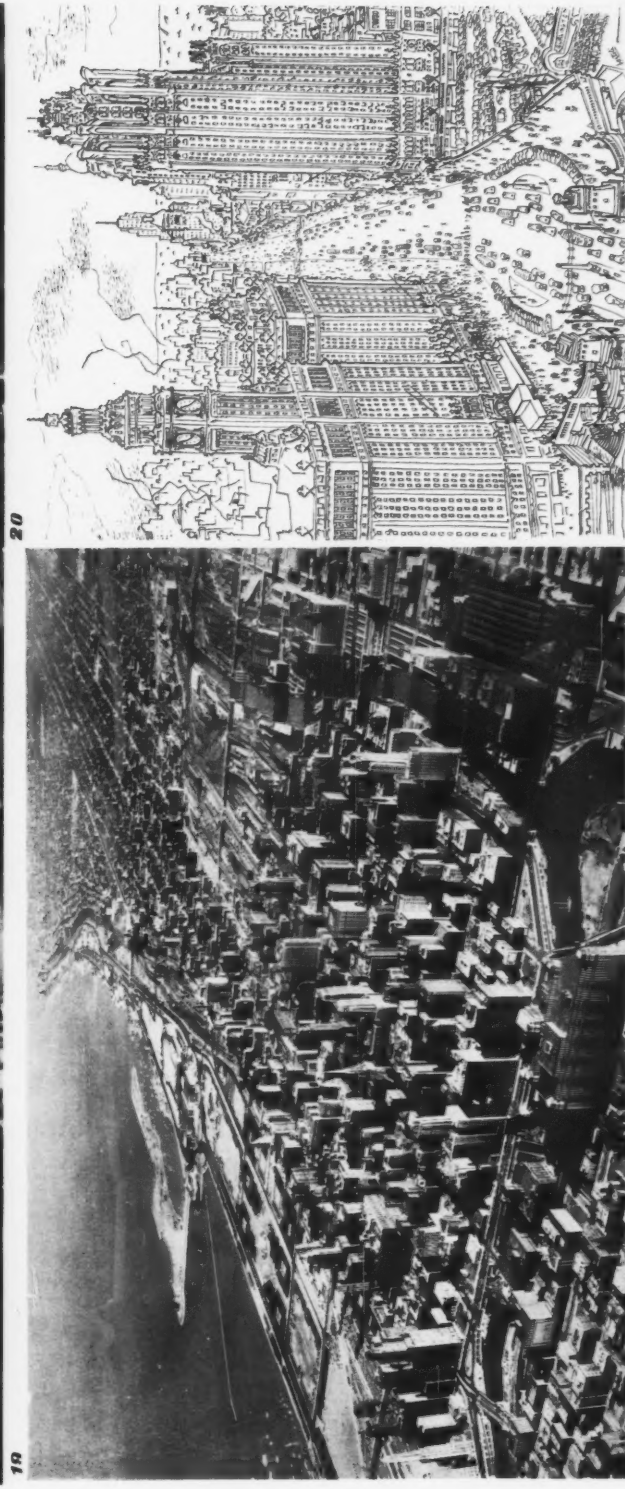


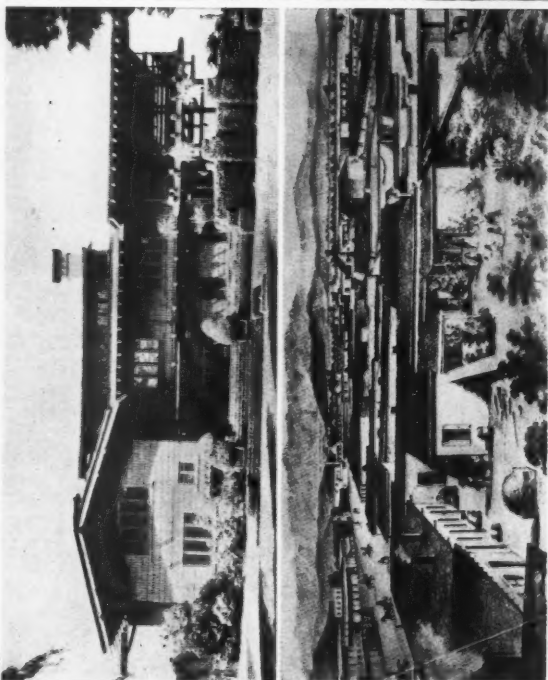
worked out on a regional scale, the

city possesses thirty-two miles of sandy beaches, 'the envy of other lakeside cities. . . **18**, looking down on the Tribune Tower, the London Guaranty Building (with concave front) and the building known as 333 N. Michigan Avenue, from which the sketch, **20**, was made. Beyond them the two-decker Wacker Drive is visible. The building in the foreground with the mosque-like top was formerly a Masonic Temple. **19**, the Loop District, so-called because of the elevated electric railway which encircles this financial centre. In the foreground is the Merchandise Mart, once the world's largest office building, now superseded by the Pentagon in Washington. To the centre of the Loop may be seen a spire on top of a skyscraper . . . this is a methodist church approached by elevator and used by businessmen of the district. Note the railroad yards eating into the heart of the city. Chicago, like London, is the terminus of many lines, and no scheme of reorganization to pool facilities and terminals has yet been accepted by the railroad barons. **20**, looking north on Michigan Avenue, a sketch by José Bartoli. Left foreground is the Wrigley Building and right, the Tribune Tower.

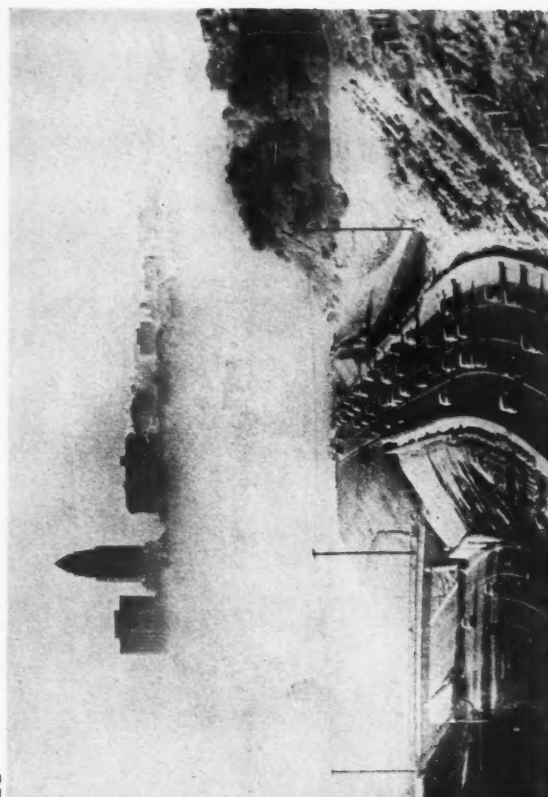
scene three

city beautiful The Chicago plan of 1909 marks the beginning of the official planning movement in America. Devised by Burnham and Bennett (the latter is still alive and relatively unhonoured) it had many advanced features, including regional implications; shown here is the obvious French-influenced civic centre compared with Haussmann's Avenue de l'Opéra, **22**. The planning commission's suggestion for a new Chicago civic centre, **23**, showing the modern French influence. The Chicago River becomes the Seine, and the buildings echo Le Corbusier's plan for the centre of Paris. It is proposed for an area now occupied by the garment industry, which has threatened to move to New York if the scheme is accepted.



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city un-beautiful Although there is much to admire in Los Angeles what is happening to its native architecture is a sad story. The Spanish town has all but gone. The latest destruction is of the old Negro bordello . . . a fascinating street that is being ripped apart. Old haciendas are recklessly pulled down to make way for superhighways. Even the work of its early modern architects is disappearing, such as the Pasadena house, **24**, by Greene and Greene. **25**, the site of this Los Angeles hotel of 1845 is now a parking lot. Perhaps the Angelinos, who show little interest in the way their city politics are run, deserve to lose their past and to be visited by the plague of gritty smog, **26**, but it is tragic that the city's pursuit of the new has blinded her to the even more romantic past.

the next step Park Forest, **27**, **28** and **29** is a new American community thirty miles from the Chicago Loop. The layout by Elbert Peets, one of America's leading site planners, is simple but imaginative. The community covers an area of 2,400 acres, is estimated to cost \$30 million, and will house 30,000 people. Industry is located with particular attention to the avoidance of smoke pollution. The scheme, promoted by private enterprise, receives financial assistance from the Chicago department of the FHA. Another builder's project of a very different kind is Levittown, Long Island. **30**. Frankly a dormitory suburb, its architectural styles range from Cape Cod to Modern. Prices are relatively low and the standard of internal equipment high. However, the quality of site planning is not comparable to that of Park Forest. **31**, a model, made by students at Yale University under Professor Tunnard's direction, to show how a blighted area could be rebuilt as a neighbourhood, retaining many existing structures. Population is six thousand. Ten models were made to show different possibilities and groupings.

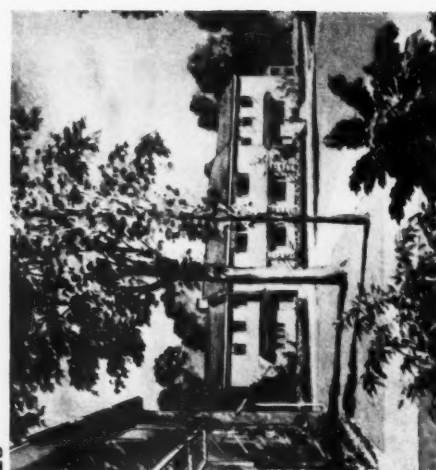
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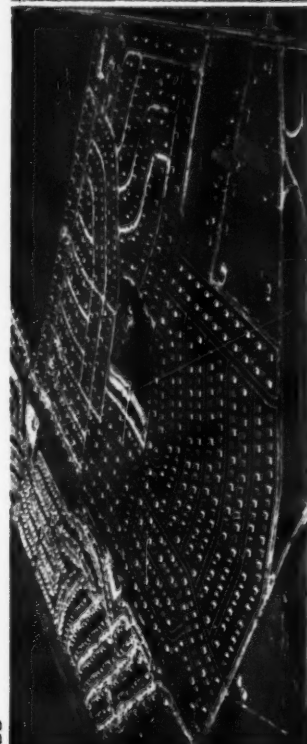
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mobile and pedestrian traffic will take years to accomplish, in any city. It is admirable, however, that this is the goal of our far-sighted traffic engineers. The means of reaching it are apt to change with engineering progress. The by-pass road is now being abandoned in favour of (1) the through route which touches the city at strategic points or (2) which crosses the heart of the city (where people want to go) in a depressed channel with the neighbourhood street crossing it on bridges⁴. Some cities have used old river beds or abandoned railways for this purpose and have succeeded in divorcing much of their fast moving traffic from the city's life. The American city of the future will have some of the characteristics of an abstract painting in which the forms are separated in plane and character, yet can be related ultimately in the whole composition.

The experiments that are now being made in superblock planning, highway engineering and new town building, although far from the norm, are of interest because they are providing yardsticks for the future. Especially valuable are the new town experiments being built by private enterprise. One of these has been built in the short space of two years and now holds ten thousand people. British planners may well ask: New towns may be built more quickly in the United States, but are they being built as well as ours, which are taking shape more slowly?

I will not here describe the fantastic example known as Levittown on Long Island, which is not a town at all, but an enormous speculative dormitory. A much better example is the community known as Park Forest, which is intended to be a new town when finally completed. To see Park Forest we need not leave the Chicago area. (Indeed, Chicago is the most appropriate city, if we are to choose only one, for the visiting architect-planner. The expensive suburbs, which F. J. Osborn praised on his recent trip to this country, the skyscrapers, the 'native' architecture of Sullivan and Wright, the parks and parkways . . . all aspects of American planning and architecture can be examined here. It is the nursery of American modern architecture and the American planning movement.) However, in driving out to Park Forest, which is twenty-seven miles south of the Loop, one passes little of interest. The main roads run straight as a die, following the surveyors' lines through built-up residential areas, vacant stretches of marshland and industrial empires. The buildings lose character almost immediately after leaving the centre . . . one notices the prevalence of the bungalow, a rare building type on the Eastern seaboard, well within the city limits, and built of brick in conformity with Chicago's building code. Farther out, the farms begin and here and there the groves of oak trees stand, a reminder that all this was once forest until the harvester came. We are approaching the Cook County Forest Reserve, which forms a regional green belt, and after leaving Homewood, a typical upper income suburb, Park Forest immediately appears on the horizon. It is on rising ground, but its outline is unrelieved by any tall building; one wishes for Grosvenor Atterbury's tower at Forest Hills, but reminds oneself that this is 1950, not 1911, and that town building has become a severely practical affair.

The first sensation on arriving in the new community (present population: about ten thousand people; eventual population: thirty thousand) is one of exhilaration. I have been to Chatenay-Malabry, Greenbelt, Norris, Tennessee and other new places, but here on a recent spring day the paint was scarcely dry, trees were being planted and walks laid, everything fairly shining in the sun. Vivid green grass was poking up in the lawns which sweep around the twin and group houses . . . the whole effect was of an architectural model in which the base is always green to simulate grass and the gardens are always forgotten, for there are no gardens near the houses at Park Forest (neither can any laundry be

⁴ It must be noted here that the policies of many highway departments in running their new roads through public land (parks, squares, even public school grounds) because it can be acquired without cost is seldom in the best interests of the cities.

hung out, by regulation). The feeling of a big job done in an efficient way⁵ grows strongly as court after court reveals itself, and one can see that an attempt has been made to avoid monotony. There is variety in the shapes of the rows and courts, and various architectural finishes have been introduced; the roofs for instance have different coloured asphalt shingles, and the exterior treatment may vary from group to group within a court. One feels that a quieter scheme, or at any rate a single colour scheme for units which face each other, might have been more successful; but the variety is popular with the tenants in this rental development. Many of them have placed ornate lamps in their windows, with the curtains drawn proudly back to exhibit these awful treasures to the passer-by. (The curious fact here is that the income group is of the professional category and higher, for the 'effective' rent⁶ is about \$125 a month. Many of the tenants are atomic scientists and their families, who live here because of the proximity of a plant; one wonders if these highly educated people have had their visual taste-buds stunted from a constant preoccupation with the problems of physics.)

The grouping of the units is the most interesting feature of the planning. (Elbert Peets, the planner of Greendale, Wisconsin, one of the three Greenbelt towns, and this country's leading site-planner, was responsible for the layout, which gives evidence of very careful study in his original plan, if not always in the execution, for which he was not responsible.) Many of the units are grouped around a parking bay (see plan), while their fronts are on grass malls with footpath access; the malls are of varying widths, making a little park on the living-room side of the house. The kitchens give on to the parking side. And here a phenomenon has occurred which probably was not foreseen. Looking at the site plan on paper, it would appear that social life, as neighbouring goes, would take place in the frontal green areas, but the contrary is true. A compact social life has grown up among families using the same parking bay; even the intramural athletic teams are 'court' teams, drawn from users of the same bay. The reasons for this are inherent in the architecture and planning. The younger children play in the bays where they can be watched by their mothers from the kitchen windows. Visitors arrive at the bays, park their cars and enter through the kitchen doors. The front doors open on the malls, but it is rarely that either the doors or the malls are used. Outdoor social life has become a backdoor affair, a situation which could have been obviated by larger parking areas adjacent to the street, more play facilities between the buildings and possibly by the addition of private patios on the lines of those at Baldwin Hills Village. We still have a great deal to learn about the planning of that vital area where indoors and outdoors meet.

An area reserved for parkland adjoins the rental units, helping to keep the gross density down to about ten families per acre. A generous open space is thus provided not more than half a mile away from each unit. The shopping centre is not yet completed—people shop in the nearby town of Chicago Heights—and industry has not yet been persuaded to venture into Park Forest, although an industrial area is provided. In other words—and this is especially interesting in contrast to New Towns procedure in Britain—the people are being brought in first, and the economic base is to follow. Whether or not Park Forest will ever be a new town in the economic sense depends on an intangible process known as industrial promotion. It will probably never be a new town in the social sense of the term unless the income base is lowered. Perhaps in the second section of the town which is soon to be built, consisting of houses for sale, the erection of contemplated prefabricated houses will make this possible. The com-

⁵ For an account of the financial speculation which produced Park Forest, see 'American Community Builders,' *The Architectural Forum*, August, 1948.

⁶ As differentiated from actual fixed rental figures which range from seventy-two to ninety-five dollars a month. This information was given to the writer by Mr. Dennis O'Harrow, who lives in Park Forest and is an official of the local government. Pending a sociological study of the community, Mr. O'Harrow's observations have been extremely helpful.

munity looks, and is, a vast improvement on the average speculative builder's attempt to plan on a large scale, which consists in many places of planting identical houses on sixty by a hundred foot lots like plums in a pudding. Here the plans and elevations were made by a well-known architectural firm. Whatever Ruskin might have said of these, the town's proximity to the Forest Reserve would have ensured his approval. 'From any part of the city perfectly fresh air and grass and sight of far horizon must be reachable within a few minutes' walk. This the final aim.'

Fringe development on the outskirts of every American city is making Ruskin's aim impossible of achievement, and unless metropolitan as opposed to city planning makes more headway soon, there will be no means of co-ordinating suburban and central district planning. The latest spur to the latter type is contained in Title I of last year's housing act, which is designed to give Federal financial assistance for the rebuilding of blighted areas. Recently set up Urban Redevelopment Authorities are now engaged in trying to coax private investors, insurance companies, and other corporations to take part in the complex enterprise involved—land acquisition, project planning and demolition all take time however, and urban redevelopment, if it can surmount the hurdles still in front of it, will not be realized with the speed of a Levittown or a Park Forest, which were built on vacant land. Nor will it be possible of accomplishment without the before-mentioned metropolitan-wide planning, since people will have to be moved to new projects built on vacant land while the slums are rebuilding. Perhaps the most immediately encouraging feature of the new law is the provision that any project under urban redevelopment must be related to a comprehensive plan for the whole community. This will ensure that many more places will employ planners if only to satisfy this requirement, and that they will be forced to take a cold, clear look at themselves in the process. Planning in the United States is still in the 'control' and educational phase; there are even now far too many people in high places who are unable or unwilling to recognize chaos when they see it. It is up to American planners to convince these people that over-all planning for metropolitan areas is an immediate necessity; and to persuade the American public that the speculative builder cannot satisfy its demand for the good life in a Usonian landscape. But first the American planner must solve his own dilemma; brought up in an individualistic, competitive society, the principles of planning nevertheless demand for their execution a much more co-operative atmosphere than he now finds in the American city; and so he has become a frustrated person, always defending his principles but quite unclear as to their possible form of application. The American people . . . easy, friendly and highly democratic . . . have never developed a sensitivity to surroundings in the visual sense. A great fight has been won for better housing . . . at least, in this field, a principle has been established. In planning, the 'form-will' has yet to be developed. If the planner really wanted to achieve his goals he would work more closely with the other disciplines, not holding up 'the only way' to achieve a better physical environment, but exploring every possibility of working with the people whom planning is for. One avenue would be based on the possibilities of pride and pleasure in civic form. The American people have that instinct, but it is buried deep under the 'go-getting', 'rugged individualism' slogans which have been their inheritance since the days of Herbert Spencer. It is time now to uncover it, to bring it to the surface as Jefferson had to do in his time. 'In a country which has no aristocracy of taste, houses, grounds and towns', warned he, 'must be surrounded by a maximum of beauty'. The task is no more difficult than it was in Jefferson's day; in fact, the time is ripe.

case study: city

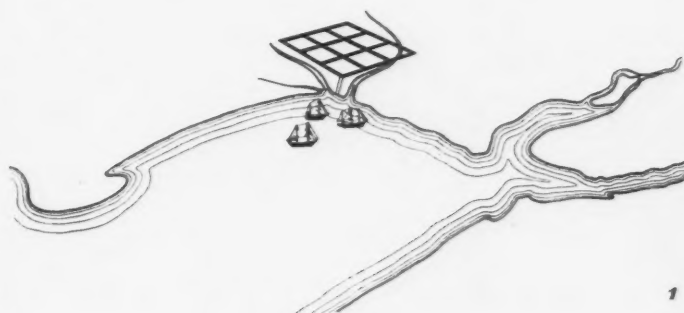
an unintended beauty The visual character of the United States, compared with Western Europe, is that of a young, highly industrialized country whose most conspicuous features seldom go back more than a century. American cities are in large part creations of the last hundred years. Except for their oldest sections they are products not of a homogeneous culture but of the pretentiousness and eclecticism of the industrial age. Hence a juxtaposition of discordant historical styles, a lack of relation of part to part, an architectural anarchy. All this, with material wealth, engineering skill, and a restless energy that is always building, tearing down and rebuilding, has produced the American city in its scale and spectacularity and in its architectural disorder, one of the most remarkable phenomena on the face of the earth.

On a smaller scale the same is true of the American town, where the classicism of the eighteenth century is jostled by the Gothic and rococo of the nineteenth and the spreading urbanization of the twentieth. And it is true also of the country, which lacks the ancient harmony created by centuries of cultivation. Dotted with factories, crossed by railways, traversed by great automobile highways and bridges, all mingled with survivals of a simple rural past, it is a landscape which has not yet fully assimilated the machine age. But in both city and country, sheer engineering grandeur often achieves an unintended beauty. . . . *Edward Hopper* by Lloyd Goodrich.

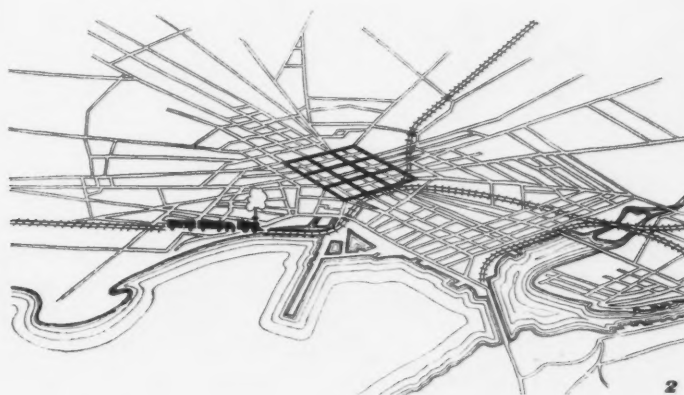


The unintended beauty referred to by Edward Hopper in the quotation on the facing page is real enough and frequently to be found. So, unfortunately, is the unintended squalor. The study that follows, part of a Yale University course in the visual effects of town planning under the direction of Professor Tunnard, was carried out by four Graduate students, Russell Ford, Ted Chamberlain, Manuel Silveira and Robert Wilcox. In it they present a dispassionate survey of both sides of the picture, and the no-man's land in between. A New England city is the specimen. With a population of just under 200,000, a measure of industry and commerce, and a position of some importance as a distributing centre, it was considered, allowing for the usual regional differences, fairly typical of its kind. So that attention shall not be distracted from the object in view, it was decided that the city should be nameless. Where it was found necessary to borrow from other cities to illustrate a point, this was done.

1650 The town was first laid out for the founders in 1638. This plan was an area half a mile square, subdivided into nine equal squares. The central square was set aside as the 'public market' and has remained common ground ever since. Today it is called the green. All the wealth of the town in these early days came from shipping and farming. The town continued to grow around the harbour until 1793 when a gun factory was started up river near the present dam. This was the first step towards converting the town into a manufacturing centre.



1850 The coming of the railway and the location of its tracks along the waterfront cut off the nine squares from the sea. The city turned its talents to manufacturing and overland trade. Great expansion followed and people crowded into the town to work and build at random without plan or foresight.



1950 After 1900 the automobile began to overcome the influence of the railway. Now the nine squares are losing their power as a centre. The motor car has made travel so easy that more and more people are moving out of the cities to live in the adjacent communities. Automobiles, mass production and the telephone have led the city to expand on every side.



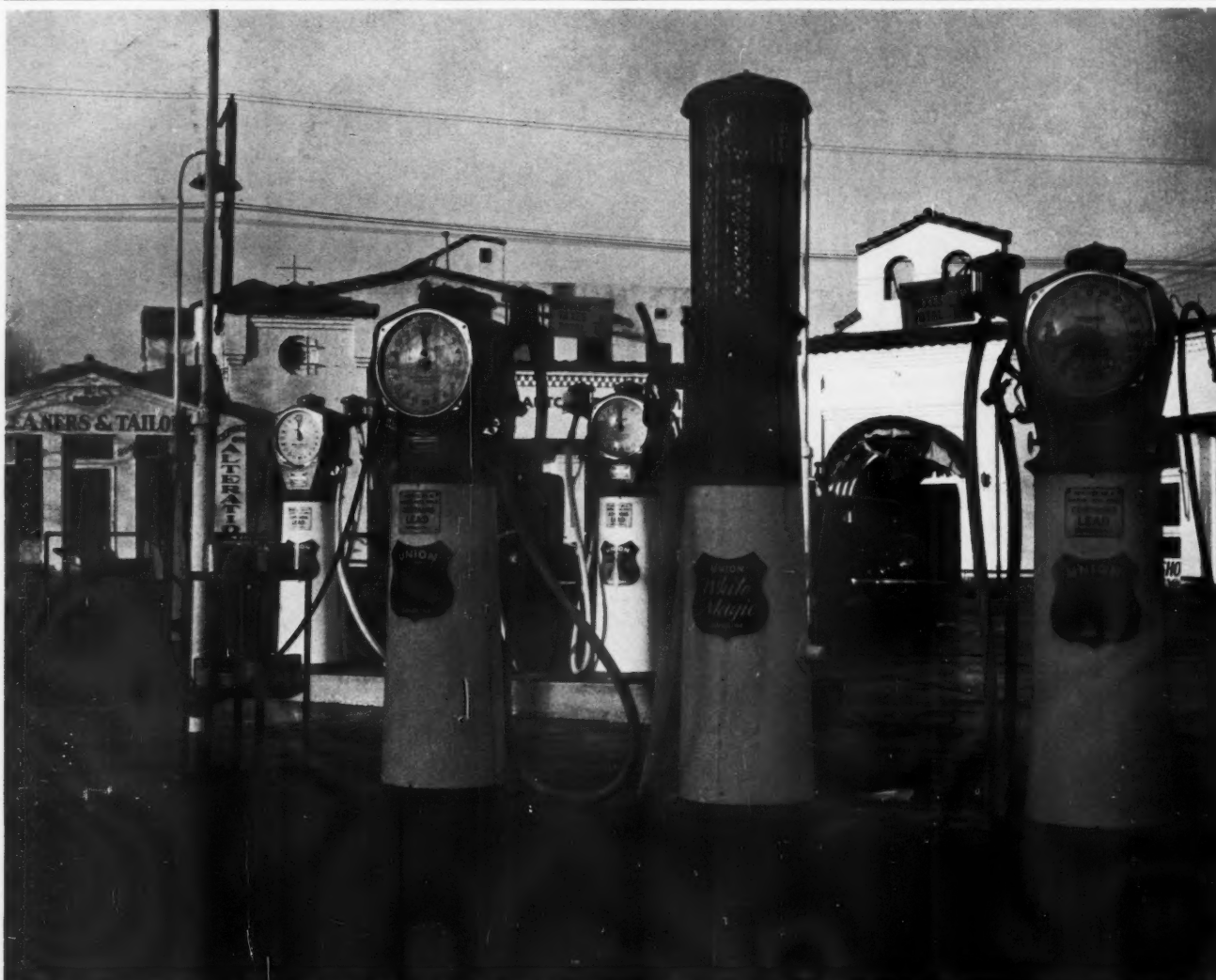
highway



4 Nearing the city on the *parkway*, planted with native birch and over-ornamental cedar; overplanting is another fault frequently seen in landscaped parkways. No lorries are allowed, and cars may not stop, except in case of trouble, when they must draw off the right of way on to the grass verge. Crews of workers pick up litter, attend to the planting, and sand the road on icy days in winter. This is the famous Merritt Parkway at its nearest point to our chosen city. The last toll-gate is around the bend.



5 to 11 are examples taken from different parts of the States to illustrate a few aspects of the environment of the mobile citizen. Much of it is new, some of it is unique to the U.S.A., and, in its own way, as characteristic of the country as the skyscraper is. It is not likely to be long, however, before this architectural influence spreads abroad. 5 A highway with petrol-filling station modelled along Cape-Cod-Colonial lines. Note the restraining hand on advertising, and the white lines instead of kerbs.



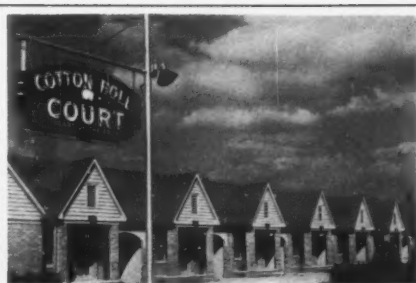
6 Filling station in the west. The Spanish mission style buildings are in eerie contrast to those unashamed progeny of the twentieth century, the petrol pumps. A photograph like this one brings home with particular force the part played in forming our environment, by that immense number of anonymously designed objects, many of which, as in this case,

are full of character.* For a brief moment, when new, they arouse curiosity, and thereafter take their place in that general clutter, about which there seems to be a silent agreement to take no positive action.

* Note the trouble that has been taken to align the white stems by carrying the dark paint down on the taller pump. More attention has been paid to a single detail in the design of the pumps than to the whole of the ramshackle 'mission' building behind.



7 A filling station-trading post, 'where the west begins.' This makeshift display has a charm of its own, and gets by just because it is on its own. In suburb, city or on a domesticated highway it would be intolerable. Half-way across a

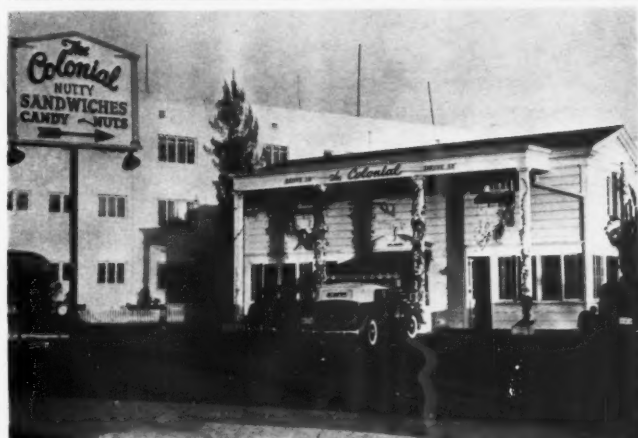


desert it is somehow reassuring. **8** Southern motel. This most recent product of American ingenuity, the motel* tends, like the filling station, to find inspiration in the architecture

* See page 394 for a full description.



of its region. Here an extremely modified version of the plantation house conceals the standard room and shower. **9** Eastern motel, contemporary in style and exhaustively equipped, down to a television set in each cottage.



10 The Colonial, a drive-in snack bar more nearly approximate than 8, to a plantation house. The lack of any relationship in scale or proportion between portico and fenestration grows increasingly strange on inspection.

11 Birmingham Grille. This prefabricated, chrome-finished structure is known as a diner. The type originated, as its name implies, in converted,



cast-off railway carriages. Many are still to be found, dotted along the highways and frequented, for the most part, by lorry drivers. The new, specially built kind are still modelled on railway carriages but, like this one, on the very latest version. The shiny metal exterior glitters in the sun and the vibration-proof windows slide vertically.

approach



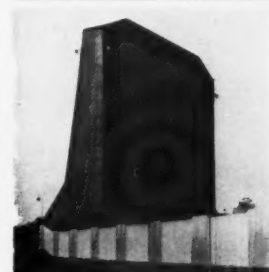
12 Returning to the highway seen in 4, the approach now becomes a *turnpike*, and the first glimpse of the city is obtained. Typically, the tall buildings appear like pins in a pincushion and the



mass is obscured by the foreground. Though still in the agricultural fringe, non-farm buildings are quite frequent. **13** Another example of the motel. The traveller may prefer to stop here,



rather than at the city's better hotel where he will be charged a higher price. **14** Traffic lights appear. The driver will not be free of these until he returns to the parkway.



15 A drive-in theatre, another new highway phenomenon originating in the States. The vast screen rears up in the landscape to dominate a car park dotted with little posts, carrying



microphones which channel the sound to the cars. **16** A former military installation of 'Quonset' (the American Nissen) huts is now used as living quarters by civilians. **17** Disposal



of the obsolescent motor car in the U.S.A. presents a problem almost as acute as the disposal of deceased human beings once did in the City of London.

18 From here to the horizon the city extends. It has grown out to this point in 300 years, stopped for the moment by the embankment of a new highway. This is the very, very edge of town, which had, until ten years ago, been vacant land or market gardens. Who has built here? **a** is a wartime housing project, built by the Federal Public Housing Authority. **b** is a medium cost project built as public housing by the state authorities. **c** has been built by a speculator with the mortgages guaranteed by the Federal Housing Administration, and selling for around ten thousand dollars. Thus all of the developments are large—a new pattern for the outskirts; and all are assisted by government agencies in one way or another—a new pattern for the building industry. The street layouts must be approved by the City Plan Commission, which has no control over design of buildings.



20 The city is a large distributing centre for oil and coal, and so the smoking coke plants, gas and oil tanks are prominent in the landscape. But observe this older residential district for the abundance of trees. If this view had been taken later in the season, hardly a house would have been seen. New England cities are saved by their trees, and trees have been an excuse for New Englanders to do so little about their architectural groupings. Now that the native elm has been attacked by disease the streets are beginning to lose their leafy appearance; but maples and pin-oaks are being planted in place of the dying *Ulmus Americana*.





19 Swinging around to the other side of town we find a third type of road leading into the urban complex—the *post road*. This is a very old road which used to take all the traffic from New York to Boston, and is the only main approach allowed to lorries. It has become littered with garages, eateries, junk yards and factories, so that the motorist avoids it if he can. It serves the industrial district which we see in the panorama below lying along the river and surrounding the harbour.





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21 The motorist is heading for the centre, but to get there he will probably pass through other centres which have been absorbed into the city. This was once a village street, but it has become a shopping centre for what is now a suburban district. **22** A suburban residential street—this one in a south-eastern city. Note the glassed-in front porches which are joined to form a terrace at ground-floor level, while individuality rears its head above in the monumental dormers, a pair to each house and each pair different. **23** An older residential district of frame houses built between 1900 and 1910 in the north-eastern town chosen for this study. They

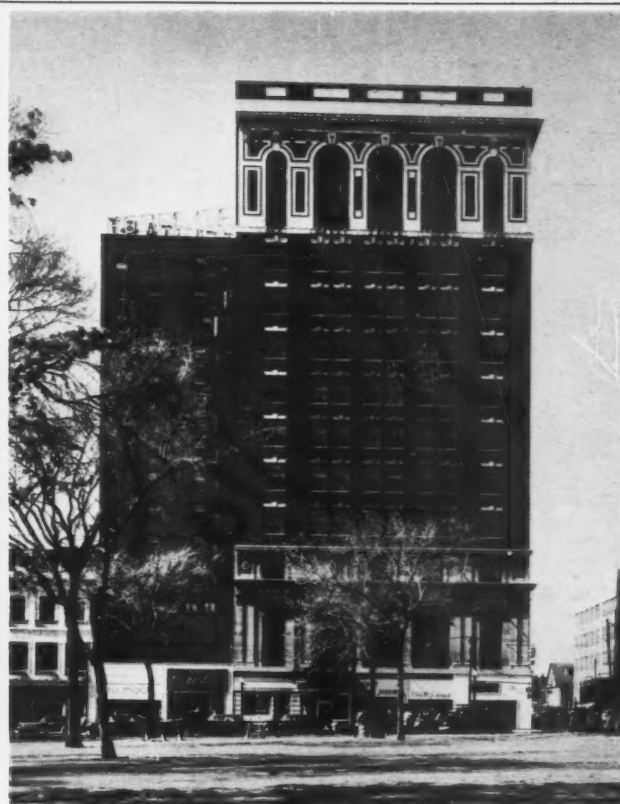
overlook a little park of American elms, so different in formal character from their English counterparts, and beautiful even in the depths of winter. **24** This is one of the more fortunate New England cities: it was built around a green in 1638, and the green is still there. Most of the houses which formerly surrounded it have gone, to make way for commercial buildings, but some of these are interesting enough. The central building in this picture is the City Hall, one of the earliest examples of Ruskinian gothic in America; the central portion with the tower was built in 1861 by the architect Henry Austin. Its scale is ruined by the tall office building



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of the 1920's which adjoins it, and what can one say of the Post Office next door, which is still further dwarfed and looks as if it would be more at home in Washington, DC, where indeed its design originated? **25** The green has three churches on it, two of them the pride of the city. (The third is nineteenth century gothic.) Nowadays their spires must compete with the neo-classic monumentality of the latest office building, designed by the currently most successful local architect, a recent president of the American Institute of Architects. As these examples so well show an American townscape must forever be preoccupied with questions of

horizontality versus height. From the green **26** the eye takes in the shop-fronts, small in scale, full of anarchistic detail. But standing further back they are overhung by an hotel, looking and being of 1912. Its topmost window arches, which indicate a ballroom, are larger in scale than anything on the street. It is of New York, and completely dominates the upper end of the green. Some years ago, a public-spirited citizen tried to introduce a law to regulate the height of buildings round the green, but he was unsuccessful. It is still extremely rare to find an American city which zones for aesthetic reasons, as does, for instance, Rio de Janeiro.

residential: old



27 Only two or three blocks out from the centre, which is fairly trim, we run into urban blight. These once middle-class houses are now rooming houses of a low grade, with occasional shops in the basements. They adjoin a church



(left) whose congregation has moved away to the suburbs and which will soon be pulled down to make way for shops. **28** These nearby houses are like their English counterparts, except for their three storeys. **29** A few blocks further out



is a once fashionable street, now zoned for business, on which these terrace houses of the 70's still stand. No attempt will be made to preserve these vanishing 'row' houses when the site is ripe for development.



30 Further out still, these builders' frame houses of the 80's are occupied sometimes by negroes, sometimes by whites.



31 Backyards of two- and three-family houses built after 1900. Fences are more common in the city than in the suburbs.

residential: new



32 The house cost around \$25,000 when built in the late thirties; it would now run to almost double that figure. It is a variant of Cape Cod Colonial, with that unpleasant type of bedroom storey in which you hit your shoulders against the sloping ceiling; but you may be sure that in



spite of its stylistic concessions to another age every modern convenience will be found inside. This house **33** has its own drive, but most new houses are fairly close to the road, with open lawns unbroken except for clumps of rhododendron and the native mountain laurel (*Kalmia*



latifolia). That this is a development of the better sort one can see by the retention of the trees which were on the site; most subdividers are more ruthless with existing vegetation than this. **34** This small modern house is one of only four or five in the whole city, though many may



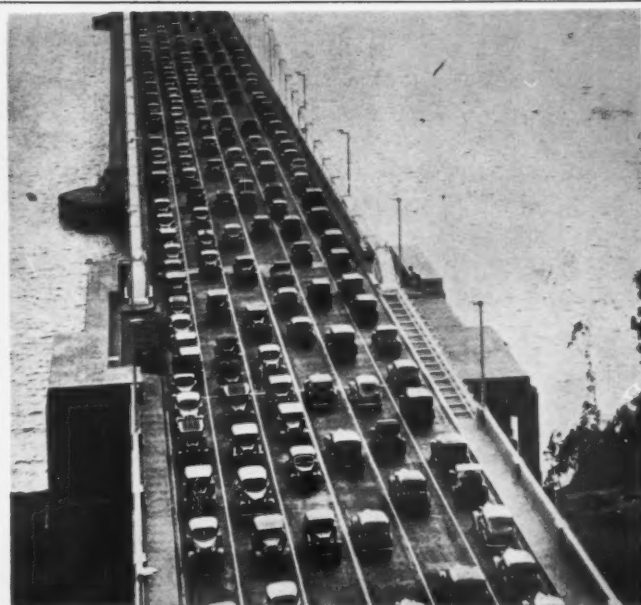
now be found in the suburbs of cities like New York or Chicago. **35** A slightly cheaper suburb, with its frame houses still echoing the Colonial revival, which has lasted longer than any other American style—for more than fifty years. The newer 'ranch house' type has not yet



travelled very far beyond the New York-New Jersey region. **36** The backyards of these gardens are unfenced, according to an unspoken tradition. They are not much gardened, but the sound of the grass-cutter is heard all summer long. But in contrast, houses in country towns



which have been bought by wealthy city dwellers for summer homes may display the picket fence, as used by an often imaginary Colonial ancestor. The trees here **37** are horse chestnut and maple—in the autumn the street will be a smouldering bonfire of tinted leaves.



38 39 40 The week-end exodus by motor car, even if only for the day or an afternoon, has become a summertime ritual for the average inhabitant of a large American city, and space for car-parks a major problem for city and other authorities possessing amenities likely to attract the car owner.



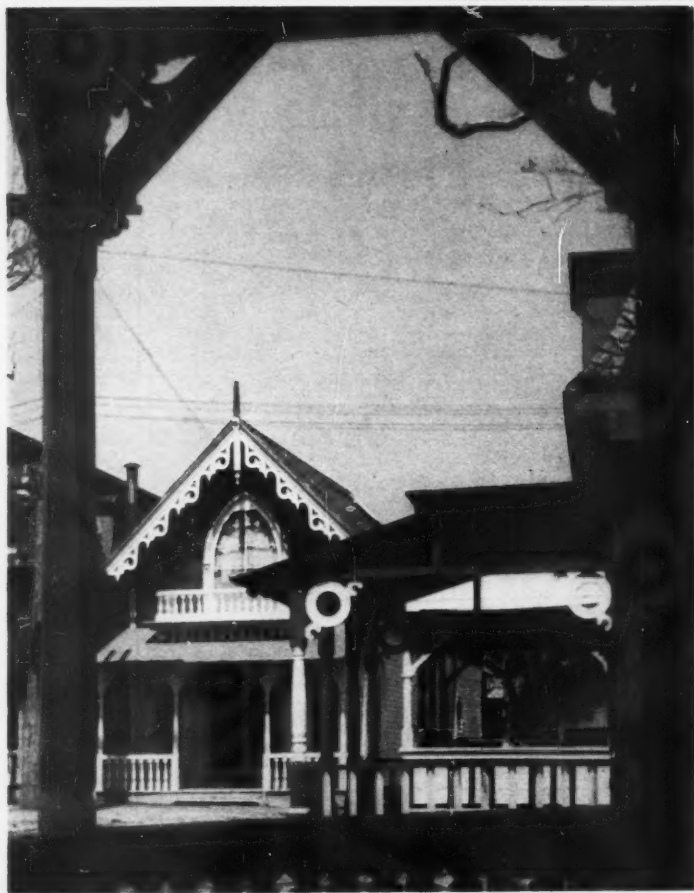
41 Leaving the city in search of the seaside, the motorist passes again through the kind of suburb that was once a small town in its own right. Food, sex and drink are the most heavily advertised American commodities. Billboards may be found anywhere, from the tops of



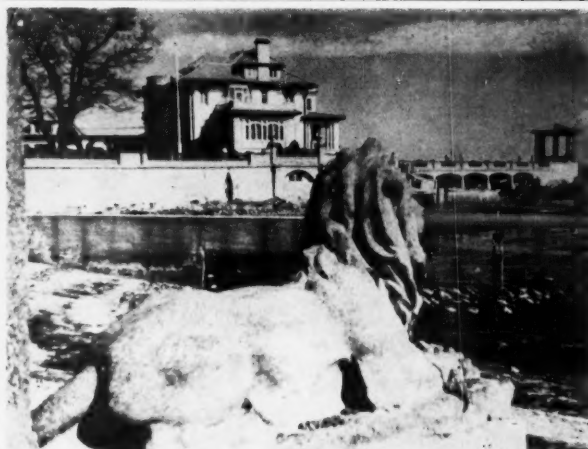
skyscrapers to the roofs of these little suburban stores. **42** Along the main street the shops, in valiant competition, have 'modernized' the late nineteenth century structures in which they are still housed. 'The Castle,' once a private house in the style known as Richardsonian



Romanesque, which dotted the East until 1900, has succumbed to the inevitable and become a restaurant. **43** On this eminence, city dwellers find the summer temperature ten degrees cooler than in town and will drive out here for dinner after the office is closed.



Architecture by the shore is no less varied than inland, though the reminders of an earlier age, like the charming beach cottages **44** which date from the late sixties, are a little more frequently found. To escape the heat of the city many will make do with the minimum accommodation like the uninsulated beach hut **45** with distant view of a roller-coaster.



46 Some move their families out for the whole summer to a house like this, built by a local businessman in the boom period of the twenties.



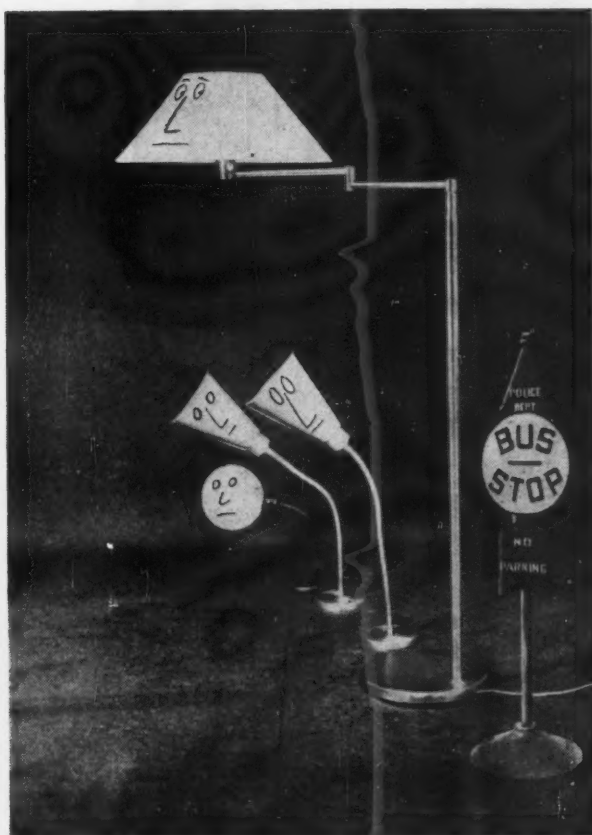
47 The New York banker, aloof and alone on his private beach, moves for two months to the shingled mansion that McKim, Mead and White designed for his father in 1885.



recapitulation

SAUL STEINBERG

4

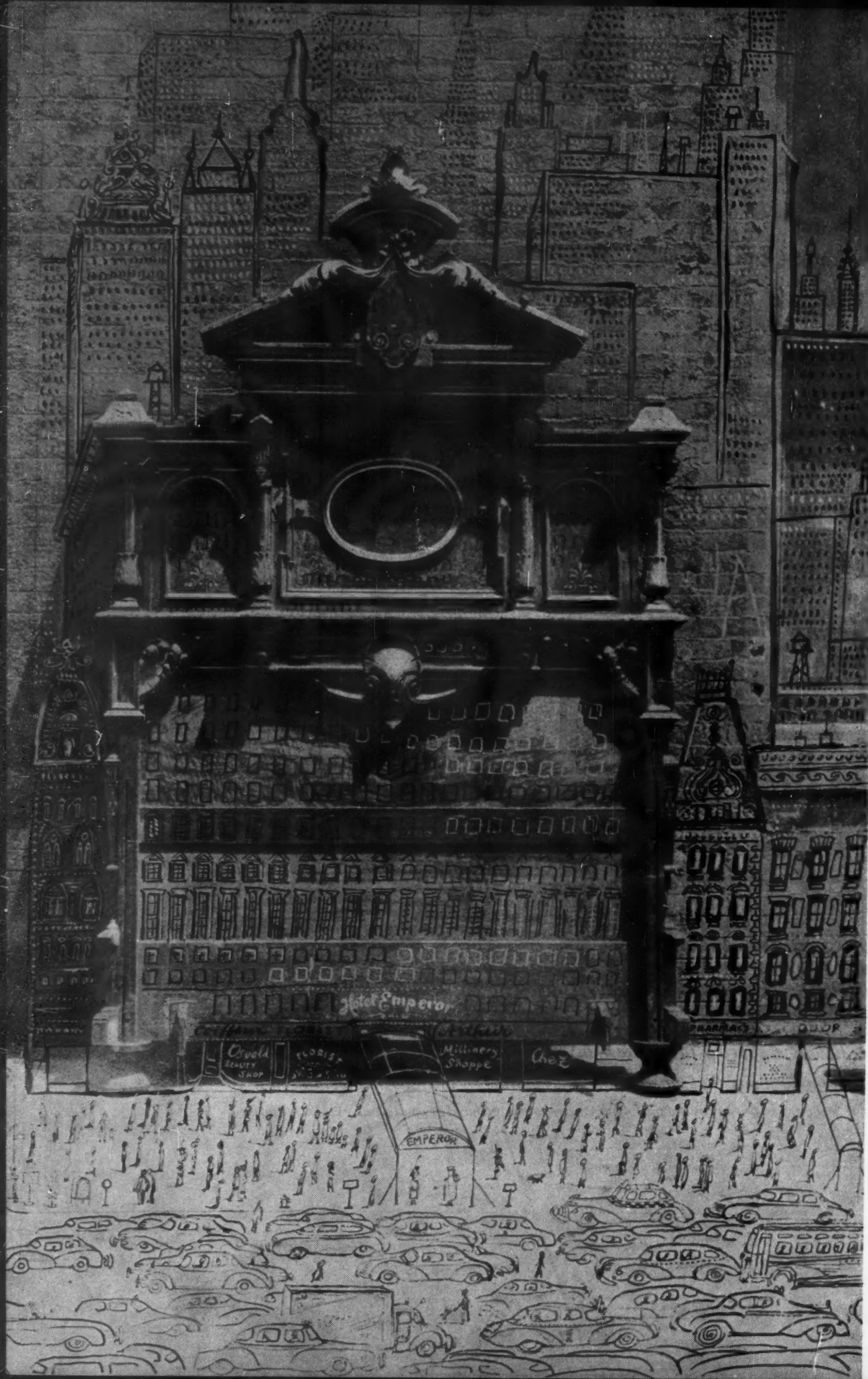


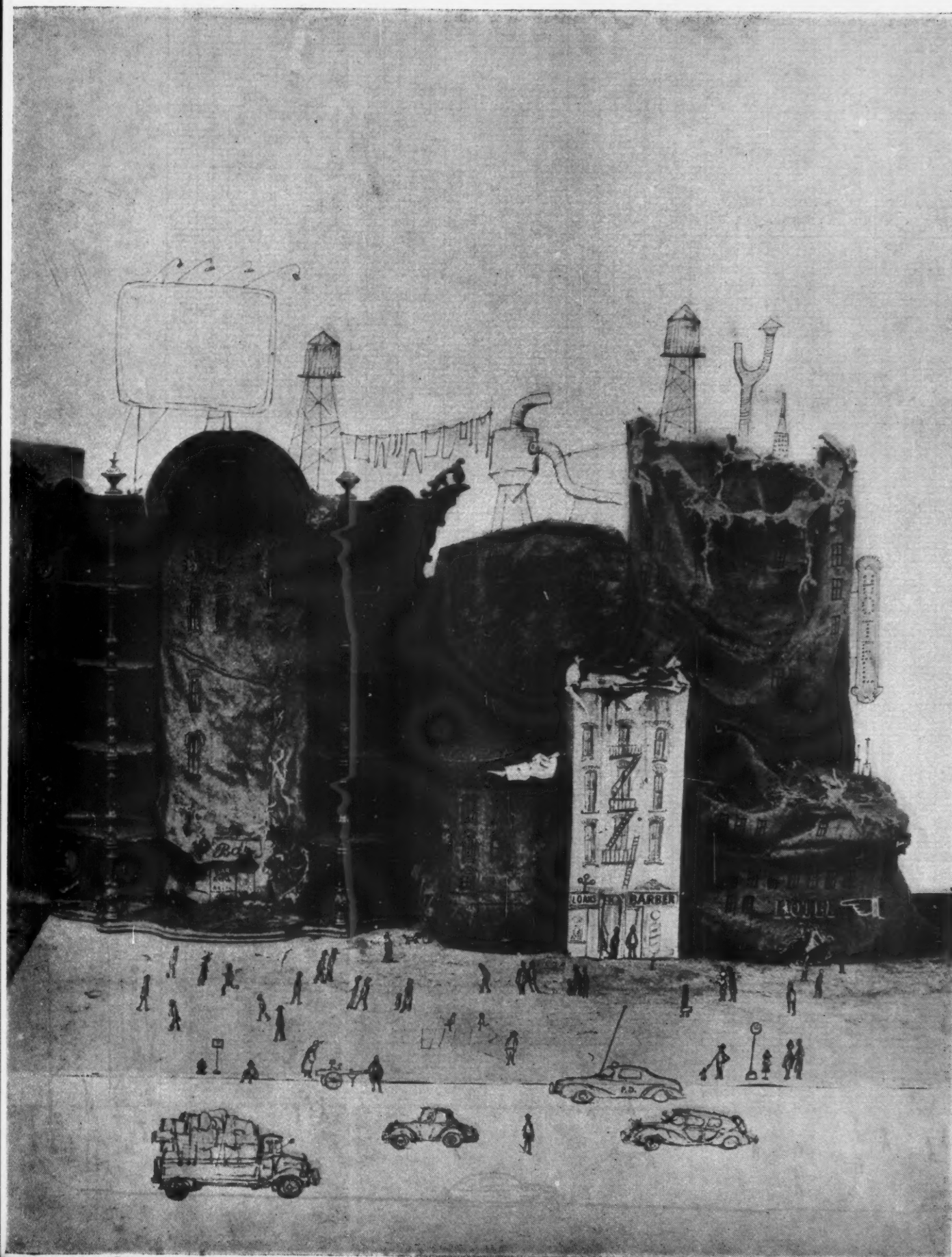
The drawings by Saul Steinberg on the pages that follow provide a recapitulation of the foregoing survey of the American scene. It is possible that the English public, acquainted with his work only through occasional copies of the New Yorker, are not aware that in Saul Steinberg the United States have at long last produced the great American creative artist whom they have for so long been so vociferously and so confidently awaiting. It is quite possible the Americans themselves are still in ignorance of their good fortune. A Roumanian by origin, who received his architectural training in Milan, Steinberg is only an American of a few years' standing, and in his adopted country is still chiefly known as a comic draughtsman of outstanding genius. But of late years those very qualities which have served to raise him as far above the general run of American cartoonists as are the Marx Brothers above their fellow screen-comics, have been applied to a wider field. Aided by his architect's training and his European inheritance he, alone of all American topo-

graphical artists, has succeeded in portraying the New York scene, not so much directly but rather by an accumulation of side-glances and implications, in all its strange late-Victorian improbability. For he alone appears to realize that New York is not a modern city but only the dream of a modern city that haunted the imagination of the mid-nineteenth century.

(The examples of Steinberg's work on this and the following pages are reproduced by courtesy of FLAIR magazine.)



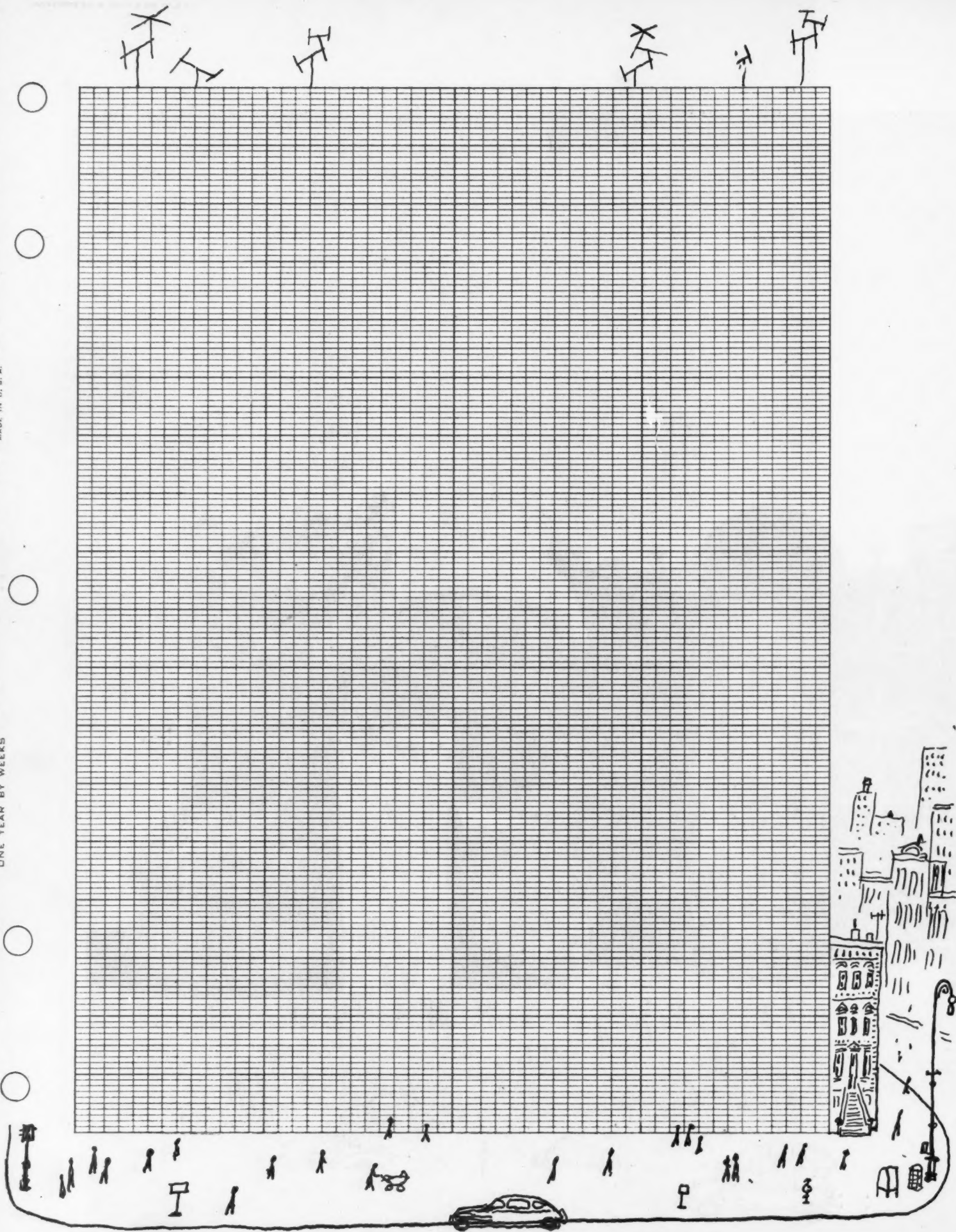


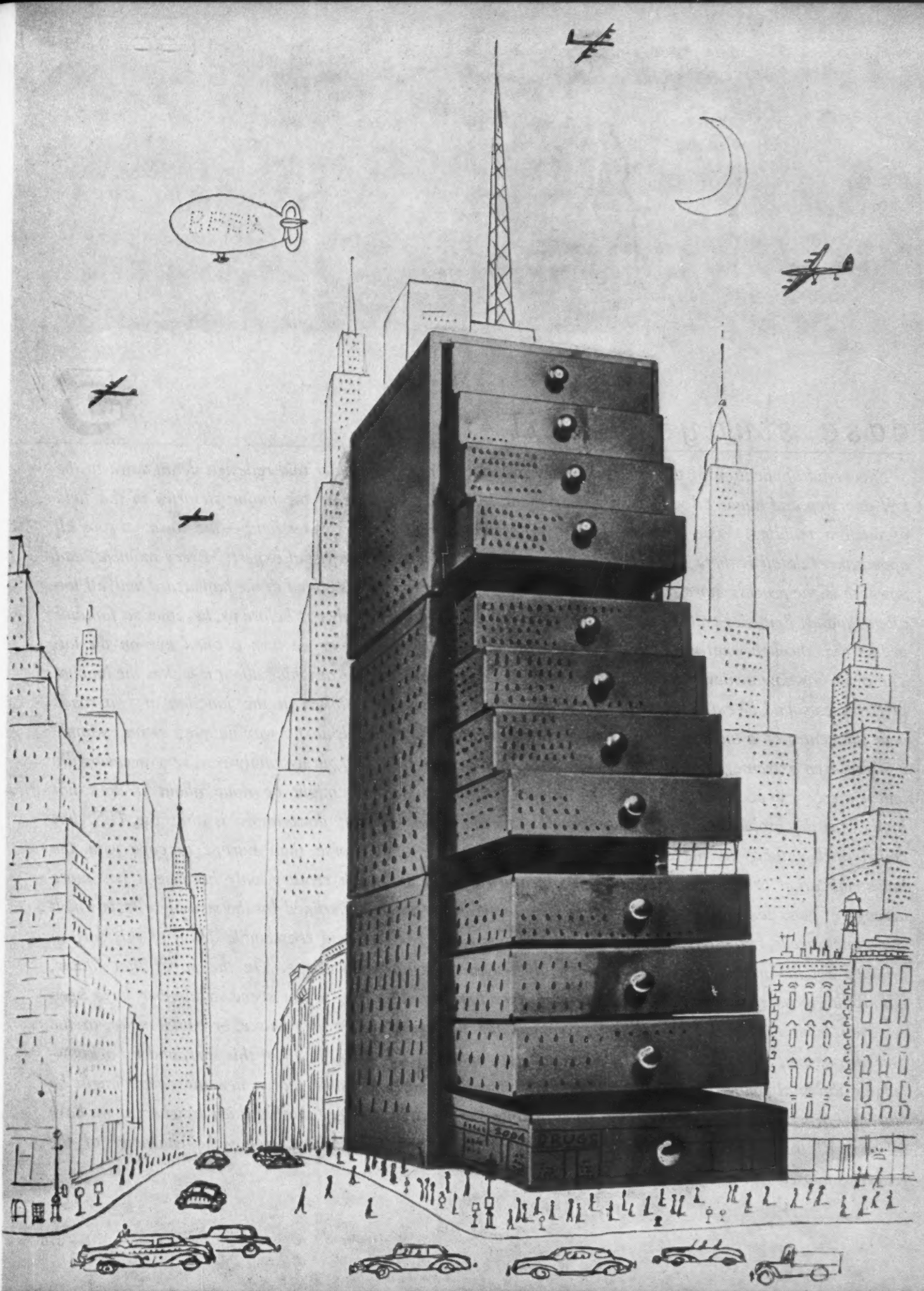


EUGENE DIEZGEN CO.
MADE IN U.S.A.

EUGENE DIEZGEN GRAPH PAPER

ONE YEAR BY WEEKS

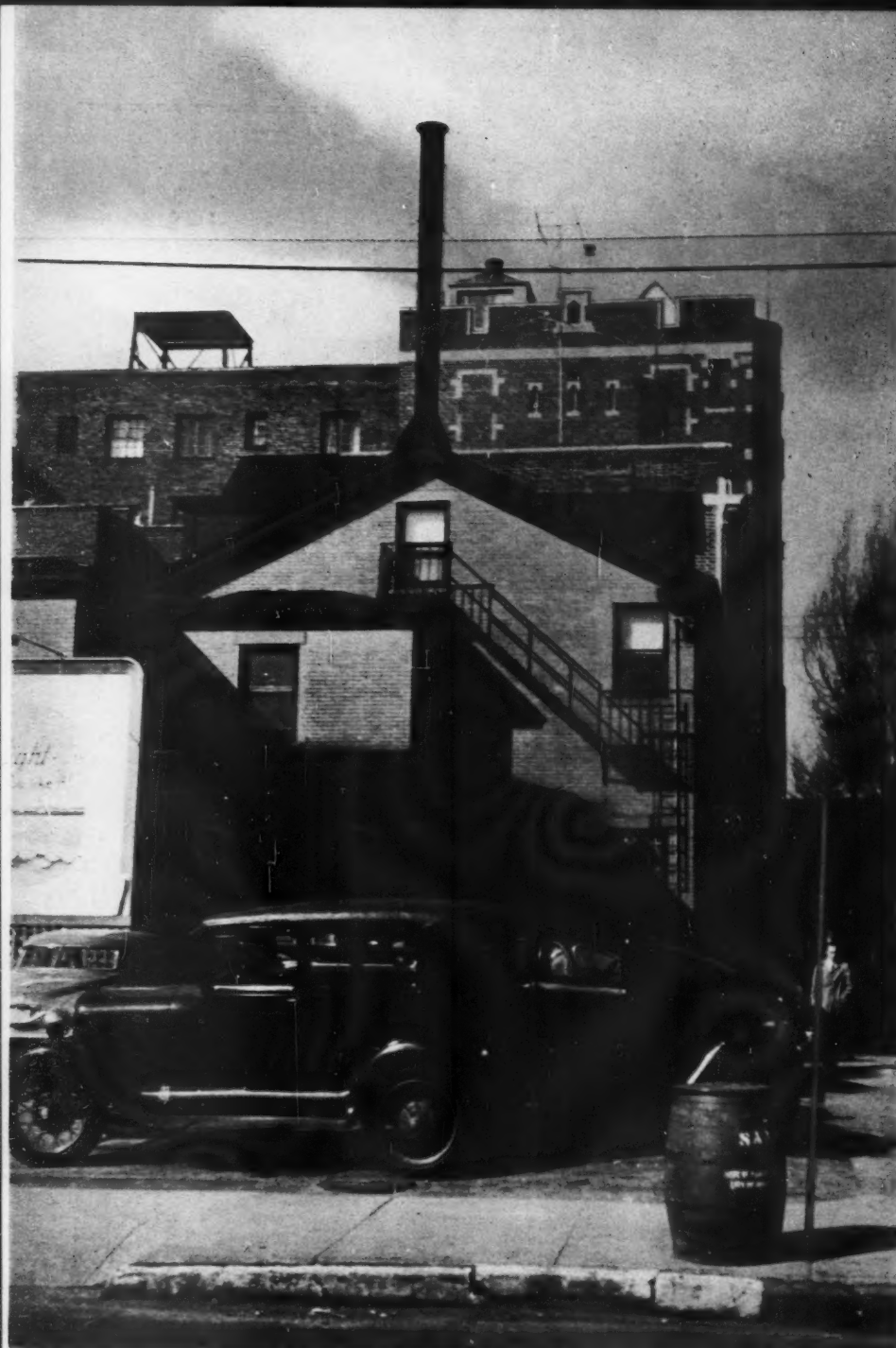




case study: detail

Successful application of the theory that the architect should reconsider and redesign detail down to the last doorstep and hand-rail was largely instrumental in achieving some of the major victories in the field of modern building. The situation is very different in architecture's wider field—the town. From all appearances detail is there considered to be outside the province of the visual expert. Every moment, and nowhere is the process more rapid than in the U.S., some new object is added to the haphazard and, all too often squalid, fantasies called streets. The resultant crazy jig-saw is always before us, becomes so familiar in fact that through what must surely be the instinct of self-preservation we turn a blind eye on the lot. The mess has now achieved such proportions that the thought of doing anything about it makes the labours of Hercules sound like a rest-cure. The photograph on the right was taken at the junction of two roads near the centre of a medium-sized town in New England. The scene is in no way unique; as an example it is not even extreme, though it does lack the casual beauty that such an assembly can, very occasionally and entirely by accident, achieve. The suggestion that something might be done about it does not imply that the problem is in any way peculiar to the U.S. What it does imply is that the U.S. has contributed nothing to the solution of the problem, has failed worse than Europe to cope with the industrialization problem, and is saved, momentarily in the twentieth century, only because it has more acreage of good land to smudge. What it also implies, and this is underlined by the striking effects which sometimes occur, is the opportunity that is being missed to redesign and reassemble detail of this sort to produce a functional, beautiful and specifically twentieth century townscape. On the pages that follow, out of the mass of objects and effects to be found in the American urban scene, a number have been removed from their context, and are examined for the contribution they make, or could make, to the everyday scene. By accustoming the eye, and the mind, to examining detail of this sort, and by acknowledging the vital part it plays in the scheme of things, it is not impossible that a new movement might be started—a movement towards the creation of townscape out of the very motifs which by consent we have all agreed to ignore in orthodox town-planning theory, the objects which create the character of the real, as opposed to the drawing-board, street.





2

3

parking lots

4



parking lots In the feverish building activity of the nineteenth and much of the twentieth centuries the value of small open spaces in congested cities was entirely ignored. A few, very few, grandiose parks and municipal gardens were laid out, but the odd space for a tree and a seat or two, or a fountain and some flowers, where the tired and dusty pedestrian could stop a moment and recoup, was forgotten. These, which are nothing more than vacant lots, are devoted almost without exception to car parks. When the time finally comes, and the incredibly wasteful practice of using this kind of land for a single level car park ceases, an opportunity will be presented to create much needed oases without enormous expenditure of time or money. Take this parking lot, 2, at the junction of two streets in Newhaven, Connecticut. Although this city is one of the fortunate few to have an extensive green space right in the centre, the example will do well enough to illustrate a point. Obviously a few trees, shrubs and flowers are not the answer on an exposed site like this. One of several possible solutions is a slightly raised, trellis-screened beer garden, of the sort to be seen, before the war, in many German cities. 3 and 4 are two parking lots in Philadelphia. The first, clearly not ideal for planting, might possibly be built over, perhaps by a multi-tier garage. The second, but for the characteristic water-tanks, is strangely like any bombed site in the City of London, even to the 'air-raid shelter' in the middle-ground. It is rather too large for a casual open space of the kind under discussion, and much of it could be devoted to building. But a small piece could be preserved, with some paving and a few well-chosen trees with seats underneath, to provide the visitor or city worker with the sort of haven that he now may have to walk miles to reach.

white paint The tradition of white paint originated in the U.S. in colonial architecture. The exhilarating effect of the style brought over from eighteenth-century England, the rich red brickwork embellished by sparkling white windows and portico has to be seen to be experienced. It is the saving grace of the otherwise depressingly retrogressive craze for neo-colonial, of which 5, the superbly built Memorial Church (by Coolidge, Shepley, Bulfinch and Abbott, 1932) in Harvard Yard, is an example. In 6, the Presbyterian Church in Fredericksburg, Va., the brilliance of the contrast is heightened by painting the brickwork a rich, dark red. The same device has been used in a different way at Georgetown, Washington, to bring to life what would otherwise be a pedestrian pair of nineteenth century houses, 7. The small all-white, wood church in Rappahannock, Va., 8, shows the fine, luminous quality of white paint in shadow. In the latter part of the nineteenth century and during much of the first part of the twentieth, the advantages of white paint, not only to enhance new buildings but also to hide the deficiencies of old ones—or reveal their hidden qualities—was lost to view. In fact modern architecture can take much of the credit for what is at last shaping into a white paint revival, and 9 is one of many examples of it. It is a house on Six Moon Hill, Boston, designed by the Architects Collaborative and built in 1949. 10, the Custis-Lee mansion at Arlington, Va. The immense Doric columns of this vast monumental Greek Revival house have the

white paint





cast
iron

12



same strange, luminous quality, when in shadow, that is shown in 8; it has the effect of magnifying their bulk until they seem to be the work of giants rather than men.

cast iron Although cast iron as a material for street furniture is being superseded by other metals, an enormous quantity of it is likely to grace our towns for a long time to come. The U.S. possesses some particularly fine examples, some of which are illustrated, 11-15. The first four from Fredericksburg, Washington D.C., New York and Milwaukee, respectively, all exhibit a stylized leaf motif of one kind or another, a form which was apparently considered particularly appropriate to the material. As a contrast, the Chicago fire hydrant, 15, expresses its purpose bluntly and without frills, in a manner indicative of the Middle West. All these examples, even the elegant lamp bracket, 11, have one quality in common, robustness—and that of a kind which seems inseparable from cast iron. This is not a plea for a revival of the material in the manufacture of street furniture, but it does suggest that before sending it to the scrap-heap, period cast iron should be appraised, appreciated and saved where feasible. The point is underlined in the complete contrast provided by 16. Here in bronze-finish metal alloy is the modern counterpart of 15, and beautiful it is. Though form and purpose in 15 and 16 are the same, the difference between the two is as great as that between a Model T and a 1950 convertible with white sidewall tyres. If the U.S. can produce street furniture like this there is certainly no need for revivals. In fact, she can even afford to retain good examples from the past, without losing face as a modern world power.

mail boxes 17 and 18 are two examples of a standard American type, simple enough, though even when coated with aluminium paint, as in 17, surprisingly hard to discover, in comparison with the GPO's scarlet beauties.

meters Electricity meters mounted on the outside wall of a house in boxes of transparent plastic, 19; an excellent American invention which must save hours of time for the electricity companies' meter readers. Another recent invention, the parking meter, 20. These are placed at intervals along the kerb of streets where parking is permitted. The motorist places a coin in the slot, turns the handle, and an indicator on the other side slowly moves round showing the amount of time allowed; this varies with the value of the coin inserted. If the car remains when the time is up, the motorist is liable to a fine. Both these two examples of new street furniture are exemplary in design.

standards The cage of wire into which the inhabitants of most modern nations are committed for a life sentence is as tightly woven in America as anywhere; upholding it is a miscellany of posts and cross-bars as heterogeneous and makeshift-looking as it is possible to imagine. This one, 21, in New London, Conn., is used also as a lamp standard. 22 is a familiar type of American lamp standard which, though simple enough, has the pretentious air that one associates with municipal parks and promenades—also it throws rather more light into the sky than on to the ground. 23, a standard specially designed for the Golden Gate bridge, San



13



14



15



16



mail boxes

17



18

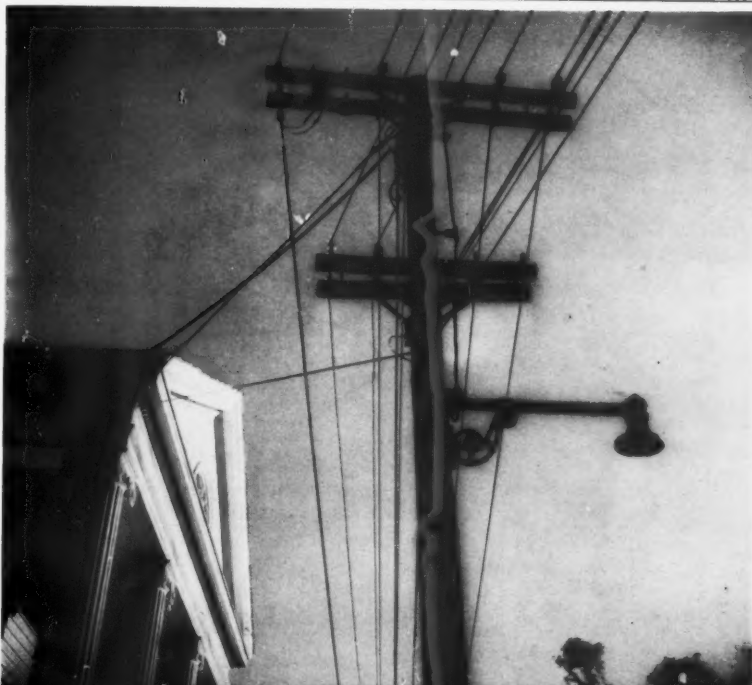


meters

19



20

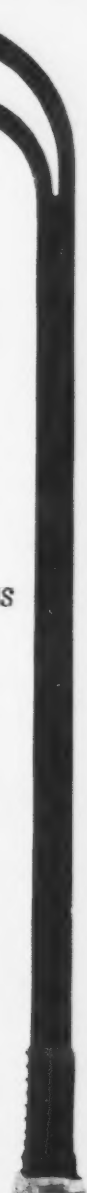


21



22

standards



23

lettering



24



25



26



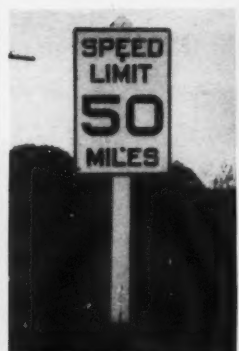
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28



29



30



31



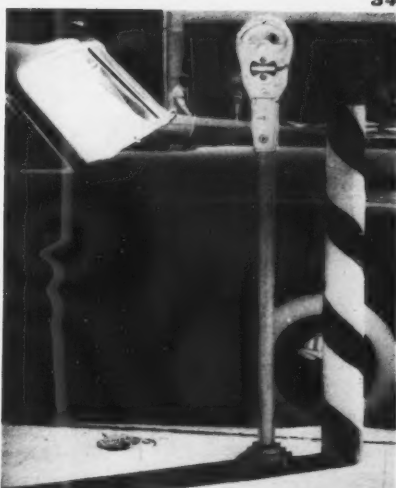
32

Francisco. This has a good, straightforward, H-section stem, which breaks apart into a rather self-consciously 'designed' bracket at the top—far too heavy for the small, business-like light it supports. Like ourselves America, on the whole, exhibits acute signs of degeneration in the design of modern lamp standards.

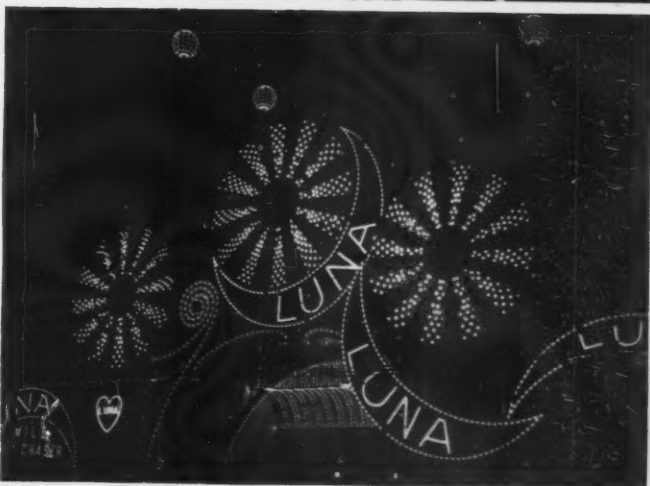
lettering These two excellent specimens of bold face types, 24 and 25, along with the fine 'expanded' in the pediment of 24, are typical of American nineteenth century display lettering. Examples, exactly similar, are still to be found in England and Europe. In America, however, more than anywhere else, sans types have been used for some time in street lettering, to the exclusion of other faces. Many of them serve their purpose excellently. 26, 27 and 28, for instance, is each good in its way. When used in any quantity, however, as in 29 and 30, the effect becomes colourless and devitalized (apart from the rank bad design of the 'S' in Gordonsville and the '5' in 50). There seems to be no very good reason why a selection of more vigorous faces should not be reintroduced by local authorities, under guidance from typographers, to the benefit of both clarity and looks. 31 and 32 are examples of what not to do, under any circumstances.

symbols The indigestible mass of lettering which the defenceless citizen is fed outside his home precincts, gives strong reinforcement to the argument that favours the use of symbols wherever they can take the place of words. Their meaning may not perhaps be immediately understandable, but it is surprising how quickly the average person will cotton on, if it is in his interest to do so. 33, 34 and 35 are some examples of diagonal stripes used as symbols, the first and last to indicate danger, the second, the international symbol of the barber. Not only do they drive their message home at a glance, they are also extremely decorative. 36 is the New York City bus stop sign. The reason for an arrow pointing skyward is not at once obvious, but that is beside the point. So long as the symbol is distinctive, and not easily confused with others, is all that matters. It is unfortunate, however, that it was thought necessary to gild the lily by providing lettering as well. The small stencil letters are permissible, but surely if anything is needed at all, the stylized form of a bus would have been more consistent with the arrow than the words 'Bus Stop.' 37, another international symbol, the opticians' eye—a superb contribution to any scene for as well as beauty it contributes an air of strangeness, of something unexpected, an element which is lacking in most of the impedimenta surrounding us.

advertisements Perhaps the most conspicuous element in the twentieth century scene is the advertisement. More than anything else it has altered the appearance, particularly in the entertainment centres, of towns. Yet, so far as placing and design is concerned, no conscious attempt of any kind is apparent to harness and develop its immense, but still largely potential, visual benefits. 38 (in New York) is the kind of effect that occurs all too often, on streets from Singapore to Saltash. Though in this case the squalor of the architectural scene calls for radical treatment, very little tidying and re-arrangement is needed to make a decent display of the advertising. 39 shows how. Subject



symbols



advertisements



escapes

canopies



matter apart, with the frieze of lettering on top, standard size posters ranged below, and the slight projection of the hoarding which increases the decorative effect, the style of draughtsmanship no longer matters—an otherwise drab street has been provided with a piece of popular decoration of a specifically twentieth century kind. The symbolic importance of Times Square to the American is nowadays derived as much from night advertising as from geographical location. Indeed, with darkness there disappears that particular brand of nondescript architecture which seems to congregate at the world's centres, as well as the often disturbing lack of any relationship between a night advertisement and the building that supports it. In addition, as 40 illustrates, marvellous new effects are possible, effects that appear to defy gravity and cheat the laws of movement. So far most of the potentialities of night advertising remain unrealized. Architects and town planners leave it out of their calculations altogether.

escapes The external fire escape, 42, often superimposed on the street façade of older buildings over three storeys high, provides a recurrent rhythm to many city streets in the U.S. Almost always these escapes are of cast iron and are constructed with the minimum of material, with simple handrails and openwork stairs. As 42 and 43 show, in a country where sunshine is not as scarce as it is over here, the vigorously patterned shadow of the fire escape plays a major part in the visual effects of a street and is worthy of note in an investigation of such things. Since most of these escapes were added as a result of bye-laws, some time after the buildings to which they are attached were erected, they are a phenomenon which is likely, gradually, to disappear. As a rule new buildings incorporate them as part of the internal planning. Where, however, they appear externally they tend to be placed in less conspicuous positions, and like 41 to strike a more austere, though no less satisfactory, note, with the new kind of shadow play that comes from extruded sections and welded joints.

canopies New York seems to have made a speciality of the graceful, and somehow luxurious, idea of providing a canopied entrance to buildings, stretching right across the pavement. Numbers of them are to be found in most of the major American cities, but in New York and particularly mid-town New York, the streets sport line after line of them—striped or plain, white, red, green, blue or yellow, with lettering and numbers, plain and fancy. The idea is a delightful one, and it is surprising that other countries have not copied it more than they have. They are festive, gay and from the townscape's point of view not only make excellent signals but provide that most delightful of urban pleasures the netted vista.





towards a new environment

This is perhaps the place to restate the REVIEW'S position with regard to the whole question of design in the environment. The REVIEW believes

1, that the state of the majority of towns and cities of the civilized nations of the world is of a nature seriously to bring into question the accuracy of the epithet 'civilized' ;

2, that there is a tendency among architects and planners in their welcome and praiseworthy attempt at solving the problem of making towns work, to disregard the fundamental fact that their ultimate job is to create works of art though of a totally new kind, composed, as well as buildings, out of hydrants, hoardings, pillar-boxes — the motifs of the real, as opposed to the drawing-board, street ;

*3, that those who should back up architects and planners — painters, writers, sculptors, engineers, not to mention the lay public — far from supporting them in their efforts or spurring them on to greater ones, either seem quite indifferent to the need or hold the defeatist belief that the task is beyond human capacity ;**

4, that governments and others in authority over us consider an entirely inadequate attempt to keep pace with the need for houses, coupled with plenty of rubber stamping on plans and the effort occasionally to start all over again on virgin sites, is a sufficient alternative to helping make habitable and beautiful the towns and cities where the major part of the population of industrialized communities lives and will continue to live far on into the foreseeable future.

It is with all this in mind that the REVIEW set about its examination of the state of the U.S. environment, and invited contributors from over there to help in the task. The foregoing pages have reviewed the no-man's land — cities, towns, streets and backyards, into which the specialist rarely, if at all, makes a sortie.

* It should not be supposed that any criticism is implied of painters who find in the chaos of our environment inspiration for their work. Chaos has charms which the painter does a most useful job in isolating since it teaches the town planner much about the art of not tying up his design so tight as to preclude the citizen from making his own contribution in the shape of what is called accident. It is one of the most important social functions of the painter to enlarge the vision of the planner and in this sense people like Steinberg and Piper can be regarded as the planners' schoolmasters.

to retire in confusion when he does. What follows might be considered an investigation of the specialist's 'home' position, an attempt to discover what the architect (who is the wanted man if he would only realize it and act accordingly) is doing and thinking about these his wider responsibilities. The first article, by Henry-Russell Hitchcock, surveys his record in the testing ground of the university campus where surprising things are happening. In the second half of his article Professor Hitchcock contrasts campus with highway, another focus for much recent building, but one where anarchy, often at its least attractive, is still triumphant. The second and third articles deal with the two most powerful motivating factors behind the creation of the U.S. environment — finance and technology — the first with reference to that twentieth century monument the Rockefeller Centre, the second with reference to the most recent advances in the sciences of building and climate control. A summing-up by the Editors appears on pp. 414-416.

TOWARDS A NEW ENVIRONMENT

(a) Autumn 1950:

the way things are by Henry-Russell Hitchcock

The American Scene is the title of a book by Henry James, a series of sketches written after a belated visit to his native land. The term has also been used for the characteristic subject matter of a school of painters who flourished during the depression of the early 30's, all very socially conscious if not precisely 'Social Realists.' The America they displayed in their pictures was as regional as James's. He had hardly left the Eastern Seaboard. But they sometimes painted the glowing farmlands of the Middle West as well as the desolation of the Dust Bowl, and the misery of urban slum-dwellers as well as that of Southern share-croppers. Perhaps the best of the grim recorders of the American Scene in the 1930's were the photographers, led by Walker Evans, whose lenses caressed so tenderly the rough surfaces of rotting wood in the cabins of the Deep South and found ironically pleasant abstract patterns even in the horrid monotony of coal-company towns. Twenty years earlier James's view of a largely middle-class America had been more generous and on the whole truer; for he was less tendentious and had a better eye, even if his scope was narrower.

In attempting to set down, however briefly, an impression of the American Scene this autumn, the first thought that comes to mind is how partial any such view must be, how limited by one's own travels of the post-war years and also by the particular point of view from which the subject is approached. Equally evident is the fact that the natural background, the landscape against which the human and specifically the architectural drama is played, must be entirely omitted. Yet to those who have not seen that natural background, or have seen only parts of it, its variety and the great extremes within that variety are almost unimaginable. What most observers fail to note, however, is how much of the American Scene as it exists in 1950 (the architectural scene that is) has been there so long that it has almost

become part of the landscape.

Thinking back to the coming of white men (say some three hundred years on the Eastern Seaboard, although it is more than four hundred in the Southwest), it must be realized that little of the American Scene of 1650 actually still exists. A few individual structures, either so restored that they quite lack plausibility or so modified that they are all but unrecognizable, create no very vivid sense of the human scene as it was then extended along the upper Atlantic Coast and a few score miles inland. Yet the original tightly built villages within their defensive stockades, more like the plantations set up under Elizabeth in Northern Ireland than like English villages, had already passed their prime. In contrast were the isolated farmsteads, the ancestors of those modest individual middle-class houses in which most Americans still live, or crave to live. Neither 'country houses' nor cottages, these were later sometimes set so close together in urban agglomerations that row-houses would really offer more privacy; but they illustrated then a real separation of the individuals who built them from the close-knit earlier villages. For within the American village or town in 1650, the houses were still close together, indeed often built with party walls. The town-scene was still English, therefore, in the manner of the villages in the Home Counties. But the isolated farmsteads are the real prototypes of most of the entities that compose the greater part of the American architectural scene to-day. Their wooden construction has remained little changed, even by the innovations of the present century. The typical modern house, even when built by transplanted European architects, is largely of the same materials as were the first houses in New England of three centuries ago.

In the Southwest the pattern in 1650 was 'very different. There the friars of the Spanish preaching orders had attempted a synthesis between the architectural traditions of city-dwelling aborigines and their

own European Catholic culture. The mud brick of the Indians is still much used; but the patterns of piled-up group dwellings in the pueblos and of the great crude ecclesiastical monuments, though they have lasted physically rather better than the wooden houses of the Northeast, left little mark on the later architectural scene, which Anglo-Saxons began to modify drastically a hundred years ago.

1750: There are great cities on the Atlantic now. Boston is rather impacted and mediæval on its sharply circumscribed peninsula; Philadelphia is a regular checkerboard with open squares judiciously introduced; the others partake partly of one pattern and partly of the other. But all the cities are somewhat alien to the more normal village and town-pattern of widely spaced individual structures; close-set towns, as in parts of Pennsylvania or New York State, generally imply large non-Anglo-Saxon elements in the population. Individual monuments appear, but their scale is modest. They are not quite domestic in character, but even in Philadelphia the churches and guildhalls are hardly what one would expect of the second largest city in the eighteenth century British Empire. But the regular city plan had been laid down there in the late seventeenth century. Similar in plan was Savannah and so also New Orleans. The latter was not yet Anglo-Saxon, any more than were the towns of the Southwest or the missions of California, yet without any influence on the way of living from aborigines either: Hispano-French it was, not Hispano-Indian. The typical American city would henceforth be laid out on geometric co-ordinates without a real centre and without organic form. The villages, particularly those grouped around greens or commons, continued to have more organic shape, but it was still a shape without hierarchical order. Widely dispersed throughout the common itself was hardly more than a widening of the main road that ran through or a squaring off of the crossing of two such roads, even though the churches faced on it, like a European square.

1850: The picture has changed very drastically on the surface. There are many more cities and towns and they extend, with many enormous gaps, here and there from coast to coast. Up from flat water's edge, the checkerboard street pattern begins to rise over the precipitous hills of San Francisco. In that cosmopolitan town to which the cry of 'Gold' has drawn men (and also prefabricated buildings) from all over the world an urban, if not an urbane, tradition seems to have existed from the first. In the mid-Rockies Brigham Young has built a checkerboard town for his much-persecuted Latter Day Saints on the edge of the Great Salt Lake. In its Temple Square there rises a strange monument to the new Mormon religion, even whose sacred literature was written, if not 'revealed,' on American soil. In the East there is much industry now. The idyllic villages along the watercourses that ran the earliest mills, with the neat rows of cottages built by canny owners and managers to entice families with plenty of small children to work the spindles and the looms, are now out-dated. They are giving way to urban slums as waterpower is replaced by coal-fed steam to run the machines and the mills move into the decadent old port-towns. As

the towns grow in size and deteriorate in amenity, a move toward the suburbs begins. The individual American middle-class house soon takes a somewhat different form. Dwellers from the cities demand verandahs, large windows, looser plans and other novelties that the tight self-enclosed farmhouses of the countryside had never provided. Monumental building grows more varied and pretentious, while a new commercial architecture, often all of cast-iron, lines the business streets of the bigger cities.

In the American Scene of 1950 most of the elements of the scene of 1650 and 1750 and 1850 can be identified, intact at least in recognizable samples, but much more largely intact in concept. Some three-quarters to four-fifths of the actual edifices will, however, date from the last hundred years; only a very small proportion belong to the last twenty-five, despite the fabulous boom of the 1920's and the more modest boom that has been shaping up in the last five years since the War. To characterize even what is actually new, as of the last five years, is an impossibility, granted the size of the country and the variety of climatic and economic conditions that exist. One may note, however, that the new factories have gone back to the country, or at least moved well outside the cities, because of the increased use of electric power and the substitution of road transport for railway carriage. Group housing, whether produced by the speculative builder or by public authorities, is in most areas of the country, away from the large cities, inconspicuous although statistically important. The ideal is still the individual house. But the backward-looking nostalgia for the pre-Revolutionary 'Cape Cod Cottage' has given way to the westward-looking yearning for the 'Ranch House.' That at least incorporates many modern features and new materials in the way children's cowboy clothes incorporate zippers and bits of nylon.

The cities shrivel financially as the hundred-year drive to the suburbs continues. The planning authorities worry more about traffic than any other aspect of the urban complex. Above all, paradoxes abound. Even the best publicized of prefabricated house schemes, loaded with government financing, fails in the midst of a building boom for lack of wide public support, and hence of a production level that can meet the prices of speculative builders who still use conventional wooden construction. Advanced artists, when they can afford it, retire to the country and remodel eighteenth century farmhouses; millionaires build modern houses—not a single representational residence, but several (ideally) for different seasons, in different climates. The Roman Catholics build modern churches and modern parochial schools; the Protestant evangelicals continue to build or remodel their edifices in a diluted version of the Camdenian tradition of a century ago.

In the *terrain vague* that surrounds the cities, the cleanest and handsomest edifices, full of amenity down to the planting that surrounds their ample parking places, are the new factories; the grimmest are too often the housing provided by public authorities. The rustic redwood of the West Coast invades the

cities as a frame for elegant shop windows. In poorer districts the complicated aerials of television, like sculpture in the tradition of Moholy Nagy, rise above most of the houses; yet (the purveyors whisper) many of the actual television sets have not been installed or, if installed, have not been paid for. Skyscrapers grow lower. Really advanced houses, no matter how many tens of thousands of dollars they may have cost, include effectively but a single room, like the first houses the settlers built three hundred years ago, or the log cabins the Western pioneers set up as they conquered the wilderness. The atomic bomb, which is known as a destroyer of cities, in America has been the only force strong enough to cause whole cities (in Tennessee, in Washington State and in New Mexico) to be built *de novo*. . . .

But one cannot hope, even by a few epitomized statements that must be suspect of exaggeration because of their brevity, to characterize the entire architectural scene in 1950. Two areas must stand here for the whole. One is the architecture of the roadside, enormously elaborated in the last few years, which I know personally only from the outside. The other topic to be discussed here is the present state of architecture in the colleges and universities, of which I know something at least from the inside. The one is largely outside the conventional range of capitalized Architecture; in the adumbration of most of its characteristic units, moreover, architects have had little or no part. The academic field is reputedly the most conservative of all, supposedly still tied to the 'traditional' conventions of the 1920's and prone to house even atom-smashers in Gothic or Georgian guise—a 'backwater' or a 'backwoods' as J. M. Richards called it in an article in the REVIEW last spring. . . .

'Here on these wooden walls the Arp reliefs will be placed; and on that further solid area in the glass window-wall there will be the Miró mural. You have seen the mosaics by Albers and Bayer and there will also be decorative maps by Kepes.' So the embellishment of a new building was explained to me the other day. But it was not Alfred Barr or Philip Johnson speaking of a projected wing of the Museum of Modern Art in New York (which is designed but not yet begun); it was in the then all-but-completed cafeteria for post-graduate students at America's oldest university, and the speaker was Professor Walter Gropius. The new Harvard Graduate Centre is a group of dormitories, housing as many students as formed the whole of the eighteenth or early nineteenth century college, of which this cafeteria forms the most monumental unit. The Centre offers the most striking instance of the rapid change in the architectural standards of academic authorities as has been generally recognized. Even so, it is by no means the most conspicuous. (See the descriptive text forming the captions to the illustrations on pages 389-392.)

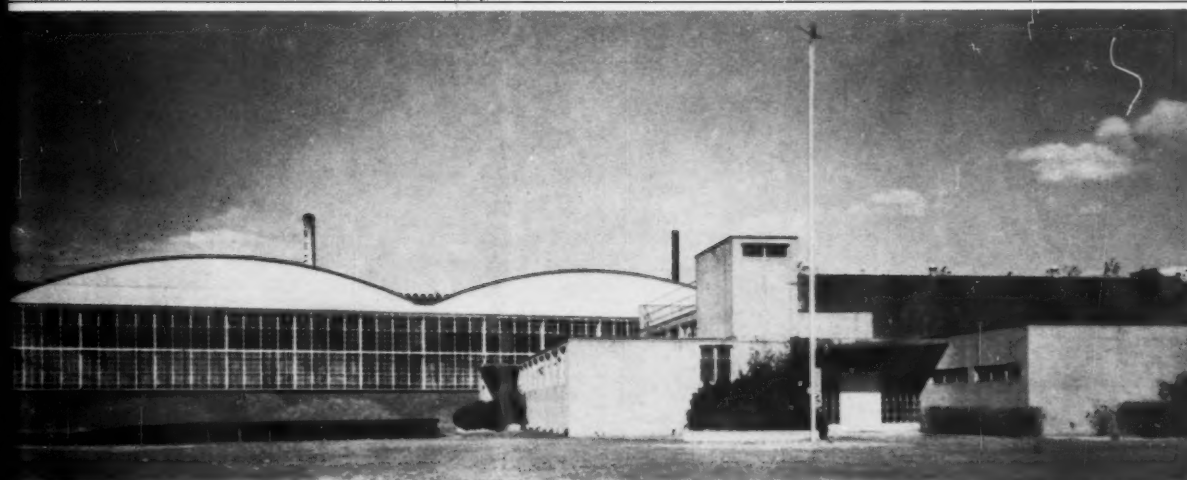
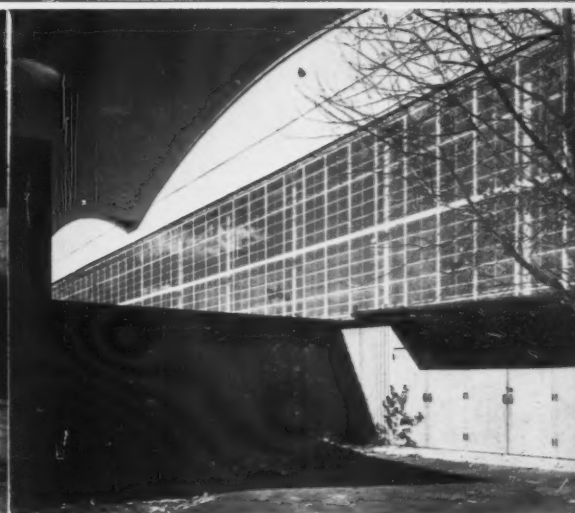
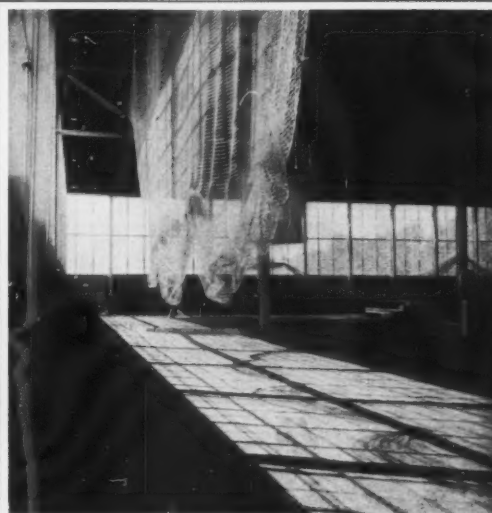
The best new college buildings, in being and to be built, are not as were most of those of a generation ago by specialists. Most of the better new men and new firms have been employed here or there. As may be seen at Harvard's Lamont Library or Amherst's

Mead Art Building or Mount Holyoke's Gymnasium older firms such as Coolidge, Shepley, Bulfinch, and Abbott or McKim, Mead and White or Perry, Shaw and Hepburn have also been trying, on the eastern seaboard at least, to adapt their modes of design to a 'fashion,' as they probably suppose it, which seems to have come to stay for awhile. The attempt of a misguided Wheaton president to return to the Georgian brought the resignation of the entire art department already a decade ago. . . . Thus, for those who know what goes on behind the scenes, the revolution in academic architecture (actually outpaced in school architecture from Maine to California) is far more complete and more significant than the casual reader of American magazines might judge. Finally, even around the institutions that are most conservative in their own architecture, individual professors (if they can afford to build at all), are erecting houses designed by the best available young architects. Some are even designing them themselves like Dean Robert Brooks, at Williams or the young architectural critic Vincent Scully at Yale, who has shown this summer how to adapt the Johnson 'Glass House' for a family with three children at no more cost than a factory-built model.

Except for a few professors who are serious amateurs of architecture, the academic field in America is dominated chiefly by the professional leaders. Moreover, it rarely requires, except for atom-smashers, the housing of really new, or even of drastically reformulated, activities. Dormitories are dormitories, even if their rooms are smaller than in the lush decades of this century; law students have to eat in much the same way, whether in a fake Georgian structure by an old-line firm or in a modern structure by such as Gropius's Co-operative. It is heresy to admit it, but it is not even certain (granted the hampering financial restrictions which control all academic building) that modern designers, who often receive commissions through a polite sort of underbidding, necessarily provide buildings that are functionally better than the old-line firms. For the latter are generally allowed larger funds by generous, if reactionary, legislators or donors. There has been a stylistic revolution in academic architecture. Considering that the older campuses have buildings still doing duty from every period since the late eighteenth century, however, the present revolution is no more drastic, nor even more conspicuous, than several that have taken place—in and out of one or another sort of fake Gothic—during the last hundred years.

The new architecture, or perhaps it would be truer to say the new building, of the roadside is something very different. Most of its functional types are either completely new or so much changed that they have no real conceptual or visual resemblance to what has existed before. Few architects have as yet participated in their designs; when they have, their job has been to organize, to regularize, even to 'style,' functional types that had come into being anonymously and almost unconsciously. The great divided parkway roads permit no roadside building beyond their own bridges and a few widely spaced service stations, usually in an excessively quaint style supposed to be

[contd. on page 393]

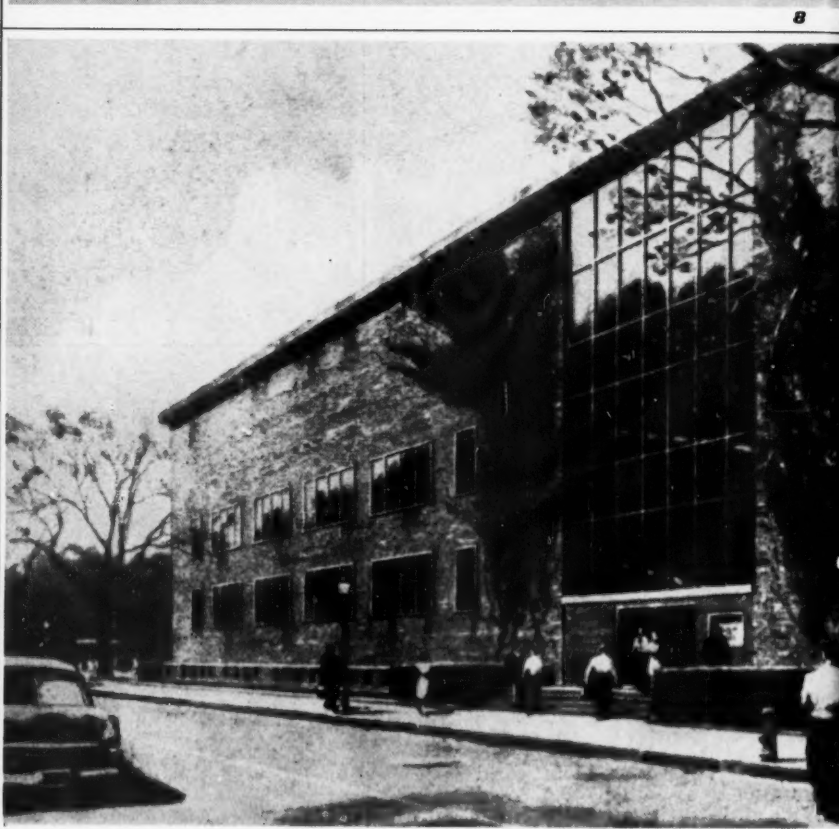
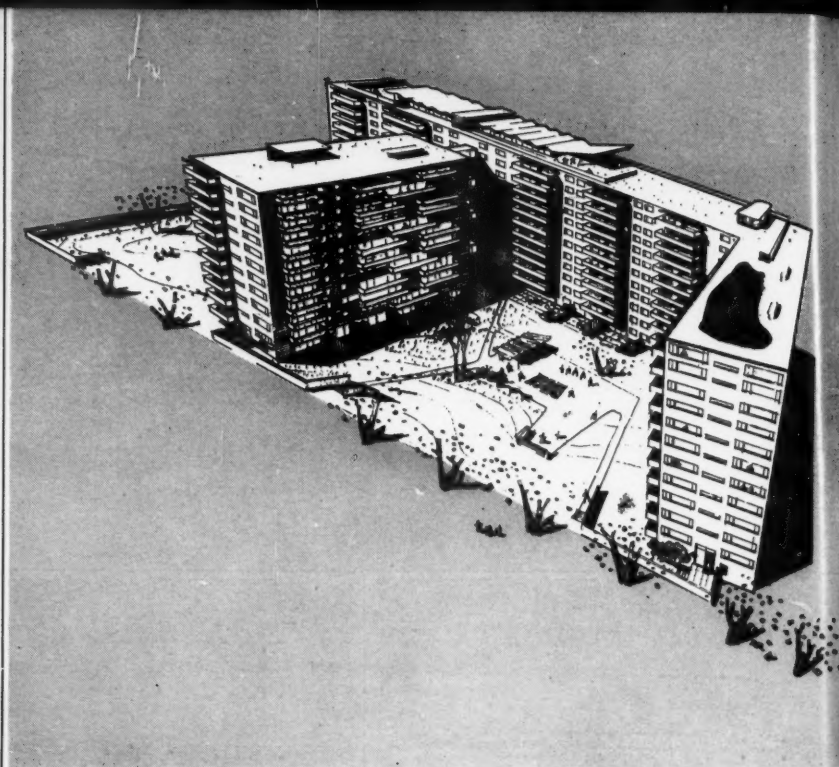
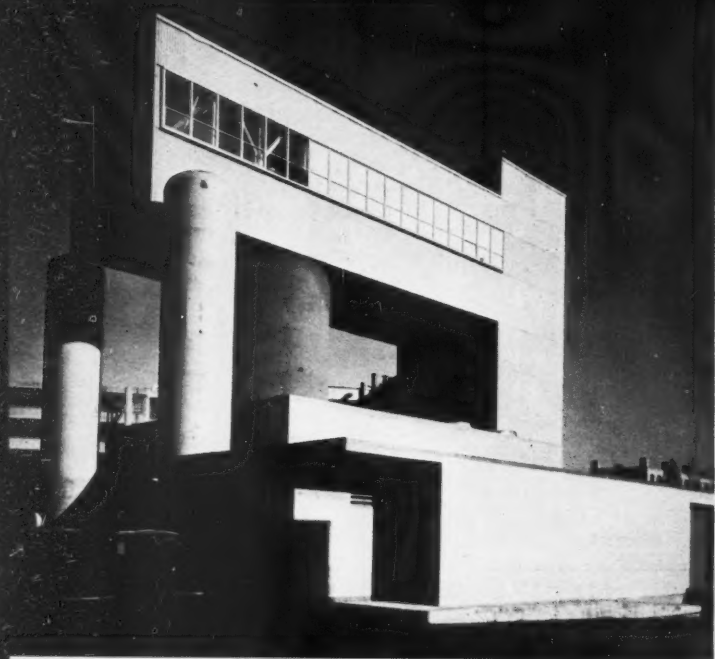


On this and the following pages is a brief summary of recent building done in American Universities. It has been written by Henry-Russell Hitchcock.

1, model of the new Harvard Graduate Centre now nearing completion, designed by Professor Walter Gropius and the Architects' Collaborative. The Centre will house six hundred graduate students, and dine 1,000 in a cafeteria which is made a focus of the design. 2, the Lamont Library, also at Harvard, was built by the firm of Coolidge, Shepley, Bulfinch and Abbott, who were responsible for the acres

of Neo-Georgian building at Harvard of the previous three decades. In appearance it may be too reminiscent of the Underground Stations of Adams, Holden and Pearson; but it stands within the Sacred Yard itself! It definitely represents also the attempt of a long-established firm to come to serious terms with contemporary architectural design. (The firm is in some sense a continuation of H. H. Richardson's, Shepley being Richardson's grandson.) More conspicuous still, as one looks across the Charles River at the Cambridge shore from Boston, is the range of various new structures at the Massachusetts Institute

of Technology which flank the domes and colonnades of the original forty-year-old complex by Welles Bosworth, seen from the back in 3. To the left are the sinuous curves of Aalto's Senior House—for M.I.T. Behind the Senior House, across the athletic field, although not visible from the Boston side of the river, is 4, the fine Athletic Cage of Anderson and Beckwith, like Aalto, both on the teaching staff of the Institute. This is an excellent example of a large-scale building conceived as a backdrop, in this case for their small and rather Neo-plasticist Field House, 5, which was built some years earlier. Behind



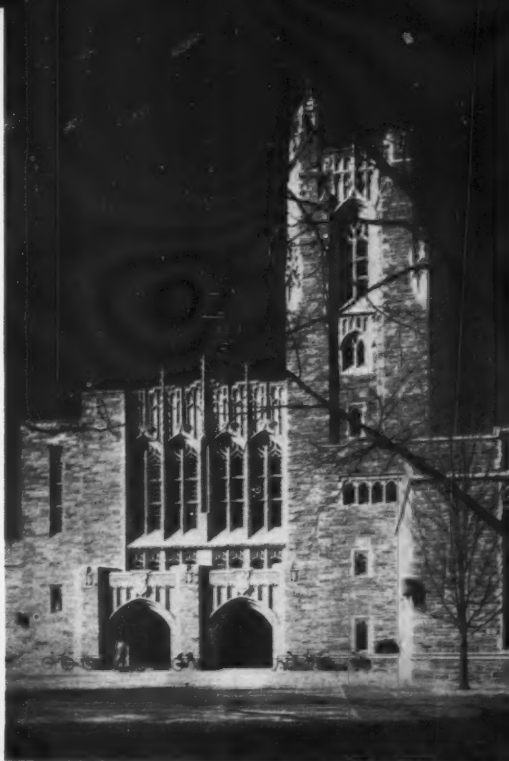
the main Institute buildings are the ranges of the same designers' wartime laboratories, 6, clean and industrial if somewhat too closely set. Beyond, out of sight from the river also, are their swimming pool and the amazing, hitherto unpublished, edifice, 7, which houses a million volt electrostatic generator for the Department of Nuclear Science. Another new building on the Charles River is the apartment house for the Institute's faculty, 8. This is a tall U-shaped structure with its balconied wings turned slightly in order to make the most of the view down the river towards the rounded silhouette of old Boston.

This apartment house was designed by a group from the Institute's architectural faculty. It was financed by the New England Mutual Insurance Company, whose own classicizing clock-tower can be seen across the river above the earlier houses. This was the surprisingly late work of the twentieth century American Pugin, Ralph Adams Cram. For, in the Boston area, it is the academic institutions which have for some time taken the lead in modern architecture, not large local business organizations. Their architectural patronage has remained conservative and unadventurous. Towering over the city, for

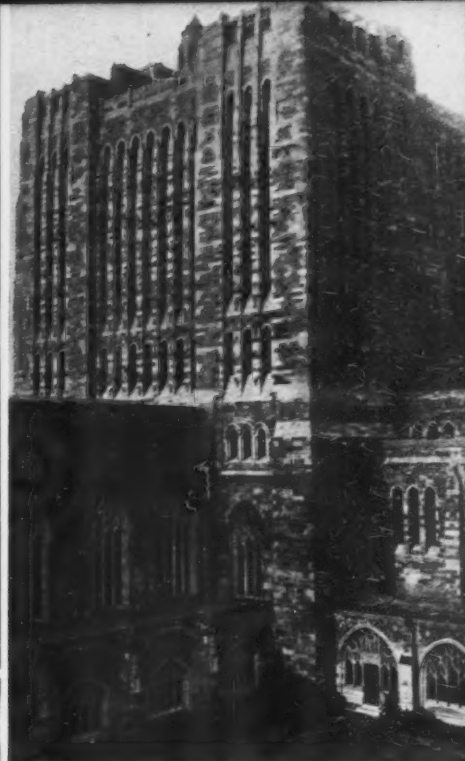
example, is the new John Hancock Insurance Building, 10. This was designed, nominally, by Cram and his partner Ferguson, both some years dead. It is the latest large structure in the dead mode of the verticalizing New York skyscrapers of twenty years ago, unthinkable in the post-war years in more up-to-date cities. Even to build an insurance building as a down-town skyscraper has been retardataire for twenty years in Hartford, the leading insurance city. Moving down the Atlantic seaboard, one finds that Harvard's Connecticut rival, Yale, is about to embark on a new building for its art school and art



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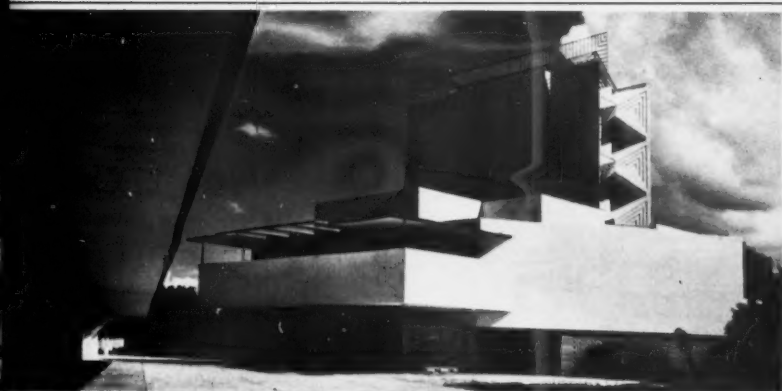
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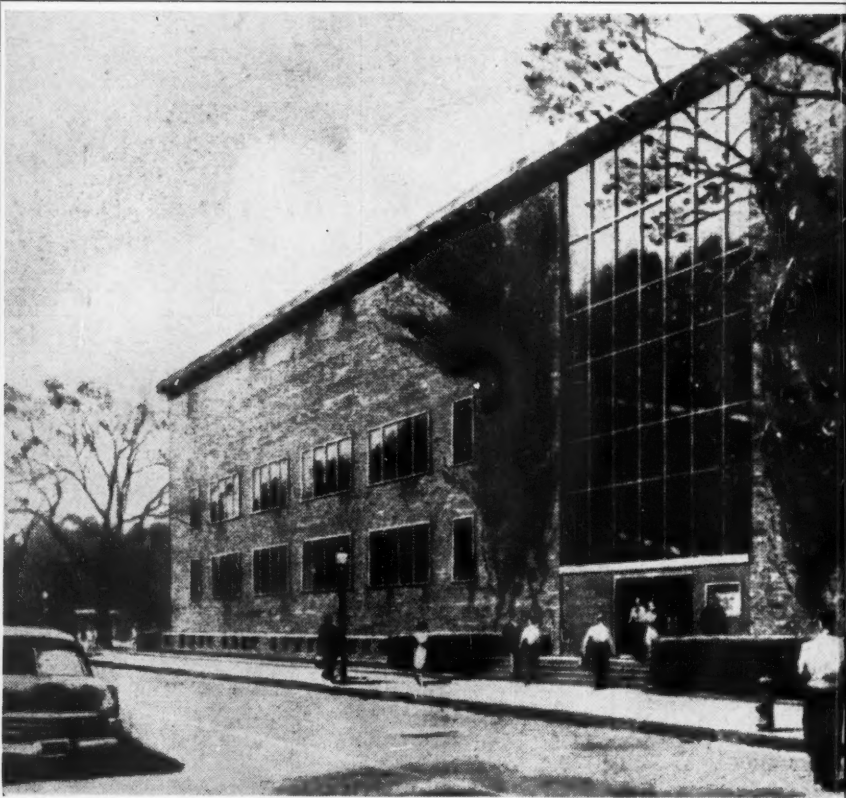
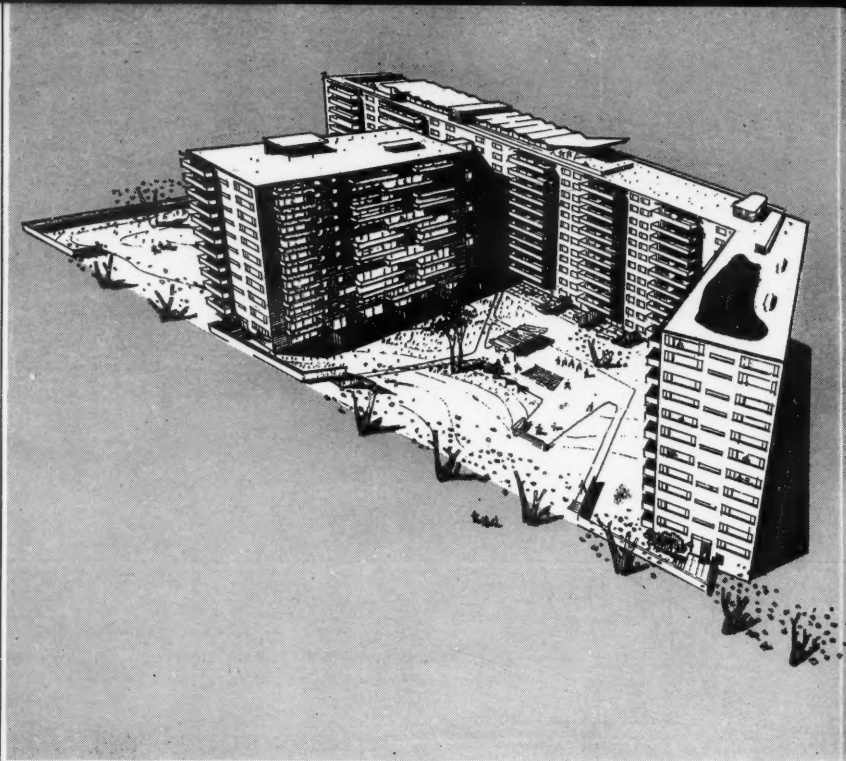
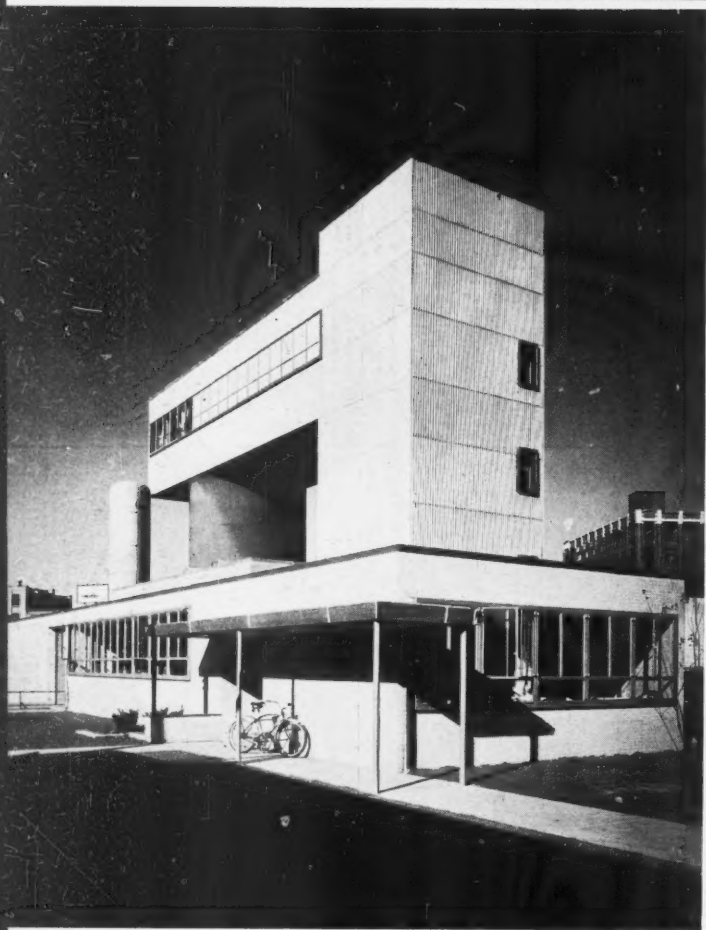
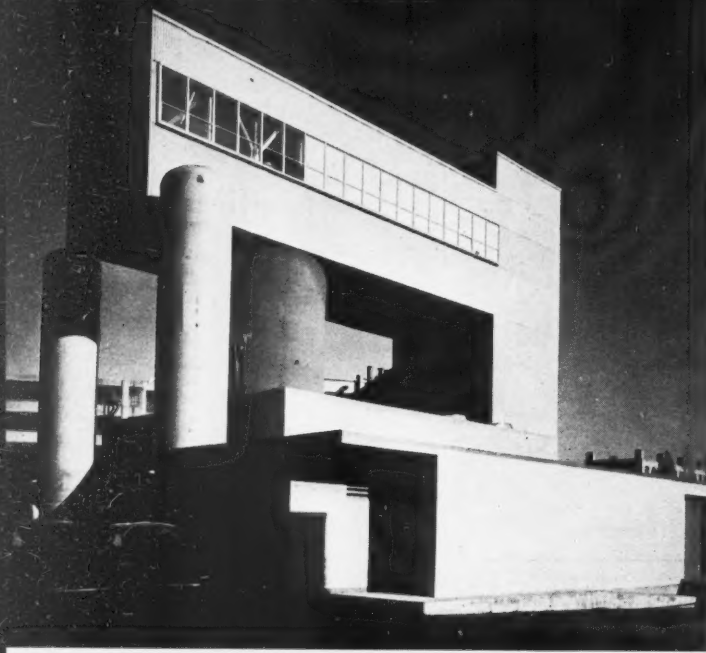


16

gallery, 9, from the designs of Philip Goodwin, the architect of the Museum of Modern Art. For this the first studies were made even before the war. At Princeton, however, the new Firestone Library, 11, built by Kilham and Van der Gracht, who are favourably known for their modern libraries at smaller colleges, has a 'Gothic' exterior. The librarian states that the interior is 'modernistic'; visitors more careful in their use of terms say that it is internally an excellent example of modern functional design. The Sterling Library at Yale, 12, still the most efficient of all to work in, has long proved that if you can

bear to look at it, a great deal of 'Gothic,' both inside and out, need not hamper efficiency. If one turns to the large state universities of the Middle West, one finds that a vast medical centre, 13, by Skidmore, Owings and Merrill is rising at Ohio State in Columbus. Various structures 'in the modern idiom,' but with little individual distinction, have just been built at Minnesota, whose vice-president, Malcolm Willey, commissioned one of the most famous Frank Lloyd Wright houses. On the West Coast, California has reversed the usual order of first hiring leading modern architects to teach and employing them to

build, if at all, very much later. There W. W. Wurster's dormitory, Stern Hall, 14, preceded by some years his appointment as dean of the faculty of architecture; but while he was dean at the Massachusetts Institute of Technology in the East he had already had much to do with that institution's almost unequalled record as a patron of modern architecture. In Florida Frank Lloyd Wright's plans for Florida Southern, 15, date back a decade; the new buildings continue to go up slowly one by one. In expansive and expanding Miami, Weed utilized the pre-war concrete frames originally set up for buildings of



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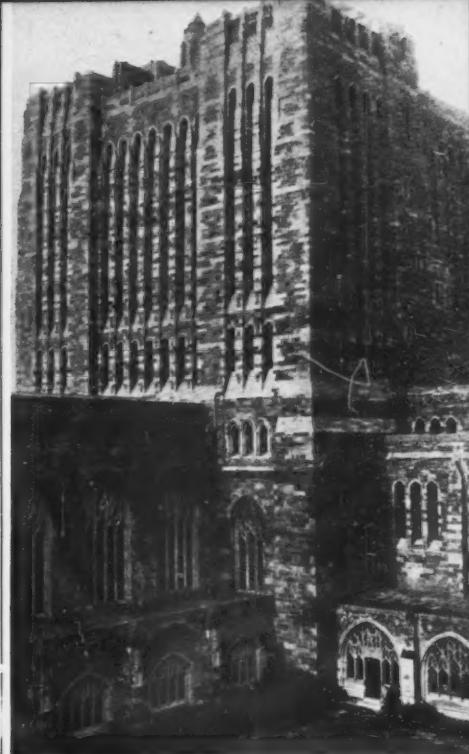
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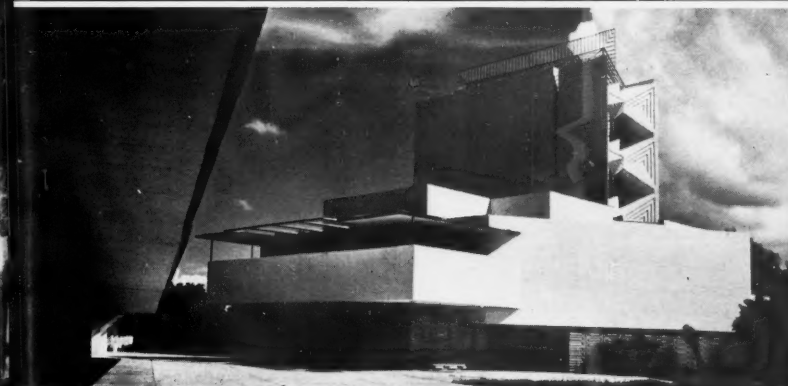
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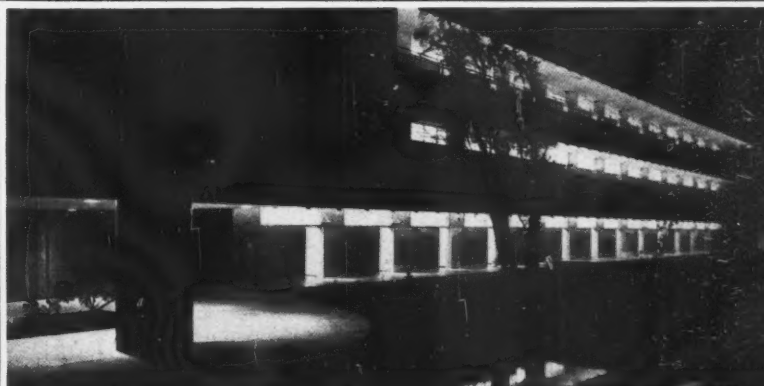
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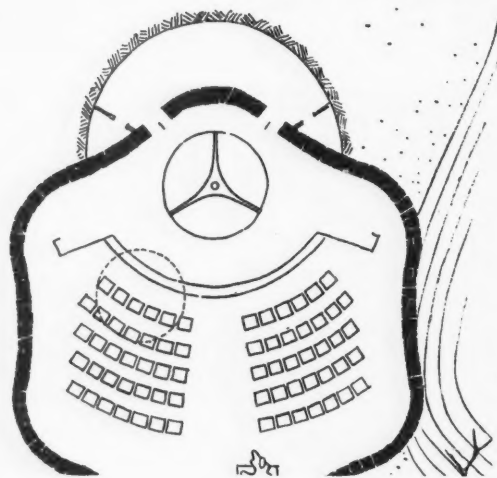
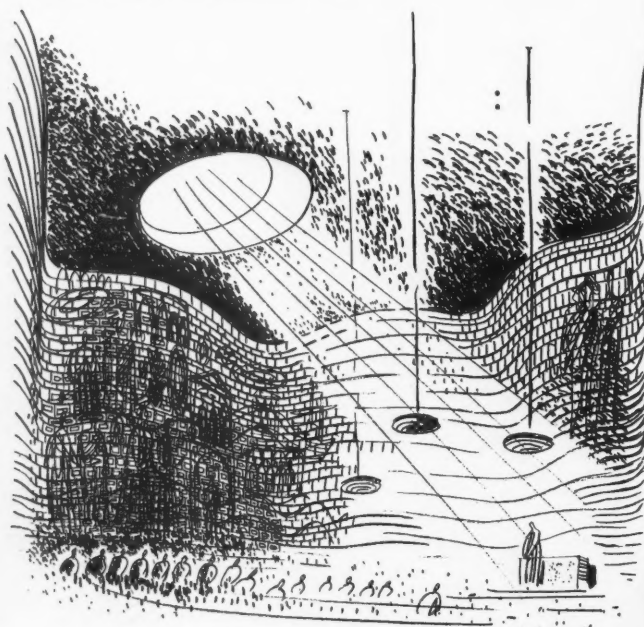
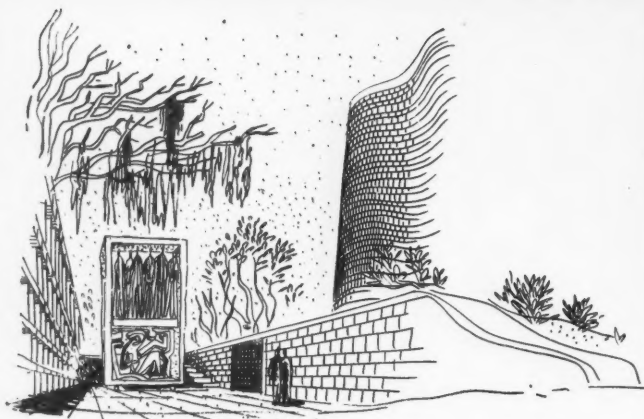


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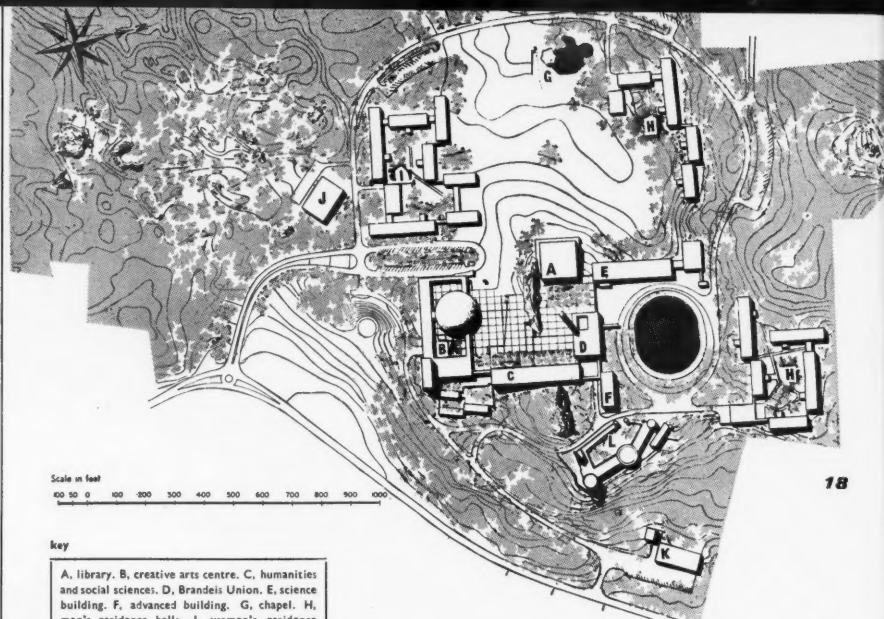
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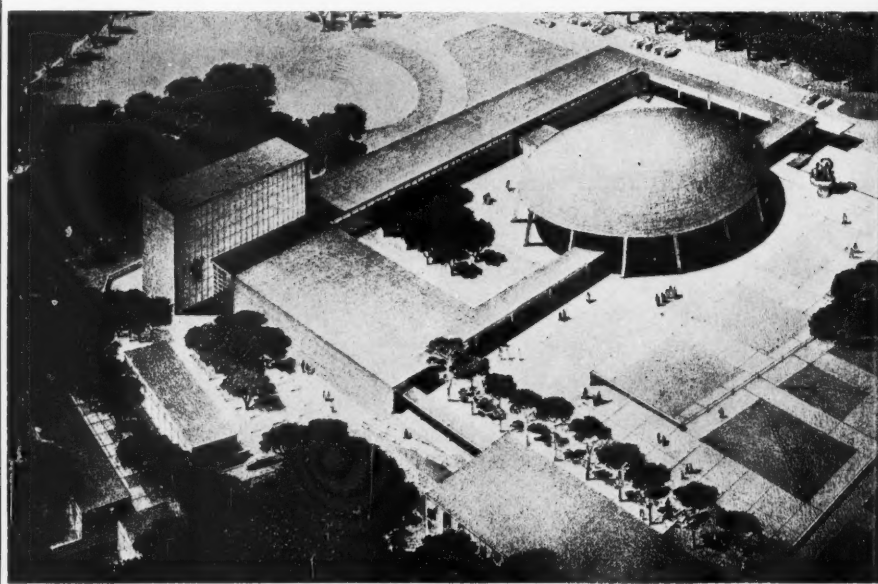
Scale in feet
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key
A. library, B. creative arts centre, C. humanities and social sciences, D. Brandeis Union, E. science building, F. advanced building, G. chapel, H. men's residence halls, I. women's residence centre, J. existing classroom building, K. service centre, L. existing dormitory.

18



19



20

'Spanish' style for several excellent ranges of sound modern buildings, 16. In many parts of the country, however, while the architectural teaching staffs are generally modern, the authorities still stick to the modes of the '20's in their post-war building. We need not hesitate to call State College, Pennsylvania, or Athens, Georgia, provincial, not to say 'back-woods.' Greatly daring, the authorities of the University of Georgia at Athens did substitute pilasters on their library for the peripteral colonnade demanded in the donor's will. But the legislative rulers of

Pennsylvania State College have continued to dictate unadulterated Neo-Georgian of the '20's for one of the largest academic programmes of the last few years, employing not their own excellent teaching staff, but J. Frederick Larson, long a specialist at that sort of laggard architecture. Only the Navy's Bureau of Yards and Docks, not subject to the eighteenth century tastes of the Pennsylvania legislators, has built at State College a naval engineering building up to, but hardly above, current standards of industrial design in factories. If some post-war campuses—as

academic 'plants' are called—are still as Neo-Georgian as ever, one entirely new one will be even more consistent than Florida Southern. The new Brandeis University in Waltham outside Boston already has designs, prepared by Eero Saarinen, for a complete set of structures. These include a remarkable Three-Faith Chapel, 17, Catholic, Protestant and Jewish, of a brilliantly imaginative design, a large shell-domed auditorium, 20, which forms part of the arts centre, and a students' centre, 19. 18 shows the general layout of the University.



contd. from page 388]

typical of the particular region. The motorist rolls along in a setting of pure, but not untouched, landscape; the tendency to overplant the roadsides has lately begun to be better controlled, however. Roadside building flourishes along the principal roads that are not parkways. Naturally, there is more of it near the large cities; but in densely settled areas it is quite widely distributed, forming at worst a sort of spotty ribbon development. At best, in the Far West, roadside agglutinations come only about as often as the motorist will wish to stop to refresh his motor or himself. The minimum is a mere petrol-filling station, with some bottles of equally synthetic fluid—Seven-Up, Nu-Grape, and what not, the various Pepsi- and Coca-Colas, whose range is international, and in the more liberal states sometimes beer. In such places there may be little food, except sweets. The structure that houses the attendant will often be no more than a shack behind the bright coloured petrol pumps and the national advertising provided by the makers of the goods that are stocked, all 'styled' hundreds and even thousands of miles away. In one Western state the map indicates a town called Spotted Horse, population 2. On arrival one finds just such a modest pull-up as this. The attendant is one of the population, the spotted horse, stuffed and rearing in a fine Wild West pose, apparently is the other.

It is in the more thickly settled areas, however, that roadside building is most considerable and at times really exciting. Most spectacular are the Drive-in theatres, even though they are not in any ordinary sense buildings at all. For they consist mostly of levelled areas, with posts from which the sound is piped to the audience beside each position for an automobile. There is, however, always a great cinema screen that towers into the sky, often tipped forward in a precarious slant at which it is maintained by guy wires. These 'passion pits,' as they are called—the passion is in the darkened automobiles, not on the screen—come to life only at night, of course. But it is a new experience to catch a glimpse, as one drives along the road, of some technicolour drama off to the side of the road high against the dark sky like a fantastic mirage.

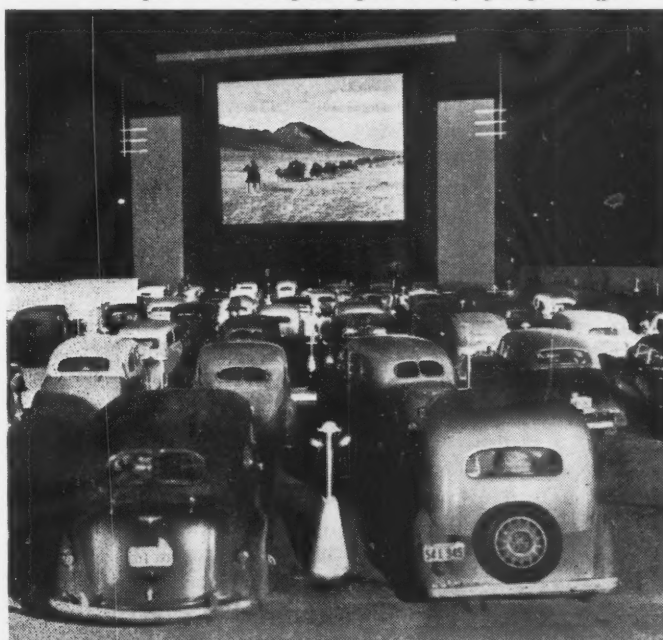
Most significant as a modification of an existing functional type, however, are the motels. They represent a real shift in thinking about the accommodation of travellers, comparable to that which occurred a hundred years ago when the great urban hotel replaced the coaching inn. Despite the vulgar sumptuousness of the Shamrock in Texas and the streamlined elegance and distinguished works of modern art of the Terrace Plaza (by Skidmore, Owings and Merrill) in Cincinnati, there has been little important post-war hotel building in the continental United States. Badly let down by the overbuilding in the boom of the 20's, the industry has taken a vow of architectural continence. Although in most cities the traveller must shop around for hours to find an hotel room, the architectural patronage of established hotelkeepers is restricted to refurbishing and remodelling in most of the parts of the country.

The fully developed motel is found chiefly in the

MAY MADE AMERICA



roadside 'rest room' in the redwood country. This exhibits a particular brand of whimsy which is rapidly disappearing from U.S. roadside architecture to be replaced by structures more sophisticated in design, though no less 'spotty' in general effect.



drive-in theatres, or 'passion pits,' where the motorist parks his car before a giant screen, and obtains sound through individual speakers attached to little posts. Top, general view; below, four drive-in theatres in one, with screens at the corners and central projector.

Far West or in Florida. There it shades over into the resort hotel in such a way that no boundary line can be accurately drawn. What distinguishes the new resort hotels of the motel type is their suburban or outright country location on main travelled routes and the open, one-or-two-storeyed, articulation of the design. Patios, terraces, courts, swimming pools and other outdoor features are as important as any individual rooms and suites or general indoor accommodations. To the city of Palm Springs flock not only the Hollywood folk; there also flee famous industrial designers and prominent department store magnates from the East for brief winter holidays in the Southern California desert. This resort has a height limitation, for all structures, of two storeys. Its luxurious new hotels are, therefore, in the motel mode as are many of those in the newer and smaller gambling resorts of Nevada. In Florida the motels are likely to be beside a beach, really congeries of cabanas, in which the visitors may stay for weeks and even months instead of a few hours. The motel is a new kind of hotel; like an hotel it has an attached restaurant and various services that earlier and more primitive sorts of roadside hostelries omit. But it is also the prize exhibit in a new class of overnight accommodations. At the bottom of the range are the modest 'cabins,' usually in pairs, that share the heavily advertised flush-toilet and shower. In vacation areas the cabins are often provided also with kitchenettes. When considerable groups of cabins are built at the same time in an organized arrangement (perhaps in little continuous one-storey terraces, or around a court, or with roofed 'carports' linking the coupled cabin units) they become a 'motor court' and are on their way toward developing into a motel, which title they often usurp prematurely.

Cabins, motor courts and motels are thickest around big cities, but most highly developed in holiday spots. They have not, of course, replaced conventional hotels; nor have they driven out the 'tourist home' (their signs read illiterately 'Home for Tourist' or in a more 'refeened' way just 'Guests')—many, many dwelling-houses along the roads still take roomers for the night. For the cabin-motel prices have already risen up to and above hotel levels. No longer a makeshift, however, they definitely offer conveniences to the traveller in the way of late stops and quick starts (not to speak of rather casually kept registers). Using them, the traveller can avoid city traffic and city parking troubles. They are, therefore, increasingly attractive to all but the most hidebound travellers. Their privacy is greater, their equipment is fresher and more ingenious. With telephones and some service personnel (completely lacking in the ordinary cabin set-up, however) the more elaborate motor courts, as well as the highly organized motels, are providing an improved type of accommodation skilfully adopted to the way most Americans now like to travel. Except in the luxury motel field, architects are only just beginning to be employed. Visually, design ranges from the silly archaism of fake log cabins, 'Cape Cod' cottages, 'Spanish' fantasies, and even goblin huts to the best of simple Builders' Modern. This is fresh in form and brightly painted; cheap

(contd. on page 397)



motels and hotels architects are only beginning to be called into the field of motel building, but where they have been the advance in design standards, though not spectacular, is sufficiently remarkable. Compare 8, p. 363, with top, motel at Camden, New Jersey, and below, motel at Palm Springs, California. Very few new hotels have been built in the U.S. recently, but where they have the design standard, though again not epoch-making, is high. Facing page, apartment hotel in Beverly Hills, California, by Alvin Lustig and Sam Reisbord.



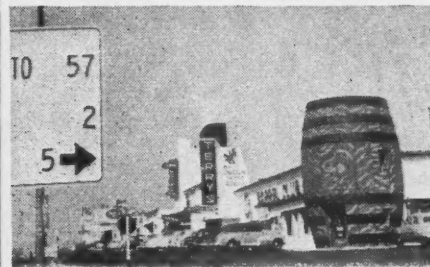
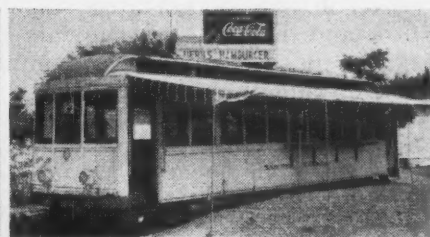
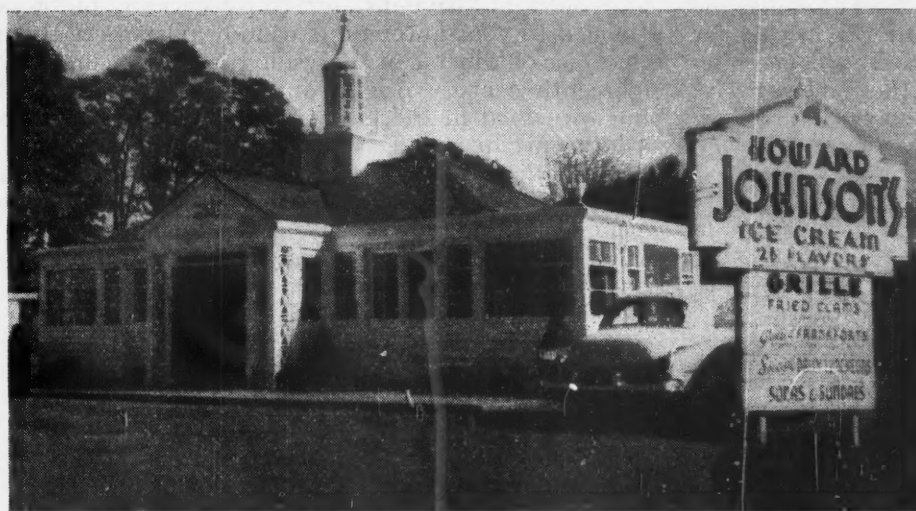


shops a department store outside Los Angeles by Gruen and Krummeck, in association with Karl van Leuwen. An entirely new expression, at least on the facade, of an activity that has been going on for some time, though previously un-catered-for, auto-mobile shopping. It gives some idea of what might be the effect if imaginative architects were called in to deal with other aspects of the highway muddle. Here, the arrows, white lines and lamp standard of the overflow car park, the great ramps up which the shoppers drive to the roof park and from which they descend to do their shopping, are handled with an imagination freed, as the problem itself is, from convention, and resulting in a picture that puts paid to the idea that the motor-car is inseparably connected with a squalid environment.





restaurants and diners below, left, Howard Johnson's, the largest chain of road-houses in the Northeast and Middle West. 'Colonialoid' in design, they sport orange, glazed pantile roofs, though a slate one has been substituted here in deference to the late President Roosevelt, whose estate it faces. Right, above, a diner made from an old tram. Right, below, beer parlour (in the barrel) with waffle shop and motel beyond.



contd. from page 394]

perhaps in effect as well as in cost, but not tawdry in the way most hotels are nor heavily pretentious.

Selling things by the roadside is increasingly popular. This activity requires various types of structures, from the temporary stand the small farmer sets up during the growing season to the vast two-storey stores that Sears Roebuck, whose mail order business is now much less than their retail sales, build on the outskirts of large cities. The big buildings have architects. So, of course, do the branches of city department stores that are built in groups in the outer suburbs along main routes. But these larger buildings are not really roadside architecture since they are generally located in or at the edge of built-up areas. Cheap furniture stores, requiring very large floor space to display their low-priced goods, move further out into the country. Almost without exception they are as undistinguished in design as the wares they sell, although fortunately, much simpler and more matter of fact. The farmer's vegetable and fruit stand may expand into an open display many yards long, comparable in the variety of its goods and the pleasant orderliness of their arrangements to the largest urban fruit, vegetable and grocery stores. But in these stands, even the largest, as in the passion pits, there is very little solid building in the ordinary sense.

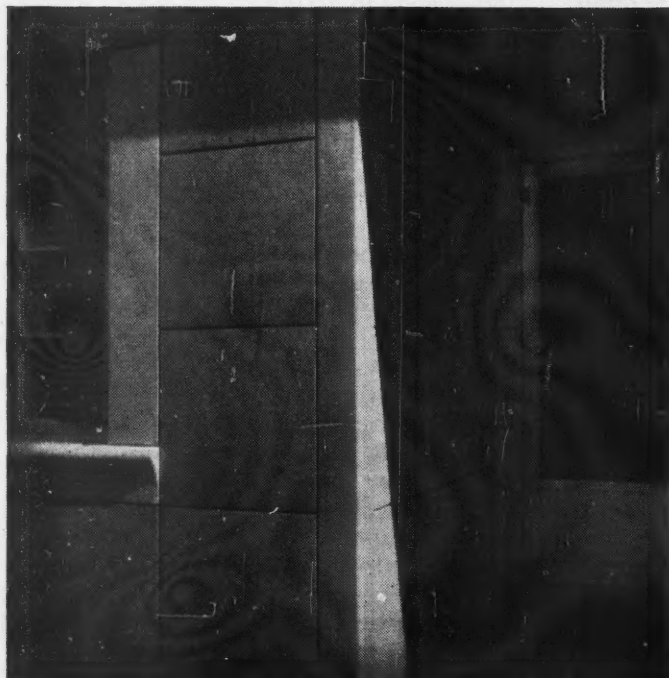
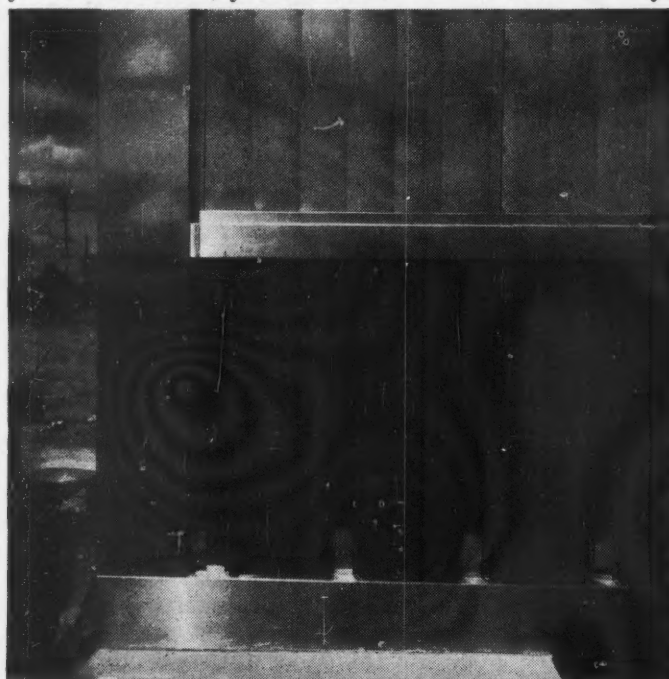
Cooked food, and a horrid category of goods known as 'gifts'—one shop advertises that it has 250,000—generally receive more solid and permanent housing, partly because they are less seasonal in the North. (In California and Florida, of course, open stands often serve more actively in winter than in summer.) Gifts are very close to, often synonymous with 'antiques.' Hence their housing tends toward the archaistic—at least the sentimentally regional. Meals, doubtless for some complex Freudian reason, also seem in the Northeast, the Middle West and the Southeast to be associated with nostalgia. It seems always to be 'Old,' if not 'Olde,' New England or Southern cookery that is advertised. Outside the

cities modern design seems to be associated with bad food. In the older parts of the country there is, therefore, little really 'high-class' roadside restaurant building. The idea is to start with an old house (75 or 100 years old is best, but 50 will do, if handled in a frivolously Edwardian way). Then one adds on what is necessary in a sort of decorator's parody of the original. Modern design in eating-places means a night club or else a mere 'hot-dog' stand. The largest roadside chain of eating-places in the Northeast and the Middle West, Howard Johnson's, favours newly built restaurants, but of 'quaint' Colonialoid design, brightened up with brilliant orange roofs and Paris-green lanterns. The older mode of 'dinners' is passing out. These were real tram or railway cars provided with counters, or else the same forms repeated at larger scale and covered with stainless steel. They are frequented by lorry drivers, great connoisseurs of solid food, and also by those travellers who can't stomach the old-maidishness of the 'Olde this-and-that' eating-places.

The diffusion that Wright and other anti-urbanists have called for, and for which the fear of atomic bombing has provided a semi-rational motive, is taking place rapidly, if hardly for the profounder reasons some theorists have offered. Quite simply, Americans have so completely taken to the roads that they prefer to drive into an outdoor cinema and see the film from their cars; they want to spend the night by the roadside when they get tired without making reservations—if the motor court or motel is comfortable and in an attractive holiday site they may stay a week or more. They also like to eat by the road (driving out of town not into town, when they leave their homes for a restaurant meal). Moreover, they now buy much of their home furnishings, their fresh food, their groceries, their unnecessary accessories ('gifts') by the road in most regions. Even, now and again, they will buy garments or fabrics that have a special regional flavour—homespun, Indian goods, cowboy goods, etc., in vacation areas. More ordinary

clothing stores are only just beginning to take to the roadside near large towns.

Except that you must have an address at which the State and Federal governments can reach you for taxation purposes and for communications concerning your automobile, you could live on the road entirely,



prototype top, polished metal wall on one of the latest types of roadside diner. Experiments in facing and detailing this kind of structure, freed as they are from conventional ideas of what a building should look like, sometimes provide prototypes for other kinds of building. The Lustron prefabricated house, above, with enamelled metal walls, is such an example; this one derived from metal-walled filling stations.

although your attire might tend to become rather unduly exotic. You could, in California and Texas, eat in outright 'drive-ins,' served by 'carhops' on trays attached to your automobile window; elsewhere there is a choice of 'diners,' or 'Wayside Inns' of presumptive eighteenth century origin; or you could prepare all your own food in the kitchenette of your cabin in a motor court or motel. What is more, a great many people do live this way for shorter or longer periods, particularly when they retire from productive economic life or before they settle down to it.

Curiously enough the roadside edifices that primarily serve the automobile (which occasioned the whole thing) are often the least interesting. Some companies, over considerable geographic areas, have characteristic filling stations of standard design in enamelled metal; indeed, these provided the prototype for the Lustron prefabricated house. But the filling stations that one sees everywhere are, many of them, hardly better than shacks; the finest ones are usually in urban or suburban locations, not by the open roadside. Nor is the trailer attached to the rear of the private motor car, in which you sleep and cook, as popular as it once was.

Roadside building as it exists to-day is a new field in which architects have hardly begun to work. It is the conservative old colleges and universities that are their very good clients, since only a few educational programmes have taken as yet to the road!

The American scene is many things, depending on your angle of vision. Others will tell of the Silver—or possibly merely silver-plated—Age of the skyscraper, of the fears and hopes for public housing and prefabrication, and of houses of individual design costing up to £50,000 or down to £500. But the quite remarkable post-war architectural events in the universities will stand for a wide section of the urban building scene that is changing its surface at least with special rapidity; while the roadside structures epitomize another realm in which new types are rising and receiving almost unconscious formulation without benefit of architect.

I have barely mentioned the factories that have so generally taken to the roads; by their size and because of their monumental design, by architects or by engineers, as also on account of their lack of direct interest to the casual traveller, they are not roadside building in the ordinary sense. But after he leaves Aalto's Senior House at the Massachusetts Institute of Technology, the American engineering graduate may well find himself employed far from any town in a great new plant. Such a young man could, if he wished, live all his life along the roads within a radius of twenty-five miles without going near a city. He and his family could be as footloose and fancy free as Henry James's 'summer people' fifty years ago, as mobile and homeless as the Okies of the 'Grapes of Wrath.' Yet they could enjoy almost all the conventional desiderata of the current American Scene.



TOWARDS A NEW ENVIRONMENT

(6) *The way of the price mechanism: the Rockefeller Centre by Winston Weisman*

In January 1926 a group of people met at the offices of the Metropolitan Opera and Real Estate Company, New York, to discuss the possibilities of building a new opera house. They did not know it then but their efforts initiated a project which was to grow into one of the most significant commercial structures of the 20th century. What was at first a relatively simple idea was fated to change in size and scope and finally to shape itself into an architectural complex known as the Rockefeller Centre. Today, just ten years after completion, its importance is being realized by sociologist, historian and architect alike. To the first two the Centre stands as a symbol in stone of the American way of life. To the architect it represents a successful solution in 'cost and return' planning—a useful rule-of-thumb when similar problems arise. To the architectural historian it sums up a complete age, with its astonishing achievements and equally astonishing weaknesses. And yet despite its significance practically nothing is known about this group of buildings beyond a few facts found in a handful of publicity releases, newspaper and magazine articles. This article by Dr. Winston Weisman gives the first sociologist's account of the development of Rockefeller Centre based on documents and drawings in the files of the Rockefeller Centre Corporation. It traces the evolution of the plan from its conception in 1926 to its completion in 1940, and shows how, through the interplay of powerful economic forces, a vast architectural complex grew to be a symbol of one of the American ways of life.

Rockefeller Centre emerged from the need for a new opera house. The Metropolitan Opera House at 39th Street and Broadway in New York City had been woefully inadequate for many years. Despite its size it was too small to accommodate the crowds of opera lovers that flocked to the performances. It was badly planned. Intricate facilities necessary for proper production were lacking.

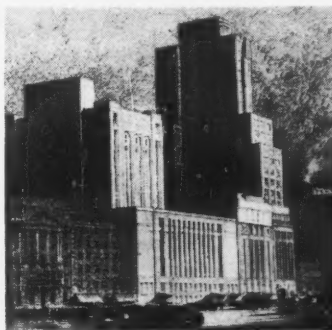
But most important, the neighbourhood had changed and was no longer in keeping with the opera tradition. Once it had been smart and fashionable—surrounded by luxurious hotels, excellent restaurants and expensive shops. Now factories and skyscrapers dominated the area. Where once a gentleman and his lady might stroll at leisure, workers scurried. Where broughams and town cars rode the avenues, huge dirty delivery trucks jammed traffic in all directions. It was to correct this situation that the directors of the Metropolitan Opera and Real Estate Company met in January, 1926.

The suggestion to erect a new opera house was accorded enthusiastic approval. During the year the problem received considerable study by opera officials. Search for a site on which to build was begun.

Eventually Mr. Otto H. Kahn, chairman of the board of directors of the Company, assembled a sizeable parcel of property on 57th Street between 8th and 9th Avenue. In February, 1927, it was announced that the project had been approved and that operations would begin immediately. Several weeks later Benjamin Wistar

Morris and Joseph Urban were appointed architect and associate respectively.

The plan drawn up by Mr. Morris for the



1
first
Morris
project

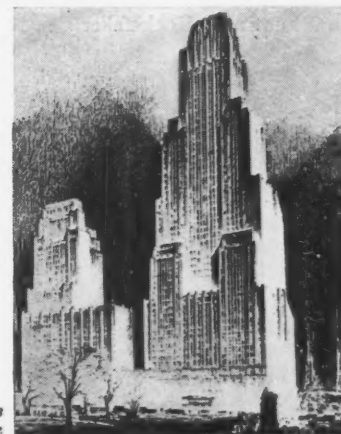
57th Street site (1) was the first one developed for the project which was to become Rockefeller Centre. It provided for an opera house and a twelve-story office-studio building but it never materialized.

According to Mr. Morris, the objections were several. The plot was too small to allow for proper handling of the two units. The locality was unsuitable. It was not close enough to communication facilities and too far from the shopping-theatrical district now centred between 42nd and 50th Streets.

Throughout 1927 the search for a better site continued. By December Mr. Morris had drawn another set of plans for a plot at 68rd Street and Broadway. Here again the opera house was combined with an office-studio building but the concept was

made more elegant and luxurious by the addition of a plaza landscaped with shrubs, trees, and decorated with spraying fountains. This plan marks the first appearance of the plaza which played such an important role in subsequent schemes and eventually developed into the Sunken Plaza we see today.

One of the most elaborate studies made at this time was the one projected for the Columbus Circle site (2). In this scheme the



2
Columbus
Circle site

two units were combined in much the same manner but on a grander scale.

None of these plans ever got beyond the drawing-board stage. The reason was that they did not fulfil the requirements of the opera company for an architectural scheme

that was handsome, aristocratically placed and financially sound.

The difficulty lay in the fact that the several aspects of the scheme were incompatible. A self-sustaining plan involving a costly opera house on an ideal site would require a very large revenue-producing unit. This meant relegating the Opera House to a relatively minor role in the scheme. Obviously this would not do.

Mr. Morris fully realized the antagonisms involved for on February 17, 1928, he wrote to Mr. R. Fulton Cutting, President of the Metropolitan Opera Company, discouragingly saying, 'that solution seemed to lay in an endowment fund of very large dimension.' This would permit a decided reduction of the office-studio building and so maintain the original character of the plan. But the prospect of raising a fund of such dimension seemed very unlikely. The opera project appeared doomed.

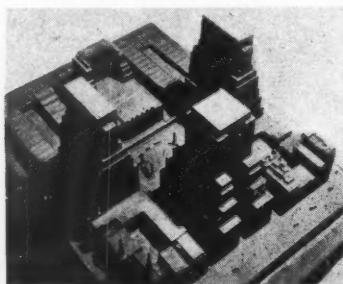
Then suddenly a ray of hope was thrown on the scene. Mr. Tonnelle of William A. White & Sons, real estate agents, suggested to Mr. Cutting the possibility of placing the Opera House on property owned by Columbia University in the area between 48th and 51st Streets from 5th to 6th Avenue.

From the point of view of availability and nearness to the shopping-theatre region, the Columbia plot was ideal. Moreover, this parcel would allow elasticity of planning.

It was Mr. Tonnelle's idea that the Opera House be built near the west end of the south block, facing east on a 60-foot street extending from 48th to 49th Streets. The private thoroughfare would provide circulation for pedestrians and automobiles.

The Tonnelle plan apparently did not solve the opera's problem because in a letter to Mr. Cutting, Mr. Morris said that while 'this scheme did not help materially in a financial way, it fostered my thought that if carried further it might show a way out of our difficulties.'

The architect saw in this three-street site enormous potentialities for revenue production and for large scale integrated planning. His thoughts regarding this resulted in the first scheme made for the site now known as Rockefeller Centre.



3
Tonnelle

In this plan (3), four large units were arranged around a centrally placed plaza. Facing the plaza on the west side of the middle block was the Opera House. To the east, north, and south, on the plaza axis, were located three skyscraper revenue-producing units rising to a height of thirty-five stories. Linking the four units together was a promenade deck one story above ground lined with shops and restaurants

and provided with bridges over the two streets. Pedestrian traffic could approach the Plaza along the sidewalks of the streets or through the arcade which pierced the three skyscrapers. Auto traffic entered along the streets then partially circled the plaza, and descended by ramps to a parking area situated underground. Morris's plan thus provided multiple opportunities for revenue production and yet maintained the Opera House as the dominant motif.

One final obstacle faced the planners. Despite the elaborate development given the revenue units, the plan apparently was neither entirely self-sustaining nor operative. This was due first to the large amount of non-productive area occupied by the plaza and second to the fact that the opera company was not interested in the financial exploitation of the remaining plots but only in the location and construction of its own building.

If a donor could be found to contribute the plaza and possibly to organize a company which might control various aspects of the enterprise, the last obstacle could be overcome.

In an effort to interest a donor a dinner was arranged by Mr. Cutting at the Metropolitan Club on the evening of May 21, 1928. Among those present were Mr. Otto H. Kahn, Mr. John J. Raskob, Mr. George Baker, Jr., and Mr. Ivy Lee representing Mr. John D. Rockefeller, Jr. After dinner the scheme described above was presented and fully explained by the architect.

The Metropolitan Club dinner was a complete success. It stimulated the interest of friends of music in the project. One friend in particular was a man who had in the past proved himself a liberal patron of the arts. His name was John D. Rockefeller, Jr.

Mr. Rockefeller agreed to contribute the plaza and to provide the medium through which the varied elements within the project could operate in the form of an organization controlling the Columbia site.

By December 6, 1928, the Metropolitan Square Corporation was formed to develop the three-block site and on January 22, 1929, a lease was signed with Columbia University calling for the payment of \$3,800,000 annually for 21 years with option to renew for three similar periods after which the property and buildings would revert to that institution.

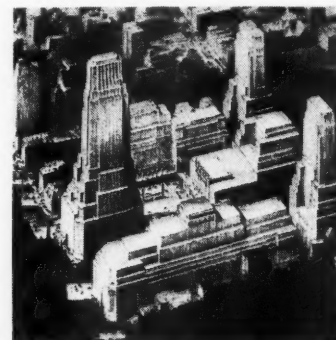
Planning for the development started almost immediately. On February 20, 1929, Colonel Arthur Woods, President of the Metropolitan Square Corporation, announced the formation of an Architects' Advisory Board consisting of ten prominent architects, including William T. Aldrich, Cross and Cross, B. W. Morris, York and Sawyer, S. H. Bennett, Cass Gilbert, Charles A. Platt, H. W. Corbett, M. B. Medary and J. R. Pope.

An announcement stated that the 'Metropolitan Square Corporation desires independent and varied advice on the problems involved in a development of this magnitude.' To achieve this end 'seven members will study the problem independently and report their recommendations as to its most fitting development. Three members will review these recommendations and report

to the Metropolitan Square Corporation.'

The object of the planning was to 'provide a site for the Metropolitan Opera House, and to assure appropriate and artistic environment, ample and convenient approaches, circulation, and a dignity and harmony of architectural composition in the development of the land surrounding the Opera.'

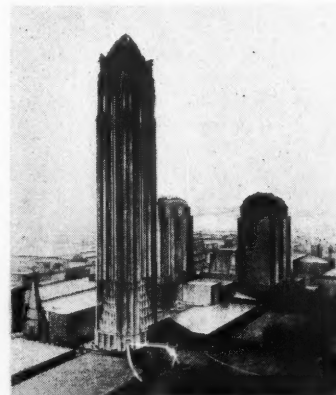
Benjamin Wistar Morris presented a derivative of his Metropolitan Club idea called Scheme A (4).



4
Morris
Scheme A

An interesting variation of the Opera Square was presented by H. W. Corbett. The Opera House was approached from the 5th Avenue street level by a monumental walk graded so that it rose to a second story opera entrance. Surrounding the opera at this same level was a luxuriously appointed promenade which also served the commercial units whose main entrances were located on this raised platform. Acting as a foil for the Opera House on the west was the major office building.

Most unusual was the Cross and Cross presentation (5).



5
Cross &
Cross

None of the 'Invitation Plans' met with approval of the Metropolitan Square Corporation, for in the summer of 1929, Mr. John R. Todd was invited to the Seal Harbour home of Mr. Rockefeller for consultation on the problem of development for the Columbia site.

This was not the first time Mr. Todd had been consulted. In September, 1928, he had the architects L. Andrew Reinhard and Henry Hofmeister draw up two sets of plans for the Columbia site at the request of a representative of Mr. Rockefeller.

The schemes grouped commercial units around a central plaza. They featured a

tower office building east of the Opera House, two hotels flanking the plaza with private streets on both sides, two revenue units on the west side of the north and south blocks and another tower building on the north-east corner.

It was not until almost a year later that the talks were held at Seal Harbour. The outcome was a contract dated October 1, 1929, naming Todd, Robertson, Todd, Engineering Corporation, and Todd and Brown, Incorporated, managers of the Metropolitan Square project.

Shortly afterwards, on October 28, 1929, Mr. Reinhard and Mr. Hofmeister were appointed architects for the enterprise with Harvey Wiley Corbett, Benjamin Wistar Morris, and Raymond Hood named as consultants.

With the organization thus developed, the architects and management met to determine the best procedure of planning. At the meeting held November 1, 1929, it was decided to start on a scheme outlined by John R. Todd as follows:—

1. Fifth Avenue frontage in both blocks developed with shopping type buildings having two buildings in each block.
2. High office buildings to be placed on the westerly end of each of the north and south blocks.
3. An additional tall office building to be designed for the easterly end of the southerly block.
4. Centre portion of north-south blocks would be net leased to department stores; new streets to be cut through giving full frontage on all sides of the department stores.

A plot plan bearing the signature of Reinhard and Hofmeister, dated November 25, 1929, illustrated what was intended.

Then in December, 1929, an incident occurred which was to remove all outward signs of the original opera project. While the architects were busily grinding out study after study for the opera square, the men negotiating for control of the leaseholds on the opera plot ran into a snag. Leaseholders demanded exorbitant prices for their contracts. At first it was estimated that the cost of lease control would be approximately \$600,000. By May of 1929 the sum required was \$1,090,000. By November the price jumped to \$1,250,000. The opera company became alarmed about its position in the enterprise. The additional costs threatened to force a change in the Opera House's architectural form.

Meanwhile the Metropolitan Square Corporation insisted that the opera company sign a contract definitely establishing their place in the enterprise. This the opera company refused to do without a guarantee as to when the plot would be ready for construction.

As time moved on the situation got increasingly desperate. The opera company demanded the Metropolitan Square Corporation control the plot by May 1, 1930. The Metropolitan Square Corporation set a deadline date of December 3, 1929. When it became apparent no agreement could be reached, the Metropolitan Square Corporation decided that they 'accordingly must take the position that the Metropolitan Opera and Real Estate Company

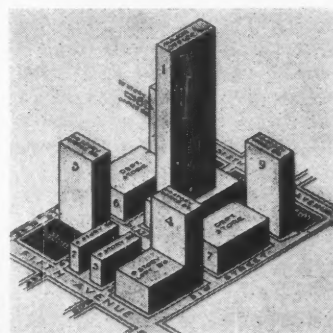
has abandoned the project of erecting an opera house on the site now leased by the Metropolitan Square Corporation from Columbia University.'

On December 6, 1929, the Metropolitan Square Corporation management announced to the architectural board 'that from now on this Square would be based upon a commercial centre as beautiful as possible consistent with the maximum income that could be developed.'

Thus the Opera House which had been the *raison d'être* for the enterprise was no longer a part of the project. The elimination of the Opera House changed the architectural form of the project drastically. In most plans prior to this time, the designers placed a tower building east of the Opera House in order to take advantage of the tower privileges possible on the central block. Since the Opera House was to use only the ground rights permitted under the zoning laws, the tendency was to develop the tower rights on the only other available area which was the lot fronting on 5th Avenue. This solution was not good. It tended to block the view of the Plaza and was unfortunate from the point of view of circulation.

However, when the Opera House was dropped from the plans, it became possible to relocate this major building in the middle of the centre block and bring the low buildings east to 5th Avenue. All the schemes prepared from this time on show a major skyscraper building where once the Opera House stood.

This change was illustrated in Scheme G-3 dated January 8, 1930, and signed by Reinhard and Hofmeister. The plan was worked out in considerable detail and on February 3 it was presented by J. R. Todd at a meeting of the Board of Directors.



J.R. Todd
G-3

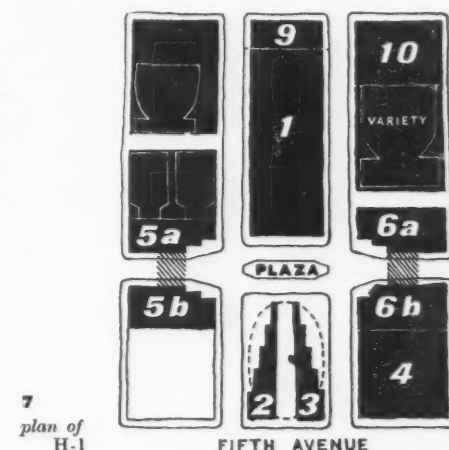
The scheme (6) does not vary greatly from the earlier one of November 25, 1929. It did, however, include two new elements. One was the major office building which replaced the Opera House. The other was the combination thirty-story office building and nine-story loft building on the north-east corner of the site.

G-3 was an important scheme in the evolution of the architectural design. It supplied the site with an elevation that is essentially like that of Rockefeller Centre today. Considered from the point of view of the management it was an ideal plan. It had utmost economy. The arrangement of tower structure and ground units used the zoning privileges most efficiently. The stagger system of towers resulted in well-

lighted areas, thus providing high quality office space. The ground masses occupied principally by department stores would have a value almost as great as high-priced shop space. Cheap loft space was kept at a minimum but available, if desired. Circulation was established by the introduction of two new north-south bound streets, a promenade, and arcades. Finally the symmetrical design enhanced by the Plaza would result in a dignified and attractive architecture. It was a good plan, but time was to see it undergo serious changes.

Some time in February negotiations were opened with the Radio Corporation of America to bring that organization and its subsidiary companies to Metropolitan Square. The conferences continued throughout the months of March, April and May, and were successfully concluded in an agreement dated June 5, 1930.

Running concurrently with the talks were a series of plans designated as H schemes. Perhaps the most important of these was that attached to the lease and referred to as Scheme H-1 (7) dated May 30,



1930. It is signed, as were all plans after this time, by the associated architects Reinhard and Hofmeister; Corbett, Harrison and MacMurray; Raymond Hood, Godley and Fouilhoux. It featured two large office buildings numbered 1 and 9 located on the central block extending west from the Plaza to 6th Avenue. To the north and south were buildings 8 and 10. They were to be combination office and theatre units and two small theatres making a total of eight units, four office buildings and four theatres.

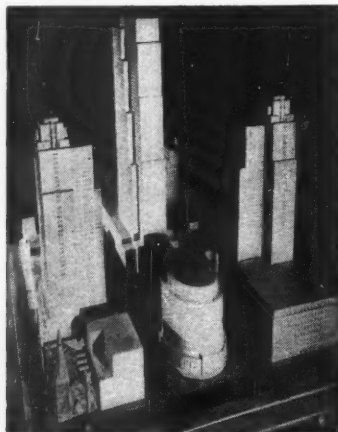
The eastern end of the H-1 scheme is of interest because it introduced two features that were to be considerably developed in later plot plans though they eventually disappear without affecting the architectural form as it now appears. Besides the two rectangular units planned previously for the east side of the central block, the sketch showed a pyramidal and elliptical alternate.

Though the presence of many studies for a pyramidal building indicated that this form was considered by the architects, it was the elliptical building that received the most serious development. Scheme H-1 marked the beginnings of 'Rockefeller's

Oil Can' as this building was dubbed by the critics when the first exhibition of the project was shown to the public (8).

The elliptical structure was developed for the Chase National Bank. The shape was chosen for reasons of circulation. After negotiations with the bank failed, the architects returned to their original plan of two low rectangular units. This incident in the evolution of the plan points up the responsiveness of the designers to tenant demands.

Of interest, too, were the Bridge Buildings connecting 6A and 6B, 5A and 5B. These structures were developed to increase rentable area over the site. They appeared in several modified versions in subsequent



8
model of
H-1

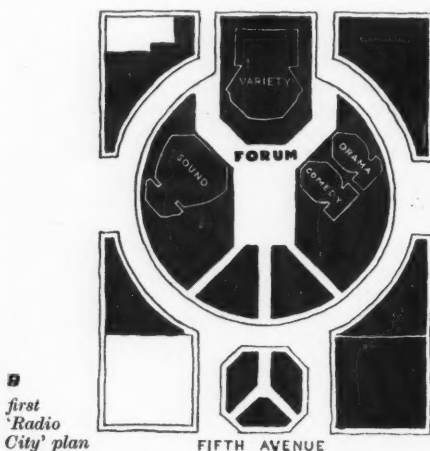
schemes but eventually disappeared because the relatively high cost of construction did not warrant their use.

H-1 was a modification of G-8. It established the shapes of the seventy-story RCA Building, the combination office building and theatre now known as the RKO Building and the Music Hall. Subsequent H schemes included planning for the newly acquired plot just west of the RCA Building fronting on 6th Avenue which made possible the sixteen-story RCA Building West.

Gradually the architectural form of Rockefeller Centre was materializing. Conditioned by time and circumstance, the first plans had changed. Some of the old forms remained, others were replaced by new ones. Always the design kept shifting and moving, sensitive to the influences about it. A large part of the plan had solidified into a definite shape, the rest would have to wait for subsequent events.

And wait it did until 1932, but before that time an interesting episode in the history of the planning took place. It was at a meeting of the architects and management held July 15, 1930, that both Mr. Hood and Mr. Corbett suggested that since the focal point of the RCA scheme was Building 1, this structure ought to have something more than a straight office building lobby. They envisaged a grand lobby and promenade which would tie into the theatrical groups and broadcasting studios. The treatment of this concept was to be, in the words of the architects, 'impressive and comprehensive.' It is in this connection that the term 'Radio City' was first used.

By the end of the month several studies were ready for inspection. A typical example of these efforts is to be seen in 9. The schemes were neither stamped nor

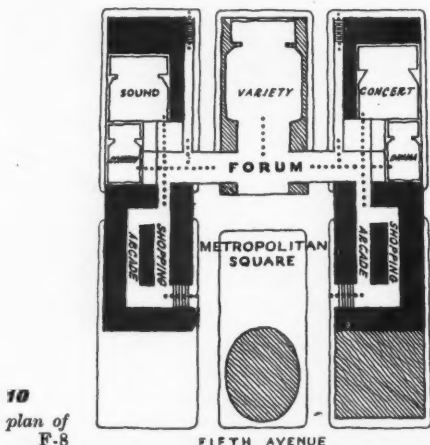


9
first
Radio
City plan

signed and were not intended as serious solutions. They were meant, rather, as imaginative exercises aimed at opening up the possibilities of such planning.

That the Radio City concept was no idle whim is attested to by the plans made during the months that followed. The management was in hearty agreement that such an idea would be highly novel and attractive if the scheme could pass the rigid economic standards set by the 'cost and return' method of planning.

In order to do this, the management decided to return to the normal three block arrangement but to feature a large and luxuriously appointed Forum in Building 1 which would be connected with all the other buildings. An early version of what was intended is seen in Scheme F-8, dated August 12, 1930 (10). The Forum Level plan was to be elevated one story above ground, and so arranged in terms of the several theatres that it would serve as an entrance to all. Running off the Forum to the west was an elaborate shopping arcade



10
plan of
F-8

located in office buildings flanking the Metropolitan Square Plaza. To the east, a smaller arcade connected the Forum with 6th Avenue.

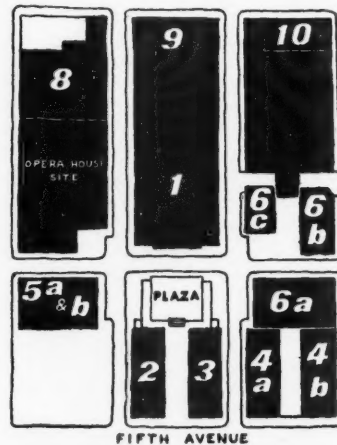
The street level featured a large plaza,

more spacious than any seen before, which gave entrance to the five theatres surrounding it on the west. On the east, north and south were located the principal office buildings which were also served by the Plaza. Dominating the tower system was a great Radio Tower, centrally situated, flanked by arms carried eastward on the north and south blocks.

F-8 was one of the most complex developments of the Radio City concept. In succeeding schemes, the Forum loses much of its grandeur and importance. Due to the excessive cost the whole idea was to disappear eventually with the exception of the Forum lobby which today is lost in the network of reception rooms and studios of the National Broadcasting Company.

It was not until 1932 that the project underwent further development. Mr. Hugh S. Robertson conceived the idea of bringing foreign interests to the Centre. First contacts were established with British and French syndicates. Then followed overtures to Italy, Germany, Holland, Spain, Sweden, and others. By the fall of 1932, the idea had broadened to International dimensions with invitations to the Latin American Republics, to China and Japan.

The architects began planning for this new development. The International Group was located on the east side of the property. The two low rectangular units facing 5th Avenue in the central block, which were reintroduced in 1931 after negotiations with the Chase Bank failed, served the British and French requirements. The north-east plot had to be redesigned. The proposed department store was replaced by a structure to take the Italian and German in-



11
plan of
D

terests. The area directly to the west received similar consideration to suit the needs of the various other countries.

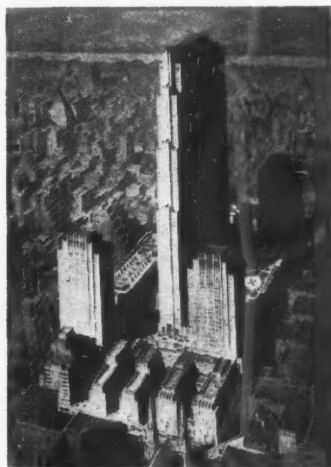
By October, 1932, the corner at 5th Avenue and 51st Street had been satisfactorily designed and the management asked for further studies of the plot to the west.

Scheme D (11) illustrates how the architects sought to fulfil the management's injunction. Buildings 2 and 8 having been leased to the French and British, went in the final stages of planning. A sunken plaza was related to the promenade between La Maison Francaise (Building 2) and the British Empire Building (Building 8) as was

the concourse level below the grounds. Building 4, which had been previously thought of as a square, block-like structure with deep floor space excellently adapted to department store use, was split into two units called 4A and 4B, similar in ground plan to Buildings 2 and 3. These were reserved for the Italian and German interests and were to be called the Palazzo d'Italia and Das Deutsches Haus. Connected with 4A and 4B at the rear was the Building 6A, while west of the private street 6B and 6C were planned.

Later in the same year a change was made. As much as the management had hoped to please the various tenants in the International Group with regard to separate structures, they found that they could not do so. A successful design based on the Scheme D proposal would have to do away with the tower office building. First because the tower tended to dwarf the adjoining structures; second because it shut out the light. Unfortunately, the rental return from the tower building was necessary to the financial schedule. The result was a return to the earlier conception using a bridge building connected to 4A and 4B.

However, by 1933 (12) a drastic alteration was adopted. The Bridge Building



12
1933
scheme

gave way to a simple tower structure fronting on the private street. Identical towers with a north-south axis were designed for the east and west side of the south block. The result was a scheme which practically duplicated G-3.

But this solution was no more satisfactory than the last. The thirty-story tower did not permit sufficient return. Additional stories in the tower were needed. The difficulty was that given the shape of the plot this could not be done if the tower maintained its north-south axis. However, there was length to spare in the east-west axis. Sacrificing interest in a balanced plan to the need for adequate revenue return, the long axis of the International Group was shifted east-west and built to a height of thirty-eight stories. At the same time the height of 4A and 4B was brought down to agree with Buildings 2 and 3. When the International Group was completed and the last three units opened to the public in May, 1935, it appeared as may be seen in the rendering of that date (18).



13
1935
scheme

By 1935 the design of Rockefeller Centre had reached an advanced stage. Ten buildings had been completed. Four plots had yet to be planned. Three of these areas were on the south block. The fourth was located in the middle of the north block.

This was unfortunate as far as the architectural design was concerned. It meant that future development would have to adapt itself as best it could to the existing scheme. In the case of the parcels on the west and east side of the south block, it actually predetermined the design of the buildings.

It was two years before the next structure was erected. Ever since G-3, a tower building had been planned for the lot on the south-east side of the site. Limited to a comparatively small footage by the uncontrolled property at the corner, this area could best be utilized by an office building. Since a tower placed there would fit nicely with the other towers, it was never radically altered. In 1936 when the publishers of *Time* and *Life* magazines agreed to come into the enterprise, the design for the building went into its final stage.

The Time and Life Building, according to the management, is a highly satisfactory business structure. It exemplifies a design wherein the utmost in efficiency was achieved in terms of minimum cost as against maximum return. This building illustrated the tendency to avoid set-backs where possible. On both its Rockefeller Plaza and the 49th Street side it rose thirty-three stories from the street level without stepping back. The zoning ordinances were complied with by setting the building back on the sidewalk at 49th Street, thus doing away with expensive cantilever construction.

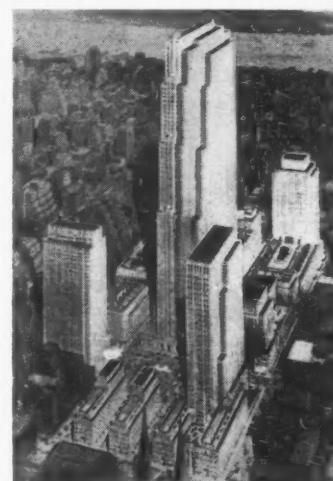
As the design for the Centre neared the end of its evolution, it became increasingly difficult to plan the remaining units so as to achieve an attractive composition for the entire project. Heretofore it had been possible to juggle the space so that it would have economy and appearance. But now the problem was not quite so simple.

Then as if to add to the burden, the demand for space increased. First, as time went on, it became necessary to develop more space to balance expenditures.

Second, the Associated Press, which had been interested in the Centre, wanted a large bulk of deep loft space. Space was in demand, but where to develop it?

Three plots remained. Two flanked the RCA Building on the north and south blocks, the third on the south-west corner of the site. Prior to this period it had been the hope of the architects to erect a tower office building on the corner lot and to keep the central sections of the north and south blocks comparatively low. This scheme was characteristic of virtually all the plans made from 1930 to 1937. Now it seemed that the wish of the designers would have to be sacrificed to the more practical considerations of cost and return planning. Since the size of the south-west corner lot would permit only limited development, the solution to the problem lay in constructing the necessary space in the middle of the north and south blocks regardless of its effect on the aesthetic character of the design.

Influenced by the requirements of the Associated Press, the architects designed a type of structure for the north block which differed from all others on the site. Where the desire to create well-lighted office space had resulted in tall shallow forms, now familiarly known as 'slab' structures, the demand for deep loft space produced a thick, stocky shape which broke the low mass in the middle of the block by rising to a height of sixteen stories (14).



14
1938
scheme

By 1938 all but two buildings on the Columbia site had been erected. In the latter part of that year the Eastern Air Lines became interested in the central plot on the south block. The building designed there follows the precedents established for the other office units. It used a sixteen-story slab tower concentrating the elevators and facilities in the centrally located core. The wide base introduced an innovation in the form of a two-story glass-encased shopping space which was held to be better suited for rental purposes. The office and shop space was developed to offset the cost of a six-story garage which joins the Eastern Air Lines Building and the Centre Theatre.

It was not until 1940 that the final building in the Rockefeller Centre complex

was completed. This structure, the United States Rubber Company Building, had an interesting evolution. In the earliest plan for the plot it was to be a tower building. In Scheme G-3, this tower was one of the four thirty-story structures surrounding the major skyscraper. It was scheduled for erection under Scheme H-1, but the inability to control the plots for this corner prevented its realization. Despite this situation, the management, in the hope that it would one day gain control of that plot, continued to plan a tall tower building for this place. The purpose of the architects was clear. By raising a tall building on the south-west corner, they balanced the scheme with respect to the towers on the other three corners. The result was a comparatively symmetrical plan.

However, as time passed it became increasingly difficult to maintain a symmetrical design under the pressure of financial considerations. Given the plot a taller building could have been erected—one which might balance the towers at the other corners of the site—but it would have required cantilevering over a corridor in the Centre Theatre. Instead of using such an expensive system of construction the rear part of the building was started at the end of the corridor. The structure then rose to a height of fifteen stories which was its point of diminishing returns.

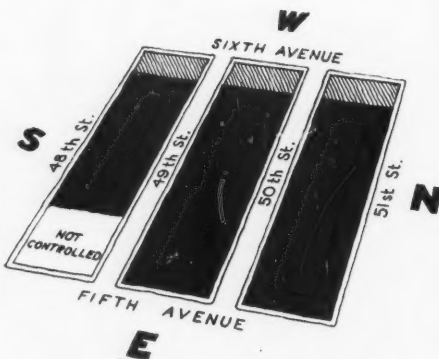
After fourteen years of planning and building, the Rockefeller Centre scheme (g) evolved. Fourteen buildings of various sizes and shapes tied together with a dollar sign. This was architecture based on the laws of economics not on the canons of proportion—a twentieth century architecture growing out of the soil of contemporary civilization developing its own aesthetic as it progressed.

Culturally Rockefeller Centre is as typical of our era as the Gothic cathedrals were of late medieval times or the Baths of Caracalla of the Roman era; it is certainly as much prized by the nation that built it.

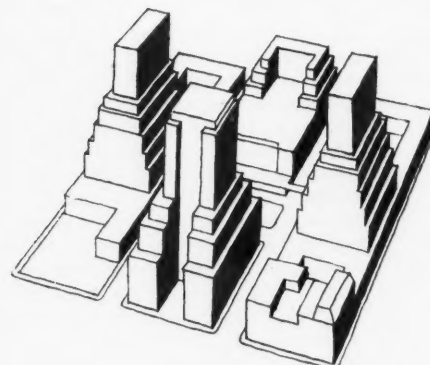
How can we account for the fact that the simple idea of a new Opera House ended as the largest and most complex commercial building enterprise in the world? Mr. Kahn and Mr. Morris were not interested in profits, and yet the essential commercial character of the design was formulated by them. Actually it would be more accurate to say 'through them' for they were but the instruments through which the forces of the economic system worked.

When Mr. Rockefeller took over the Columbia leasehold, he was not interested in profits; and yet it was his organization that created the Centre. Even when the managers and architects were confronted with the necessity of making the enterprise purely commercial and produced symmetrical Scheme G-3, we find they were not permitted to realize it. They were thwarted by a lack of tenants, the wrong kind of tenants, time, the interest system, zoning and other city ordinances; in short, they were influenced by a whole series of elements over which they had little control, elements which, through the part they play in American culture, are the most influential factor in shaping its architecture.

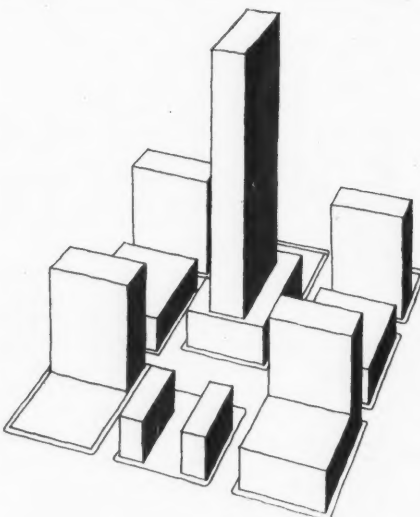
diagrammatic history of the Rockefeller Centre 1928-1938



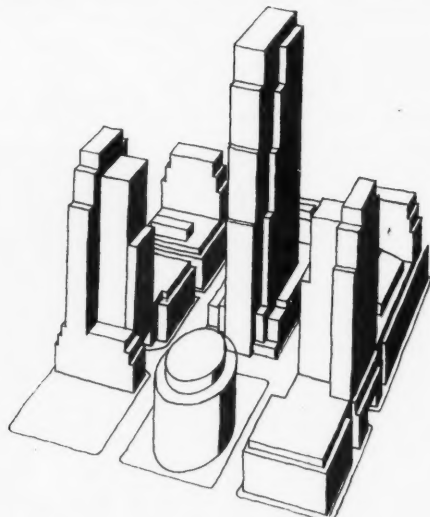
a Site leased by Columbia University, 1929.



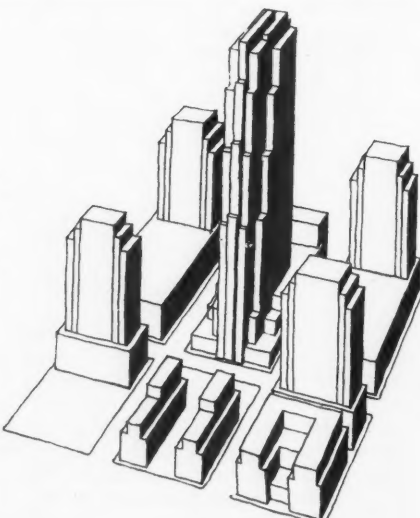
b View of the Tonnelle plan, 1928.



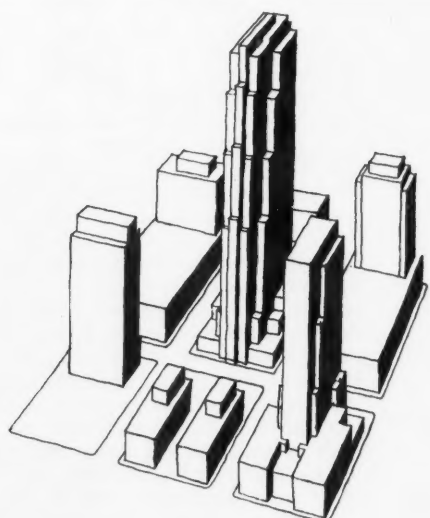
c View of scheme G-3 by J. R. Todd, January 1930.



d View of scheme H-1 dated May 1930.



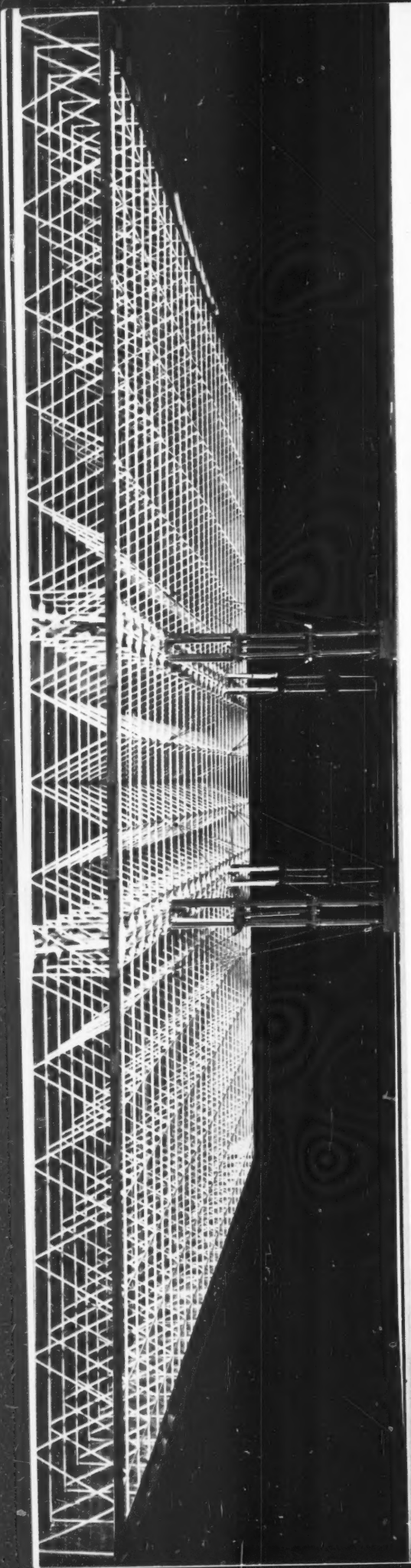
e View of design, stage reached 1933.



f View of design, stage reached 1935.



g today



access on all sides (Architect: Konrad Wachsmann; Engineer: Paul Weidinger). Below, project for a Museum by Mies van der Rohe, which examines a few of the possibilities for spatial experiment suggested in the kind of structure evolved by Wachsmann and Weidinger.

Recent advances in the science of building have liberated architecture from a preoccupation with load-bearing and climate control—it can become a “spatial art to a greatly intensified degree.” Top, a construction of cantilevered girders. The four centre supports allow unobstructed

technology: America's unrealised potential by Gerhard Kallmann

The most significant outcome of Dr. Weisman's investigation into the building of the Rockefeller Centre is the revelation of the part played in a project conceived on this scale by powerful, and to the lay public largely hidden, economic forces. Under such a system the architect, to all appearances, abdicates creative control to a non-human agency. This is, of course, entirely illusory, but the fact that it is possible to believe it, as many people do, is a danger to which the REVIEW returns on p. 414. The Rockefeller Centre in fact reflects in a remarkable way the operations of a free market where prices find their own level (as did the heights of the various Rockefeller buildings), and where an empirical code of behaviour operates to which most participators adhere until an important change in the economic situation recommends revision or compromise (just as the architectural concepts of the Rockefeller Centre were modified or transformed as the economic and utilitarian demands of the various clients made themselves felt). The following article, by Gerhard Kallmann, follows up some of the trends in American technology and big-scale organization that were apparent in embryo in the building of the Rockefeller Centre. He examines the contribution these trends could make towards solving present-day architectural and planning problems. Further, he proposes, by reference to certain recent examples, the interesting suggestion that 'the Americans, whilst sleep-walking in the apparently non-ideological areas of technology, are penetrating to new frontiers of architecture, beyond which the contemporary artist at the end of the renaissance tradition is still fearful to go.'

'... our lack of tradition in art leaves us incomparably freer than European artists generally to break with the Aristotelean past ... it is not so much what we have done as what we have not done and what we are now in a position to do ...' (Ch. Biedermann in 'Art as the Evolution of Visual Knowledge,' 1948. Redwing, Minn.).

A difficulty in the way of understanding the nature of the American contribution to contemporary architecture is the diversity of its manifestation and the apparent lack of a common motivating factor.

The observer of the architectural scene may well receive the impression of an unbridled eclecticism appropriate perhaps to a continent with an ethnological background which embraces that of the total human family. He would frown at the reiteration of the privileged dwelling problem and of luxurious merchandising in the professional magazines and declare the perennial discussion of 'international' or 'regional' style—a smoke-screen for social irresponsibility.

A more serious examination, however, reveals trends significant to the development of architecture, which might escape notice as they do not occur so much in the narrow field of professional activity as in the wider field of everyday environment and in the general area of mechanization. With these and their impact on design I would like to deal here and perhaps establish the point that they are the outcome not only of the American attitude but of an even more general evolutionary phase concerning man in the industrial age.

intensified spatial existence; break-up of static architectural form

The American adventure has been largely an adventure in space, more explicitly the act of taking possession of space through motion. With a vast continent as a setting, of which only marginal areas are so far

domesticated, the crucial relationship between time and space as experienced through motion is enacted in American lives more deliberately and intensely than in any other. People are constantly moving over large areas oscillating between east and west; not only the young in search of work or study but also old people 'following the sun,' the rich wintering in Florida as much as the migratory worker and trailer populations.

The American uninhibited and frankly experimental attitude towards life technique has been particularly receptive to the advantage in space accrued through mechanization. The evolutionary importance of mobility was stressed by R. Buckminster Fuller¹ at the mid-century convocation at Ann Arbor, and revealing figures were given:

'... born with legs and not with roots man is in principle mobile. Prior to World War I he rode in vehicles only about 300 miles per year. He walked an average of 1,300 miles. In 1919 it was evident that the species man had changed, he had become an invention which moved primarily by mechanical means. ... At the beginning of World War II U.S. man was moving mechanically 6,000 miles per annum in addition to 1,300 walking miles. As of 1940 the average U.S. housewife was checking up an annual 10,000 mechanical miles, the average salesman 35,000 miles, the air hostess 100,000 miles.'

The American city is a dramatic demonstration of motion existence articulating space. At the centre of congress, motion compressed surges upwards to a height of 50 floors or more in towers that pinpoint the skies. Radiating horizontally outwards from the

¹ Engineer, inventor of the Dymaxion house, the 3-wheel Dymaxion automobile, the Phelps-Dodge light-weight mass-production bathroom, the Dymaxion world map, now working on advanced structural systems at the Massachusetts Institute of Technology.

centres it articulates highway ribbons charged with a continuity of energy missiles; omnidirectionally it radiates outwards by aeroplanes arriving and departing from the fountain-heads of cities revealing the virtual volume of the extended occupancy of space. A new type of everyday environment is being shaped to the demands of the all motion existence. Drive-in banks, drive-in restaurants, drive-in cinemas, drive-in shops (at Macy's department store in a New York suburb the car is driven on to the roof and access takes place downwards from there), multi-laned landscaped drives, and for vertical motion batteries of elevators with local and express cars are new environment elements.

Under the impact of a more active spatial existence the architecture of definable building entities, as we have known it, is gradually dissolving. Rigid boundaries between buildings are beginning to break down and are giving way to a fluid type of enclosure which, like a continuous umbrella, stretches over every phase of life. In face of this the formal images of a modern architectural style, whether metropolitan or regional, have come to mean very little. Static conceptions, however visually seductive, are making way for an environment of dissolving contours with new demands for architectural projection.

growing powers of physical articulation

To enter the American continent is to enter into the realities of a new phase of mechanization. Consciousness of the energetic universe established in the minds of men during the past two decades has been accompanied by a rapid growth of the powers of articulation in physical space. During the last few months alone the range of travel into outer space has been doubled and radar fingertips have been stretched out to touch the moon. Mutations of landscape on a large scale can be effected through the use of atomic energy.² Man is beginning to master his physical environment on a scale where he begins to play a significant role in the universe by erecting his own structures on a scale which by far exceeds his physical stature of 5 ft. 6 in.

With World War II the stage was reached where it had become possible to realize practically any physical arrangements imaginable by intellect (a platform in outer planetary space is a military project at this moment). Limitations of strength in known materials were overcome when selectively composed ones were produced to specified physical strength. Tensile ability had been increased to the astonishing degree where it could be confidently stated that 'in the concept tension man is in principle given access to unlimited performance.'³ Though there exists a time-lag between theoretical advance and application, in practice the building industry shows a noted acceleration of performance. Extensive structures have been erected in a matter of months and advanced technicians are interesting themselves in articulation of basic shelter in terms of hours or minutes.

recognized limits of the American 'know how'

The development towards the all-powerful tool has

² Such has, it has been reported, taken place in Russia.

³ B. Fuller, seventh Ann Arbor Conference of Architects and Michigan architectural students.

had amongst its repercussion a growing awareness of the critical nature of the present phase of technology. Atomic scientists shocked by the meaningless performance of their tool as well as thinkers in other areas of technics find themselves concerned once more with the definition of objectives rather than with ever more efficient performance of questionable programmes.

Attention has recently been drawn to the philosophical implications of the calculator and computation machines now installed at the Massachusetts and California Institutes of Technology and particularly the role of creative man served by automatons which could solve all technical problems; it became quite obvious that the computer's usefulness was limited to the conceptional strength behind the questions that were put to it. This may serve as an analogy for the much wider problem of a technological robotism without thought beyond performance and unrelated to human benefit. Evidence of a growing concern in this respect and of a redressing of the balance in favour of conception rather than implementation can be found in the fact that technical institutions such as, for instance, the Massachusetts and Illinois Institutes of Technology have recently considerably strengthened their design departments, and technical curricula in general have expanded their humanistic studies.

This constitutes an important development in American thinking which has perhaps overmuch prided itself and trusted in the 'know-how' rather than questioning the 'to what end.'

In the field of design which lies mainly within the conceptual range, these problems of course have been extensively discussed. The warning words of Lewis Mumford and Joseph Hudnut, stressing the life values, had reached mainly the converted. Walter Gropius had been able in terms commensurate with the American enthusiasm for technics to justify the pride in industrialism as a significant collective act for the common good. The influx of a number of American-minded, i.e. socio-technologically interested European teachers (van der Rohe, Moholy Nagy, Chermayeff, Albers, Breuer, etc.) which replaced the French Beaux Arts influence with its own dynamic, established a climate in which new steps could be taken forward towards an even more close fusion between the present day social requirements, the technological potential and the design of environment. Those now concerned with making design a significant activity rather than a peripheral adornment are exploring new and experimental ways. Recent developments in Europe, the new expressiveness of the subjective (individual, social group or region) are suspect, as is the general European scepticism of technology, the heritage of the long humanist tradition and the 'man-versus-machine' complex. Equally little to offer has America's own 'Heimastil' for attractive private residences, which leaves the core of the contemporary problem untouched.

programmatic thinking

The new attempts at programme writing come from many sources and are put in varied terms.

Richard Buckminster Fuller, who is rapidly gaining influence with the younger generation through his

experiments and lectures (given at the Institute of Design and at the Massachusetts Institute of Technology, the North Carolina State and other colleges), speaks of Design as 'Anti-Entropic.' It is interesting to compare that K. Infeld, the Assistant of A. Einstein, once defined civilization as anti the entropic tendency of nature and that Frederick Kiesler states as the aim of design the 'polarization of forces for specific purposes of control.' Fuller outlines design objectives and strategy as follows:

'As first of the first things the designer must provide new and advanced standards of living for all peoples of the world.

He must progressively house and rehouse two billion and one quarter people in establishments of advanced physical control.

The mechanically serviced sheltering must be a continuity of roofs, stationary and mobile, sufficient to allow for man's increasing convergent-divergent interactions of transiency or residence, of work, play or development, interconnecting every central of the world and penetrating to autonomous dwelling facility of most advanced standards even in the remotest geography.

The logistics of this greatest phase of industrialization must impound cosmic energy wealth within the inventory of 92 chemicals, to magnitude not only undreamed of, but far more importantly, adequate to the advancing needs of all men.'

American architectural magazines are recently coming out strongly on the side of an objective approach to design; Henry Wright, when editor of the *Forum*, led the way and is now one of the strongest voices for scientific control of environment. An important phase in this respect was this magazine's special issue 'Measure' published in November, 1949. James Fitch, another exponent of this group (who collaborated on 'Measure' and now editor of and author of a remarkable series on design in the influential *House Beautiful*) states in his book 'American Building':

'Man had to invent an apparatus to adjust body-environment relationship. Building and clothing acts as a selective filter taking the load of the natural environment off the body and thus free his energies for social productivity.'

new vitality and increasing range of design

The strong and repeated emphasis on scientific and objective factors of design is typical of most of the more recent pronouncements on the subject. They denote a turn-away from eclecticism and any kind of formalism. In that way this may mean a return to functional design in the literal sense. Design is reassessed as a tool for the control of environment factors, a tool which is applied on various scales (equipment item, building unit, multiple elements, city and region) and with varying degrees of intensity.

Architectural design defined as an instrument of environment control can be accepted as a favourite American definition. Under extremes of climate, of animal attack (insect screens have to be provided in most states), of severe sound and other privacy invasion in an overtly gregarious society, the need for establishing enclosure with condition emancipated from the vagaries of nature is brought out more sharply than in mellower climates and in landscapes domesticated through generations of tenure. Typical

of the approach is a strong, sometimes aggressive imposition of control and even indifference to exterior natural conditions. In the new department stores, for instance, such as Bullocks, Pasadena, the natural elements of daylight and view are excluded in favour of a completely controlled luminous condition emancipated from exterior factors. Many are following the example.

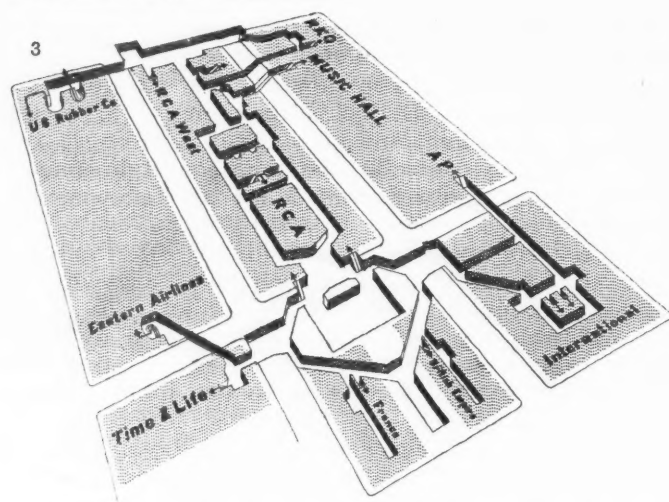
Spatial control is equally bold and often extends outwards from the climate-controlled envelope to areas of diminishing control, as for instance in the case of walled gardens, as extension of a dwelling. Landscape technique too is used not so much to simulate a natural setting as to provide functional control.

The assertive design act, which can be observed in all areas of environment control, may derive perhaps from the as yet uneasy occupancy of a vast space.

It is an approach, however, which gives American design the necessary decisiveness which is needed in the present phase when space has to be occupied on new terms, the terms of twentieth century mechanization. The necessity for it equally exists in the old countries where, under new social and technical concepts, the once legitimately inhabited space is reverting to chaotic condition and has to be conquered anew.

The concept of a continuous roof as enclosure of man's dynamic activities has not remained a utopian dream but has in fact already been partially realized. During World War II essential production was put under cover in large scale enclosures providing adequate comfort levels for a twenty-four-hour-a-day work process. At all times adequate standards of comfort independent of the daylight or seasonal cycle exist already in American cities. Cinemas, shops, cars, trains have to be refrigeration plant in the summer and heated envelope in winter. From the air-conditioned apartment, in the heated or cooled car (street-cars in Chicago are distant heated) to a centre like the Radio City Centre in New York with its offices, shops, theatres, restaurants, or further afield in sealed trains through desert heat and mountain cold, emancipated temperature condition is continuously maintained. At the new aerodromes passengers are funnelled under cover of stretched-out canopies into the plane and never leave enclosure whether at heights of 35,000 feet in a pressurized cabin or on the ground. Enclosure is left deliberately only in order to experience the regenerative forces of nature.

Thus the architecture of continuous enclosure is slowly taking form. As an intermediate step bridges are slung from one block of controlled environment to the next, as in the new project for the Chicago Civic Centre. A densely developed and controlled block like that of the Chicago 'Loop,' a business district of tall blocks separated by narrow canyons of icy or sweltering temperature, suggests as a next phase of development a continuous roof to extend over the whole area which would prevent energy loss through many exterior walls. In general there is a tendency now to build envelopes on the large scale, and the extensive enclosures are carried out with a precision of engineering such as up till now had only been achieved in the construction of ocean liners. Of this kind, if varying in



Partial realization of the concept of a continuous roof. 3, the Rockefeller Centre below ground, with pedestrian streets giving direct access to offices, shops, restaurants and entertainment centres.

design standards, are the Merchandise Mart, Chicago; the Pentagon, Washington; Willow Run (now Kaiser Frazer factory); the Rockefeller Centre, New York; the UN Secretariat, New York.

It may be unwise to conclude that a new direction in design is being projected from a new thought basis. So much of what now emerges in the young American design effort has its germs perhaps more truly in the philosophy of the modern movement of the twenties than the design approach which has been developed in Europe recently.

Yet it may well be that important if tentative steps forward are now being taken in America which happen to occur in the centrefield and not only on the periphery of the contemporary design evolution.

Problems specific to the society which is committed to mechanization and social progress and their impact on design are being dealt with by means of intellectual investigation and experiment. Design projections are once again programmatic rather than skilled practitioners' jobs. There is amongst serious designers a noted turn-away from embellishment of established solutions to the tentative new exploration. This new exploration is usually in the area of structure and equipment, where, with the latter in the ascendancy once more, all frontiers are open to those who are daring. New vision of life technique, of mechanics of structure and of equipment when honestly explored has led designers headlong into new adventures in aesthetics, expression, planning. There is more than superficial excitement, there is freshness and departure potential in Ch. Eames' test-case House for 'Californian Arts and Architecture,' in Philip Johnson's Glass and Courtyard Houses, in Pevsner's Bird Cage House, in Carl Koch's Collapsible House, in Buckminster Fuller's Sky-barrier shelters; they are ventures into the social, technical and aesthetic unknown.

design objectivity

'... Greatness is not to express oneself but to do what history demands that it should be done at a given moment...' (from a conversation with Mies van der Rohe, 1950).

It is perhaps the growing scale of contemporary environment forming which has led to a more objective design approach, to a growth of responsibility commensurate with considerable physical articulation. It is significant to see this in the personality of the designer himself as he proceeds to socially and physically important tasks. Eliel Saarinen, perhaps one of the most impressive figures in the American design field, in his new and extensive scheme for the General Motors Research Centre has developed a degree of design objectivity which must surprise anyone familiar with his earlier work. A similar development must of necessity take place in any designer who, such as for instance Carl Koch, comes into contact with the problem of standardization for mass production.

The demands of a mass society and the stratagem of standardization as a condition of mass production cannot but lead in the direction of a typical and anonymous architecture. Whether it be the dispersed mass produced unit or the multiple organization of large horizontal or vertical enclosure it is built of typical elements, in repeat rhythms. Design expression has retreated to important and unique articulations in focal areas. Here a juxtaposition of open and enclosed space of repetitive background and specific architectural object, of platform, sculpture, floor patterns, may serve to dramatize the community occasion rather than the private moment. Even this shrinking range of design expressiveness is becoming dubious and may soon be regarded as an atavistic relic.

Although very handsome solutions for individualistic privileged dwellings have claimed perhaps more than their share of design effort and publicity, they are now of interest only as design experiment for more important problems.

'I believe that anybody who at this moment provides the simple thing called 'shelter' and who makes this a monument to himself is actually betraying the profession, because he is creating individual monuments at the expense of urban society as a whole.' Serge Chermayeff, Lecture at Harvard, 1949.

However, at this stage there are still attempts to incorporate individual expressiveness in large and frankly multiple elements. All too often the established order—which after all is the humanizing act of design—is whittled down through complexity, ornamentation, over-texturing, in the name of humanization.

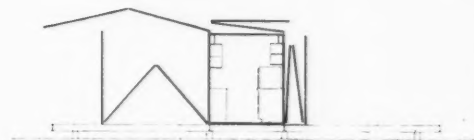
unique object or typical unit

Two instances of recent design belonging to this category are Alvar Aalto's students' dormitories for the Massachusetts Institute of Technology, and a table for serial production designed by Noguchi. Both are attempting to create unique objects where their programme would suggest the conception of typical units. Aalto's building, one of a series of screens lining the Charles River, contains a large number of cells for an itinerant student population. Although a more repetitional type of building could hardly be imagined, tremendous ingenuity and effort have gone into expressiveness of design, resulting in individually varied units necessitating variance of fitted furniture of the rooms and important modulation of façade which formally by far transcends the significance of

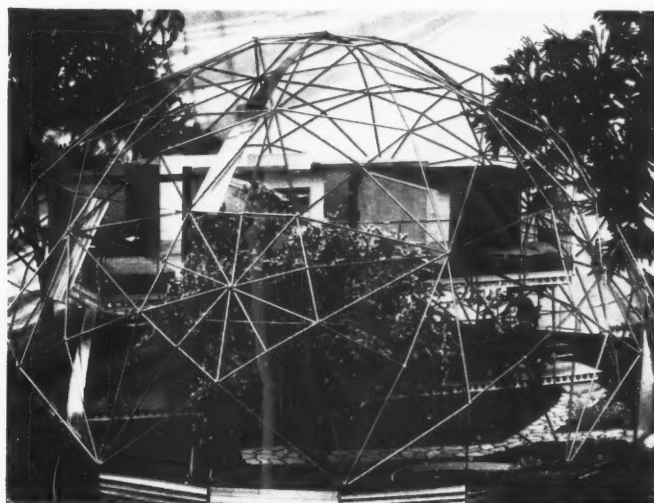


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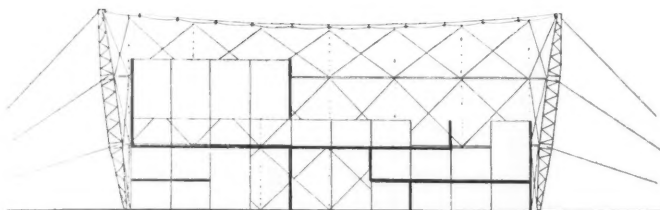
Three recent American experiments in structure. 4, Charles Eames' own house, designed as part of the Case Study programme of the magazine California Arts and Architecture. The structure of the house and adjoining studio is a light steel frame made up of standard sections chosen from a manufacturer's catalogue. Infillings are of glass, wire glass, asbestos, plycwood and plaster in various colours. 5, prefabricated house designed by Karl Koch in association with Huson Jackson and J. H. Callender. The structure of the house is supported on 8 in. — 6.3 lb. ft. beams, welded at all factory joints, bolted at site assembled joints and resting on light, 8 in. by 8 in., precast concrete piers. Roof panels are supported on 8 in. expanded steel joists. Wall panels are $\frac{1}{4}$ in. exterior fir plycwood and corrugated plastic-impregnated kraft paper, pressure-bonded to a $1\frac{1}{2}$ in. thick core. Floor panels are faced with $\frac{3}{4}$ in. plycwood on both sides. Exterior joints are sealed with a flexible neoprene gasket cemented to the panel edges at the factory. Exterior butt joints are sealed with a neoprene tube which is compressed when the panels are bolted together. 32 hours of semi-skilled labour are required to erect the house. 6, Buckminster Fuller's 'Autonomous Geodesic Structure,' a hemispherical enclosure with a transparent covering of plastic material. On the interior platform of 986 sq. ft. are provided all appurtenances to modern living; in addition, there are 986 sq. ft. of protected garden.



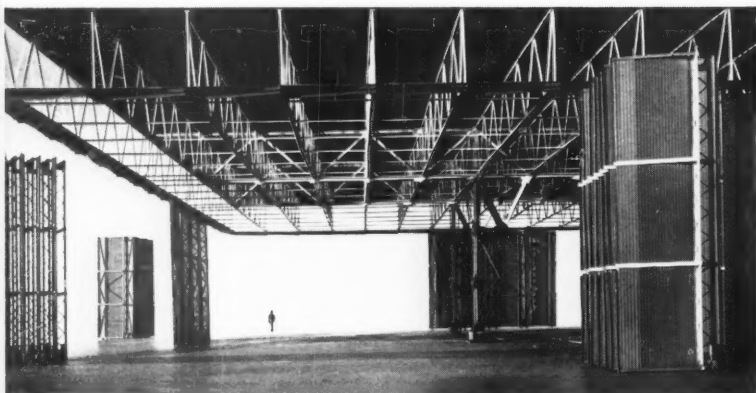
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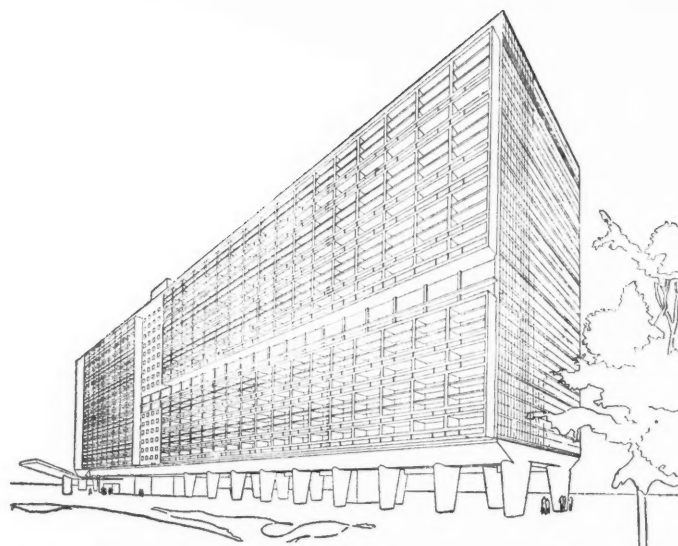
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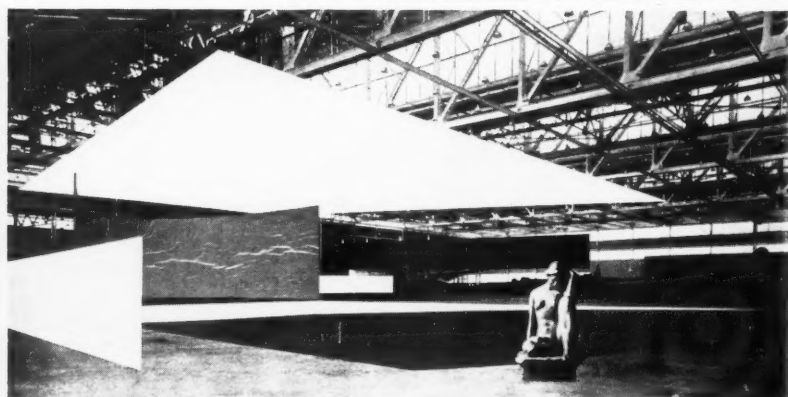
7. Le Corbusier's Pavillon des Temps Nouveaux at the 1937 Paris exhibition; the tented structure permitted the free disposition of screens, ramps and objects.



9. the kind of structure that would make possible the continuous roof referred to in 3, p. 410 (Architect: Konrad Wachsmann; Engineer: Paul Weidlinger).

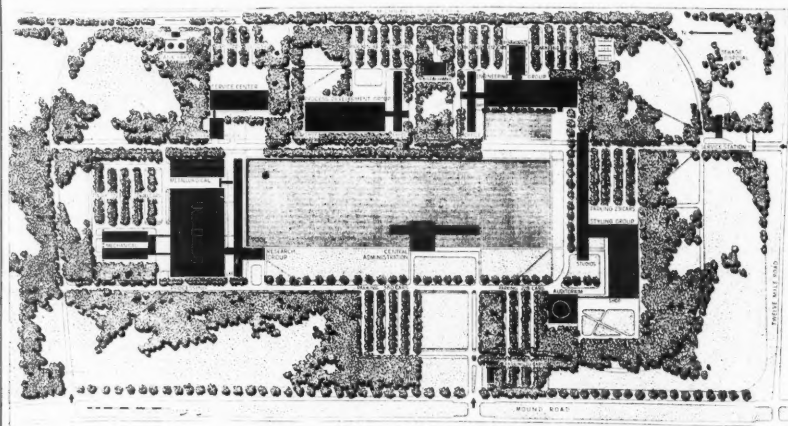
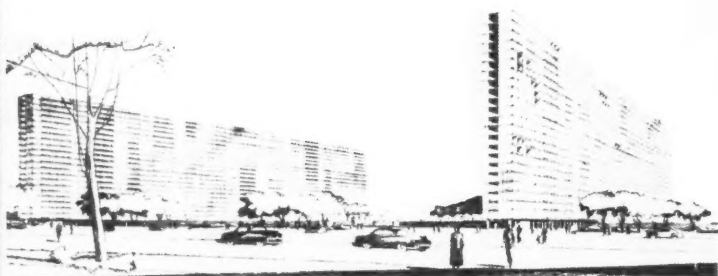


8. Le Corbusier's Unité d'habitation, now under construction near Marseilles. Mr. Kallmann considers this a transitional example in the move towards buildings which resemble endlessly-linked chains rather than individual entities.



10. elements of spatial control set freely inside a continuous structure. Project for a concert hall, 1942, by Mies van der Rohe.

11. housing scheme at Lake Meadows, Chicago, designed for the New York Life Insurance Company by Skidmore, Owings and Merrill, in which the slab-like blocks are drawn out 'to an unprecedented degree.'



12. plan for General Motors Technical Centre by Saarinen, Saarinen and Associates; landscape architect, Thomas D. Church. The lake originally had an 'austere' shape, which was discarded for the present rectangular one.

the building programme. Equally Noguchi's table, which consists of a sculpted support reminiscent of a gnarled tree and a glass top, achieves the intensity of expression of an 'objet trouvé' which through its unique form exerts a visual prominence uncalled for in the tool 'table' particularly when reproduced in serial form. By contrast the common kitchen table, for instance, however often repeated will never irritate as it is designed as the barest statement of the tool table.

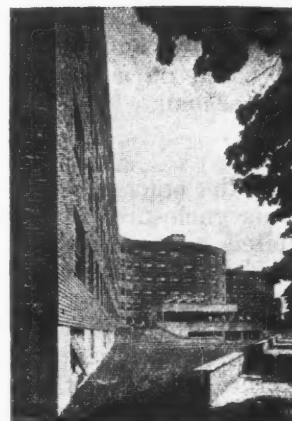
Slowly through a process of trial and error certain elementary principles are being established in the design for a mass produced environment in which we are now largely involved. In the equipment of interiors the tail-end of a phase has been reached inasmuch as the prized possessions of the Victorian bourgeoisie have been replaced by a greatly augmented number of tools (television apparatus, radio, special lamps and furniture items) each designed as precious objects and each unduly expressive. The visual tyranny of these tools for living comfort has cluttered our existence with meaningless chatter and has severely handicapped the creation of a space background to the articulation of the individual. There are signs now that the design of the living space equipment is being more comprehensively viewed, and is assuming the anonymity of repeat elements.

architecture of co-existing systems of control

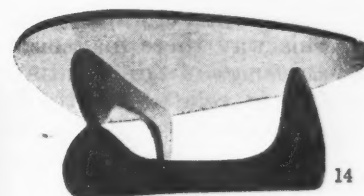
Under the influence of the severe demands of advanced environment control, contemporary building design is developing specific implements for its separate functions. Rather than using an all purpose and thus always compromised instrument, it moves towards a differentiation of autonomous systems each taking care of a particular aspect; a system which deals with the canalizing and focusing of gravitational energy employing structure as its tool, a system establishing comfort levels through the use of filter membranes and mechanical core, and thirdly a space articulating system canalizing the motion and rest relationship of man in space, establishing repose and stimulus situation through the position of specific objects, and standard foils in significant constellation.

Through advanced technology enclosure and comfort levels are being established by means of an ever thinning apparatus.

Structure and enclosure methods have advanced to the point where habitable space can occur within an almost transparent envelope. The tool has become invisible; it is the sign of mastery that the task should appear effortless. Structure through increasing tensile ability has been reduced to visual insignificance and gradually the invisible heat coil in the wall finish is replacing the visible source of temperature control, and mechanical transmission of sound through microphone pickups is replacing acoustically shaped architecture elements. Significantly enough Mies van der Rohe speaks of his architecture as of 'beinahe nichts' (nearly nothing) and S. Chermayeff of 'invisible architecture.' What has been reduced to nothingness is that component which deals with the establishment of primary comfort zones. There still remains the vital one which deals with



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13, Alvar Aalto's senior dormitory for Massachusetts Institute of Technology. 14, table designed for mass-production by Isamu Noguchi. In the opinion of the author, 'Both are attempting to create unique objects where their programme would suggest the conception of typical units.'

man's visual relationship to the world around him. (An interesting, if trifling example of the purely utilitarian need for visual articulation is demonstrated in the case of large transparent glass elements where the fact of enclosure had to be made visible so that people would not injure themselves.) Once the basic requirements of body comfort have been taken care of by an efficient, highly specialized and almost invisible implement, the importance and autonomy of spatial definition stand revealed as an important challenge to the designer.

The visual aspect of architecture can occur now as a separate element abstracted from the functions of weight bearing and of climate control. It becomes pure spatial art to a greatly intensified degree.

An early demonstration of this kind of architecture of a differentiated nature was Le Corbusier's pavilion at the 1937 exhibition in Paris. There, it will be remembered, a series of pylons on the periphery of the enclosure dealt with gravitational forces, a canvas shrouded cubic volume, held by wires within, acted as climatic filter and a separate lightweight system of screens, exhibition panels, ramps and objects was used for spatial articulation.

Recent examples such as van der Rohe's concert hall and museum projects are a clear statement of the theme.

In the large enclosures contemplated the enclosing membrane on the periphery will rarely occur as an appreciable form element in the partial view which is obtained from the inside. Just as in the case of enormous exhibition halls the enclosing membrane loses itself in the great distance, whereas the important visual articulation occurs on the scale of human being by means of levels, stairs, ramps, platforms, screens and objects. The structural component again either by being on the exterior in the case of large building elements or in geodesic construction or else if occurring within the space is reduced to that of a rhythmic notation. The spatial articulation itself because most intimately related to the human sensibility assumes a major role in the architectural design work.

Within the framework of such highly differentiated architecture, sculpture and painting can play a new role. They can find a legitimate place and fulfil

unique tasks for which they alone are fitted.

This way there may occur a new synthesis in the *co-existence* of differentiated autonomous systems which is related to the non-monological view of contemporary science and philosophy, and which is honest inasmuch as it is not based on a oneness which no longer exists in the mind of man.

towards new concepts of form

There can be little doubt that the emerging concepts of structure, of continuous enclosure, repetitional elements, and differentiated control systems are beginning to mould space and form in a decided manner. These trends do not seem to coincide with those encouraged and desired by the prevalent school of architectural theory which stresses the reappearance of organic form in architecture. In view of this certain, apparently minor, aspects of such current and important architectural works as Gropius' dormitories for Harvard, Mies van der Rohe's Illinois Institute of Technology Campus, and Eero Saarinen's General Motors Research Centre, acquire a special significance.

It appears as if Mies, who places human form sculptures outside his glass façades, and Gropius who is reported to have commissioned Arp and Miro to adorn his buildings, are attempting a balance by means of what is by now no more than a token occurrence of anthropomorphic or nature related-forms. Saarinen, also, in his first projects for General Motors considered an 'aaltoesque' shaped lake, before he gave it its present linear form. More relevant than the inclusion of organic form is here the fact that it has been abstracted out of the medium of architecture and has found its place in sculpture, painting and landscape.

Even more worthy of attention is the fact that though the three designers may still strive for centristic unity—as far as can be judged at this moment of only partial realization of the schemes—it is not this design intention which gives the three works their stature. Particularly in the case of the Illinois Institute and in the General Motors scheme the dynamic of repetitional units and their progressional impact cannot be contained in either the classic balance of van der Rohe's, or in the organic lakewise grouping of Saarinen's.

The question of whether with emerging new realities of the anonymous, of endlessly linked chains, of fugal and progressional rhythms, all centristic concepts, be they geometric or irregular, will give way to new concepts, is now becoming a very burning one. Le Corbusier's Marseilles Unité d'Habitation is truly a transitional work in that it still achieves unity encompassing rhythmic progression. Skidmore, Owings and Merrill's New York Life Insurance scheme, Lake Meadows, on the other hand is no longer concerned with the centristic idea, and has drawn out the length of its slabs to an unprecedented degree.

Perhaps the Americans, whilst sleep-walking in the apparently non-ideological areas of technology, are penetrating to the new frontiers of architecture, beyond which the contemporary artist at the end of the renaissance tradition is still fearful to go.

conclusion

We devote a large part of a special number to aspects of another country which are only remotely architectural. Why? Is it perversity that prompts us (editors and readers of specialist magazines), accustomed as we are to dealing in none but the glossiest architecture by the glossiest specialists, to illustrate the middling to worst by no specialists at all?

The answer is another question. How long are the specialists and editors to go on sitting in ivory towers while the secular world does its own architecture and town-planning, ignoring the glossy gentlemen because it doesn't like the stuff they sell? How long can we go on letting politicians, public servants, industrialists, local authorities, get away with their act of pretending that the squalor of the contemporary man-made environment is implicit in civilization, the accidental and at the same time inevitable result of a lot of people living together. Consider. Never before in ten thousand years of picturesque overcrowding has Western man, a gregarious character partial to crowd scenes, created the kind of squalor we are talking about here—the hygienic, but *visually* scrofulous waste-land which is the universal embodiment and symbol of Progress, twentieth century style.

But why in that case, it may be asked, choose to pin the disease on the U.S., when in fact it is widespread in every industrialized society? Because, according to the tradition which makes America the never-never land where all that has gone wrong with wicked old Europe has been, or is being, righted we expect to see these abuses cleaned up. Because America is an underpopulated sub-continent expressly taken over by Europeans so that they might create an environment and evolve a way of life, free from the disgraces of the old world, free from unjust monarchs, naughty priests, wicked exploiters, bestial physical conditions. Because, whatever they have not done, these same Europeans in America have most brilliantly used their opportunities to create unheard-of wealth out of the deserts and forests of their sub-continent, thereby—which is the point here—releasing themselves from the traditional bondage to 'necessity' which goes with the economy of scarcity. America is rich in goods and services, rich also in the world-is-my-football spirit which goes with an abundance of these good things; rich enough in all ways to create for herself the kind of world she wants if there is any kind of world she does want. Here is the one society that in the circumstances of the 1950's can say to itself: 'Thus and thus will I live, and such and such shall be my palaces and pleasure grounds and landscapes and cities.'

Is there in this sense an American scene, an American landscape, even an American dream of an American scene? There is a love of great enterprises, there is technological genius, there is a gift for organization; but is there the will to realize a new kind of world? Is there even the will to *visualize* a new kind of world? To the frustrated ones in dingy old Britain, peering out between the cracks in the rough-cast and the chinks in the wire curtain woven for their

felicity by the Electricity Commissioners, it sometimes seems that the U.S. has learned nothing from the visual fate of England—as though Americans had no other earthly ambition than to provide a bigger, a more general suburbia, to add more wire, to model lovingly still huger areas of industrial and even agricultural scabbery; in the persuasion that the earth's surface, the medium in which 'the race its destiny doth carve,' is there for no other purpose than to do dirt on. Except that the U.S., having a bigger slice of the surface than Britain, has also more room for dirt. It will take longer—well into the twenty-first century, perhaps—for our brothers-in-dirt to make over the whole of that superb inheritance into a combination of automobile graveyard, industrial no-man's-land and Usonian Idiot's Delight.

So run the dark dark thoughts of the thoughtful democrat when, peeping for the first time behind the optimistic clichés, he takes time out to have a look at the material environment democracy has made. There is nothing (except the environment) to say he is not being a dyspeptic old silly. In an attempt to find out the rights of the thing, the REVIEW has taken the country which is the hub of modern democracy, and has asked a series of silent questions, the answers to which are supposed to be provided by the articles in order. To sum up is to oversimplify, but if we may do both, we would recapitulate briefly thus, adding our own observations where we differ from the author.

QUESTION What are the outstanding visual characteristics of the American urban scene—what does man-made America look like?

ANSWER by Christopher Tunnard (p. 344). Briefly, standardized grid-iron towns with central 'pyramids' sometimes forming into cliff-like escarpments, marking higher land values; vast engineering undertakings like the TVA, Chicago River and Grand Central Station, New York, remarkable for big thinking as well as skill, and providing a much-needed stimulus to the rest of the world.

QUESTION What contribution has the U.S. made (still on the large scale) to the art of creating environment?

ANSWER Here the answer is more nebulous. Apart from the 'city beautiful' movement in the nineteenth century, with its Beaux Arts tradition entirely alien to the States and the Garden City movement, which only affected an infinitesimal area and produced results equally untypical of the country, there seems to have been no conscious attempt at all to make an art out of the act of creating environment.

QUESTION What have the American town and city added to the international vocabulary of townscape?

ANSWER A number of things, nearly all accidental or inherited, among them a new kind of unregulated and accidental cubism, due to the grid-iron plan imposing a visual discipline where the need is greatest—i.e., in areas of concentrated building, advertising, etc. Also a suburban pattern wherein forest trees and fancy villas have combined to reveal a new aspect in the relationship of unity to anarchy.

QUESTION What signs are there of an attempt to develop the art of townscape, so as to give conscious direction to the forming or re-forming of towns and cities?

ANSWER Apart from a multitude of plans, with little, if any,

official backing, and the activities of certain enlightened builders and housing authorities working on a relatively small scale and with limitations that are inevitable to their situation—none.

QUESTION Having descended to the scale of the street, what then can the U.S. tell the old world, that it does not already know?

ANSWER by Saul Steinberg would seem to suggest that it can tell us about—

- (a) giantism (p. 371)—which, although a disease, reveals a certain bigness of view (foreign to the British) which can make even squalor rather grand;
- (b) the existence of a curious transatlantic art (p. 372), neuter, non-fertilizing, barren of all creative potential, which arises from the crossing of European avantgarde aesthetics with American technological genius;
- (c) The One Idea (p. 373). Consistency almost approaching insanity that accepts the symbol of one aspect of contemporary life—rendered here by the nest of drawers—and raise monuments to it which, though vast in size, remain without scale and thus, for Steinberg's purpose, undifferentiated from the symbol that inspired them.

QUESTION What part does the modern architect play in the task of re-creating America?

ANSWER by Henry-Russell Hitchcock (p. 386). He has had no small success in persuading isolated groups to accept a contemporary manner of building which reflects what is best in American techniques and ways of life. All the same the main current of the nation's life passes him by. This, the REVIEW suggests, is because modern architects in the U.S.—in company with those of other countries, but to an even more marked extent—lack a common front. As a result, in an age when even simple issues are only grasped with difficulty the excessive splitter of hairs is by-passed as a difficult character.

QUESTION In view of its immense size, the complex services it provides, and its generally successful solution to a number of urban problems, is the Rockefeller Centre to be taken as a pattern of a kind of redevelopment—typically American—suitable to modern scale town planning?

ANSWER by Winston Weisman (p. 399). Purely from the town planner's point of view, super-block planning such as this obviously has, at least temporarily, a part to play in urban redevelopment in the U.S. The REVIEW believes that by accepting it as the sought-for solution, the need for thinking out the kind of cities we really want may well be lost to sight. And it clearly does not produce the cities which we or the U.S. really want. This raises another question, one only implied in Dr. Weisman's story.

QUESTION Is the operation of vast economic forces, which obviously played such a large part in creating the Rockefeller Centre, and which continue to play a large part in many other American buildings, as omnipotent a factor as Dr. Weisman's analysis suggests?

ANSWER No one can deny that financial and other economic factors play a preponderant part in American, as in other nations' architecture and urban redevelopment. What must be denied, however, is the suggestion that such factors irrevocably determine the choices we make and the way we act as human beings. The Rockefeller Centre and other buildings like it were not produced by forces beyond human control, mysterious and powerful as they may seem. The economic system which gave rise to it is merely one of the

things that individuals have invented and come to believe in, in the same way that individuals have invented and come to believe in other materialist creeds—Communism and the faiths that are pinned to technology, management and so on. But those who want a richer way of life than acceptance of materialism can give them must first of all realize the uselessness of abdicating responsibility in this way. Freedom in action is the precondition of a fuller life as it is the foundation of democratic philosophy. It is impossible to act freely if one cannot make independent decisions, and independent decisions are only worthwhile when they are taken by responsible people—by people, that is, who believe themselves to have free will. Once they have achieved this, the vistas are limitless. No longer is the individual a common denominator shackled to a system which produces what nobody wants—a squalid environment for instance—and which, by disguising itself as a law of nature, makes improvement seem impossible. The Rockefeller Centre was not created by economics; it was created by men who believed they were pawns of a certain economic system, and as a result were pawns.

QUESTION More than any other nation in the world the U.S. has shown the vast benefits that come from technology. Clearly, however, there is still a gap between the potentialities of the machine and the satisfaction of the desperate needs, not to mention the bottomless appetites, of human beings for material things. In the field of building the gap is particularly obvious. In its gigantic effort to close it is the U.S. showing the rest of the world something it would be well advised to study and emulate?

ANSWER by Gerhard Kallmann (p. 107). It is doing more than that. It is demonstrating to the world that the way of salvation is the way of technological development.

QUESTION But does not that answer subscribe to the materialist fallacy just described?

ANSWER The skill and energy of the U.S. in technology is incontrovertible, as are the benefits that a similar skill and energy in technological development could bring to the rest of the world. But it would be a disaster were the U.S. or anyone else to fall into the error of believing that the exploitation of techniques is an alternative and more fruitful creed to that of the creative exercise of the will, or (which comes to the same thing) that the will takes its orders from science. Admittedly, the world pictured to us by Mr. Kallmann is a well-organized one. It is a world freed from many of the sins that beset us now: poverty, squalor, poor housing and inefficiency. But if the technocracy that will achieve these desirable things involves faith in technics as anything more than a useful over-simplification (like functionalism) coined to give emphasis to a neglected aspect—then it is nothing but a new and more insidious disguise for the same materialist fallacy—just one more way of abdicating the delightful insecurity of free will. Nor was free will an invention of the Renaissance. For the last hundred and fifty years the Western world has been plagued with sleep-walkers following blindly the thin steel thread of technics, in the simple faith that the next bend in the dream would show the long-sought crack of daylight. Daylight never comes—to sleep-walkers. Full self-consciousness is our need. To wake up—out of both the Renaissance and the technological dream.

Technocracy, as we see it, is the pistol the U.S. holds to the stomach of western civilization. Though revealing something genuinely heroic in her political handling of the post-war chaos, she is prepared to act big only so long as her fellow-travellers are ready to talk her language. But her language is baby-talk—of dollars

and technics—and this is deadly dangerous to democracy. The significance of the American urban landscape is that it exhibits just the same symptoms—the symptoms of infantilism and arrested development. If Britain shows signs of becoming middle-aged the U.S. is showing signs of spurning adulthood altogether. In cultural terms that means that the rest of the world might have nothing to get from the States beyond what it has already borrowed in dollars and crooners. That the U.S. has nothing more than Marshall Aid to give starts some very strange thoughts, yet our survey of the American scene suggests that this may be a serious danger.

Our survey, as we have repeated continually, is a trial one, necessarily superficial, whose object is to raise rather than end discussion. As such it makes sweeping accusations which may well turn out to be grotesque. Nevertheless, it makes them—in the cause of landscape theory, and in the hope also of getting the citizens of the U.S. to look less at themselves and more at America. The U.S. has created a great Popular art—a modern urban folk-art compounded of jazz, the movies, Main Street, Highway Culture, teen-age fashions, Know-how, framed houses, a language of forceful colloquialisms and a universal literature of Whodunnits. The movies can be said to have established this American popular art throughout Christendom—amongst the victims of industrialism, the millions of Europeans torn from their peasant cultures. And if you take the not unnatural view that in the long run comics are a less lethal form of escape than gin, it represents a big advance.

But a huge chasm divides Popular from Fine art, 'the world' from 'the spirit.' The U.S. has shown few tendencies to preoccupy herself with the latter, not certainly from ignorance, still less from contempt, but rather from an excessive, an almost morbid, reverence for the higher issues which spring partly from the self-abasing tradition of seventeenth century puritanism, partly from the democratic conviction—also seventeenth century—that you must not impose your own values on other immortal souls (hence the absence of religious training in her schools); and partly from the paradox that despite the pilgrim fathers and all that, American sources of man-and-brain-power have been drawn largely from those ranks and orders of men in Europe who were, on the whole, loth to wrestle with the Spirit when there were Redskins and Billy-the-kids to wrestle with.

Americans, though they hate to be reminded, no longer gallop in ten-gallon hats after Redskins. And yet, so strong are these combined traditions, their heirs still hesitate to face up to the task of working out more sedentary values. It is this hesitation that is reflected in the state of the visible environment, which it has been the purpose of this number to investigate. Perhaps the traditions will remain too strong. We shall see. Enough for the moment to repeat that whatever the result, the way they face up to this task will become in course of time visible upon the surface of the land which is our greatest, most accurate, most detailed, most elaborate source of information about a nation and its philosophy of life—the case, capping all others, of *si monumentum requiris circumspecte*.

The American

nineteenth century

Nothing in all history had ever succeeded like America, and every American knew it. Nowhere else on the globe had nature been at once so rich and so generous, and her riches were available to all who had the enterprise to take them and the good fortune to be white.

Whatever promised to increase wealth was automatically regarded as good, and the American was tolerant, therefore, of speculation, advertising, deforestation, and the exploitation of natural resources, and bore patiently with the worst manifestations of industrialism.

Theories and speculations disturbed the American, and he avoided abstruse philosophies of government or conduct as healthy men avoid medicines. Benjamin Franklin was his philosopher, not Jonathan Edwards, and when he took Emerson to heart it was for his emphasis on self-reliance rather than for his idealism. No philosophy that got much beyond common sense commanded his interest, and he ruthlessly transformed even the most abstract metaphysics into practical ethics.

The American's attitude toward culture was at once suspicious and indulgent. Where it interfered with more important activities, he distrusted it; where it was the recreation of his leisure hours or of his womenfolk, he tolerated it. For the most part, he required that culture serve some useful purpose. . . . Education was his religion, and to it he paid the tribute both of his money and his affection; yet, as he expected his religion to be practical and pay dividends, he expected education to prepare for life—by which he meant, increasingly, jobs and professions.

The American rarely expected to stay put and had little interest in building for the future. It was easier to skim the cream off the soil, the forests, the mines—or business investments—and go on to something new, especially when new was so often synonymous with better. He had, besides, boundless confidence in the ability of the next generation to look after itself, and where both land and resources appeared inexhaustible, that faith seemed well founded. Familiar with the marvels of science and invention, he was reluctant to make commitments for future generations, to bind them to any place, any career, any policy, or technique which might speedily be outmoded or unprofitable. For this self-indulgence he paid a high price, and his descendants a higher. Dazzled by the concept of infinity, prodigal of the resources of nature and of his own resources, greedy and reckless, he did more damage in a century than nature could repair in a thousand years. From Maine to Oregon he left forests in ruins; instead of cultivating, he mined the soil; he killed off bison and pigeon, polluted streams, wasted coal, oil and gas. His habits of waste he transmitted to a generation that could no longer afford them; his refusal to think beyond the present encouraged a hostility to planning that was to prove almost disastrous.

twentieth century

It was, perhaps, inevitable that as Americans moved from country to city and embraced a technological civilization they should lose touch with nature, and with its discipline, and come to live at second hand. The change was both physical and psychological. An ordinary snowstorm disrupted the communications, heating, and food supply of a whole city; a telephone strike created nation-wide chaos. Labour-saving devices multiplied and largely defeated their own purpose: . . . Automobiles did not in fact expand horizons but merely made it easier to reach them and thus to ignore them, and as Americans ceased to walk they lost familiarity even with their own countryside. Children who studied the geography of China could not name the trees that shaded their own streets, while their parents, who thought nothing of a transcontinental automobile junket, were ignorant of the most elementary facts about the climate and soil of the country they traversed.

Recreation came to be enjoyed vicariously. From playing games Americans took to watching them and then to listening to them on the radio. Even enthusiasm ceased to be spontaneous and was artificially organized and evoked by cheer leaders. Men who enjoyed artificial adventures in the pages of mysteries or westerns, and women who acquired artificial complexions, found little difficulty in adopting artificial emotions: they turned to the radio and the movies for excitement and sensation, laughter and tears, and learned about love from the magazines.

There seemed to be, in short, a progressive atrophy of the creative instinct of the average American.

Only a perfectionist would submit these failures as an indictment or hold that a people who had left undone some of those things which it should have done had forfeited its claim to virtue or to greatness. . . . For it was clear that the American character, notwithstanding its relative maturity, was still in process of development, that the course which that development would take was still open, and that the future promised to be no less interesting than the past. For it was still true, a century and three quarters after Turgot's famous letter to Dr. Price, that this people was the hope of the human race; it was still true, a century after Longfellow had penned the lines, that

Humanity with all its fears
With all its hopes of future years
Is hanging breathless on thy fate.

Extracts from *The American Mind: An Interpretation of American Thought and Character since the 1880's*. By Henry Steele Commager. Published by Geoffrey Cumberlege, Oxford University Press, 1950.

Postscript to Anthology by the Goncourt Brothers

I sometimes think the day will come when all the modern nations will adore a sort of American god, a god who will have been a man that lived on earth and about whom much will have been written in the popular press; and images of this god will be set up in the churches, not as the imagination of each individual painter may fancy him, not floating on a Veronica kerchief, but established, fixed once and for all by photography. Yes, I foresee a photographed god, wearing spectacles.

On that day civilization will have reached its peak and there will be steam-propelled gondolas in Venice.

November 1861.

The Goncourt Journals, 1851-1870, edited and translated by Lewis Galantière. Cassell, 1937.

the authors

Christopher Tunnard, who lived for twelve years in England, was born in Victoria, British Columbia, 1910. Became an American citizen in 1949, and is Director of Planning Studies at Yale University, which has this year initiated a new programme to co-ordinate the visual arts in town planning. He is a member of the American Institute of Planners; practises as a civic designer and is author of 'Gardens in the Modern Landscape,' a new and revised edition of which has just been published by the Architectural Press; he has been a frequent contributor to THE ARCHITECTURAL REVIEW.

Saul Steinberg was born in Rumania in 1914. Studied in Italy and took his degree in architecture at University of Milan, 1940. Arrived in the U.S. in 1941, but had made drawings for the *New Yorker* previously. Served for three years with U.S. Navy during the war in China and elsewhere. Became an American citizen in 1943. Lives in New York City. Exhibition of work at Museum of Modern Art, 1946. Books of drawings include 'All in Line' and 'The Art of Living.'

Henry-Russell Hitchcock was born in Boston, Massachusetts, 1903. Now Professor of Art and Director of the Museum of Art, Smith College, Massachusetts. Is author of 'Modern Architecture: Romanticism and Reintegration' (1929), 'The Architecture of H. H. Richardson and his Times' (1936), 'In the Nature of Materials: Frank Lloyd Wright' (1942), and numerous other historical and critical works. Spent some time in England and is at present preparing a book on Victorian Architecture in Britain from 1837-1882.

Winston Weisman was born in New York City in 1909. Lecturer in Fine Arts at University of Kentucky and Ohio State University. Developed an interest in skyscraper architecture while preparing Ph.D. thesis on Rockefeller Centre. Also author of a manual on Medieval Manuscript Painting.

G. M. Kallmann was born in Berlin in 1915. Professional Education at the Architectural Association School, London, 1935-1940, designer of housing, exhibition, shops and stage sets. Became a British citizen in 1947. Has worked in English and American architects' offices, now assistant professor and head of 'shelter design' Section at the Institute of Design of the Illinois Institute of Technology, Chicago, U.S.A.

acknowledgments

Acknowledgments for illustrations in this issue are due as follows: Cover: Saul Steinberg, courtesy *Flair* magazine; Frontispiece: Walker Evans; pages 344 and 360: Saul Steinberg; SCENE, courtesy *Flair* magazine, pages 344 to 359: 1, Ray Atkeson; 2, U.S. Department of the Interior; 3, H. Armstrong Roberts; 4, 9, Fairchild Aerial Surveys; 5, 18, 19, Chicago Aerial Survey Co.; 6, Frederic Lewis; 10, 12, Walker Evans; 11, Christopher Tunnard; 20, sketch by José Bartoli, courtesy *Holiday* magazine; 24, Society of Architectural Historians; 25, courtesy *Look* magazine; 27, Elbert Peets; 28, Harry Williams; 29, 31, Weber Studios; 30, *Architectural Forum*, April, 1949; CASE STUDY: CITY, pages 360 to 370: all photographs by the authors (see page 361) except the following: 6, Herbert Matter, Black Star; 7, Branson de Cou, Black Star; 10, *St. Louis Post Dispatch*, Black Star; 17, Walker Evans; 11, 21, McCallum, Arphot; 37, Samuel Chamberlain; 38, 39, 40, Keystone; 47, Wayne Andrews; RECAPITULATION, pages 371 to 375: Saul Steinberg, courtesy *Flair* magazine; CASE STUDY: DETAIL, pages 376 to 384: all photographs, McCallum, Arphot, except the following: 2, 18, 20, 31, Christopher Tunnard; 23, J. B. Guss, Black Star; 37, Godfrey Frankel; 38, Fritz Henle, Black Star; 39, Rudy Arnold, Black Star; 40, Victor de Palma, Black Star; TOWARDS A NEW ENVIRONMENT (a) AUTUMN, 1950: THE WAY THINGS ARE, pages 385 to 398: 1, Walter Fleischer; 2, McCallum, Arphot; 8, *Architectural Record*, June, 1950; 9, *Architectural Record*, February, 1949; 10, *Architectural Record*, November, 1949; 11, *Princeton Alumni Weekly*; 12, *Yale Library Gazette*, April, 1931; 13, *Architectural Record*, November, 1948; 14, *Architectural Forum*, July, 1943; 15, P. E. Guerrero; 16, *Architectural Forum*, July, 1948; 17, 18, 19, 20, Brandeis University; page 393: top, Mike Roberts; bottom, *Architectural Forum*, February, 1950; pages 395 and 396: 21, 22, Julius Shulman; page 397: D. Pleydell Bouverie; page 398: McCallum, Arphot; (b) THE WAY OF THE PRICE MECHANISM: THE ROCKEFELLER CENTRE, pages 399 to 413: all illustrations supplied by the author except drawings on page 404, by D. Dewar Mills; (c) THE WAY THROUGH TECHNOLOGY: AMERICA'S UNREALIZED POTENTIAL, pages 406 to 413: 3, D. Dewar Mills; 4, Charles Eames; 5, Fuller Research Foundation; 6, 13, 14, Ezra Stoller; 10, Hedrich-Blessing; 11, *Architectural Forum*, May, 1949; 12, *Architectural Forum*, July, 1949. MARGIN-ALIA, pages 417 to 426: 1, Barratts Photo Press; 2, Seymour-Lincoln; 4, Millar and Harris; 5, A. C. Cooper; 6, courtesy Ernest Brown and Phillips; 7 and 8, courtesy Hanover Gallery; page 420, drawing in text, Fine Art Engravers, courtesy Arts Council of Great Britain; 9, Read, Arphot; 11, John Maltby.

MARGINALIA

LCC Housing: A New Leaf

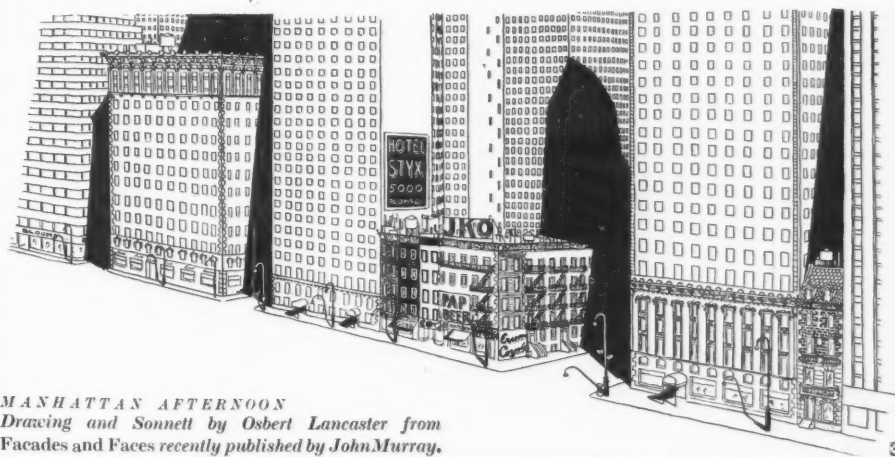
The recently published designs for a large new LCC housing scheme in the Putney-Wimbledon area are of special interest as being the first fruits of the transfer of the responsibility for the design of housing from the Valuer's department to the Architect's. This transfer took place a year ago, following criticism from many quarters of the poor standard of layout and design seen in recent LCC housing schemes.

This latest work shows a remarkable advance. The planning is more imaginative and the design of the individual buildings promises at last real architectural quality. It is a mixed scheme, of flats, maisonettes and small houses, and makes the most of the visual variety such an arrangement offers—a refreshing change from the rows of barrack-like blocks of identical height of which LCC urban housing generally consists.

The site, of 23 acres, is at present occupied by large Edwardian and Victorian houses and their grounds. It is, therefore, already interestingly landscaped (in part by Sir Joseph Paxton) and has over 400 fine mature trees in good condition. Several of the houses will be preserved and used for community purposes. Among the buildings are to be four eleven-

storey blocks of flats—the highest yet attempted by a local authority in the London area—which will add greatly to the visual interest of the scheme and, because of the small amount of ground they occupy, allow much of the site to be left unbuilt on and most of the trees to be preserved.

These blocks are T-shaped in plan, with three flats on each floor, each of which, therefore, has windows on three sides and no walls adjoining other flats. Altogether, the site will house about 1,600 people. It is hoped to begin work during 1951, and to complete it before the end of 1953.



MANHATTAN AFTERNOON
Drawing and Sonnet by Osbert Lancaster from
Facades and Faces recently published by John Murray.

Triennale Di Milano

The ninth Milan Triennale, to be held in May-September 1951, will comprise an international exhibition of modern architecture and exhibitions of modern industrial and decorative art. The exhibition of modern architecture will illustrate the history of the modern movement from its beginnings down to our own times, presenting architecture in relationship to the other arts; part of this, and part of the exhibitions of industrial and decorative art will be displayed in the experimental quarter, 'QTS,' established in Milan for the last exhibition. One section of the architectural exhibition, it is interesting to note, will be devoted to 'spontaneous' architecture in Italy, showing how certain qualities of an architecture which is intimately linked with its surroundings and perfectly adapted to its functions partake of the modern spirit—in other words, to the Italian functional tradition.

The New Old Vic

The Old Vic Theatre, Waterloo Road, reopened last month with a reconstructed stage area (shown below), designed by Douglas Rowntree in consultation with Pierre Sonrel. This use of a combined forestage and main stage constitutes the first large-scale attempt made in this country to free the producer and author from the limitations of the picture frame and



1



2

Robert H. Matthew, the architect, and H. J. Whitfield Lewis, Principal Housing Architect, examine a model of the eleven storey block of flats to be built in the Wimbledon-Putney area—see the note LCC Housing: A New Leaf on this page. The other model illustrated shows the complete layout.



The reconstructed interior of the Old Vic.

to create a closer link between actor and audience.

The main problem involved was the designing of forestage flanks in such a way that they would appear to be part of the scenery when the forestage was in use and yet form part of the auditorium when realistic plays were being given. The problem was partly solved by the skilful use of lighting, which can either give the forestage the appearance of a complete architectural unit (with lights in louvres and in

doors at the side, as well as behind sound boards in the coved ceiling) or link this stage with the main stage, thus destroying the dark picture frame effect. All lighting is electronically controlled from the circle by an operator who has an uninterrupted view of the stage and can produce subtle variations in strength and colour by means of this new system.

The only alterations to the auditorium have been made to improve sight-lines, to facilitate the running of the theatre and to prevent noise from the streets being heard by the audience. The Victorian character of the auditorium has been retained in the decorations and colour scheme by James Brown. The predominant colour, in addition to gold and red, is grey-green, used in four shades.

The Coventry Competition

Architects have until next July to prepare designs for a new Coventry Cathedral, the competition for which was referred to in the caption to the frontispiece of the October issue and in the note on the cover. The frontispiece showed two of the modern buildings (designed by the City Architect) now going up in the bombed centre of Coventry, which has been replanned on the lines illustrated on the cover. The point was made that the new cathedral will form the climax of this replanned city centre and should be designed in relation to it. For this and for many even better reasons there is no case for demanding a Gothic Revival building, as the Harlech Commission, reporting in 1947, had recommended the Cathedral Council to do.

The competition conditions have now been published and reveal that the Council have been wise enough to lay down no conditions as to style. There had also been a suggestion that red sandstone (of which neighbouring old buildings, and the ruins of the bombed cathedral, are constructed) should be insisted upon as the building material. On this subject, too, no conditions have been laid down, but a hint is given that the material is thought appropriate by the inclusion of the information that 'a similar good sandstone (light pink-grey) is still available.'

The prizes in the competition are £2,000, £1,500 and £1,000. The assessors are Sir Percy Thomas, Mr. Edward Maufe and Mr. Howard Robertson.

INTELLIGENCE

An inauguration ceremony took place recently at the Massachusetts Institute of Technology to mark the commencement of excavations for the laboratory to house the departments of biology and food technology. Structurally the laboratory is designed with a single row of columns through the centre of the building. The architects are Anderson and Beckwith.

The MARS Group—the English Branch of CIAM—has decided to widen its activities and improve its link with the younger generation of English architects by forming a new class of Junior Membership, open to any bona fide student of architecture or of the allied arts or sciences.

Pietro Belluschi of Portland, Oregon, has been appointed dean of the School of Architecture and



5, *The Thames, South Bank* by Maximilien Luce from the 'Pointillists and their Period' Exhibition at the Redfern Gallery; 6, *Nature Morte devant la Fenêtre* by Claud Vénard from the Exhibition at the Leicester Galleries; 7, *The Drowning of Orpheus* by Robert Medley, and 8, *Pamphlets and Seals with an Engraving of Charles I* from the *Trompe l'œil* Exhibition, both at the Hanover Gallery. Headpiece below, a Lithograph by Picasso from the Arts Council Exhibition of his work at the New Burlington Gallery.

Planning at the Massachusetts Institute of Technology.

The new Republic Nation Bank building at Dallas, Texas, for which excavations have already begun, is the first to offer 'drive in' banking facilities. (The customer need not leave his motor car.) Architects are Harrison and Abramovitz.

A committee has been formed, with the support of the SPAB, to try to preserve Wrencote, a richly ornamented early Georgian house in South Croydon, which has lately been defaced by advertisements and allowed to deteriorate. It is suggested that it should be acquired as a Croydon Museum by the Borough Council.

EXHIBITIONS



When Picasso took himself to Provence in 1946 he was 64—no great age for a great painter, to be sure, and no age at all for one who happens to be Picasso as well, but none the less one at which one might expect a certain slackening of the zest for exploration, a tendency to consolidate old gains rather than undertake new advances. And that, so far as the evidence provided by the Arts Council exhibition 'Picasso in Prov-

ence' at the New Burlington Gallery goes, is precisely what one finds. But then, of course, the evidence goes almost nowhere at all, as is half admitted by Philip James in the introduction to the catalogue when he writes: 'A visit to Antibes in 1946 saw the extension of the new style and the beginning of a new "period"—his Provence period, which in all its aspects is the subject of this exhibition. A large studio on the second floor of the Museum at Antibes was put at his disposal and, of equal importance, a supply of large panels. These he covered with a series of classical subjects, nymphs, fauns and centaurs, which recur in the lithographs and plates in this exhibition; and while Picasso has always been a monumental artist in whatever size he worked, it is when he expresses himself on this scale, as in *Guernica*, that the means of expression seem completely in harmony with the power and technical virtuosity.' The fact is that none of these large panels was included in the exhibition, and so, however inevitable the omission, it was not really representative of the Provence period 'in all its aspects' at all. It even seems doubtful if the cases devoted to pottery were really representative of the master's much bruited excursion into that craft. Still, nothing Picasso touches but bears his fingerprints, so to speak: to quote Mr. James again, 'he creates a Picasso and nothing but a Picasso every time'—and if there were few instances of his creating something

[continued on page 422]

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The new staff restaurant in the South Eastern Gas Board's Headquarters at Croydon is a model of good planning and up-to-date equipment. It is logical therefore to find "Formica" laminated plastic veneer on the counter and table tops. "Formica" besides having a colourful surface which is congenial to the touch is cleaned simply by wiping with a damp cloth. It is unaffected by spilt foods, vinegar and alcoholic beverages, and is exceptionally wear resistant.

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continued from page 420]

more than a Picasso among the eighty-odd drawings, lithographs, ceramics and bronzes that made up this exhibition, it must at least be admitted that he is much better at creating Picassos than anyone else.

Outside the New Burlington Gallery turn right, then right and right again and on your right you come to the Redfern Gallery and the gallery of Roland Browse and Delbanco, curiously interlocked. At the former there was a largish exhibition called 'Pointillists and their Period,' a portmanteau title which allowed of the inclusion of such painters as that stalwart of Impressionism Guillaumin, Corot's pupil Lepine, and Monet's American follower Thomas Buford Meteyard, in addition to the Pointillists proper: of the latter, Signac and Luce were well represented—Luce's *The Thames, South Bank* is reproduced on p. 420—and Seurat indifferently so. At Roland Browse and Delbanco there was an exhibition of sculpture, mostly small pieces, which included an estimable Charoux, three Maillols (including a life-size kneeling girl), seven small Moores and a couple of recent Butlers. Upstairs was the first public exhibition in England of the Czech painter Jacob Bornfriend, who works in an Expressionist tradition which must be recognized as one of the main currents in contemporary European painting, although it is less to English taste than the decorative Francophil style of which Robert Medley, who was showing at the Hanover Gallery, is so competent an exponent.

Also at the Hanover was an exhibition of that highly specialized sub-section of the art of painting, *trompe l'œil*. *Trompe l'œil* in the



9, Coalyard at Sible Hedingham, by Kenneth Rowntree from his exhibition at the Leicester Galleries.

strict sense of the term postulates more than mere photographic realism or tricks with perspective; deception must be carried to the point of representing the objects in the picture to the exact size of the original, so that the hand may go out to pick them off the wall before the eye is undeceived. As one would expect, the seventeenth-century Dutch were adepts in the game, and somehow managed to produce pictures which are practical jokes and works of art at the same time. Gysbrechts' *Open Cupboard Door* was certainly the most striking picture in the show, and after it, perhaps, Colyer's *Pamphlets and Seals with an Engraving of Charles I* (reproduced on p. 420). (Edward Colyer was a Dutchman who worked in London for a period.) But eighteenth- and early nineteenth-century England made its contribution, too—largely anonymously, though H. B. Harris and J. Wilks are names to remember in this context.

Finally, three simultaneous shows at the

Leicester Galleries must receive mention. In the furthest room were hung the results of Ivon Hitchens' bold decision to leave landscape for the human form—a decision entirely justified by those results; in the middle one, two-score pictures by that most efficient French painter Claud Vénard; and in the nearest about as many watercolours by Kenneth Rowntree.

CORRESPONDENCE

To the Editors

THE ARCHITECTURAL REVIEW

DEAR SIRs,—I have rarely enjoyed a book review as much as I enjoyed Mr. Andrew Derbyshire's ill-tempered piece on Bruno Zevi's book. I have only just seen Mr. Zevi's book myself and haven't had a chance to read it—so I am not sure that I would agree with Mr. Derbyshire at all. It just seems to me wholly admirable for a critic to be so thoroughly bad-tempered in print.

Mr. Derbyshire is wrong, however, in saying that Zevi's book has a center line on each page, like a government publication. My copy of Zevi's book has no center line. If it had a center line it would make absolutely no sense. I am perfectly willing to concede that the book Mr. Derbyshire saw *does* have a center line, in which case I am not surprised that he got so angry. But, perhaps, he was really reading a government publication all the time.

Yours, etc.,

PETER BLAKE,
Associate Editor,
Architectural Forum.

New York.

Mr. A. Derbyshire writes: *Mr. Blake is very generous about my bad temper and humorously misses* [continued on page 424]

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Design and Craftsmanship

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continued from page 422]

the point. I'm not good at this kind of banter, but I'm glad that Mr. Blake does not have to read, as I did, a book about Organic Architecture that follows the dictates of axial symmetry on every page. But perhaps Mr. Blake is right, and my copy of Zevi's book has, in fact, been published by some government or other. In which case, I am eager to know which government it is that is wasting people's money on such nonsense. And, refreshed by Mr. Blake, my ill humour now feeds gratefully on this new suspicion.

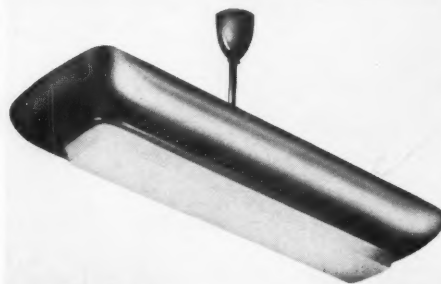
TRADE & INDUSTRY

New Atlas Fluorescent Fittings

Thorn Electrical Industries, the manufacturers of Atlas lamps and fluorescent light fittings, have recently added two new designs to their considerable range of modern fittings. The model GK/4240 has been specially produced as a home light fitting. The choice of lamp has till now complicated this issue as the more powerful four-foot tubes tended to be out of proportion in small modern rooms, whereas the two-foot 20-watt tubes, though more suitable in length, gave insufficient illumination even in multiples of four.

With the new fitting this has been overcome by using four two-foot 40-watt lamps positioned to give direct and indirect illumination. The reflector is finished in bronze on the outside and stove enamelled white on the internal reflecting surfaces. The diffuser tray, projecting downwards in the centre, is of opal 'Perspex.' The lamps recommended for domestic lighting are

peach or warm white or alternatively, these may be combined with warm white lamps fitted for indirect lighting and the peach colour in the centre positions for direct lighting. Each fitting is equipped with double flow starter switches, and the lamps are connected in series pairs. The suspension system is new, a small slotted saddle carrying a terminal block for mains connections being screwed to the ceiling,



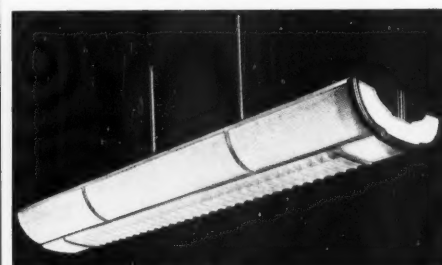
10, a domestic fluorescent fitting.

into which the fitting hooks, and the cone-shaped cover is then slid up and fixed to conceal it. Price, excluding lamps but including purchase tax, is reasonable at £12 0s. 8d.

The second design supplements their existing range of large five-foot standard fittings, and is available in two forms, the GL/3080 which takes three 80-watt tubes, and the GL/4080 which is fitted with four. The side diffuser panels are of reeded glass and produce a shadowless light, while the centre section gives downward illumination through an arrangement of louvres.

The necessary metal parts at either end,

which normally produce shadows, are reduced to a minimum by the simple process of putting opal windows in them, and on the under surface, dispersive panels are fitted at either end for the same purpose. Metal parts are



11, a new five-foot fluorescent fitting.

finished in satin bronze for the end frames and in white enamel elsewhere.

Quickstart or starter switch control gear can be supplied and the four-lamp fittings can be arranged for two-circuit control. Suspension is by chain or rod, and a special plate and cover can be supplied where the standard 24-in. fixing centres do not coincide with the ceiling joists. The total weight is 68 lb. Prices, including purchase tax but without lamps, are £32 15s. 2d. for model GL/3080 and £36 0s. 2d. for model GL/4080, quickstart controls being extra to them. Both designs are by Peter Bell, MSIA.

Thorn Electrical Industries, who already produce Ferguson radio and Mary Ann household products, have recently announced some interesting developments in their range of activities. They have for some time had im-

[continued on page 426]

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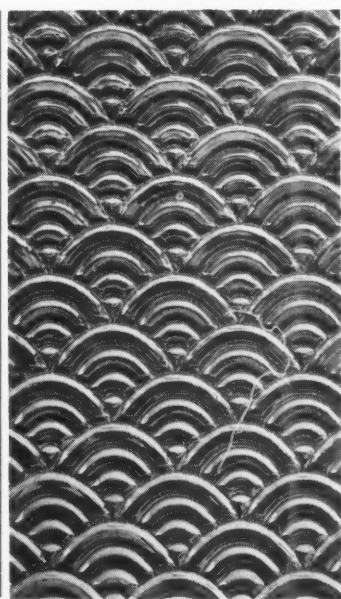
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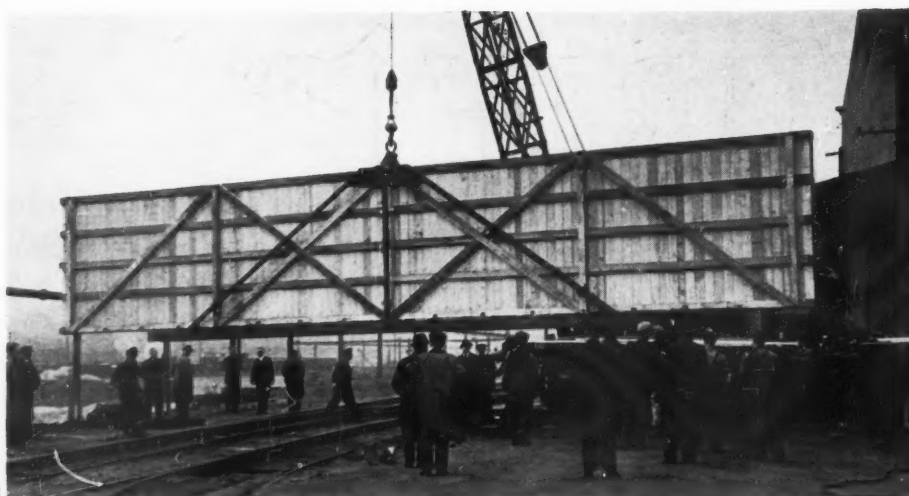


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12

The world's largest window for the 1951 Festival of Britain South Bank Exhibition.

continued from page 424]

portant technical and manufacturing links with the American concerns, Sylvania Electric Products Inc., and Philco Radio Corporation, and in April of this year acquired a controlling interest in Ekco-Ensign Ltd., the lamp and lighting subsidiary of E. K. Cole, Ltd. Recently they bought the 170-year-old firm of George Forrest & Son, Ltd., specialist manufacturers of decorative light fittings and now they have acquired a controlling interest in Tricity Cookers Ltd., reputed to have produced, in 1906, the first electric cooker. The Thorn Company is becoming quite an empire.

Thorn Electrical Industries, London, W.C.1.

Outsize Window for the South Bank

The centenary of the 1851 Exhibition would hardly be complete without some ambitious reply to the old Crystal Palace, and Pilkingtons have just made it with what they describe, and we do not refute them, as the largest window in the world. It is 50 ft. long by 8 ft. high, of $\frac{3}{8}$ in. polished plate glass, weighs a ton and it will form a transparent wall in the Power and Production Pavilion at the South Bank Exhibition. As a comparison, the average sized commercial shop-window measures 10 ft. by 8 ft. 6 in.

The window has been manufactured by a

continuous process in Pilkingtons Cowley Hill works, which has a one-thousand-foot-long twin grinding and polishing plant. A vacuum operated 'sucker' was used to lift it in the course of the journey from St. Helens, Lanes., to London by a slow speed carefully selected route.

Pilkington Brothers Ltd., St. Helens, Lanes.

The Story of a Works

'The Story of the Old Works 1790-1949,' published by John Harper & Co., the manufacturers of gas radiators, was compiled as a requiem to the works now closed which the company has occupied since its founding in 1790. It covers 160 years of progress and development, a century and a half more wracked with change than any similar period of history. Any company that has survived that epoch has a tale worth the telling, though, unfortunately, those on whom the daily tasks crowd in rarely record what later generations would like to know. The author has overcome these difficulties with an account that is eminently readable and pleasantly avoids the pretentiousness that all too often inflates this kind of history. It is well laid out and presented and does credit to the Old Works.

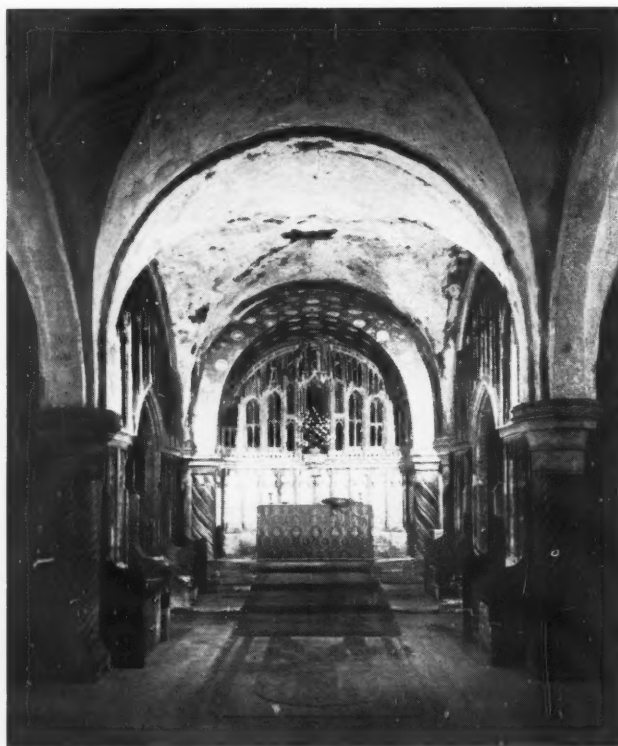
John Harper & Co., Ltd., Willenhall, Staffs.

Erratum

Man Made America, page 361, line 1: for Edward Hopper read Lloyd Goodrich.

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CANTERBURY CATHEDRAL

Chapel of Our Lady of the Undercroft

The Chapel is situated in the centre bay of the Eastern end of The Crypt, and was constructed by Ernulf (Prior, 1096-1107).

The stone screens between the Norman pillars were first set probably in the time of the Black Prince, who directed that he should be buried ten paces from the altar. Traces of the original decoration can still be seen on the vaulting.

The Chapel is illuminated by four concealed bronze fittings each having 2-75 watt tubular lamps.

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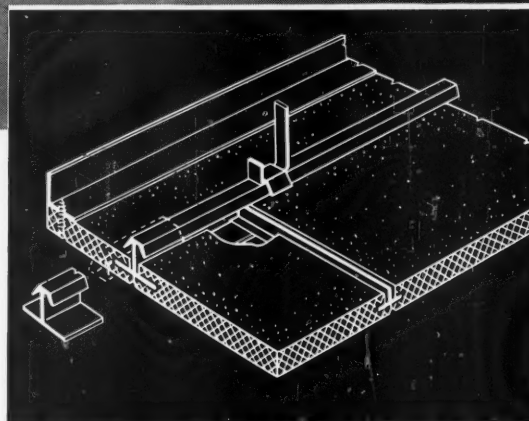


Colmers Farm Secondary Modern School, Birmingham.
Architects: Harrison & Cox.

**Look at this ceiling at Colmers
Farm Secondary School!**

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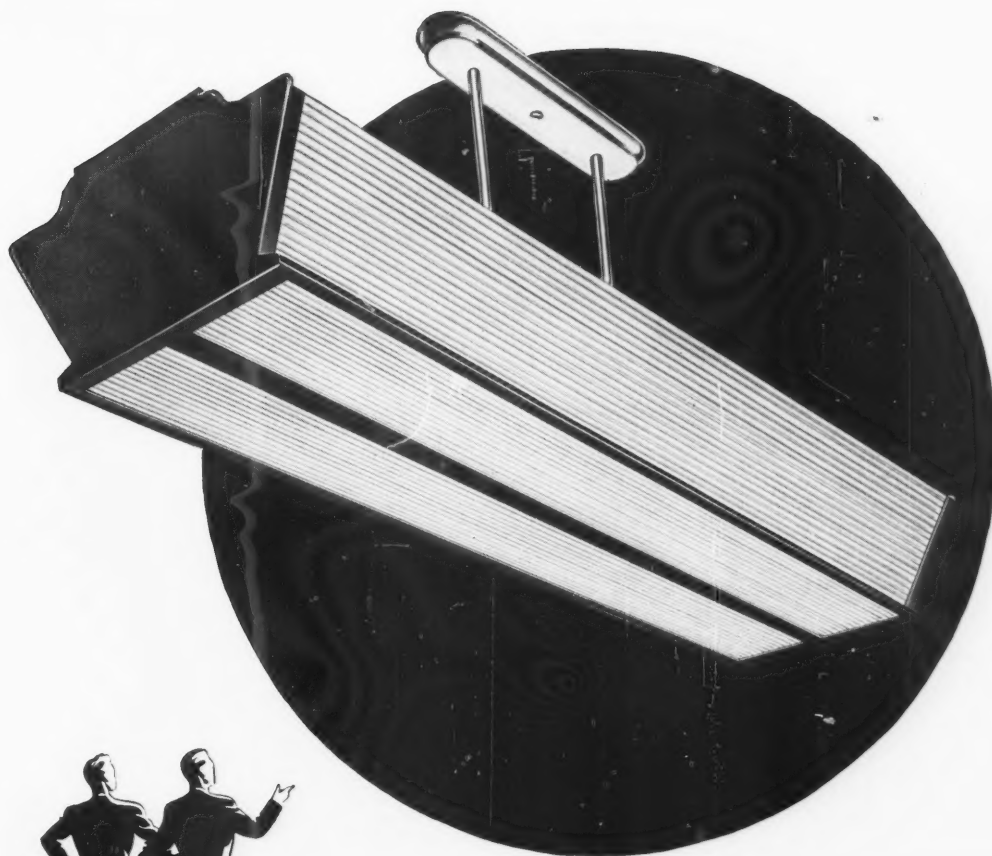


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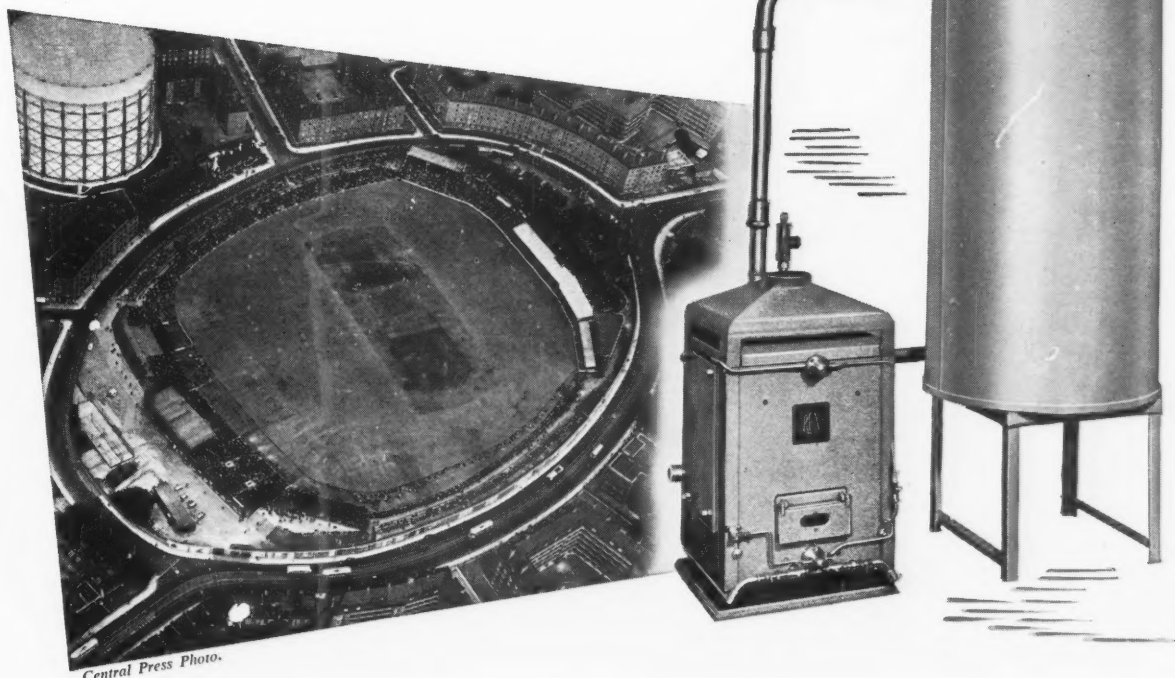
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Architect :
Felix Holt, A.R.I.B.A.

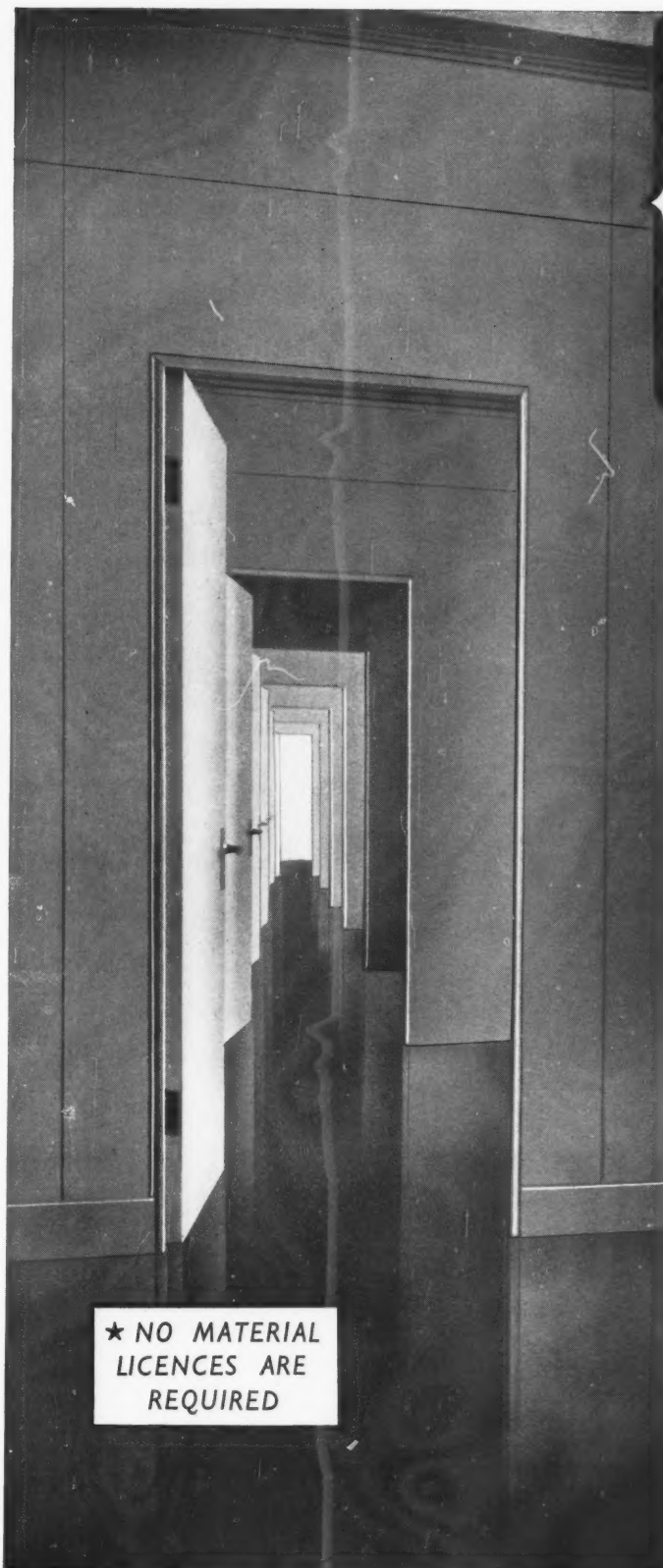
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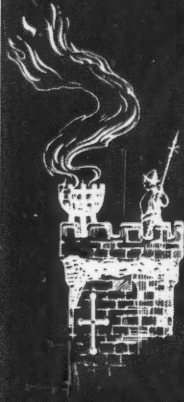
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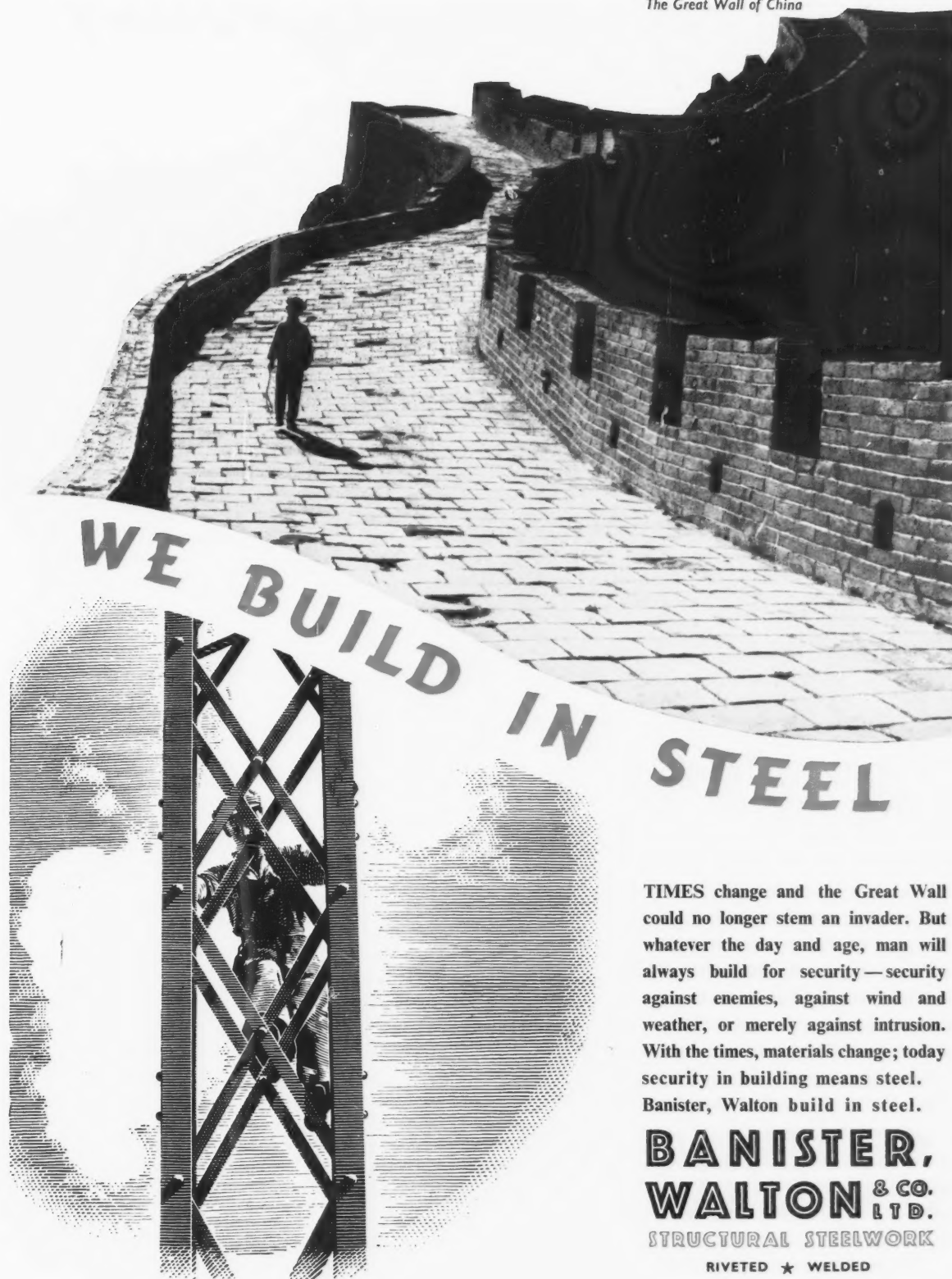


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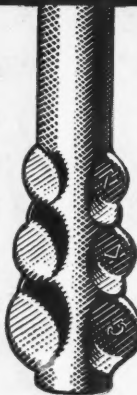
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Swimming Bath at Bradford Grammar School.
Architects: Petch & Fermaud, F.F.R.I.B.A., 8 Buckingham Palace Rd., SW1

Contractors: Alfred Robinson Ltd., Bradford

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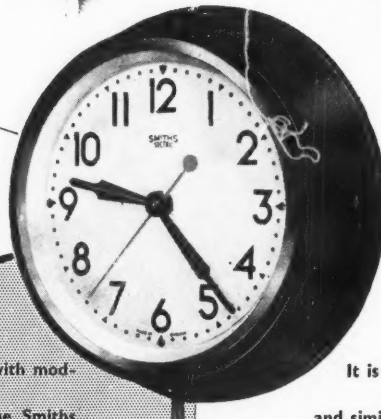
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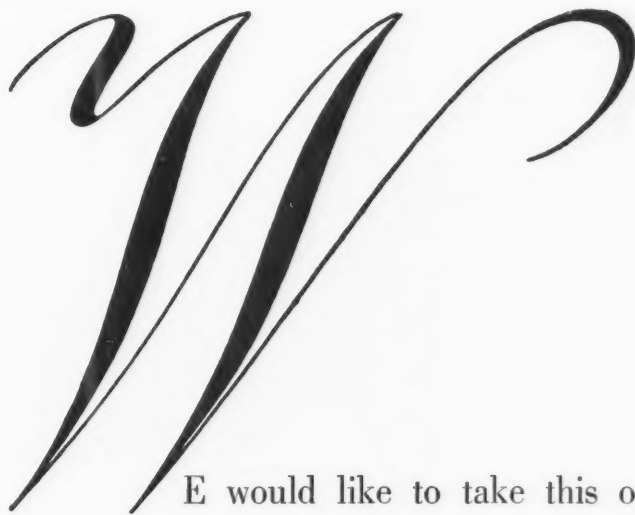
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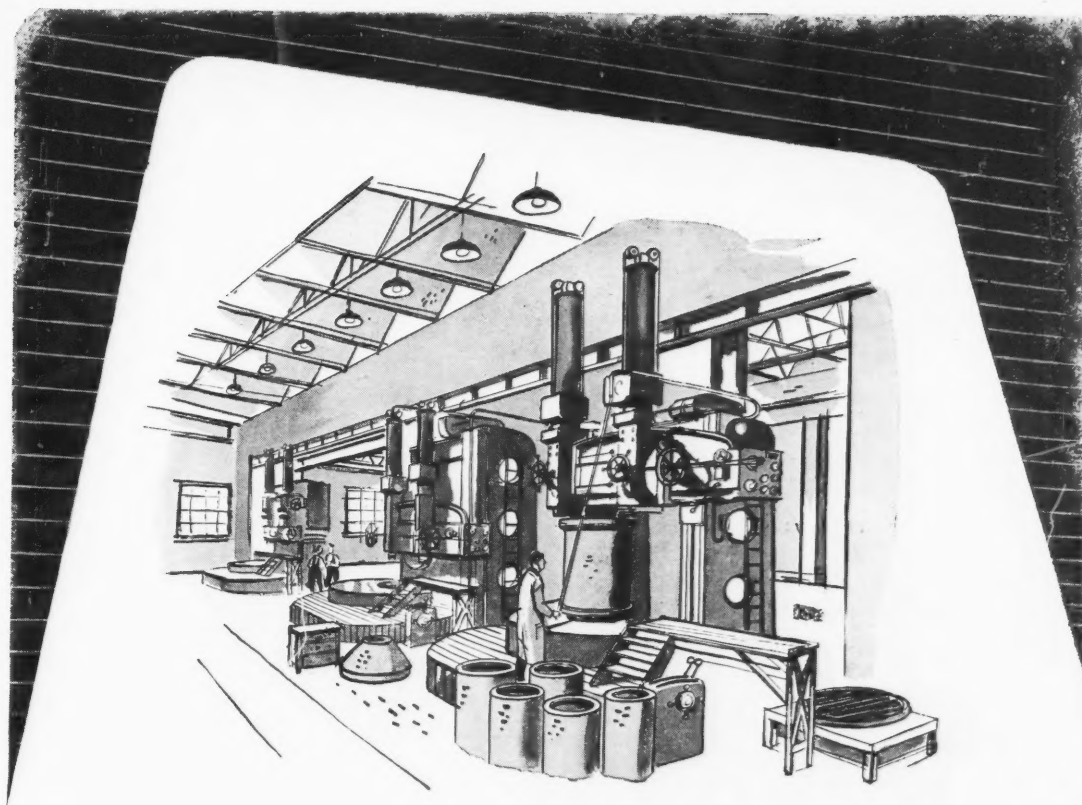
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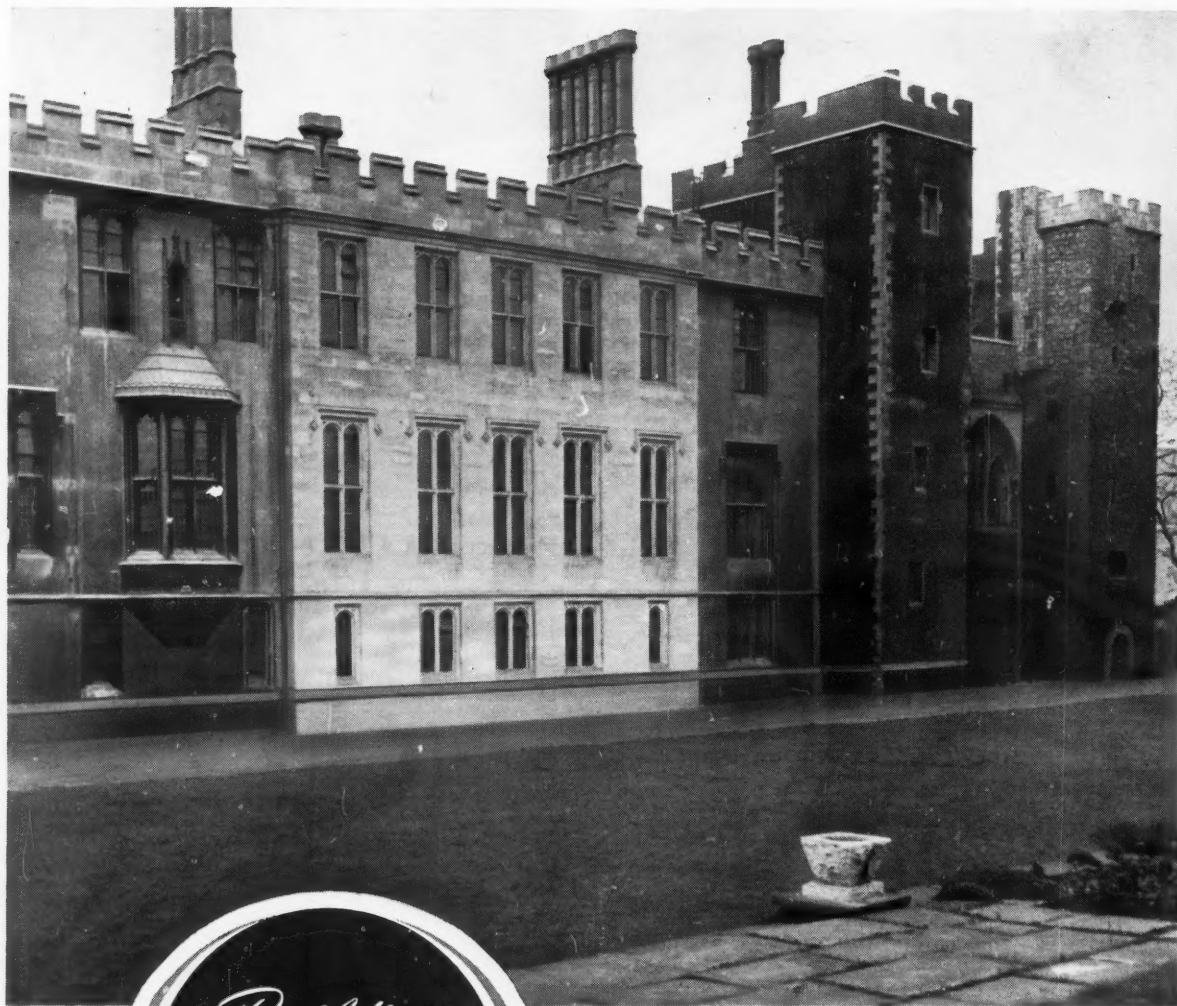
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The Great Hall, centre of a medieval Manor House, was a common living room for all but the highest; an open fire burned on its floor, and its windows were rarely glazed. Domestic discomfort? Not, perhaps, to the Medieval lord, for buildings were rapidly becoming more domesticated, houses less fortified and their architecture lighter and more graceful.

Costumes, too, showed beauty in line, mingling utility and simplicity in cut with the finest material for the wealthy, delicately embroidered and worn with costly jewels. A pride in craftsmanship is shown equal to that of their gracious and dignified decorated Cathedrals, monasteries and churches. Celotex today is proud to serve the descendants of these notable craftsmen.

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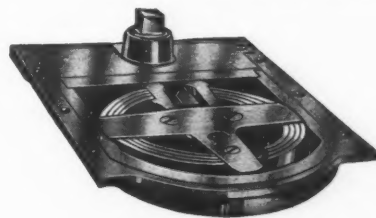
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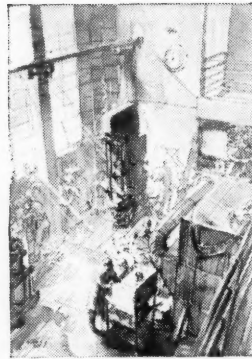
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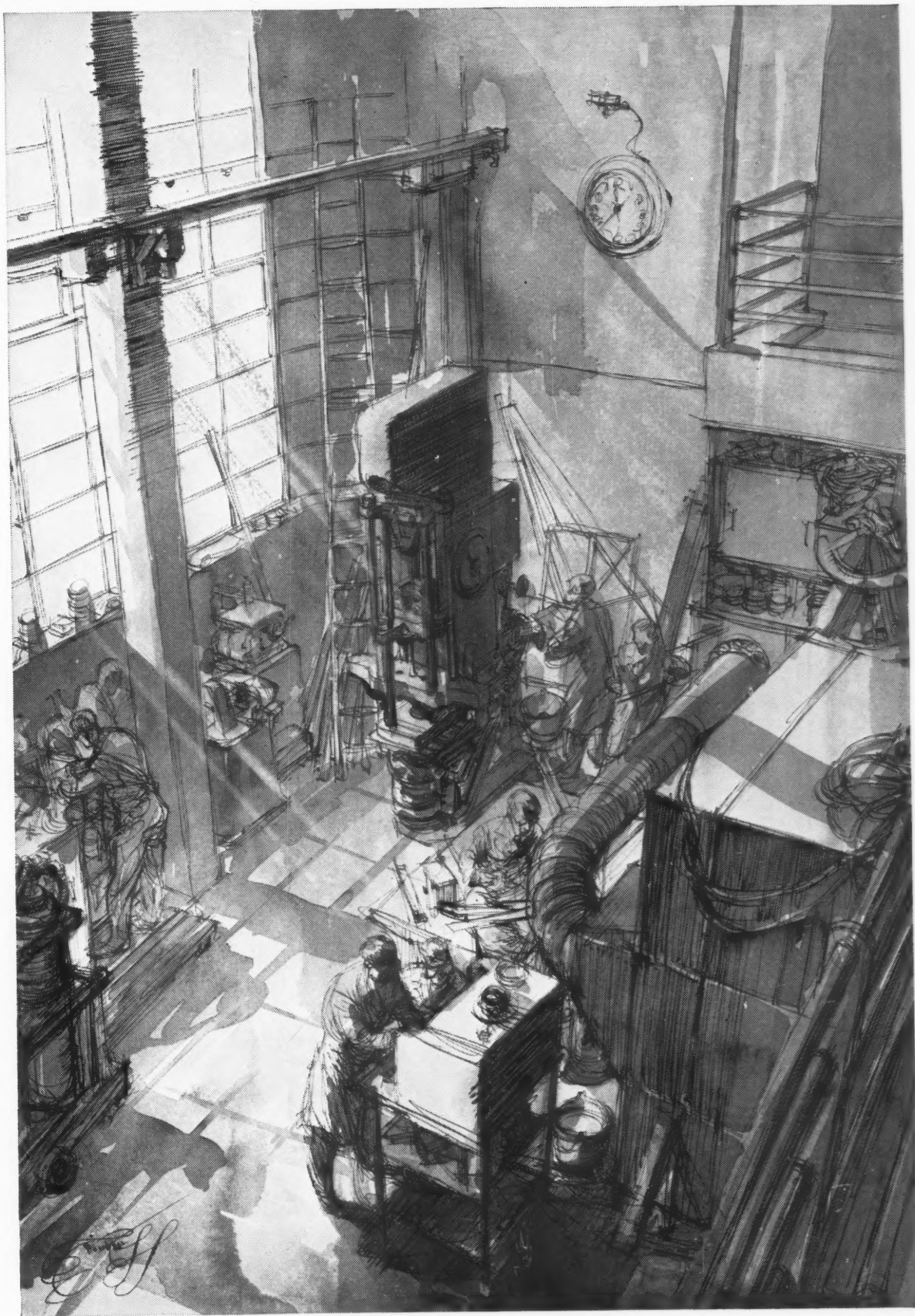
This view of the Mechanical Test Laboratory at Reliance Works, Chester was drawn by Will Nickless for Williams and Williams Ltd.

Do you ask awkward questions about metal windows before you specify them? "Have these sections been tested?" or "How was the breaking strain of your frame-welding tested?" If you do ask such pertinent questions, Williams and Williams can answer them. For the staff of the Mechanical Test Laboratory at the Reliance Works, Chester, are there to guard both the client's interest and the firm's reputation in precisely such matters. They are well equipped and possess, as the artist's drawing shows, a machine (right) for carrying out tests under wind pressure. Architects who specify Williams and Williams windows can rely on the scientific integrity of the men in the Mechanical Test Laboratory.

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MODERN HOUSING ESTATE



Peterborough Corporation Housing Scheme, Peterborough, Northants.

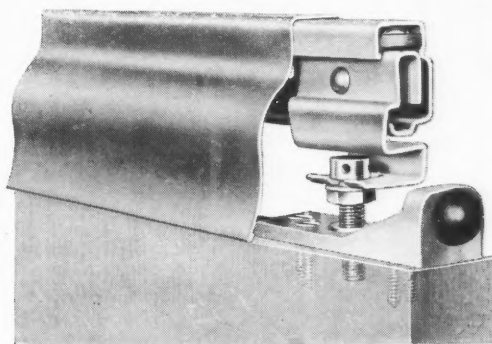
(By kind permission of F. J. Smith, Esq., City Engineer and Surveyor)

Some 400 houses on this modern estate are each fitted with a pair of sliding doors dividing the dining room and lounge, enabling these two rooms to be opened up into one large room for entertaining, etc., and allowing sunshine into opposite aspects of the houses simultaneously. After comparison and trial, the fittings chosen for this scheme were:—

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M&P Fire Doors halt blaze

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80,000 Coats destroyed in adjoining premises

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Mather & Platt FOC Shutter guarding a vital stairway

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Left: Recent reproduction of an elaborate Georgian Stair in a West End house. Below: Bottom of a stair in a small country house, showing unusual type of curtail step.

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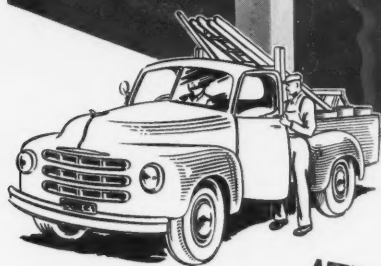
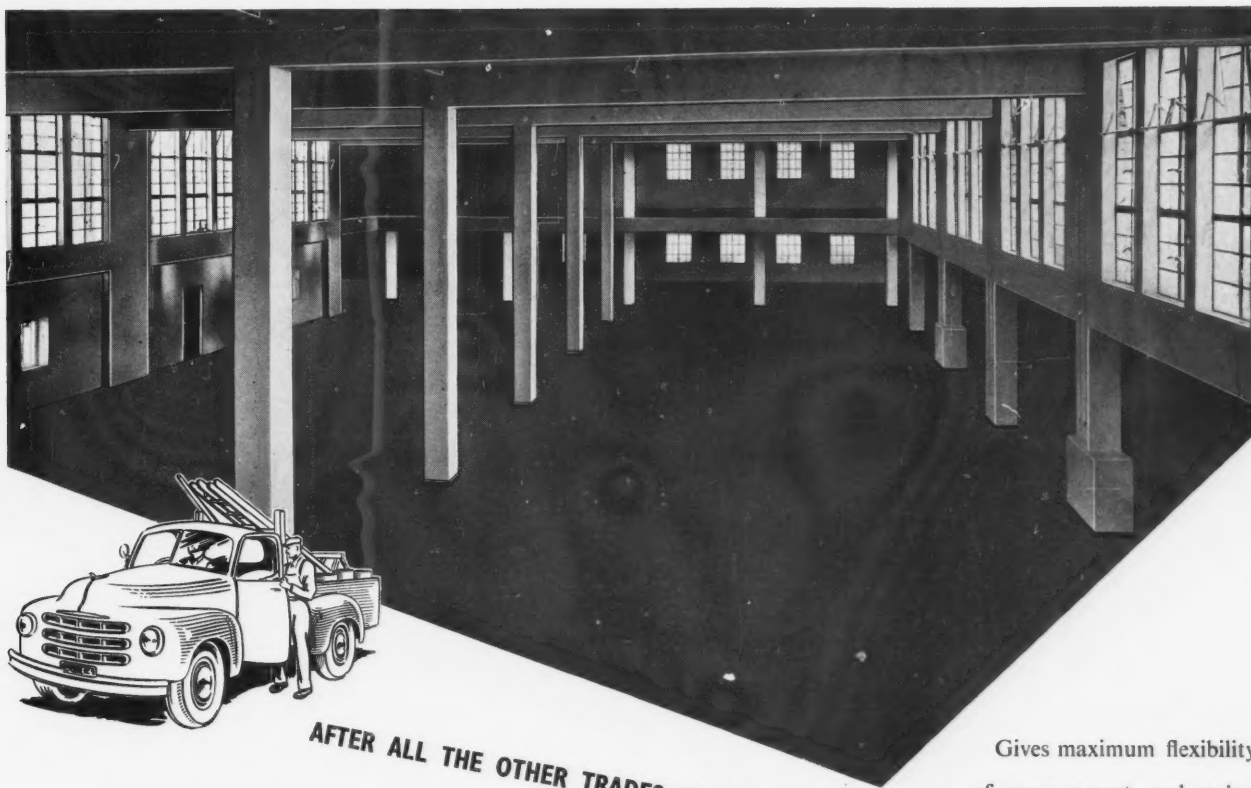
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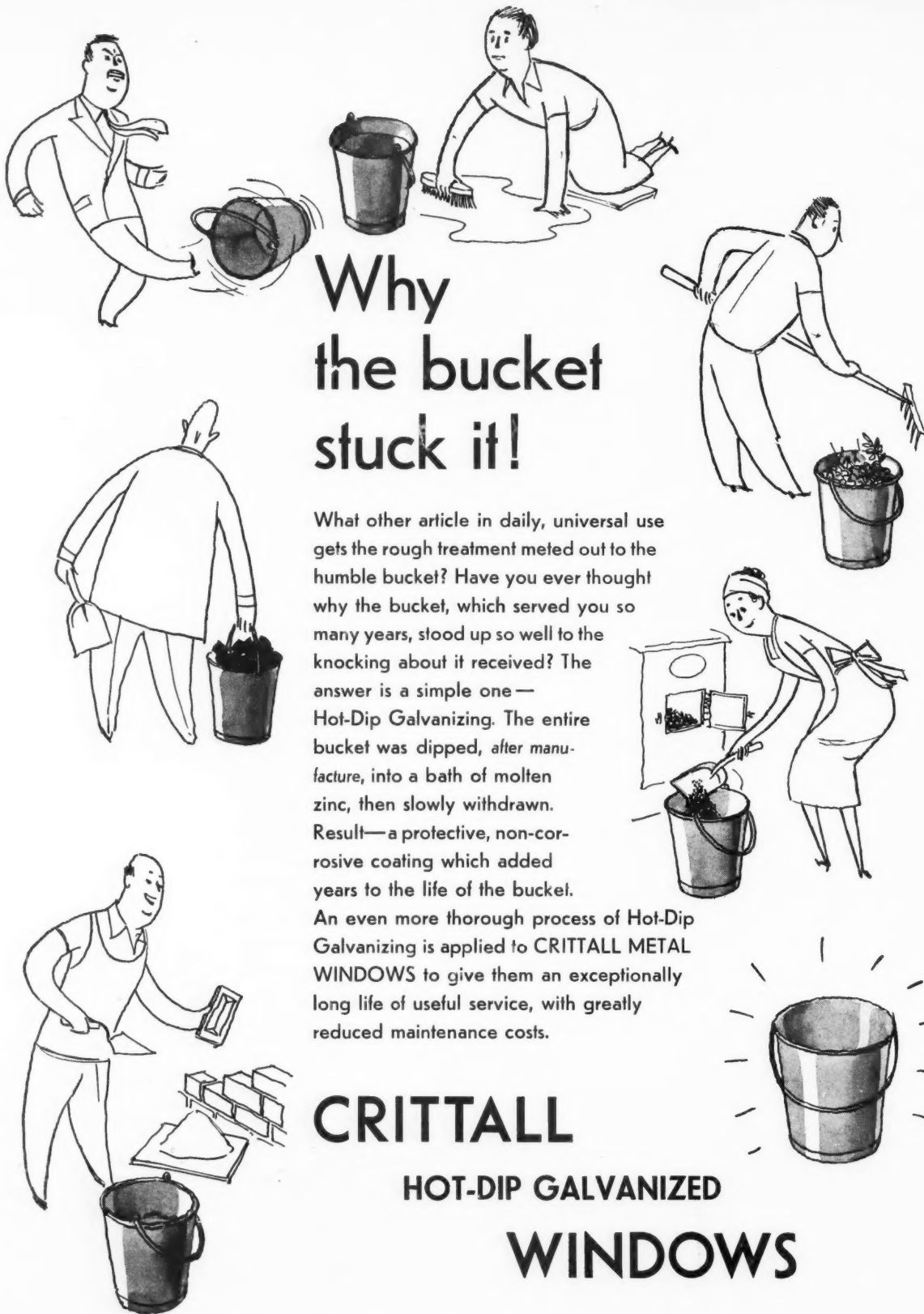
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TBW 78



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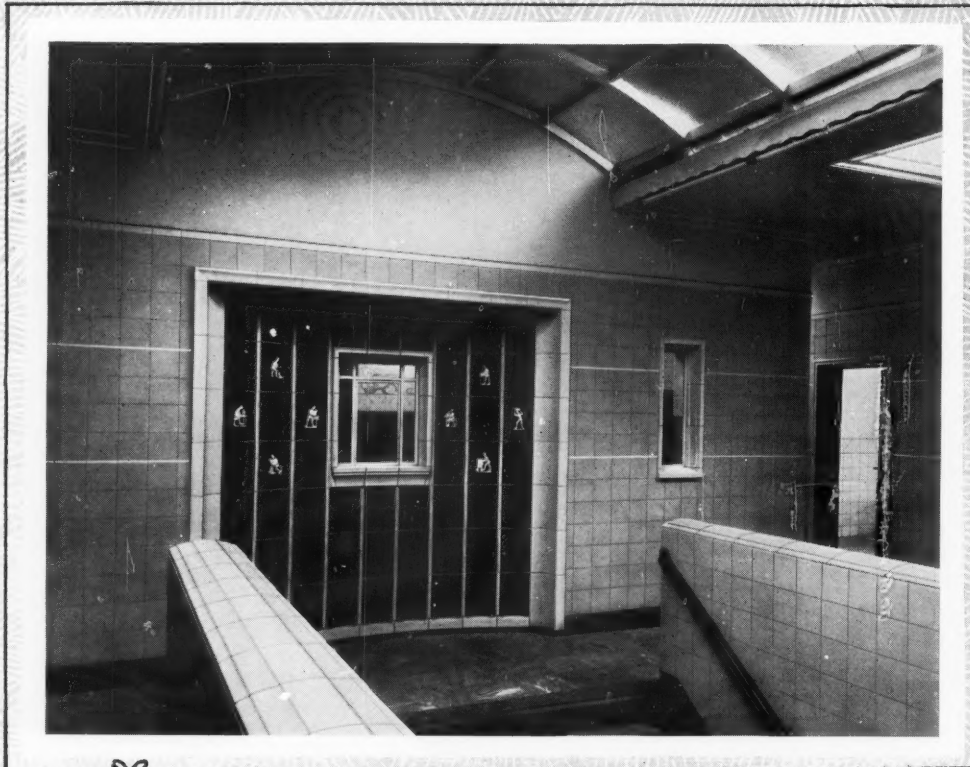
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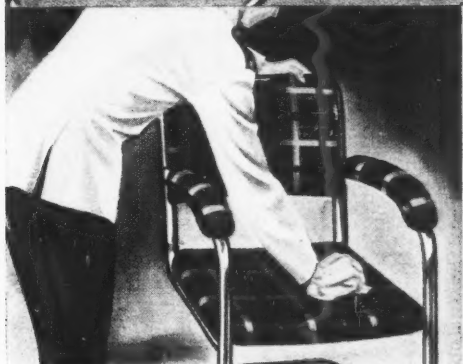
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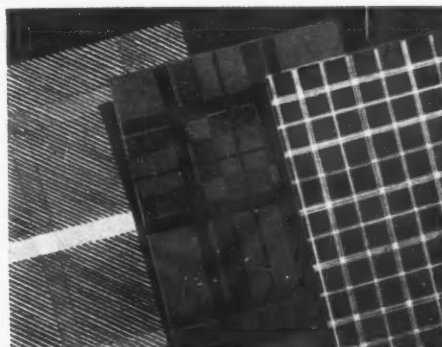
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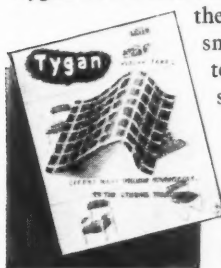
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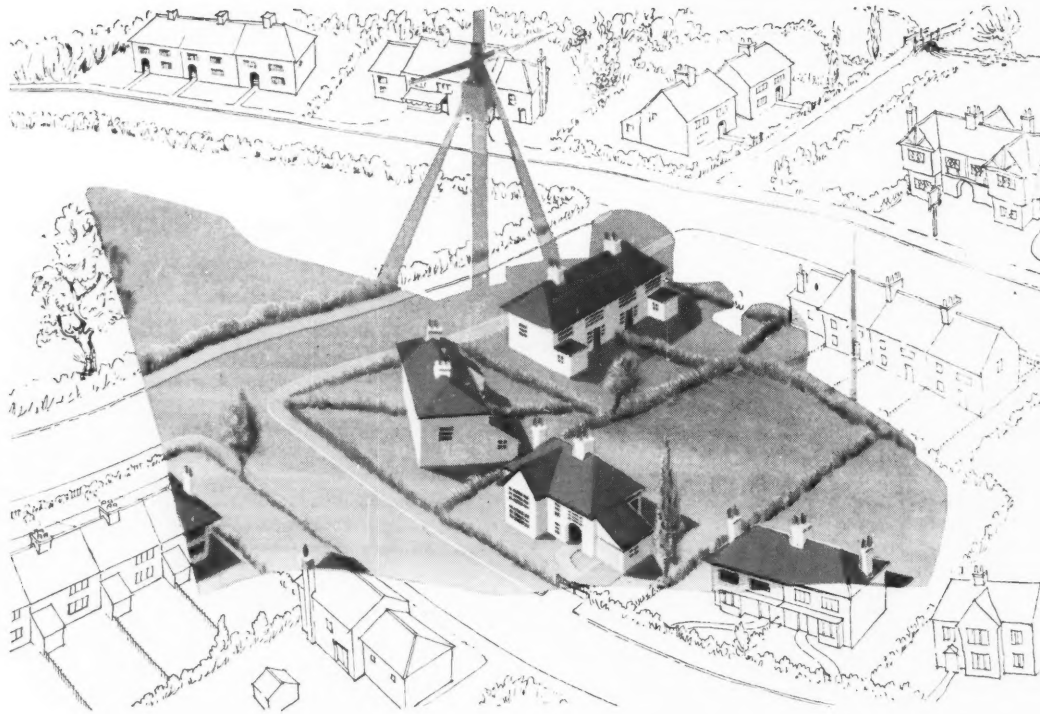
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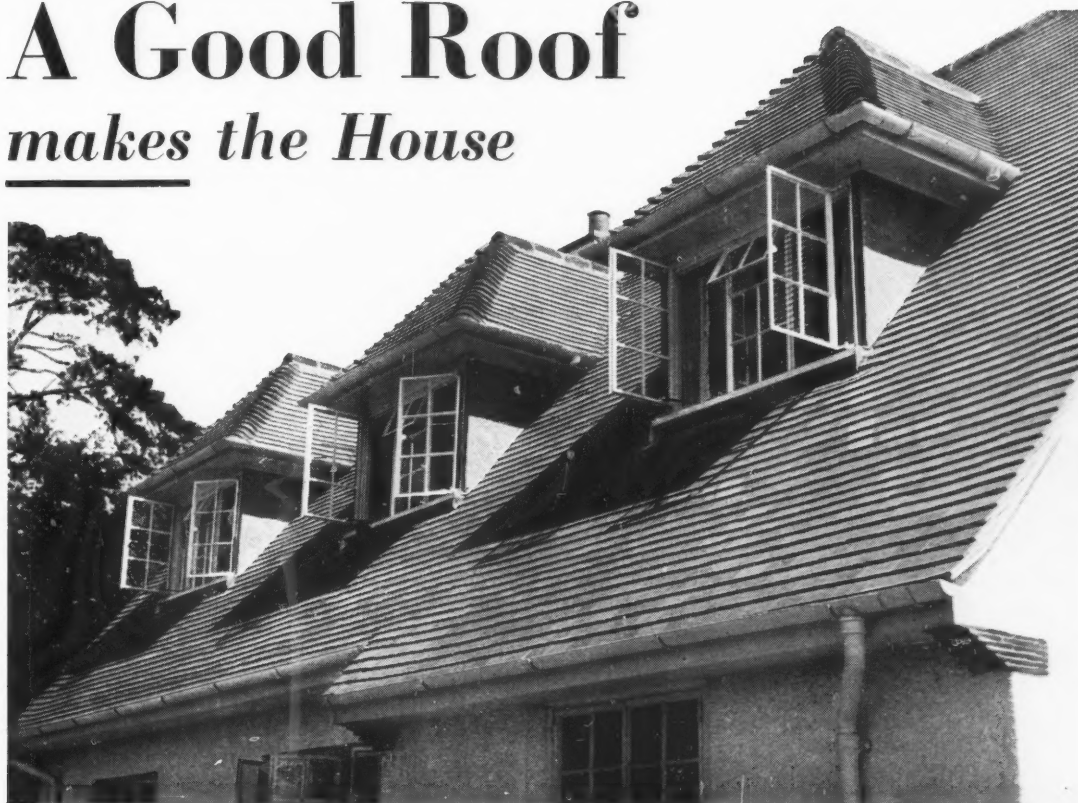


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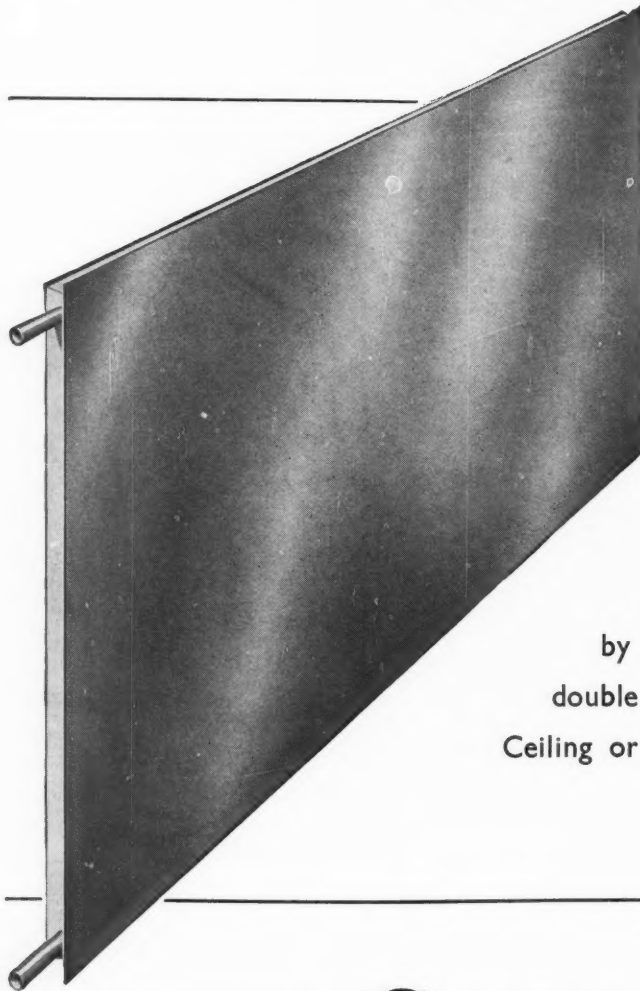
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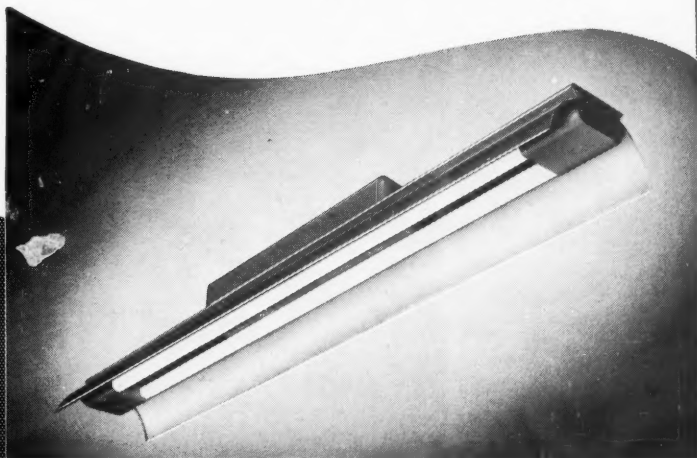
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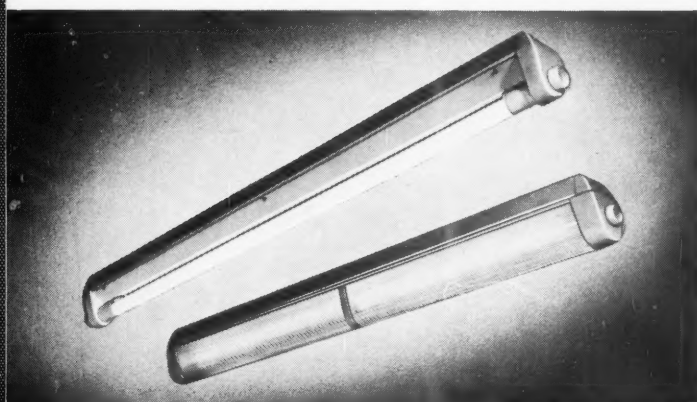
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Lighting WITH A PURPOSE



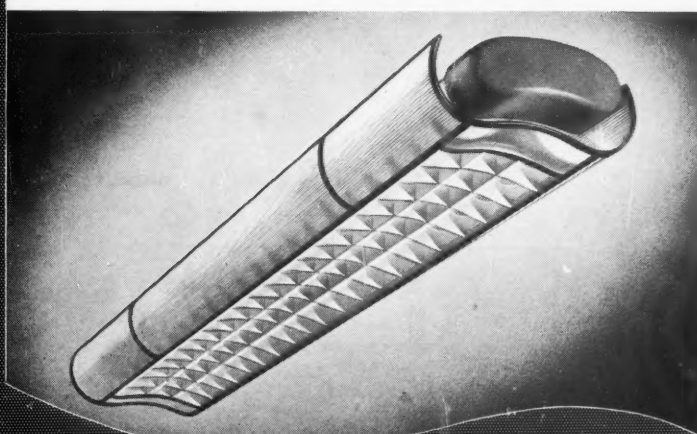
FE/2081

This ATLAS fitting throws a better light on many industrial problems. And it's able to "stick at it" because of the 'Miracoat' finish that defies corrosive atmospheres. It has two 80 watt tubes.



FB/0081

A cheery fellow this. In its working dress, it is a simple 5ft. 80 watt batten light, throwing out direct and reflected illumination in factories and offices. But clothe it in its diffuser and you have a unit which fits happily into many surroundings.



GN/2040

No photograph does justice to ATLAS fitting GN/2040, in its decorative diffuser. The downward light from the louvres, the soft glow through the side panels (which is also reflected from the silvered end caps) make it a fountain of light that cannot be captured in black and white. It carries two 4ft. 40 watt tubes.

Choosing fluorescent lighting fittings can be quite a headache — especially if you belong to that body of distinguished architects sometimes referred to (by the irreverent younger generation) as the "old school". May we, therefore, suggest that you add the ATLAS catalogue to your reference library? It contains many new answers to old lighting problems.

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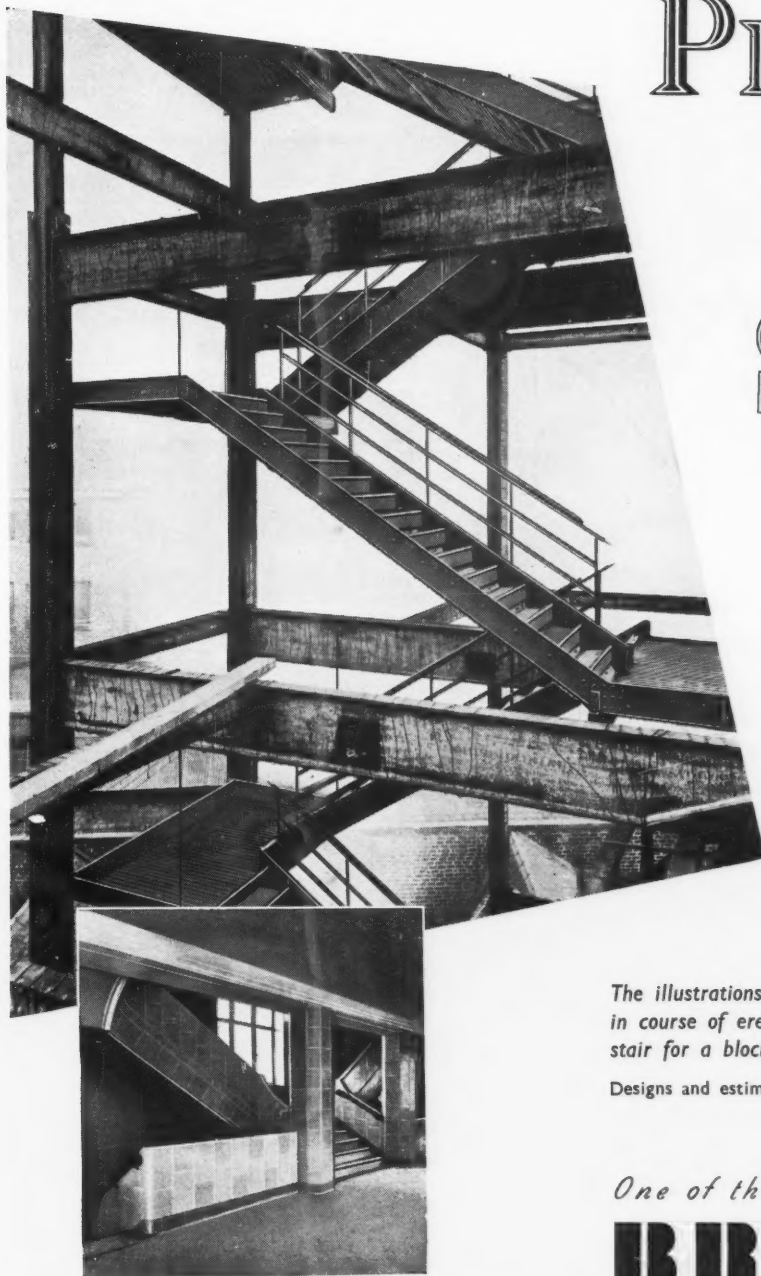
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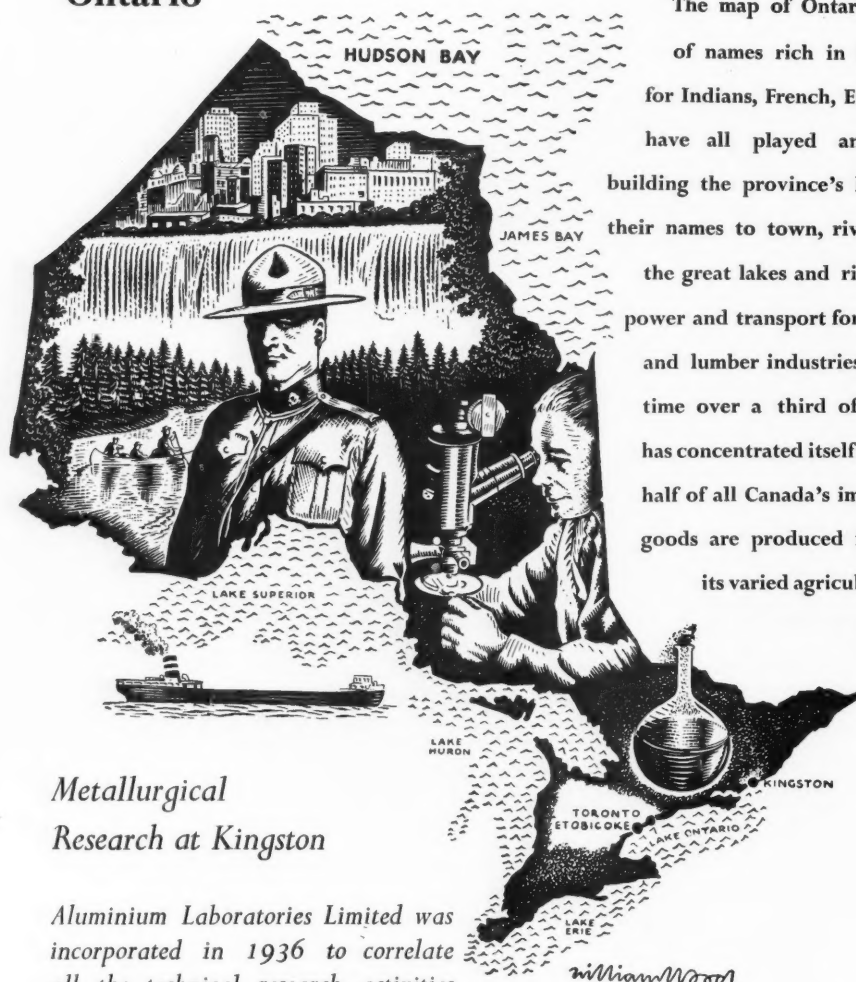
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William Wood

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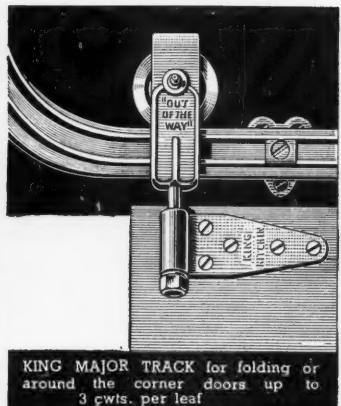
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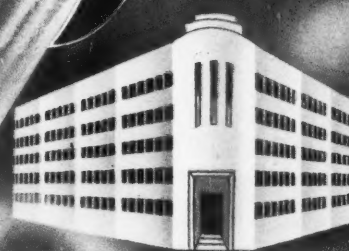
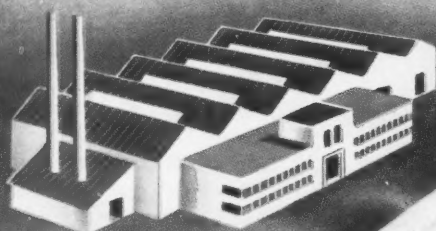
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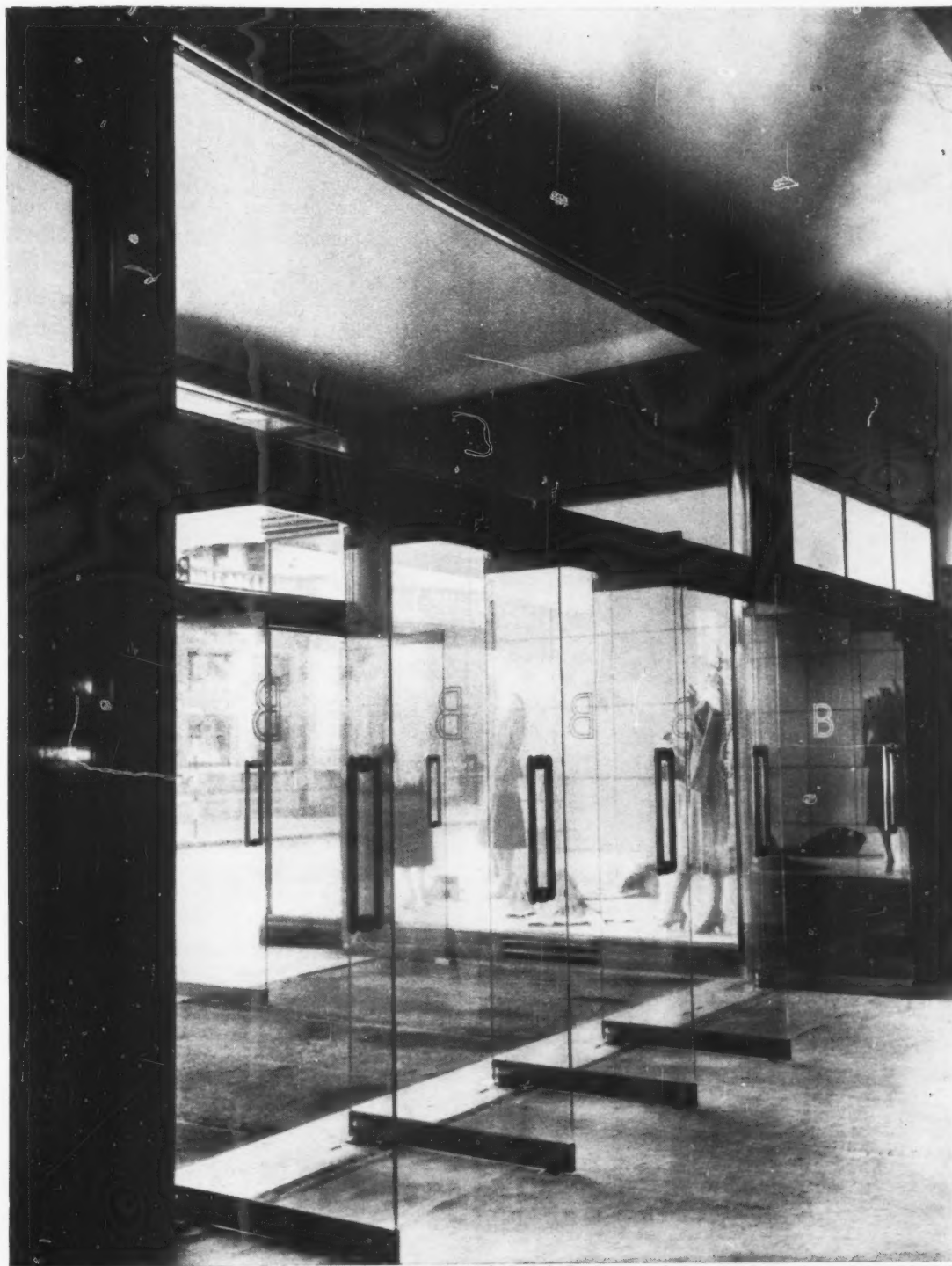
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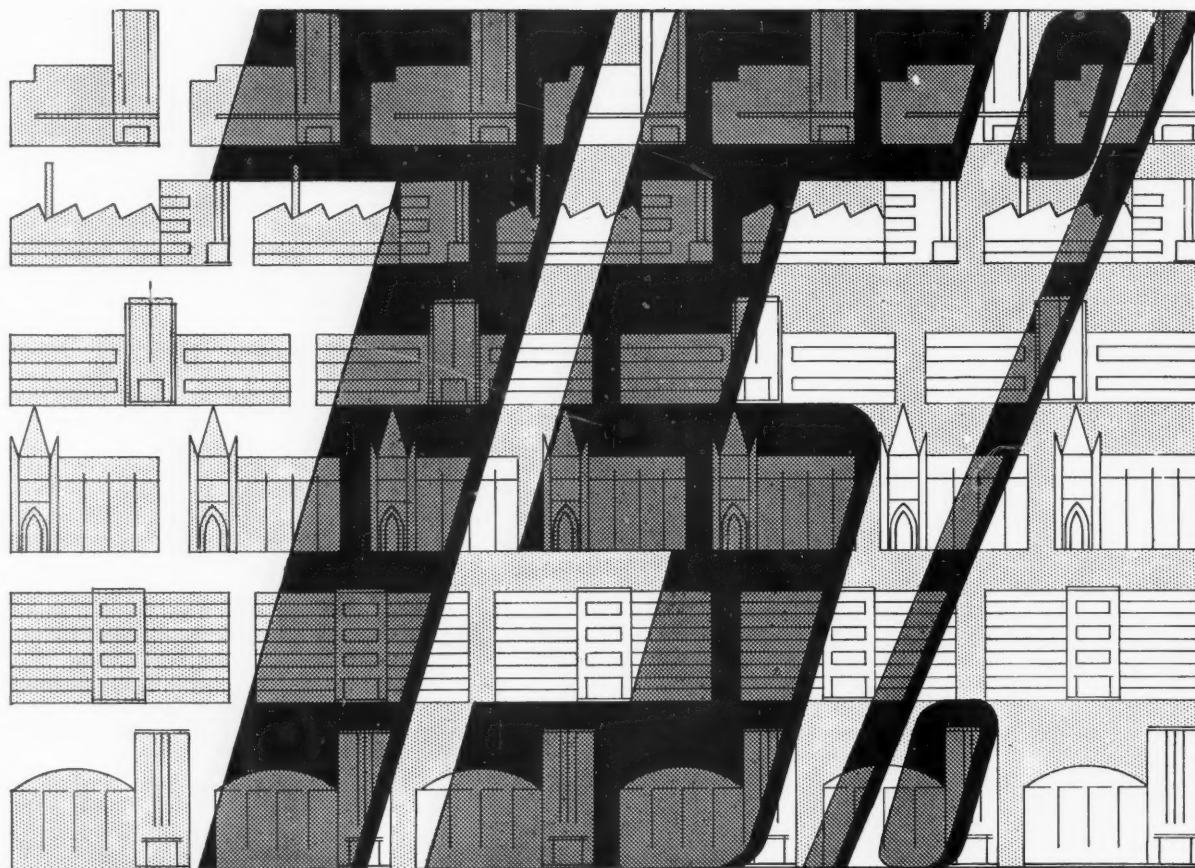
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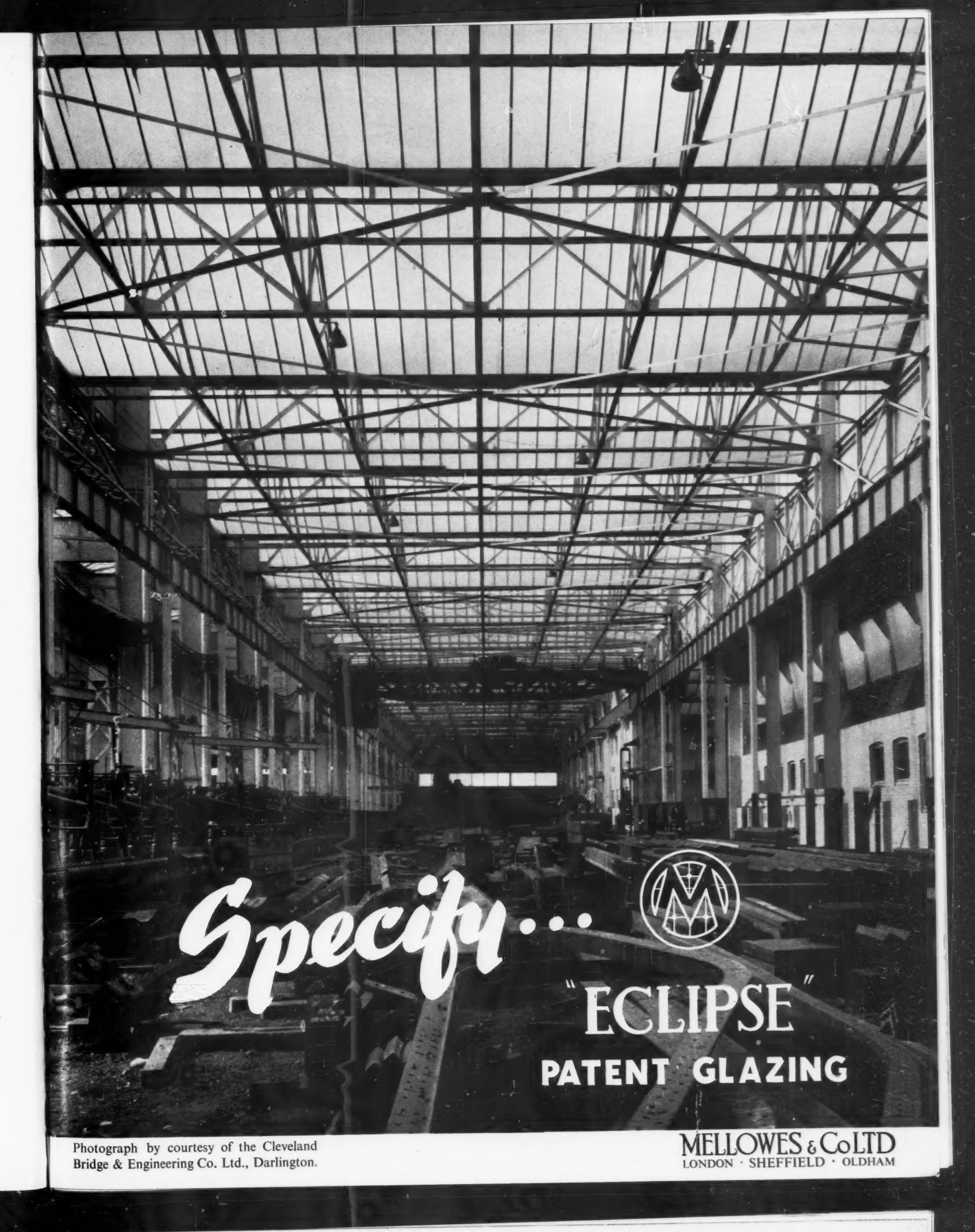
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my hand puts to scorn all
machinery"*

Walt Whitman



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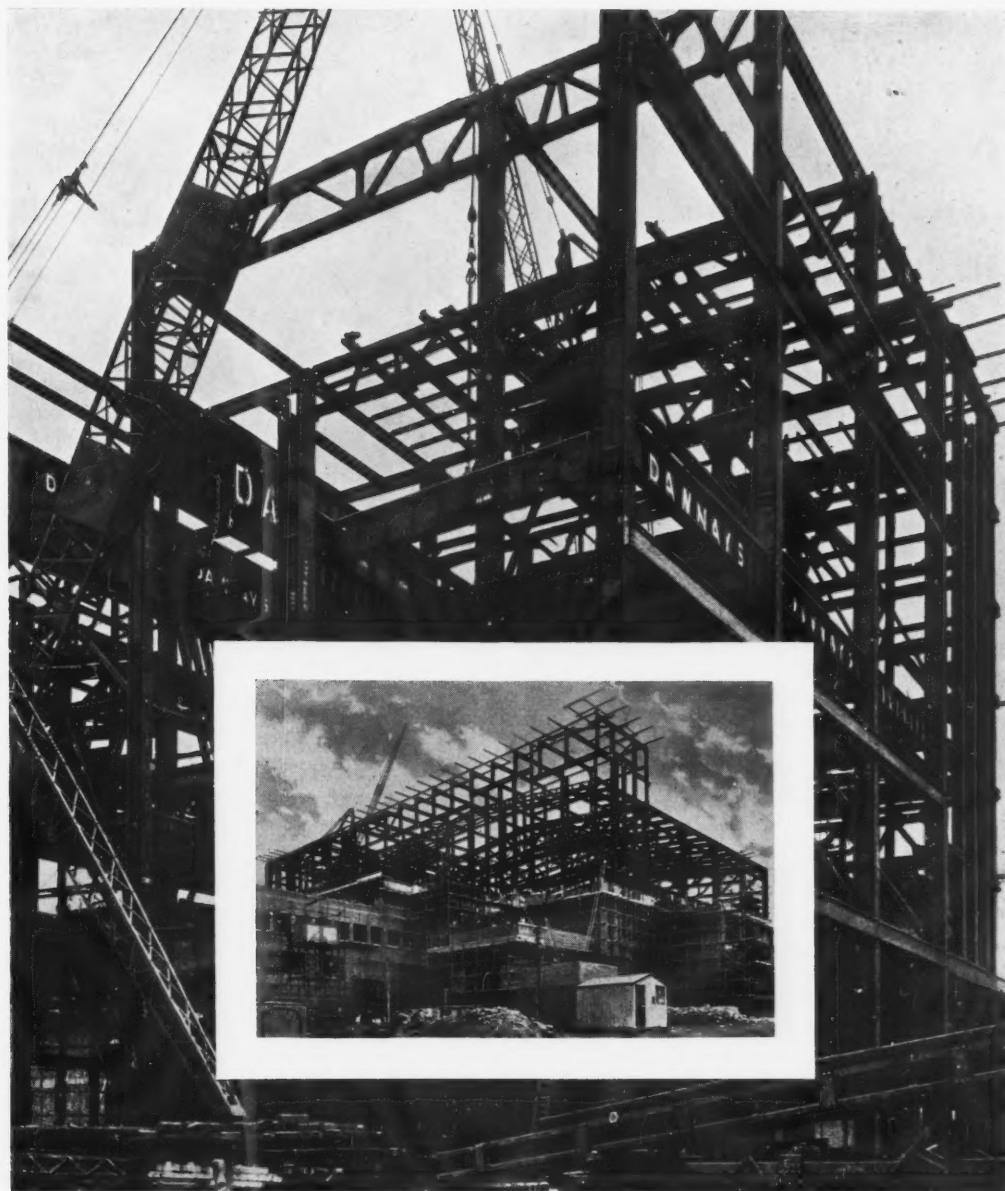
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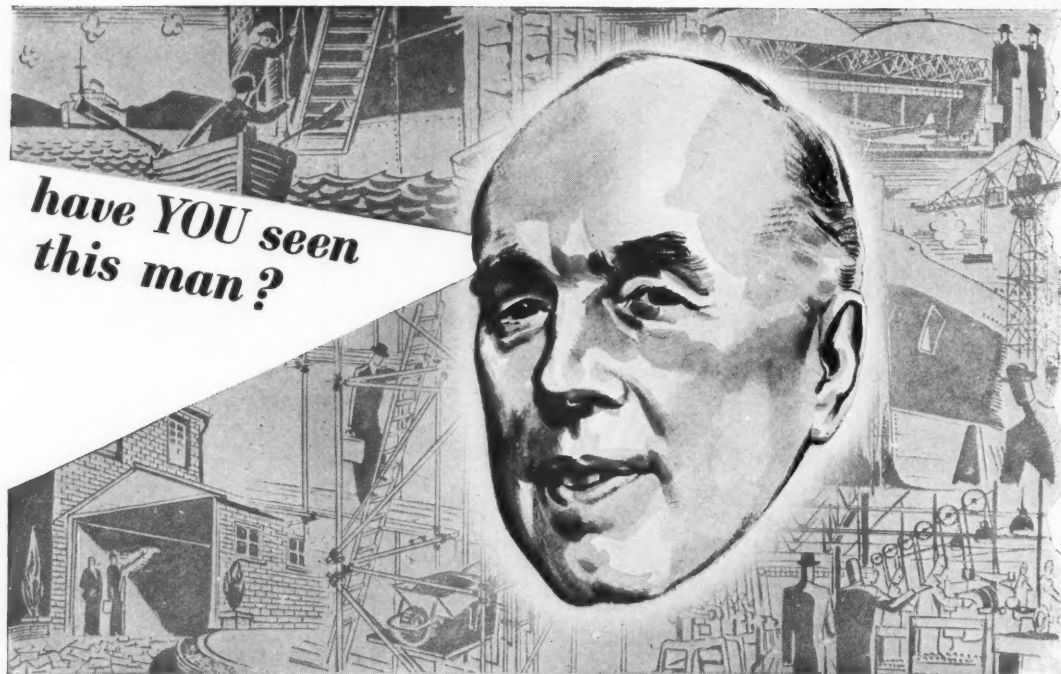
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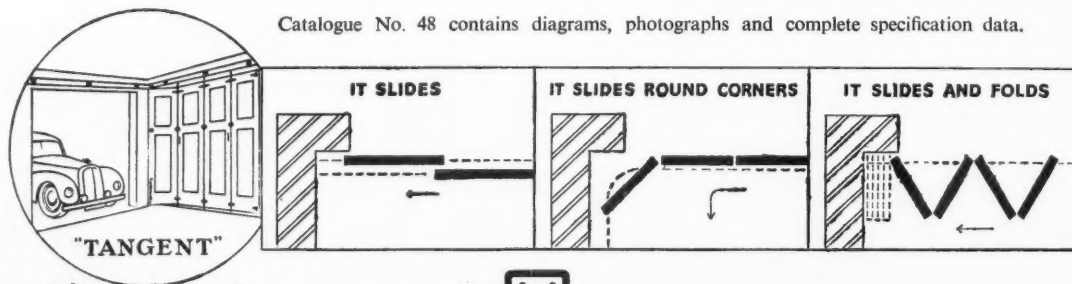
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Catalogue No. 48 contains diagrams, photographs and complete specification data.



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for any Door, Partition or Window that slides or folds.

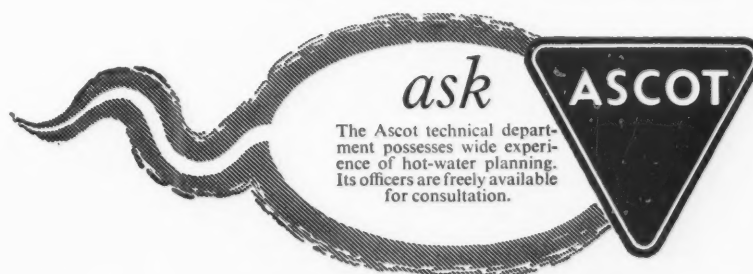
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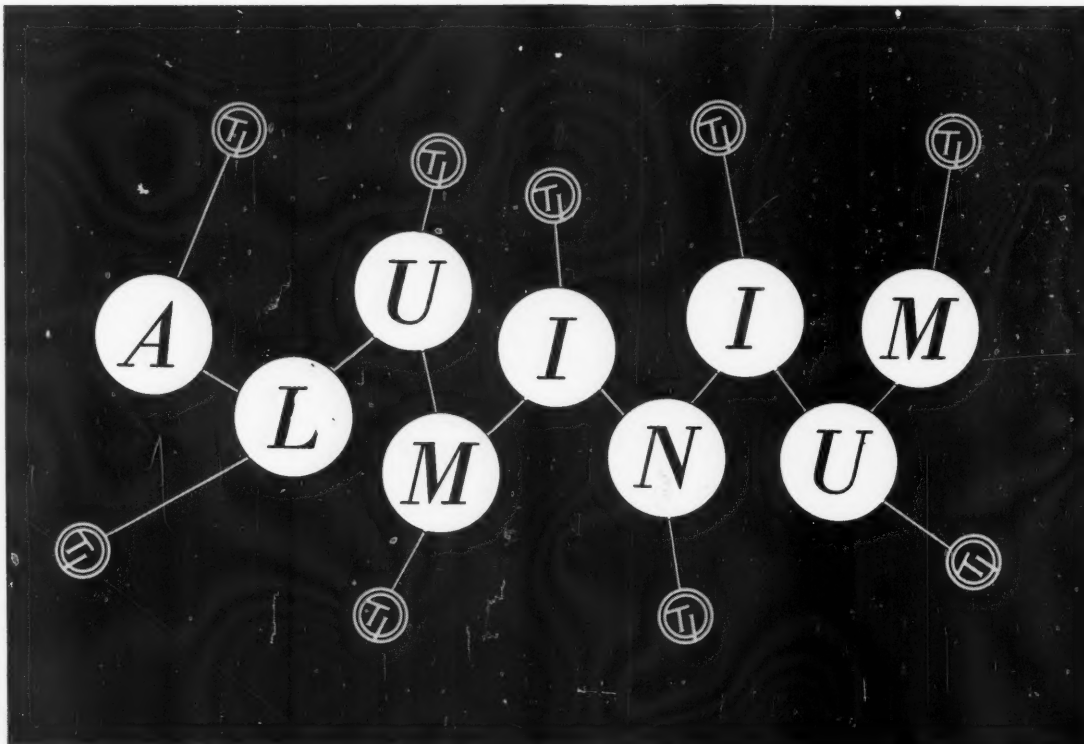
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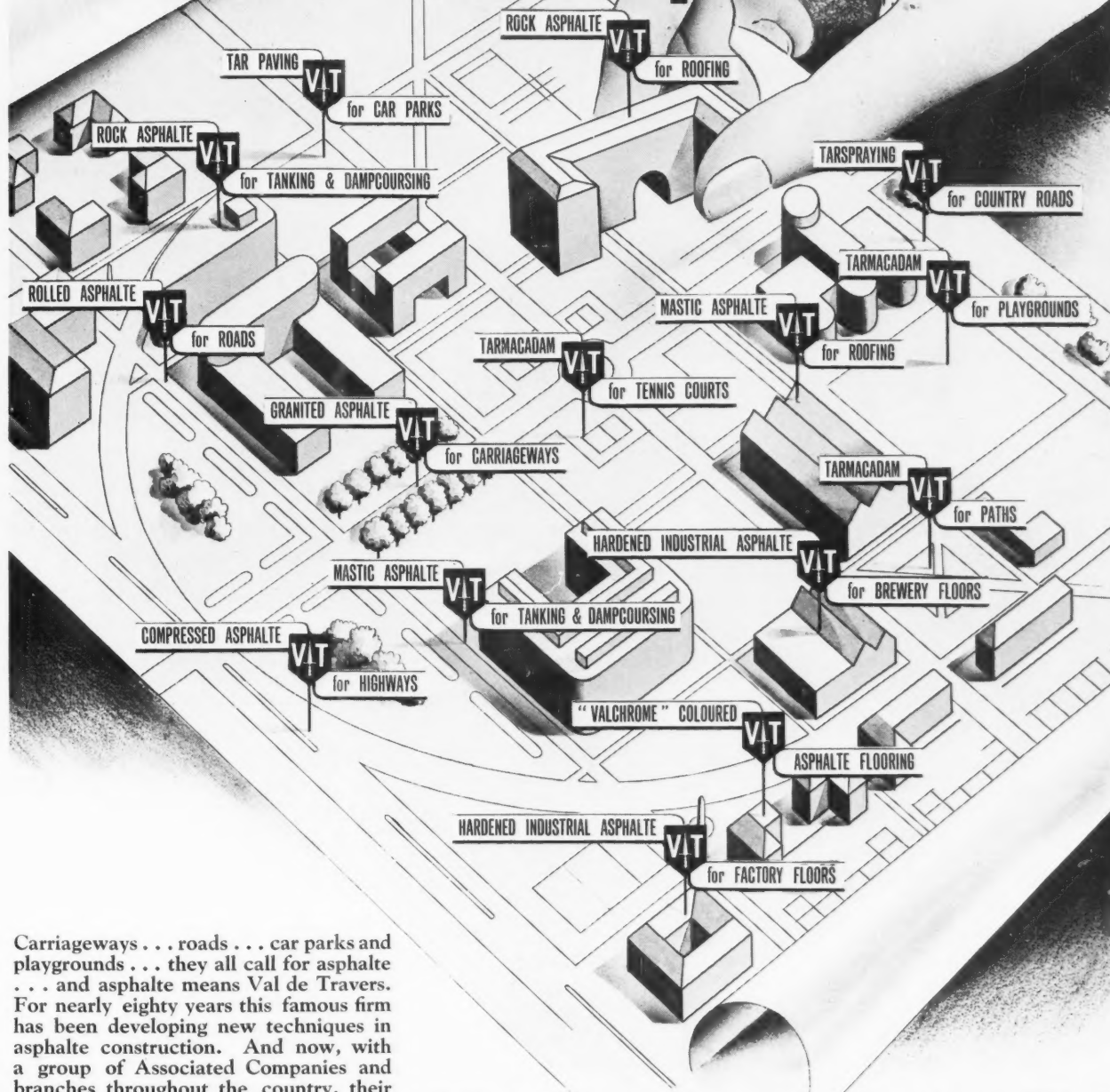
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We wanted to quote the customer who said we gave him "Aluminium with knobs on", but our technical people thought it might take the whole advertisement to convince anyone else that the customer meant well. He did. One and all, the 'knobs' were figurative: he liked the co-operation he got from our research staff and metallurgists and the quality and finish of the completed extrusions (not a knob to be found out of place).

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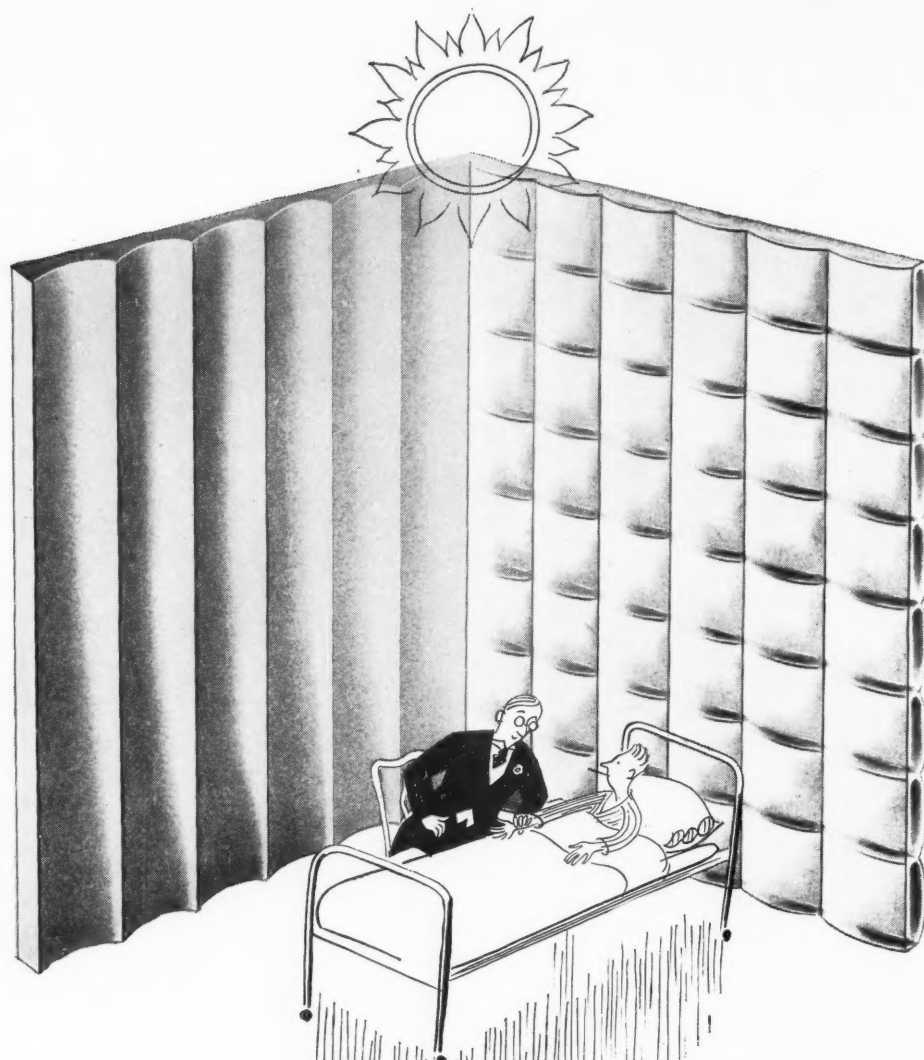
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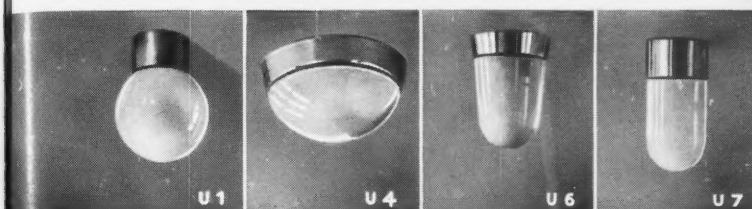
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ULTRALUX

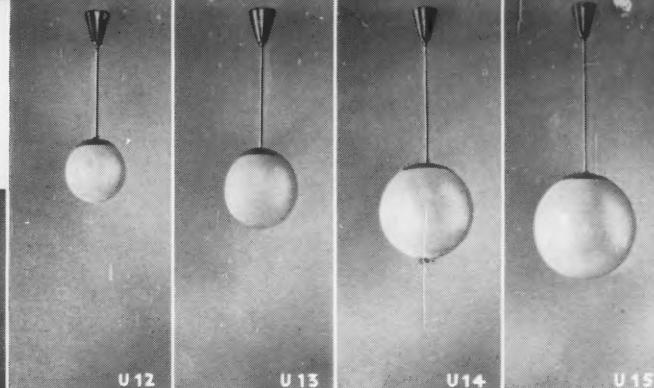


Glass: 6" dia.
Depth: 7½"
Lamp: 60 watt B.C.

Gallery: 9" dia.
Depth: 4½"
Lamp: 60 watt B.C.

Gallery: 5½" dia.
Depth: 7"
Lamp: 60 watt B.C.

Gallery: 3½" dia.
Depth: 7½"
Lamp: 60 watt B.C.



Glass: 8" dia.
Lamp: 60 watt B.C.

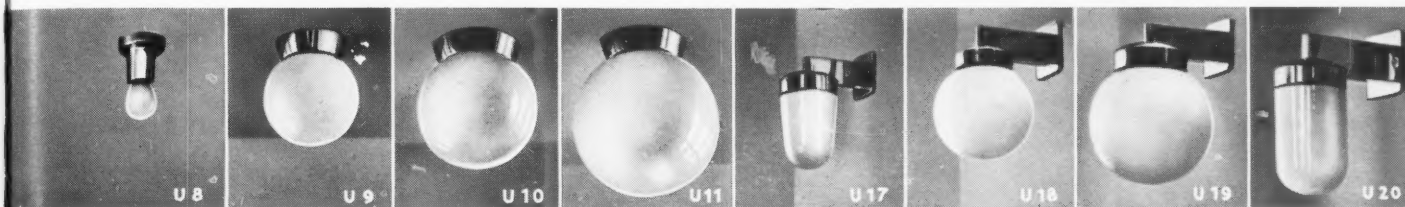
Glass: 10" dia.
Lamp: 100 watt B.C.

Glass: 12" dia.
Lamp: 150 watt B.C.

Glass: 14" dia.
Lamp: 200 watt E.S.



Glass: 16" dia.
Depth: 9½"
Lamp: 150 watt B.C.
(with or without suspension).



Gallery: 3½" dia.
Depth: 5½" including lamp.
Lamp: 60 watt B.C.

Glass: 6" dia.
Depth: 6½"
Lamp: 60 watt B.C.

Glass: 8" dia.
Depth: 8½"
Lamp: 100 watt B.C.

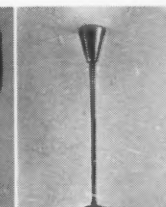
Glass: 10" dia.
Depth: 11"
Lamp: 150 watt B.C.

Height: 9½"
Projection: 7½"
Lamp: 60 watt B.C.

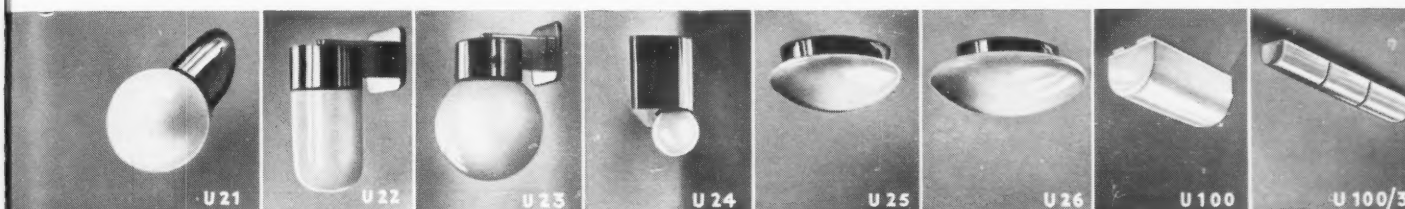
Glass: 6" dia.
Height: 9"
Projection: 8"
Lamp: 60 watt B.C.

Glass: 8" dia.
Height: 11"
Projection: 9"
Lamp: 100 watt B.C.

Glass: 3½" dia.
Height: 9½"
Projection: 7"
Lamp: 60 watt B.C.



U13R



Glass: 6" dia.
Height: 8½"
Projection: 7"
Lamp: 60 watt B.C.

Glass: 3½" dia.
Height: 9"
Projection: 5½"
Lamp: 60 watt B.C.

Glass: 6" dia.
Height: 9"
Projection: 6½"
Lamp: 60 watt B.C.

Height: 6½" including lamp.
Width: 3"
Projection: 3"
Lamp: 60 watt B.C.

Glass: 11" dia.
Depth: 5"
Lamp: 60 watt B.C.

Glass: 14½" dia.
Depth: 6"
Lamp: 100 watt B.C.

Length: 8½"
Width: 4½"
Depth: 4"
Lamp: 60 watt B.C.

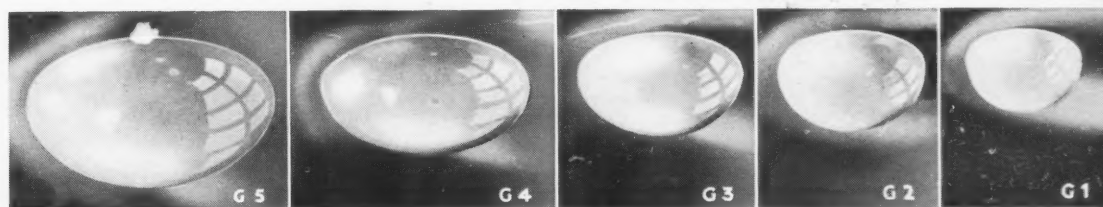
Length: 27"
Other details as for U.100.
Lamps: Three 60 watt B.C.

Glass: 10" dia.
Reflector: 20" dia.
Lamp: 100 watt B.

U12R
Glass: 8" dia.
Reflector: 20" dia.
Lamp: 60 watt B.

U14R
Glass: 12" dia.
Reflector: 20" dia.
Lamp: 150 watt B.

ULTRALUX 'G'



Glass: 16" dia.
Depth: 5½"
Lamps: Two 100 watt B.C.

Glass: 14" dia.
Depth: 5"
Lamps: Two 75 watt B.C.

Glass: 12" dia.
Depth: 4½"
Lamps: Two 60 watt B.C.

Glass: 10" dia.
Depth: 4½"
Lamp: 60 watt B.C.

Glass: 8½" dia.
Depth: 4½"
Lamp: 40 watt B.C.

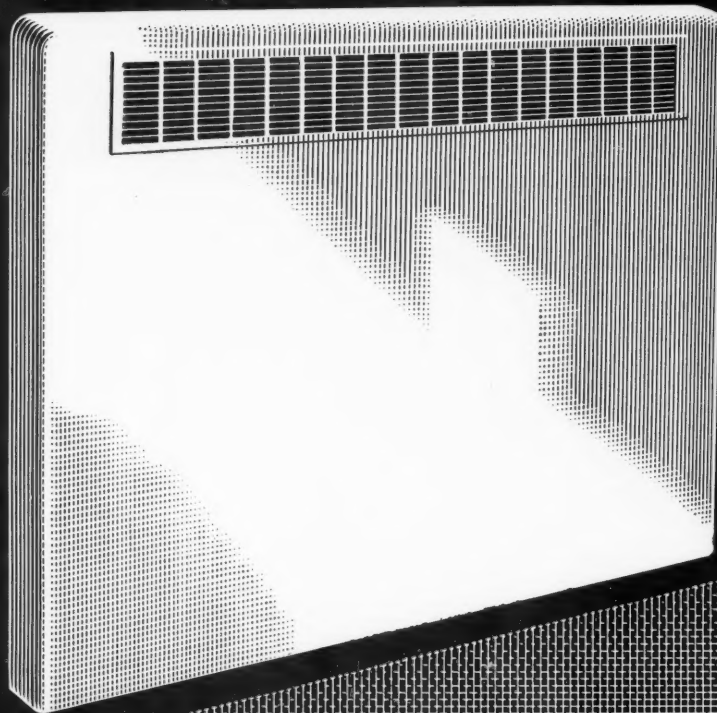
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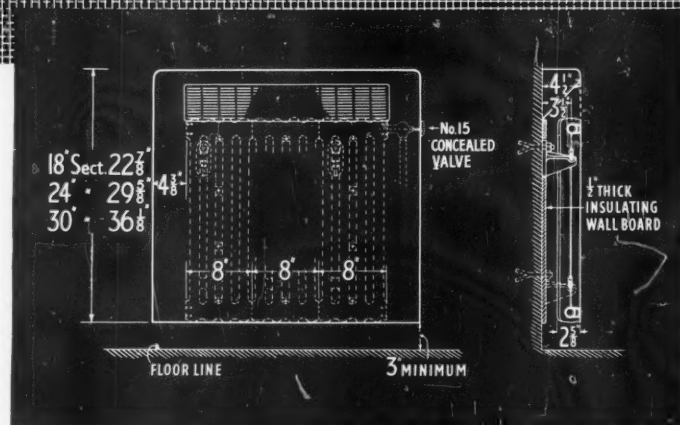
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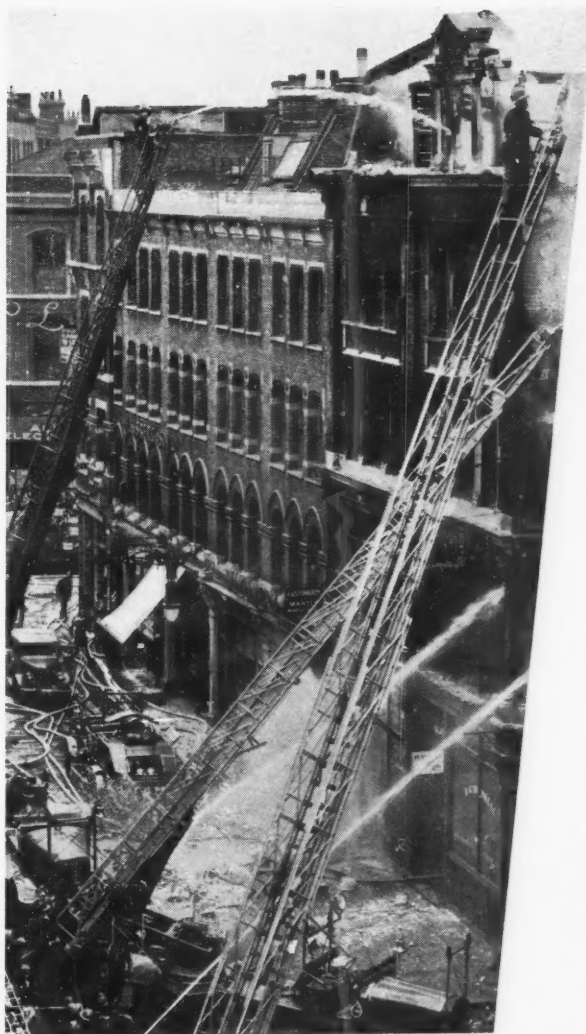


★ Dimensioned drawing of the No. 45 Rayrad. Standard sizes 3 to 7 sections. With the No. 44 Rayrad the standard face plate is of the same size as the sections, but larger face plates can be supplied to order.

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The illustration on the right shows the "Conquest" Soda-acid Extinguisher and the Pyrene "Everyway" Hose Reel, both housed in a recess 12 in. deep. An Architects' information sheet giving full dimensional details will be sent on request.



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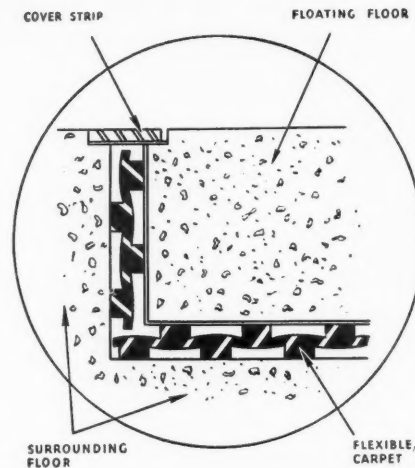
A new barrier against vibration

Where it is impracticable individually to mount the feet of instruments or machines, the floor mass itself may be "suspended" on D.S.P. Flexible Rubber Carpets scientifically designed for use under the foundations of mills, power presses, hammers and other heavy machinery, thus preventing the transmission of vibration to the building structure (see drawing).

Conversely, there are applications where it is necessary to isolate delicate instruments from the damaging effects of external vibration.

An interesting instance of this type of installation is the mounting of an entire laboratory floor at the Chester Beatty Research Institute of the Royal Cancer Hospital, London (see photograph). The laboratory contains a large ultra-violet microscope for the examination of tissue: since an extremely high magnification is required and photographic exposure times are of several seconds duration, it is essential that external traffic vibrations be prevented from interfering with the instruments.

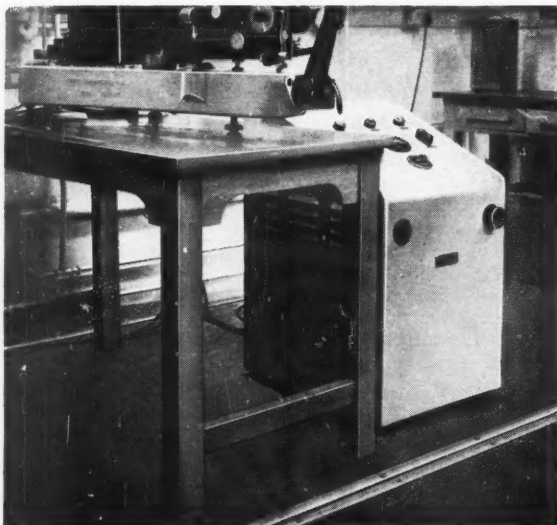
By mounting the floor mass on D.S.P. Flexible Rubber Carpets, interference from external sources has been



effectively reduced and the hospital authorities confirm that photographic blurring has been eliminated.

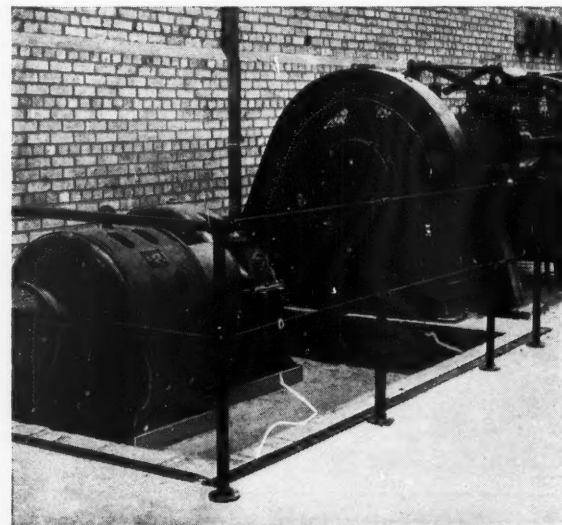
D.S.P. Rubber Carpets are produced in varying hardnesses to suit the load conditions: specifications for installation purposes will be considered, on enquiry.

ISOLATING MICROSCOPE FROM EXTERNAL VIBRATION



The laboratory floor at the Chester Beatty Research Institute of the Royal Cancer Hospital, London, "suspended" on D.S.P. Carpet Mountings.

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A rubber mill in the Midlands which has for several years been mounted on D.S.P. Carpet Mountings.

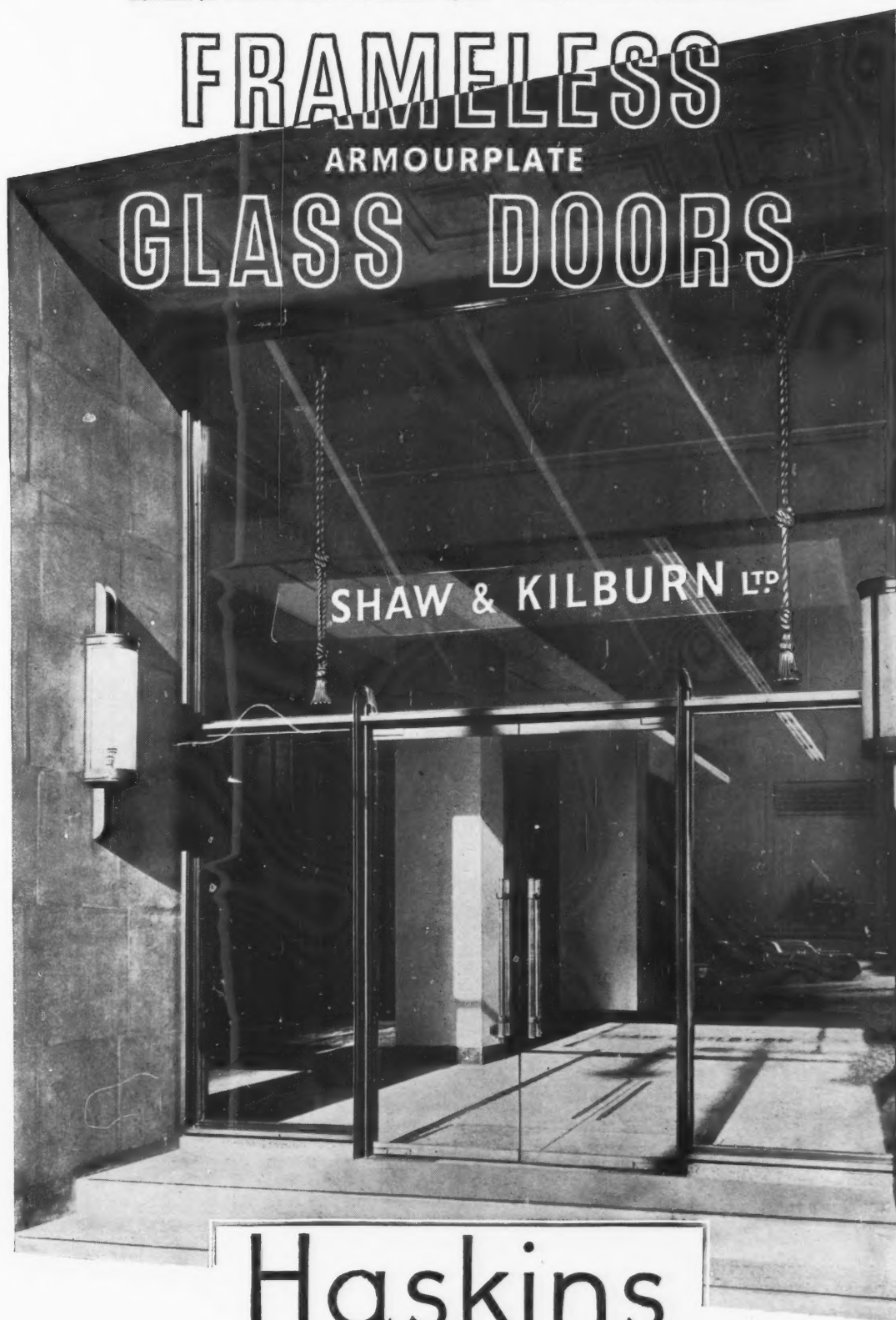
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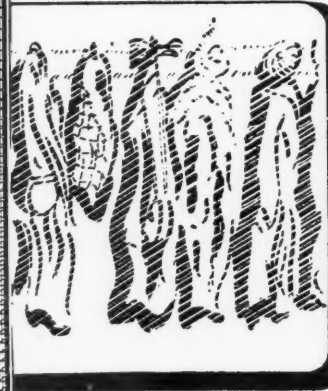
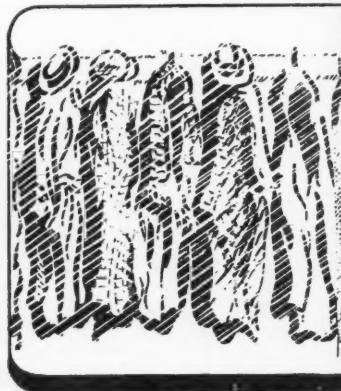
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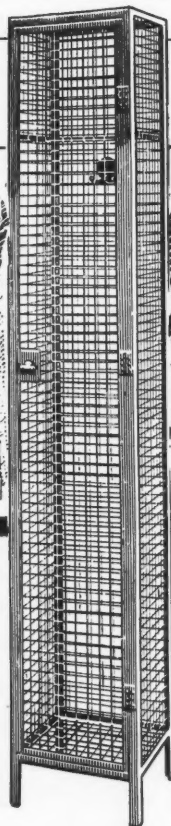
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by their Majesties
the King and Queen
IN WESTMINSTER HALL



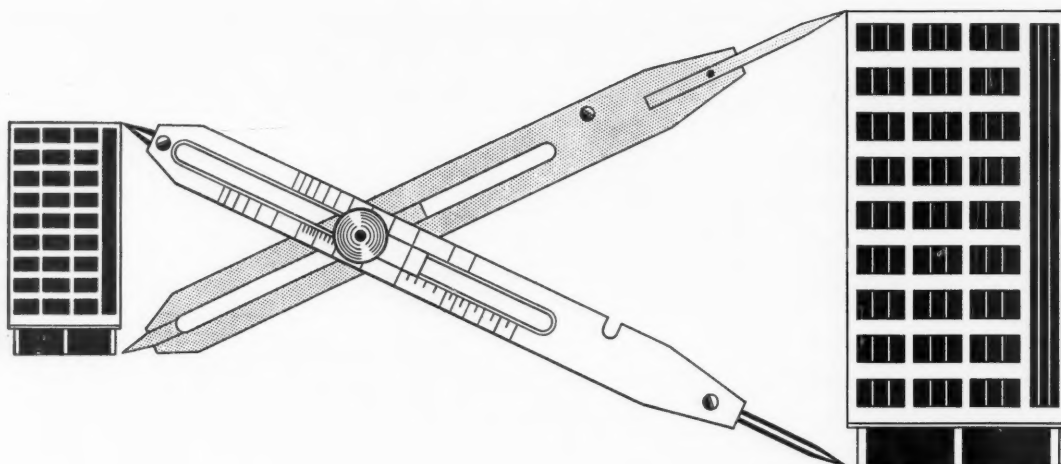
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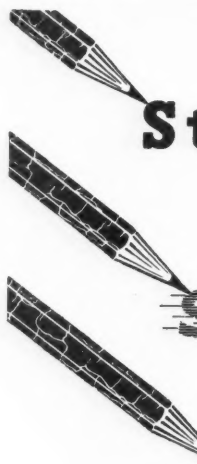
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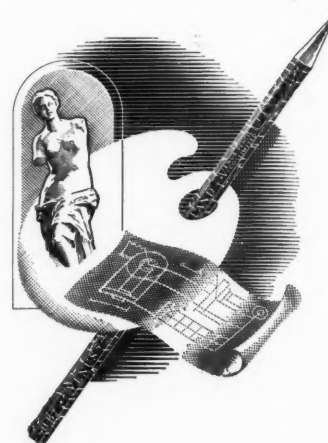
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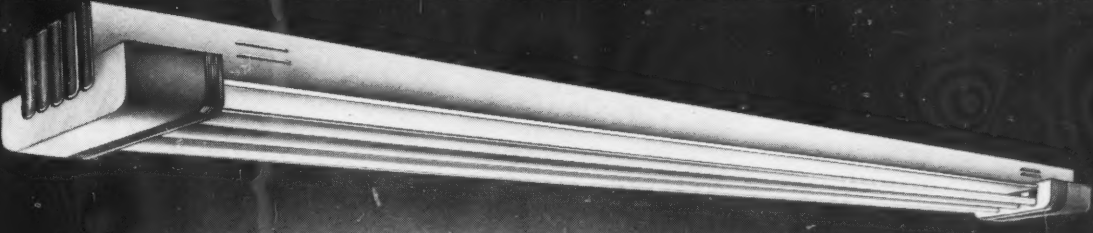
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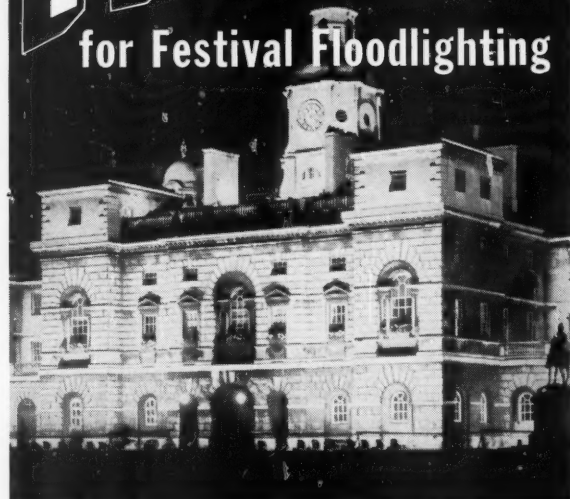
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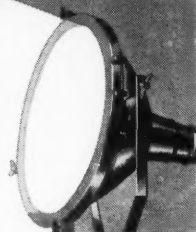


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*Architect: E. Vincent Harris, O.B.E., R.A., F.R.I.B.A.
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On the changing face of London, aluminium windows are being seen with increasing frequency. Here, in this new Government building facing Victoria Embankment, are approximately 1,400 windows in Noral alloys, ranging in size from 8 ft. x 6 ft. to 15 ft. x 10 ft.

For years to come they will require little attention and will not stain the masonry, thus showing a considerable reduction in maintenance costs for a building of this size. We invite you to write for our publication on aluminium windows.

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THE NEW HOUSE OF COMMONS



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Improving the Acoustics

—in old buildings or new

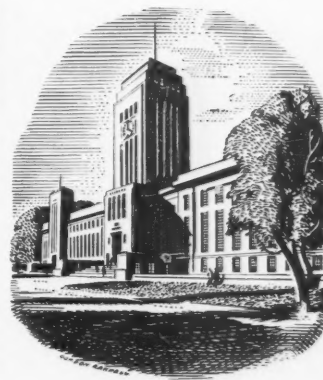


FROM Norman churches to post-war municipal buildings, wherever there is a need for improved acoustics, Philips are able to provide the correct Sound Amplifying Equipment—correct not only technically, but also aesthetically, each installation being planned separately to ensure that every part of the equipment is completely unobtrusive.

For churches, in particular, this type of installation specially designed to harmonise with its surroundings, is much in demand, since it enables the congregation to follow the services more closely without in any way spoiling the beauty of the church itself.

Recently Philips Sound equipment was installed in Canterbury Cathedral. Its immediate success led to a similar installation being made in the cathedral at Exeter.

Besides churches and public buildings, Philips Sound Amplifying Equipment is being introduced into leading hotels, schools, hospitals and a wide variety of modern office blocks. Please write for further particulars.



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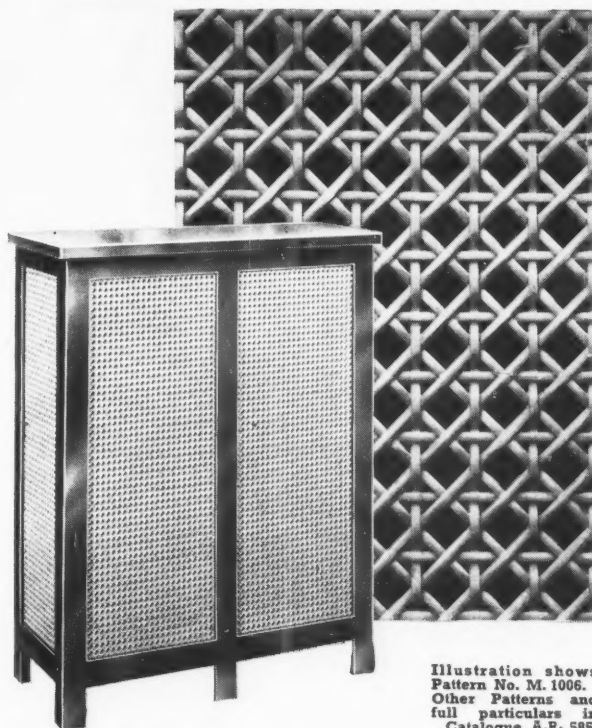


Illustration shows Pattern No. M. 1006. Other Patterns and full particulars in Catalogue A.R. 585.

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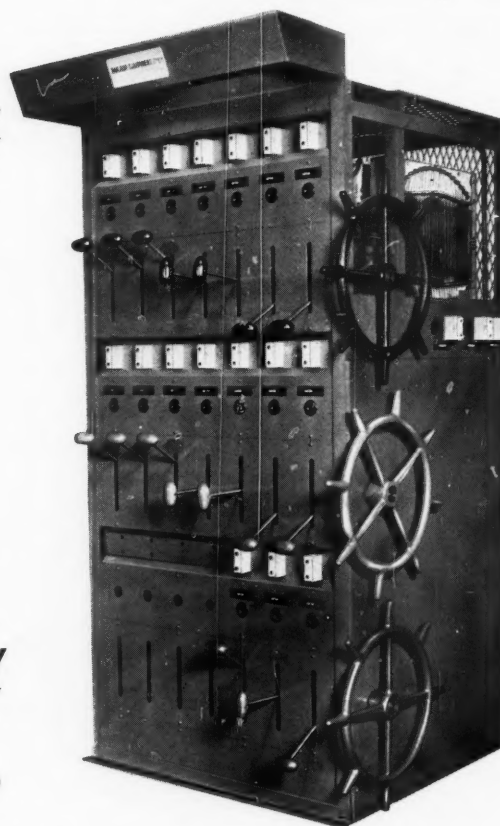
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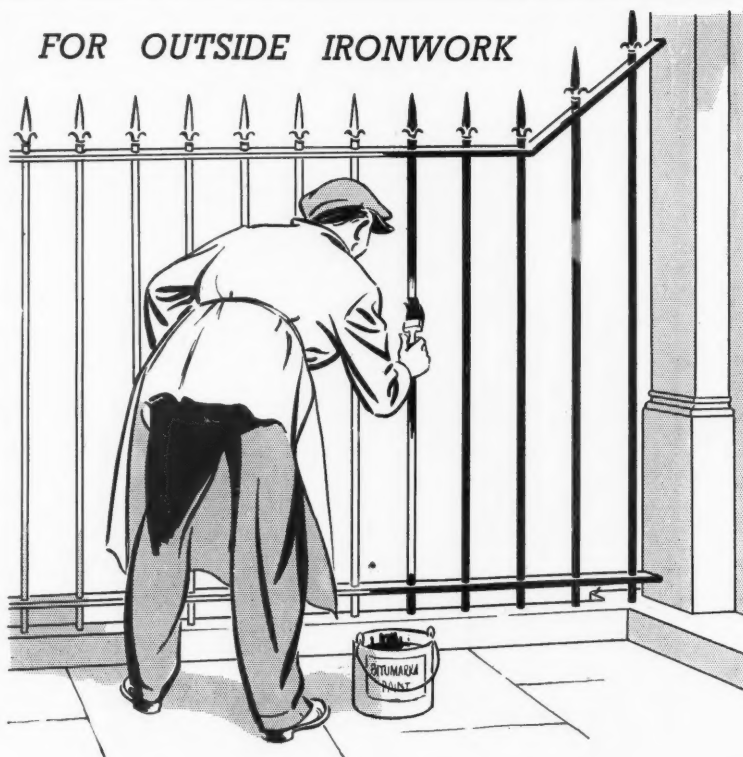
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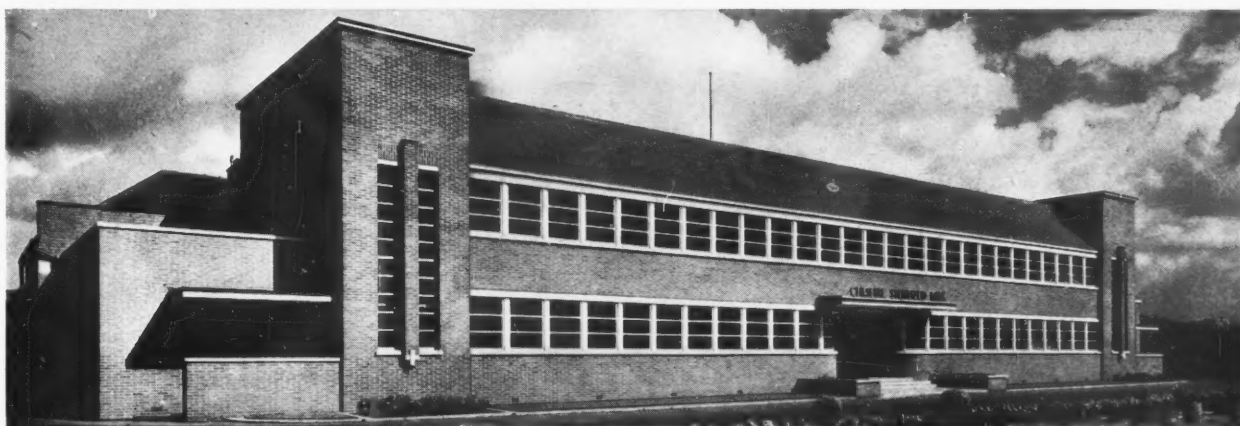
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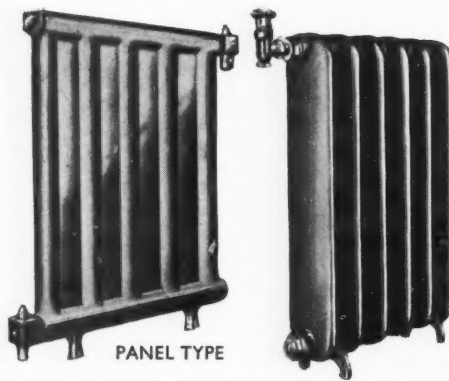
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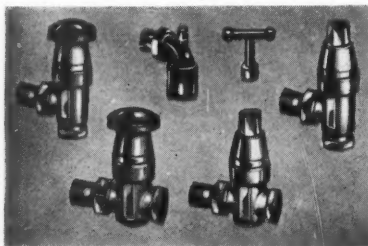
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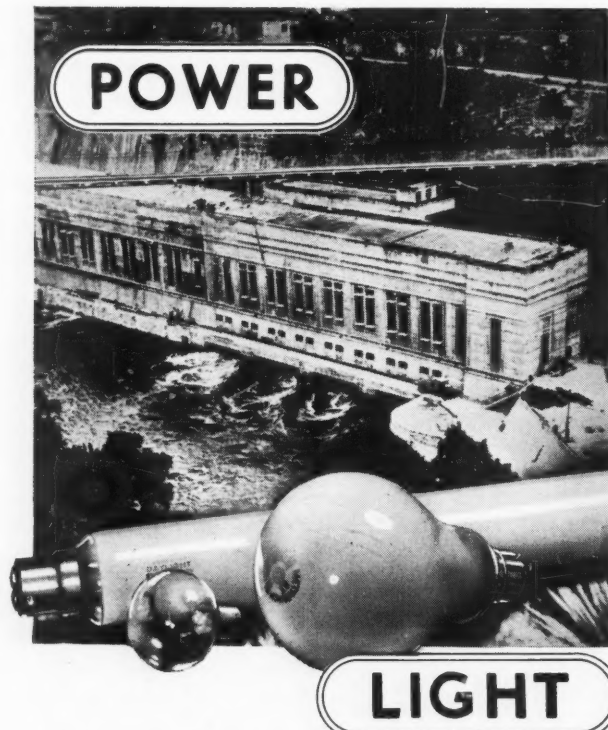
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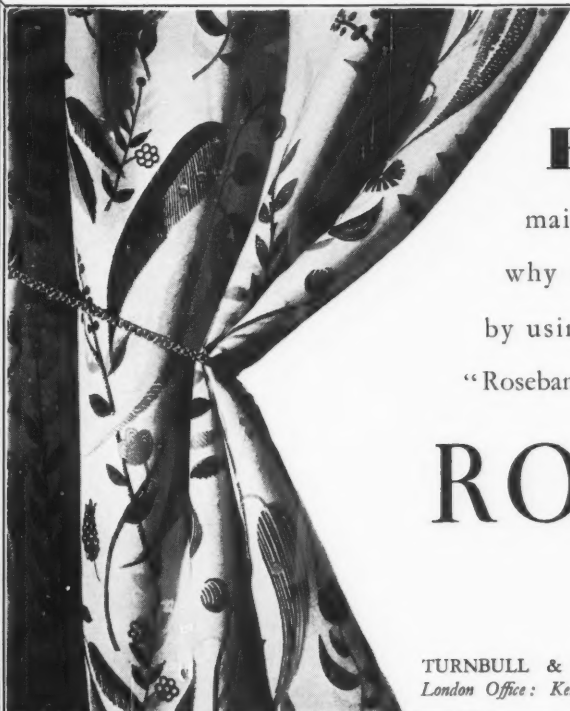
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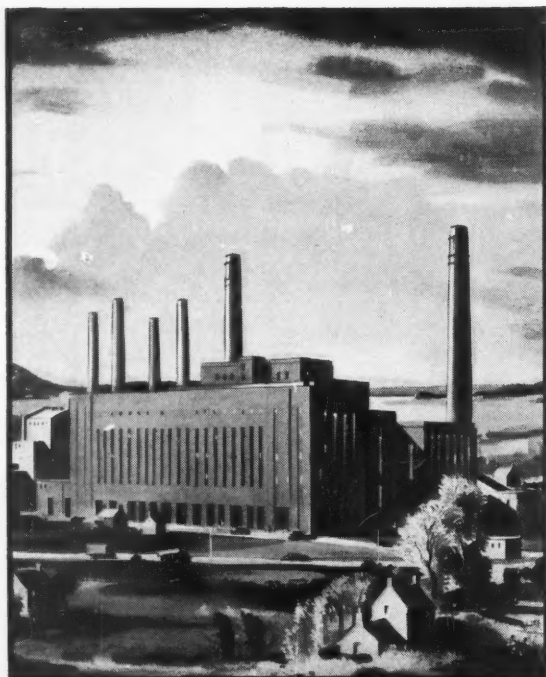


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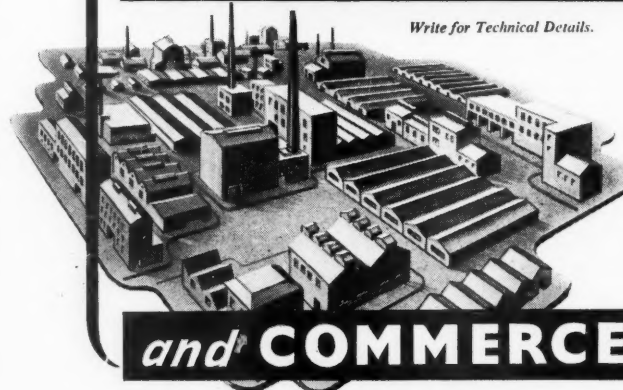
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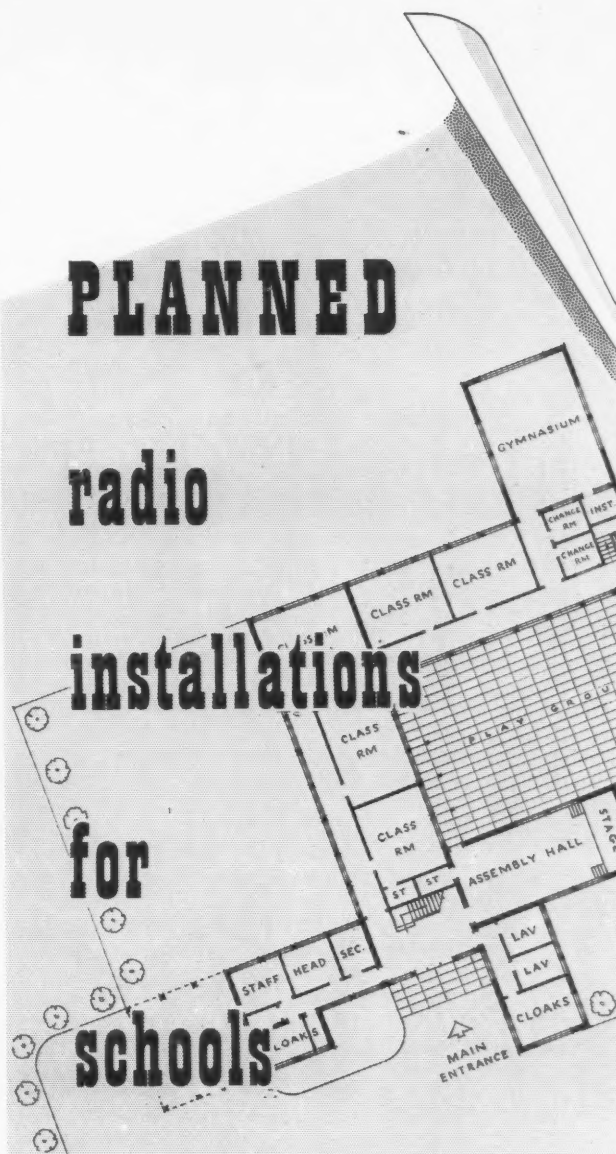
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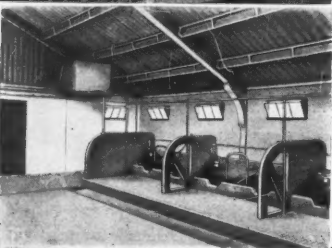
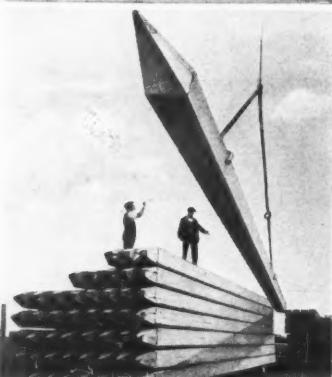
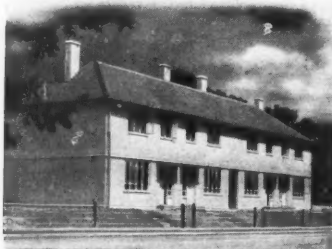
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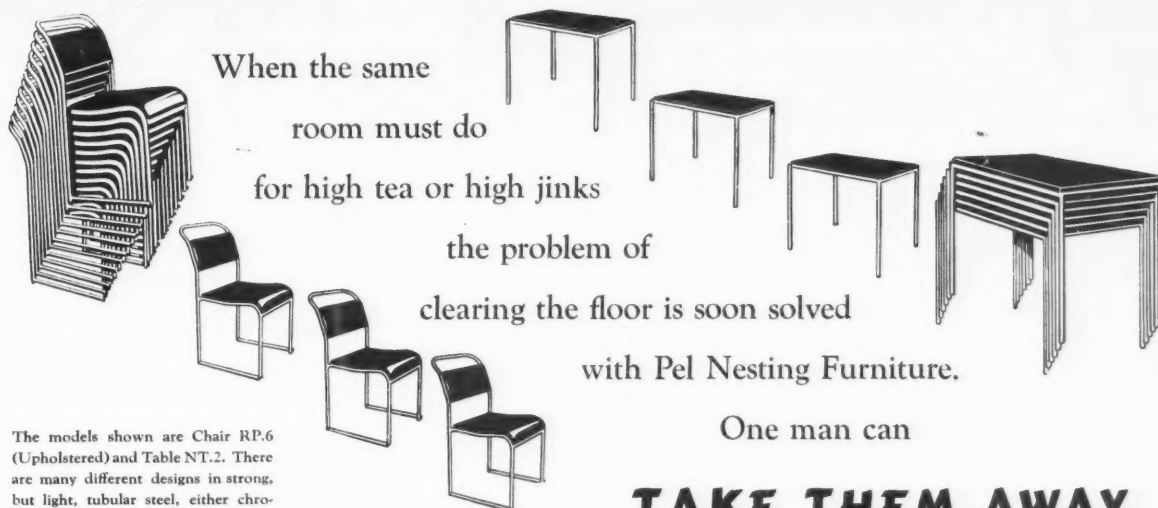
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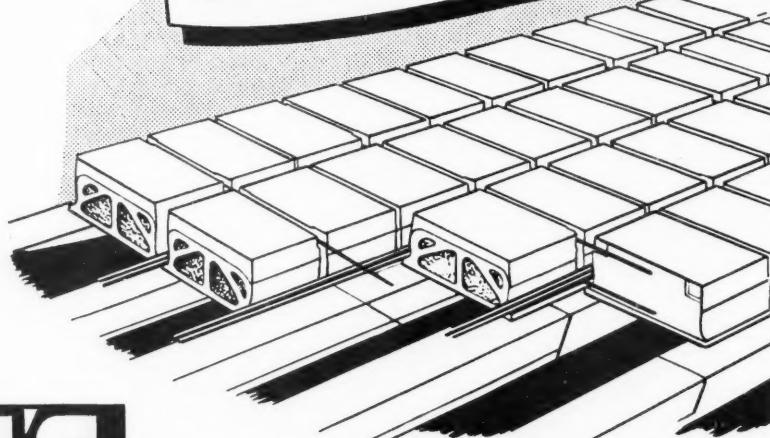
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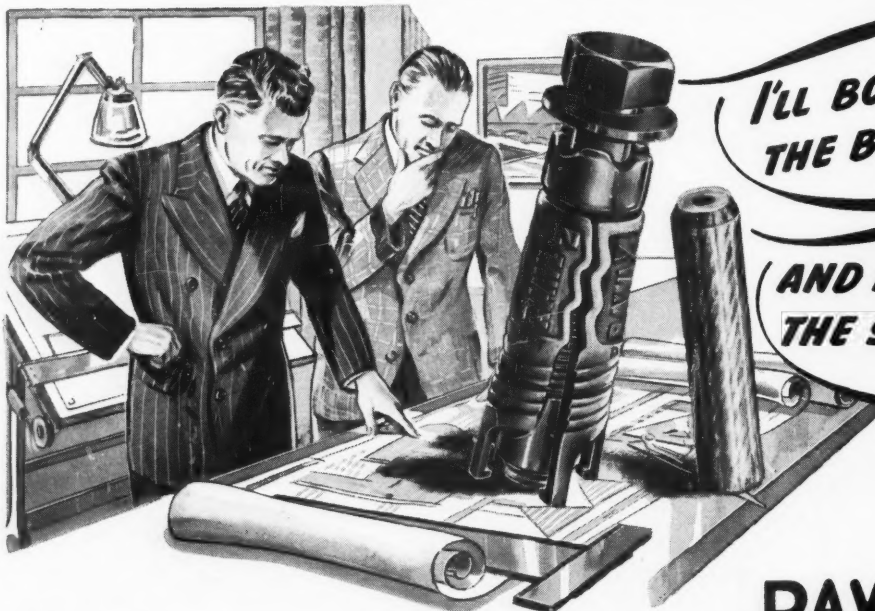
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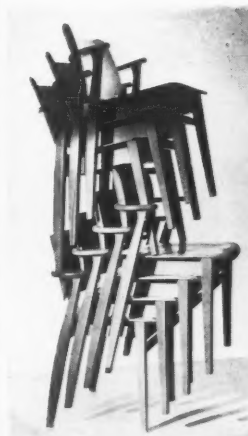
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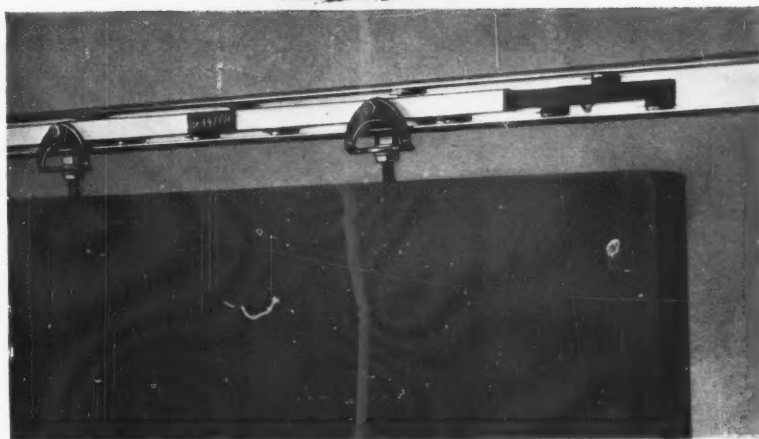
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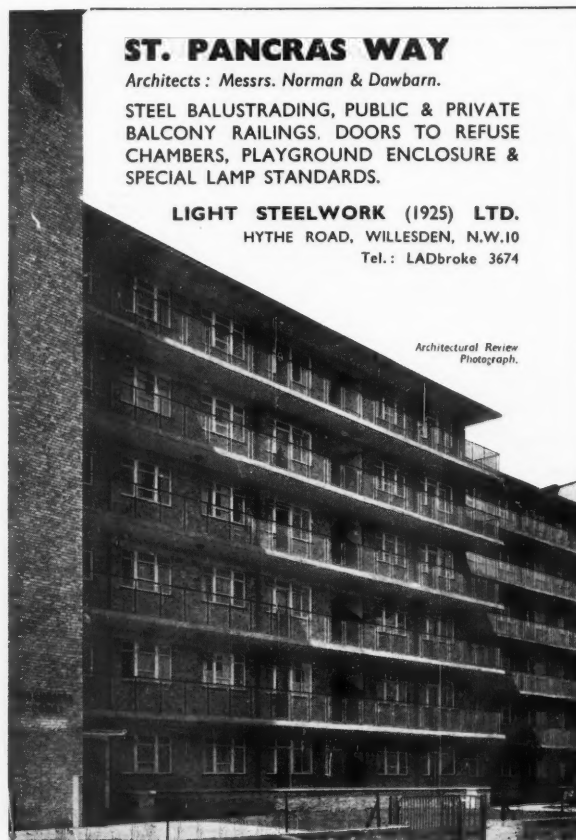
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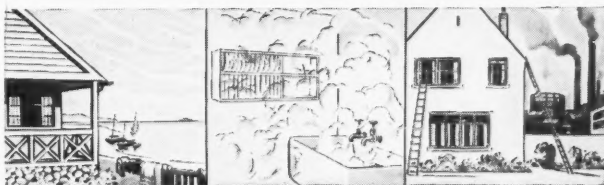
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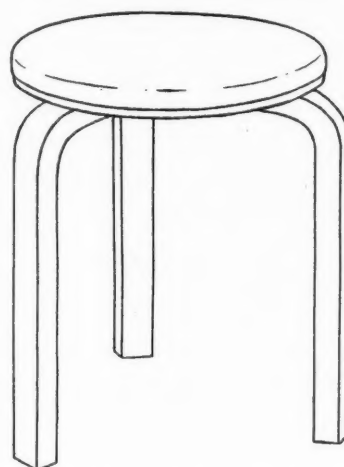
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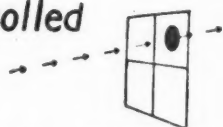
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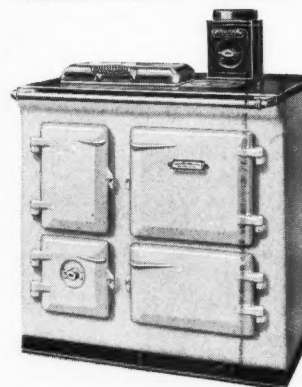


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