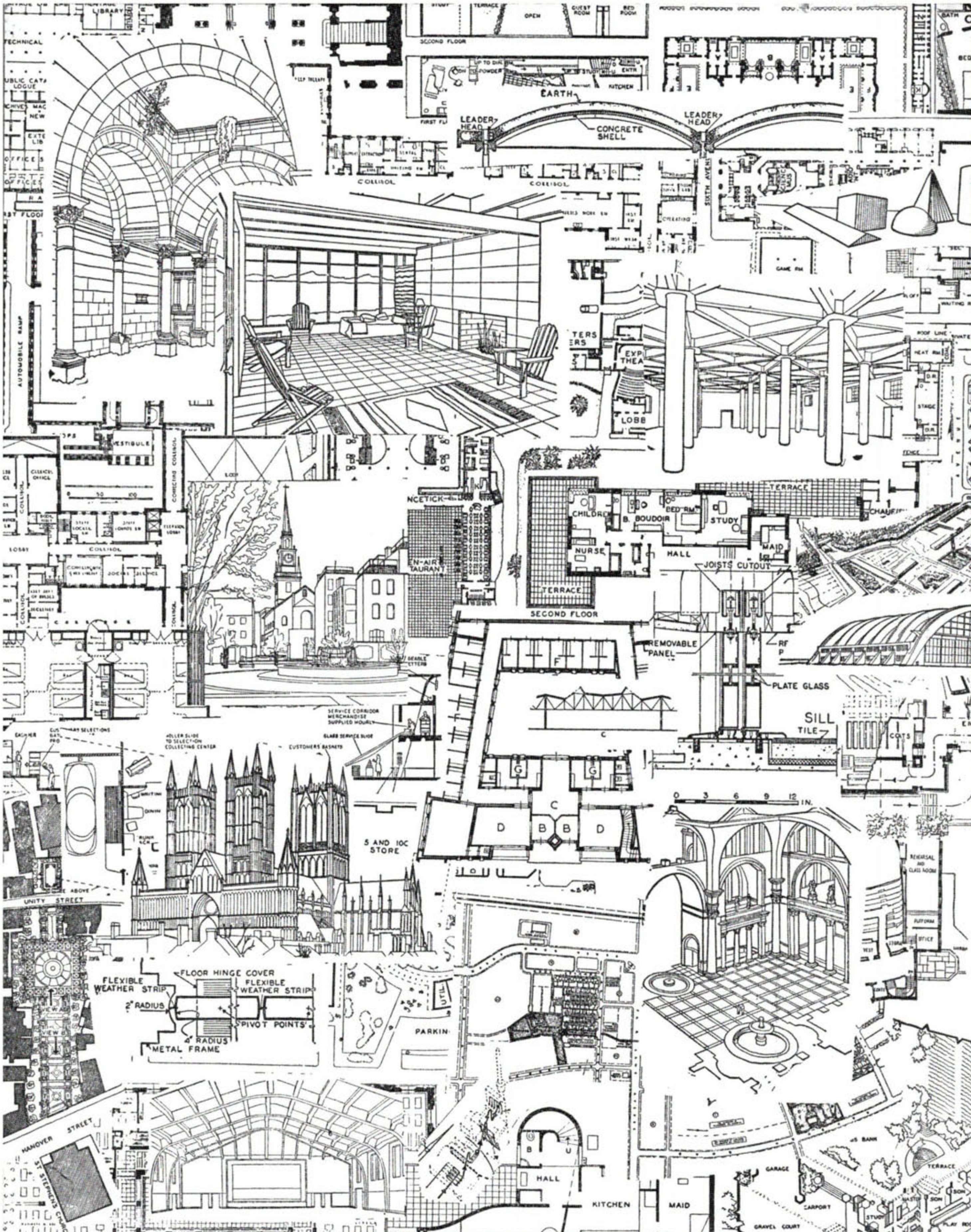

LIBRARY
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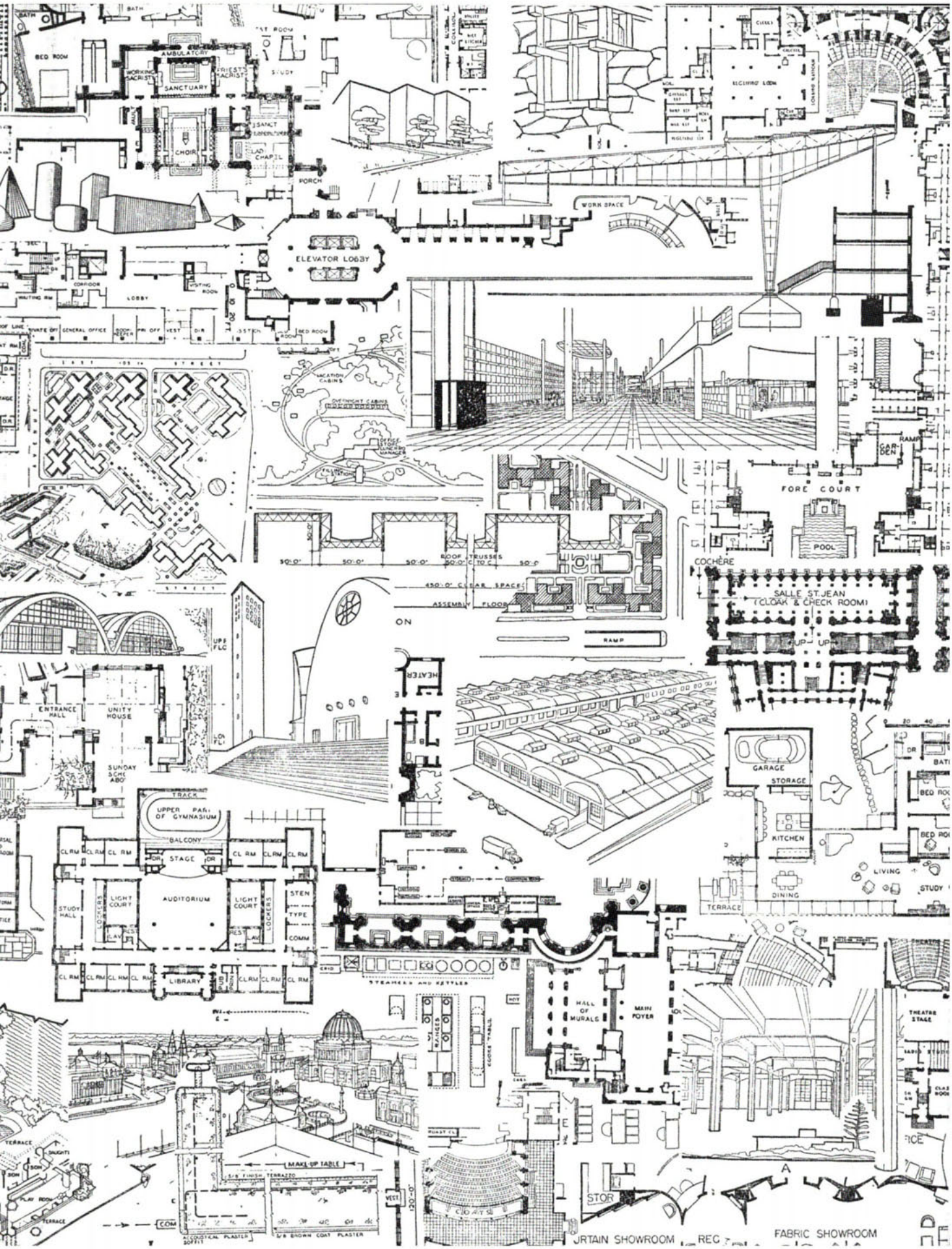
SECOND FLOOR
OPEN
GUEST ROOM
BED ROOM
EARTH
LEADER HEAD
CONCRETE SHELL
LEADER HEAD
KITCHEN
FIRST FLOOR
COLLISOL
AUTOMOBILE RAMP
SIXTH AVENUE
GAME RM
ROOF LINE
HEAT RM
STAGE
FENCE
VESTIBULE
LOBBY
NCETICK
LOBB
CHILDREN
B. BOUDOIR
BED RM
STUDY
TERRACE
NURSE
HALL
MAID
JOISTS CUTOUT
TERRACE
SECOND FLOOR
CHAUFF
REMOVABLE PANEL
PLATE GLASS
SILL
TILE
F
C
G
G
C
D
B
B
D
COTS
SERVICE CORRIDOR MERCHANDISE SUPPLIED HOURLY
GLASS SERVICE SLIDE
CUSTOMERS BASKETS
CUSTOMARY SELECTIONS
ROLLER SLIDE TO SELECTION COLLECTING CENTER
5 AND 10C STORE
0 3 6 9 12 IN.
UNITY STREET
FLOOR HINGE COVER
FLEXIBLE WEATHER STRIP
FLEXIBLE WEATHER STRIP
2" RADIUS
PIVOT POINTS
4" RADIUS
METAL FRAME
PARKIN
UTIL
HANOVER STREET
ST. STEPHEN'S CHURCH
HALL
KITCHEN
MAID
LIVING
DINING
GARAGE
CARPORT
GRAVEL COURT
TERRACE
STUDY
PLAY ROO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WORKING SACRIST
PRIEST'S SACRIST
SANCTUARY
STUDY
CHOIR
LADY CHAPEL
PORCH
ELEVATOR LOBBY
CORRIDOR
LOBBY
GENERAL OFFICE
BED ROOM
VACATION CABINS
OVERNIGHT CABINS
WORK SPACE
ELECTRIC LOCH
GARDEN
RAMP
FORE COURT
POOL
COCHÈRE
ROOF TRUSSES
450'-0" CLEAR SPACE
ASSEMBLY FLOOR
RAMP
SALLE ST JEAN
(CLOAK & CHECK ROOM)
UP
UP
HEATER
ENTRANCE HALL
UNITY HOUSE
SUNDAY SCHOOL
TRACK
UPPER PART OF GYMNASIUM
BALCONY
CL RM
STAGE
DR
AUDITORIUM
LIGHT COURT
LOCKERS
STEN
TYPE
COMM
STUDY HALL
LIBRARY
GARAGE
STORAGE
KITCHEN
DINING
LIVING
STUDY
TERRACE
STEAMERS AND KETTLES
HALL OF MURALS
MAIN FOYER
THEATRE STAGE
MAKE-UP TABLE
TERRACE
PLAY ROOM
COM
ACOUSTICAL PLASTER
BROWN COAT PLASTER
CLOAKS
STOR
CURTAIN SHOWROOM
REC
FABRIC SHOWROOM

FORMS and FUNCTIONS of TWENTIETH-CENTURY ARCHITECTURE

IN FOUR VOLUMES

VOLUME IV

Building Types

BUILDINGS FOR COMMERCE AND INDUSTRY, FOR PUBLIC HEALTH, FOR TRANSPORTATION, FOR SOCIAL WELFARE AND RECREATION THE COMMUNITY AS ARCHITECTURE

FORMS and FUNCTIONS of TWENTIETH-CENTURY ARCHITECTURE

Edited by TALBOT HAMLIN, *F.A.I.A.*

With an Introduction by Leopold Arnaud, F.A.I.A.

VOLUME IV

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FOR TRANSPORTATION, FOR SOCIAL WELFARE AND RECREATION
THE COMMUNITY AS ARCHITECTURE
BY A SELECTED LIST OF CONTRIBUTORS

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IT IS A TRUISM that the mid-twentieth century is an age that is dominated to a large degree by industrial production and the business activity which accompanies it. The industrial production of goods is one cause of the vast population increase that has marked the Western world; it has produced the rapid urbanization of the population; it has created new building problems of all sorts. Among these new problems, those concerned with store buildings (to help the distribution of goods), with office buildings (to house the administrative and professional sections of industry), and with factories (to house the production itself) are outstanding. Into such structures pours an increasing proportion of the total building appropriation of the country.

The United States, among all capitalist countries, has been the one in which the distribution of goods has been most highly developed. It is the premier home of advertising; it is the country where the pressures to buy, buy, buy are greatest. Naturally this has meant the development of precise and calculated selling techniques, and these in turn have created new kinds of store and shop structures. No longer are bazaars an adequate solution; no longer is a standardized counter sufficient. Today special types of counters are required for different types of goods, they have to be arranged in the proper order, and their lighting and aesthetic effects are directed toward the specific job of making purchasing attractive. Outside and in, the modern competitive store must offer an invitation to the passerby to enter and to spend. The store must glamorize this process.

But other problems have also arisen. The development of large and new suburban areas or of new residential neighborhoods, together with the vast increase in the use of private automobiles, has necessitated a fresh attack on the problem of store location; out of it has come the idea of decentralizing the stores in big cities and, in the suburbs and smaller towns, of building shopping centers in which automobile parking space is ample and the stores are so grouped that daily local shopping is easy for the purchaser and hence profitable

to the dealer. The specialty shop, the department store, the branch store, the supermarket, and the shopping center are the results of this new approach. They are all types either comparatively novel or with new standards and requirements, and the chapters in the present section will attempt to clarify the elements that condition them.

In factory design, both the increasing rationalization of the production process (culminating in the system of assembly-line mass production) and the growing realization of the importance of labor relations have vastly transformed the simple rectangular mill of a century ago. Types have been specialized; one-story and multi-story schemes have developed; systems of interior lighting, both natural and artificial, have been carefully studied. The different requirements of powerhouses, of factories for light and for heavy industry, of mills for metals and for textiles, and of printing plants and chemical plants have given rise to factory structures of differing types, planned specifically for their special purposes. It has come to be realized that the visual qualities of color and form are factors which condition a plant's efficiency. The earlier factories of the mass-production era were designed primarily around a *process*, but today this is not the controlling factor. The good modern industrial plant is also designed around the *worker*, for only interested and happy workers can have an efficiency that corresponds with the efficiency of the machines they direct or operate. Thus an entirely new emphasis has been brought into the field of factory design; the chapters on industrial buildings in this section point out some of the ways in which these new concepts will affect the architect's task.

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Banks

By JOHN A. WALQUIST

IN PLANNING AND ARCHITECTURAL EXPRESSION the bank program in the middle of the twentieth century is experiencing a complete reversal in emphasis; safety and security are taken for granted and service to the customer is the pre-eminent consideration. Security is still important, but, with the general increase in credit transactions, the guarantee by government of small deposits, and the stability afforded by the Federal Reserve system, danger from robbery or mob violence has been minimized. New business and promotional activities have now been placed first on the banker's agenda; getting new business and keeping the old have become the preoccupation of every officer and employee of modern banking institutions.

How has this change in the point of view affected the planning and the appearance of banks? It has introduced the "drive-in" bank, where a customer may make deposits without leaving his car. It has put tellers' booths into suburban railway stations so that the commuter rushing to his train may cash a check. In almost every city bank it has put a depository on the outside of the building for the customer's convenience. Bank exteriors have been altered so that great windows now replace solid wall masses and glowing electric signs supersede Roman letters incised in stone. Similarly, the interior arrangements have been pulled inside out. The tellers' counters today are placed for the convenience of the customer rather than in accordance with a preconceived ideal working arrangement. Officers have been brought out of private rooms in the rear to an open platform at the front. The teller's cage with its window is fast disappearing, and the barrier between him and the customer is down.

Modern banking is a product of the nineteenth century. In the eighteenth century the operation of such institutions as the Bank of England, the Royal Bank of Berlin, the Municipal Bank of Vienna, and the Bank of France was a function of government. Prior to that time, money lending and exchange were the private enterprise of wealthy individuals or public authorities. At first,

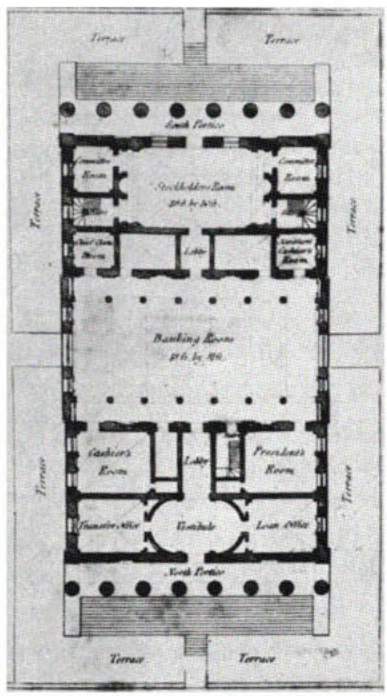


FIGURE 1. BRANCH BANK OF THE UNITED STATES, PHILADELPHIA, PENNSYLVANIA. PLAN

William Strickland, architect

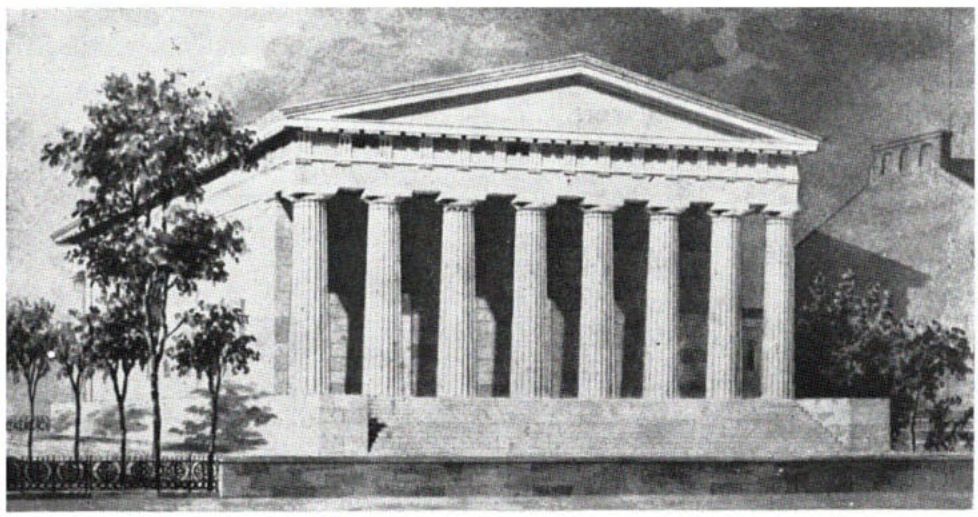
One of the first monumental bank buildings in the United States; masonry-vaulted throughout.

From Haviland and Bridport, *The Builders' Assistant*

banking was practiced in a private residence or in the treasury of an order or a monastery, and only later the merchants' offices. By the end of the eighteenth century, private banks with a clearing house were in operation in England, the Bank of England acting as a bankers' bank. In the nineteenth century, credit banks were established in England, France, and Germany.

In the United States, the establishment of the first bank—the Bank of North America, in Philadelphia, in 1781—marked the beginning of commercial banking in this country. One of the earliest and best examples of domestic banks is William Strickland's building for the Second Bank of the United States—the Branch Bank in Philadelphia (Fig. 1). It is significant that this building was in the classic style, for it set a precedent that was scarcely challenged for a hundred and fifty years (see Figs. 2, 3).

The architectural solution of the modern bank problem is to be found, as always, in the requirements of the program, the conditions of the site, and the imagination of the architect. Controlling the result will be the economics of site, cost, and maintenance. The day of building architectural monuments to banking institutions has passed; now the banker surveys the architect's plans with one compelling thought in the back of his mind: "Will the proposed ex-



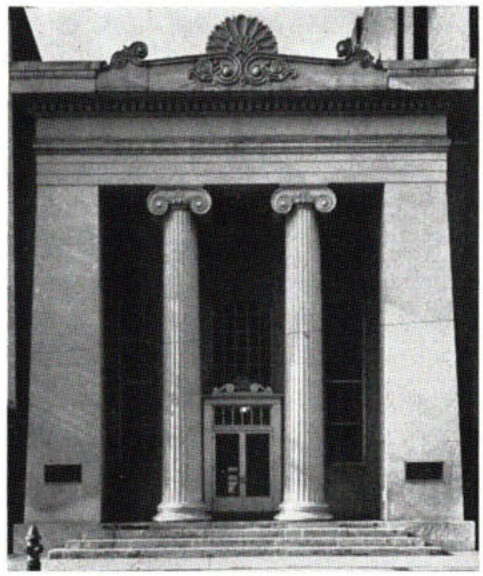


FIGURE 2. TWO EARLY CLASSIC BANKS IN THE UNITED STATES

ABOVE: Branch Bank of the United States, Philadelphia, Pennsylvania; William Strickland, architect. From a drawing by A. J. Davis, courtesy Avery Library. LEFT: Bank of Louisville, Louisville, Kentucky; Gideon Shryock, architect. Photograph Caufield & Shook.

The classic tradition in bank design was strongly established by many early important bank structures.

penditure justify itself as an investment by bringing new business and keeping old business?" In general a high standard of architectural design and construction has been established in the banking field, but any extravagant inclusion of non-utilitarian features will always be carefully scrutinized by the building committee.

In this chapter it is proposed to consider banks as a general building type and to point out the details that distinguish the various groups within the class as a

FIGURE 3. GUARANTY TRUST COMPANY, NEW YORK. EXTERIOR AND INTERIOR
York & Sawyer, architects
The heyday of the eclectic period: the bank as a temple of financial power.
Courtesy Guaranty Trust Co.

whole. The Federal Reserve Bank building represents a special category that is exempt from the usual factors controlling bank planning and is therefore hardly within the scope of such a discussion. This newest type of bank building has been cast in the oldest architectural mold; the outstanding example is the New York structure, by York & Sawyer, with its heavy Italianate architecture and tremendous scale.

Commercial banks of all kinds and savings banks represent the more common problem. Here the greatest differences between individual buildings will be found to lie in the questions of whether the location is in a commercial or a suburban area and whether the structure is to house the head office or a branch office. Often, however, in reaching out to serve more customers a bank finds its branch offices of greater importance than the head office so far as contact with the public is concerned.

SITE

Usually the site for a proposed structure has been selected before the architect is called in. Whether it is a corner lot, an interior lot, or a location that permits a free-standing building, each site will suggest the appropriate architectural development. A plot surrounded on all four sides by streets—a site which leaves the bank in grand isolation—is ideal for developing an architectural monument but is less desirable for close contact with business, unless in the case of a suburban site it permits the convenience of parking for customers. A lot less than 50 by 100 feet presents special problems.

In consideration of the public's convenience a bank or a branch office is often located on a lower floor of an office building; the bank may own the building or merely rent and alter the necessary space to fit its needs. For a tenant alteration, columns and utilities passing through the space proposed for the bank must be accepted and, if worked into the scheme with imagination, may even help rather than hinder the final solution. Where the bank owns and erects the building, the space to be used for bank purposes can be controlled and consequently the structural and mechanical features may be arranged for a more ideal solution of the bank's special problems. In this instance it is desirable to consider either putting the banking room under a court area or carrying the columns of the superstructure on girders above the bank space to secure a column-free room that will allow more flexible planning.

Certain restricted sites will dictate a development on several levels—almost always on both the ground and basement floors and, if there is extensive need for storage-vault facilities, possibly running into several sub-basements. In all such cases it is desirable to knit the several elements as closely together as the building laws and available funds permit. Broad, easy stairs, with open wells inviting exploration, as well as escalators and elevators are all desirable adjuncts for multi-level schemes and are requisites in any *parti* where the principal banking room is not on the street level.

PLAN TYPES

Since planning of the public areas will influence all the other architectural factors, the design process must begin with a solution of this problem. Whether the institution is large or small, the more functions that can be enclosed in one space—and the larger that space can be made—the simpler and the grander in scale the final result will be. To achieve this, as many areas as possible should be treated as divisions of floor space rather than as partitioned enclosures.

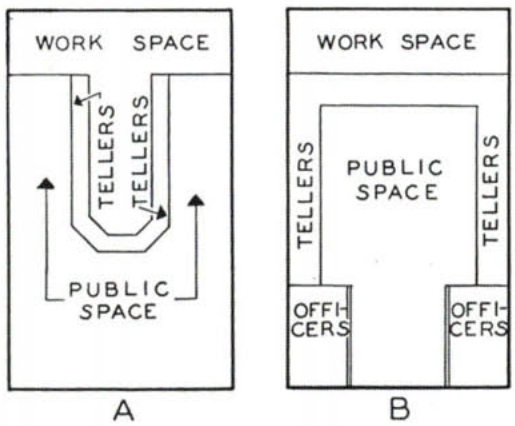


FIGURE 4. DIAGRAMS OF TWO BASIC TYPES OF BANK PLAN

A: The "island type" used in many savings banks; B: The type more frequent in commercial banks. Type A permits tellers to have free access to large numbers of records with a minimum of travel from windows or stations.

There are many ways of expressing the division of banking activities: through the use of built-in furniture, such as tellers' desks, railings, grilles, and screens; through changes in level or in flooring materials and in wall color or covering; through lighting intensity, and so on.

In the past there have been three principal types of plan: (1) that in which the tellers' cages have been placed at one side or at one end of the room, or both; (2) that in which the tellers' cages have been arranged in a U shape, the working space occupying the interior; and (3), the reverse of the second, that in which the tellers occupy spaces on the exterior of the U shape. (See Fig. 4.)

Modern communication and reproduction devices have freed the fixed-plan arrangement of tellers' desks so that now almost any arrangement is feasible. The counters may even be placed in divided groups, where such divisions seem desirable, without any sacrifice of business convenience; or they may be laid out in a continuous line which follows a circular, elliptical, or free form; or they may cut across the room in a bold diagonal, where such treatment is logical. The number of tellers' windows and the number of officers to be provided for must be determined in conjunction with the bank's building committee and in accordance with considerations of space limitation. In general it is desirable to keep the areas for both groups as flexible as possible, because the amount of business transacted with the public varies from day to day and the nature of the transactions changes from year to year.

MAIN BANKING ROOM

Viewing the problem from the customer's standpoint, access from the street should be easy and, if feasible, at more than one point. On entering, he should

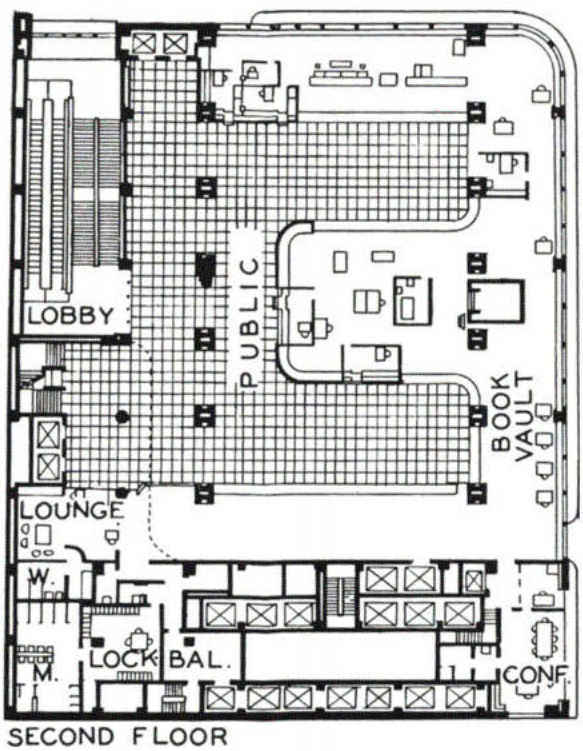


FIGURE 5. PHILADELPHIA SAVING FUND BUILDING, PHILADELPHIA, PENNSYLVANIA. BANKING-FLOOR PLAN

Howe & Lescaze, architects

A modern variant of the savings-bank plan; the large floor area permits an attractive freedom in plan.

receive a favorable impression of an open, well-lighted room, with the officers' and tellers' locations clearly displayed and with check desks conveniently located. There should be sufficient floor area to permit the customers to form lines in front of tellers' windows even on busy days without interfering with one another or with people entering or leaving. For this reason, adjoining tellers' desks should not be arranged so that they create an internal angle on the public side or are too close to a column or any other obstruction. Check desks are better placed across the room from the tellers' desks rather than in the center of the floor, unless the room is exceptionally wide and has much free floor space for customer lines. Distribution of activities among the tellers' windows is helpful so that such special services as "Statements" and "Loans and Discounts" can be assigned to points where there is the least traffic. It is also well, in the larger banks, to consider whether or not a special area should be set aside on a mezzanine or a lower level for pay-roll windows or for "special" checking accounts, the least profitable though still a desirable business and one which attracts the greatest number of customers.

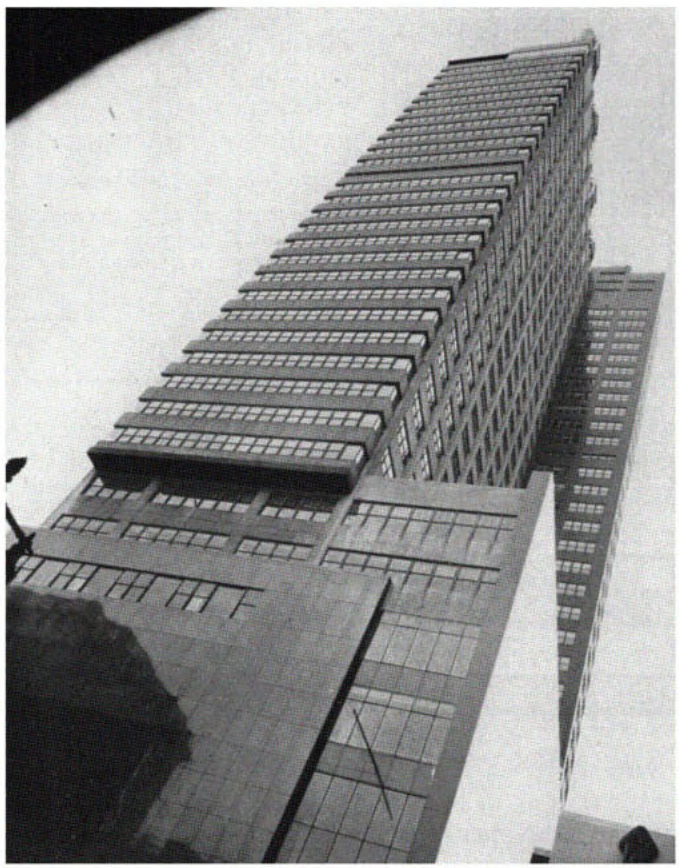


FIGURE 6.
PHILADELPHIA SAVING FUND BUILDING, PHILADELPHIA, PENNSYLVANIA.
EXTERIOR

Howe & Lescaze, architect

The exterior follows the tone of both the plan and the interior.

Photograph Ben Schnall

SAFE DEPOSIT

Another principal public space is that assigned to the safety deposit section. In a small institution all the bank's safekeeping facilities are usually combined in one vault, often placed on the first floor, and its impressive door is made a feature of the interior design. In larger banks there may be several vaults for public and private security; these are often assigned to a lower level or, when bulk storage is involved, to several lower levels. Details of vault enclosures are readily available; usually the walls, roof, and floors are constructed of concrete 18 to 24 inches thick, reinforced with heavy steel bars or rails, and surrounded by a gallery 18 to 24 inches wide, which is lighted and has mirrors set at the angles so that a complete view around the outside is possible at all times. The vault door is an elaborate circular one of steel, about 7 feet in diameter, with an accompanying frame equipped with time locks and electrical protection.

FIGURE 7. PHILADELPHIA SAVING FUND BUILDING, PHILADELPHIA, PENNSYLVANIA. BANKING ROOM AND ENTRANCE HALL

Howe & Lescaze, architects

An interior eloquently expressive of our time through its brilliant use of modern materials.

Courtesy Philadelphia Saving Fund

In planning for the door, enough height must be maintained to permit entrance through the opening by means of a ramp over the edge of the frame, and there must be enough space at the side to permit the door to turn 180 degrees on offset hinges.

The interior of the vault is lined from floor to ceiling with a system of drawers and compartments, each faced with a stainless-steel door bearing the typical double-keyed lock or a combination knob. The spaces to be rented are of various sizes. Bulk storage for silver and valuable rugs is usually offered in suburban areas and preferably should be provided in another vault. Storage of furs is under consideration as a profitable source of income, but this type is complicated by the necessity of including refrigeration within the bank and of making provisions for the servicing that always accompanies the storage of such goods.

Immediately outside the vault (and in connection with the public space), tables, booths, and rooms must be available where customers may examine the contents of boxes, clip coupons, hold conferences, and so on. Some of these facilities may well be located within the vault itself and may consist of a single table partitioned off by low divisions, for minimum privacy, to give individual spaces of about 30 by 24 inches in size. Coupon booths are desirable for maximum privacy and are designed in two sizes—30 by 36 inches for a single individual and 36 by 36 inches to accommodate two. Each should be entirely enclosed and should have a shelf or small table to hold box and contents and a door

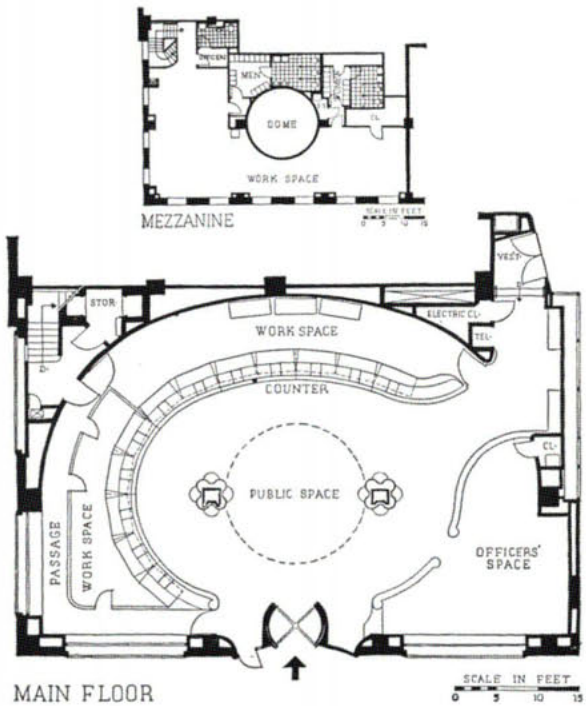


FIGURE 8. CHASE NATIONAL BANK, 9 ROCKEFELLER PLAZA, NEW YORK. PLANS

Reinhard & Hofmeister, architects

The new freedom in plan and counter arrangement.

From *Architectural Forum*

that can be closed and locked from inside. The shelf is often of glass to expose any papers which might have dropped to the floor. Adequate light and ventilation are essential. For larger groups that may gather at the opening of a deposit box in connection with the settlement of an estate or for certain other family or business conferences, at least one room large enough for ten or twelve people should be provided.

Ordinarily the whole safety deposit area is screened off from the public or circulation space by a grilled barrier equipped with a key-locked gate to be opened from the inside by an attendant. In a small institution one person may attend the gate, check signatures from records kept at a desk, and unlock and later lock the boxes; but in a large bank there must be space for several desks, chairs, and counters, as well as file space to hold signatures and records.

CUSTOMERS' SERVICES

Economic pressure is reducing to a minimum any lounge space assigned to public use outside of the circulation areas. The women customers' waiting room, formerly of some importance, is now only an anteroom to the women's

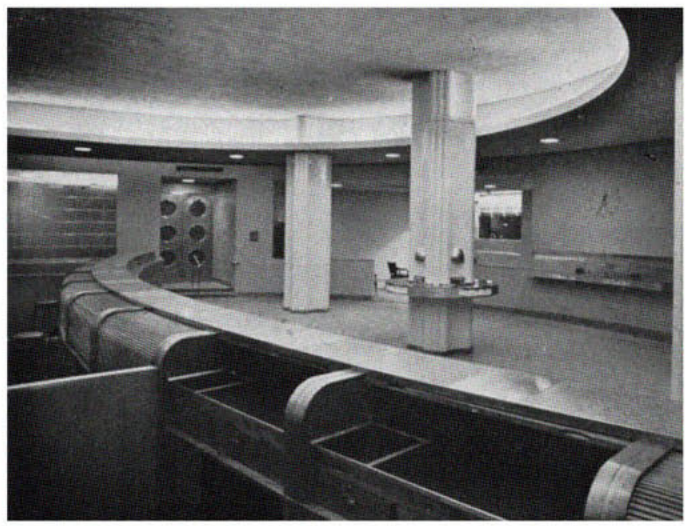


FIGURE 9. CHASE NATIONAL BANK, 45 ROCKEFELLER PLAZA, NEW YORK. INTERIOR

Reinhard & Hofmeister, architects

New plan forms generate new visual space types.

Photograph Gottscho-Schleisner

toilet. The fewest possible public toilet accommodations are allowed, since it is not within the province of the bank to provide public comfort-station facilities to its customers.

OFFICERS' SPACE

Between the public space and the private or working space lies the officers' space—the contact area or meeting ground between the bank and its customers. Although primarily intended for business conferences, it also takes on a semi-social aspect and sales significance. For this reason it should be placed near the entrance door, where officers may observe entering customers and be in a position to give a friendly greeting or step out for a few moments of conversation. A minimum barrier should be established here—such as a slight change of level, a change in flooring materials, a low rail, or a combination of these. Some seats outside the area are necessary for persons waiting to see the officers. Within the space a comfortable atmosphere should be established, with at least 6 feet between desks in all directions for privacy. Flexibility is essential in the officers' area, as elsewhere in the bank, so that adjustment to an increase or decrease in the number of officers assigned to the platform may readily be made. Near the officers' space, a conference room is desirable. (See Figs. 8, 11, 19.)

The secretaries and "new accounts" personnel in a savings bank are located forward of the officers so that they may intercept the customers and discharge

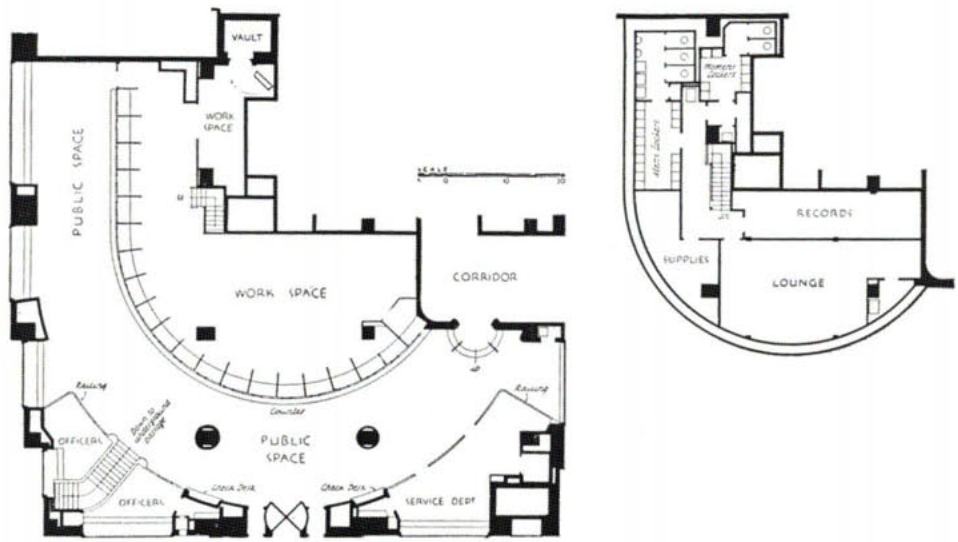


FIGURE 10. EAST RIVER SAVINGS BANK, ROCKEFELLER CENTER, NEW YORK. PLANS

Reinhard & Hofmeister, architects

Free planning concepts adjusted to the needs of a savings bank.

the routine part of new business. A separate space or room for introducing new business or for special seasonal use is an asset to either the savings or the commercial bank. Here personal or real-estate loans are promoted, special savings accounts advertised, and life insurance or government bonds sold, and in suburban or smaller communities this area may be turned over to local committees for recognized community or charity drives. Such a business extension space is a direct-sales area and should be located with that purpose in mind. In the small bank it may be only an assigned teller's window, but in the large institution a room is set aside for the purpose.

After the public space and the officers' space have been considered, we come to the bank's own working area, definitely shut off by the tellers' counter and by locked doors and gates from the public entrance or from intrusion. These barriers must be maintained intact for security reasons; more feared than the great hold-up is small pilfering or the exposure of one customer's business to another. The wire cage enclosure and the grille surmounting the counter in most banks today are ample evidence that the omission of such devices will be the last concession to be granted in establishing a more personal relationship between the bank's side of the counter and the customers'.

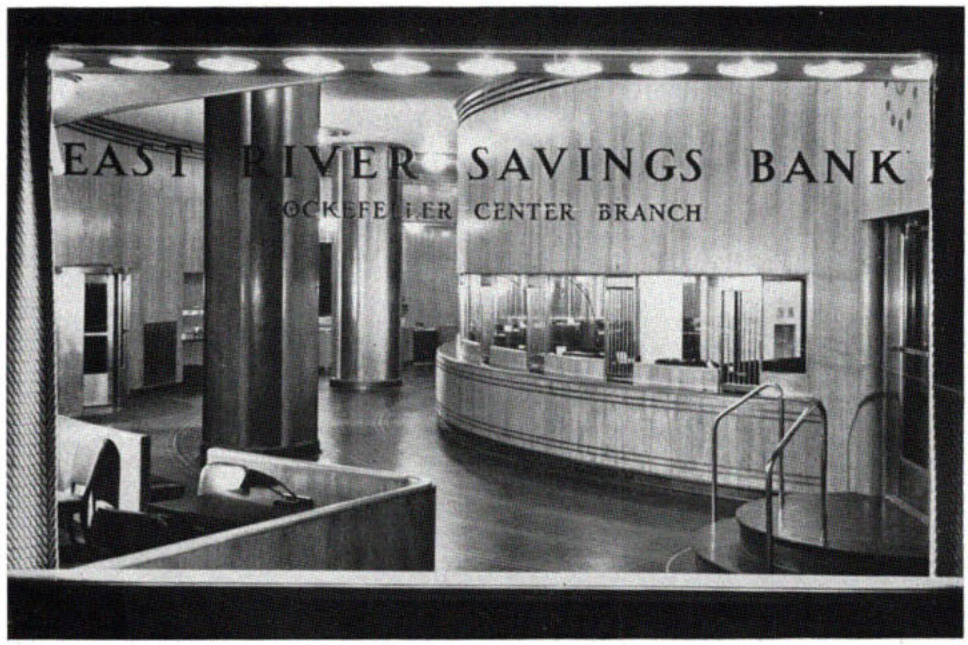


FIGURE 11. EAST RIVER SAVINGS BANK, ROCKEFELLER CENTER, NEW YORK. EXTERIOR AND INTERIOR

Reinhard & Hofmeister, architects

The bank as an open, shoplike space; the interior, plainly visible from the outside, is its own best advertisement, and visibility in itself is a protection.

Photographs Robert Damora

TELLERS' WORK SPACE

Leaving for a moment the investigation of the counter itself, let us consider the entire area behind it. Here we find a marked difference between the practice in commercial and in savings banks. In the savings bank considerably more work space is required than in the commercial bank in order to allow

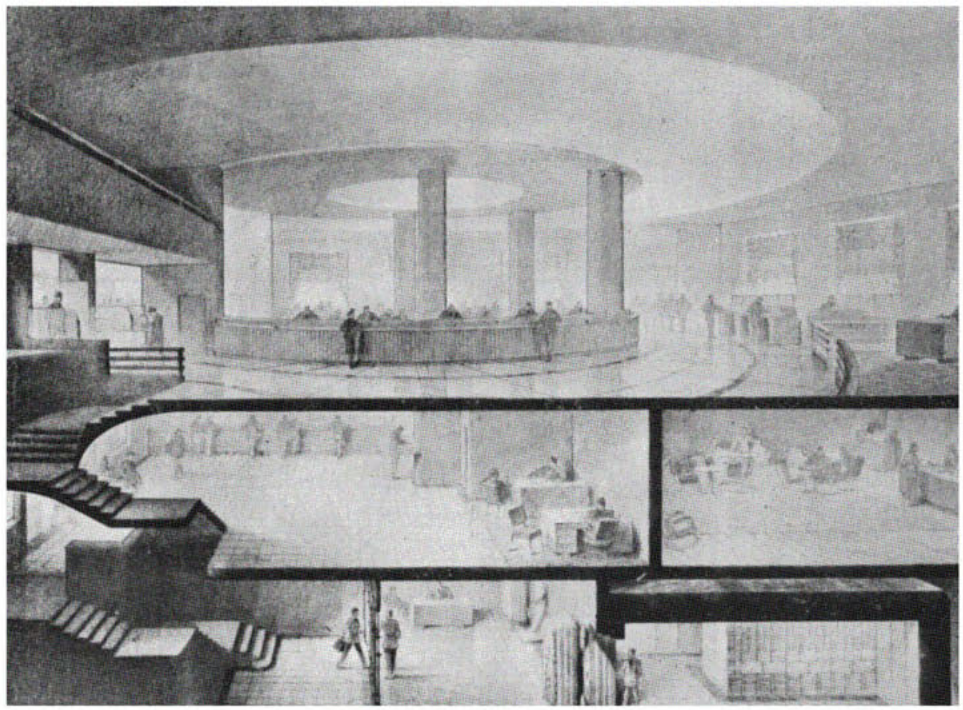


FIGURE 12. BANKERS TRUST COMPANY, ROCKEFELLER CENTER, NEW YORK. CUTAWAY VIEW

Reinhard & Hofmeister, architects

A bank developed on several levels, with each level designed for a specific type of service.

Courtesy Bankers Trust Co.

room for the wheeled trucks holding depositors' record cards, for in a small bank all these cards must be available to every teller and in a bank with tellers' windows assigned to depositors alphabetically certain files must be accessible to each group of tellers. In either case, a large area for records and some desks must be reserved back of the tellers.

On the other hand, the commercial teller can operate in a space about 5 feet square if he has access to an intercommunicating phone and duplicate signature cards, and behind him he needs nothing more than a communicating aisle 4 to 5 feet wide. In this case the work area, with its cluttered appearance and noisy processes, may be more advantageously located in less valuable space. There still remains a miscellaneous amount of less bulky paraphernalia which does not fit into or belong in the teller's own compartment; unless considered and provided for, it will produce a messy appearance as seen from the front,

even though the architect has taken pains to clean up everything in connection with the teller's counter and the public space. A useful device for concealing such materials is to plan a breast-high partition back of the teller's compartment, thus creating an aisle through which the teller enters. On the back of this barrier, hidden from view, is a small counter or table with compartments for the miscellany, such as forms, rubber stamps, small business machines, pads, loose blotters, and so forth, the appearance of which, if not considered beforehand, can destroy the architectural effect. Some such partition could also be used for a savings bank; but here, since the teller must consult his records for practically every transaction, the circulation must be free.

TELLERS' COUNTERS OR STATIONS

The alterations to the conventional working arrangements as outlined above have necessarily produced certain changes in nomenclature. With the grille enclosure removed, the familiar term "teller's cage" no longer applies. It is his office or "compartment"—a term used here for want of anything more standardized. The portion of the counter occupied by each teller, whether or not it is separated from that of his neighbor by a partition, becomes his desk for transacting business and is often marked from the public side only by a deal plate or a small sign. Since there is no longer a barrier through which to make an opening, there is no "window" and this position is now called a "station." It is the line-up of such adjoining stations which makes the tellers' counter. In physical arrangements one compartment does not differ greatly from another, and from the standpoint of flexibility it is desirable to keep them all alike so that stations may be assigned to different tellers in accordance with changing needs. The combined teller's station and teller's compartment, in reality the most important unit in the bank's working arrangements, deserves considerable detailed study. Great improvement in design has resulted from stripping it of non-essentials.

Formerly each teller was entirely surrounded by a grilled enclosure, which sometimes was even carried overhead to form a ceiling; he had an alarm at his foot to sound a gong and a pistol in a pocket near his hand to use in resisting a hold-up. The wire or grille between the public and the teller was often backed up with obscure glass to cut off the outsider's view of the papers and checks on the teller's side of the counter. But today tellers are not expected to shoot it out with hold-up men; only the guards are armed. When the alarm pedal is pushed by a teller's foot the alarm sounds at the headquarters either of the police or of a private protective service. In some recently executed work the

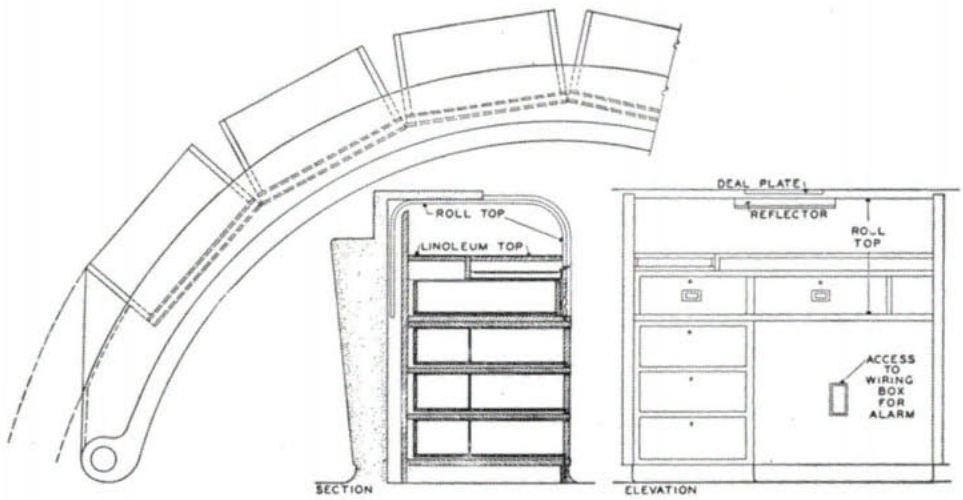


FIGURE 13. CHASE NATIONAL BANK, 9 ROCKEFELLER PLAZA, NEW YORK. DETAILS OF COUNTER

Reinhard & Hofmeister, architects

A modern bank counter designed for convenience, efficiency, and privacy.

grillework topping the counter has been replaced by a low glass screen, which forms less of a barrier but still seems only a halfway acceptance of the new ideal.

Yet a certain amount of privacy for protection against minor pilfering is necessary. The best solution so far offered is the device of dividing the counter into two parts longitudinally; the public side is raised to a height which creates a natural barrier and on the teller's side a pocket is formed which gives privacy for his papers. In addition a lower shelf is provided on the public side for the customer's convenience when the endorsement of a check or other writing is required at the counter, and on it he may rest gloves, handbag, parcels, and the like while his hands are occupied with passing checks or making deposits. On the tellers' side of the counter the usual cash and paper drawers are provided, plus a rolling shutter top—like that of the old-fashioned roll-top desk—which can be closed partially for additional protection when the teller steps away from his station for a moment or closed and locked when he leaves for a longer period.

On the public side there is nothing to mark the individual stations except the teller himself or the deal plate. Often small movable signs are furnished which read on one side "Paying-Receiving"—or whatever the assignment of

the station may be when open for business—and on the other "Next Window" or "Closed." Another simple device is to place these signs flush with the outer counter face, just below the deal plate, with arrangements to illuminate the alternate messages by means of separate switches. The entire counter detail is well illustrated by an example from a branch office of the Chase National Bank in Rockefeller Center, New York, designed by Reinhard & Hofmeister (Fig. 13) In this example the public side of the counter is of terrazzo, which readily adapts itself to the curving form used; the deal plate is of nickel bronze, and the teller's desks behind are of wood.

The top left drawer at a teller's station is a currency drawer from which bills are dealt out. Coin for small change is usually taken in the teller's hand from a machine set at the right side on the lower level of his desk. It would be an advantage to have this machine discharge directly to the customer; at present, however, since the coins fall by gravity, the machine would have to be placed rather awkwardly on the higher level to enable both customer and teller to have a clear view of the transaction. Additional drawers or pockets in the teller's desk are for a reserve of coin in rolls and of bills in bundles. These drawers are customarily partitioned to fit the size of the various coins or the bills; sometimes they contain removable currency boxes for the teller's convenience in transferring his cash. All the drawers should have locks keyed alike.

It is obvious that the teller's desk should be well lighted. This is best accomplished by an incandescent tube or fluorescent fixture mounted under the high part of the counter so that the source is screened from the view of both customer and teller. General room lighting is usually sufficient for the customer's side. The deal plate should be of a plain material so that silver and pennies are easily distinguishable on its surface. Plain or colored glass, unfigured marble, or metal if backed by a sound-absorptive material are all satisfactory. If of glass, the deal plate should be at least an inch thick; if the glass is clear, color may be obtained from backing material. A depression of the surface, placed for the convenience of the customer's right hand, is useful for coin. The best material for the teller's desk top is a special type of linoleum. The teller's desk should be 3′–4″ high. The customer's side of the counter should be 4′–3″ to the higher level and about 1′–6″ wide, with a height of 3′–7″ for the secondary front shelf, which should be 6 or 8 inches wide. The total depth of the desk from front to back should be 3′–3″ to 3′–6″. Four and one-half feet is the minimum width for a teller's compartment.

Savings banks do not adapt themselves so readily as commercial banks to such

simplification. Here, because the teller is constantly leaving his station to pick up deposit cards, the roll-top device is not practical for security reasons. Some form of screen may be used, however; this may be kept down to a height of 6 or 8 inches, and as a rule it is obscure or translucent glass. The teller maintains privacy for customer transactions by spindling the records face down. Usually the counter itself is all of one height, 3′–4″, and not over 2′–3″ from front to back. In savings banks the installation of bulky bookkeeping machines in tellers' desks must also be kept in mind. From the practical if not from the architectural point of view, it seems desirable in most banks to maintain some kind of compartment division behind the counter between adjoining tellers in order to avoid the mixing of papers or the clash of personalities; but such divisions may be kept to a minimum.

WORK SPACE

Behind the line of tellers is the work space. Although formerly this was immediately back of the cages, it may now be located elsewhere in the building and in commercial banks it is better so located. In the case of savings banks the present-day method of handling transactions does not permit such a separation, although it is foreseeable that this may sometime be arranged. Pending the working out of new methods, it is still necessary to provide a large area for the card trucks when they are wheeled out of the vaults. In order to maintain a minimum work space on the first floor, communication facilities must be provided with a lavish hand. Depending on the activity of the various stations, there should be a telephone for each teller, or at least one telephone shared between two, connected directly to the workroom. Signature cards must be provided in duplicate files to enable a teller to identify signatures without having to move too far from the counter.

The general work space in a small bank may well be located on a mezzanine to the rear if the first-floor story height permits, or else on the second or any one of the upper floors where the noise of the business machines can be suppressed and the activity kept away from the public. If necessary, the location may be in a separate building near by. For psychological reasons, placing the work space in a basement is undesirable, even though the area may be made physically comfortable by mechanical means.

OFFICERS' AND EMPLOYEES' FACILITIES

The board room, for the officers and members of the board, is usually the most elaborately developed private space in the building. In addition, there

must be a president's office, as well as private rooms for certain other officers, with adjoining coat and toilet rooms; also, in a large bank, luncheon facilities are often furnished. As the size of the institution grows, the president's office and the board room are placed farther and farther away from close contact with the public. In the smaller banks the two rooms are often combined. The size of the board room can best be determined by laying out the table (or tables) and spacing the chairs around it until the required number of directors can be accommodated. In a small office a separate table which can be placed like the stem of a "T" against the president's desk is usually adequate. A number of tables which may be put together in various combinations creates a flexible arrangement, but often this is not so desirable as the single conventional board table.

How many additional private offices will be required for officials not on the platform will depend to a large extent on the size of the bank and the nature of its business. Officers' coatroom and toilet facilities may be tucked into odd spaces near the platform, or they may be placed near the board room where they can serve the directors too. Failure to provide coatrooms or closets for officers usually results in a forest of unsightly coat trees on the platform.

An officers' dining room, if one is desired, may be merely a space set aside to be served from outside by caterers. If full kitchen services are to be furnished within the building, adequate refrigerator space for bulk storage of both food and garbage must be provided to permit trucking in and out at times when there will be no possible interference with business.

Employees' restrooms, locker rooms, and toilets should be convenient to the working space and away from the public. There is a growing tendency to make these areas more spacious and more comfortable and thereby contribute to more agreeable working conditions. In the larger institutions a room which serves soft drinks, tea, milk, and coffee to round out a lunch brought from home is an economy appreciated by the employee.

AESTHETIC EXPRESSION—EXTERIOR

In no type of building, except ecclesiastical structures, is there less inclination on the part of the client to consider a non-traditional external architectural expression than in banks. Although the average banker may be intelligently receptive to innovations within the bank, when it comes to the exterior he is baffled, and even the most daring will generally retreat behind the statement: "It has to look like a bank." Generally he means that the bank must look like

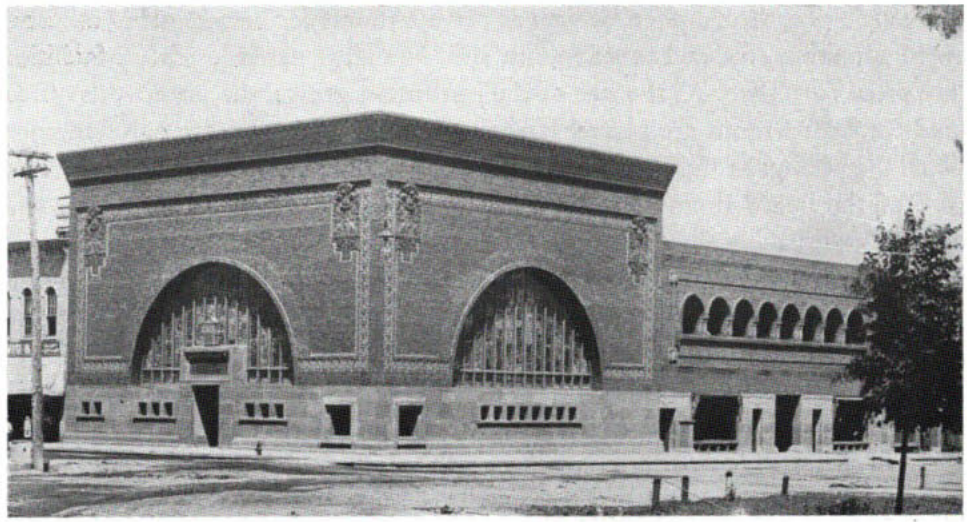


FIGURE 14. NATIONAL FARMERS' BANK (NOW SECURITY BANK AND TRUST), OWATONNA, MINNESOTA.
EXTERIOR AND INTERIOR

Louis H. Sullivan, architect

An important early example of radically fresh and inventive bank design.

Photographs Chicago Architectural Photographing Co.

earlier banks, not that the building must have "bank character" as an architect would conceive it. This is the point at which the architect, if he is to achieve a modern solution, must exert all his skill in design and in sales persuasion to carry his point. There is very little in the way of precedent to guide him as to what constitutes bank character in the modern sense, and all the old values must be re-examined. If the business character of banking is undergoing a change toward a more open and cordial relation between the bank on the inside and the customer on the outside, it is reasonable to suppose that this change should find expression in the architecture of the building. Neither the Egyptian, Greek, or Roman temple set in a business street nor the Colonial town hall, library, or

FIGURE 15.
MERCHANTS BANK OF WINONA, WINONA, MINNESOTA. EXTERIOR

Purcell, Feick & Elmslie, architects

Other architects of the Midwest sought creative solutions for the expressive design of banks.

Courtesy William Gray Purcell

club set in a suburban community may seem incongruous when called a bank because the precedent is so firmly established, but there is no point at which traditional architecture is more vulnerable to attack than in this use of traditional forms in banks.

Deviations from the classical pattern in which bank buildings have been cast since the Columbian Exposition at Chicago in 1893 have been few. An attempt to free the bank from this pattern was made by Louis Sullivan in the early 1900's—notably in a small bank at Owatonna, Minnesota, now the Security Bank and Trust Company (Fig. 14); in the People's Savings and Loan Association, now the People's Federal Savings and Loan Association, at Sidney, Ohio; and in the Farmers' and Merchants' Union Bank of Columbus, Wisconsin (see also Fig. 15). These structures, the highly personal expressions of a great artist, are still—in their organization, design, and use of material—worthy of study. Today they are interesting chiefly as early efforts to break with tradition; we are still struggling with that same problem.

Having reached the decision to cast off the old, we must determine what new form the building should assume to give it bank character. The structure should have dignity, and, though actual physical security is not so important as formerly, it should give an impression of strength and durability. The entrance should be well marked architecturally, and a view of the interior from the street is desirable provided that no business papers are exposed to the public. Materials which suggest permanence and can be kept clean and in good condition at a minimum of expense should be used. If the building can be set back

FIGURE 16. IRVING TRUST COMPANY, 48TH STREET BRANCH, NEW YORK. INTERIOR

Voorhees, Walker, Foley & Smith, architects

The importance of artificial light in creating the correct atmosphere in bank public spaces; here the lighted coffers furnish efficient light distribution and also give just the right feeling of formality. Courtesy Voorhees, Walker, Foley & Smith

from the property lines, landscaping is a valuable adjunct to external design. Signs must be carefully considered, because if the architect omits or suppresses them to the point where they have no commercial value they may be supplanted by some horror over which he has no control. Bank architecture offers an opportunity for the exercise of the greatest talent and ingenuity in developing forms which not only shall be adequate to their purpose but also shall take their proper place in the entire architectural picture. Aside from these generalizations it is difficult to point the way.

AESTHETIC EXPRESSION—INTERIOR

There is more modern precedent for interiors than for exteriors, since greater latitude in experiment has been allowed in bank alterations within existing buildings than in new construction. Although it may be argued that organically such interiors are not true examples of bank architecture in the sense that a Gothic church interior is one with its external expression, yet so much of our architecture today consists in clothing basically unrelated structural forms with a certain type of finish that even these attempts at creating

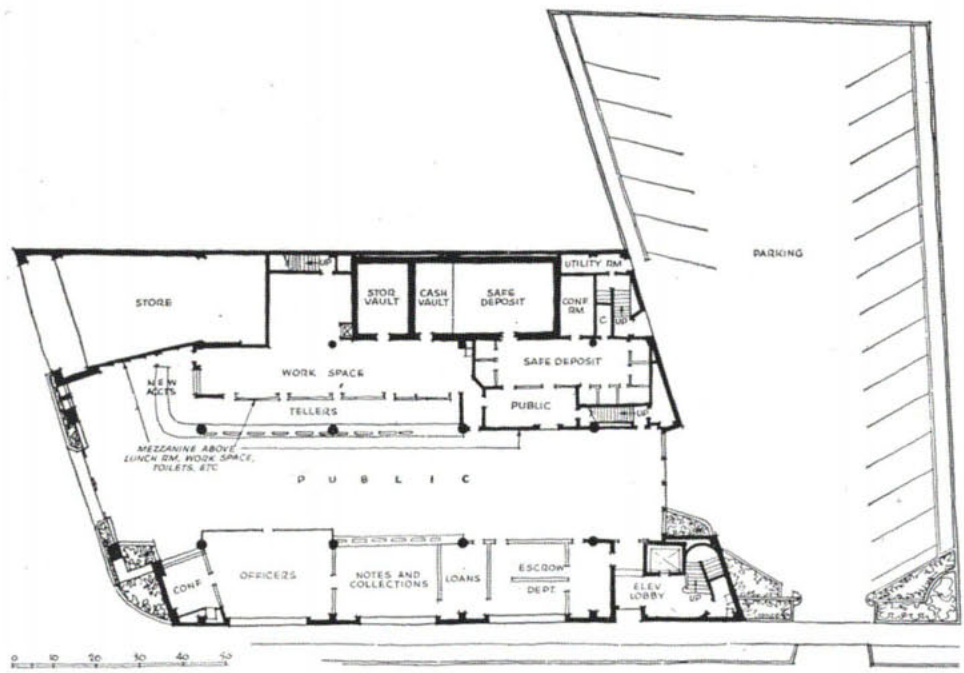


FIGURE 17. CITIZENS NATIONAL BANK, LOS ANGELES, CALIFORNIA. PLAN

Stiles Clements, architect

A plan of simple and convenient directness. **From *Architectural Record***

an up-to-date expression for banks cannot be dismissed. Besides, in them a trend is indicated which will have its influence when opportunities for integrated design are plentiful.

When we stand inside a room we experience a feeling that is produced by the volume, form, lighting, color, and texture of its enclosing surfaces and furnishings. All these elements in a design must be so controlled through the skill of the architect that an agreeable and appropriate response will be produced. Such generalizations must ultimately be translated by him into choices of form and material. Whereas in eclectic architecture the problem was considerably simplified by the selection and faithful following of a certain historical style, the modern architect must rely on his own inventiveness. Considerations of plan and the determination of the volume of the building will have developed the general shape and size of the main banking room and the disposition of its working parts, and in this preliminary study it should be borne in mind (as noted above) that the larger the unobstructed space the better.

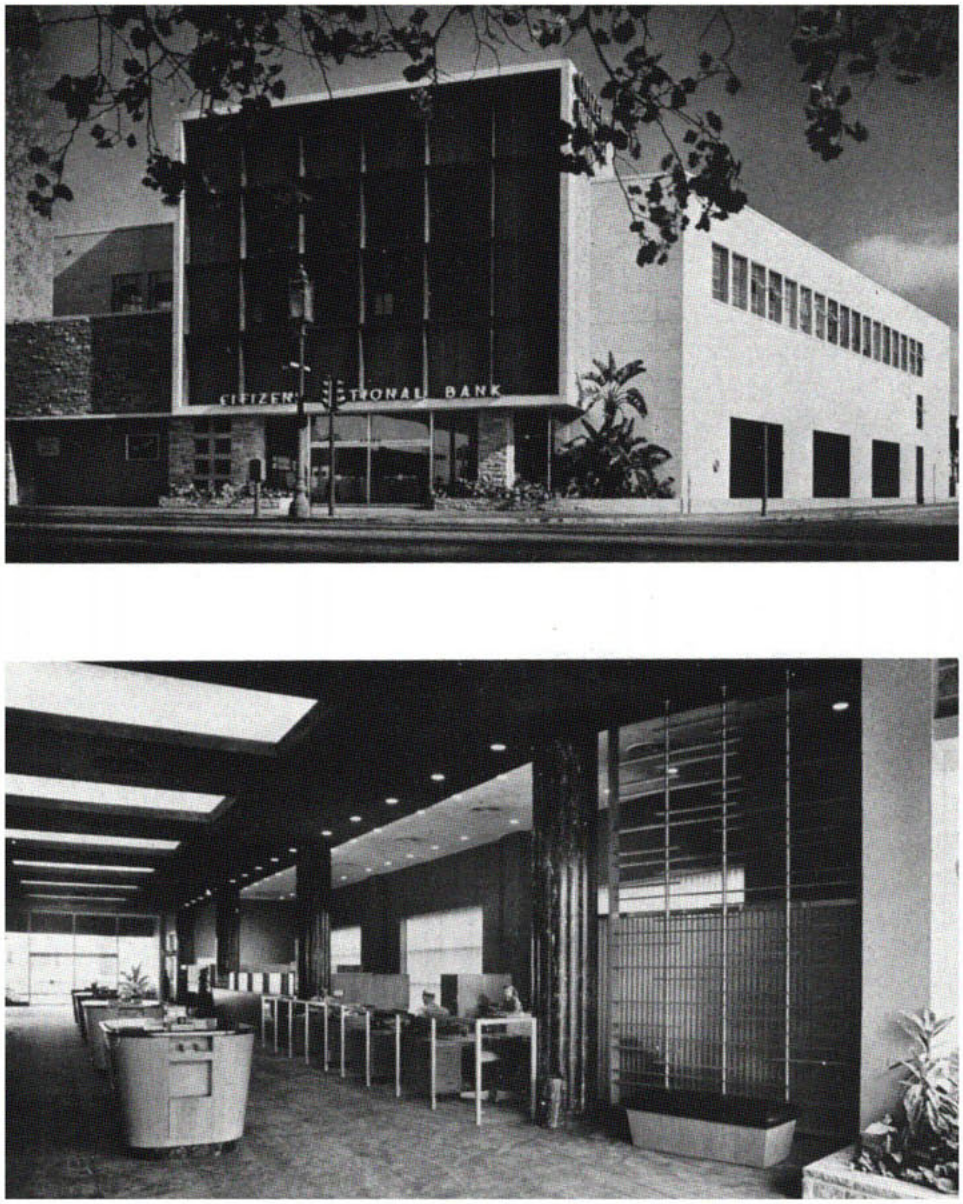


FIGURE 18. CITIZENS NATIONAL BANK, LOS ANGELES, CALIFORNIA. EXTERIOR AND INTERIOR

Stiles Clements, architect

A welcoming and attractive service facility rather than a monument.

Photographs Julius Shulman

In the assortment of materials for floors, walls, ceilings, and furniture there is a wide range of choice. For practical reasons floors in public spaces are generally of a hard-surfaced material. Marble, travertine, marble mosaic, terrazzo, and, especially for the smaller banks, wood and rubber tile offer a great variety of colors and textures for areas where there is heavy traffic. Carpet, cork, or rubber tile for the officers' area and linoleum or asphalt tile for the work spaces are almost universally accepted. Proper selection of materials for covering the walls and free-standing columns presents the best opportunity for establishing the architectural character of the room. Stone, marble, terrazzo, brick, wood, and painted plaster, or combinations of these, allow great freedom of choice. The question of cost always influences the selection; when the budget is small, the use of an expensive material may be limited to one wall—or to the free-standing columns, in combination with the counters—and played against a contrasting color and texture in a cheaper material applied to the larger surfaces.

Wood is especially worthy of consideration, for the variety offered in both veneer and solid stock is greater than in any other material. Walnut and teak, with pine in the directors' room, for some reason seem to have found favor with building committees; but many kinds of domestic and imported woods, entirely appropriate and even more interesting, are also available. In the form of veneer, wood has the further advantage that it may be shaped to fit curves. It is worth while to visit a wood-veneer warehouse and to select in advance flitches of a favored wood so that its qualities and limitations may be observed in the design. Counters and furniture may be of the same or of contrasting woods. Cores and solid stock should be fireproofed.

For walls and counters, terrazzo is practical. As a plastic material it is adaptable for use on curved surfaces and in a variety of colors. The execution of terrazzo work should be by expert contractors, and troweled-in-place material should always be applied on metal lath even where there is masonry backing. Plaster walls are economical and can be made interesting if painted an attractive color.

Ceilings, on the decoration of which much money and ingenuity have often been expended in the past, tend today to be as simple as possible and to be considered merely as surfaces to receive the lighting, the acoustic treatment, or the air-conditioning outlets—all of which must be kept in mind as factors in the design. Acoustic treatment is worthy of consideration as an easy and inexpensive way of producing a restful atmosphere.

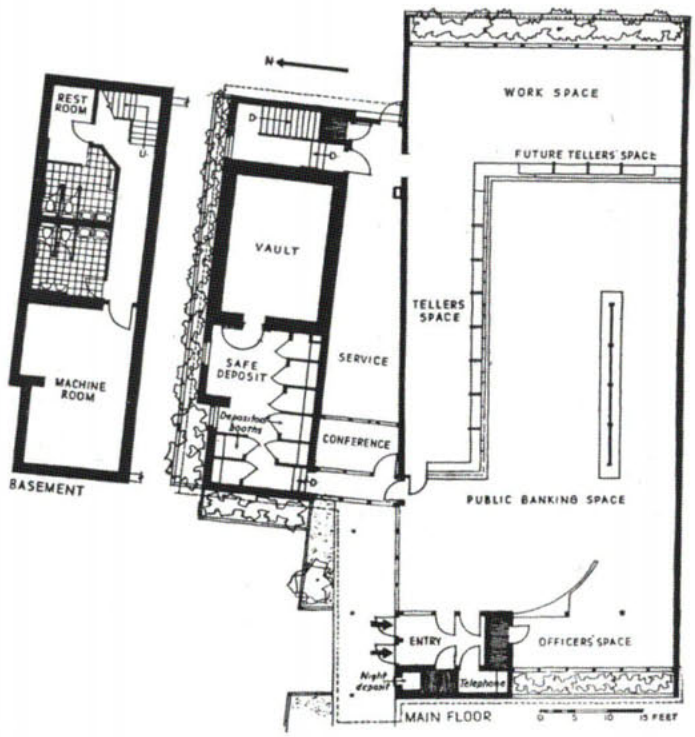


FIGURE 19.
NATIONAL CITY BANK OF CLEVELAND, UNIVERSITY BRANCH, CLEVELAND, OHIO.
PLAN

Garfield, Harris, Robinson & Schafer, architects

An inviting small branch bank for a residential area.

From *Architectural Forum*

Counters, check desks, benches, and officers' and secretaries' desks and chairs should all be selected under the architect's supervision. If possible they should be custom-made; the color and finish of the wood or metal, as well as the upholstering material, can then be considered in relation to the entire scheme. The architect's control should be complete over the choice of all the other furnishings and accessories necessary to the bank's operation—including floor coverings, draperies, lighting fixtures, Venetian blinds, clocks, waste baskets, bulletin boards, and calendar frames—because if the selection of any of these details is left to the bank's purchasing agent the result will probably clash with the architectural effect intended.

The subject of decoration as such is a difficult one to introduce into a discussion of twentieth-century architecture, for decorative effects today are sought by means of the color or form of the necessary utilitarian elements. Nevertheless the question of using a wall painting, a photo mural, a mosaic panel, or sculptural treatment will invariably arise, and such a detail can be of value as a focus in an interior. The desire for some such treatment will often originate with the bank's officers, who, accustomed by years of experience to

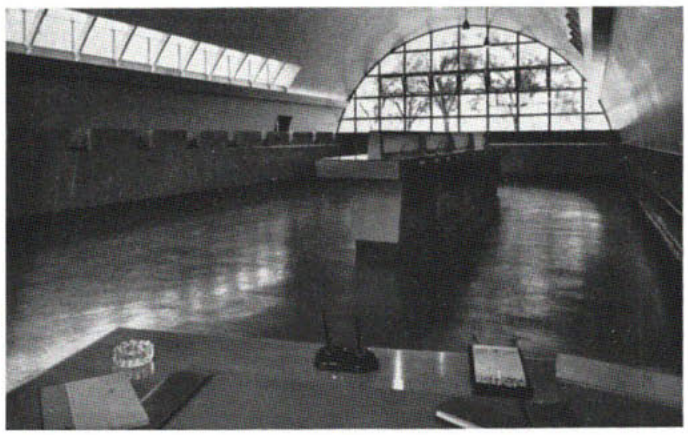


FIGURE 20. NATIONAL CITY BANK OF CLEVELAND, UNIVERSITY BRANCH, CLEVELAND, OHIO. EXTERIOR AND INTERIOR

Garfield, Harris, Robinson & Schafer, architects

Even the simplest and least expensive construction if creatively used will produce a bank that is true to its age and harmonious with its environment.

Photographs R. Marvin Wilson, courtesy Garfield, Harris, Robinson & Schafer

the decorative theme as the apex of the design, will feel something missing without it. The architect, too, may want something of the sort. Here is one point where quality is vastly more important than quantity; and the artist should be selected with care. A small bit, well done, well located, and well related to the scheme as a whole, is of vastly greater benefit than a large mural with subject matter that is only remotely connected with the bank's character or individuality.

MECHANICAL EQUIPMENT

Since mechanical services have increasingly become an essential part of our life, they must be taken into account by the architect at an early stage. Elaborate installations will take a big slice out of the budget, and it is well to determine at once how much money is to be allocated to mechanical work. Adequate plumbing and heating are taken for granted, but summer air conditioning is a controversial subject. In the South it must be included, and in the North it is coming to be considered more and more necessary. Heat loads imposed on the system by lighting, supply outlets, and return grilles, the source of the fresh-air supply and the exhaust, and the quantities of available water or space required for an evaporative condenser to effect cooling will all have to be considered at the beginning, and the location of heavy compressors or circulating fans will have to be taken into account because of the noise or vibration from their operation.

In recent years the clients' and the public's standards of lighting have undergone drastic revision. The dim cathedral lighting for the interior of a bank, with accents of light at check desks and tellers' cages, is no longer acceptable. Although even such high levels as fifty foot-candles for working spaces are recommended, thirty to thirty-five seem more reasonable; the lower degree of intensity, moreover, is more easily accomplished with economy of operation than is the higher degree. The foregoing applies particularly to light in public spaces, such as on the tellers' counter, where the lighting source may be in the ceiling at a considerable height above the working plane. Concealed spotlights over the deal plates to illuminate the point at which the transaction takes place may be considered, for this point should be well lighted for the detection of counterfeit money. Architectural lighting to model the planes of walls or to highlight objects used as decoration is one of the designer's opportunities. To accomplish this varied illumination, incandescent, fluorescent, and concealed or focus lighting in different forms or combinations can be put to use.

Flexibility is of the highest importance in the installation of the communications system. Interior telephone connections are essential. An underfloor duct is desirable. The switchboard location should be thoroughly studied, and in a small bank its location on a mezzanine from which everyone may be seen is a distinct advantage. Pneumatic tubes or dumbwaiters for the transfer of papers from floor to floor or from point to point should be investigated early; the tendency now is to replace messengers with such mechanical means.

Protection devices, with connection to a central patrol station, should be

worked out with the company representatives as a safeguard against fire, burglary, or theft. Foot treadles for installation under the counter are available; the universal preference seems to be for a silent type of alarm, with a light and annunciator at the guards' station which rouse the protective forces without informing the intruder that signals have been given. Gassing devices and bullet-proof glass are not generally accepted, since the technique of capture is no longer based on shooting it out at the teller's window.

Hope for a distinguished future in bank architecture seems bright. Much of the preliminary work has been done. The barriers limiting bank design to the classic style have been broken down, but the tradition of quality building still remains. That bankers are in a more receptive mood toward a contemporary bank expression, a number of modern interiors and a few modern buildings testify. The mechanics of change are active; the new form will soon follow.

SUGGESTED ADDITIONAL READING FOR CHAPTER 27

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28

Department Stores

By KENNETH C. WELCH

THE BUREAU OF THE CENSUS defines department stores as "general merchandise stores with sales in excess of $100,000, usually of the full-service type, carrying men's, women's, and children's apparel and shoes, furnishings and accessories, dry goods, homewares, and many other lines. Furniture and hardware are often but not necessarily represented, although home furnishings, draperies, curtains, and linens are almost invariably carried." There are many large departmentalized stores, however, which do not carry this full range but nevertheless rank as department stores from the architectural viewpoint.

In 1939 there were only 4,074 department stores in the United States.[1] These represented less than a quarter of one per cent of the total number of stores, but they accounted for 9½ per cent of all sales, and among them 304, or 7½ per cent, produced over 40 per cent of all department store sales.

The exact origin of the department store is uncertain, and the name itself was probably not used until the "gay nineties." Many department stores started as dry-goods stores. Lord and Taylor (New York, 1826), A. T. Stewart (New York, opened in 1825; absorbed in 1896 by John Wanamaker [2]), Bon Marché (Paris, 1838), Rowland H. Macy (1844 in Boston, 1858 in New York [3]), Eben Jordan (jobbing house in Boston, 1851), and Field, Leiter & Company (Chicago, 1870; later Marshall Field) were all in this classification.

Many retail principles have been originated and proved by department stores. Summarized briefly they include: (1) one price, plainly marked; (2) the permitting of returns and adjustments; (3) quantity buying; (4) city-wide publicity; (5) the added convenience of having many lines under one

[1] United States Retail Census.

[2] *Golden Book of the Year, 1861–1911, Wanamaker Stores . . . Jubilee* [Philadelphia: c 1911–19].

[3] Ralph M. Hower, *History of Macy's of New York, 1858–1919* (Cambridge, Mass.: Harvard University Press, 1943).

FIGURE 21. A. T. STEWART STORE (LATER JOHN WANAMAKER'S), NEW YORK. EXTERIOR

John Kellum, architect

One of the largest of early American department stores, with an exterior of cast iron. At the time of its erection in the 1860's its eight-foot-wide show windows were deemed almost impractical because of their size. Courtesy John Wanamaker

roof; (6) the ability to reflect fashion changes; (7) new capital structures with larger investments; and (8) the addition of many supplementary services. These principles had such a rapid growth in the United States that the modern department store may be considered largely an American product, and it is unfortunate that we have borrowed, as an environment for this comparatively recent retail process, the academic architectural styles of the past.

Most early department stores started in a small way and expanded from one building to another. Soon, however, large specially built structures with open plans were discovered to be more efficient both in handling crowds and in creating possibilities for display. The growing use of structural iron and glass and the invention and improvement of the elevator were essential contributions to the development of department store architecture. One important problem was that of introducing daylight into the center of the building. Although single-story buildings of considerable size could be lighted by clerestories or glass roofs, the big multiple-level department store required other methods—usually interior skylighted courts.

One of the first large structures built specifically to house a store, the A. T. Stewart building in New York (1863), by John Kellum, had one central sky-

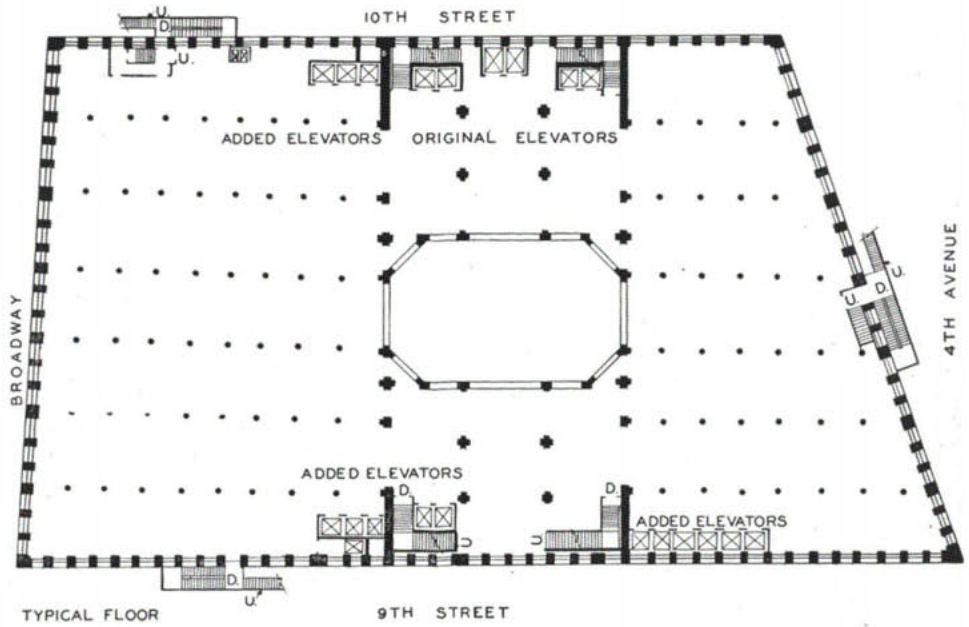


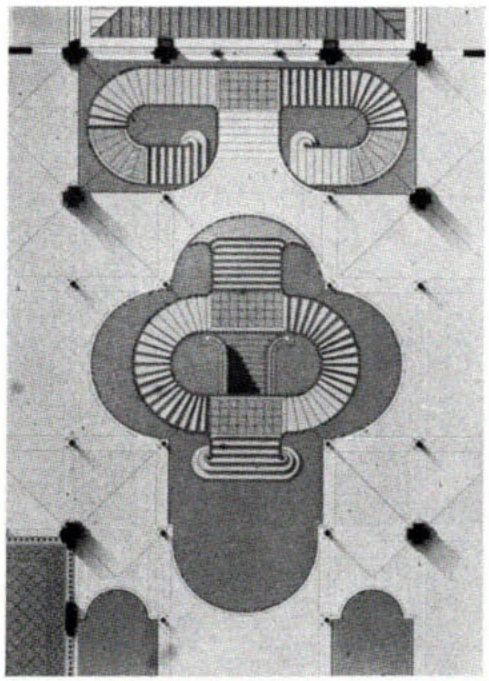
FIGURE 22. A. T. STEWART STORE (LATER JOHN WANAMAKER'S), NEW YORK. PLAN

John Kellum, architect

A plan with the typical central rotunda or court; the present grand stairs were an addition of the 1890's.

lighted court, which, though not too successful in furnishing daylight except on the first floor directly under it and then only for a relatively short distance from its perimeter, created a grandiose effect (Figs. 21, 22). The Magasin au Bon Marché in Paris (1876), by Eiffel & Boileau, was better; it had a number of large skylighted courts. The upper-floor areas were connected across the courts by iron bridges, which materially improved the circulation and formed excellent vantage points (Figs. 23, 24). Although these courts wasted a greater amount of floor area than those of the Stewart building did, they distributed the daylight much better.

The display of merchandise in these early stores was primitive, but lighting was vitally important then as it is today. Around 1878 electric arc lamps were coming into use, but department stores always kept gas lighting as a stand-by. By 1880 Edison's incandescent lamps had arrived on the scene. This new lighting permitted the construction of the "warehouse" type of multiple-level department store, which though less impressive was more efficient. Many stores, however, still retained the skylighted court as an architectural feature.



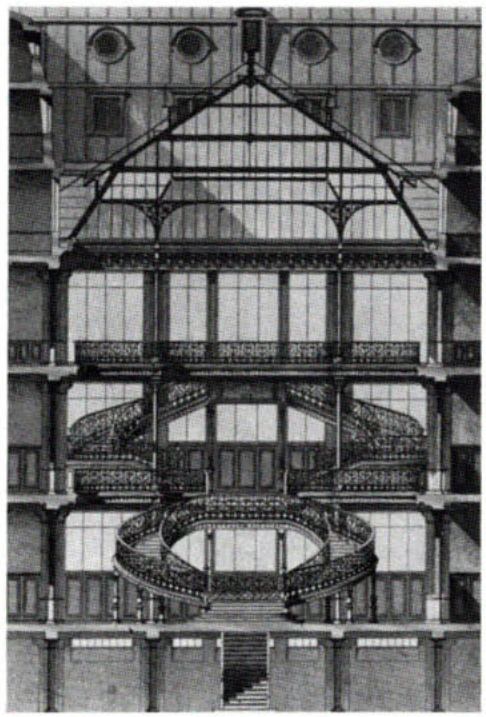


FIGURE 23 (LEFT). BON MARCHÉ, PARIS. PLAN OF STAIRS

Eiffel & Boileau, architects

The largest of the early department stores in Paris, the Bon Marché was famous for its revolutionary use of iron and its light and airy interior. From *Encyclopédie d'architecture . . .*

FIGURE 24 (RIGHT). BON MARCHÉ, PARIS. SECTION

Eiffel & Boileau, architects

Light from skylights flooded into the building through the courts.

From *Encyclopédie d'architecture . . .*

(See Figs. 25, 26.) The Wanamaker store in Philadelphia (begun in 1902 and completed in 1910), by D. H. Burnham, with its famous pipe organ, endowed to remain the "largest in the world," has a "grand court" 150 feet high and 62 by 109 feet in plan. Marshall Field in Chicago had an open court, but Louis Sullivan did not include one in the Carson-Pirie-Scott building there and this omission was expressive of the general trend in the United States. Yet the use of a large central court or rotunda still remains standard practice in Continental countries; for example, one of the most beautiful and carefully planned of modern department stores—the Bijenkorf in Rotterdam, by Dudok—has a handsome open area (Figs. 27, 28).

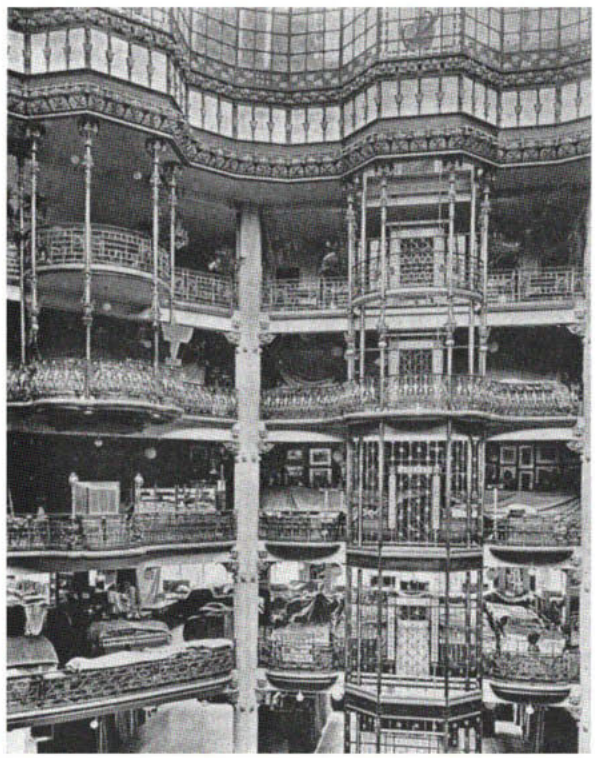


FIGURE 25. LE PRINTEMPS, PARIS. INTERIOR

René Binet, architect

The tradition of light ironwork persisted in French stores.

From *Architecte*

ORGANIZATION

A specialty store can be successful without too complex an organization. The large department store, on the other hand, must be efficiently organized. In addition to the more obvious sales instrumentalities there must be facilities for the employment services, for training, and for customer service, as well as for the equally important behind-the-scenes service. When these facilities are all combined in a pleasing environment, the best possible instrument has been provided for department store operation. The success of the design can go a long way toward making management successful.

Table I is a typical organization chart for a large department store and also includes the type of space or facility required. Table II classifies department store merchandise into six groups and supplies certain pertinent information.

PROGRAM

In discussing the department store program we shall follow the merchandise from the receiving point to the point of sale and then, when it is not a "take

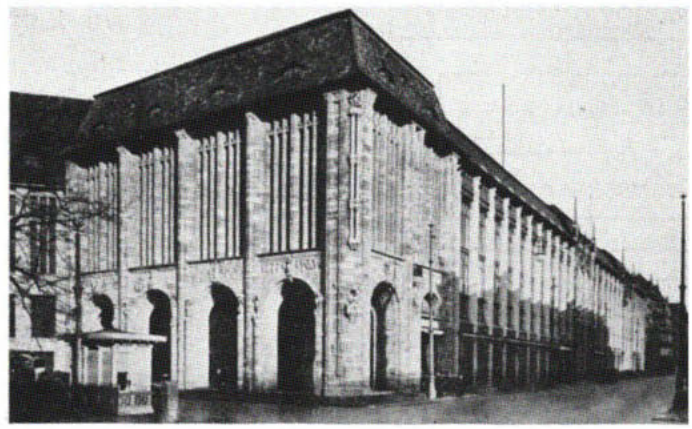


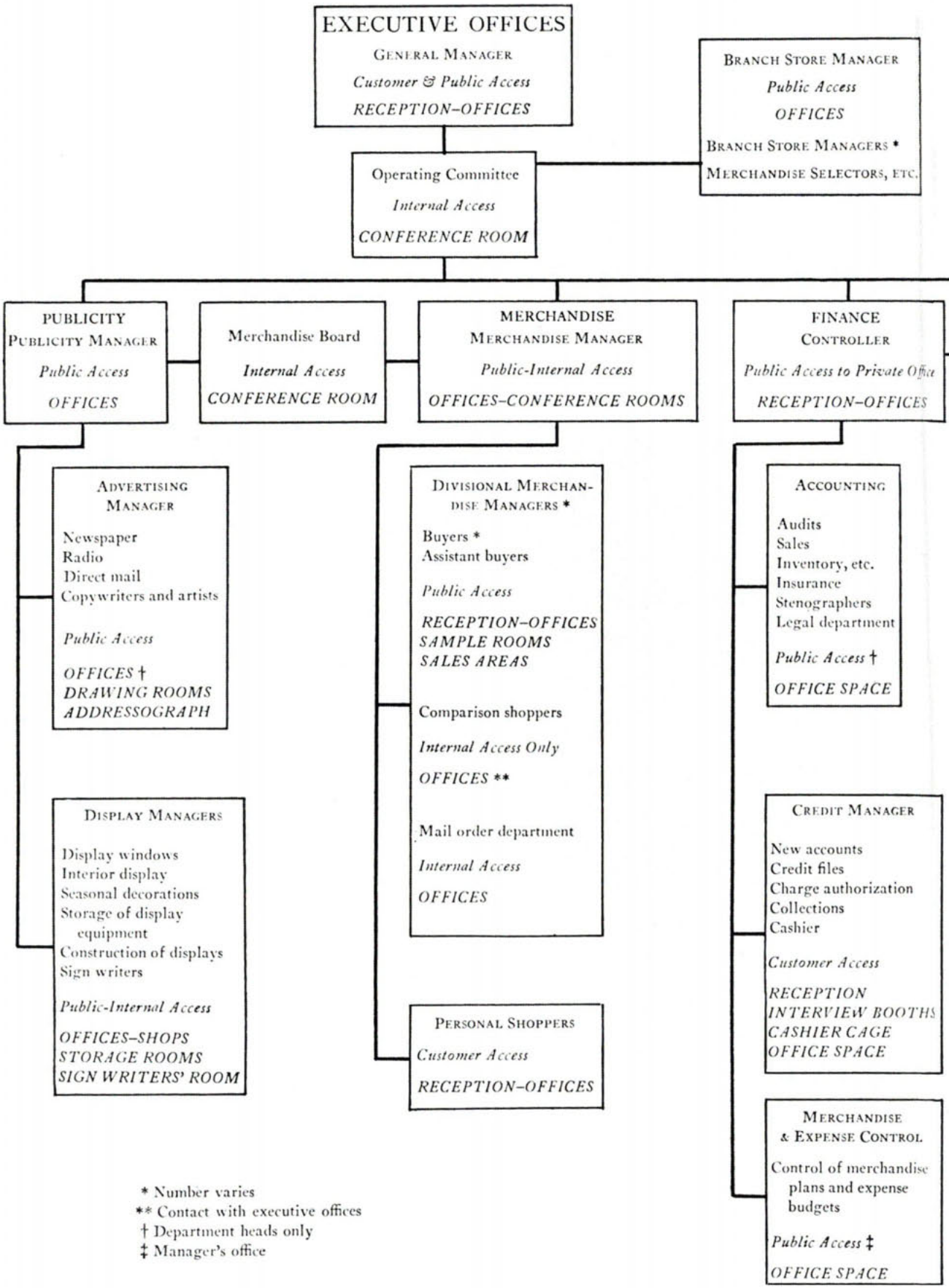
FIGURE 26. WERTHEIM DEPARTMENT STORE, BERLIN. EXTERIOR AND INTERIOR

Alfred Messel, architect

This great store—one of the important pioneer works of modern architecture—is distinguished by its fresh exterior design and its large central court; note the lighting by means of small bulbs arranged in long garlands.

From Platz, *Die Baukunst der neuesten Zeit*

with," to the delivery department. In determining the areas and facilities required, the services of a consulting specialist are valuable; in addition, the existing conditions should be studied and the buyers or department managers consulted, for a thorough understanding of the function involved is essential. Management, it should be noted, is usually more interested in selling than in service. The designer is fortunate—and he will doubtless produce a better design—when the service executives have equal authority with those primarily interested in selling.



* Number varies
** Contact with executive offices
† Department heads only
‡ Manager's office

TABLE I. TYPICAL ORGANIZATION CHART FOR A LARGE DEPARTMENT STORE Indicating Department Heads, Functions of Departments, Type of Access (Customer, Public, Internal), and Type of Space Used or Controlled.

There will obviously be variations in organization, depending on operating policies; for example, the Mail Order Department can be separate or under the supervision of the Merchandise or Store Manager. Accordingly, as a help in programming, it is well for the designer, whether totally new plans are being made or major alterations are contemplated, to become familiar with the store organization.

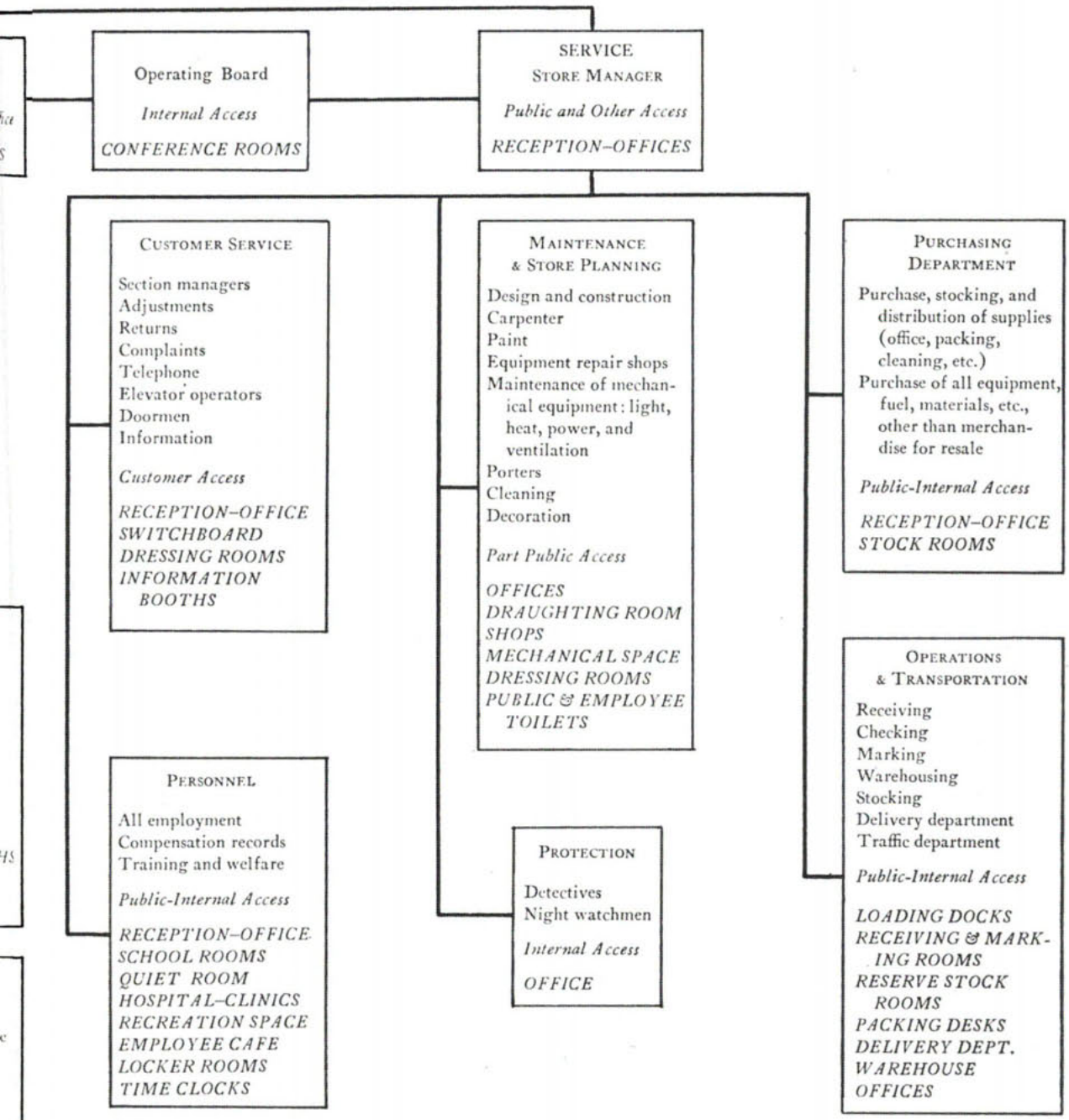


TABLE II

Basic Category	*Time-Need*	*General Characteristics*	*Price Level*	*Other Competing Neighborhood Stores*
1. Convenience Goods	Daily—Weekly	Often staple and increasingly being packaged. Standardized to a certain degree as to product and price. Little "shopping" required. Includes apparel with lesser fashion appeal, children's play clothes, work clothes, everyday apparel.	Low	Food, drug, family apparel stores
2. Shopping Goods (a) Fashion [a]	Monthly—Seasonal	Generally women like access to a large and varied selection, preferably in close proximity (high-volume department stores plus specialty shops). Many items are in luxury class. Values increasingly important. Comparatively little standardization. Exclusiveness adds to prestige. Bulk of merchandise must have demand value rather than price appeal. Individual rather than family appeal.	Medium to high	Women's, men's, and children's apparel and accessory stores
(b) Requiring Service	Yearly—Sometimes Lifetime	Standardized items but with certain style appeal, such as appliances, radios, automobiles, etc. A high degree of shopping value and service rendered in normal times important. Often more of a family appeal. National publicity.	Medium but generally high	Appliance, radio, and automotive stores
3. Specialty Goods	Monthly—Seasonal—Lifetime	Often repeat customers, hence not too much shopping. Service and natural accessibility important. Often nationally advertised. Brand names; fashion not too important.		Men's clothing, small electrical appliances, fancy groceries, better furniture, and home furnishings

[a] There is a difference between fashion and style. The former is a contemporary vogue, which may or may not have style; style may be an attribute of items not necessarily fashionable. Only in comparatively recent times have the great majority of people become fashion-minded, particularly in the low- and medium-income groups. This is due to numerous factors but especially to the power of fashion publicity, improved transportation, communications, motion pictures, and broadcasting.

In addition to the above basic categories, merchandise has other classifications and further subdivisions as follows:

4. Impulse Items (sometimes called "pick up" items)	Though generally in the low- to medium-price field, impulse items can be important adjuncts to convenience, fashion, shopping, and even specialty goods. They can have a definite fashion appeal in the accessory field or a novelty appeal in convenience and specialty goods. They are items which have a certain consumer demand [b] but are not often sought or shopped for by themselves. They are generally semi-luxuries, even though in the lower-price brackets. Men's neckwear is the best example of this classification; but women's neckwear, handkerchiefs, handbags, millinery, etc., are also to a high degree impulse goods. Often a display acts as a reminder. Obviously this classification needs complete and effective display and the maximum amount of natural traffic that is possible, which means good main-floor locations, or, if on upper floors because of their relation with other upper groups, they should be placed in spots adjacent to the highest traffic flow.
5. Necessities or "Pullers"	A large part of convenience goods and even of shopping goods falls in this classification. Pullers can have a high degree of fashion and style appeal and be high in price; therefore they require a maximum amount of shopping. It is obvious that they also require a high degree of consumer demand. Children's wear, women's and men's outer apparel, shoes, notions, baked goods, etc., fall in this classification. Staple goods can also be included, but these are relatively less important in department stores. Puller merchandise can have a less preferred location from a traffic standpoint and can be used to pull customers through the impulse-goods sections.
6. Emergency Items	With certain items—often needed in a hurry—convenience of location and accessibility are the important considerations. Sometimes they are needed not immediately but merely within definite time limits. Drugs, prescriptions, certain groceries, film developing, certain repair services, etc., are in this classification.

[b] Low price alone does not account for the fact that a given article will sell. Merchandise must be in demand; either it must be needed or a demand must be created for it by persistent publicity.

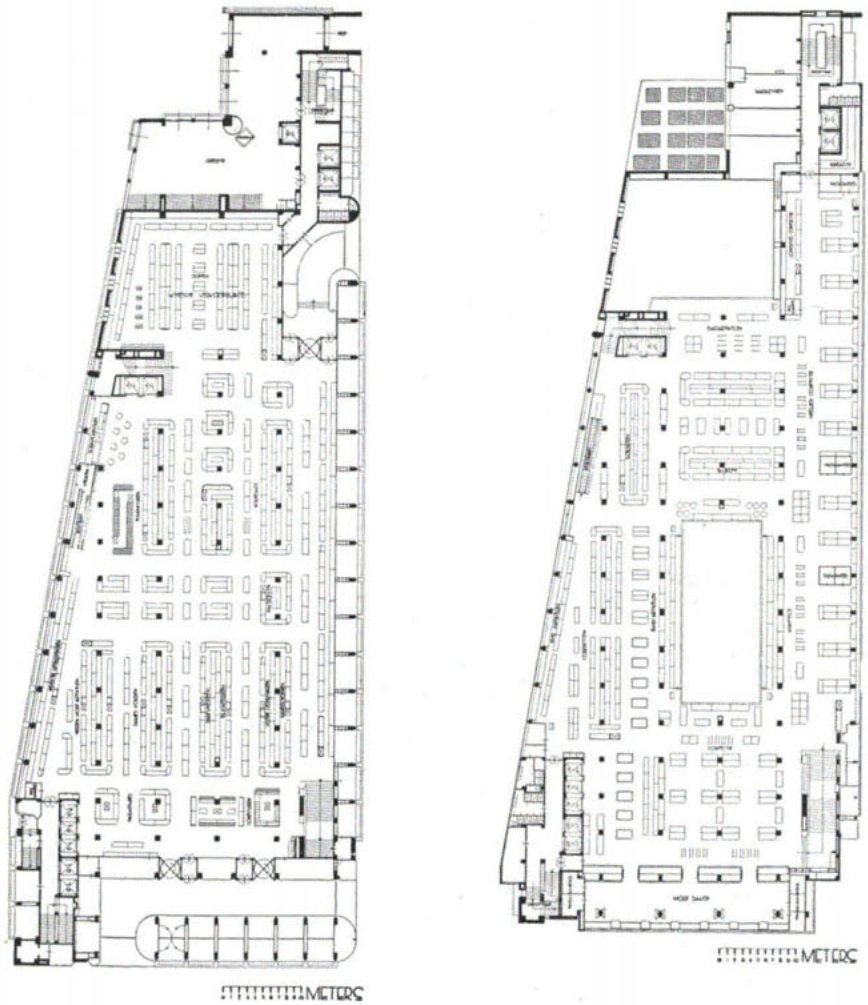


FIGURE 27. BIJENKORF STORE, ROTTERDAM, THE NETHERLANDS. PLANS

W. M. Dudok, architect

One of the most carefully planned of modern European department stores; half destroyed during the Second World War. From *Die Bijenkorf Rotterdam, Gedenkboek*

Generally great savings can be made by avoiding the unnecessary moving of goods. Waste is usually due to bad planning and the allocation of an inadequate area to service. The large central department store, even with outside warehouse space and remote delivery, can seldom retain over 50 per cent of its gross area for selling; branches can retain up to 75 per cent.

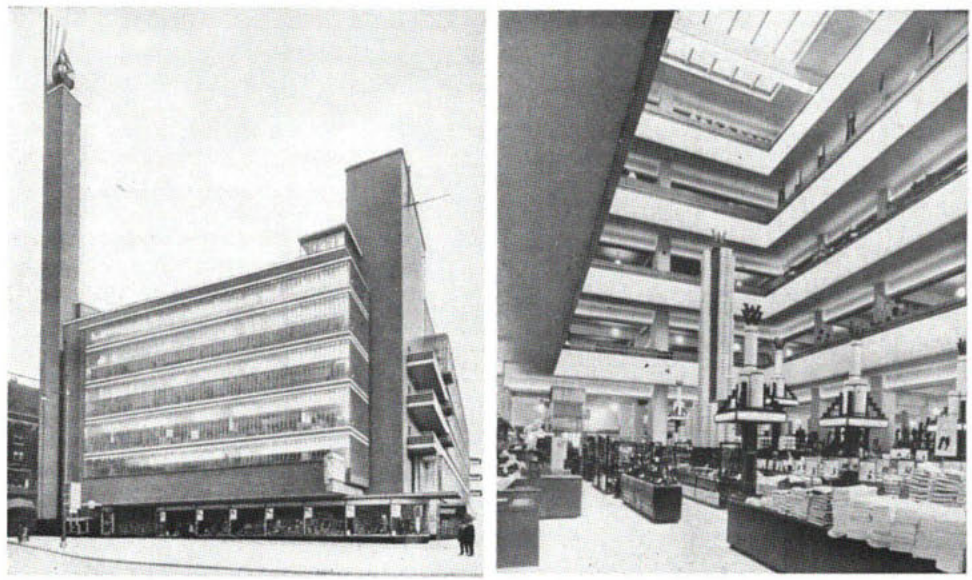


FIGURE 28. BIJENKORF STORE, ROTTERDAM, THE NETHERLANDS. EXTERIOR AND INTERIOR

W. M. Dudok, architect

Distinguished by a superb and unconventional handling of modern techniques and materials.

From *Die Bijenkorf Rotterdam, Gedenkboek*

RECEIVING POINT

Merchandise is received at a receiving station, which may be located away from the store at a warehouse or, in the case of deliveries by mail and express and in the event that the warehouse is joined to the store, in the store itself. There should be a loading platform at least 3′–0″ above grade, with space enough to handle the peak receiving load. As a rule, deliveries can be staggered so that no more trucks will be present at one time than can be accommodated. It is wise to provide complete off-street loading space for trucks, even if city ordinances do not require it, as is increasingly the case.[4]

A receiving station can be at street level or, with a ramp or van lift, in the

[4] The Regional Plan Association proposes for New York (*Highway Research Board Proceedings, 25th Annual Meeting*, 1945) the following number of off-street truck berths in relation to the gross building area of department stores:

Square Feet	*No. of Berths*	*Square Feet*	*No. of Berths*
40,000	1	320,000	5
100,000	2	400,000	6
160,000	3	Each Additional	1 Additional
240,000	4	90,000	

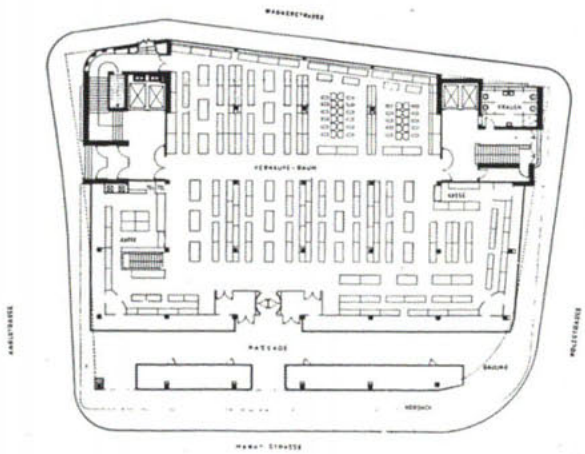


FIGURE 29.
BREUNINGER STORE, STUTTGART, GERMANY.
PLAN

Eisenlohr & Pfennig, architects

Note the concentration of the vertical circulation and the services to create the largest possible unbroken selling areas.

From Parnes, *Bauten des Einzelhandels . . .*

FIGURE 30.
BREUNINGER STORE, STUTTGART, GERMANY.
EXTERIOR

Eisenlohr & Pfennig, architects

Designed entirely in the then current type of modern architecture, with structural rhythms dominant.

From Parnes, *Bauten des Einzelhandels . . .*

basement or sub-basement or on an upper floor; the expense involved in the last case is justifiable only when the land values are high. If it is on the street level, roll-up doors and a booth for the receiving clerk's office should be provided, since all merchandise should be delivered at this one point.

Sometimes mechanical conveyors move the goods from the receiving station to the marking rooms. Often, however, such equipment involves an unwar-

ranted expense, since in addition to a high initial cost it actually increases labor costs by necessitating additional checking. Another solution is to use modern moving and lifting trucks and regular freight elevators, a scheme that enables one person, after the initial check, to take the packages direct from the receiving point to the proper marking room. In any event, every possible method should be studied to determine the most efficient system for a given condition.

MARKING ROOMS

At the designated marking room the merchandise is opened and checked.[5] Efficient machines are commonly used for marking. Portable marking tables will save labor costs in moving merchandise, especially when it is in small packages. The paper work entailed in marking requires intelligent planning. To arrive at the most economical solution, the architect-engineer must be familiar with the procedures and the mechanical equipment—possibly pneumatic tubes—required. As a rule, the managers of the various departments can give him this information, but he must be sure that such details are all incorporated in the plan.

The various marking rooms are best located on the same level with the reserve-stock rooms they serve.

RESERVE-STOCK AREAS

When reserve-stock rooms for different departments can be separated and locked, the merchandise, once it is checked and marked, often becomes the responsibility of the department which handles it. There is a trend toward keeping a larger reserve stock on the same floor with the department, or on a mezzanine close by. Narrow mezzanines over small areas on the periphery, with low head room underneath, seldom harm the total space effect and normally take up no sales space. Under this system the sales force becomes better acquainted with the stock and finds it easily accessible when needed; furthermore, by having the sales force do the re-marking, stock-keeping, and so on in dull hours, indirect costs can be reduced.

In the case of a city-wide chain or an older parent unit with a system of branches, such decentralization is especially advantageous. Branch stores can be better serviced from a warehouse than from a central store which lies in a congested business district, and the delivery department also can then be more closely co-ordinated with regional and national transportation.

[5] This is true unless, as is sometimes the case with standardized merchandize, it is kept packaged in the warehouse, sold to the customer from a displayed sample, and delivered to him from the warehouse.

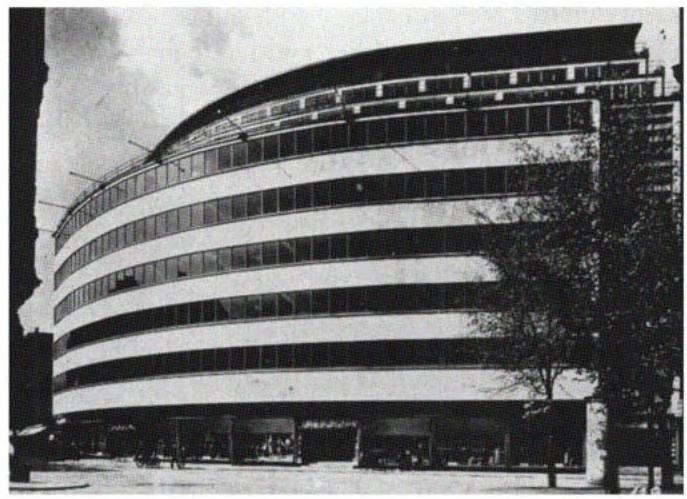


FIGURE 31.
SCHOCKEN STORE,
CHEMNITZ,
GERMANY.
EXTERIOR

Eric Mendelsohn, architect

The most brilliant of modern German shops; cantilevered selling floors with continuous windows framed by the vertical notes of the vertical circulations required.

Courtesy Museum of Modern Art, New York

Much less reserve-stock space is required in any one selling unit if an efficient distributing system is carefully engineered. In fact, with efficient concealed stock rooms located adjacent to the selling departments there is actually no reserve stock because all the stock is easily accessible at the time of sale. Where reserve stock for small wares and accessories is centrally located, one good scheme is to have it on two levels, with 8-foot (or lower) sprinklered ceilings. The marking rooms can be either on the lower level, along with the more active stock, or on both levels. The layout should be made so that inventory taking can be easily systematized.

SELLING DEPARTMENTS

Most departmentalized stores have adopted the National Retail Dry Goods Association's departmental nomenclature and numbering system. The Controllers' Congress of the Association issues annually its *Merchandising and Operating Results of Department Stores and Specialty Stores* (*M.O.R.*), with which the department store architect should become thoroughly familiar.[6] It gives figures—under various classifications—for the main store, the basement store, and the total store by departments. Of special interest to the designer are figures on the average number of transactions, average gross sales, sales per square foot, transactions per square foot and per salesperson, salespeople's salaries, and so forth.

The Controllers' Congress, however, in its list of basic selling groups as

[6] It can be purchased from the National Retail Dry Goods Association, 100 West 31st Street, New York 1, New York.