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ARTS & ARCHITECTURE

MUSIC

PETER YATES

ANTIANTIQUARIANISM

As I write the Philadelphia Symphony directed by Eugene Ormandy is shrilling out an Ormandy transcription of the Passacaglia and Fugue in C minor by Sebastian Bach. This follows, by transcription, thanks to CBS who have given over paying for live summer Sunday afternoon symphonic broadcasts, a transcription of a talk read by Ralph Vaughan-Williams for the BBC network on the 200th anniversary of Bach's death. The author of National Music argued in his gruff, countryman's manner the one side of a two-sided argument.

For blaring crude sounds intended to beat upon the ears of a mob audience insensitive to contrapuntal nuance, this recording could scarcely be improved on. It is mob-music, as rawly meaningless, as hysterical and impressive as a broadcast rant by Hitler in the original German, a mass substitute for emotion, the Hollywood Bowl extreme of a good idea gone to seed. If Bach is worth hearing at all, says the plausible argument, everybody should hear it and presumably all at once. Therefore the music must be made thicker, heavier, coarser, louder and be played in larger places. Therefore, the experts in crowd psychology added, it should be picked up by amplifiers and literally broadcast in the faces of the audience.

The music is modernized, as the hard, bright boys in the studios modernized Rostand's Cyrano de Bergerac; smearing the sentiment with Hollywood cliché, building up the duel until it becomes a jangling ironmongery, and the point of it, the ballade, inaudible under the senseless beating of swords.

We went along with Leopold Stokowski, during the early thirties, when his first astonishing, colorful transcriptions of the Toccata and Fugue in D minor and the Passacaglia by Bach, still con-
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servative and cleanly delineated, showed what had been missing from the organ-player's stubbornly conventional black and white. Afterwards Stokowski and a host of others began mass-producing Bach transcriptions, even Palestrina transcriptions. Good conductors and bad conductors and arrangers of an otherwise appalling insignificance tried to outdo one another with volume and vibrato, blur and brass. The Toccata and Fugue, as if it were the only one, became Fantasia, the Disney picture; it skidded obliquely, disconcertingly up, down, across peaks and pinnacles of Bryce Canyon in an esthetic short by Werner Janssen—hilarious, a parody of the notion, but in Janssen's mind dead serious!

Theoretically, practically, I am in entire agreement withVaughn-Williams, one of the master-composers of our time and a great adapter and maker of transcriptions. To hear him at work with an old melody or to hear Schoenberg's orchestral arrangement of the St. Anne Fugue is a privilege, a rare privilege, because these are demanding, they do not shriek in the crowd's ear. Sebastian Bach was his own first and best arranger. Neither for his own music nor for that of other men did he adhere to any rule of liter- alness. When he arranged the three-part mirror fugue of the Art of Fugue to be played on double keyboard, he added a fourth part. He translated violin concertos to clavier with such efficiency it has taken the best efforts of JosephSzigiti and Ingolf Dahl to recover what they believe to be the original version of the D minor Concerto.

Nor does it matter whether the transcription results from long experiment and deep conviction or whether it is an occasional or commercial product. Bach's clavier concertos and the Concerto for flute, violin, and clavier probably were put together for the concerts presided over by the local lion of Leipzig musical society, Telemann. These were old scores reworked; Bach did not think enough of the social occasion to write new music for it. The reworking becomes a minute critical commentary on the original compositions.

So here it is that I disagree for the first time with Vaughn-Williams. I believe that the purpose of transcription is to make either better music or at least music equally as good as the original for a different and possibly less adequate instrument or instru­ mental combination. Mozart's transcriptions of Bach study the original as closely as Bach's transcriptions study the Italian masters of the concerto grosso; they are works of art, for which in turn Mozart composed aragio introductions in the new string medium, evolving his own very distinct style of expressive counterpoint; Mozart's later contrapuntal music is their progeny. Beethoven studied Mozart's Quintet by writing a very close creative imitation. The modern French habit of orchestrating piano pieces or turning out musical jewelry in versions for different instruments may have a commercial basis, but Ravel's orchestration of Mussorgsky's Pictures at an Exhibition is a display piece of which any composer could be proud. Yet Mussorgsky's original for piano solo has more substance than Ravel's flamboyant version.

The habit of thinking musical structure in terms of the piano with its manual limitations and afterwards translating it by the application of colorful orchestration can be treacherous. A piano original seems dangerously near to breaking through the orchestration of Stravinsky's two more recent symphonies, Petrouchka, conceived at first for piano and orchestra, was later made a brilliantly effective display sonata. I would not give up the exquisite simplicity of Ravel's Ma Mere l'Oye, in the four-hand original written for two little girls, though I admire the fine wash-painting of his orchestration. Nor do I enjoy less Schoenberg's symphonic arrangement of the G minor Piano Quartet by Brahms for all my pleasure in the original. With such choices, you can both take it and leave it.

My second disagreement with Vaughn-Williams is the more serious. This has to do with what I call, because of its twisted thinking, Antiantiquarianism.

The chief argument of the antiantiquarian is to the effect that no elaboration of effort to revive the older styles of playing older music can be other than peculiar and pretentious: we can never make it sound as Bach did. This argument is followed by a recital of Bach's inadequate musical forces and the assertion that, although Bach may have realized his Matthew Passion with a minimum of sixteen poor voices, he would be much happier to hear it thundered out nowadays with three hundred. I have no doubt that
Bach would be pleased as Punch to hear a thoroughly good orchestral performance of a thoroughly adequate transcription of one of his display pieces for organ. But I can offer the expert testimony of a great Bach choral conductor, the late John Smallman, who insisted that a chorus of not more than thirty well-trained voices can sing both more clearly and more loudly, in the sense that every part is equally and individually projected in line instead of bulk to the farthest dimensions of a concert hall, than any chorus several times that size.

It depends on the music, you may add, and that is the point. You cannot play better jazz with an orchestra than with seven solo instruments. If the music needs bulk, you must give it bulk. No amount of bulk will make Beethoven's Ninth Symphony a satisfying experience in Hollywood Bowl; the music must have concert hall resonance. Mahler's Eighth Symphony sounds better in such vast space than ever in a concert hall; Schoenberg's Gurrelieder should go there very well, or Stravinsky's Symphony of Psalms or Oedipus Rex. The last time I made that suggestion the then unresigned Dr. Wecker denounced me far an amateur on the radio. Chamber music is best heard in a small auditorium. Mozart operas are not well adapted to the Metropolitan or the Shrine stages; such space is no less than enough for Boris Goudonoff.

To meet the other half of the antiquarian argument: no player who goes to the trouble of learning how to play the older music as it was played expects to play like Bach. He might as well try to play the Rubinstein D minor Concerto like Josef Hoffman. He tries instead to rediscover the manner in which Bach's music was played. He is aware of distinctions that trouble the ordinary performer not at all. In trying to realize these distinctions by using them instead of pretending that they do notexist he makes available to himself, and to others, if they will pay attention to what he is doing, a manner of melody, rhythm, harmony, and instrumental sound quite unlike our own. Objecting to such effort seems to me as futile as objecting to the use of an ur-text. The really absurd thing is to play self-consciously from a Bach ur-text, because one is too superior to play from a Busoni or a Liszt transcription, while producing results which are usually identical with, if inferior to, those of Liszt or Busoni.

The fact that a performer chooses to display himself on a harpsichord instead of a piano makes no essential difference, if he lets his instrument do the work of a piano; or a concert violinist, playing a Bach solo suite, if he aims at the breadth and volume of a string orchestra transcription.

Why should composers, virtuosos, musicologists, and even mere modest musicians rage or primp their lips in disdain because some interested enthusiasts are finding out how Bach's music was played and was intended to sound. One would expect them to rejoice, as when the sacred brown veneer of dirt and mishandling, the revered grime, was at last wiped from the gorgeously colored Flemish and Italian paintings of the Renaissance. There are always experts and even artists who will defend the sanctity of grime. The freshening and quickening of classic art has been invariably opposed by specialists whose expertise consists in keeping their subject mysterious and remote. We have less use for orchestral transcriptions when we have heard the Busch chamber players; we care less for the Busch players when we have heard the proper balancing of string instruments with harpsichord. And so year by year we come nearer the splendors and silences of Couperin and Bach. Why should we stop short, peering through the grime, the noise which the uncomprehending performer substitutes for knowledge and art; why should not we ourselves possess the knowledge and the art?

Today we are only at the beginning of an eventual rediscovery of the natural idiom of sixteenth, seventeenth, and eighteenth century music. To carry through this rediscovery we need to build the proper instruments with which to play the music; we must learn to play these instruments in the style natural to them. The keys of a harpsichord, a clavichord, or an eighteenth century piano do not require the deep depression of a modern piano. The correct light, shallow action of these older instruments is necessary, if we are to play with the rhythmic flexibility and nuance appropriate to the music of this period. The four-finger technique commonly used for these instruments needs to be revived, as anyone can find out for himself by trying it. I was pleased to learn recently that the great French pedagogue Isidor Philipp teaches this sort of fingering for the playing of the older keyboard music. The return
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It is not at all improbable that a renewed understanding of the notation regularized by Couperin and Sebastian Bach, with its exact but not prescriptive ways of indicating rhythm, tempo, and embellishment, will figure largely in the creation of music written fifty or a hundred years hence. It is very likely that a general rediscovery and use of the Pythagorean, Just Intonation, Meantone, and Well-tempered systems of tuning will almost completely break down our present slavish adherence to the single harmonic coloring of equal temperament.

The intelligent listener may become aware that no amount of listening to music can approximate the fascination of playing music for oneself, reading music as one reads a book or in company as one sings or plays a game. Revival of the recorder has thrown open a nearly lost literature of wind music for the pleasure of wilful amateurs who do not fear their own mistakes. One can predict that the general distribution of newly built harpsichords, clavichords, spinets, and other older instruments, especially the unmodernized forms with their more delicate, subtle, and less intrusive sound will begin a displacement of the domestic piano. Or like my amateur friends of the Firehouse Five one can resume the art of jazz improvisation.

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in consort—a wind instrument or a guitar will do as well, you can make do with a ukulele. Really, why should I urge you! These cheerful things will come to pass, in spite of prejudice, if we will all become amateur musicians. It will give us a very fresh approach to contemporary music as well; the extremest of the extreme will sound less strange. The enthusiasm of an amateur musician is much livelier than the gloom of a literary musicologist. The best informed listener is often the most unprepared, the most unwilling to do justice to an unexpected work of art. You see, being an amateur who reads music aloud sets you free from antiquarianism.

CURRENTLY AVAILABLE PRODUCT LITERATURE AND INFORMATION

Editor’s Note: This is a classified review of currently available manufacturers’ literature and product information. To obtain a copy of any piece of literature or information regarding any product, list the number which precedes it on the coupon which appears below, giving your name, address, and occupation. Return the coupon to Arts & Architecture and your requests will be filled as rapidly as possible. Items preceded by a dot (*) indicate products which have been merit specified in the Case Study House Program.

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HANSEN

Showrooms: One Park Ave., New York; 222 Merchandise Mart, Chicago; Exhibitors' Building, Grand Rapids; 880 Beverly Blvd., Los Angeles.
The main lines of the United Nations Educational, Scientific and Cultural Organization's cultural activities have already been laid down in past years: the furthering of world intellectual cooperation, the preservation of man's cultural heritage and the assurance of protection to writers and artists. But for 1952 the General Conference has given them more precision. In the same way as it works in cooperation with artists and writers, UNESCO will also work for and with men of science and increase its efforts on behalf of international institutes of scientific research giving special emphasis to projects that will contribute directly to the improvement of the living conditions of mankind by way of solutions to modern economic and social problems.

UNESCO's efforts are resolutely aimed toward action in the cause of peace, and here special emphasis will be placed on extension of the social sciences. It holds generally that all of its actions must go beyond any political implications, that an objective analysis of facts carried out in an impartial spirit is necessary to the enlightenment of governments and public opinion if the contributing causes of war are to be tracked down and eliminated. The cooperation of scientists of all nations and the pooling of all discoveries is a basic requirement to progress. Briefly, ten major points were restated or developed at the last General Conference of UNESCO which defined its program in 1952.

TEN MAJOR POINTS OF UNESCO'S 1952 PROGRAMME

1. A world-wide campaign against illiteracy and low-living standards. A network of international fundamental education centres to train specialized teachers and prepare reading and visual materials. First centre—at Patzcuaro, Mexico—opened in May 1951 to be enlarged to receive additional 100 students; second centre to be established in another part of the world.
3. Campaign for extended workers' education. 1952 target: more trained leaders in this field. UNESCO will set up International Adult Education Centre specially geared to workers' education.
4. Strengthening of international scientific research institutes. Special 1952 targets: world campaign to fight increasing desert zones and soil erosion through the International Arid Zone Council; provide nations with facilities for using complicated, costly machines known as "electronic brains" and promote research in this field through the establishment of International Computation Centre.
5. Broad investigation into social repercussions of technical development and adaptation needed by peoples so that technology will not destroy the cultural heritage. 1952 target areas: Africa, South East Asia.
6. Social, economic investigations, public opinion surveys to study ways of maintaining peace in the world's danger tension areas and help normalcy in regions following end of hostilities. Work to be carried out on request of ECOSOC.
7. Work will begin on a Scientific and Cultural History of Mankind bearing witness to fundamental unity of men everywhere in conquest of knowledge and in the arts. International Commission of 51 members from 25 countries will collaborate.
8. After three years' preparatory work, a Universal Copyright Convention will be drawn up in 1952, marking one of the most valuable achievements of UNESCO.
10. Intensified aid to Arab refugee children. Already over 95,000 children benefitting from UNESCO campaign in 114 desert schools and private and public institutions.
I have placed emphasis on the modern artist's existence as a solitary individual. I would be misleading however if I left the impression that this solitariness is caused solely by his desire, whether conscious or unconscious, to remain aloof from the world surrounding him, as when the Chinese artist argued that the best place for a studio is on a mountain top, that is, that withdrawal from the world is a necessary condition of contemplation. Only psychological analysis of each modern artist as an individual could adequately demonstrate how far his solitude is brought about by his own character in the sense that, whenever we encounter an aloof individual, artist or not, we suspect that his isolation derives in part, from his own secret desires.

Still, if we assume the hypothesis—a false one, I am sure, whose fruitfulness is not affected by its falseness—that every modern artist wants to come into intimate contact with the world—that is, with other human beings—as an artist, then it is immediately apparent that the general ignorance of plastic culture as a whole among other human beings—laymen of course, but most intellectuals too, often even critics and museum directors—is such that a modern artist often has difficulty in being granted some of the simplest things that he is, intelligent, accomplished, cultivated—since hardly anyone but his confreres can "read" his work and consequently his basic characteristics. Perhaps it is for this reason that in modern times artists have written and spoken in public so much, and issued manifestoes by the dozens.

It is true that modern art has a unique amount of experimentation in it, and that perhaps only people very close to these experiments can at once "read" them. But it is true too that much of the so-called "unintelligibility" of modern art is a result of the enormous extension in modern times of the background of art, a background which was for everyone until a century or so ago, and still is for most people the realism of Greece and Rome and the Renaissance, and modern modes of illustration. If I may give an example from my own experience, which I am certain is that of every advanced artist who...
ears his living by teaching, my students come to me—all themselves teachers of art, by the way—with their chief experience in painting from the model as it has been taught in academic institutions from the time of Delacroix and Ingres down to our own day in, say, the Art Students League of New York or the Chicago Art Institute. This narrow background—self-evidently narrow, when one compares it with the totality of world art, which is now available to everyone, less, as Andre Malraux points out, because of the ease and speed of modern travel than because of the enormous diffusion of reproductions—leads the students to believe at first sight that I propose to teach them radically experimental techniques (even the idea of experiment seems radical to them), "wild" and irrational beyond belief (one sees very well even now how inevitable it was that such terms as "fauve" and "dada" should come to be accepted, with malice by the public and humor by the artists), tolerated at first only by the authority of my position as the teacher of the class. One of my pleasures, and one of the students', is when the day comes, more rapidly in a lecture course, that students can "read" a Mondrian or a Miro or a cubist collage as feelingly as they already could a Vermeer or a Chardin or a Goya; an equally great pleasure on my part, and one unexpected on the students' part, is that they can also "read" with equal ease an Italian primitive, a Cretan clay figure, a Byzantine mosaic, a New Hebrides mask. It is interesting that once this range of perception is added to... (continued on page 41)
THE NEW RAILROAD STATION: ROME

RUBEN FIENGA, construction engineer

M. CASTELLIAZZI, V. FADIGATI
E. MONTUORI, A. VITELLOZZI
engineers

L. CALINI, A. PINTONELLO
architects
At the time the original project for the Rome Terminal was conceived in 1938, Italy was at the height of its fascist power; an era sterile and grandiose in its art and architecture. Conceived during this time, the character of the station was to have been a modernized temple, heroic in scale with super colossal columns at the entrance.

Fortunately, only one part of the station went under construction at that time, this being the side street office building (illustrated on page 4 in contrast to the present construction of the main building). This section was finished during the early years of the war, the rest being halted because of the generally unsettled conditions.

In December, 1947, it was decided to discard the existing designs for the main part of the station and hold a competition for an entrance and office building that would "reflect the new way of life in Rome, the change of political ideologies; and although there existed the possible loss of the monumentality, it would gain by being more human and appropriate to the democratic way of life."
RAILROAD STATION, ROME

Above: The "S" shaped concrete beam construction over the waiting room. Top right: Cross section of the building in construction. Center right: Roof construction over the waiting room with the glass skylight slats between the concrete beams. The preserved Servian wall is shown in the foreground.

Opposite page: Exterior view of the glassed dining room. Interior view of the bar for first and second-class passengers, and side entrance showing earlier construction with the newly added offices in the foreground.
design was to take full advantage of today's materials, to be functional yet to reflect the noble feeling of a public edifice.

The winning architects and engineers in the competition joined to create the existing edifice.

The resulting design contains two major elements: one is the horizontal office building 775' long and 93' high. The other is the entrance and waiting room with its excellently designed S-shaped roof supported by a series of marble-faced tapered columns between which are the entrance doors. Slots in the roof allow for long lines of skylights during the day and for artificial lighting at night.

The horizontal office building is faced with pink granite and travertine to tie in with the existing buildings. It contains a series of nine full-length narrow horizontal slots forming the windows, two to a floor, each 21" high. The floors have hot water-radiant heating, and in addition air conditioning exists for summer use.

One nice touch which is characteristic is the preservation of the "wall of Servian" one of the oldest in Rome, and which can be seen through the huge glass area at the end of the waiting room.

The creators of the new station "hope that their work will express the feeling of their time and still be of a character timeless and Roman."

—H. AND B. ROSENTHAL.
HOUSE ON A COASTAL PLAIN BY RICHARD NEUTRA,
The site commands a broad ocean view to the south and overlooks it from the coastal bluff. To the north the highlands of Pacific Palisades are visible. Both streets which skirt the corner property are much lower than the crown of the hill on which the home is erected. Building restrictions required a sloping roof.

The house has a full transparency from south to north with the swimming pool patio on the latter side. The breezeway which forms the entrance loggia and connects with the garage and a workroom, makes a protective screen to shield the swimming pool area against a vista down the street to the east. To give the swimming pool more protection against the northerly neighbor and more the feeling of a semi-interior it is “roofed” by a series of redwood pergola trusses.

The house has a minimum number of rooms but each counts for several purposes. The kitchen at the northeast with its dinette arrangement; the living quarter has a more developed dining area, it is at the same time a music room with built-in piano and a study for the writers. It has a paved area in front of a stone fireplace which forms the centerpiece between the southward and northward paved areas of garden patio and pool. Sliding doors enlarge the space in both directions. A panel opens between living quarters and master bedroom. The dining area, with its upholstered settee turns into a cozy conversation corner of the living room, and extends to a porch on the easterly end of living quarters.

The westerly end of the house is occupied by the master bedroom which with its spaciousness has a counter of storage furniture under the view windows and the master beds are placed to take advantage of the view. The bathroom is easily accessible from the pool area, and will be adjacent to the children’s extension.

Exposed beams and sloping roof are in a gray stain to harmonize with the natural stone of the fireplace. The dark lacquer of table and chairs contrast with the bright red of quarry tile paving and the creamy white of plastic upholstery on casual chairs. The interior color scheme has been kept cautiously neutral in order not to interfere with the impressions from the outside: the green of the lawn, the blueness of the distant ocean, and the swimming pool, the color of blooming shrubs and perennial flowers.
The Mid-Wilshire Medical Building received wide attention during its entire development stage, since new and important engineering and architectural concepts were introduced.

The problem presented to the architect was to provide a medical office building to accommodate approximately 60 tenants on an inside 57 by 167 foot lot. The matter of adequate parking was of extreme importance. The building was to provide complete air conditioning and the offices were to be uniformly commodious. An unusual feature of the planning problem was that prior to the execution of drawings leases were closed for 82% of the total rental space and, therefore, the suites were to be designed to fit the individual needs of the particular tenants. Because the building was entirely one-purpose, a large amount of equity money was required and cost of the structure could not exceed $12 per square foot.

The adverse characteristics of the lot made extensive preliminary studies necessary in order to determine the most satisfactory provisions for the required parking, the best feasible ratio between rentable and service areas, and the most economical type of construction commensurate with the building's requirements.

Edgardo Contini, engineer in charge of structural design for the project, was convinced that the considerable reduction of dead loads made possible by the elimination of heavy exterior walls would justify the use of structural steel framing which, ordinarily on the West Coast, does not compete favorably with the most advanced type of reinforced concrete construction for a building of this height. He found that, by developing the lightest type of floor construction (metal deck with 2" lightweight aggregate concrete topping supported by open web junior
joists); by taking full advantage of rigid frame design; by designing the main wing of the building on the double cantilever principle; and by using welding for all rigid connections but maintaining conventional riveting for all standard connections, an extremely light and economical structure could be obtained. In spite of fairly large column spacing (25' - 6" by 25' in the main wing), structural steel for the average floor framing (including girders, beams, joists and columns) weighs less than 9 ½ pounds per square foot. The structural scheme proved successful, representing a 25% savings in tonnage (and an almost proportional cost savings) over conventional structural steel framing. Erection of the structural framing was completed 5 weeks ahead of schedule.

An additional advantage of the scheme adopted was evident in the fact that it provided greatest flexibility in accommodating pipes for the plumbing system and duct work for air conditioning.

Solving the parking problem with an absolute minimum of sacrifice in land usage resulted in designing of parking completely into the building. The basement and a main portion of the first floor were given over exclusively to it, the two floors connected by a ramp at the rear.

Major attention was directed toward the development of a highly functional and efficient floor plan within the limitations of the narrow lot and its mid-block location. This resulted in the introduction of a single corridor on the east side of the building and yielded the most amount of rentable space (75% of the total area of each upper floor) and allowed the corridor to receive daylight from strip windows in the east wall. Vertically divided translucent glass panels opposite the exterior windows permit the daylight to enter the reception rooms of the individual suites.
A number of special features of this building play an important part in the efficient functioning and the architectural effect of the structure: All windows in office spaces along the entire south and west fronts of the building are protected from the sun by means of exterior aluminum jalousies fully adjustable from the inside. These jalousies stop the sun radiation before it can come in contact with the window glass, a critical factor in preventing excessive room temperatures. A corollary benefit is obtained by the reduction of the air conditioning load which, although it has not yet been determined exactly, is substantial.

The solid wall areas of the front portion of the building are formed by pre-cast concrete panels 2" thick which were applied directly to a light grid steel frame (like the metal skin of an airplane). The facing of the panels has crushed stone integrated in the slabs. Other walls are cement plaster and metal lath on steel studs on the sides and a ribbed gunite structural wall at the rear. Gunite was also used in the basement, shot directly against the earth with good cost results.

Utmost use was made of the latest advances in lightweight plaster aggregates such as vermiculite and perlite. Fullest advantage was taken of the very recent building code revision allowing a single thickness vermiculite plaster and metal lath ceiling to serve as fireproofing of the horizontal framing. Employment of this system resulted in cost reduction while the building maintained a class "A" fire rating.

The interior suite planning presented the architect with every possible variation to accommodate particular requirements of medical specialists. All specialized fields of medicine are represented in this building. Furthermore, almost half the suites required specialized x-ray installations fitted to individual needs. The wiring for these installations was installed prior to plastering and, wherever possible, equipment was recessed in the walls in order to avoid the customary cluttered appearance and space-taking problems of these provisions. The 35-foot deep suites in the entire rear portion of the building lent themselves extremely well to the many variations in layout. The new construction methods minimized the number and size of disturbing columns. By setting back these columns 8'-6" from the exterior face of the building, cantilevered uninterrupted exterior wall framing was made possible.
The use of strip windows on a modular unit length of approximately 4 feet allowed a wide margin of flexibility in the arrangement of the consultation rooms.

Finish materials were selected with great care. At the first floor entry and in the lobby, walls are of glass set in aluminum frames, with travertine covered columns and a natural finished walnut wainscot at the elevators. The lobby and pharmacy floors are terrazzo while the upper floors carry rubber tile. Corridor walls have been painted with a special wear-resistant paint.
The house is built on a 45° slope, normally considered unsuitable for building. The architect ignored the conventional retaining wall foundation and instead used a grade beam and pier foundation. Beams of reinforced concrete 8" wide and 24" high rest on the ground. Nine piers go down underneath the beams to a firm bearing 7' below.

More steel reinforcing was used in this construction but 50% less concrete, reducing the total cost to only two-thirds the usual type of hillside foundation. In areas where there are heavy rainy seasons, hillside houses with solid foundations have been known to slide because of the weight of the loose earth that piles up against the solid wall but in this case the danger is eliminated with the beam and pier construction, for the loose earth is not restrained but washes away freely in the spaces between the piers.

A 1/2" plyscored (foundation grade plywood) in 4' x 8' panels for walls and rough flooring was used, instead of the usual 1" x 8" sheathing floors and outside walls, laid diagonally. This resulted in a structurally stronger frame and reduced labor and material costs about 20%.

The ceiling on the upper floor is of 2" x 8" tongue and groove white fir roof sheathing left exposed which added to the attractiveness of the interior and further reduced building costs.

The roof parallels the slope of the hillside to take advantage of the view and to reduce sky glare. Extension of the 5' overhang into the house serves two purposes. Esthetically, it achieves the effect of bringing the outside in, creating a pleasant feeling of balance and an interesting break in the interior ceiling line. A cove along the interior edge of the overhanging accommodates indirect light tubes. Practically, it accommodates the 4" in diameter metal...
ducts of the "air wall" warm air heating system, and utilizes the system to best advantage. Grilles set in the overhang below warm air along the surface toward windows to heat cold air at the source of the greatest heat loss. The heating system has the further advantage of requiring no floor space for fixtures; additional registers are set in the wall at floor level.

The problem of the steep slope from street level to house was solved with a carport bridge that doubles as an entry-way and is made attractive with a row of planting boxes lining the walkway to the front door.

The stairwell, connecting the street-level living room, dining room and kitchen with the downstairs bedrooms, is a stimulating example of what can be done, economically, to increase the interest of space that fills a utilitarian purpose. Located at the northeast corner of the house, the entire 17' high area is glass enclosed, affording a magnificent view of the city, the Bay, the Golden Gate Bridge and Marin hills.

The stairwell is carpeted in chocolate brown and the one non-glass wall is painted a deep forest green. A 1 ½" steel pipe, enameled watermelon pink, forms the stair railing which is connected to the floor with a protective lacing of woven copper cable. Planting boxes extend out from the upper floor level on the right of the stairs to the between-floor landing.

The copper shade of a custom-designed lighting fixture is pierced with ½" round holes to give a soft, diffused light over the entire stairwell area, and the large globe at the bottom makes the landing bright. Three small bulbs are arranged at the top of the fixture in such a way as to light up the ceiling without casting the shadow of the copper suspension tube.
The site of several acres is in the far end of a warm valley at the base of an enormous rock. There are many smaller outcroppings of rocks and several giant oak trees. The prevailing wind is from the street side.

The main living area of the house is designed in direct relation to the great rock and is arranged for the desirable outdoor living under one of the oak trees. The kitchen is actually a food laboratory with a skylight, and dining is either inside or outside. The owner’s room and bath has easy access to the pool. An enclosed service yard and play area adjoins the nursery and laundry.

The floor is a radiant heated slab. The wood structure is exposed with redwood siding outside and painted plywood inside. Many of the walls in the living area are of natural stone taken from the site. The roof is a single plane on laminated beams with board insulation and natural color rock surfaced composition roofing. The colors and materials which have been selected are in keeping with the site.
A new motion picture called "Behave Yourself," now being widely advertised as coming from RKO through the Wald-Krasna productions, will be remarkable for a rather unusual look at the work of Bernard Rosenthal, sculptor. Mr. Mac Johnson, art director, facing the problem of choosing a monumental figure around which much of the story was to take place, had the good taste and judgment to acquire from Rosenthal the rights to a small piece called "The Ballet Dancers." In an enlarged replica of about fifteen feet, it was placed in the forecourt of the Los Angeles Prudential Building. The figures were beautifully reproduced and for something over three weeks electrified Wilshire Boulevard traffic. Actually, when removed after the shooting, something very important seemed to be lost to the building itself.

In this case very little sculpture will be found on the cutting room floor because it seems the picture has to do with crooks who use it as a meeting place for the exchange of their various illegalities; a gangster is shot in front of it, a trained dog performs trick signals and money, very hot, changes hands at the feet of the dancers so beautifully making their "pointes."

All this is chiefly interesting because a major popular production used the work of one of the important younger artists.
This is a house for suburban living on a luxurious scale, but on a restricted site. A large master bedroom, a child's room, a guest room, kitchen, and maid's quarters. The den is used as an activity room for sewing and studying and on occasion it may be opened to form a large space for entertaining together with the living room and dining room. At these times a concealed bar may be opened from which guests can be served outdoors as well as inside.

Garage, shop, and workyard are located together and used by owner's family in handling yachting gear. The house is placed well back from the street entrance, because of available garage access at rear of the lot. The house was oriented to bring more sun into the living areas and all living spaces open to terraces. Brick, redwood, yellow trim and sash are utilized in a dignified restrained form. The bricks are treated as planes and masses. Outdoor areas are segregated into their own uses by means of high and low brick walls. The garden was laid out in order to emphasize its relationship to the main lines of the house.

Outstanding features of the house include a dramatic entrance with 11-feet high windows, an illuminated pool, and a massive brick wall; the dining room and den both open into the living room and have been interrelated by the use of walnut paneling; unusual spaciousness was achieved in the living room by maintaining the high ceiling of the entrance hall; the den has built-in walnut cabinets containing a fully equipped sewing unit and a typewriter desk; the dining room has floating cabinets for silver and table linens; a sheltered play porch is a connecting link between the child's bedroom and play yard.
Commissioned to do a commercial interior for the display of various tasteful objects, the designer very successfully and very simply achieved a lively and provoking shop.

In a long, typically narrow space he has created a kind of light elegance. An entrance wall leading from the open foyer through glass to the interior is stripped vari-colored wood louvres against which glass display cages have been placed. Once inside the dark ceiling gives the illusion of unlimited vertical space. From it on long wire metal rods he has suspended curved perforated screens forming canopies over sections of the shopping area. The shop is predominantly in wood tones and white. The cases are simple structures on bent rod supports. The play of light is so designed that the whole interior becomes fresh and lively and, as was intended, immediately persuasive.
PRODUCT LITERATURE
continued from page 16
narrow hallways, in low attics; fan, motor, suction box in one unit; auto-
matic ceiling shutter operated by wall switch; shutter, trim finished in light
ivory baked enamel; available in 4750 and 6800 CFM capacities; other models
in capacities of 7600 and 977 CFM; air delivery ratings certified.—Robbins &
Myers, Inc., 387 South Front Street, Memphis, Tennessee.

- (907) Quick Heating: Comprehensive
12-page catalog featuring Markel Heat-
aire electrical space heaters; wall-
attachable, wall-recessed, portable; pho-
tographs, technical data, non-technical
installation data; good buyer's guide.—
Markel Electrical Products, Inc., Buf-
falo 3, N. Y.

INDOOR PLANTING
(900) Indoor Plants: Brochure "Fa-
lige Plants for All Occasions"; well
illustrated; professional discounts to
architects, designers, decorators; na-
tion's largest wholesale growers of de-
corative plants.—Roy F. Wilcox &
Company, Box 240, Montebello, Calif.

INSULATION AND ROOFING
(139a) Fiberglas (T.M. Reg. U.S. Pat.
Off.) Insulating Ford Board: Write for
Design Data A.I.A. File 37-B, "Fiber-
glas Insulating Form Board for Gypsum
and Light Weight Aggregate Roofs".
Described properties and advantages—
furnished application data and specifi-
cations on this permanent form for
poured-in-place decks over flat, curved
or pitched roof framing. With Fiberglas
Form Board one price for installation
and material brings: form board, roof
insulation, acoustical treatment and fire
safety. Exceptionally high, insulating
and acoustical efficiencies. Noncombus-
tible. Will not rot, decay, swell or
shrink when exposed to moisture. The
interior exposed surface has an inter-
esting texture and may be spray painted
after installation. Available through Fi-
berglas Approved (Poured-in-Place)
Roof Contractors, Owens-Corning Fib-
glas Corp., Dept. 891, P.O. Box 89,
Santa Clara, Calif.

- (95) Roof Specifications: Informa-
tion packed 120-page manual built-up
roof specifications featuring P-F built-
up roofs; answers any reasonable roof-
ing problem with graphs, sketches,
technical data.—Pioneer-Flintkote Com-
pany, 5500 South Alameda Street, Los
Angeles, Calif.

LIGHTING EQUIPMENT
- (34a) Accent and Display Lighting:
Brochure excellently designed contem-
porary Amplex "Adapt-a-Unit" Swivel-
te bearing fixtures; clean shapes, smart ap-
pearance, remarkable flexibility, ease
of handling; complete interchangea-
bility of all units, models for every type
of dramatic lighting effects; includes
recessed units, color equipment; infor-
mation on this equipment belongs in
all files.—Amplex Corporation, 111
Water Street, Brooklyn 1, New York.

- (909) Architectural Lighting: Excep-
tionally well prepared 36-page catalogue
architectural lighting by Century for
stores, display rooms, show windows,
restaurants, museums, churches, audii-
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39
PLUMBING FIXTURES, ACCESSORIES

(82b) Bathroom cabinets: Folder bathroom cabinets, one piece drawn steel bodies, bodied after forming; also available with accessories and wall mirrors.—F. H. Lawson Company, Cincinnati, Ohio.

(12a) Lighted Bathroom Cabinets: Complete information Milwaukee fluorescent lighted bathroom cabinet; completely recessed lighting provides high-level diffused illumination; entire unit, including mirror, flush with wall. Four 20-watt fluorescent tubes shielded with Coming Alkaltite translucent opal glass; automatically plays, well engineered, soundly manufactured; merit specified—CShouse 1952.—Northern Light Company, 2051 North Nineteenth Street, Milwaukee, Wis.


RADIO AND TELEVISION

(114a) Contemporary Radio-Phonographs: Information Gateway To Music custom radio-phonograph installations; top quality at reasonable cost; wide variety custom-built tuners. AM-FM, amplifiers, room changers including three-speed changers which play consecutively. Space; provide more space; permit better use of space; vinyl, durable, washable, flame-resistant coverings in wide color selection; sturdy, rigid, quiet working frame; sold, serviced national; deserves closest consideration.—New Castle Products, Post Office Box 825, New Castle, Ind.

(27a) Custom Radio-Phonographs: Information Gateway To Music custom radio-phonograph installations; top quality at reasonable cost; wide variety custom-built tuners. AM-FM, amplifiers, room changers including three-speed changers which play consecutively. Space; provide more space; permit better use of space; vinyl, durable, washable, flame-resistant coverings in wide color selection; sturdy, rigid, quiet working frame; sold, serviced national; deserves closest consideration.—New Castle Products, Post Office Box 825, New Castle, Ind.

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(73) Quick Setting Furring Cement: Information Acorn Furring Cement; sets wood trim, base, panel furring or floor sweepers to concrete and masonry without plugs, bolts or any other mechanical device; sets trim in straight lines without shims or spacers; solid in 90 minutes; test show high strength. —Acorn Adhesives & Supply Company, 678 Clover Street, Los Angeles 31, Calif. Capitol 13185.

(23a) Swimming Pools: Well prepared book "Planning Your New Swimming Pool" giving full data Padlock swimming pools; nationally known, widely accepted; one of best sources of information on subject. —Padlock Swimming Pools, 8400 Santa Monica Boulevard, Los Angeles 46, Calif.

STRUCTURAL BUILDING MATERIALS

(933) Custom Stock Store Front Metals: Write for information on Kavneer Custom Styled Stock Architectural Metal Products; Less costly than made-to-order specials; Good products worth thorough investigation. —Kavneer Company, 289 North Front Street, Niles, Michigan.

(3a) Interlocking Building Block: Information new Hydro-Stone interlocking building block; made entirely from waste materials, eliminates use of mortar; resembles cut stone, granite or marble; made with patented tongue-and-groove design within tolerances of ±1/1000”; mastic put on with hand spray gun as assembled insures against moisture; contents include sand, osteershells, iron ore waste, crushed brick, coal mine tailings, stone dust, or what material is most available locally; remarkably inexpensive, worth consideration; manufacturing franchises now open. —Hydro-Forged Stone Associates, Inc., 434 Bulkeley Building Cleveland, Ohio.

(712) Sliding Glass Doors: Full information, specification data Arcadia sliding glass metal doors; slide easily, quickly on 2" diameter sealed ball bearing brass sleeves with hard rubber top guide rollers; ample allowance for framing deflection assures continued operation; cleanly designed hardware in bronze or satin chrome finish; accurately fabricated of heavy Bonderized steel; concealed welding; complete package units; standard or intermediate sizes; excellent product, merits consideration. —Arcadia Metal Products, Inc., 324 North Second Avenue, Arcadia, Calif.

(107a) Steel Base Construction: Full information Carosotorm, 100,000 psi steel base for concrete in joint construction; developed to provide extra-tough, secure steel base maintaining structural principles, structural integrity; corrugated pattern makes attractive exposed ceiling; performs adequately without waste; carries concrete without sag, stretch, bend, leakage; standardized 0.0156 gauge, 28" x 12" deep corrugations; weight ¾ pound per square foot with fasteners; good product, merits investigation. —Granco Steel Products Company, Granite City, III.

Robert Motherwell

continued from page 21

therein previous appreciation of the various modes of realism in painting, I cannot persuade them to return—though they always are at liberty to—to the live model. They say that it gets in the way of their real conceptions. As indeed I believe it does. Some of my academic colleagues tend to be shocked at my students' works, as though I were destroying the students' respect for the past and its traditions! But I think that the students know that their work has so much in common an aspect in part at least because it has so broader a background of traditional culture, that post can only be recovered genuinely through the needs of the present. Otherwise it remains a series of alien monuments to be forgotten as soon as they walk out into the street. But Piero della Francesca and Uccello are real to them in a sense that they were not to 19th century students; and these modern students realize that what happened was that modern art intervened, that Seurat, Cezanne and the cubist collage helped us recover Piero and Uccello. In this sense, modern art is universalizing and humanizing.

There is a danger to this great augmentation of our plastic repertoire, the danger of a sort of universal eclecticism. To be cultivated and to be creative are not the same thing; though each vivifies the other. But the answer has already been implied. The recovery of the past through present needs teaches us what is relevant. That is, the immediate demands of one's subject-matter determine what is living in past cultures. But the subject-matter of modern art is another topic.

The emphasis here is that much of the seeming radicality of the appearance of modern art derives from its greatly enlarged frame of reference, a frame still missing from the minds of most observers. —ROBERT MOTHERWELL.
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PRODUCTS OF MERIT

STEELBILT, INC.—STEEL HORIZONTAL SLIDING GLASS DOORWALL AND WINDOW UNITS.
In product design and engineering no less than in the arts an evolutionary process generally takes place. Its historic milestones can be readily traced.

A highly inventive mind establishes a major departure from preceding concepts and another step forward has been made. The perimeter has been widened. As a result research and development talent has had opened to it a new area within which to perfect details.

The evolution of architectural design is often in a reciprocal relationship with the development of new materials and products. A new design conception can stimulate the making of a product; and, as sometimes happens, the reverse takes place.

In 1935, for example, the expanded use of glass in walls was already in growing favor with groups of designers. In that year W. C. Watkins presented to California exponents of contemporary design his ideas for sliding glass doorwalls.

The reaction was immediate and enthusiastic, and he was encouraged to begin production. A few architects included the new product in their plans even before manufacture was completed.

Thus began the Los Angeles organization now known as Steelbilt, Inc. of which Mr. Watkins is president and active head of engineering and product development.

Contemporary architecture, it would seem, owes much to the devotion with which this pioneering organization has constantly sought to improve its product. On the other hand, Mr. Watkins is quick to express his indebtedness to architects. The requirements of their creativeness are credited with being responsible for some of the more noteworthy advances made in the design of his products.

In the seventeen years of Steelbilt's existence its products have not only maintained a steady improvement commensurate with new concepts in the architectural profession but they have also gained a wide acceptance throughout the nation. Sliding glass doorwalls were conceived originally to extend California rooms into outdoor living. Because of the mild California climate, patios, and indoor-outdoor living in this area, reception of the products was immediate. With the development of insulation through double glazing, limitations of climate in other areas were eliminated, and now Steelbilt sliding glass door and window units are found in examples of all types of construction in all parts of the country.

In the following pages will be found the story of Steelbilt, its products and its plant. This is another in the Arts & Architecture series concerning products of merit which are of interest to architects and builders.
There is a striking absence of mechanization in the Steelbilt plant. High speed production techniques usually associated with American industry are nowhere evident. The pace is leisurely. In the movement of workers, in their handling of tools and materials, the overall impression is one of craftsmanship.

The several massive pieces of equipment seem out of place in an atmosphere reminiscent of a cabinet shop. It is an understandable anomaly. The relationship of Steelbilt to architects is that of craftsman to designer. While there are basic venting styles for doorwalls and windows, the designer is at liberty to use them in any combination or variation. Neither dimensions nor proportions are fixed. Aside from mechanical components, the products are custom made.

However, an assembly line is being organized for the production of its “Contemporary” series of stock styles and sizes. The new series is intended to meet the demands of designers for more moderately priced contemporary homes.

On the right are drawings which illustrate the styles and sizes in the Contemporary series which will be stocked by Steelbilt dealers in all parts of the country. Next to it are shown the ten standard styles, and transom. Hundreds of combinations of these basic styles have been specified by various architects for thousands of installations.

Diagrams above: Left, Stack styles and sizes of the new “Contemporary Series.” Right: Exterior view of standard styles of doorwall, window and transom units. Position of vents and their sliding direction may be cross-combined into a wide variety of patterns.
Steelbilt makes the frames into which the glass is placed. Yet the product is spoken of as sliding glass doorwall and window units. This self-effacement in nomenclature is significant. It is indicative of a constant striving to make the frame sections less conspicuous.

However, as architects well know, plate glass is heavy so that the sliding sections must be engineered to hold the glass firmly, and the frames must glide easily, softly, without sidesway or rattle. These are requirements which must be met.
Electrical welding of frame sections into a solid unit to give joints a tensile strength as great as the cold-rolled steel itself is a basic essential. In the scene above a battery of skilled welders is at work.

Specifications require surface welds to be smooth so that they are imperceptible after painting. Sparks fly (right) during the preliminary grinding of welds.

Noteworthy among the various manual operations illustrated in the series at the right is the care that goes into applying protective coatings to the raw metal. In the next to last photograph a finish coat of zinc chromate compound primer is being sprayed on the metal surface.

At the extreme right, sections are being hand dipped into the zinc chromate protective coating. Each section is immersed in the compound and rocked so that the rust preventing primer thoroughly covers all hollows and interior surfaces.

When so specified the frames are galvanized after fabrication by the hot-dip process.
Years of research have gone into the development of Steeltite's exclusive spring action, rocker-type glazing bead. Traditional glazing methods employing putty, rubber strips and rigid vertical moldings were found inadequate.

Installation and proper maintenance of large glass areas in sliding frames introduced a complex of factors which had to be solved. The solution is simple and effective. It has attracted widespread interest because of the variety of applications it has for other fields.

Detail drawings and a more complete description of the glazing bead will be found in later pages.

On the right a power driver is used to set the bead into the frame. It will be removed by the glazer and re-set to secure the glass.
The glazing crew at work (upper right) has had installation time drastically reduced by Steelbilt's glazing bead. When the large light is set into the frame the pre-cut molding bead is dropped into position. Because of the bead's spring action screws are easily inserted (bottom right) through to the frame-threads. As the screws are tightened, the spring action rocker design exerts a constant, distributed pressure which maintains an even back putty line.

This equalized pressure around the glass perimeter provides a permanent molding line without rigidity. The spring pressure will automatically compensate for any contraction in the cushioning material. This assures a permanent seal for the life of the sliding doorwall, and glass rattle or vibration within the frame is virtually eliminated.

Without its glazing bead, "Thermo-glaze" would not have been possible. This most recent Steelbilt product development gives all the benefits of trapped, dry air space insulation, and yet permits frames to be dual glazed on the job.

CYLINDER LOCK

After prolonged experiment to achieve narrower mullions, Steelbilt's hollow stile has been reduced to a 3/4-inch depth. Out of this achievement arose a new problem. No satisfactory existing lock could be found with a depth small enough to fit into the stile.

Again the company resorted to its own engineering ingenuity. A lock, and hardware to fit, was designed and is manufactured in its own plant (left).

The cylinder lock had to be sturdy and tamper-proof to provide a security equal to that found in larger commercial models. The Steelbilt lock is considered to be jam-proof. It is key operated from the outside, and interior latch-controlled. Accidental self-locking is said to be impossible.

The door handle is solid bronze. To retain the clean contemporary lines of the door design the handle width is limited to conform with the stile and does not protrude into glass area.
Thermo-Glaze Double Glass Insulation

Method for Sealing Trapped Dry Air

A. Rocker-type spring action glazing bead.
B. Compressible sealing spacer.
C. Tightening of screw exerts bead pressure against cushioning glazing tape. This pressure forces both panels of glass against compressible spacer to form hermetic seal.

Top Roller-Hung Doorwall or Window

A. Overhead stainless steel ball bearing with side play prevention.
B. Narrow interlocking mullion functions without auxiliary weatherstripping.
C. No weatherstrip needed on leakproof sill design.
D. Roll-formed steel, rocker-type glazing bead with screw-adjusted, spring action pressure against glass. (Patent pending.)
E. Factory installed screen tracks for bottom rolling screen equipped with spring-loaded upper roller guides for quick installation.
F. Screw-fastened, removable strip, permits easy painting after glazing without removing sliding section.
J. Compressible sealing spacer.

Closing Jamb

With the introduction of insulation through sealing dehydrated air between two panes of glass, sliding doorwalls have gained greater acceptance, and the barriers of climate have been removed.

There would, however, be obvious advantages if local glazers could install double glass which would seal a dry air space. After several years of research, experiment and laboratory tests, Steelbilt recently introduced "Thermo-glaze" which permits dual glazing on the job.

Engineering of the new product was made possible by the rocker-type glazing bead. The method is illustrated in the diagram at the top center of this page.

A simple method controlling dehumidification of the air space has been devised. A porous rack containing silica gel is inserted into the air space by removing a screw-fastened plate from the door's vertical member. Within twelve hours the dehydrating agent does its job. The rack is removed and the air space again sealed by screwing the plate back into position.

Steelbilt has developed equipment for automatic dehydration of larger Thermo-glaze doorwall and window units. A concealed copper tube and fitting is built into the top and bottom of the air space through the vertical member of the door frame. Air is pumped out from between the two panes, passed through a tube of silica gel and returned at the top. Humidity can be reduced adequately within an hour. Patents have been applied for covering both methods of dehydration.

In addition to Thermo-glaze, Steelbilt produces units for Thermopane and Twindow glazing.
Above: View of the bay from the upper deck of the Mr. and Mrs. Sidney Brown beach residence, Newport Beach, California. Willard Hall Francis, architect.

Right: Looking through doorwalls in a wing of the Mr. and Mrs. Howard B. Collins residence, Salt Lake City, Utah.
Many designers have developed effective compositions for exteriors in all types of construction through an imaginative use of horizontal sliding windows. The slender framing sections aid in accomplishing an illusion of continuous bands of glass. The considerable functional advantages are also attracting contemporary architects. Horizontal movement on smooth rolling bearings gives an ease and speed of operation rarely found in the more modern conventional types.

Often peculiar structural conditions surrounding an aperture can be met with horizontal windows where other types offer no satisfactory solution.

Standard Steelbilt window styles and engineering features are identical to those available for doorwalls. The same liberty to cross-combine the various models, styles, and mechanical features is offered.

This flexibility of combination coupled with a capacity to translate the designers’ conceptions has enabled Steelbilt to make important contributions to American architecture.
FELMORE SLIPPER CHAIR 503
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