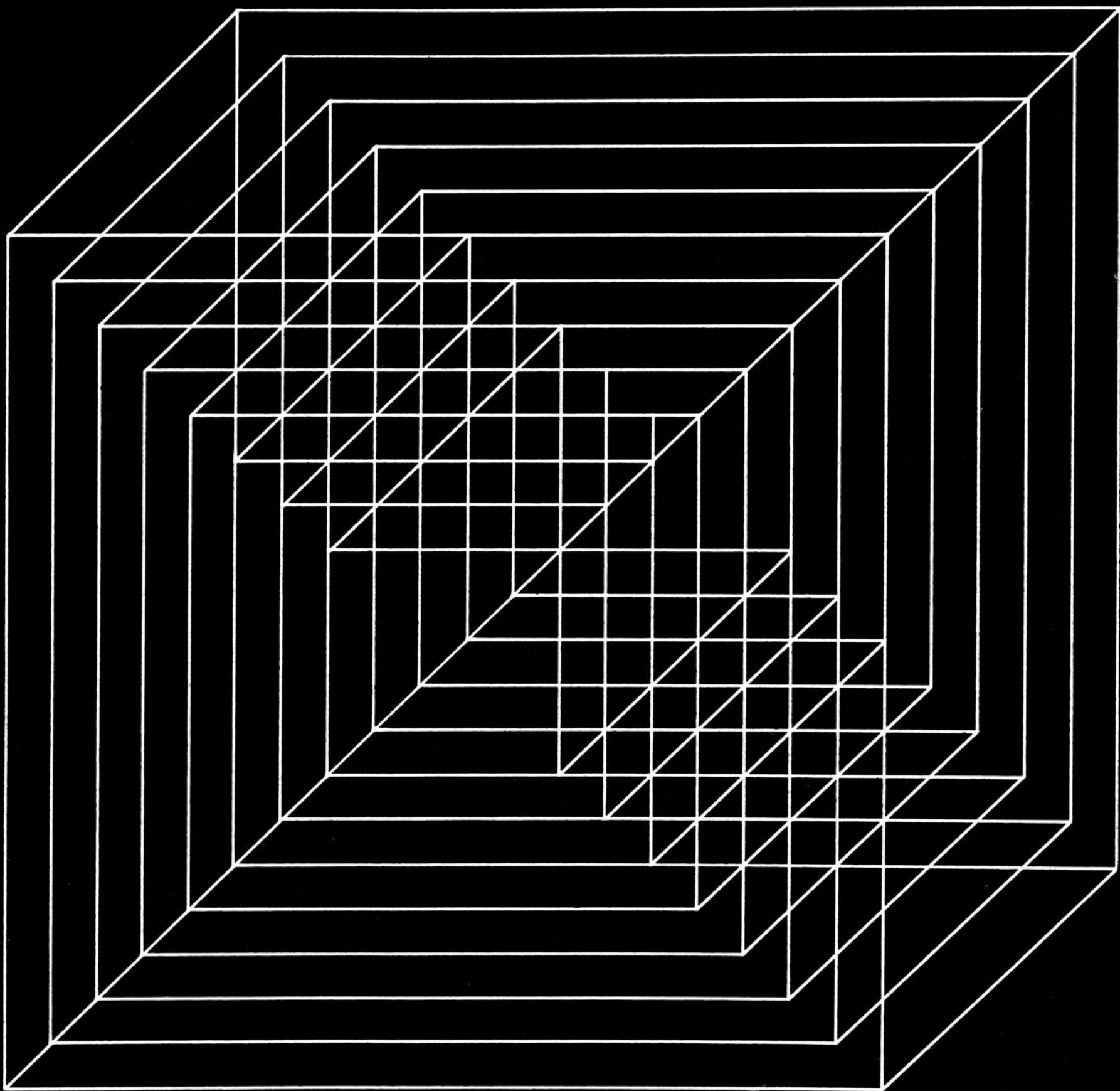


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MUSIC

PETER YATES

LETTER FROM BRUEKELEN

Back in Holland, after more than three thousand miles of driving through Europe, we have taken a pair of rooms at the top of a *pension* overlooking the river Vecht, near Utrecht on the road to Amsterdam, among a row of almost unspoiled 17th-century mansions and a small moated castle, now a private training school for students wishing to enter the Dutch foreign service. I have seen no other residential stretch in Europe which so well retains, unmarred by obvious antiquity or restoration, the domestic dignity of the past. Here for the next two weeks I hope to write and accomplish a little resting.

We came here from Salzburg by way of Munich, Freiburg, Colmar and Strasbourg on the French side of the Rhine, and then north to Heidelberg and through the becastled Rhine gorge to Cologne. On the *autobahn* one travels rapidly, but the Rhine gorge was an impasse of heavy trucks and road repair. Or let me say, differently, that if you wish to see Europe beyond the tourist's dimension you must abandon direct travel routes and wind your way among villages and towns. That is the fun of it — exhausting fun.

In Europe the centuries stand on one another's shoulders. Going out on a Saturday morning for a rapid look-over of Munich we arrived by trolley in the *Platz* before the *Rathaus* just in time to share with several hundred waiting onlookers the eleven o'clock sounding of the *Glockenspiel*. Dutch, Germans, Austrians delight in these musical machines, hurdygurdies, music boxes, musical automata. Haydn composed a repertory of dances for them, Mozart two of his best short compositions, Beethoven his *Battle Symphony*. We heard it faintly through the morning traffic uproar, while we watched the mechanical figures in the tower perform their circuits. Ornate heralds parade standards before a king and

queen; they are followed by mounted knights in full armor who appear to joust with leveled lances. At the third or fourth round one knight falls backwards in the saddle; the crowd gasps. Then the lower tier of red-coated dancers spirals in a country fling.

Below in streets nearby little military-minded men once marched against the German Federal Republic and, although ridiculously deployed, toppled it. Reasonableness a little blinded by pacifism, cautious moderation distempered by politic fear could not resist the first successes of an armored madness — as the guarded life of a President is not proof against a fanatic's bullet. Are such events history or swirlings of enormous happenstance, after which the new present renews familiar agreement with its past? Is the familiar, the familial agreement the real history?

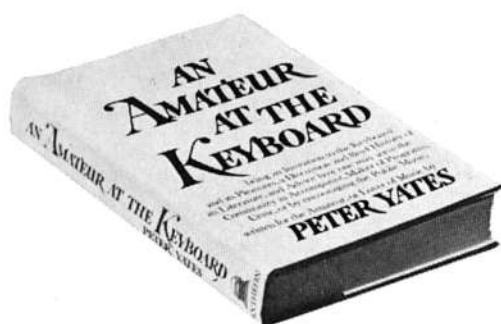
Over in the next block one enters the great bare baroque *Frauenkirch* and sees in the lobby photographs of its destruction by bombing during 1944-45. Yet the well-built medieval pillars did not fall. Another step away the buildings of the *Residenz* palace and the beautiful small rococo theater of the Kings of Bavaria have been restored. One sees in the *Residenz* Treasury the gold band trimmed with uncut jewels which was the crown of Kunigunde, from that period of savagery after Rome we call the Dark Ages. In that one gallery, crowns, reliquaries, a carved portable altar arrest the eye as if by living presence. Beyond, in the other galleries, fat goldsmithery, stuffed enamel, vast platters, elegantly empty, weary the eye by their centuries of fashionable estheticism. Here are some craftsman's treasures elegantly worked, St. George beautifully overturning his green dragon in enamel and jewels, but I'd trade it any time for the tiny magical forest in the *Pinakothek* painted by Lucas Cranach, where a small St. George scarcely visible above the underbrush dubiously regards a loathsomely confident dragon.

Beauty I define as a relationship among events. Beauty is not in the object: you cannot make it; beauty is not in the mind; you cannot anticipate it. Antiquity, destruction may contribute to the presence of beauty, or as Alfred Frankenstein showed us in certain paintings by Ryder the crackling of the surface or paint shifting down the canvas; message may be an event.

Among the Sumerian exhibits in the new museum at Cologne I saw a restoration of the harp of Ur, eleven strings and a golden bullhead — beautiful but a restoration and no more than that — and the headdress of fine gold leaves and the gold and amber beads of a princess who lived before Abraham, at a time when amber, imported from the Baltic to the Euphrates, was more precious than gold. This beauty, however fashionable then, will be never out of fashion. Critics say nowadays you should look at the painting and forget the message; then for lack of something to write about they give you the message anyway. Old man Cranach, like old man Brueghel, never trifled with such external devices. When Cranach painted the local Cardinal, prince of the church, on his knees before Christ on the cross, the dimensions of the Cardinal's religiosity take on the abstract shape of his red cloak, presided over by his fleshy face. Christ on the cross hangs above the Cardinal like a cloak flung on a peg.

Cranach knew exactly what he was doing and seems never to have been deceived by it. He was a master of evil; he saw it, evil pointed his brush. The nymphs he painted to satisfy his royal master are paradigms of sex in flesh, terribly beautiful in a moral awareness unimaginable by Titian or Rubens. It was the worldly sophisticates he painted for who were deceived. The black moral of his judgment turns up around the corner in a near gallery of the *Pinakothek*: a black abstraction by Bosch, that on closer inspection becomes a set of finely drawn abominations swallowing desperate naked sinners. The black sermon reveals an exquisite delicacy. After that you can wander through acres of Crucifixions and St. Sebastians and see nothing but a fashionable appetite for cruelty, paint, sermon, and no message.

Until you come on pilgrimage, as many today still do, to Colmar and going in from the square cloistered court of an abandoned monastery turned museum encounter in sections the Isenheim altarpiece, or retable, by Gruenewald. It is big; the light is bad; the presence of the thing comes at you gradually. Being in that presence you will not see it with such clarity of detail as in any good reproduction on a page. The panels have been divided and set up separately along the hall; a small reproduction hung on a wall shows how the panels were originally combined. Formerly the panels were opened or shut according to the feasts or seasons; now one must encounter them in sequence.



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PANTHEON

The events are cruel, but not uniformly, the St. Sebastian balanced against the pointing prophet, the Temptation of St. Anthony offset by the two old saints exchanging the confidence of their theology; the compassionate simplicity of Gruenewald's imagination transmutes the fouled inadequacy of the human body into gesture, darkness and a particularity of light instead of paint, into an otherworld, which tells, as well as any man has ever told it, the meaning of man's agony in the presence of his dead God. This is not the mystic way or the message of St. John of the Cross. The ascension from the tomb does not succeed or supplant the decaying body of the dead God. It is like a man standing on a stump unable to speak, his mind possessed by the compassion of his humanity, and like the prophet's finger.

Down below in a basement gallery there is a collection of antiquities from the earliest neolithic cultures of the neighborhood, the bronze age, the Roman, the Merovingian, to the comparative recency of the very early middle ages. I had been seeking such a collection of artifacts, to set European history in perspective. There is one at the little civic museum of Hallein in Austria, one of the salt mine communities — Salzburg is another — inhabited since prehistoric times, but the collection was boxed up two years ago to send to an exhibition in Holland, and since it was returned nobody has bothered to unbox it. The Colmar collection is more carefully treasured. A bronze age burial is shown there exactly as it was found, bones, sword, spearheads, bowls, relics of a culture two thousand years younger than that of Ur but by comparison primitive, though not more primitive, apart from the new fact of Christianity, than the crown of Kunigunde. The bronze age people were the foreign missionaries of their day, who carried with them an industrial revolution.

Consider swords. A bronze age sword survives, in its green patina, as an intelligible and handsomely shaped object; the iron sword, once its master in combat, survives, if at all, as an incomplete length of rust. Not until the Crusaders had learned the art of steelmaking from the Saracens could a European armorer produce a sword in any way comparable to the Japanese blades which survive today, as gleaming fresh as when they were first forged, from so early as the Heian period — in European time the period of Charlemagne. Why in that case did not the industrial revolution occur first in Japan?

When visiting an art museum or surveying a group of artifacts whose provenance one does not fully understand, it is through the living imagination we must peer, switching on dim bulbs to discern by what is visible something of the reality of lives like and unlike our own. Then we can begin to feel, along walls patched by iconography and faithfully ordered representation, the sweetness of the Virgin's face maturing from Annunciation, to Birth, to Presentation across the three panels of Rogier van der Weyden's altarpiece, the wreath of angels playfully acrobatic like peasant girls in an aerial round dance circling the space of a cathedral as Albrecht Altdorfer saw them, and the cathedral itself no more than a spontaneous generation from the birth of Christ occurring in the foreground. The mind bridges an esthetic chasm, seeing the Germanic medieval prophets painted by the young Albrecht Durer and the new prophets of spiritual elegance he brought back from his Italian renaissance. Historical facts do not think for us; the mind springs by unconfirmed guesses, which may be often wrong.

So I looked at the visible history of cities, seeing in the great industrial communities of Southern Germany and the Rhine how the more recent industrial revolution planted factories and railroad terminals beside the narrow twisting streets around the cathedral, and how then the bombers came attacking factories and terminals, destroying at the same time the ancient centers of these cities and damaging the cathedral — why, after so much trouble to spare if possible the cathedrals at Strasbourg and Cologne, did they utterly destroy Dresden! for that is the diabolic in human nature, that at the time when control of power is most needed it degenerates instead to madness. I think we can understand the gentleness of the inhabitants of these so terribly destroyed cities, in Germany and in Japan, their lack of reproach, by their knowledge that the power representing them had degenerated to madness first. And how the determination of human history to rejoin itself has rebuilt the factories, the railroad terminals, the ancient centers and restored the cathedrals, some hope integral within human evil demanding that they restore both the sources of prosperity and the remnants of spiritual unity. It is that integrating hope I call religion. Then the comparative ugliness and greater comfort of the new architecture among the still gaping holes are seen to be a part of the undying human community remaking at the same time its flaws and genius, destroying and restoring. We can grasp the reality of history as the continuity of human culture instead of the headline stories of its breakdowns, and the reality of religion as that integrating hope on which is strung the continuity of human culture, however sacredly or secularly expressed. We know that a people die and disappear when that hope has been broken.

We perceive in each city the Isenheim altar and its humane message. It is a consolation to the churchless, conceived at a time when ordinary men had begun challenging the sacred authority of the corrupt, degenerate church. The church, after being the light through the dark ages, entered its own dark age in the new light of the Renaissance. All that had been by revelation and God-given became by reason, God-denying. Now the light of the Renaissance and of reason have gone dark, and a secularized world hears fresh the spiritualized message of a renewed church. It is not the iconography, the hagiography we need now but the combining hope and message of both lights.

All over the Western world and its outposts men are building new churches, while tourists, seeking esthetic bread, wander through old churches. Except at mass time, the few worshippers kneeling among the crowds of tourists seem anachronisms, cut off

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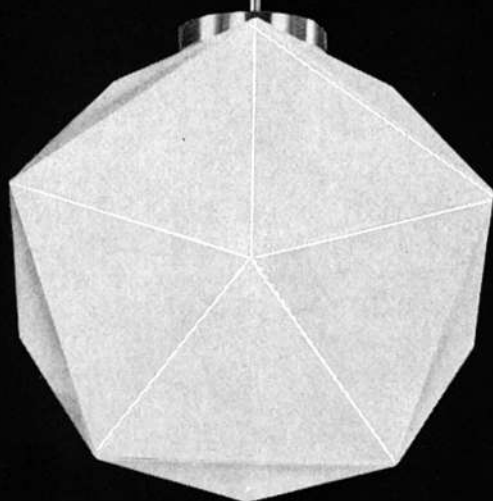
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from their culture, exactly like their Russian fellows, by a superstition the nomadic tourist rejects. This is a most complex phenomenon, the present-day nomadism of people seeking esthetic, intellectual, spiritual reward by visiting cities, festivals, cathedrals, museums; they do not consciously or willingly bring their own culture with them but try to supplant it. And of course the effect, though disturbing, is ephemeral. What is being built into the new churches? First, estheticism — usually an imitation of beauty; second, intellectual aspiration — theology and good works; third, some hope of spiritual reward — that is, selfishness. The new church is a property, bought and paid for by a self-isolating group, to effect whatever uses the group aspires to.

Estheticism, for the ordinary churchman, means a church that looks like a church; for a smaller group it means a church resembling a work of art. This latter conception has already produced a monumental fallacy in the sculptural design of contemporary buildings; Wright's Guggenheim Museum is not among the worst of these, rather one of the less objectionable. French priests, painters, and Le Corbusier have shaped, colored and decorated churchly buildings which delight taste and mind but present no challenge involving spiritual belief. More fundamentally, the Roman Catholic church, leader of the esthetic revival, has begun reshaping ritual and sanctuary with the intention of bringing into closer spiritual union the believer and the symbolic rite of his belief. In effect, this means reversing the direction of the service, so that priest and congregation are brought together intimately, face to face, and importing the rite of baptism, with the font, into the sanctuary. At Strasbourg cathedral, in the old way, an immense length of choir divides the congregation from the altar; at Cologne cathedral, in the new way, the altar has been brought down out of the choir and placed at the central crossing of the nave and transepts, where the congregation sits on three sides.

Just outside Salzburg we visited a Roman Catholic church, conceived in this new way, which combines both the esthetic and the intellectual and accepts the new relationship between congregation and priest. The church faces away from the street, showing to the passerby only the upper length of a free-standing slender concrete bell-tower, well shaped and ornamented vertically by four identical bronze angels. Throughout the church the bronze doors and fittings are of the highest German standard, an art in which they excel. Between church and street a second building, presumably monastery or convent, intervenes, with a rounded high chapel wall pierced by deep window lights which form an abstract sculpture of recesses. To enter the church one follows a wall around the buildings, a garden, and the enclosed church court. A residential building beyond is more conventional in appearance but concealed by the forward shoulder of the church which contains the chapel. Between the bronze church doors there is one bright panel of mosaic.

Within, the entire wall behind the altar is a single window of stained glass, brilliant, with subdued iconography that does not invite the eye to stray from the altar the glass illuminates. A narrow clerestory band of colored glass circles the entire space. A slender concrete balcony with seats and organ floats above but does not darken the larger floorspace. And walking towards the altar one sees, first, that it is designed for the new conception of the service, and then that it, too, floats, above two ramps that lead behind and below into the crypt. Here below one is thrust almost violently into the meaning of the service, the sacrifice; the entire crypt is painted in black and white, even behind the altar, with more than life-size, photographically flat Stations of the Cross. Nothing is there to delight the eye, everything to strike and hold it. Here, as before the windows, one has not the feeling of a work of art separately conceived and added to the church building but of art as an integral part of the church service. The Stations are signed by the painter, but their effect is anonymous. The building is bare of ex-votos. And what has been well thought of in the large becomes an almost ecstatic simplicity in the chapel, which is off the rectangular, proportioned with an exquisite measure to the human presence, and lighted from without by a single window of colored glass in the side wall beside the sunken altar, where the priest, standing a little below the congregation, truly serves. I could add much detail, but this that I have told should be sufficient.

PLANNING

CHICAGO

IRA J. BACH, COMMISSIONER
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New Planning Policies

When the *Plan of Chicago* was published in 1909, it marked a new era in the city planning movement in the United States. Although its philosophy was built on the evolving nation-wide philosophy of city improvement, its comprehensiveness and its unusual emphasis on social problems both put it in the vanguard and made it a model for plans developed by other cities.

Ironically enough, the "Burnham Plan," as it came to be known, arrived on the scene at the end of an era. The authors fully realized the importance of the railroad in Chicago's economy, but they also did not anticipate, nor could they have done so, the take-over of the automobile — let alone the impact of the airplane.

Nevertheless, the Burnham Plan for many years guided the public planning policies of the City of Chicago. On the lakefront, especially, several of the Burnham recommendations were put into effect. The plan was also the impetus for the formation of a plan commission, and the institution of planning as a governmental function in Chicago.

Perhaps the originality and pragmatism of the Burnham Plan sustained its utility despite the technological advances that were arriving on the scene even as it was being written.

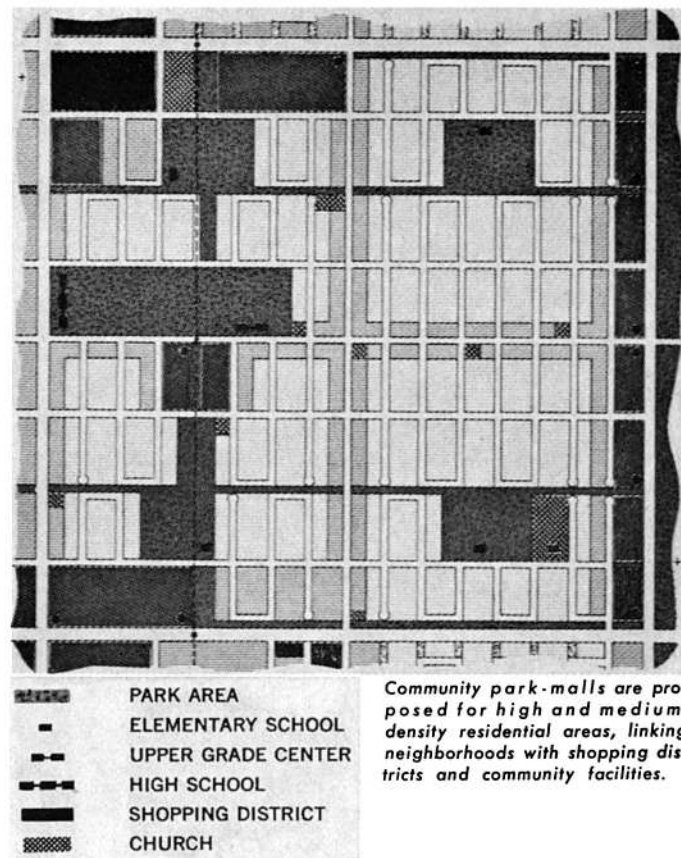
Last month, the Chicago Department of City Planning issued another report in the tradition of the original *Plan of Chicago*. Even more than the Chicago of 1909, the Chicago of 1964 is a built-up city. In contrast with many parts of the country, zoning and subdivision regulations — the traditional tools of city planning — have only limited applicability in guiding future development.

Like the Burnham plan, the new proposals rely heavily on public programs: expressways, railroad coordination, new parks and recreation areas, and urban renewal. But, unlike the Burnham plan, the proposals also imply a great reliance on private action and private investment.

A new element in the current proposals, and one that sets them off as a product of the twentieth century, is the methodology used to bring the proposals to their final form. At present, they are presented in the form of policies, or proposed policies. The ideas are given graphic form, not to show a definite land use pattern, but to give an indication of what the ideas would be like if they were carried out.

In this preliminary form, the proposals are being distributed to community, civic, and business groups for their reactions and suggestions. As I described in my last article, "The Two-Way Street," the citizens of Chicago will participate directly in the planning process.

The philosophy behind the present proposals perhaps does not differ greatly from the philosophy behind much city planning



endeavor in the 1960s. This philosophy is essentially to improve and diversify the residential environment and the economy of the city.

A city planning program alone could not achieve these ends. But insofar as they are related to how urban land is used, developed, cultivated, and regulated, city planning can help achieve them.

One of the essential elements in the improvement of the residential environment is an increase in park space. The proposed solution to the need of additional parks is one that grows out of the particular conformation of Chicago.

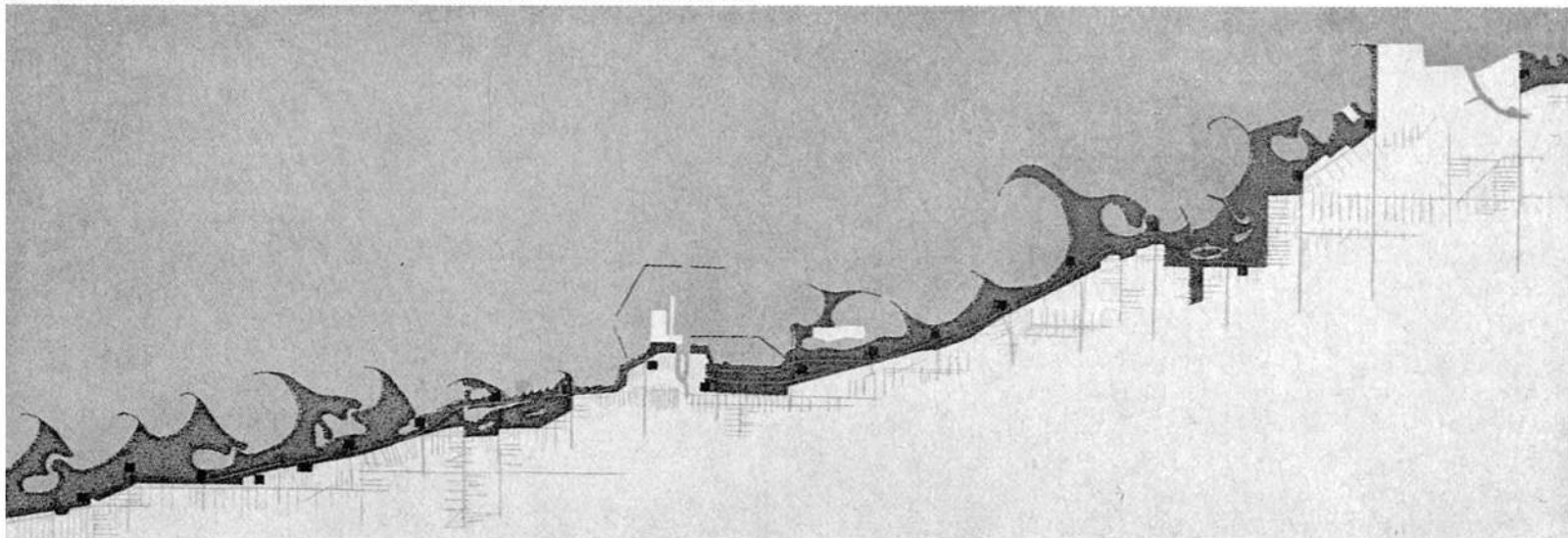
The twenty-three-mile lakefront has long been considered Chicago's chief natural recreational asset. "The lakefront by right belongs to the people," declared the Burnham Plan. And this principle has since become a matter of public policy.

Due to the shallow slope of the shoreline, it is not a difficult engineering achievement to extend the shore. In fact, much of the present shoreline is on filled land.

The basic policies recommend the creation of multi-purpose recreation peninsulas along the entire shore. A beach would be formed on the north side of each peninsula, and a small-boat harbor on the sheltered south side. Various recreation facilities would be built on the peninsulas, and ample parking space provided.

(Continued on page 35)

Peninsulas created by land fill are proposed to expand Chicago's lakefront parks. Activity centers, accessible by public transportation on major streets, would be developed.



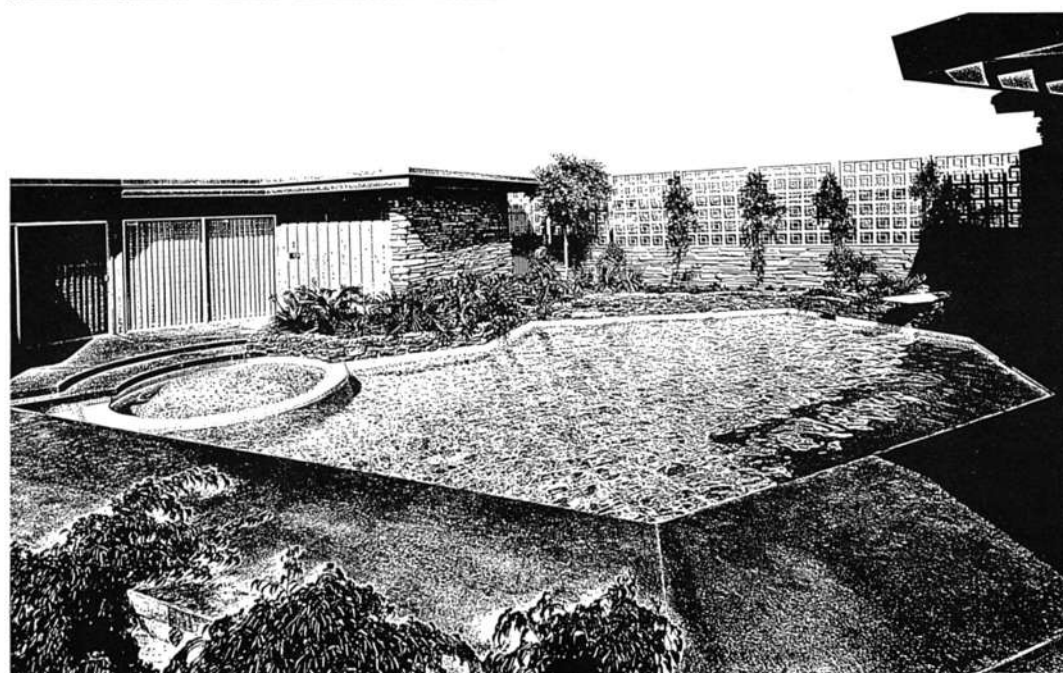
BOOKS

ROBERT JOSEPH

SCULPTURE IN BRITAIN: 1530-1830 by Margaret Whinney (Penguin Books, \$16.50). Penguin Books, which published one of the best histories of England in its multiple series of pocket books, now offers this handsomely illustrated partial history of sculpture. Presumably a second volume is contemplated. England, the author writes, has not been famed for her sculptors. Yet there is evidence in many of the illustrations that artists, sensitive to the Renaissance influence from Italy and France and Germany, accomplished many outstanding works, including memorial portraits of English royalty and nobility reclining in high relief on cenotaphs and sarcophagi. Major as well as minor artists are considered in this impressive addition to your library collection on art.

THE MEDIAEVAL STONE CARVER IN SCOTLAND by James S. Richardson (Aldine Publishing Co., \$10.00). During and following the Reformation, Scotland considered the carvings on churches and public monuments as idolatrous, the author tells us. Church and government encouraged their destruction. Richardson, Inspector of Ancient Monuments, points to the vitality of what survived to indicate the quality of what was lost. Generously illustrated.

PROTESTANT WORSHIP AND CHURCH ARCHITECTURE by James F. White (Oxford University Press, \$6.00). If the Scottish Reformers who levelled some of the idolatrous edifices in that land were around today, it is conceivable that many of us might applaud their action on aesthetic grounds if here and there they ravaged a "modern" chromium and glass place of worship. This is the point of James F. White's book; namely, that worship and places of worship should have but do not always have a relevancy. This is a careful study, a guide to builders and designers offering suggestions as to how this relevancy may be established.



STYLES IN PAINTING by Paul Zucker (Dover Publications, \$2.00); **THE ART OF ETCHING** by E. S. Lumsden (Dover Publications, \$2.50). Two reprints of classics in their field. *Styles in Painting* compares the work of early medieval, Renaissance and modern artists who approached the same theme. A comparison, for example, of *The Three Graces* of Botticelli, Rubens and Picasso offers the kind of contrast which volumes of words can't convey. An interesting approach. *The Art of Etching* is E. S. Lumsden's classic study of the technique of etching now available again in another well illustrated text from Dover Publications, one of the houses which has been doing a superb job in making art available at modest prices.

JONATHAN SWIFT'S DIRECTIONS TO SERVANTS. Drawings by Joseph Low (Pantheon Books, \$4.95). A spoof of the care and feeding of servants, buxomly illustrated by Joseph Low, a pupil of the immortal George Grosz, which also presents a picture of backstairs' shenanigans in Jonathan Swift's England. An exuberant but heavy handed satire with some relevancy today.

CHRISTIAN ART by C. R. Morey (W. W. Norton, \$1.25). **ART CRITICISM OF JOHN RUSKIN** (Doubleday Anchor, \$1.45). *Christian Art*, first published in 1935, now reappears in this handy paperback edition, summarizing the five periods of liturgical art. John Ruskin's esthetic criticism is the classical statement on the subject and is now available in a one-volume edition.

THE GREAT ARC OF THE WILD SHEEP by James L. Clark. Foreword by S. Dillon Ripley (U. of Oklahoma Press, \$6.95). Not only the naturalist, but the anthropologist and the hunter will find *The Great Arc of the Wild Sheep* intensely interesting reading. The "arc" stretches from the deserts of the Middle East, eastward through Mongolia, Siberia and bends southward across the Bering Straits down the western Rockies to the Mexican border. Based on a lifetime of study, the author's theory is that eight to ten thousand years ago original shepherds at the western end of the Himalayas began to wander eastward into western America. Fully illustrated and packed with exciting anecdotes and stories about tracking mountain sheep.



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MARKINGS by Dag Hammarskjöld. Translated by L. Sjöberg and W. H. Auden (Alfred A. Knopf, \$4.95). These are the random thoughts of Spinoza's God-intoxicated man, a man of deep spirituality who wrote and believed that life must have a meaning and that it was his role to give life some of the meaning it must contain. W. H. Auden's splendid introduction suggests some of the spirituality, some of the aspirations of Hammarskjöld who was, Auden suggests, a genius. He was as much a poet as a diplomat and statesman. This is no summing up by date or deed of his stewardship of the United Nations, and there is little direct reference to some of the momentous world events in which he was a principal. But in this recitation of his innermost thoughts, brilliantly stated with the incisiveness and economy of word of a true poet, the background and the world in which he lived and worked emerges.

THE DESERT KING: IBN SAUD & HIS ARABIA by David Howarth (McGraw-Hill, \$6.50). The parallels between Ibn Saud, penniless desert prince out to conquer a world for his own posterity, and the conquering march of Alexander the Great during his lifetime, are strongly suggested in this biography of the man who organized and united large segments of the modern Arab world, only to have his vast kingdom repeat the story of Alexander's empire — the splintering up into the meaningless Middle East satrapies. Ibn Saud reached a great moment of triumph at the end of World War I when through his efforts the Allies smashed Turkish hegemony over Asia Minor, and Pan-German pretensions were stopped. A powerful man — some called him a brigand — who had worked his way up the ladder of political and diplomatic success in the "desert way," by dagger and deed, he built an empire that might have brought lasting peace to his part of the world. Modern technology, oil and the cupidity of his sons, his friends, his allies as well as his enemies shattered modern Arabia. The prodigious wealth lavished by Ibn Saud and his westernized offspring made economic conditions worse rather than better in the Middle East, and a sociological aftermath whirlwind is being reaped now. This is a colorful portrait of a remarkable man who never quite caught up with the 20th century. An excellent job of reporting in a book that explains a king and the Middle East's present trauma and discord.

COMMITTEE OF VIGILANCE, Revolution in San Francisco, 1951 by George R. Stewart (Houghton Mifflin Co., \$5.00). History must be corrected from time to time, never more urgently than the present when weekly TV outrages truth, accuracy and the simple honesty of the events as they happen. No greater disservice has been done to the West than the weekly persiflage which frequently "used," although abused would be more appropriate, the story of the California Vigilantes and the restoration of law and order to San Francisco. George R. Stewart's *Committee on Vigilance* is written with the same fine command of facts and careful interpretation as his classic of the Civil War, *Pickett's Charge*. The Vigilantes, taking law into their own hands in the midst of organized and condoned footpadding and larceny that had given San Francisco an evil reputation, brought "law and order." The remarkable aspect of the Vigilante story is the decision of the Executive Committee to let itself die, the first time a power structure literally voted itself out of authority. The Vigilante effort was as heroic as it was extra-legal; but in its day it served to maintain a semblance of grassroots law in the face of official indifference and mendacity. Stewart's reporting is a fine example of superior historical writing, and every page a delight.

BLACK ROBE: THE LIFE OF FATHER DESMET by John Upton Terrell (Doubleday, \$4.95). Few names appear in early Western chronicles with such frequency as Father Pierre-Jean Desmet, S.J., missionary, humanist and explorer. Yet, this is the first modern full-length biography of one of the most remarkable men ever to explore the western reaches of the Platte, and walk in the paths of the Mountain Men, visit their rendezvous, and meet with countless Indian tribes who trusted this black-frocked saint, and who accepted his teachings. Terrell does not dwell on the success of Father Desmet's conversions, although proselytizing was one of his principal responsibilities; yet, whenever he appeared in Indian country, "Indian telegraph" had already spread the word that the one White Man whom they could trust was on his

(Continued on page 35)



For
Your
Information

"5 For Trousdale," an exhibit of homes designed by five Southern California architects for construction on particularly difficult sites in the Trousdale Estates in the Hollywood Hills, will continue through October 15 at the Building Center. The five architects commissioned are Richard Dorman & Associates, A. Quincy Jones & Frederick E. Emmons, Edward H. Fickett, Rex Lotery and William R. Stephenson. Each office designed two residences.

Q: In selecting glass for a rather large project, I want to combine the safety factor with beauty. Have you any suggestions on this subject?

A: The shatterproof, laminated safety glass used so effectively in the Lincoln Center for the Performing Arts in New York City is now on display at the Building Exhibition Center. Imported from West Germany, it is made of two or more sheets of building glass bonded to a plastic foil interlayer. In case of breakage the sheets of glass adhere firmly to the plastic foil, minimizing the danger of injury. This glass is equally suitable for spandrels in curtain walls, windows, doors, partitions and enclosures. The decorative effect is obtained with either colored transparent or colored translucent interlayers, with intermittent ground effect interlayer, or by the use of decorative wire in the parallel, square or diamond wire mesh design interlayer. The glass is available in 7/32" and 1/4" thickness and maximum size is 54" by 96".

Q: Do you happen to have available the California Redwood Associations fastening method recommendations?

A: The nailing and screwholding properties of redwood, according to the Association, are similar to those of other woods of comparable texture and density. For dry interior work, no special fastenings are needed. For exterior work, corrosion-resistant fastenings, such as aluminum or hot-dipped galvanized nails should be used. In fastening siding, the withdrawal resistance of the nails is important. This is determined by the type of nail and the amount of penetration into the receiving member. If smooth nails are used, they should penetrate the studding and wood sheathing combined, a total of 1 1/2 inches. Where siding is to be nailed to wood sheathing, spirally-grooved or annular nails should be used to give added holding power. Nails may be driven flush or counter-sunk. With natural finishes use a non-oily wood filler to avoid all stains. Pre-drilling nail holes or blunting the end of the nail is the best way to avoid splitting the siding when nailing very near an end or edge.

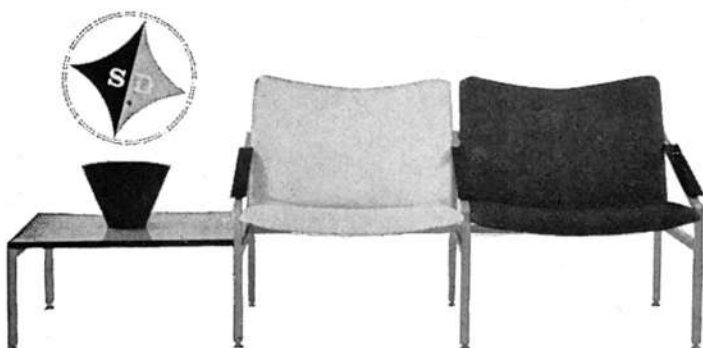
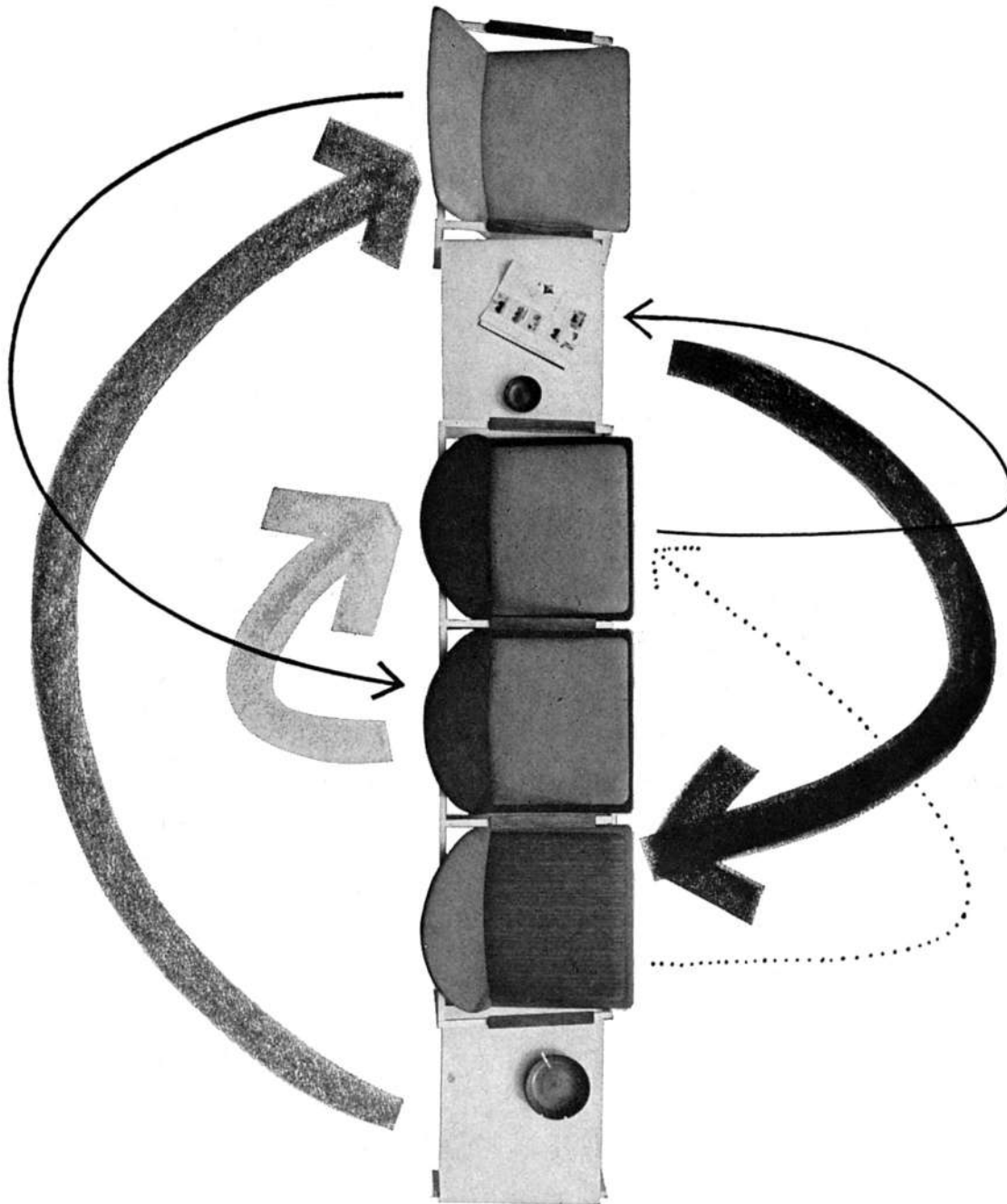
Q: I am using a Mission tile roof on a church I am designing in Orange County. What is the recommended undertile specification?

A: For a pitch of 3/12 to 5/12 the recommendation is for two layers of 30# felt mopped between and on top of layers, or two layers 40# specification roofing mopped between layers. If the pitch is over 5/12, one layer of 55# roofing is recommended. The roof surface must be swept broom clean and the knot holes covered with tin. Then lay two layers of roofing felt (weight as selected) at right angles to roof surface mopping solidly — approximately 25# per square — between layers with heated asphalt. Blind nail with large headed roofing nails. Lay one extra layer of felt under all valleys.

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A world gone berserk with construction has thrust architecture into position of importance in the scheme of things that has caught the architect ill-prepared. We are bulldozing and building, covering the land at a frenzied rate under the stimulus of private and public financing policies which act like economic Spanish fly. Wherever man has gone the leaves have died but never in such awful quantities. This tremendous volume of construction must be channeled and controlled, logically by the architects and planners, requiring of the many what heretofore has only been found in the few: integrity. Ideally every project should be thought of by its designer as an environmental categorical imperative. That is, he would be content if all architects and planners designed to the same ethical standards as he.

Some of our best friends are architects and the intent here is not to lament the state of architecture or of architects. There are Cas-sandras sufficient to that purpose already. But a recent experience — unhappily not an isolated one — raises an interesting question touching on the increasingly grave and urgent need for responsible design.

The occasion was a discussion about architects with the dean of one of the professional schools (not architecture) of a large university east of the Mississippi. The Dean is adding a large building to his school and I assumed that X, an architect associated with the university and justly honored for his creativity — respected in the profession almost to the point of reverence — was designing the project. It was an obvious choice, particularly in view of the fact that he had not too long ago designed a similarly purposed building for another of the university's professional schools; it had been published far and wide and praised universally as compelling, magnetic, a masterpiece, an architectural statement of great beauty and significance, and so forth.

The Dean said no. He had commissioned a hugely successful firm, one of the "factories," honest craftsmen but not noted for the quality of their design work. My surprise didn't hide my disapproval, and the Dean shrugged. "Maybe X is all they say, but it was hard for me to believe what I saw from what I read about the building. It's badly done — inside anyway."

He characterized the partitioning, fenestration, air-conditioning, acoustics — all of more than usual importance to the work of the occupants — as dismal failures. And to crown it the budget was exceeded outrageously. The faculty of the school presented with this "glorious dud," as he put it, was at first bewildered and then bitter. Our dean was discouraged at the prospects for his building. After all, if an architect of such elevated stature, world renowned and universally ad-

mired, had been unable or unwilling to design a structure which fulfilled its function satisfactorily, who was?

Asked what he meant by "or unwilling," the Dean pulled out a small notebook and read a short quotation he said was from an article written by X: "The architect's first act is to take the program that comes to him and change it. Not to satisfy it, but to put it into the realm of architecture."

I was quick to protest that even out of context this obviously didn't mean that an architect wasn't to satisfy the program.

"What about in the context of his building?" the Dean asked.

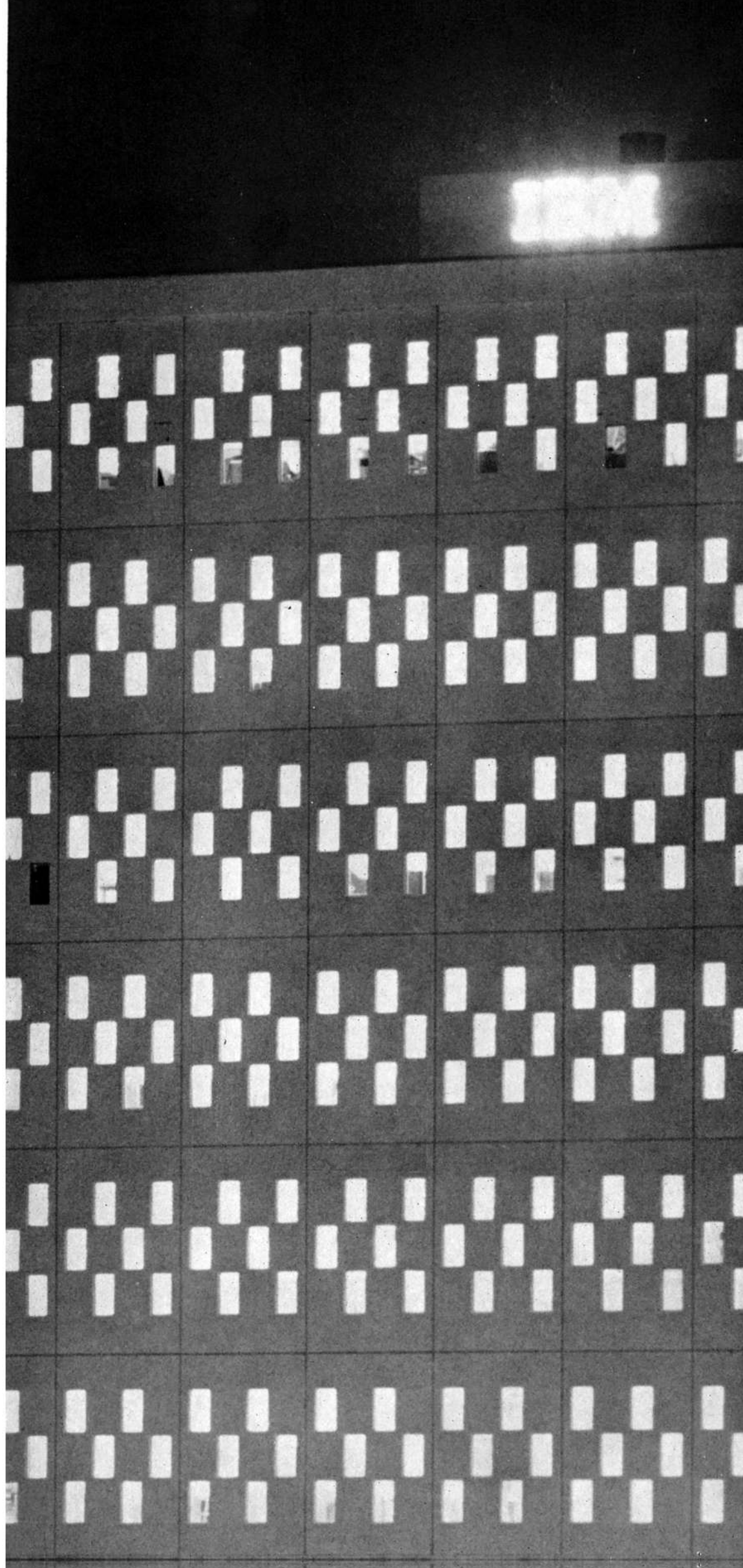
In any case, he continued, though his faith in architects was badly shaken, he began to search for one. A colleague at another university recommended the "factory" which had designed a highly satisfactory building for him, although it was undistinguished in appearance. The Dean asked others about the firm and received uniform expressions of satisfaction. The buildings worked and were brought in as budgeted, even less on occasion.

Still smarting from the Dean's harsh interpretation of X's statement, I commented that the right thing badly done is a greater achievement than the wrong thing well done.

"You mean the operation was a success but the patient died? Who is the best judge of what is right in this case — the architects and critics who come and admire the building and then go away, or we who have to live with it, work in it and pay for it? The work being done by the faculty and students is important, truly significant, not just academic. The new facility — or infacility — was supposed to help not hinder. The same holds true of ours. If we give our people inadequate tools to work with, in this case a building which doesn't function, we can't expect them to perform adequately."

The Dean continued with a shake of his head, "I can understand designing a sculpture, or painting or decorative work of art to standards of beauty alone, but not a building. It's not enough for it to be esthetically pleasing."

I suggested that perhaps he — or his fellow dean — was exaggerating the importance of the flaws in X's building. "Maybe so. The work is being accomplished — in spite of the poor ventilation, the racket and all. For argument's sake, let's say the building is acceptable functionally. What about the cost? The additional money that had to be allocated wasn't nickels and dimes. It was over a million. It came from funds set aside for new equipment which was badly needed. And think of the scholarships and fellowships that could have been established with the money." (Continued on page 35)



The architect's preoccupation with two particular architectural elements, treatment of windows and use of large pre-cast wall units as the entire building skin, manifests itself in this seven-story office building in the Westchester area of Los Angeles. It is the remarkable window treatment which most distinguishes the building visually. In earlier IBM plants at Poughkeepsie and Kingston, N. Y., large openings were used with glass block at the top and only a small vision strip of clear glass. The results were gloomy interiors and a newer laboratory in Kingston was given continuous ribbon windows in the search for a better solution. However, Venetian blinds were found necessary, creating a conflict between closed blinds and window space.

These unsatisfactory solutions prompted Noyes to experiment. "It occurred to me that to get around the conflict between window and screening it would be interesting to take roughly the same amount of window area, but to break it up into many smaller windows. To study this, I first made some small models and then a full-scale mock-up in my own living room to test how it felt for seated and standing vision and to see whether any claustrophobic effects could be determined. It felt very good, in fact, and reminded me somewhat of the kind of window wall which one encounters in India, where the wall is so perforated that it is indeed both wall and window at once."

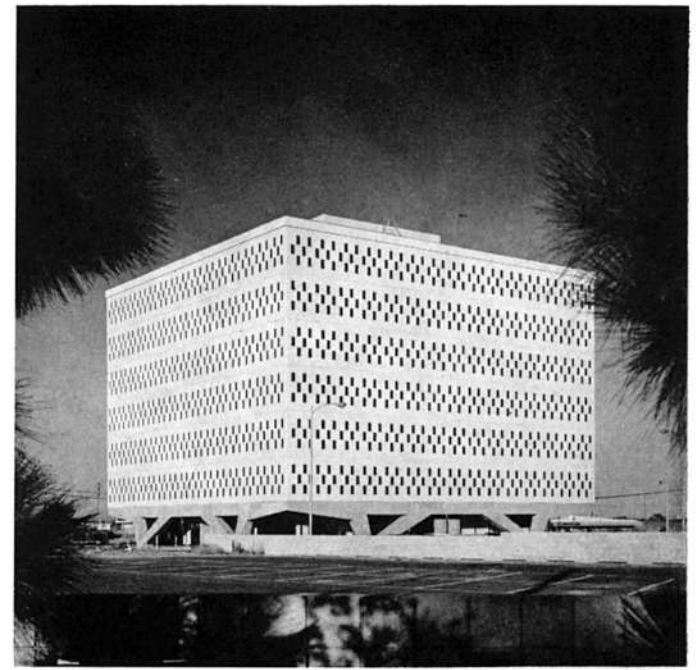
There are six windows in each of the pre-cast panels, giving the sensation more of a screen than a wall in the open floor areas. The success of the system can be measured by the fine balance of interior and exterior light even with the sun low in the sky and

(Continued on page 16)

ASSOCIATE ARCHITECTS: A. QUINCY JONES & FREDERICK E. EMMONS

STRUCTURAL & MECHANICAL ENGINEERS: WERNER JENSEN & KORST

GENERAL CONTRACTOR: GEORGE A. FULLER COMPANY



IBM AEROSPACE BUILDING PHOTOS BY AMIR FARR

IBM AEROSPACE HEADQUARTERS BY ELIOT NOYES & ASSOCIATES, ARCHITECTS



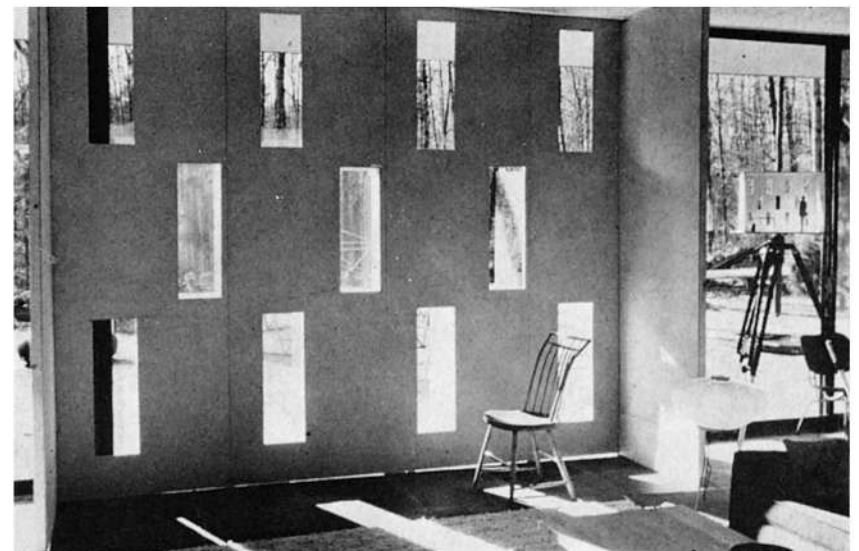
IBM Plant, Poughkeepsie, N.Y.



IBM Plant, Kingston, N.Y.



IBM Laboratory, Kingston, N.Y.



Mock-up of new window wall erected in Noyes' home.

by the fact that though Noyes designed a kind of butterfly shade that can be clipped into each small window, to date none has been requested. Thus the architect has apparently succeeded in creating a window wall with a normal amount of glass but needing no curtains or shades of any kind—an obvious saving in both initial expense and in maintenance. (The building is presently the highest one in the immediate area and a pleasing side effect of the window placement is that the top row of windows are above eye level and through them one sees only the sky, which is generally an incandescent and infinite blue.)

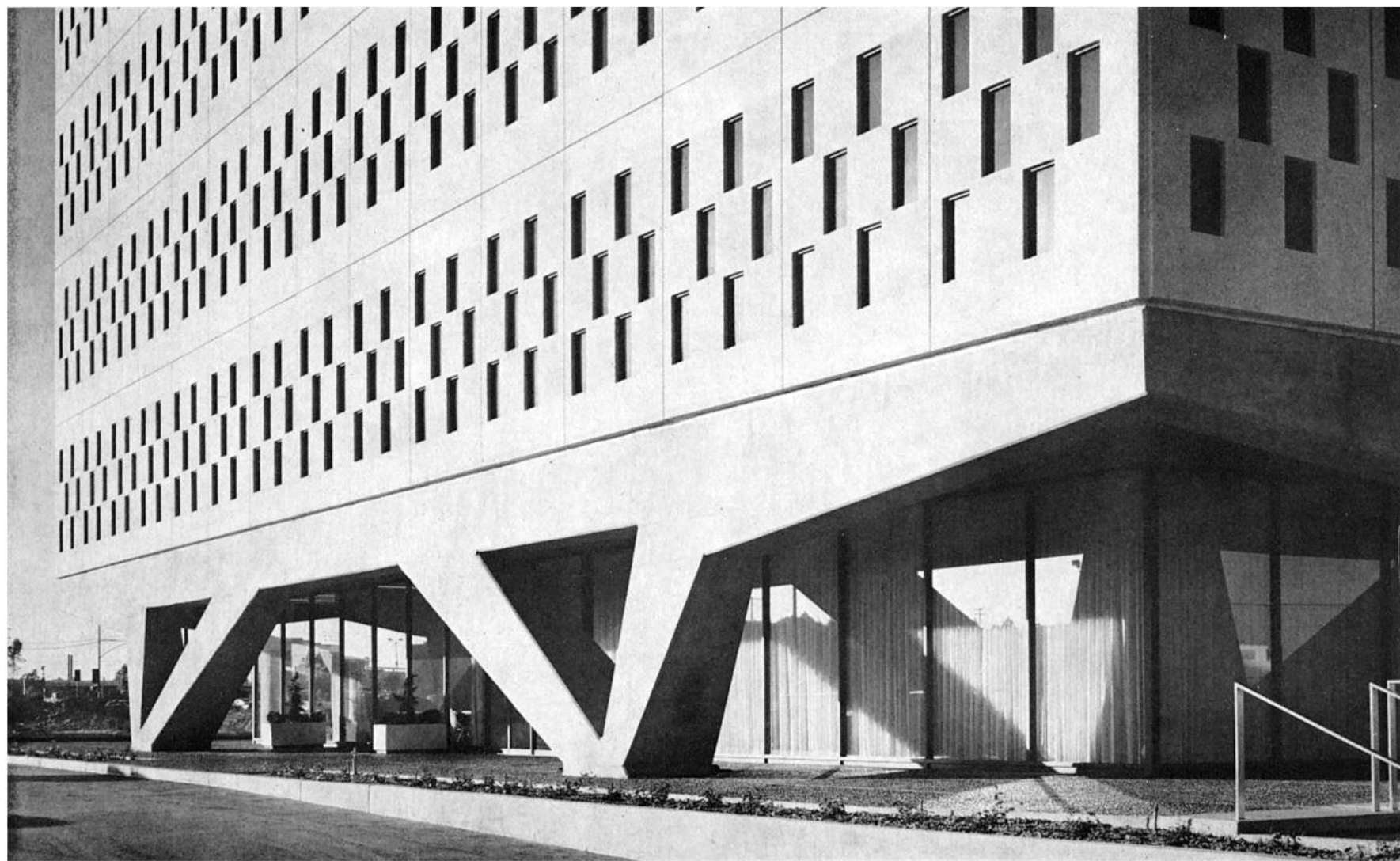
Noyes first employed large slab construction for an IBM building in Arlington, Va., where each wall unit had a vertical dimension of floor to floor and a width of one module. The majority of the panels contained a win-

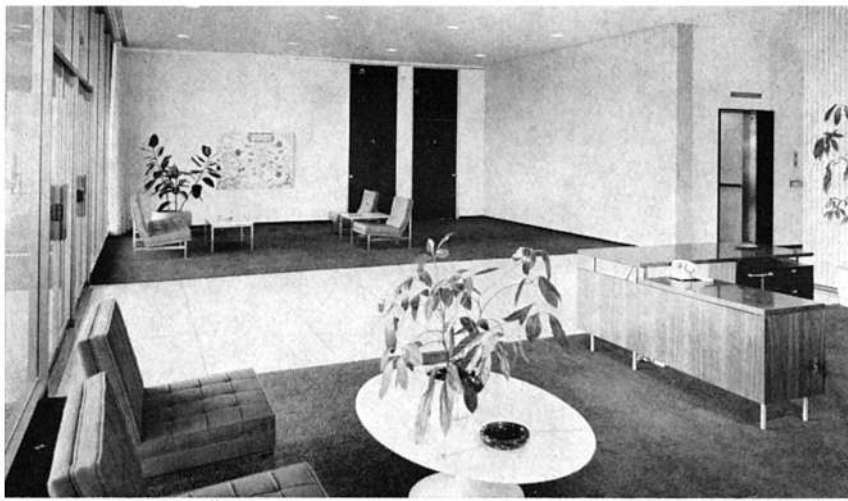
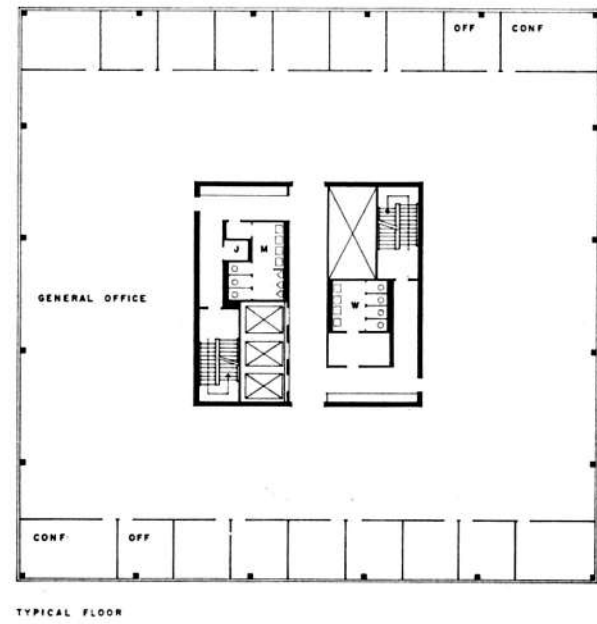
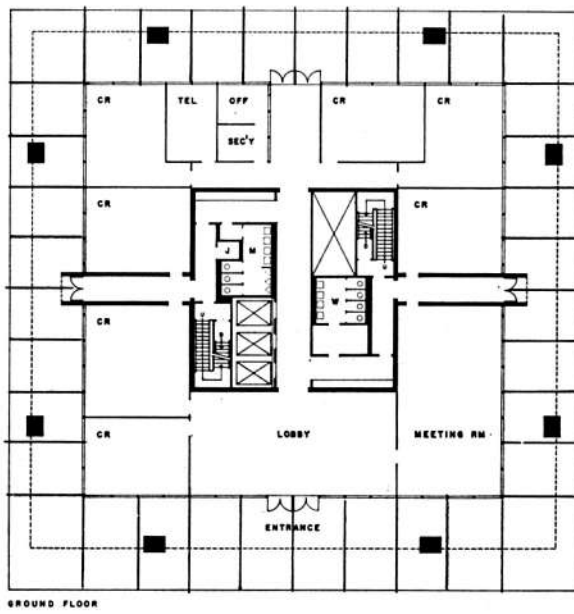
dow although some were left blank. These two slab elements were the skin for the entire building above the first floor. In the present building, the architect came to a panel of $8' \times 12\frac{1}{2}' \times 5''$, a size and proportion found to be efficient in the casting techniques and easy to transport and erect.

The building has reinforced concrete foundations and a 48-foot-square central utility core superstructure with reinforced concrete, seismic-resistant core walls and structural steel framing. Clear span cambered beams are supported at the core and perimeter steel columns, which terminate at the second floor level and are supported by sculptured concrete arches with cantilever returns. The arches, of natural finish concrete, terminate at eight locations at the ground floor and are supported on buttresses with arch pressure absorbed by horizontal post-tensioned tendons.

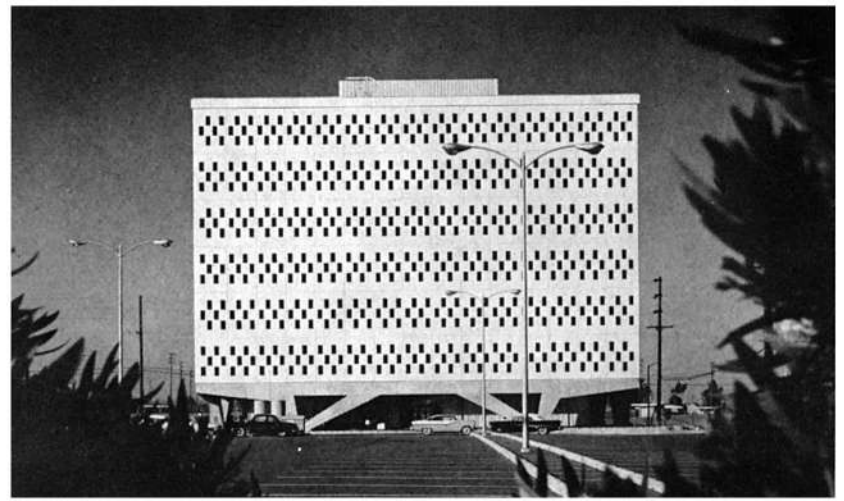
The exterior walls above the first floor are composed of the concrete panels surfaced with white and off-white quartz aggregate set in white cement. The interior surfaces are smooth, painted form finish; panel joints are filled with neoprene closed cell gaskets sealed with white Thiokol caulking. Panel windows are Lo-Tran glass in aluminum snap-in frames; ground floor glazing is clear glass panels and anodized aluminum sections.

Core walls were given a textured surface by pouring the concrete into corrugated steel forms. Ceilings are lath and plaster in core and public areas; acoustical tile elsewhere. Typical floor finish is vinyl asbestos tile with terrazzo used in the lobby. Exterior paving is of pebbled concrete. Total gross footage is 116,300 square feet, 1,411,200 cubic feet. Furniture in the lobby and IBM offices is from Knoll Associates, Inc.

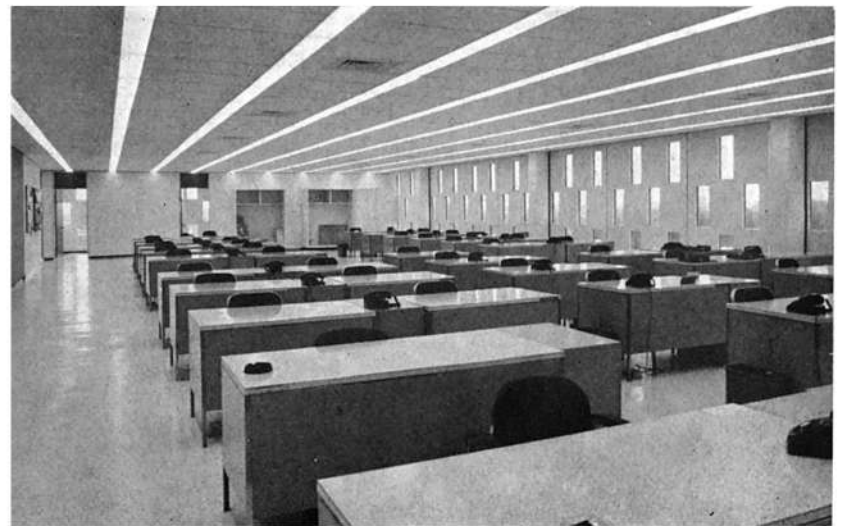


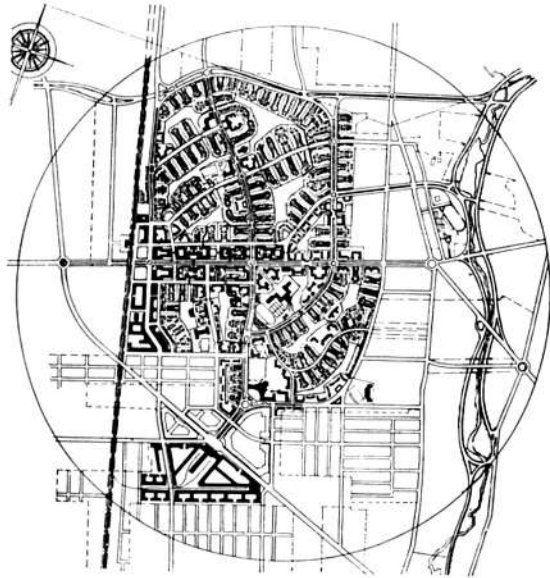


Lobby furniture by Knoll Associates.



Model of window wall employed in a small space.





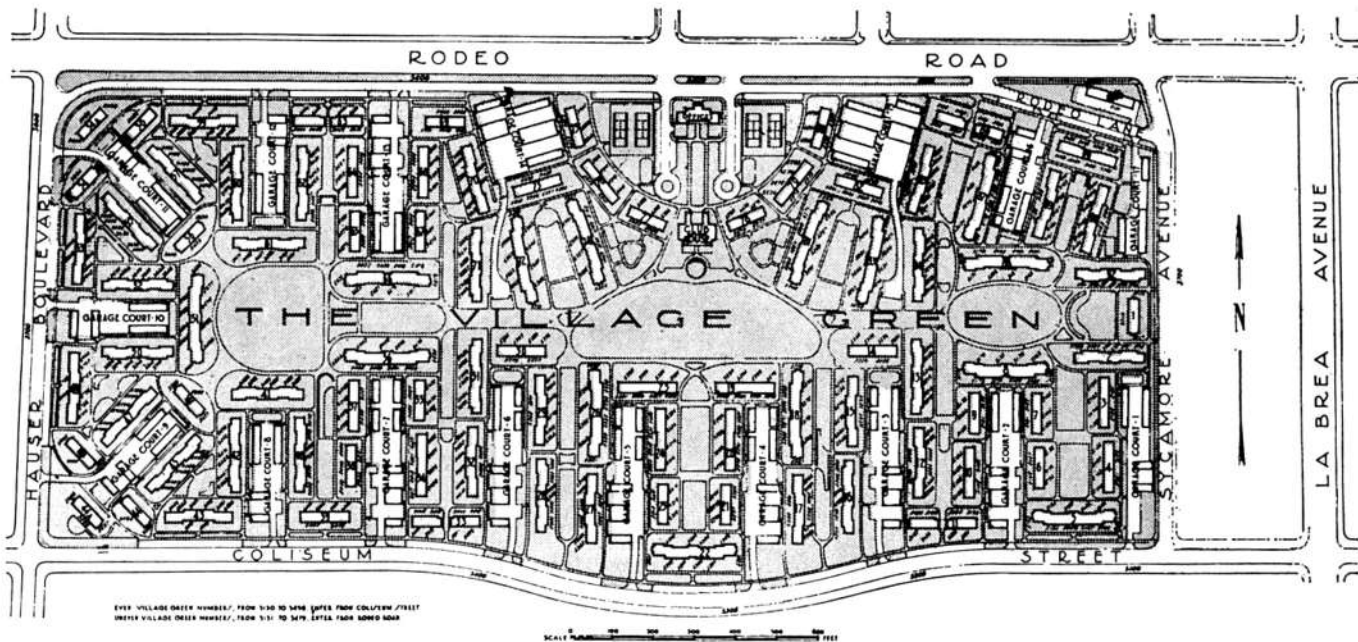
Radburn (N.J.) plan, prototype for Baldwin Hills Village

(The emerging profession of Urban Planning—emerging for some 50 years now, as one of its practitioners has noted acidly—is sorely in need of generally accepted groundrules which are based, not on intuitive flights into the unknown nor on blind adherence to one of the many conflicting schools of thought within the profession, but on experience. If anything like a scientific approach is to be achieved — and this we believe is mandatory — then specific and detailed knowledge must be accumulated upon which to base the monumental decisions required of planners. This comprehensive reappraisal of Baldwin Hills Village by Richard Berry, Assistant Professor of Architecture and City Planning at U.S.C., is the first in a series of similar studies aimed at filling a void: the evaluation of urban projects which have been tested by time. We hope to derive from the studies rules of procedure (and criteria for criticism) useful in the planning process. Editor)

In the Southern California environment, whatever the multitude of attractions it holds for millions of residents and tourists, there is painfully little urban design—conscious or accidental—towards which to point as manifestations of visual distinction. One of the few exceptions is the distinguished Baldwin Hills Village, now more than 20 years old, which appears to first-time visitors in Los Angeles as something of a restful sanctuary offering a momentary respite from the urbanscape figuratively screeching at the sensibilities from all sides. Approaching a quality that perhaps is describable simply as environmental art, it ex-

BALDWIN HILLS VILLAGE—DESIGN OR ACCIDENT

by Richard D. Berry



Baldwin Hills Village 1941; approx. 1"/1200'

PHOTO FAIRCHILD AERIAL SURVEYS



hibits itself as something of an anachronism and an enigma: apparently well ahead of its times when it was created, it has to date never been repeated even though constantly admired.

To those whose business or inclinations revolve around the design of urban settlement, the question of why such a development, with all its apparent qualities of fineness, has failed to reproduce itself, is a gnawing one. Is it, like Amsterdam's charming but unique *Begijnhof*, the product of a singular set of needs and conditions that come together one time only in the life of a city? Or, is it like the King's Circus and Royal Crescent at Bath, the subsidized endeavors of wealthy but "eccentric" speculators who placed art before profit? Or is it perhaps, like Covent Garden and Leicester Square in London which served originally as prototypes for the city's multitude of fine residential squares, something that eventually will be emulated over a broad area influencing the character of the urban scene but only after 50 or 100 years? Any insights, however meager, into possible answers to such questions may provide urban designers with much clearer understandings of both design possibilities and limitations for the future. Discussing Corbusier's famous *Unite D' Habitation* in his book *The Face of the Metropolis* (Random House, 1963), Martin Meyerson observes that even though done as an experiment in urban living the results of the Marseilles project have not been analyzed and critically notes that "this calls attention to one of

the great needs of urban design: the appraisal, after the glamour of novelty has faded, of new forms of living and how they function, how they withstand the attritions of use, how they answer the needs of the people they house." The remark is directly apropos of Baldwin Hills Village as well.

THE DEVELOPMENT AND DESIGN APPROACH

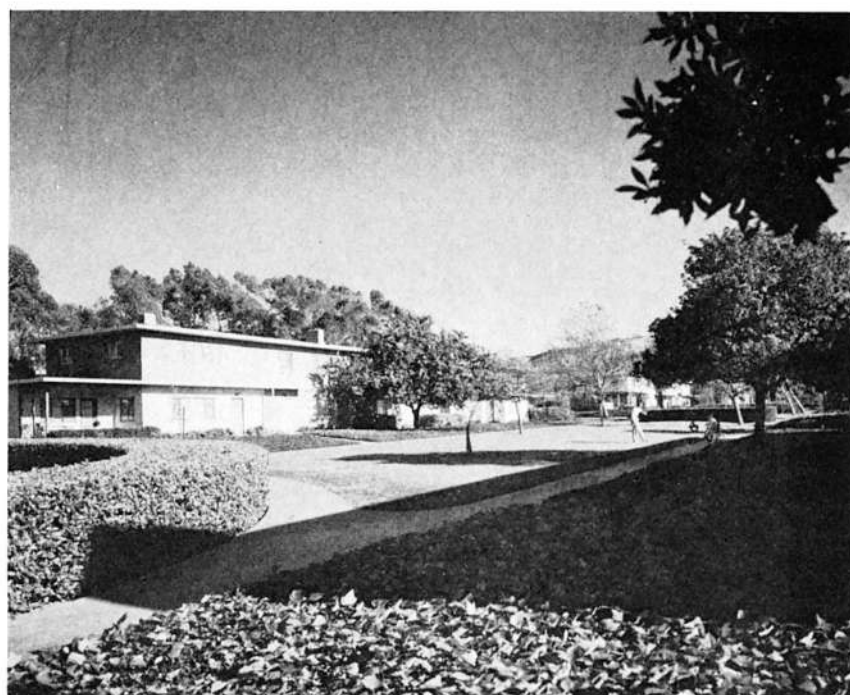
The results of a collaborative effort, Baldwin Hills Village crystalized much of the planning experiments that grew out of the twenties but which were cut short by the long depression, at least so far as private speculative development was concerned. The concept of a "new community" which would reflect both the 20th century's automobile demands and the novel living forms generated by a unique climate was pursued by a group of designers eager to participate in such a progressive project; and the principle architect, Reginald Johnson (Lewis Wilson, Edwin Merrill and Robert E. Alexander, associated architects), had located an 80-acre site as early as 1934, situated at the foot of the Baldwin Hills in the then sparsely developed southwestern sector of Los Angeles. The planner for the team of architects, Clarence Stein, provides us with extensive background of both design philosophy and problems of development in his book, *Toward New Towns for America* (Reinhold, 1957). The creator, along with Henry Wright, of the earlier Radburn experiment—a now classic example of an approach to neighborhood development and community design—Mr. Stein acknowledges that in "Baldwin Hills Village . . . the Radburn idea was given its most complete and most characteristic expression." Only 10 years prior to the first studies for Baldwin Hills, Stein and Wright had successfully realized for the first time on the American scene a planned residential community separating the automobile from the pedestrian and with integrated school and shopping facilities at Radburn, New Jersey. In that sense, the Baldwin Hills Village project was not a new design approach but a refinement, and at a considerable smaller scale, of its prototype.

As with all things of quality, realization of social and design ideals is not easily achieved. Beginning in 1938, the designers ultimately evolved some fifty complete site and development studies for the 80-acre project over a period of three years. Their patient and persistent search resulted in a super-block, free of streets, that was some 2500 feet long in a city already at the time fast becoming automobile oriented and dedicated to the "speculative grid" system. The automobile needs were faced squarely and resolved in a manner that displays full recognition of both benefits and dangers. Private service driveways were skillfully placed to bring tenants' cars into the garage courts without crossing pedestrian circulation paths, and the visual separation achieved for parking and living areas without sacrificing convenience is truly remarkable. By providing a service road on the north side of the super-block, parallel to the heavily trafficked Rodeo Road, with only one point of entrance off that arterial, the designers exhibited an acute awareness of traffic control needs peculiar to the automobile age. The designers seemingly showed more wisdom and concern for public safety in this regard than many city officials charged directly with responsibility in such matters. The service road also acts as a landscape buffer, separating the housing units from the busy street—something that later developers and planners of adjacent projects failed to heed (see air photo of recent subdivision patterns around the Village, page 21).

The acceptance of and thoughtful provision for the automobile made possible the introverted and workable site plan in which all dwelling units could be related to the spine of "The Village Green"—a park-like environment of quiet repose and great subtlety of landscape execution. A full 20 of the 68 net acres could be rightfully termed a neighborhood park. Such opulent use of land, whether justified or not, was possible through premises of low density (about 10 units per acre covering only 15% of the land) without shorting auto and service necessities (parking today for 3 cars per unit: 1 garage stall, 1 open stall and one visitor space at indentations of the curbs).

If the Village's overt planning success is attributable to an understanding of basic problems and a rational approach to solutions, its visual distinction transcends pure logic. As a plan on paper, a somewhat formal juxtaposition of buildings and walks related to a major and minor axis, the arrangement is more than a little reminiscent of the

(Continued on next page)



PHOTOS BY JULIUS SHULMAN





A slightly higher density would have increased income and improved chances for other Village developments.

DRAWING BY CARLOS DINIZ

Beaux-Arts approach; but on the ground, moving through such a large number of architectural elements, the hint of formalism and the subtle cross axes provide the observer with a secure sense of order and orientation without being obtrusive. And from a bird's-eye view, the angular placement of some building clusters appears like arbitrary pattern making, yet in reality this too proves successful as a means for tying all garden courts to one of the three major spaces making up the interior Village Green.

It is, however, the designers' refined way of handling space and spatial sequence that gives to the strolling observer his greatest sense of delight: a thing almost impossible to appreciate and difficult even to perceive from plans, alone. Through the use of simple, light colored stucco buildings, a judicious choice of plant materials and textured garden walls, a seemingly endless variety of spaces has been modulated and differentiated with an apparent understanding of the old fashioned (and difficult to define) concept of harmonious proportions and contrasts of scale—something our modern architectural schools seldom seem to consider anymore. Yet at that point where verbal definitions falter and conscious logic eludes us and where a pleasing emotional response to a perceptual stimulus begins, may conceivably lie the threshold beyond which "urban art" resides.

The one- and two-story dwelling structures, which contain some 620 units, are so much an integral part of the experience of the total environment that to separate buildings from landscaping, even for discussion, is impossible. Like some of the best of the London Squares, architecture, landscape and spatial definition are all one experience. Certainly the buildings out of context of their site would never win any architectural prizes. Nor were they meant to. The restraint shown in the use of color, texture, detailing and general form of the structures is even more refreshing and laudable today than in 1941 when the first

units were barely completed and the landscaping still sketchy.

The designers prudently allocated their budget resources to achieve *livability*. This allowed little leeway for architectural embellishments and even less margin for exuberance in building forms but subsequently enhanced the total project unity by creating a recessive composure for the architectural parts.¹ In fact, landscape and site expenditures computed on a pro-rata basis add less than \$4 to the per-unit monthly rents.² For this small amount each resident of the Village has a privileged lease to a unique park environment implying that urban beauty is perhaps a commodity easily afforded and even quantifiable if anyone cared enough to demonstrate this to the city at large. (The talent needed to create visual distinction is another story discussed below.)

It would be totally misleading to infer, however, that the initial cost of well-conceived site improvements is wholly negligible. On a unit basis, the expenditure for the Village represented almost 14% of the total construction cost, excluding price of the land. Yet most present-day architects would probably have spent more money on the buildings and by necessity less on the total site to achieve comparable rent levels, but

¹The developer's program called for rent schedules within the means of middle income families — about \$7,000 annual median for the Los Angeles metropolitan area in 1960. This meant, speaking in 1960 dollar values, that the average apartment had to rent for about \$125 a month. The actual median rent for 1960 was \$116. (See Note A at the end of the article.)

²So far as the total development was concerned, the architects and entrepreneurs had the extraordinary advantage of cheap land costs: the ratio of land value to buildings was about 1 to 13. (See Note B appended.) An assumption that this factor explains the luxurious use of land and landscaping is deceiving. Catherine Bauer Wurster compared the costs for site improvement, landscaping and utilities in the Village with a number of public housing projects done about the same time. Adjusting for site differences, site expenditures for the Village were some 58% higher than the government projects. However, the actual difference in 1940 dollars amounted to only \$234 per unit. If this were amortized by rental rates alone over the usual mortgage period of 20 years, the average amount would represent less than \$4 a month to each tenant in today's price structure. (See Note C appended and *Pencil Points*, Sept. 1944.)

also achieving the same dreary kind of environment that typifies the majority of our large residential projects.

It would appear, then, that the uncommon visual success achieved in this distinguished residential super-block stemmed from a design matrix of intelligent economic planning coupled with visually cogent formulations of space. All of the architectural and landscaping components provide for rational human use and requirements and at the same time are integral with, but subordinate to the experiences of spatial sequence. Volumetric forms define and modulate the perceptions of space but are not treated as the primary or dominant elements of composition—the complete opposite of almost all current architectural design premises which conceive exterior space merely as the negative residue or void surrounding structural “forms.”

THE TEST OF TIME

Granting the inherent fine qualities achieved by discretion in design, the questions remain, How has Baldwin Hills Village withstood the attritions of use? How has it met the needs of the people it was intended to serve?

In appearance, barring the recent flood disaster which marred but did not destroy the Village, nearly 25 years of aging have mellowed and appreciably enhanced the physical setting. Even covered with silt and with much of the low ground foliage swept away, the serenity of the buildings and mature trees seen in the soft dimness of twilight is strangely evocative of a primeval setting, reminiscent of those into which the Swedes place modern settlements so sensitively.

And without doubt the Village has served its occupants and owners well. Attesting to this is the fact that it has consistently maintained a 100% occupancy in a city with a purported 14,000 empty apartment units; and the waiting list is as extensive as it has always been. Even today, the rental rates are closer to a real middle-class income level than the new “mythical” middle-income projects whose rents are 50% higher than the Village.

It is worthwhile noting that the detached-housing subdivisions which surround the Village have an average density of from 5 to 7 units per net acre—only slightly less dense than the Village itself with an average of about 10 units per acre. Zoning classifications comparable with that of the Village, “R-4,” allow and current building practice throughout Los Angeles achieves about five times the densities found in the Village (Note D). Perhaps for this reason, several observers (including the original planning consultant himself) have noted the possibilities for increased densities in the Village. From an investment standpoint, such

a prospect would have appeal to most present day developers to whom the concept of “density” merely means the number of income-producing units per unit of land investment. From the planning standpoint, the utility and the spatial definition of the large interior park-like greens could be enhanced by higher densities. The wide dispersion and the low profiles of the one- and two-story buildings somehow seem inadequate to support the perception of defined space of the large interior parks, and possibly an added story of units surrounding the “Village Green” would strengthen the spatial experience. Even a dominating vertical accent in the form of six- or eight-story elevator apartments at the ends of the Green could probably be integrated into the complex without jarring the carefully wrought scale. However, the critical design parameter—and perhaps the economic one as well—would be adequate provision for storing at least two and possibly three additional automobiles for every additional living unit. Such is the growing dilemma everywhere in the urbanized world.

The intent here is not a compulsive attempt to redesign Baldwin Hills Village but merely to suggest that given the same extensive allotment of time that was available for creation of the Village, the original design talent could readily have achieved an equally noble project within a premise of somewhat higher density.

It is at this juncture that answers begin to emerge as to why Baldwin Hills Village has never been repeated. From a standpoint of private enterprise, developers must have asked themselves, “Why bother to create a distinctive park environment which benefits so few when only slightly lower densities are attainable in detached housing units, which is what most Southern California families want anyway?” A difficult hypothetical question to answer. The great preponderance of families prefer their park amenities surrounding a detached home, a preference reinforced by both public taxation and private finance policies. In 1940, 72% of all Los Angeles residential units were single family houses; in 1960 the percentage was exactly the same for the metropolitan area.

Speculative builders and developers, in a highly competitive free economy are quick to perceive where the bulk markets lie; and in terms of substantial acreage it has not lain in the rental unit projects.

City planners too, in their often unintentional mismatching of zoning powers to market desires and land ownership patterns, apparently failed to see that developments like the Village might have been integrated with the huge single-family subdivisions which are still being spawned today. Ironically, though, if planners had wanted to encourage similar developments by zoning large areas similar to the R-4 Village zoning, it would immediately have killed the potential for another Village project by forcing land price and therefore density well beyond the

(Continued on page 32)

The Village in 1960, engulfed by subdivisions

PHOTO FAIRCHILD AERIAL SURVEYS



Architecture is the design of buildings and of combinations of buildings. We are told that it is various other things, but these all radiate from, and are colored by, this central focus. The landscape is the environment in which architecture takes place, to which this new force is more or less adjusted, and which must in turn adjust to the new force. Every new building makes a qualitative change in the landscape into which it is introduced. From this fact stems many of the battles between conservatives, who resist change, and free-thinkers, who feel that change is demanded by the times. Architecture is a radical force in the landscape; landscape design tends to be a conservative force building harmonious co-existence between the new and the old.

At the scale of landscape experience architecture is a primary space-former, a collection of objects which are arranged within the landscape, and which are usually its principal elements. When the concentration of urbanism produces wall-to-wall construction and the running together of masses of buildings, larger and less orderly objects result. They are less orderly because they are composed of a number of elements originating separately in time and so-

personal or historical, to be returned to for information or inspiration from time to time by various architects, other designers, students or general cultivated public in quantities determined by the influential force of the building. Thus there are constant reciprocal relations between architecture as design process, the search for form, and architecture as a collection of buildings which have resulted from this search.

The experience of landscape design, whose work is never done because plants are growing and changing, suggests that design does not really end with completion of construction. Maintenance is a continuation of the design process, by others who may think they are also designers, as in the obvious example of some gardeners, amateur or professional. Many things may happen to buildings, too, after the architect leaves — interior decoration, exterior decoration (landscaping), graphic design (signs), re-painting and other maintenance adjustments (moving parts must be adjusted, repaired or replaced), remodeling resulting from changes in program or from faulty program analysis during the original design.

If we say that structural design includes architecture as its most vital and leading com-

As structures decrease open space and/or natural landscape increases and it is possible for us to get away from buildings more and more. This is the dream of all park lovers, suburbanites, ex-urbanites, country-life and wilderness lovers. Buildings have become associated with the ugliness and evils of urbanism, therefore the argument that the fewer buildings the better life we have. The whole American park movement, beginning with Central Park, has been founded on the notion that urbanism and construction are inherently and automatically ugly and unhealthy, saved only by the introduction of natural green breathing pores. This unsophisticated idea still lingers in many minds, including those of some architects. Opposed to these, of course, are those lovers of architectural urbanism who say, in effect, "The Piazza San Marco has no trees, why do we need them?" These voices never mention the pleasant green garden between the Procuratie Nuove and the canal. Surely this is an integral part of the Piazza complex.

Today downtown urbanism produces a concentrated structural landscape from which the elements of nature have been eliminated, except in the occasional small park. Here the

ARCHITECTURE AND THE LANDSCAPE

ciety, stuck together without previous thought about their relationships, by main force and awkwardness. Each block on Manhattan is such a structural object, viewed as a continuous, though undigested and discordant, entity from the streets and miscellaneous open spaces around it. With rare exceptions the individual work of architecture is lost in this jumble.

Outdoor experience stems from a continuous pattern of solids and voids, varied not only by arrangement and proportion but by the variable density or spatial quality of the solids. These variable solids, mostly buildings at the urban centers, become mostly trees and topography as we pass out through suburbia to more open country. Buildings and trees, solids at general landscape scale, become smaller scale patterns of solid and void themselves as we enter them, passing from macrocosm to microcosm.

Architecture is analyzable on two levels, and these are often confused. First it is a body of existing buildings, scattered about the national and world landscape, with origins extending from last year back into history. On the other hand architecture, like all design, is a process, the process of searching for the right form or combination of forms to solve a specific given problem of shelter development. As a process, it tends to cease, or to shift focus to other problems, when the current problem has been solved, i.e., when construction is complete. The building then becomes part of experience,

ponent, it follows that the constant interaction between structural design and the surrounding general landscape is the principal process conditioning the quality of that landscape as environment for people. (Structural design also includes engineering—structural, civil, mechanical, electrical—which plays an equal or greater role in shaping the landscape.) This is true in the center of Manhattan, an almost totally structural landscape changing more rapidly and constantly than any natural scene. It is also true as we move out from such centers through rings and patches of gradually lessening structural concentration, through suburbia and exurbia to that ultimate architectural dream, the isolated gem in the pastoral or primeval setting. Always the structures, the buildings and roadways and utilities, which are primary necessities to shelter the most fundamental activities of personal and social life, are visually the strongest and most inspiring (or depressing) expressions of man's genius for bringing new forms and arrangements to nature. Landscape quality results from structure and the relations it creates or eliminates with open space and natural elements—earth, rock, water, plants—in any given locality. Architecture does not produce a series of isolated objets d'art which exist in a vacuum, with or without decoration. It produces the most highly refined nuclei in a network of interdependent technical-functional-visual relations which is continuous throughout the total environment.

buildings represent the solids and the voids are the streets, the parking lots, and traffic elements such as circles and interchanges. Here indoor-outdoor patterns are intense and continuous, particularly at rush hours. Here, where people and their environmental problems are most concentrated and most intense, there is the greatest tendency toward standardization of experience. All spaces, indoors and out, tend to become similar in character and in scale. Central Park is the great symbol of urban relief, but Robert Zion's recent excellent proposal in the *AIA Journal* is closer to the need.

As downtown concentration thins out and we approach the more open suburban scale which characterizes the greater area of most American cities, the proportion of void (open space) to solid (building) becomes higher, and includes expanding areas of planting, work and stock yards, waste and vacant land in addition to vehicular areas. Population density is lower, especially during the day, and indoor-outdoor patterns correspondingly less intense. Nevertheless they are primary and continuous in the experience of those who are there. In older sections and institutional areas trees and other vegetation may reach a scale which obscures or conceals large percentages of the structures. At their best these areas achieve a variable balance of structure, open space and planting which we show off as our best environmental efforts to date. With less luck or skill the remaining open spaces are largely misused, care-

lessly developed, or wasted space. Whatever the quality or relative proportions of building and open space development, the fact of regular transitional experiences between them for most residents remains constant.

What, then, is the nature of this constant reciprocal interacting process which goes on between architecture and landscape? How does it affect each, and how might it affect them if it were subjected to exhaustive design scrutiny?

Buildings are objects of varying size and form, usually cubical, sometimes angular or curved. They vary in size from the country shack to the metropolitan skyscraper and larger industrial and military agglomerations. They vary in form from pure cube, cylinder or pyramid to the formless complexity of some romantic institutions and metropolitan blocks. They vary in density from the castle and the air-conditioned concrete cube to the Park Avenue glasshouse. They vary in quality from the most refined products of architectural genius to the most humble practical expedients, with an increasing inventory of commercial nightmares, monstrosities suggesting that something has gone wrong with the mutation process.

In ordinary landscape experience most build-

and balance, proportion and order, continuity and accent, harmony and contrast, applied so often to paper plans and elevations, take on their true complex and subtle meanings in the real four-dimensional world.

The system of extrusions and demands which relates architecture to the landscape has many forms. There is a technical system which interlocks with the atmosphere above and the earth below. The earth connections are the world of foundation and soil engineers and geologists. But they expand beyond the foundation lines. Changes in contour and in profile demand adjustments around the building that may extend to, and at times beyond, the property lines. These may begin with engineering demands — drainage patterns, angles of repose, percentages of compaction. But they speedily become interlocked with problems of physical and visual circulation. When these are not solved we are left with the clumsy over-simplification of much engineering construction and earthwork. When property lines interfere with desirable forms projected by relations between building and topography we are forced sometimes to use arbitrary walls and slopes that are too abrupt. The subtle and intimate relations be-

a frontier. Actually the foundation line is the vibrant center of the total zone of interlocking indoor-outdoor relations which is a truly successful work of architecture.

Above ground the building rears its head into the complex world of weather and atmosphere, climate and meteorology, sun and wind, rain and hail, dust and snow. Here again much has been done to solve such problems within the limits of the building shell, sealing it with increasing tightness on the outside, controlling the climate more and more precisely within. As mechanical engineering and heating-air conditioning techniques improve and expand, less and less is done to solve climatic problems in the site-space around the building. The glass cube, tinted and conditioned, sits serenely and self-sufficiently in open country or urban clutter from Phoenix to Fairbanks, Chicago to Calcutta. The more extreme the weather without, the more shocking the transition from the changeless perfection within. Permanent climate and permanent plants lead us hand-in-hand toward the brave new world, to the enchanting strains of Muzak. Perhaps we are half-way between the completely natural life of caveman, treeman and Bushman, and the

by Garrett Eckbo

ings are compounded of rectangular planes, with superimposed pyramids of hip and gable roofs symbolizing home and mother. The walls of these buildings are pierced by various openings. Some of these are doors through which we can walk, others are windows through which we can see, and light and air may circulate. Some doors allow vision through, some do not. At times windows expand to become entire walls or cubes of glass.

These openings are the principal, but not the only, connections between building and landscape. They create two-way patterns of visual and physical circulation, extrusions and intrusions of a network of interlocking forces and desire lines. Physical circulation patterns connect building, site and neighborhood. They require recognition in surfaces which will stand the traffic and make it comfortable and convenient. Otherwise we have paths worn through grass, ivy and shrubbery, over or under barricades, with accompanying bad language from gardeners.

Circulation is the vehicle for that continuity of sequential space experience which is the fundamental vocabulary of architects and landscape architects — expressed so neatly in Halprin's space notation system. We move physically as far as time, energy and mechanization will carry us. We move visually as far as we can see, aided by imagination, memory and the stimulus of what we see. The traditional principles of unity and variety, rhythm

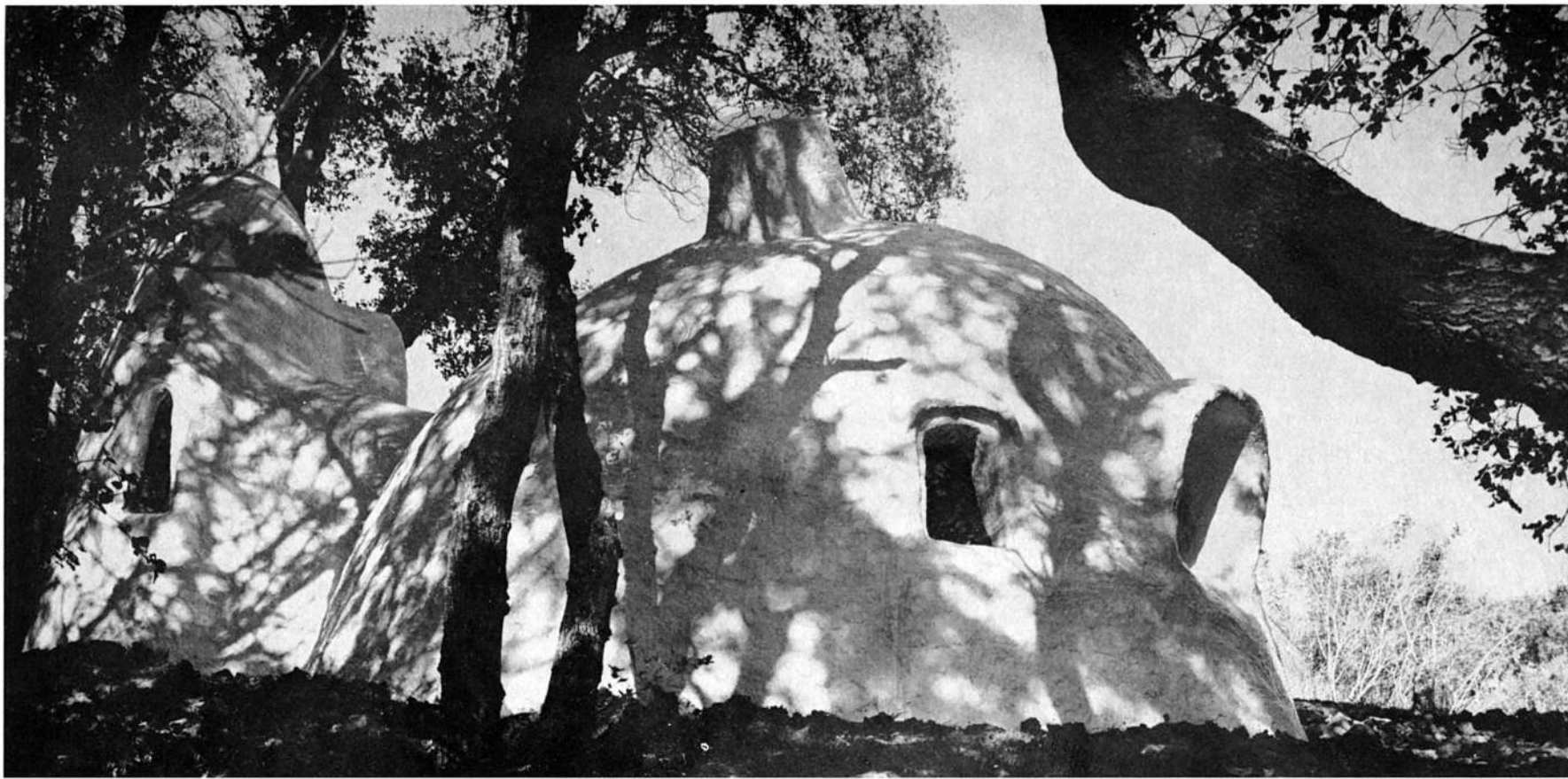
tween bedrock, subsoil, topsoil, vegetation and atmosphere cannot be solved by the engineering approach. Yet these are fundamental to the convincing completion of earthwork. The basic conflict between foundation demands for firm, dry, sterile ground and plant demands for loose, moist, fertile soil is solved usually only by improvisation and the adaptability of plants. The relations between floor levels, wall openings and topography are probably the most important factor in the quality and character of indoor-outdoor relations. The building on a concrete slab six inches above grade is totally different in feeling from one with a wood floor two feet above grade. Consider each with extremes of open to solid walls, and extensions or retractions (indoor planting) of floor plane. Then tilt the ground plane at various angles so that half of the building is pushed further and further into the slope, while the other half is raised higher and higher above. Then add floors vertically up to ten (maximum tree height) and beyond to maximum structural height. With each additional floor we have different structural and foundation problems, and changing relations to the diminishing site and the expanding landscape around. These are familiar and obvious relations which architects must consider, but their impact on site and neighborhood development is much less carefully considered. Architectural discipline still tends to stop a few feet beyond the foundation lines, while landscape disciplines approach these as

science-fiction world of air-conditioned cities under geodesic domes. But today the increasing climatic self-sufficiency of buildings tends to destroy, not only regional quality in architecture and landscape, but the fundamental design process by which man has historically linked building and site with functional-esthetic patterns of earth, water and vegetation.

Not only is the building adjusted, in one way or another, to the weather which surrounds it, but it creates new microclimates around it on the site. Its south side is warmer by reflection and reduction of air movement, its north side cooler through constant shade nine months of the year, half shade the other three. The east face is warmer in the morning, cooler in the afternoon, and vice versa for the west face. These microclimates are simplest if the building is a cube, more complex and special if it has projections in various directions. Most difficult of all are those planting spaces — so dear to modern architecture — under the building on pilotis or the twenty-foot cantilever on the north side. Here, without overhead light or moisture, it is a rare plant which will not look sad and frustrated.

Functional demands by building on site are expressed in terms of circulation and area usage. Circulation patterns originate and focus on doors and the larger openings created by sliding panels, solid or glass. Such nodes of traffic, pedestrian or vehicular, must be connected more or less directly with desirable

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This small guest house in Orinda, California, is an experimental plastic space structure constructed of stabilized earth which developed out of the designer's interest in creating an architecture free of such secondary considerations as joinery of the numerous forms ordinarily required to satisfy the demands of structure, insulation, finish, lighting, furnishings. The cheapness and availability of earth made it the logical material for a first, very low-budget experiment.

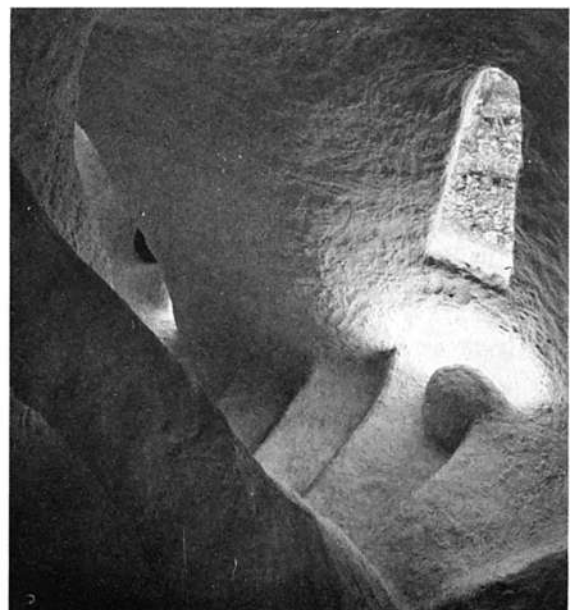
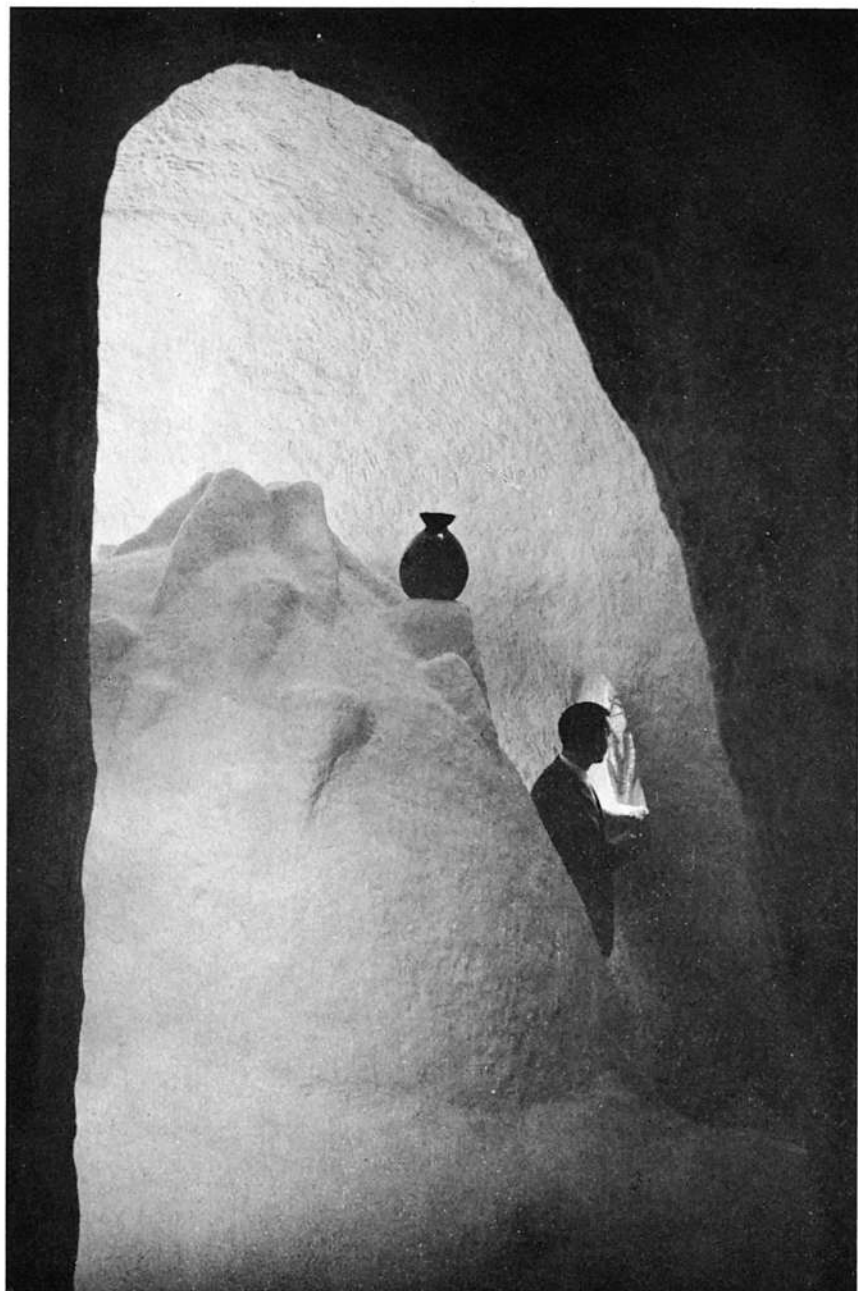
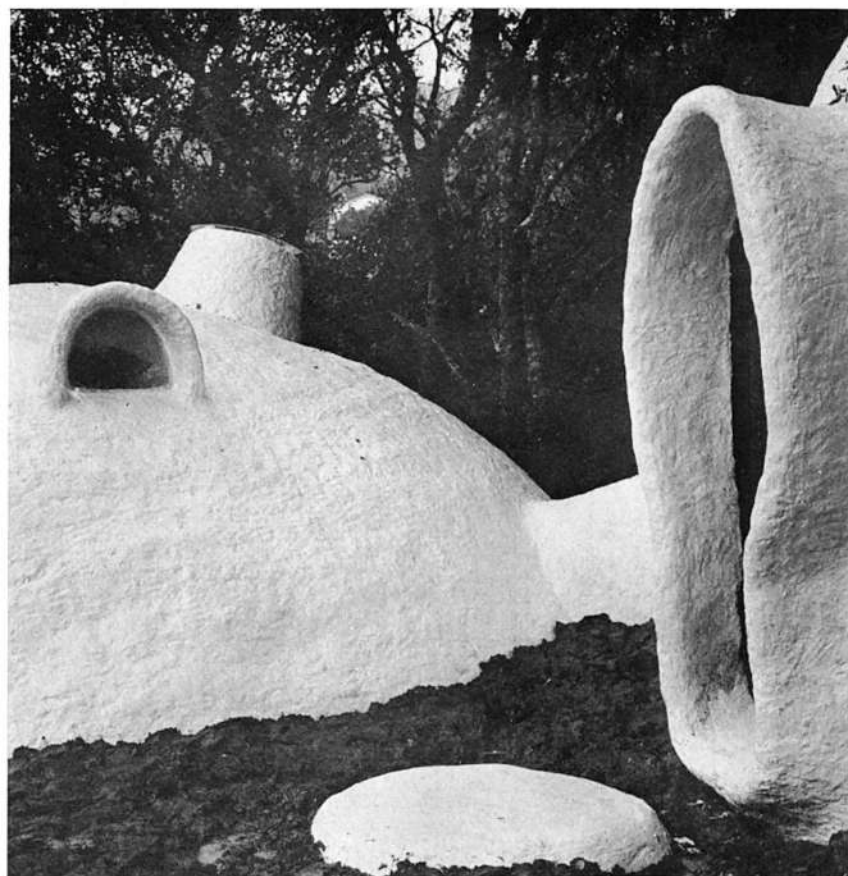
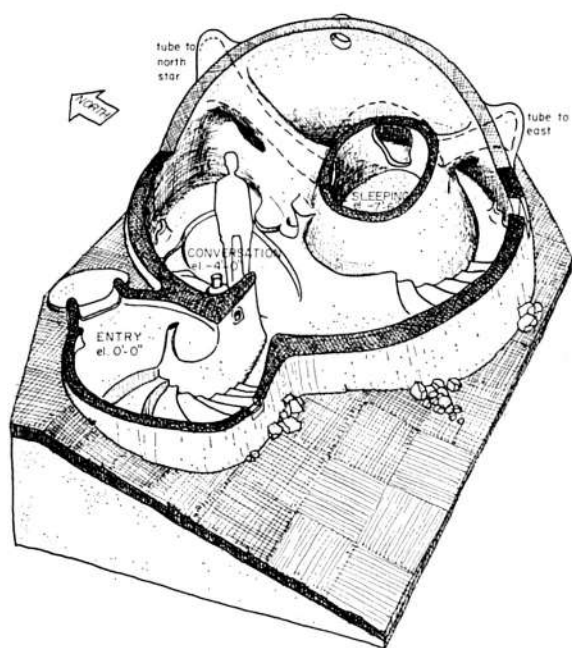
The technique used was basically that of various African tribes: the piling up of concentric courses of stiff, wet mud balls, without the use of any framework or centering whatsoever, to produce domes and barrel vaults. The addition of 8% Portland cement to the sandy soil hastened the setting process and produced a stronger, more weather-resistant structure. A very minimal network of steel rods served as a guide for placement of the mud, but was not necessary to hold the wet mix in place.

The structure was designed in clay model form. An inner, elliptical dome serves both as a sleeping space and, on its exterior, as a sculptural focal point for display of artifacts, and for diffusion of light from the primary skylight. "Tube" windows with directional views connect the inner dome to the outside without opening into the space between. The main dome, eccentrically placed around the inner dome, houses a conversation area with fireplace, a stair to the sleeping level, and a small dressing area with closet. A third dome, connected by a barrel vault, contains an entryway and a spiral stair to the main dome, which is dug deeply into the steep hillside.

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EARTH HOUSE BY EDWARD ALLEN





PHOTOS E. ALLEN AND WILLIAM WRIGHT



Victor Gruen of Gruen Associates writes in his new book, *The Heart of Our Cities* to be published in the fall by Simon and Schuster:

"Unless we learn the true meaning of planning, which is the injection of diversity and variety into a meaningful organic pattern, we will succeed in making our cities unlivable, unworkable places of infernal sameness, plagued by boredom and discomfort."

In his own work of planning shopping centers, or in the major surgery he performs on ailing business cores of old cities — decentralization and recentralization — he has reached a concept of the whole through a consideration of the nuclei in terms of the smallest element, the human being, and his need to be stimulated by his environment.

His solutions for suburbs, similar to Ebenezer Howard's plans for garden cities, are clusters of self-sufficient low density colonies ringing the city but separated from it by a green belt; each colony (or cluster) however, feeding culturally upon the city, which is reached by rapid transit systems in about twenty minutes. Gruen compares these clusterizations to the medieval *glacis*, literally pretowns, which lay outside the fortifications of his native city of Vienna. These *glacis*, Howard's colonies and Gruen's clusterizations all depended for their existence upon the health of the metropolis, whereas the suburbs of today drain the city of its life and strength by establishing dozens of foci. Take Los Angeles away from Beverly Hills and you have a city without a university, a museum, a concert hall, a theater, a large park and very few small ones; surrounded on all sides by Los Angeles, its only contribution to the area at large is a hundred-foot or less strip of park along the mile of Santa Monica Boulevard which passes through the city. Otherwise it is totally parasitic.

Gruen's solution for recentralization is what he calls a transfiguration — "a change of urban pattern, a new order that can be superimposed over the existing one, transcending what we have inherited from the past with the spirit of the present and the immediate future."

It is natural for him to think of the city in terms of a series of concentric rings buffered with green because of his having grown up in Vienna where the Ringstrasse forms a belt of green around the historic core of the city.

His ideal for a city, new or old, whether it is the creation of new communities or the transfiguration of old, has a memory of the ring form. Although the shape of Vienna was determined by the fortifications around the inner city, which began to be destroyed in 1856 and replaced by wide streets known collectively as the Ringstrasse, the middle ages had created a ring of inviolable green outside the fortifications that was the royal hunting preserve; the continued existence of much of this in modern days still places the city within easy reach of country and ventilates the city, giving it lungs to breathe through.

Green rings around nuclei, clusters, outer

and inner cities are part of Gruen's philosophy of the ring form. Today, more than ever, cushions of green are necessary to separate the utilitarian from the human functions of the city. But the United States has no legacy of inviolable green. In a new democratic country the green fields were no barrier against the cities' expansion, and forests were chopped down in the past to make way for the moving city, as with the orange groves around Los Angeles today. With cities sweeping away the green in their paths, there is little open country near the cities, and it was inevitable that with the rise of the automobile as a means of transportation the city cores should have been turned into vast parking lots connected by freeways; this hastened decentralization, which was the coup de grace to the central business cores.

It is the revitalization of the city core which is Victor Gruen's concern and the subject of his new book, much of the material of which comes from his own experience in the field of planning. His reputation as a surgeon operating on the heart of cities grew out of a design which was never executed but nevertheless became a classic. It was a plan for the "transfiguration" of the city of Fort Worth.

PHOTO GORDON SOMMERS



Model of a plan for the redevelopment of Fort Worth. Although unexecuted it has become widely known as a classic example of the replanning of a city core by separating utilitarian functions from human functions.

In the Fort Worth plan, as in subsequent ones which were executed, certain streets were closed and others were roofed over, as in the manner of the glazed vaulted *gallerias* in Milan and Naples, where Italians have enjoyed shopping and cafe life in a controlled environment for almost a century.

In most cities it is too late for anything except major surgery, Gruen believes; surface cosmetics, like the paving of Hollywood Boulevard sidewalks with terrazzo, he sees as a total waste. By major surgery he created a new downtown environment for Rochester, New York; his clients were two department store owners who were feeling the pinch from decentralization. With the aid of the city, but against the better judgment of many of the citizens, a strategic area in the center of the city was opened up as a new commercial center; a building combining offices and a hotel was erected. In a few short years the success of this plan was demonstrated by the addition of other new buildings and a general trend toward recentralization. The most tell-

(Continued on next page)

VICTOR GRUEN

by Esther McCoy

ing fact as to the vigor of the patient is the constant use of the roofed mall for evening activities; it is booked well in advance for symphony concerts, conventions, high school proms, art exhibits, etc. Expressways to the new nucleus, and underground parking, were part of the program for revitalization. The nucleus which Gruen planned is already a clusterization and the trek back to the city continues. In cities, health generates health just as blight procreates itself.

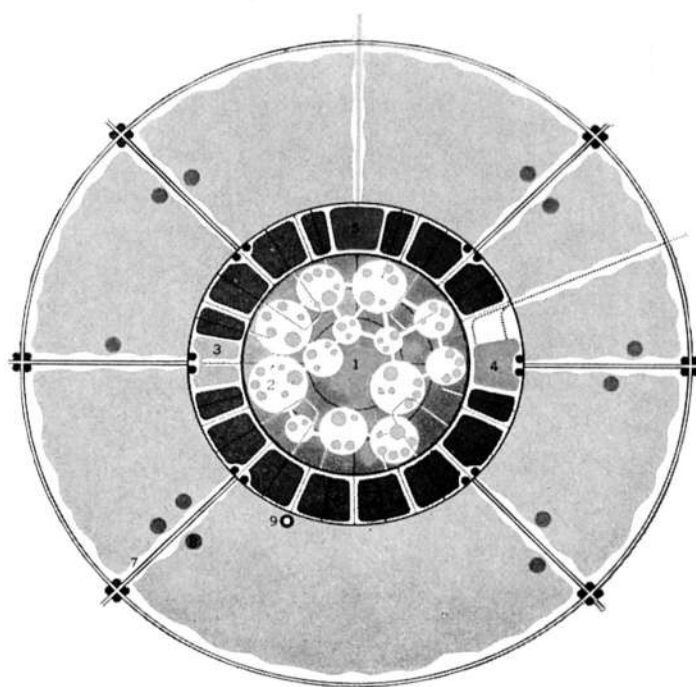
The Gruen plan adds a new variety of experience to the city dweller, and variety is the key to Gruen's ideal city. The city, as he says, should offer "a pattern which does not force all to engage in one mode of living" but "represents a wide choice of types of residential accommodation, from the single house close to nature to the skyscraper apartment close to dynamic urban life."

While his early shopping centers in new communities set a pattern for healthy new nuclei, and continue to offer amenities of plan to suburbanites, he finds opportunities to express his basic ideas for ideal cities in such plans as the one for the 1964 World's Fair. His proposal for Washington, D.C.'s bid for the fair was for a site plan which after the fair could be turned into a satellite city for a population up to 100,000. The diagrams illustrate the before-and-after plans. His husbandry is a far cry from the actual \$30 million expenditure for the present fair; nor does this include the estimated \$124 million spent by New York in road widening and new expressways. After the fair these will lead to what will become a city park—a park on which over \$3 million was spent paving the exhibition and lake area alone, with another \$1¼ million for paving parking fields and bus terminals, and nearly \$3 million for underground electric and communication systems.

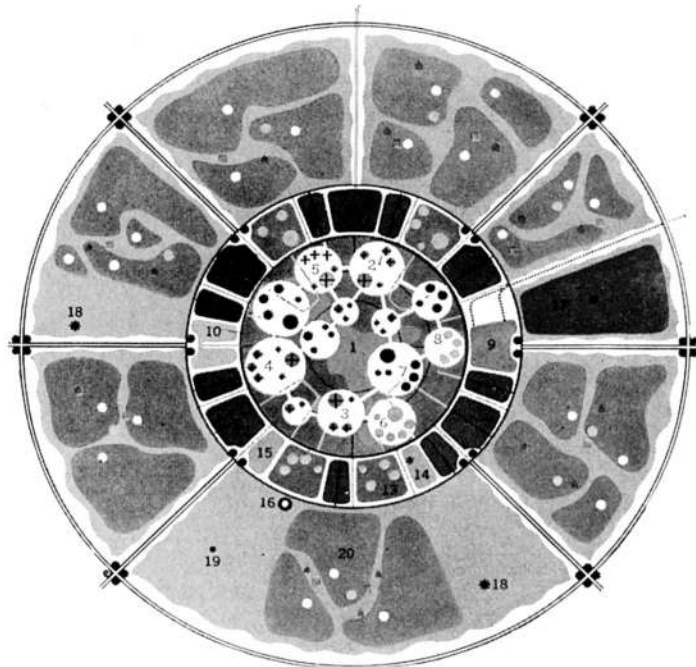
Gruen's inspired solution for the conversion of the fair grounds is part and parcel of his philosophy of the improvement of urban environment. "We are running out of time, of space and of resources," he reminds us. "Only by careful overall planning can we turn back the onrushing tide of destruction of our environment. This broader approach will be symbolized by the establishment of a new Federal Department of Urban Affairs, headed by a Secretary with Cabinet rank."



Southdale Shopping Center, Minneapolis, Minn., 1956, is totally enclosed and air-conditioned. Sculpture by Bertoia.



Washington, D.C.'s bid for the 1964 World's Fair was based on Gruen's plan for reusing the grounds later as the site of a city with a population up to 100,000. The circular scheme has a lagoon at the bull's eye, with fair buildings (gray circles) erected on round platforms (white circles) which are themselves spots on a green park. Rapid transportation (black lines in inner core) connects the platforms, while the heavy ring around the core contains bus, taxi, rapid transit and freight terminals, parking for 100,000 cars, and a heliport. On the wide outer band, cut into pie wedges by major roads, are gas stations, motels, trailer parks, camping grounds, temporary housing, etc.



After the fair, the temporary structures would be replaced by permanent municipal and administrative offices, a retail area, offices, a trade center (converted), an amusement park (retained), offices and high and medium density residential areas. The middle ring would remain a terminal for various forms of transportation and for parking; added would be medium density residential building, institutional and educational buildings and playground. In the outer circle would be medium low density housing, playgrounds, shopping centers, schools, churches, police and fire stations, etc., as well as a golf course and an industrial wedge.

"FALSE FRIENDS OF THE CITY"

The Trafficist: "... the trafficist is an expert and specialist who wishes to perpetuate the problem from which he is making a living. Toward this end . . . he very carefully plans his efforts in such a manner that they create new and even more fascinating problems. Thus he not only succeeds in making the city unlivable and unworkable, unreachable and unescapable, but he has even managed to rob that tool of his craft, the automobile, of its usability and practical meaning. Out of that wonderful invention, the auto, designed to move at a speed up to a hundred miles an hour, out of this tool of individual mobility he has made an instrument of collective immobility. He has swept the narrowed sidewalks clear of people, and where once the boys stood . . . watching all the girls go by we now find the trafficist with a stopwatch watching all the cars go by."

The Bulldozerite: "The bulldozerite is a bosom friend of the trafficist, and they work hand in glove . . . Taking cuts out of the living tissue of the urban heart is just as critical an operation as surgery around the human heart . . . Yet in the heart of the city the bulldozerite does not hesitate to cut with his infernal machine broad swaths for new freeways and expressways, or to demolish entire blocks of structures, even entire communities marked for 'redevelopment' . . . The bulldozerite knows no respect for historic or cultural values, for heritage or continuity. He can prove to you that it is cheaper by the dozen to murder wholesale, to destroy in large quantities."

The Segregator: "The work of the segregator could probably have been accomplished . . . by an electronic brain. It is void of concern for human relations, or of relations between landscape and topography and community. The segregators are not only busy in the suburbs or in the planning of new communities, but also in the hearts of cities. Here they plan and build civic centers that are concentration camps for bureaucrats . . . they build cultural centers like, for example, the much-hailed new Lincoln Center in New York, where theaters, concert halls and other institutions for the performing arts are confined to one particular spot, which necessarily will be dead and empty all day long, but upset by monumental traffic jams when the performances begin or end . . . The concentration of culture in one segregated spot is in part a psychoanalytically interesting confession of the feeling that our cities are so void of culture and so hostile to it that only by putting culture behind figurative barbed wire can it be protected from the vulgarity of urban life."

From Victor Gruen's new book, *The Heart Of Our Cities*



1

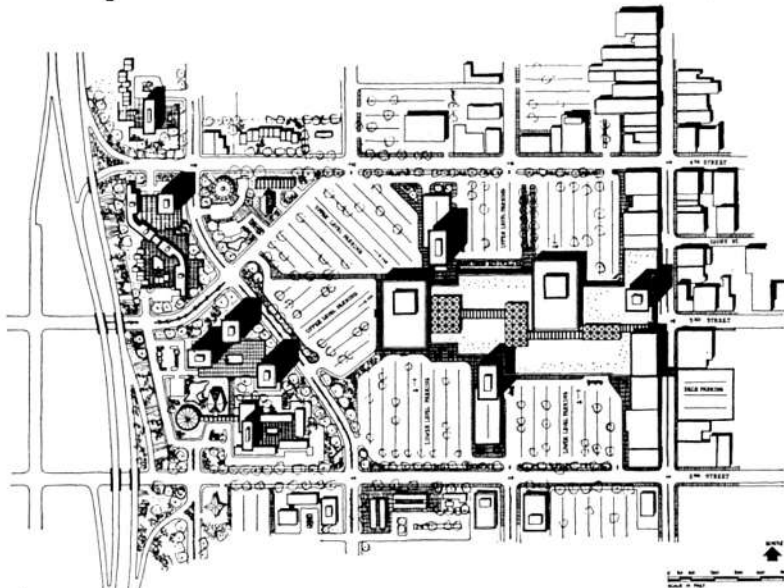


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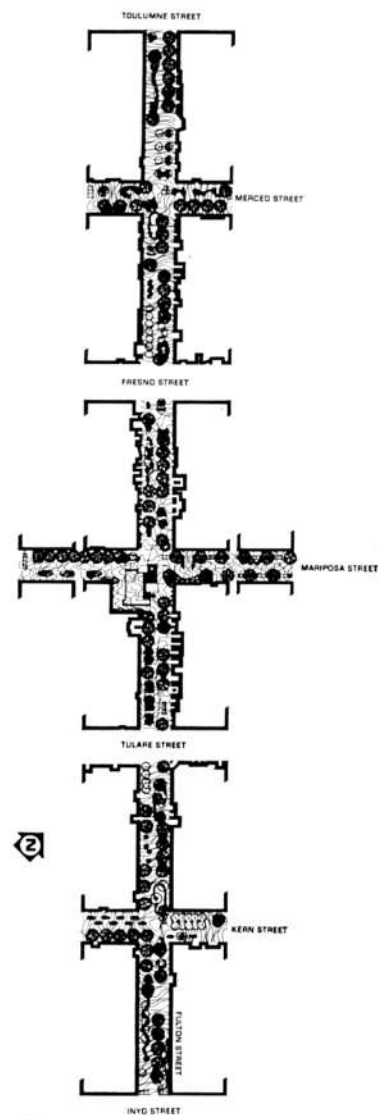
PHOTO GORDON SOMMERS

RECENTRALIZATION

1. Study for the city of Redlands, California, an automobile-free downtown shopping street.
2. Plan for Colton, California. To bolster the economy of the city core, a pedestrian street, flanked by existing as well as new and remodeled stores, was created; clearing of adjacent areas for parking; and introduction of a major office building complex at the end of the pedestrian street.
3. Planning study for San Bernardino, California differs from Redlands and Colton because cross streets are eliminated to make way for an air-conditioned enclosed shopping mall and parking on all sides.
4. Fulton Street mall, Fresno, California, the first major element of a citywide program of improvements.



3



4

DECENTRALIZATION



1

PHOTO ANTHONY GIULFRIDA



2

PHOTO YORK PHOTOGRAPHIC STUDIO'S



3

PHOTO JOSEPH W. MOLITOR



4

PHOTO DICK KENT



5

PHOTO WARREN REYNOLDS

1. Randhurst Shopping Center, near Chicago, Ill., 1962.
2. Northland Shopping Center, Detroit, Michigan, 1954.
3. Cherry Hill Shopping Center, near Camden, New Jersey, completed 1961, has a fountain in the air-conditioned mall.
4. 350-foot-long central mall at Winrock, near Albuquerque, New Mexico, has a wood roof pierced with openings for light. Planting wells have seats at the ends.
5. Southdale Shopping Center, Minneapolis, Minn., 1956—the first all-enclosed shopping center. An extensive program of art and sculpture was begun in the first and continued in other Gruen shopping centers.



1



2

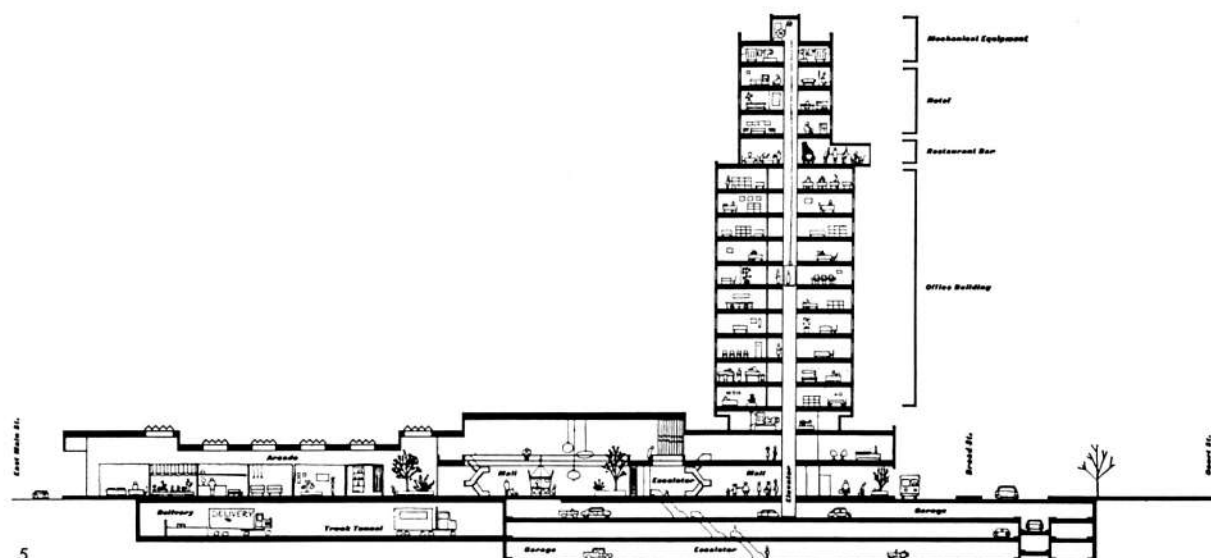
PHOTO WAHL'S PHOTOGRAPHIC SERVICE



3



PHOTOS BY GORDON SOMMERS



5

ON TRANSPORTATION

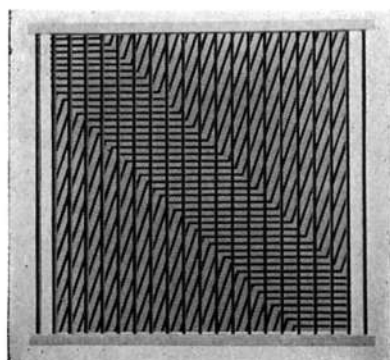
"The same deadly spirit that is responsible for the uniformity, sterility and boredom in the man-made environment generally, because it is opposed to variety and diversity, also prevails with regard to transportation methods. Mass production has given us vehicles like motor cars and buses in tremendous quantity, but even though they are produced by a number of manufacturers, and even though each company dreams up new catchy names each year to denote mutations of its product, basically they are all the same. In an epoch in which the genius of mankind is employed to invent vehicles of enormous complexity to conquer space, there is a remarkable dearth of new ideas for transportation here on earth. Even the automobile, an invention born more than half a century ago, has not changed basically from its early prototype; and we are still riding on the same subway, railroad and commuter train systems that our fathers used." From *The Heart of Our Cities*, by Victor Gruen.

1. Midtown Plaza in the heart of downtown Rochester, N.Y. is the light area at the center of the ring of freeways.
2. Midtown Plaza, Aerial view.
3. Covered mall of Midtown Plaza.
4. Bridges link the arcades on the upper level of Midtown Plaza.
5. Section, Midtown Plaza.

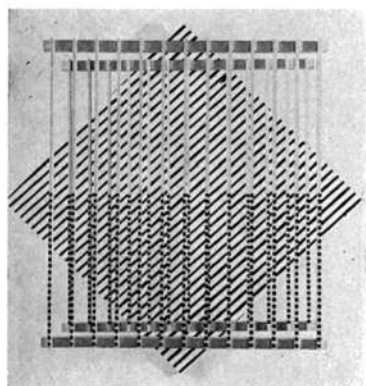
THE OPTIC-KINETIC CONSTRUCTIONS OF JOHN GOODYEAR

BY CARL I. BELZ

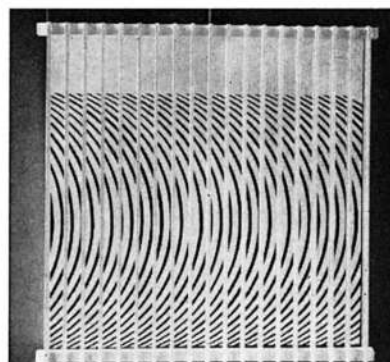
John Goodyear is a Fellow of the Graham Foundation for Advanced Studies in the Fine Arts



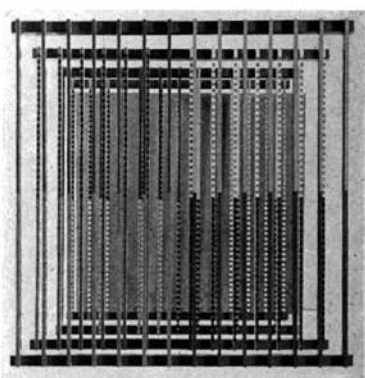
"Black and Red Movement"



"Diagonal Construction"



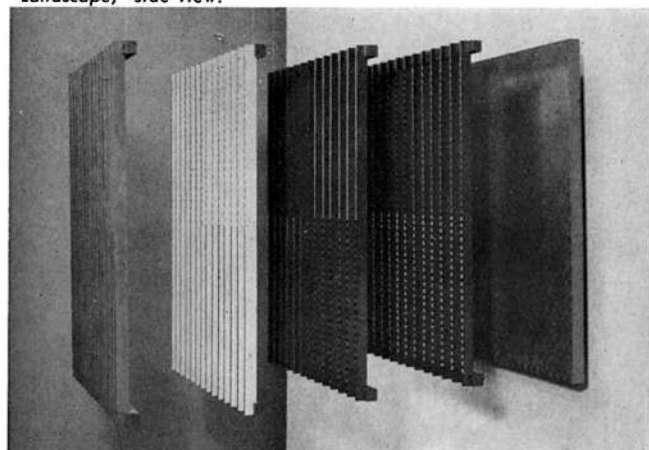
"Black and White Wave"



"Landscape"

All screens are oil on wood, 24" x 24"

"Landscape," side view.



PHOTOS BY OLIVER BAKER AND O. E. NELSON

Courtesy Amel Gallery

Questions concerning the relativity of created and natural realities seem to predominate among the younger generation of post-Abstract Expressionist artists. With an almost scientific thoroughness and curiosity, individuals like Jasper Johns and Robert Rauschenberg have explored the conventional definitions of painting and sculpture, of subject matter, and of the processes of creative transformation. With a penetrating inquisitiveness they remind the viewer that, in an age where each new discovery appears to alter and redefine previous experience, the work of art occupies no lofty position of academic detachment, but rather belongs in the immediacy and flux of human existence. Problems of perception and of the mechanisms of seeing are an essential part of this search. Johns' bronze objects seem to question the fundamental validity of "seeing as believing." The beer cans or the paint brushes must be touched and fondled before the spectator feels that he understands the nature of the object confronting him. But upon understanding it he must somehow reconcile the seeing with the touching, his perception with his new-found knowledge.

Equally committed to the problems of relativity and perception are a number of painters whom one critic has characterized as the New Abstractionists — artists like Anuszkiewicz, Vasarely or Agam, who work with optic and kinetic painting and constructions. Within this loosely defined group we can add the work of John Goodyear, a young painter who recently enjoyed his first one-man exhibition in New York, but who, for several years, and during 1962-63 with the assistance of a Graham Foundation Fellowship, has been developing a personal style which exhibits full awareness of the complexity and paradox of visual perception.

Like the bulk of optic and kinetic constructions, Goodyear's work defies any facile definition in terms of medium. The most recent objects consist of one or more slatted, picket fence-like screens which are suspended before a solid background of either square or rectangular dimensions. Less frequent, but of equal significance, are the free-standing screens which assume human proportions, and which the artist manipulates as environmental conditioners. With their more obvious transparency and greater assertiveness the large screens seem to define an attitude which also applies to the wall constructions: that the created reality is always in collaboration with natural or human realities. The insistence on actual or physical spatiality gives the constructions a sculptural or even architectural orientation. And to experience a series of the works seems to reinforce this latter quality: an environment is created, not simply because the spectator is surrounded by a number of separate but similar realities, but because one painted form always appears in the context of another, or in the context of people, shadows, or things from the natural world. The paintings represent studies in shifting relationships, but these relationships are never self-contained. Still, additional qualities enhance this sensation. The majority of screens and backgrounds are similar in dimension and suggest that the artist produces them as separate or independent entities which can be interchangeably related after their execution. In this respect the works seem tentative, even relative to themselves. There could be many more, but without the addition of extra parts. The artist has remarked, in fact, that he works on a number of paintings in simultaneous fashion and without any preconceived idea about a particular screen relating to a particular background. Even when he settles on a series of relationships he insists that the decision is not absolute, that it may be altered within new artistic or environmental circumstances. Within these terms the experience of the paintings becomes increasingly flexible, to the point where paradox becomes imminent. Despite a precision of execution, a rigorous simplicity of geometric forms, and a predominating use of pure color, these notes of clarity and discipline are always tinged with ambiguity, with the gnawing sensation that individual parts of the works could be shuffled. This exacting flexibility further enables the viewer to absorb the structures as environmental extensions, as a kind of fluid archi-

(Continued on page 36)

BALDWIN HILLS VILLAGE—RICHARD D. BERRY
(Continued from page 21)

limits of a Village Green approach.

Of even more significance is the realization that to overcome the "front-yard, side-yard" concept held by unimaginative public servants and planning commissions takes considerable time—several years in the case in point. Under adverse delays, carrying charges (not a significant consideration in the case of the Village) can be devastating in view of the chances that even after several patient years, officials and citizens might still not comprehend the merit of the project and disallow it—a real possibility that tends to stifle experiment.

If earlier documentation can be relied upon, not only did the Village developers undergo long delays in overcoming governmental resistance but even after completion the owners apparently received for a number of years only a negligible return on the equity investment. This was due in large measure, perhaps, to the war economy but it would nevertheless be seen as an unassailable deterrent to any progressive developer who might have scrutinized the Village project with an eye to a similar venture.

To our social and architectural philosophers, such facts may cause repugnance or create cynicism. Yet our modern cities themselves are largely a product of economic growth and motivation and the conscious design of any part of the urban fabric cannot arbitrarily expurgate or ignore salient aspects of a free enterprise system which, at its uncontrolled worst, admittedly sets frustrating and knotty design parameters.

However, it might still seem that within all of these limitations, interrelating as they do in one aspect or another to economic considerations, that if such factors could be overcome once, they could with some probability have been successfully surmounted at least a second time. Yet they were not, and the facts have weighed heavily and dispassionately upon any potential second "Village" wherever it might have germinated or however noble its motivation. This is not to imply that some mutation of the original concept will not emerge in the future modified by our ever-changing economic and social forces; but the possibilities for extensive re-creation of such a refined environment appear increasingly limited. To house only the new population coming into the Los Angeles area would demand the equivalent of about 325 "Villages" to be created each and every year. All of the architects in the Southern California Region, working with the same standards and with the same exactitude shown by the designers of Baldwin Hills Village, and designing exclusively residential communities, could still only provide one-third of the city's total new housing units required each year (Note E). If the present-day architect and designer must provide not only three times that many dwellings each year but all the related commercial, industrial and governmental structures which serve these people as well, the time available for the creative thought processes appears increasingly limited. The implications of the illustration need, it would seem, no further probing. If recorded history is reasonable documentation, time would almost always appear as a primary resource to achievement of quality in design endeavors, but time in the modern city slips relentlessly away from the designer as an ever diminishing resource.

With such a preponderance of observable forces in motion, it would seem that the question is less "Why has Baldwin Hills Village never been repeated?" but rather more "How was it possible in the first place?" It does indeed seem, like the restful spaces and charming houses in Amsterdam's introverted *Begijnhof*, the product of a unique set of circumstances and desires: the end of a long economic depression, lack of speculative financial pressures, adequate time for thoughtful creative synthesis and a willingness to

build on earlier experiments in housing and neighborhood design adapted to regional needs as they appeared in 1940. It is the sad misfortune of an adolescent city that, unlike the 18th-century squares of London which serve still today as public foci to much larger segments of that metropolis, the Village Green is unobserved and even unknown to much of the Los Angeles populace. It exists nearly exclusively as a private reserve for the benefit of its few fortunate inhabitants: an introverted cell unarticulated with its surrounding environs.

THE IMPLICATIONS FOR URBAN DESIGN

The real tragedy in the history of Baldwin Hills Village is not that it might have been even better or more alluring as a total concept to other developers, but rather that the City itself failed to see the distinguished but simple attributes which might have served as design generators from which to achieve a measure of distinction for the larger environs—a more meaningful segment of the urban scape.

For example, a street was placed at the eastern end of the property to separate the purely residential from the purely commercial. A direct pedestrian tie and planning integration was zealously fought for by the Village designers, but the unnecessary service road was demanded by the City in order that the two distinct zoning classifications would be clearly demarked, it would seem. Without the superfluous street, continuity in approach to handling parking, traffic ingress and egress, pedestrian movement and landscaping—all in harmony with the Village itself—could have been possible. Thus, instead of extending the distinctive visual character to a number of commercial units fronting on a major arterial, the Village environment was stopped short; and that arterial street, La Brea Boulevard, subsequently evolved into a characterless hodge-podge of strip commercialism with each individual unit desperately vying for visual attention.

Since the image of Los Angeles is perceived in an automobile age to an appreciable extent from just such arterials, most short-time observers tend to agree with and most long-time residents tend to put up with pungent impressions like the one recently expressed by Russell Lynes who felt that "it would be inconceivable . . . to find a city that is a worse architectural and planning honky-tonk mess than Los Angeles." (Note F) Yet the evocative imagery described by "honky-tonk" is probably as important to urban settlement as the "neighborhood park" (Place Pigalle, 42nd Street, Hollywood Boulevard).

Sadly, the opportunity was missed by city planners and designers to create for a major channel of communication a clear visual distinction, even if for only a few blocks. By integrating commercial enterprises with the residential repose suggested by the Village, they might have established a strong enough motif to give a more civilized character to one of the City's dominant thoroughfares as it developed in subsequent years: a street difficult today to grace with such an image-evoking adjective as "honky-tonk."

Surrounding the Village Green on the other three sides are typical subdivisions of detached houses: the product of both public (through ordinance restrictions and controls) and private (through engineering, architectural and marketing studies) design efforts. Built after the Village as they were, it would be reasonable to expect that the uncommon and farseeing (for that time) innovations of the multi-family project would have had some perceivable influence upon the single-family developments. Such is not the case. One, it must be observed, was clearly "R-4," the other "R-1": each culturally and legally defined as different and distinct zones of human residence with implicit as well as explicit codes to guide design efforts. Thus, for "R-1," parking of auto-

mobiles was relegated extensively to costly public streets; residences along the busy thoroughfares, Rodeo Road, were not buffered from traffic (the sides of the houses were exposed to the arterial instead of the fronts in token acknowledgment of drive-way problems); some streets (on the north) were given simple rectangular order but little traffic meaning; other streets (on the south) were given a simple meandering disorder; local streets were emptied into a main boulevard creating hazardous intersections; blocks were platted too short for efficiency of land utilization in one respect and too long for a comfortable pedestrian scale in another; all streets were pontificated to the same width, more or less, and all front-yards ordained to the same depth, less or more. In sum, these were merely typical subdivisions, guided by typical public policy legalized in ordinances and manifesting typical site-planning values of the time.

Most critics of (and the aggregation of environmental designers propounding an assault on) the modern city's form are undoubtedly aware of the urban design omissions readily observable around the Village. However, almost none are aware of, or willing to admit to the fact, that a city like Los Angeles simply is not "designable," even in a small percentage of its total area, to the level exhibited by the Village. Neither the *talent* nor the *time* exists equal to such a task however ideal or "esthetic" urban goals might someday become. This is not set forth to intimidate or induce pessimism but rather to show how really urgent is the need to allocate design talent and time resources in such a way as to mold only the major image-producing features of the modern city, which is all that can now be reasonably expected.

Somehow, Baron Haussmann (who was an administrator and not a designer) understood this problem, and he literally was able to remake a "quaint" jumble of congested medieval settlement within a mere 15 years into one of the visual and urban wonders of the modern world: the City of Paris. Though technology played a trick of fate upon that administrative wizard 100 years later, it need not preclude the present-day designer from perceiving still how dominant a role only the Grand Boulevards, the banks of the Seine and a surprisingly few but strategically located public spaces play in the strongly etched image that is Paris—even with its hordes of motor cars.

Perhaps the most piercing realization, however disheartening it may seem, that grows out of such an experiment as Baldwin Hills Village is that irrespective of its own intrinsic distinction it apparently does almost nothing towards inducing visual distinction for even an insignificantly minor portion of a 20th-century city, save along one-half of one lonely street. In three years of exhaustive design studies emerged some 68 acres of a very handsome but very private environment now engulfed in some 4000 square miles of metropolitan Los Angeles. In three years under Louis Napoleon, Haussmann's endeavors resulted in (proportionately speaking) one-fifth of the image producing public boulevards of the tourist's Paris. And it would seem unnecessary to hark back to an often heard plea for a modern day equivalent to such an autocratic framework in a metropolis which already has plans and sources of financing for about 580 new miles of very public freeways within the next 15 or 16 years and in a city which also will privately rebuild dozens of miles of street-defining structures located on major public boulevards already under public control as to building bulk, setback and height limits! It is possible only to speculate as to how much or how little "Village-like" design efforts and perceptions might accomplish if moved out onto public ways.

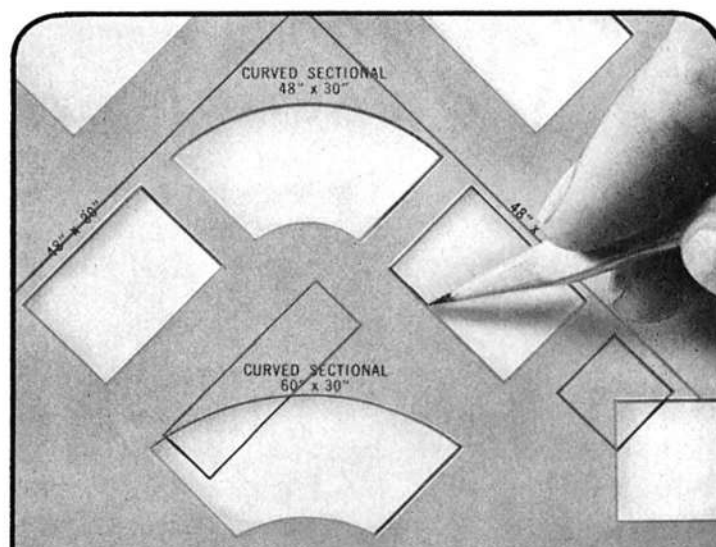
SUMMARY

In the relatively short history of urbanized Los Angeles, Baldwin Hills Village stands forth still today as a singular example

of environmental design quality thoughtfully reflecting both the 20th Century's automobile demands and Southern California's novel climate-generated living forms. The uncommon qualities of this residential development are attributable in a simple and almost singular way to the sense and sensibility manifested in the planning and design of the site as a spatial unity. Moreover, the seemingly opulent use of space and landscaping required only a modest portion of the total development funds in reality and, still more important, represented a nearly negligible portion of the amortizing monthly rents paid by the residents. In an age where "rent schedule" and "lack of budget" are a convenient guise for all manner of misanthropic activity, public and private, any such veiled excuses for shabby environmental designs have a transparency that becomes embarrassing in the illuminating verdure of the Village.

Hence, if judged as an experiment in providing an extraordinary environment for low density multi-family habitation, the Village Green is still today eminently notable. However, if judged as an experimental prototype which would generate a better "way-of-life" for a significant cross section of middle-class families, its merit is unfortunately dubious. The reasons for its failure to influence and guide even a second "Village," though not patently simple, are nevertheless quite clear. Many closely related urban constraints and cultural values, each tending to reinforce the others, have been quietly at work over the years, and these can probably be most lucidly described in terms of economic components or denominators.

Land for projects like the Village was cheap and in plentiful supply in the 1930's but monetary values have climbed as relentlessly as has population growth since then. The Village itself as an example has seen land worth increase seven-fold in constant



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dollar value within 20 years. Land speculation under such volatile conditions of appreciation has been naturally rampant. Uncanny as it may seem, however, the residual land worth of a low-density apartment complex like the Village appears to be actually less than the still lower density single-family subdivisions in the same general area. This has probably been the result of two concurrent and continuing factors: One a bulk market demand for middle-income detached houses voraciously consuming a diminishing supply of raw land, the other an increasing supply of apartment units on relatively small increments of land fiercely competing for a considerably more limited demand. As a result, large parcels of raw ground, even something as small as a dozen acres, have exhibited less risk and more profit as single-family subdivisions than as low density, multi-family developments.

The tendency of city planners to "upzone" as a way of inducing a natural rebuilding of older areas or to provide a greater variety of housing choice has also played a considerable part in precluding much chance for low density multiple projects. Any parcel of land zoned comparable to what the Village is today zoned is by present market demand worth from four to five times as much as the present value of developed ground under the Village Green. Consequently, this would imply four to five times the number of income producing units on the land: exactly what is observable in the Los Angeles region today. Though 40 to 50 living units per net acre of land is not very dense, it is much too high to allow a "Village-like" design approach—primarily because of space-consuming parking demands and because the potential high-rise alternative jumps construction costs first and rents subsequently well beyond the means of a true middle-income market. Incremental zoning may be desirable to cities as a whole but the economic specifics have never been proved or rigorously tested in advance by planners, and the present illustration hints strongly of the influence this may eventually be shown to have on limiting housing and environmental quality even though intended to achieve just the opposite. It would thus seem that the influence of zoning practices, old or new, upon the form and the eventual face of the metropolis needs immediate and intensive examination. (Hopefully, further comparative case studies will eventually uncover a better perspective on the matter.)

Even the aspect of "design-time" can be shown to have an adverse economic limitation which also worked against the possibilities of a second Baldwin Hills Village. Enough time to creatively explore optimum cost-benefit relationships let alone subtle and evocative spatial sequences and design details can often magnify financial carrying-charges to a devastating proportion. The very time needed to "design" fine solutions to complex social, economic and environmental requirements and needs is in itself a negative evil within the urban "system," and, like one of the late Norbert Wiener's provocative analogies, that "system" might appear to be running-down, moving away from the organized and distinctive urban differentiations observed in the Renaissance-Baroque Era toward sameness and increasing disorder in the urban settlement of tomorrow. Time, or perhaps more properly, space-time, seems to be constantly accelerating relative to the sequence of urban events and "design-time" accordingly must run faster and faster. The concept of a universal, world city form hypothesized by Constantinos Doxiadis and others can only be further reinforced by such a notion whereby "design-time" for creating total environment, whatever the scale, relatively decreases, progressing inexorably (so it would seem) towards instantaneity.

In an urbanized civilization where social and technological progress are usually equated to and impelled by economic motivation and goals, the artist's interpretation of settlement needs necessarily is also limited by the cultural framework of economic

values and mechanisms. The designers of Baldwin Hills Village, though fortuitously relieved of a number of the usual financial pressures, understood or at least were willing to struggle with what was either given or interpreted as a pragmatic set of limitations. Those wishing to emulate that earlier and exceptional experiment in environmental design and faced with the rigors of the full spectrum of cultural demands simply could not achieve the same simple synthesis of physical elements confronted as they were with the constantly increasing complexity of technological and economic forces.

Thus, Baldwin Hills Village itself, having emerged out of a singular set of socio-economic needs and design goals, is and most probably will remain unto itself a unique but lonely example of a particular approach to environmental art. And unless instruments of public policy are changed, this little oasis of rare quality will be covered over and lost by the relentless sands of urbanization patiently waiting for the physical structures to age and decay in the next generations. Beguiling the senses with its uncommon visual and functional distinction, many of its potentially salient lessons to the designers of urban settlement have been overlooked. But they are there, and the clarity with which they appear with only a little effort on the part of the observer may imply an astounding wealth of insights and understandings to lie unexamined within the many form-patterns woven into the urban fabric even in recent times. A few, like Patrick Geddes, seem to have sensed this a long time ago.

Yet paradoxically, introverted units of habitation, while seeming to provide little spark which can fire significant urban design endeavors that light-up image generating public paths and spaces, historically have had and probably always will have a place in human settlement needs. In that urban region known as Southern California which is so much a child of the 20th century and where low housing density and single family units have become a preferential way of life, the lessons implicit in Baldwin Hills Village may yet give hope and encouragement to those concerned with the city. The diminishing supply of economically usable raw land and the communication strains created by daily urban events widely spaced geographically would observably appear to be leading to a future demand for townhouses: the only foreseeable mutation for low density, family wants. Within such a framework, environments very similar to what was achieved in Baldwin Hills Village could reasonably be anticipated provided that designers were equipped to deal with the realities of modern urban forces in a competent and visually meaningful way. With this hope then, such a noble experiment may still in the future justify its merits to the city at large, if only in the search for more socially viable and visually distinctive modes of living.

* * * *

NOTES

- A) Assuming 1/5 of the gross annual income of \$7000 (metropolitan median) as spendable for rent gives a monthly rate of \$118. With a median unit size of 4.2 rooms (census definition) and a rent schedule of about \$12.50 originally projected per room, the 1940 monthly median for the Village is estimated at \$53 per unit per month. Using the cost of Living Index as a rough factor of conversion—211% increase from 1940 to 1960, the median rental rate approximates \$111 in 1960 dollars. Cost of replacement, however, at today's construction prices would push median rents to about \$140 using Construction Cost Indices. For general comparative purposes, the average of these values, \$125 as cited, shows enough correlation with the 1960 Village median (\$116) and observed rates for similar current rentals elsewhere in the City to serve as a reasonable illustrative figure.
- B) Land cost in 1940 dollars was estimated at about \$195,000 or \$2,870 per net acre of ground or less than \$.07 per square foot of net land. Today's value is estimated, based on County Tax Appraiser data, at about \$3,080,000 or \$1.04 per square foot of net land: a substantial annual appreciation (even discounting inflationary aspects in the volatile land values of Southern California) and approximating 10% per annum constant dollar real increase on an annual compounded interest basis. Adjacent single family parcels, again from tax appraisal data, around the Village average about \$1.60 per net

square foot of land area which may indicate that assessment practice is acknowledging limited net income aspects in the Village itself through application of capitalized residual land formulas, or it may imply a more simple acknowledgment of limited real value to so extensive an area of "park." At any rate, a number of readers may be happy to learn that no premium taxation has been leveled against the project based on its "esthetic" qualities, and it might even seem that a subtle "tax-break" is operative in a completely equitable manner.

- C) The rate of yearly amortization for principal and interest at 6% for 20 years would average about \$1.70 per month per unit rental rate (in 1940 dollars). Converting to 1960 dollars for more meaningful comparison gives about \$4.00 per month per unit using Cost of Living and Construction Indices—adequate for general purposes.
- D) Los Angeles City zoning formulas presently allow one similar, average unit to be constructed for each 800 square feet of ground area (net) within "R-4" zone classifications. Restrictions on bulk are not usually critical and building height is usually not restricted. An increase in height of one story, as an example, for all existing structures in the Village would amount to a density increase of only about 50%, or a total of 15 units per net acre of land. This still amounts to only slightly less than 3000 square feet of ground area per unit.
- E) With approximately 1000 architects available (discounting unlicensed drafting staff), working in teams of three plus one landscape architect, and providing dwellings for 1100 persons every three years, only 360 persons (1/3 of the Village population approximately) would be housed yearly by each of the 330 teams. This then would produce the equivalent of only 110 "Villages" each single year, but new population needs in housing alone represent three times this number each year.
- F) "Los Angeles' Cultural Circus," *Harpers Magazine*, February, 1964.

CHICAGO PLANNING

(Continued from page 9)

The peninsulas would more than double the area now devoted to lakefront parks. They would be well served by public transportation as well as being accessible to the private automobile.

The net effect of this proposal, though it would necessarily take a number of years to carry out, would be to greatly augment the lake as a recreation resource and make it convenient for residents of the entire Chicago region.

Another environmental proposal, one that also grows out of the configuration of the city's urban development, is a new park form called a "community park-mall." This recreation complex also would carry out the idea of multi-purpose recreational use.

Essentially it would be a landscaped park, several city blocks in extent, and varying in shape depending on local circumstances. Schools and recreation buildings would be contained within the park-mall, but near its periphery. Planned activity centers would be an intrinsic part, as would ornamental gardens and numerous game areas. Where feasible, shopping areas and institutions such as churches and neighborhood clubs would be located nearby.

Being a high-density city, Chicago is characterized by high land coverage. When Chicago's first zoning ordinance was adopted in 1923, the main land-use patterns of residential areas were already established. In many sections of the city, private yards are now inadequate in size by modern standards. At the same time, the buildings themselves are in good structural condition.

The emphasis in the proposed basic policies is to retain the city's stock of good housing, and, where needed, to encourage its rehabilitation by either public or private programs or a combination of both.

A fundamental premise of the *Basic Policies for the Comprehensive Plan of Chicago* is that the big city will continue to be the dominant urban form in the foreseeable future. Socio-economic and technological changes have brought corresponding changes in America's living habits and preferences. Still, the big, concentrated city offers many advantages not available in smaller or more rural areas.

Even so, to families with children, a suburban style of living often outweighs such advantages. A prime goal of the basic policies is to halt the flow of families from the city. To achieve this goal, improvement of Chicago's big-city residential environment is considered essential.

The new park system and its particular forms—lakefront peninsulas and community park-malls—are designed to restore a common balance between ground coverage and landscaped yard. In addition, each form in its own way will be a small focus of community cultural and recreation life.

Partly by this means, Chicago hopes to offer to future generations a superior big city alternative to decentralization.

How the proposed policies for industry, transportation, and the economy will help achieve the same aims will be described in the next article.

BOOKS

(Continued from page 11)

way. DeSmet engineered the great Peace Treaty of 1868, only to see it violated within a short time thereafter. This is a great saga of a simple man who understood the Indians and the West as well as any man in our history. This is superb research and writing at its best, and the author has performed a great service in recording the history of Father DeSmet's remarkable career.

BOOKS TO WATCH FOR

Two current offerings of importance on the latest developments in science are must-reading for those who would keep apace of our rapid progress in both pure science and in various fields of technology. *Creation Still Goes On* by F. L. Boschke, (McGraw-Hill, \$7.95) is a superb account of life origins on this planet, and a detailed but easy-to-read and easy-to-grasp report on the beginnings of the galaxies and the universe itself. From macrocosm to microcosm, including an up-to-the-minute report on anthropology, carbon-dating, oceanography. Fully illustrated with photographs and charts, this is an encyclopaedia on its own. *Tomorrow was Today* (Geo. Brailier, \$3.50), is a series of TV interviews with scientists from various fields. Prepared in cooperation with the editors of *Scientific America*, with Charles Collingwood as the Interlocutor. The subjects covered include mapping of the Galaxy, Laser & Maser, Oceanic Ridges, and Cracking of the Genetic Code.

Writers, public speakers and everyone, in fact, will welcome two new aids to self-expression: *How to Double Your Vocabulary*, a completely revised edition (Thos. Y. Crowell, \$5.95), and *Contemporary Quotations* compiled by James B. Simpson (Thos. Y. Crowell, \$6.95). The text on vocabulary building—such books are generally deadly—is bright, practical, instructive and recommended. *Contemporary Quotations* will update your Bartlett and H. L. Mencken with quotable quotes since 1950. *On Creative Writing* by Paul Engle, Director of the Creative Writing Program at the University of Iowa (E. P. Dutton, \$4.95), is a thoughtful compendium of practical advice to the writer by experienced practitioners and offers a helpful guide to the novice and the experienced craftsman in many fields of creative work. Sensible and practical.

NOTES IN PASSING

(Continued from page 13)

I asked if the extra expense wasn't caused by changes requested by the client. "I don't know," he admitted. "But if so they were asked for just to get what was wanted in the first place—before X began experimenting with the design to 'bring it into the realm of architecture.' I wasn't going to have an architect experimenting with my \$5 million in order to express his life philosophy for the benefit of his fellow architects and the journals."

As I said, this was not an isolated experience. Whether justified or not, too many clients after an unhappy association with an architect are reluctant to try again. For better or worse, people have a tendency to leap from the particular to the general. Disillusionment with one architect often becomes a general—and very vocal—disenchantment with the whole profession. Fortunately, because of the size of his project, our Dean had no choice but to use an architect. He is approaching with caution, however; he's architect shy, but still only an agnostic at this point. His faith can be re-established, and with its history of undistinguished buildings but satisfied clients, the factory stands a good chance of reclaiming him.

With construction frantically trying to keep pace with the accelerating population growth, architecture has suddenly become a necessity. The only hope for order and even a semblance of quality in our land- and cityscapes lies with the architect and planner—and above all with the client who will employ them. The public is largely unaware of how directly and personally it is affected by architecture—or the lack of it—and those people willing to mortgage themselves for half a lifetime to build on faith in the architect's design and estimates are precious and relatively few and their faith fragile and insecure.

I've forgotten what question the Dean's experience originally raised in my mind. But another suggests itself: Which architect would you recommend to someone in the Dean's position, X or the "factory"?

EARTH HOUSE—EDWARD ALLEN*(Continued from page 24)*

Lighting fixtures, floors, furniture, and stairs are all of mud. The whole is finished on the outside with a plastic membrane, and on the inside with whitewash. Windows are of Plexiglas, set in mud frames. Heating is accomplished with an electric fan heater and thermostat. Ground moisture is kept out by a continuous wrapping of polyethylene sheeting below grade.

The resulting building has its successes and its failures. The structure continues to shrink and check as moisture migrates from the walls over an extended period of time, requiring patching of the whitewash which flakes off over the cracks. The earth walls, although as thick as ten inches, are not good as thermal insulators, and some condensation occurs on the sub-grade surfaces of the interior. The range of forms possible in mud is severely limited by the low tensile and bond strengths of the material. But the continuity of form, space, and material produces a certain quality which suggests many exciting possibilities for future exploration. Techniques of designing, drawing, and construction developed during this project will find application in more complex designs in more satisfactory materials such as concrete and reinforced plastics.

Cost of materials for the 400-square-foot building was \$800.00; erection by the designer required approximately 1000 hours. The main dome spans 20' clear with 13' maximum rise and is 12" thick at the base and 5" at the crown. The entryway and interior domes are elliptical with 5' x 9' and 7' x 11' clear spans and 13' and 8' rises respectively. All domes were designed to be catenary curves in every vertical cross section since the range of forms was restricted by the inability to bond the stabilized soil to steel rods. Reinforcing of vault walls was by $\frac{3}{8}$ " rods with a maximum of 18" spacing in both directions at centers. Compressive strength of the stabilized earth after 28 days was approximately 150 psi. Interior finish is whitewash. Windows are $\frac{1}{8}$ " Plexiglas bolted directly to hinges and hardware attached to the soil-cement with wood screws.

CONSTRUCTIONS OF JOHN GOODYEAR—CARL BELZ*(Continued from page 31)*

tectural space. But while the three-dimensionality, shadow play and movement suggest architecture, sculpture, or mobile constructions, these qualities do not mitigate an ultimate commitment to painting. In this regard the concern with painted surfaces, illusionistic space, and the virtual or optical sensation of movement become paramount issues. And while the mobile-like screens encourage the viewer to move and to excite the work itself, these movements are largely two-dimensional in character rather than fully plastic. Thus, if it is within a painter's framework that the artist manipulates an apparently simple vocabulary of space and mass, form and color, the objects themselves display a delicate sensitivity not only to what the medium has been, but also to what it has become in terms of contemporary artistic research.

One of Goodyear's contributions to this body of research—a compendium for which Marcel Duchamp's glass constructions and optical discs provide much of the original data—involves his reversal of a long tradition of picture making. In contrast to the majority of optically oriented painters he creates an essentially flat imagery with three-dimensional elements rather than suggesting an illusionistic space upon the two-dimensional canvas or panel. The construction entitled "Landscape," for instance, is composed of four slatted screens aligned before a multi-colored, squared background field. Each of the screens is potentially mobile, but the sheer visual density of the construction permits it to function in either the activated or resting state. Thus, as the viewer confronts the objects the individual planes fuse optically into a single image where proximate vibrant colors cause the forms to jostle within a single, shallow plane of space, to fluctuate with such rapidity that their physical position is indeterminate. But comparable phenomena also preoccupy the simpler, two-part works like "Black and White Wave"; the resulting Moire pattern, which is again two-dimensional, is flexible in its posi-

tioning, seeming to exist somewhere outside the measurable space and residing in "reality" only on the retina of the beholder. This illusionistic reverse characterizes the constructions generally and suggests an insoluble tension and paradox: the space, while actual and measurable in its physical properties, is virtual and intellectual in its perceptual nature. The viewer must be willing to accept the experience of ambiguity. The venerable Post-Impressionist problem of knowledge versus sensation is pushed to a new limit, for the artistic reality now offers both sides of the constantly spinning coin of perceptual relativity.

The sensation of movement in these paintings likewise differs significantly from the effects of mobiles or kinetic structure in general. The spectator may engage in several options of motion: by approaching the construction, by passing laterally before it, or by stimulating a gentle swaying action in the suspended screens. In any one instance, however, this physical movement is only a prelude to a perceptual sensation: the apparent vasillation of a form between two areas of a composition; the seeming expansion and contraction of an abstract linear network; the illusion that colored arcs or diagonals are skipping across the painted surface; or the disarming impression that the vertical slats are flexible and, sometimes, vanishing rods. With respect to both space and movement Goodyear's aesthetic thus remains consistent. He establishes for himself and the viewer a system of apparently strict, even definable or knowable limitations, but manipulates these to achieve a maximum flexibility, freedom, and ambiguity of experience.

An initial encounter with these constructions may suggest that color occupies a decorative or even arbitrary role in the total aesthetic, when in reality it expands the notions already outlined. In many cases Goodyear employs a brilliant orange, red or yellow that seems to charge the surfaces with activity. As with the geometric forms or the vertical screens, these colors seem to vanish and reappear depending upon the position of the spectator or the actual fluctuations of the work. And like the forms or the physical structures these colors—and this includes even the stark black and white paintings—seem to lead a flexible or relative existence. As the painted surfaces move and give way to new configurations of form, the intense colors continue to glow as a result of optical retention. This aura of apparent, or perhaps we should say "real," color is then transferred through visual experience to another part of the construction, and various mixtures of the chromatic range result. Characteristically and paradoxically, the impact of these vague and evanescent mixtures seems ultimately divorced from the would-be causes, that is, the more readily definable prismatic ingredients. This phenomenon, of effects without causes as one critic phrased it, stands as one of the most significant contributions of these works. In liberating the effects, the paintings as objects, from specific ideas or intentions, Goodyear permits us to experience an unlimited range of relationships, both within and outside the works. Standards of taste and correctness—even personal ones—become secondary issues; the experience is paramount.

Paradox and relativity, in the form of juxtaposing seemingly conflicting realities, evolves as an inherent part of Goodyear's artistic statement. Form and space, color and movement are at once present and absent, apparent and actual, real and unreal. Nothing can be taken for granted, for the work must be experienced, almost cinematically, in time. A cursory glance reveals only a fragment of the content which is literally multi-dimensional. But this temporal aspect must also be qualified, for the constructions profess no sense of climax by which one might measure, regulate, or clock his involvement. The effects exist,

but without any pictorial or iconographical hierarchy and fulfillment. And how long one looks, or the length to which he pursues the different levels of meaning are options which are left to the viewer. The physical and optical properties of the constructions only invite participation; they display no emotional or psychological compulsion. The aesthetic, which is possessed of a certain classical detachment, is essentially visual and intellectual in its orientation. It is reminiscent of the explicit yet ambiguous directions presented by Duchamp: *To Be Looked At With One Eye, Close To, For Almost An Hour*. Things happen over an indefinite period of time—patterns dance, colors fuse, and space vibrates—but the nature and extent of change are flexible commodities. And it is precisely these qualities, and Goodyear's objectification of them, that provide such an exacting metaphor for the shifting and variable nature of human experience.

Technically these works exhibit a precision and retinal scintillation which has caused some writers to relate optical and kinetic constructions more to biological and psychological laboratory experiments than to aesthetic experience. Goodyear's painting does seem to conform to a pattern also noticable in the expressions of Agam, Vasarely or Anuszkiewicz, and again Duchampian in origin, that is, a sense of anonymous, impersonal creation. Many of the works seem untouched by human hand, seem to arise from some infallible mechanistic stamp or drafting instrument. But this quality is only part of the objectifying principle, and does not divorce the imagery from a human context. We have been exposed to too dense a proliferation of flashing road signs and optically geared billboards to believe that such works do not establish an immediate contact with present-day environments. In addition, the Goodyear paintings—although they were developed independently—appear to draw inspiration in part from investigations with Moire patterns, long recognized for their visual fascination but only recently explored for their ability to produce scientific data. Herein lies a relationship between scientific technology and the creative arts which is radically different from the comparison of a Jackson Pollock with a crystal structure as seen through the electron microscope. For the comparison exists not only on the level of facile visual comparison, but also penetrates intentions and results. As the scientist seeks to expand our understanding of the natural world, so the paintings serve to enhance our artistic knowledge of motion, color, space, and time, as well as our human experience of fluctuating realities.

ARCHITECTURE AND THE LANDSCAPE—GARRETT ECKBO

(Continued from page 23)

areas on the site, circulation through and around it, and points or zones of access on its periphery. Design of areas for use or experience in relation to these circulation patterns involves problems of space organization analogous and complementary to those inside the building. These are the bare bones of the functional relations between building, site and neighborhood, often complicated by inadequate space and excessive problems such as parking which cannot be solved within the site. But, even as in architecture, the sensitive three-dimensional design of volumes adequate to these demands, plus the visual potential of the total situation, is the heart of landscape design.

Technical and functional demands may at times determine the entire form of site response to architectural forces, especially when coverage by building and pavement is high. But on most sites where such coverage is less than 80% form does not emerge easily from technical-functional demands alone. Here we come face-to-face with the heart of architecture-landscape relations, the formal, visual, sensory problem. This problem includes, and must recognize, all others, limited as it is only by physical and visual motion potentials. Here we must come to grips with physical and

psychological facts — the actual form of building, site, neighborhood and region, the actual nature of the human user-observer. The building, over and above its technical-functional demands, extrudes formal visual forces which demand recognition.

The simple structural cube, without fenestration, extrudes in planes which are extensions of its sides, plus diagonals from the corners. Complications in such simple forms — multiple cubes in rectangular or angular relations — produce complications in such extension patterns. Pyramidal forms are centripetal, with primary emphasis on the two-way vertical axis expressing the primary force of gravity linking earth and sky. The reverse pyramid (Niemeyer) throws us out into free space. Hip, gable and mansard roofs have fragmentary pyramidal forces determined by their extent — two-way or truncated. Semi-spherical dome forms are more centrifugal than centripetal and are also vertical in emphasis, as are cones. Larger segments of spheres become more and more centrifugal, radiating diffusive forces in all directions. Buildings which are round in plan with horizontal planes in elevation — the hat box or cylinder — radiate horizontally in all directions equally. They too are diffusive and difficult to approach. Plan forms of more than four sides and angles larger than 90 degrees — pentagons, hexagons, octagons — seem to radiate perpendicular to each plane rather than parallel, and bisecting each outside angle. Triangular buildings with angles of less than 90 degrees radiate primarily from the points bisecting the outside angles. Asymmetrical shed-roof slopes carry us up at the high edge and down at the low.

These are all simple geometric extrusion patterns derived from buildings abstracted as uniform masses. They are true of solid-walled buildings — castles, factories — and partially true of glass-walled buildings, modified by see-through and reflective qualities. Beyond these, however, as soon as we begin to fenestrate, introduce doors, windows, sliding panels, design facades with modulations of surface and changes of material, we complicate and change the pattern of extrusive forces. Take again our solid cube. Place a window in one face. Through this there now radiates a horizontal pyramid of visual forces, centering on the eye of the observer within at the angle which the eye makes with the window frame, but not exceeding the approximate 60 degree angle of perception and comprehension. This pyramid is as variable in position as eye and head movement can make it, but it rotates around the central horizontal perpendicular projection. It stops only at solid objects — its extension is infinite, to the farthest stars.

Now put in the same side of the cube a solid door at ground level. This becomes the center for a horizontal fan of potential circulation lines, strongest at the perpendicular center, weakest at the parallel sides. Each line is a tunnel through the landscape, three feet wide and six feet high. In the selection and development of this pattern of circulation we begin to resolve the relations between forces focusing in from site and neighborhood on that door. Should the door be of glass, or have a pane of glass in it, we then have another horizontal visual pyramid superimposed on the circulation fan. This however is a moving pyramid, a sequence or collection of them. It moves as the people who project it move, in and out of the building and along the circulation lines. As the people move the pyramids rotate with the movement of their eyes and heads, scanning the total landscape around.

If we multiply doors and windows to a normal or typical pattern we get a multiplication and overlapping of these extrusive forces. If we expand the scale of openings to strip windows, glass panels and sliding doors we expand the scale of pyramids and fans. In the ultimate glass-walled building the pyramids merge into one the size of the building wall.

So far we have assumed the building wall to be a single plane surface. If we now give it relief, modulate it in and out three-dimensionally, we produce a smaller-scale multiplication and com-

plication of the patterns described for building masses. Vertical modulation in rectangular sections will produce extrusions of extended vertical planes. Horizontal modulation in rectangular sections will produce extrusions of extended horizontal planes. These two are more apt to come together — bay windows, balconies, etc. Modulations in other geometric sections, as semi-spherical or octagonal pilasters, will project more complex radial patterns, on into the ultimate complexity of freely-curved, plastic, sculptural, baroque undulations.

Materials, too, have varying extrusive forces. Fine textures, as stucco, are weakest. Coarse textures, as stone or block, are strongest, and stronger as the scale of units increases. Colors have force — black, white and primary hues strongest, becoming progressively weaker with mixing and graying. The patterns in which materials may be combined in a building wall will determine the ultimate strength of their forces. Large walls of one material will be strongest. As the wall breaks up into patterns of two or more materials their combined forces may be stronger or weaker. Sometimes they cancel each other out, as in some baroque buildings of many different marbles, and the forces become distorted and entangled in confusion. At other times, as in the English half-timbered house, combinations of wood, plaster and brick become abstract patterns which transcend the nature of their materials and take on a new and specially forceful life of their own. This leads us, of course, to the marriage of art and architecture, as in Indian temples or Juan O'Gorman's library at the University of Mexico. In such works the force of the wall and the force of the art unite and further transcend into the strongest and most demanding statement a building can make. The commercial building with one wall converted to a billboard is a gross vulgarization and exploitation of this fact.

This is not a discussion of the design of buildings or building walls. It is a discussion of the impact of that design on the site space immediately around the building, the neighborhood around that, and the region as far as the building can be seen. This impact is a resultant of the forces we have described radiating from the building, countered by similar forces radiating toward it from other structures or elements around it. It is the function of the design of the site space to receive both sets of forces and resolve them into a harmonious organization of physical elements which will interlock the entire complex and give it visual and functional equilibrium.

In the classical case of castle or manor house in open country the problem is relatively simple. The strong and obvious forces radiating from the building meet the more subtle and diffuse forces radiating in from the natural or pastoral landscape around. Ground forms radiate from basically pyramidal, conical, semi-spherical or single-slope forms. Trees are radial in plan, horizontal, radial or vertical in elevation, with constant emphasis on the vertical central trunk. Other vegetation is similar without the trunk. Quiet water is horizontal with direction resulting from its form in plan. Moving water carries us in the direction of its movement — flowing or falling down, jetting up. All of these forces are multiplied by size and scale (apparent size). Landscape forms may be developed which are extensive enough to satisfy the demands of the architectural forces and absorb the impact of their meeting the forces of the landscape, as in the great country houses of France and England. These landscape forms can be simple and readable, as they represent the interlocking of a single building with nature.

Such isolated buildings or groups in open country, wild or pastoral landscapes, represent the ideal situation for production of high-quality architecture in the most flattering settings, without the competition and responsibility of uncontrolled neighboring buildings. Nature (including pastoral and garden settings) and architecture have ideally complementary and supplementary rela-

tions. Architecture brings the landscape to life by injecting the highest form of human imagination into it. The landscape receives and resolves all of the multiple forces extruded by the building in the simplest, most direct and satisfying centrifugal pattern. This is not, however, a one-way relationship. The landscape makes demands on the building, through such elements as views (good or bad), topography, sun, rain, snow, wind, vegetation. The building may recognize these and adjust itself with care and sensitivity in the regional, natural, poetic or romantic way. Or, it may ignore them in whole or in part, or force its own forms on them, as most Renaissance and International Style work, setting itself up as a self-sufficient entity, the cube in the meadow or the architectural garden, and leaving the landscape to solve its own problems of adjustment to this uncompromising new form. This merely transfers the area for resolution of conflicting forces from one which includes the building to one which is totally outside it. If we call the latter approach the classical and the former the romantic, why then the classical requires more space around it in which the forces of architecture and landscape can meet and resolve themselves in designed interplay. The romantic solves these problems within a more limited area by solving many of them within the form and detail of the building itself. Our romantic category includes not only architectural concepts of the FLW, Gaudi, Richardson, or those of medieval or folksy persuasion but anonymous, handicraft, peasant, agricultural or native forms as well. Our classical includes not only Roman, Renaissance and International Style concepts but present-day technocratic and engineering approaches which shun biology in favoring mechanical solutions, and commercial attitudes which view the environment as a subject for exploitation.

In the reverse case, of the powerful building with congestion of other construction and inadequate space around it, as most European cathedrals or downtown skyscrapers, we have a much more complex situation. The forces extruding from the major building are met and cancelled out by competitive forces produced by the miscellaneous construction around, and the space between is not large enough to resolve the meeting of these forces. The result is confusion, although as we know great architecture can transcend and force itself through any such encirclement. We are well aware of the detailed analyses that have been made of the intricate spaces around medieval cathedrals, of the virtues of surprise, sudden vistas, etc. These are organic physical expressions of the social patterns which produced them. We are not here making an effort to set up a new and inflexible system, which will say that all cathedrals should have great plazas cleared around them. But they and their environments could be reanalyzed in terms of extrusive and conflicting forces. Certain adjustments in their more or less accidental environments might then be made.

It is when we put two or more buildings together that the plot thickens, particularly when the two buildings are designed at different times by different people. Two or more adjacent buildings designed by the same person at the same time will very likely be harmonious. But when they are not so integrated they may or may not be harmonious. Of course there is the multi-building project, designed in deadly unity and harmony, whose monotony sends us shrieking back to the anarchy of the city streets. The answer must lie somewhere between these extremes. Much architectural discussion has centered on such questions.

Buildings in groups of any size, as in rural, suburban and urban areas, each radiate their own set of extrusive forces as we have described. Pushed together with party walls on city lots, groups or blocks become single complex buildings, with equally complex radial patterns meeting their counterparts within the narrow street canyons. The street, bearing its own problems of people, vehicles and street furniture, is unequal to the task of resolving conflicts

in these forces when they differ much from each other. Quiet and urbane streets in many famous cities testify to the possibility, however, of achieving a harmonious balance of unity and variety along such two-directional spaces.

As soon as we separate individual buildings by spaces wide enough to walk through we complicate our problem by the addition of another dimension. Each face of each building now extrudes forces which meet in the space between and are either resolved and harmonized or cancel each other out in anarchy and confusion. Resolution and harmonization may come about through landscape, sculptural or minor architectural elements, or through sheer open space of adequate dimension and flooring (Piazza San Marco). The greater the differences in form, scale and detail among buildings, the greater the problem of resolution by design or by absorption in space. On the other hand, buildings all alike place no burden on the spaces between save that of developing their own self-sufficient identity within neutral backgrounds. This was the gift of the International Style to landscape architecture.

As we move from urbs to suburbs and beyond the spaces between buildings become larger. At a certain horizontal dimension, different for each building, the forces which it extrudes will be absorbed by the open space around it. There will then be no possibility of architectural structure, continuity, tension or harmony between buildings. They become isolated objects in a sea of landscape (or asphalt). Either isolation or interlocking tension may be architecturally productive in the landscape. Worst, no doubt, are the amorphous in-between situations — buildings not close enough to interlock with force, nor far enough apart to achieve isolation. Detached suburban housing is usually too far apart across the street, too close together in the side yards, to achieve meaningful structure without the aid of trees, fences and other landscape elements. Such thinking is only beginning to occur (town houses, clusters) in subdivision and tract housing circles, and then for other reasons.

Relations between buildings of great variety in form and detail have the highest potential and the lowest production in terms of architectural landscape relations. When older buildings of Renaissance, romantic or other persuasion meet sleek new modern forms tensions are set up of a power and intensity not possible in any other way. Yet the relations must be just right. Too much of one or the other will be overpowering, too equal portions confusing and tiring by strength of contrast. However the persistent drive to replace the old with the new renders such discussion academic. The proportions are changing as we write.

Reciprocal relations between buildings, and between buildings and landscape, are conditioned by many variable factors in the buildings themselves. Scale, proportion, precision, simplicity or elaboration in form and detail, natural or synthetic materials, relations between solid and void are all factors which can connect or separate buildings and landscapes, increasing or decreasing the space needed to resolve the mutually extruded forces. From straw hut to steel factory, from glass cube to romantic sculptured form, architecture is a primary force in the landscape. Pre-industrial patterns which produced similar forms in given areas over an extended period of time tended to resolve their own relationship problems naturally. Post-industrial cosmopolitanism, in which all forms are known and used in all areas, creates the monstrous anarchy which surrounds us, particularly in newer cities. From this stem delicate problems of architectural control — can, and should, we have it? can it control form and placement as well as detail? should control by areas be by style, form, material, color, size, envelope, or what? when does control in the interest of order and harmony become monotonous regimentation which destroys architectural freedom? Efforts by Le Corbusier in Paris and Frank Lloyd Wright in Venice to introduce new forms into stabilized,

controlled, and highly valued historical areas represent an attack by free creativity on repressive tradition to some, an effort to disturb a harmonious and beautiful urban landscape to others. Certainly few man-made landscapes can remain fixed and static for long. The forces of change will out destructively if they cannot follow designed constructive patterns. Siting of Corbu's dynamically sculptured Carpenter Center in the midst of Harvard's Georgian elegance is perhaps the latest and most extreme example. Is this the beginning of the end? a new beginning? or is it possible to resolve even such dramatically contrasting forces if there is adequate space between?

The most obviously successful pattern for continuous resolution of relations between buildings and landscape was the Roman-Renaissance tradition finalized, codified and safely embalmed by L'Ecole des Beaux Arts. However success breeds sterility and rules breed regimentation. This particular strand of Western culture has become a vast and growing burden for living designers to bear. Like the Old Man of the Sea, it rides quietly and bides its time. Ultimately, when we have had our fling with revolt, modern space, and the nature of materials, there it is back on our shoulders as strong as ever. This is apparent in the work of many architects and landscape architects today. This is not necessarily bad, even though we who began in revolt cringe in hyper-sensitivity at every symmetrical plan, quarter-circled corner, or terminal feature. A return to sources — Villa Adriana, Villa d'Este, Villa Lante, Villa Medici, Villa Gamberaia, Vaux-le-Vicomte, Rambouillet, Sceaux, Marly, Paris itself — will demonstrate that they were strong and vital, only their imitators and measurers were weak. Certainly a jury concerned with structural continuity in the landscape would never have awarded first prize to a vertical solution on a diagonal axis of Washington's Central Composition in the Franklin Delano Roosevelt memorial competition.

London, Rome and Japan demonstrate that architectural-landscape harmony can be found by other, more flexible and subtle means. Naturally irregular growth patterns can produce a sense of form as great as the axial; centuries of growth can be linked together by color, material and intimate placement; and architecture designed in sympathetic response to nature can have a greater refinement and elegance than any monumental palace. When all is said and done the actual quality of the physical landscape depends upon relationships among four kinds of elements:

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(256) A complete custom kitchen, designed by Jeannette Coppes, N.S.I.D. Included is the contemporary Paul McCobb line suited to open plan kitchens, also used for built-in storage throughout the house and assembly for office furniture, and versatile 600 Series adaptable to any period from Cape Cod to oriental modern. Cabinets are of northern maple finished in natural grains of maple, autumn-tone, fruitwood, driftwood and walnut, and in 16 decorator colors, with choice of hardware. Mutschler of California, Inc.

(257) The Viking Spacemaker, a complete sliding door pocket including door, frame and hardware, the Feather-Touch Bi-Fold wardrobe wall with Novoply core, the Cinderella mirrored sliding wardrobe door and the Feather Glide by-pass wardrobe wall, all pre-fabricated, packaged and ready for installation. Nordahl Manufacturing Company.

(258) Pictorially a full line of industrial, commercial and residential plumbing ware in both pressed steel and vitreous china. The most recent additions to the porcelain-on-steel line are the new round pullman lavatory and the corner bath-tub built around a sump. Norris-Thermador Corp.

(259) A complete line of electrical built-ins including exhaust fans, hood and fan combinations for range and oven, bathroom heaters, and ventilators, door chimes, food center, stereo, inter-com and radio combinations, and barbecues, both electric and charcoal. Nu-Tone, Inc.

(260) Wood stains made of pure pigments ground in linseed oil, including semi-transparent penetrating stains in brown and gray tones that allow the grain of the wood to show through, and heavy bodied stains that give the wood an opaque finish. Other products are the redwood, roof and special purpose stains and pre-stained wood siding. Olympic Stained Products Co.

(261) Manufacturers of built-up door asphalt shingles. Storm-Lap asbestos shingles, roof coatings including Coolite, Colored Coolite, Alumi-shield, and Nu-White, Grip Deck roof decking, and asbestos cement siding. Also make Griplath and Type-X gypsum lath, dry-wall systems, batt and roll insulation and Mastipave bituminous flooring. Pabco Division, Fiberboard Paper Products.

(262) Distributors of and exhibiting vinyl coated wall fabric. Naugahyde and Naugawall manufactured by U.S. Rubber Co., Coated Fabrics Division, and Lackawana Leather manufactured by Lackawana Leather Co. Pacific Hide & Leather Company.

(263) Provide a courtesy service to the architects on all industrial, institutional and commercial projects to help plan for raceway apparatus closets, PBX equipment rooms, cable rise systems, main terminal room and service from the street. Pacific Telephone Company.

(264) A high-pressure decorative laminate in a wide variety of types including Genuwood utilizing genuine wood veneer, wood reproductions, solid colors, and designs and custom fabric-surfaced laminates. Parkwood Laminates received the American Institute of Interior Design International Award for excellence in design. Parkwood Laminates, Inc.

(265) Manufacturers of a complete line of A.G.A. approved heating and air conditioning equipment including the Pace Setter, Imperial and Spacesaver forced air units, Miracool all gas air conditioner, electric air conditioner for outdoor use, and Econoair, combination heater and air conditioner utilizing gas and electricity. Also make Panel-air forced air wall heater, Sabara wall heater and unit heaters with Astro-gard steel heat exchanger. The Payne Company.

(266) Pearcelite, a fabricated marble with a hard, smooth, lustrous surface, non-warpage and spotting, and impervious to stains including alcohol, cosmetics and medicinal preparations. Used for walls, pullman and furniture tops, stall showers, etc. Pearcelite, Inc.

(267) Sculptured, three dimensional hardwood panels with limitless use for area dividers, doors, screens,

interior sun control and decorative sound control when used on walls or ceilings. For exterior use sculptured redwood is also available for fencing, patio enclosures and various types of commercial installations. Also display Sculpturelite, a combination of solid carved wood and translucent plastic for subtle commercial lighting. By utilizing a sound absorbent pad instead of extruded plastic, acoustical qualities are obtained. Penberthy Lumber Company.

(268) Quality medicine cabinets, including the new Dubarry and Cavalier with gold and white wood frame and polished plate glass mirrors to harmonize with gold bathroom brass goods and accessories. Also display residential and apartment house mail boxes, built-in ironing board, range hoods, directories, fire extinguisher cabinets, bathroom appointments, and a complete line of building sheet metal specialties. Perma-Bilt Steel Products Company.

(270) A resilient polyurethane decking, flooring and roofing plastic that is metered, dispensed and sprayed by factory approved Franchised Applicators. A pure plastic rubber, Urapol 823A, is available in a variety of decorator colors and unusual textured finishes. It is an esthetic and practical coating for concrete, wood, lightweight cellular concrete and metal as well as a remedial coating for all existing surfaces. Poly Resins.

(271) A complete line of tile including Space-Rite and Perma-Glaze ceramic tile and the Designer Series and Signature Series decorative tile designed by outstanding artists in a wide selection of colors. Also available in Summitville quarry tile. Pomona Tile Company.

(272) A complete line of turf sprinklers, various pop-up sprays, ground cover and shrub sprays, combinations, irrigators and bubblers, featuring rise openings of standard steel or iron pipe thread dimensions, and all bodies and lids of sand-molded heavy red brass. The sprinklers are designed to simplify parts, make the design of complex sprinkler systems easier, and facilitate possible future changes in a system without changing the piping and valving system. Rain-O-Mat Sprinklers, Inc.

(273) Revco built-in refrigerator and ice maker designed for the quality custom kitchen. Originators of the built-in freezers and refrigerators for wall or under counter installation, and floor standing combination refrigerator-freezer built-in. Revco, Inc.

(274) Rez quality wood finishes for interior and exterior use. These are alkyd resin derived penetrating sealers and include the clear sealer and primer, low luster Satinwood Rez, Color-Tones in 13 coordinated fashion shades, Hi-Gloss Rez, White Rez for bleached or frosted effects and Rezite, a clear exterior finish. Rez Wood-Tones, Inc.

(275) Kreolite Kountersunk lug and flexible strip wood block flooring manufactured by the Jennison-Wright Corp., and Ironbound continuous strip hardwood flooring and Perma Cushion free floating resilient hardwood flooring manufactured by Robbins Flooring Co. A. B. Rice Company.

(276) Kemiko reaction type stain for all interior or smooth exterior concrete floors; Kemiko wax finishes; Col-R-Tone coloring for concrete swimming pool decks, tennis courts, public sidewalks and rough exterior concrete areas; and Col-R-Tone A for all types of asphalt paving. Also, manufacturers of Kemiko concrete waterproofing, hardeners and sealers. Rohloff & Company.

(277) Clay roofing tile including the new 680 line of light weight high strength clay shingle tile in a variety of fired-in colors, mission and shingle tile and the rambling, rustic American Method shingle tile, all available in a number of textures and colors and offering insulating qualities and complete fire safety. San Valle Tile Kilns.

(278) Luran, the vinyl in sheet form, 6' wide, patterned by roto-gravure, in unlimited colors and designs. This includes Luran standard, with resin saturated backing, for use over wood or suspended concrete floors and Luran Regency and Imperial, asbestos backed for use over any type sub-floor and embossed to avoid marks by sharp heels. All three meet FHA minimum property requirements. Sandura Company.

(279) A wide selection of hand crafted, quality hardware featuring locks, latches and ornamental background escutcheons in polished and satin brass, satin and oxidized bronze, dull black gold and satin aluminum, polished chrome and stainless steel. Also manufacture a complete line of locks for residence schools, hospitals and commercial buildings in a choice of metals. Schlage Lock Company.

(280) Manufacturers of concrete hardeners including Lithochrome, Emerchrome, and Permalith plus Lithochrome color hardener and colorwax, Chromix for coloring ready mixed concrete, and Emerchrome, the heavy duty, non-slip, abrasive color hardener. L. M. Scofield Company.

(281) Towel, napkin, facial and toilet tissue dispensers featuring the new recessed fixture for all types of folded towels, requiring no additional parts to convert from one type to another, and the dispenser which will dispense all brands of facial tissue. Surface mounted units are installed with Scott special adhesive which eliminates drilling holes and marring walls. Scott Paper Company.

(282) Shell-Craft Kapiz Shell paneling created from natural ocean pearl shells, hand selected, processed and laminated to produce a unique and highly ornate surfacing for wall paneling, table tops, screens, furniture, lamps and other decorative uses. Shell Arts Co.

(283) Manufacturers of Permaglas gas or electric residential water heaters, water conditioners, copper boilers and large volume storage water tanks, and Burkay gas or electric commercial water heaters and swimming pool heaters. A. O. Smith Corporation.

(284) Service to the architects for projects in their areas to establish tentative load and service needs for exterior and interior artificial lighting to meet I.E.S. Standards, adequate electric space heating and air conditioning, and electric cooking and water heating. Southern California Edison Company.

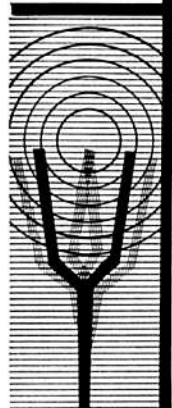
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For Manufacturers' Product Literature and Information

1. Circle number on coupon corresponding to the number preceding the listing.
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(1) A complete package of information literature on new Armstrong Ventilating Acoustical Ceiling systems has been compiled for architects and engineers by the Building Products Division of the Armstrong Cork Company. Fully illustrated brochure gives complete details on basic operation of the new ceiling system, shows how it reduces air conditioning costs through elimination of air diffusers and a large amount of supply duct work; case histories of actual installations; available at no extra cost. Armstrong Cork Company.

(2) An attractive, 32-page booklet describing a number of steel-framed homes is available from Bethlehem Steel Company. Write for Booklet 1802. Color and black and white photographs describe outstanding steel-framed houses in many areas in the United States. Floor plans, construction information, and costs are described. Examples of mountain cabins, apartments, and steep hillside site solutions are shown. Bethlehem Steel Company.

(6) Interior Design: Crossroads have all the components necessary for the elegant contemporary interior. Available are the finest designed products of contemporary styling in: furniture, carpets draperies, upholstery, wall coverings, lights, accessories, oil paintings, china, crystal and flatware. Booklet available. Crossroads Mfg., Inc.

(7) Stained Glass Windows: 1" to 2" thick chipped colored glass embedded in cement reinforced with steel bars. A new conception of glass colored in the mass displays decomposing and refracting lights. Design from the pure abstract to figurative modern in the tradition of 12th century stained glass. Roger Darricarrere.

(9) Two new pamphlets on folded plate roofs and stressed skin panels are available from the American Plywood Association. Each brochure contains structural details, illustrations and descriptive text; valuable addition to any collection of data on components; updates previously available information; other booklets in the components series describe box beams, curved panels, trusses and pallets. Available free to architects, fabricators, and builders. American Plywood Association.

(10) Furniture: A complete line of imported upholstered furniture and related tables, warehoused in Burlingame and New York for

immediate delivery; handcrafted quality furniture moderately priced; ideally suited for residential or commercial use. Dux Inc.

(11) Contemporary Fixtures: Catalog, data good line contemporary fixtures, including complete selection recessed surface mounted lense, down lights incorporating Corning wide angle Pyrex lenses, recessed, semi - recessed surface-mounted units utilizing reflector lamps; modern chandeliers for widely diffused, even illumination; Luxo Lamp suited to any lighting task. Selected units merit specified for CSHouse 1950. Harry Gitlin.

(12) A new, 12-page executive furniture catalog has just been completed by Hiebert, Inc., manufacturers of a complete line of executive office furniture. New catalog contains detailed illustrations of the line, including executive desks, secretarial desks, side storage units, corner tables, conference table, executive chairs, and side chairs. The center spread features a full-color photograph showing the various Hiebert furniture pieces. Copies of the catalog may be obtained free of charge. Hiebert, Inc.

(13) The 36-page Hotpoint Profit Builders catalog for architects and builders contains specifics on Hotpoint's full line of products, including built-in ovens, dishwashers, disposers, heating devices, refrigerators, ranges, air conditioners, laundry equipment. Also included are diagrams of twelve model Hotpoint kitchens with complete specifications for each. Hotpoint.

(14) Interpace has published a 6-page brochure on the new Contours CV, a lightweight ceramic architectural facing for exterior and interior use. The brochure features photographs of 12 standard designs in a wide pattern variety ranging from those achieving medallion effect to ones which vary the play of light. The brochure also details dimensions for individual custom designs which can be designed up to 11 1/4" x 11 1/4". International Pipe and Ceramics Corp.

(15) Catalogs and brochures available on Multalum and X-Alum series of contemporary furniture designed by George Kasparian. Experienced contract dept. working with leading architectural and interior design firms. Kasparians, Inc.

(16) Complete line of furniture designed by Florence Knoll, Harry Bertola, Eero Saarinen, Richard Shultz, Mies van der Rohe and Lew Butler as well as a wide range of upholstery and drapery fabrics of infinite variety with color, weave and design utilizing both natural and man-made materials. Available to the architect is the Knoll planning unit to function as a design consultant. Knoll Associates, Inc.

(18) Lighting: A completely new 12-page, 3-color brochure of popular items in their line of recessed and wall mounted residential lighting fixtures is now available from Marco. The literature includes typical installation photos as well as complete specifications on all items. Marvin Electric Manufacturing Company.

(20) Contemporary Clocks and Accessories. Attractive folder Chronopak contemporary clocks, crisp, simple, unusual models; net lights and bubble lamps; George Nelson, designer. Brochure available. One of the finest sources of information, worth study and file space.—Howard Miller Clock Co.

(21) Lanterns, a major innovation in lighting designed by George Nelson and manufactured by the Howard Miller Clock Company, are shown in a two-color, four-page brochure. The illustrations show all 21 styles in four models—ceiling, wall, table and floor—and include the large fluorescent wall or ceiling unit designed primarily for contract installation. Each is accompanied by dimensions and price. Distributed by Richards Morgenthau, Inc. Howard Miller Clock Company.

(22) Selections from the diversified decorative accessory collections designed by George Nelson for the Howard Miller Clock Company are presented in a new illustrated, four-page brochure, available to architects and interior designers without charge, upon request. The brochure covers clocks (both built-in and surface mounted); bubble lighting fixtures; net lights; planters; room dividers; and the versatile space divider, Ribbonwal. All information necessary for specifying is provided. Howard Miller Clock Company.

(24) "The pleasure of planning your home with Mosaic Tile," a new 24-page brochure, depicts unusual uses of tile and presents a va-

(Continued on next page)

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delivery.

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riety of home planning ideas; large selection of handsome color photographs. Tiled steps, hallways, tiled fireplaces, kitchens, bathrooms, patios and swimming pools show the versatility and wide color choices as well as low maintenance costs and lifetime advantages of ceramic tile. Mosaic Tile Company.

(25) Completely new full-color 28-page catalog of Mosaic ceramic tile manufactured in California and distributed throughout the area west of the Rockies. First presentation booklet form of tile in the Harmonitone color families; includes decorated glazed wall tile, new Staccato palette in one inch square tile, and Byzantile. Catalog available upon request. The Mosaic Tile Company.

(30) Lighting Fixtures: Complete range of contemporary designs for residential and commercial application. Write for new 20-page catalog—Chandeline—a different concept in lighting. Prescolite Manufacturing Corporation.

(34) Full color illustrated brochure describes new Thermador Bilt-In Dishwasher: stainless steel is used for actual tank and inside door liner of washing compartment eliminating chipping, staining, rusting, odor problems, specially developed insulating, sound-deadening material makes operation nearly noiseless; new exclusive "washing arm", food residue separator, drying system, completely automatic, service-free controls; style and color co-ordinated with other Thermador Bilt-In kitchen equipment; brochure gives detailed specifications. Thermador.

(40) Wood/Line, Globe's newest fixture series, accents the texture and patina of real walnut with the cool (all over glow) diffusion of milk white plastic to provide the handcrafted look in lighting. Globe Illumination Company.

(42) Scandiline Furniture offers for \$1.00 a 36-page catalog "Scandinavian at its Best". Many new items in the residential line are pictured as are those in the new office furniture division. The design-awarded, hand-printed Swedish lampshades for ceiling and wall hanging lamps are detailed. Price lists available. Scandiline Furniture, Inc.

(43) Scandiline Pega Wall System is the ultimate answer for any stor-

age or service requirement. Unlimited combinations can be designed. The system is available either wall hung or free standing with 12 alternate leg heights. This patented construction, designed by Ib Juul Christiansen, is imported from Norway by Scandiline Furniture, Inc.

(44) Executive Desks: New collection by Brown-Saltman features designs by John Folis and Elisha Dubin. Manufactured in Southern California; complete local inventory available for immediate delivery. Brochure shows executive desks, conference desks, executive storage units, etc. Brown-Saltman Company.

(45) Aluminum Railings: Post bases and cinchrail aluminum railings are illustrated in 12-page booklet. Installation drawings included. Michel & Pfeffer Iron Works, Inc.

(46) Orlando Galleria has continuous exhibits of fine paintings and sculpture. Free schedule of exhibitions available. Orlando Galleria, 17037 Ventura Boulevard, Encino, California.

(47) Ogden water purifier converts tap water to pure, spring-like drinking water by a scientifically developed, disposable cartridge. The small, compact, stainless steel unit is easily installed either above or below the sink. Portable and industrial units available. Ogden Filter Company, Inc.

(48) Complete information concerning the new automatic door closer for screen, glass and wardrobe doors by Kelly Klozer. \$18.95 installed, can be used on your present sliding screen door and features mechanism adjustable to door weight and an automatic safety stop when interrupted. The Kelly Klozer Company.

(49) Lighting brochure, offered by Consolidated Electrical Distributors (formerly Incandescent Supply Company / Phillips & Edwards Corp.) describes its electrical services, supplies and apparatus for commercial, industrial, residential, outdoor and decorative lighting, electrical appliances and housewares. Consolidated Electrical Distributors.

(51) Brochure-catalog containing complete price information and illustrations of the new modular carved wood panels by Panelcarve. "Handcrafted by machine" the panels may be assembled into a

variety of design combinations for doors, table tops, room dividers, paneled walls, desk components, planters, cabinets, etc. Panelcarve.

(52) Douglas Fir Roof Decking, an architect's and builder's guide to its use and availability, is the subject of a new 4-page brochure by Hemphill-O'Neill Lumber Company. The manufacturer produces quality decking in random and specified lengths to 24 feet, making possible rich, dramatic ceilings at low cost and with greater unbroken spans than commonly available. The brochure offers complete installation and manufacturing specifications. Hemphill-O'Neill Lumber Co., Inc.

(53) Four-page color brochure shows Facebrick residential, office and institutional installations. Contains Facebrick color-selection chart and Name-Texture-Size-Color specification information. Cost guide table compares ultimate wall costs of Facebrick with other materials. Free from Pacific Clay Products, Los Angeles Brick Division.

(54) Fiesta Pools offers technical and non-technical literature describing facilities, capabilities and experience in executing architects' swimming pool designs. Information about Fiesta's Research and Development Division, and fully staffed Commercial Division. Fiesta Pools.

(55) A complete acoustical consultation service for architects is now available from the Broadcast & Communications Products Division of Radio Corporation of America. Service includes analysis, tests and recommendations on acoustics for theaters, studios, auditoriums, stadiums, classrooms, or any other public or private building where mechanical sound devices are employed. Radio Corporation of America.

(56) "St. Charles Custom Kitchens"—New dimensional detail book is now available to architects, designers, builders, contractors and engineers. This 52-page book presents graphically illustrated design dimensions for every phase and feature of kitchen installation. Some of the areas covered are: base units (basic and special purpose), wall units (basic and accessory), tall units (basic and built-ins), fillers and panels, trim, shelves, sinks and counter tops. St. Charles Custom Kitchens.

(57) "St. Charles concept of completeness" — The new 28-page, 4-color brochure is available. This book illustrates the alliance between appearance and function. Ideas in metal, ideas in wood, ideas . . . , ideas . . . , ideas from St. Charles Custom Kitchens.

(58) Fredrick Ramond, Inc. has just printed its newest full color brochure introducing a startling breakthrough in lighting fixtures. Hand-blown, geometrically designed globes. This brochure spectacularly illustrates the indoor/outdoor application of this revolutionary lighting development. Fredrick Ramond, Inc.

(59) Awandi-Imports announces the availability of their new catalog. This new line of furniture, imported from Germany, is illustrated to show the Rio Palisander (Rosewood) grain and the modern design which is equally in style in Commercial or Residential surroundings. The catalog includes available fabric samples and a price list. Awandi-Imports.

(60) New Swiss drafting board which at the touch of a knob moves the board to any desired height or angle. A boon to architects, draftsmen, artists, engineers, blueprinters. No need to move from a normal sitting position, stand on a chair, draw upside down at the top of the board. No more backaches, stiff necks, drafting table fatigue. Vertical shaft moves freely on ball bearings through 360° and may be locked in any position. Two 115v. 400w. motors supply power. Less than five seconds required for changes in height from 16 inches to 31½ inches or adjustment from horizontal to vertical. Free brochure available. Reed Products Company.

(61) Scalamandrè Fabrics. New Architects' Collection of contemporary textured upholstery—natural fibres, man-made fibres and blends. Tremendous color ranges and interesting weaves. Also special colors and designs to your specifications. Excellent group of casements for contract and institutional interiors. Write for swatched brochure. Scalamandrè.

(62) Scalamandrè Wallcoverings. Large collection of wallcoverings—includes grasses, reeds, corks, linens, foils and novelty textures. Write for swatched brochure. Scalamandrè.

(63) Architectural Plastics International's new "Manual for Plastics in Construction" is a comprehensive and informative catalog for architects, engineers, designers, contractors. Published specifically for the construction industry, it embodies a directory, buying guide and a new-product digest for all phases of construction. Various brochures furnished. Architectural Plastics International.

(64) "The Mathematics of Space in Churches," a new four-color brochure by New Castle Products, Inc., helps church planners and administrators get maximum use of available space. Illustrating how various types of folding doors and partitions, serving as sound and/or sight barriers, provide versatility in the use of church building facilities, this brochure uses the problem-and-solution technique and pictures actual installations in sanctuary, classrooms, social halls and multi-purpose areas. Modern-fold Folding Doors, New Castle Products, Inc.



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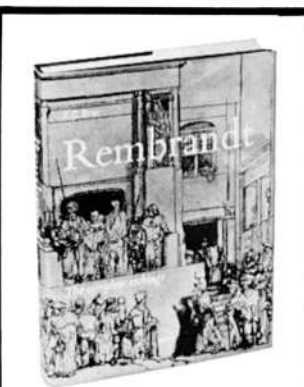
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Retail \$25.00. Member's price \$14.95.



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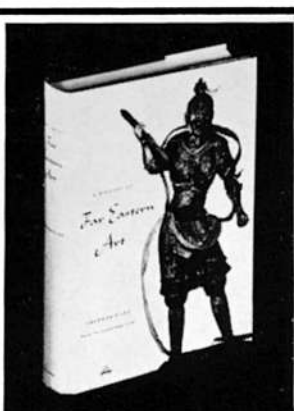
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Charles Vandam.
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K. C. Boon. Retail \$18.50.
Member's price \$13.50.



Abstract Painting, Michel Seuphor.
Retail \$20.00.
Member's price \$15.95.



Far Eastern Art, Sherman E. Lee.
Retail \$25.00. Member's price \$18.95.



Katachi: Japanese Pattern and Design,
Takeji Iwamiya and Donald Richie.
Retail \$30. Member's price \$19.95.



The Discovery of Painting,
René Berger. A comprehensive new
approach to the understanding of
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