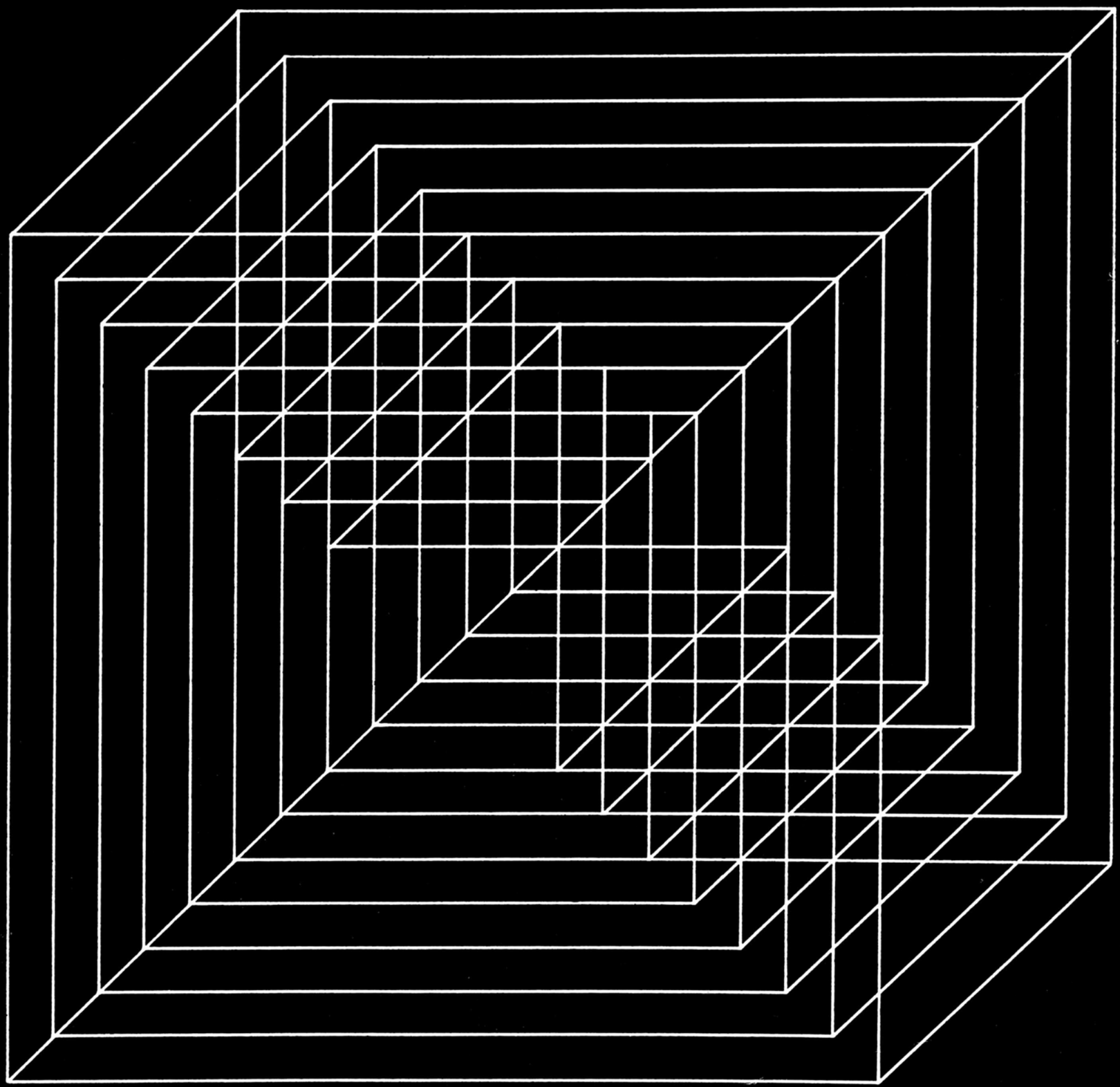
OCTOBER 1964

arts & architecture

PRICE 50 CENTS



Cover by Hardy Hanson

arts & architecture

CONTENTS FOR OCTOBER 1964

ARTS & ARCHITECTURE is published monthly by Arts & Architecture, Inc., 3305 Wilshire Boulevard, Los Angeles 5, California. Established 1911. Second class postage paid at Los Angeles, California. Priced mailed to any address in the United States, $5.00 a year; to foreign countries, $6.50 a year; single copies 50 cents. Editorial material and subscriptions should be addressed to the Los Angeles office. Return postage should accompany unsolicited manuscripts. One month's notice is required for a change of address or for a new subscription. The complete contents of each issue of ARTS & ARCHITECTURE is available to subscribers in a Microfilm edition.

Vol. 81, No. 10

ARCHITECTURE AND THE LANDSCAPE

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 society, 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, 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 component, 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.

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 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 buildings 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 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 between 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 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 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

(Continued on page 37)

by Garrett Eckbo

but without any pictorial or iconographical heirarchy 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 Anuskiewicz, 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 relations. 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:

Structures —buildings, parking lots, streets and roadways, utilities.
Open space—free for safe pedestrian movement and relaxation.
Natural elements—rock, water, earth, plants.
Furnishings —signs, furniture, objets d'art, cars, decorative elements, mechanical and electrical elements.

It is difficult to establish the best possible relationships between these elements when their design is handled by different people with different backgrounds at different times. But that is the task of urban design — or true landscape design.