

# TRENDS IN MODERN ARCHITECTURE

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During the 1920's there appeared a new architectural expression often referred to as the "International Style". The single direction of this famous movement was expressed by the resolute "form follows function"; its spokesman was Walter Gropius, and its theories were synthesized through the Bauhaus. Adopted by most progressive architects by 1930, within another decade its principles formed the basis for teaching in most architectural schools. By that time, however, the creed had become academic and its visual forms stylized.

After World War II the logic of the Internationalists' functional approach was scrutinized and seriously challenged. Leading architects began to explore other philosophies of design. They developed a wide variety of solutions to the problem of "modern" building needs with the result that today the form-follows-function system remains as only one school of thought within the architect's frame of reference. No longer do we have one style, a universally adopted solution, accepted by all, but refined and interpreted regionally as required. Instead, we are faced with a great variety of architectural expressions which differ visually. This fantastic visual variety is the strange phenomenon of our time.

Nevertheless this architecture of multifarious expression is a natural and logical one for our society, for within our life the element of time has been manifoldly depressed. The transfer of knowledge is almost instantaneous. The awareness of the past, through travel, film, slides and books, is available to all, and the architect can restudy and re-evaluate the architecture of many different eras. During the nineteenth century, when it was possible to study the past to only a limited extent, architects copied the visual image of the past alone. As a result, the western world went through many eclectic phases—Classical, Gothic, Renaissance. Today, however, architects are reinvestigating the philosophy and the space concepts of the past, extracting the essence of past styles and adapting many of their facets to present technology and social demands.

This phenomenon of time has also permitted the architect to come in closer contact with other disciplines so that theories in design, painting and science soon become part of his vocabulary. One peculiarity of today's situation is the architect's fascination with the creative period in the visual arts from 1910 to 1930. Such new interests plus the availability of more information have been a contributing factor to this diversity.

In attempting to analyze the diversity of present day architecture, we can classify it in terms of different

visual and philosophical approaches. For the purposes of this paper we shall group current architecture into the four categories discussed below. But while making these broad distinctions we should keep in mind one fact—that space is the common denominator of all architecture. This space can be handled as a single static volume or as fluid series of space transitions. It depends on the attitude and ability of the designer. Space, therefore, exists in many forms within each of the given approaches.

## EXPRESSION OF UTILITARIAN FUNCTION

This approach, which appeared to be the single direction of architecture until 1950, is still the most prevalent today. Each year it becomes more obvious, however, that there is a gradual swing away from this point of view. Its concept is that the utilitarian function of the building in plan, material, and assembly technique should be visually stated. The designer separates the major functions into forms which are legible in three dimensions. Materials are handled in a manner which best suits their true nature, and they are assembled so that construction techniques are clearly expressed. This is done so that the viewer can distinguish the different elements and read the building in all its aspects. With this type of architecture the aesthetic response varies directly with the viewer's comprehension.

Within this approach there exist two major visual solutions which result from architects' attitudes toward the machine and nature. In one case fascination with the machine and its by-products of mass-production and assembly techniques becomes the motivating force behind the visual image. In the other, natural materials and erection procedures which require skilled craftsmanship, become the dominating force. In either situation, one solution becomes the servant of the other depending on the architect involved. Walter Gropius in his famous Bauhaus design best represents the approach via the machine. The classic example of this attitude is Lever House by Skidmore, Owings and Merrill, while a very good local expression is Flatow and Moore's Simms Building (Fig. 1). Frank Lloyd Wright, on the other hand, represents the natural approach in Taliesin West. A traditional structure like Taos Pueblo (Fig. 2) also illustrates this natural emphasis both in material and in inspiration.



FIG. 1



The significance of this orientation is that the architect feels that restricting the solution to a single function is much too limiting. The changing face of our society has resulted in an unpredictable space usage and this, in turn, dictates a single space volume as free structural supports as possible. Such a solution permits any type of activity to take place within the enclosure. A concept such as this lends itself to a strong structural statement, and at times the total visual image depends on the structural solution. Generally, though, the theory of anonymous space is projected on the exterior design so that the building in no way commits itself to one functional connotation. This allows the building to take on the character of its internal function.

FIG. 2



Mies van der Rohe's Crown Hall, an architectural classroom building for Illinois Institute of Technology, clearly states this concept. There are no room divisions, just one big space where all classes meet. A recent house in Albuquerque for J. Lewis (Fig. 3) uses the same criteria, where all areas are divided by movable storage walls which do not touch the ceiling. Acoma School in Albuquerque, (see page 15), by Flatow and Moore structurally permits this approach, although the architects have built all the interior walls out of masonry.

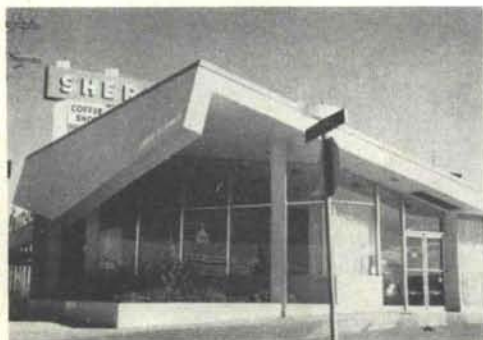
## EXPRESSION OF FORM

FIG. 3



The image is vital in this concept. The architect seeks a form which will convey the significance of the function. This attitude transmits the spiritual quality of the internal activity, such as worship, education, or government and transcends the pure physical aspects of the building. This approach, which we see occurring more and more since the design of the Chapel at Ronchamp, France by Le Corbusier appears to be the future direction of architecture. Precedent for this type of design occurs throughout history and has rekindled interest in such architects as Mendelsohn and Gaudi, who practiced expressionism around 1920. Architects interested in this area also have been inspired by action-painting and are beginning to speak of dynamic image, symbolic form and phenomenological space in order to express their point of view. This approach has been called sensualism and brutalism.

FIG. 4



In the pure sense this concept does not permit the use of familiar symbols to transmit the emotional response by association, but permits anything within the architect's means in order to acquire the psychological result. Within this approach there are certain divergent tangents, one of which is that form is used to seek attention. Here form is totally different in order to serve as an advertising gimmick through startling novelty. This occurs most often in restaurants, and several examples can be found in every city. In Albuquerque we find Sherms (Fig. 4) restaurant designed in this manner.



Another tangent is that often existing symbols are adopted to convey a sense of place under the license of regionalism. This is done by integrating appropriate forms which are by nature indigenous to the area, as in the Newman Center (Fig. 5). Often, though, this tendency becomes archeological as in the new chapel for The University of New Mexico (Fig. 6). Occasionally, symbols are repeated which have over a period of time become representative of the spiritual function within. The height of a Medieval church is still reflected in Asbury Methodist Church in Albuquerque (Fig. 7). Another form of this type of expressionism comes from exploiting the romance of materials. By over-emphasizing this natural quality the viewer receives full emotional impact. The softness and informality of adobe becomes the charm of this private residence in Albuquerque (Fig. 8). The use of natural wood and its warmth lends itself to a more human atmosphere, according to some. The roughness and color of stone gives a sense of strength. And there is the power and bulk of concrete as seen in Le Corbusier's work or the precision and delicacy of steel as used by Mies van der Rohe. These all contribute to the individual's emotional response. This tangent is most prevalent in areas where one material exists in abundance.

The great danger in this approach of form lies in the hands of the untalented who create forms which are grotesque visual images, as seen in some student work.

### EXPRESSION OF TECHNOLOGY

To emphasize technology the means become the major visual expression. This is due to a shifting of visual emphasis to different aspects of the problem. Within this realm the architect selects quite arbitrarily one element of the total structure, which by manipulation and over emphasis becomes the major visual statement. Thus, the rationalization of a process can determine the spirit of the building. This strange game has played havoc with the real essence of architecture, and many visual tangents can only be explained as individual creative novelty, or difference for the sake of being different.

Within this framework there are many points of reference. A frequent point of departure is structure. Architects conceive concrete shells, hyperbolic paraboloids, vaults, geodesic domes, tension or compression systems. These structural solutions dominate the visual image as in the work of Candela, Nervi or Torroja. In cases like these form directly expresses the efficiency of a structural solution. It is based on an intuitive shaping of form to achieve maximum strength for the material employed. In lesser hands this method becomes a forced cliché, misused structurally but exploited for aesthetic value. This can be seen in much of the recent concrete work, such as Albuquerque's Bel-Air school, which employs vaults or folded plate for roofs (Fig. 9). In these cases, though roofs are

FIG. 5



FIG. 6



FIG. 7



FIG. 8

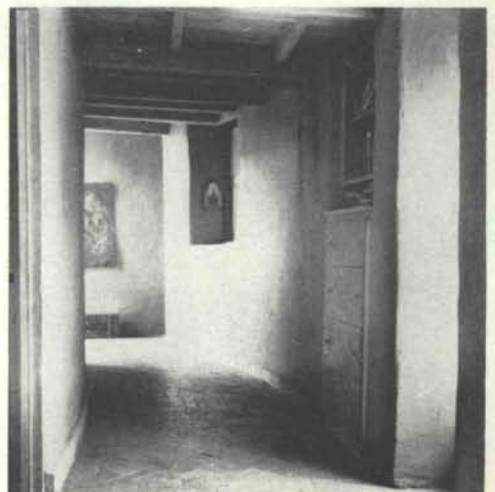






FIG. 9



FIG. 10

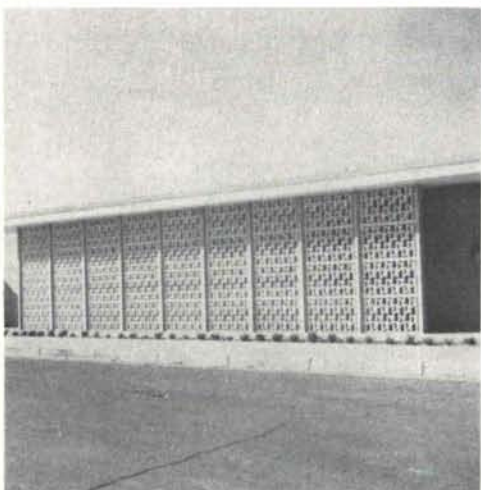


FIG. 11



FIG. 12

structural, one might challenge whether their thickness and shape are used to ultimate efficiency or even the logic of this system for short spans.

Another point of departure is climate control which can be further sub-divided into mechanical and natural systems. In the mechanical system, the architect expresses the heating and cooling ducts on the exterior of the building, as found in I. M. Pei's recent Mile-High Building in Denver or the Blue Cross Building in Boston by Paul Rudolph. The rationalization behind this criteria is that if the mechanical equipment accounts for thirty percent of the building's cost, it too should become part of the visual image. A case in point in Albuquerque is the new Solar Building by Stanley and Wright (Fig. 10). Here water is passed through collector plates and stored at increased temperature in the ground until needed for heating. In this instance the means of heating the building, rather than the function within the building, has determined the design.

Natural solutions to climate control sometimes result in a circus of inventiveness. Sun-shading devices, perforated screens of masonry or metal, and horizontal or vertical louvres completely dominate some architectural designs. In the beginning these devices served the specific function of keeping too strong and direct sun rays off the glass areas. One might, in the first place, have questioned the use of such large glass areas as to necessitate the use of screens. However that may be, sun screens today are used with such abandon that they now appear on the north and east as well as the south and west sides of structures in order to integrate the form. Thus, the beautifully conceived New Delhi Embassy by Edward Stone has been desecrated by a promiscuous use of the screen. Albuquerque, as any other American City, is not without its share of this device (Fig. 11).

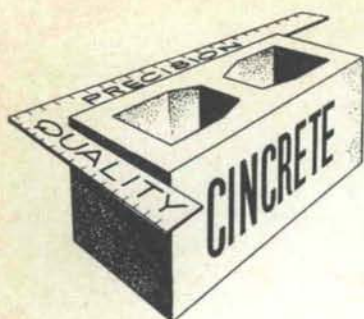
Given this technological approach, many other elements might be exploited. New Materials like the plastic forms of the Monsanto House in Disneyland may dominate the total visual design. New assembly-techniques, such as concrete sprayed on wire mesh or pre-fabricated components, or catalogued parts bolted together can become the major feature of the building. St. Bernadette church in Albuquerque well illustrates this approach (Fig. 12). Santa Fe's recent Plaza Luisa by Robert Plettenberg over-details the connective joints of the wood members in order to realize the crafts image. In the work of Buckminster Fuller we find the designer's only criterion in the efficiency of technology. Too often this technologically oriented architect becomes so fascinated by the means that he fails to grasp the total problem.

Finally, one must keep in mind when experiencing architecture today, that the approach is not always clearly stated. Sometimes several approaches are combined in a given building, and sometimes the designer's approach is merely confused. But one generalization may safely be made: The more confused the issues become, the less agreeable the visual solution.

D. P. S.

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FIGURE 2. STATE TOURIST BUREAU





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