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appearance.

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ELKAY 50

AIA JOURNAL

JULY 1970

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COVER

Books

Signatures of personages associated with the Bauhaus in various stages of its history, superimposed on a photograph of the Bauhaus exhibition in Chicago by N. Taylor Gregg.

Letters

Publisher: WM. DUDLEY HUNT JR., FAIA; Editor: ROBERT E. KOEHLER; Associate Editor: BESS BALCHEN; Assistant Editors: MICHAEL C. RECTOR, MARY E. OSMAN; Consulting Editors: JAMES E. ELLISON, Executive Secretary, Association of Collegiate Schools of Architecture; GORDON PHILLIPS, AIA, Director, Educational Programs, AIA; Art Director: SUZY THOMAS; Business Manager: HENRY E. KLEINER; Production Manager: HARRY N. MILLER; Circulation Manager: JOHN H. BOOTH

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comment and opinion

OUR RICH HERITAGE IS BEING SQUANDERED: Anyone who has visited the US Archives cannot but be tremendously impressed with the extreme care being taken of our historic documents. Displayed under glass, enshrouded in helium to protect the parchment from contact with air, the original Declaration of Independence, Constitution and Bill of Rights are lowered each evening to a vault where they are safe from fire and bombs and thieves. If someone were to get past the guards and somehow break the glass and destroy these documents, he would be prosecuted to the fullest extent of the law. The public would unite in fury over the wanton destruction. Yet, year after year, significant documents of American architectural history are willfully destroyed, and no one is subject to much more than a slap on the wrist by interested parties. Few would argue for the preservation of all historic architecture, but everyone ought to stand for some persistence of the past into the present. To be sure, we have to be selective; the preserved buildings have to be put to use and remain a part of a viable civilization.

One preservation battle was recently lost with the bulldozing of Irving Gill's Dodge House, considered one of the 15 most significant projects in the history of American domestic architecture. The Historic American Buildings Survey viewed this house as a culmination of Gill's genius, "a rare example of the early manifestations of the International Style, and also one of the great monuments of the early experimental architecture of reinforced concrete." The house, which was built for manufacturer Walter Luther Dodge in 1916, went through several owners. As threats of demolition clouded the horizon, the Southern California Chapter AIA led a campaign to save the house.

On December 30, 1969, the house and property became the possession of the Riviera Management Co. of Torrance, California. It is reported that the company refused all telephone calls and ignored registered letters from architects and preservationists. Finally, Michael J. Elliott, executive director of the Southern California Chapter, managed to arrange a meeting with Riviera representatives on February 6. Elliott comments, "I mentioned a proposed historic easement and that plans had been drawn to allow commercial development and retention of the buildings [see AIA JOURNAL, Nov. '67, p. 63]. I offered to discuss these with them and they seemed receptive, but wanted to talk to the other partners. I left the meeting believing we would have cooperation even though they did not commit themselves."

The National Trust for Historic Preservation and others made 11th-hour appeals to save the house. But the bulldozers moved in surreptitiously on Monday morning following Elliott's meeting on Friday when, in spite of a driving rain, the house was wrecked. And so now it is just a memory. The Southern California Chapter has called for immediate adoption of a Los Angeles County cultural heritage ordinance with full power to protect landmarks.

To help in the preservation fight, the AIA has appointed an architect in each state to act as preservation coordinator. Persons concerned about the destruction of another link with our past may contact either the local AIA chapter or the Historic Resources Committee at the Octagon. Literature is also available, including a folder called "Window, Anchor, Catalyst, Root: The Power of Preservation." ROBERT E. KOEHLER

ACKNOWLEDGEMENTS

8-left, N. Taylor Gregg

- 8—left, N. Taylor Gregg
 24—N. Taylor Gregg
 25—left, drawing of Issac M. Wise Temple, Cincinnati, by George P. Enesey; right, drawing of Philadelphia Trust, Safe Deposit & Insurance Company by Neville H, Clouten (architect; James H. Windrim)
 27-29—David Zugale
 21. chear Barry M. Dama

- 31—above, Barry V. Downs
 32—above, N. & H. Studio; below, Central Mortgage & Housing Corporation
- 33-above, John Fulker; center, Alice Baumann 34—above, Henry Kalen; below, Roger Jowett 35—above, below, Panda/Croydon Associates 41—J. Quillet
- 42—above, Reynolds Metals Company; center left, below, J. Quillet
 43—center, below, Reynolds Metals Company 44-
- -above, center, J. Quillet; below, Reynolds Metals Company
- 54—Charles Painter 56—Black Star: Ted Rozumalski

NEXT MONTH

To prepare the student for the uncertain world of tomorrow requires a new kind of school library - one that recognizes other teaching media than the book and one that has a multiplicity of functions. School libraries are included in the 1970 Library Awards program portfolio. Still another school library, one that had not been completed in time to be considered for an award, is described in a two-part tribute to the late Eugene Mackey, FAIA, the architect of Fieldston School's Tate Library in New York City. Mackey is remembered affectionately by a citizen of his home town of St. Louis, and the Tate Library is viewed as evidence of his creativity and as a school library that represents new directions in space, time and thought.

Other features will take our readers to Baton Rouge and Hammond, Louisiana, for a Practice Profile of a small firm where everyone still draws; to San Juan for a preview of what's in store for participants in the 13th Panamerican Congress of Architects; and to Lynn, Massachusetts, as well as seven other cities, to look at the work of the AIA-sponsored Urban Design Asssistance Teams. The August issue also will include in-depth coverage of the AIA convention in Boston, while September and October will be reserved for any speeches of particular significance.

ASIDES

Everyone these days is literally submerged in oceans of information. Like the tide, all media of communication wash over us with unremitting regularity. Can we be rescued?

One solution is suggested on page 36 in an article by Hyman Cunin, AIA, who holds that abstracts should be published in the AIA JOURNAL. As is our policy for any article we carry, we welcome comments.

In a related area, the AIA has announced that its recently launched program to computerize architectural specifications is moving ahead on schedule with 89 master specification sections automated and available through Masterspec. The total will soon be over 100, according to John H. Schruben, AIA, president of Production Systems for Architects and Engineers Inc., a nonprofit corporation organized by the AIA. The use of the computer facility provides virtually error-free text and stabilized terminology, quickly and efficiently, at a saving in both man-hours and money. Information is available through PSAE, 343 S. Dearborn St., Chicago, Ill. 60604.

Producers' Council has initiated a program for exchanging information on building systems hardware. The council will serve as a clearinghouse for collecting and disseminating information on potentially compatible systems manufactured by members. The program aims to help solve one of the most pressing problems of systems building - that of coordinating production of various types of hardware to insure proper interfitting on the jobsite. A task force will evaluate the impact of systems building and guide the exchange program.



Red cedar shingles make an old place

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Conference Center, Port Ludlow, Washington, Certigrade Shingles, No. 1 grade, 16" Fivex. Architects: A. O. Burngardner, AIA, & Associates



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Red Cedar Shingle & Handsplit Shake Bureau

outlook

Puerto Rico's Governor Will Welcome Panamerican Congress to San Juan

Architects from 15 countries in North, Central and South America will converge upon San Juan, Puerto Rico, at the time of the 13th Panamerican Congress of Architects during the week of September 13-18. The theme: "The Architect in the Humanization of Urban Life."

The purposes of the congress are to discuss topics related to the selected theme and to consider ways of meeting the problems brought up; to establish an interchange of creative ideas; to emphasize the importance of the human being in all architectural design; and to stress to architects the important role the profession should play in our society. Members of the congress will be divided into four categories: titular delegates, special guests, delegates and observers. Sessions will be held in the recently restored Convento de los Dominicos, an ancient convent whose construction was started in 1523.

Puerto Rico's Governor Luis A. Ferré, a newly elected honorary member of the AIA, will open the congress and later honor attendants with a formal reception at his residence. A banquet will be held at the El Convento Hotel and visits are planned to historical areas. There will be a day-long excursion to Luquillo Beach. Other activities are planned for family members accompanying participants.

Registration forms may be obtained from the Instituto de Arquitectos de Puerto Rico, Box 3845, San Juan, Puerto Rico 00936.

Let's Have a Party and Celebrate Gropius With Laughter, Costumes, Photographs

"My husband would have loved this. It's just like the parties we had at the Bauhaus," said Mrs. Ise Gropius at the "Grope Fest," an



Photographer Gregg makes hit as "The Eye."

eye-filling costume party held in Cambridge, Massachusetts, on May 18 to honor the memory of Walter Gropius, founder of the Bauhaus School of Architecture and Design. Gropius died in July 1969 at the age of 86, and in his testament written in 1933 when he feared the Nazis would take his life, he asked not for mourning on his death, but for "a fiesta — à la Bauhaus — drinking, laughing, loving."

It was in this spirit that the assembled company of more than a thousand people jammed into the offices of The Architects Collaborative, Gropius' firm, to honor him.

The theme of the party was "Something Metallic," the name of a party celebrated in Dessau in 1929, with admission by "metallic decoration only." The Bauhaus was a pioneer in the use of metal in architecture and design. Old friends of Gropius, professors. architects, engineers, builders and students came in shimmering robes, crowned their heads in vegetable strainers, Christmas tinsel, machine shop shavings or wrapped themselves in airconditioning ducts and metal boxes. Mrs. Gropius wore a crown of aluminum plates and wire strippings. The guests danced to two rock bands, watched a nude show with performers covered in metallic paint and walked through a film show.

One of the costumed guests was N. Taylor Gregg, editor of the Associated General Contractors of America's magazine, *Constructor*, and contributor to the AIA JOURNAL. A photographer as well, Gregg is responsible for the study of Mrs. Gropius at the Bauhaus exhibition in Chicago in September 1969 (*see* p. 24), from which came the cover for this issue.

Gregg is a prize-wining photographer, receiving in June an award from the American Association of Industrial Editors for a pictorial essay on Model Cities published in the June 1969 *Constructor*. Of more direct interest to the AIA JOURNAL, Gregg produced the November cover, which also was cited by the industrial editors.

New Department Created for Publications

A newly established Publishing Department will bring together into one organization all AIA publications such as books, special reports, contracts, forms and the AIA JOURNAL. Some of the immediate goals of the new department are the creation of efficient and workable controls over all publications. proper orientation to their audiences and improvement of content.

The director of the department will be Dudley Hunt Jr., FAIA, who, in addition to his new duties, will continue to be publisher of the AIA JOURNAL, a position he has held since 1964.



The Mathematics Building (right) which joins remodeled Leet Oliver Memorial Hall (a par of the competition) and adjoins the courtyard of Marcel Breuer's Becton Laboratory.

Competition-Winning Building to Provide Yale Mathematicians with New Quarters

"Like a door opening on the future," remarked a member of the jury that awarded the design competition for Yale University's Mathematics Building to the Philadelphia firm of Venturi & Rauch.

The two-stage competition drew 468 entries, from which five semifinalists were chosen in February, each receiving \$10,000 at that time. The other four:

John Fowler, John Paul McGowan, New Haven

• Office of Fitzhugh Scott-Architects, Inc., Milwaukee

- · Van Slyck, Callison, Nelson, Seattle
- · Verman, Lepere, Petit, Philadelphia.

The team of Robert Venturi, AIA, and John Rauch, AIA, also includes W. G. Clark, James Greifendorf, Steven Izenour, Arthur Jones and Douglas Southworth.

Judging the designs of the \$3 million 55,000-square-foot structure, funds for which are still being sought, were seven architects and university officials: Edward Larabee Barnes, FAIA; John Christiansen; Romaldo Giurgola, AIA; Charles W. Moore, FAIA; Charles E. Rickart; E. Kevin Roche, AIA; and Vincent J. Scully.

J. George Stewart: Polemical Architect Of the Capitol Under Four Presidents

The story is told that when J. George Stewart came to Washington, Speaker of the House Sam Rayburn remarked, "Boy, you came here to work, not to talk." It is well known that Mr. Stewart never did talk very much and that he worked extremely hard.

While Architect of the Capitol, he spent over \$200 million and probably received



more criticism than any of his seven predecessors. He usually ignored his critics with a terse and icy "No comment." He had a loyal and dedicated staff, however, and his more loquacious defenders included for-

mer Vice President Hubert H. Humphrey, House Speaker John W. McCormack and House Minority Leader Gerald Ford. Apcontinued on page 10

One of the problems in choosing a door is knowing which door to choose.

There are tall doors, short doors, wide doors, thin doors, fire doors, soundproof doors, solid-core doors, hollow-core doors, wardrobe doors...you're not the first to have problems deciding on the right one. Every one of your buildings needs such a variety of doors. Then codes, design and cost problems must be considered. And considering the wide variety of doors avail-

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outlook from page 8

pointed by President Dwight D. Eisenhower as Architect of the Capitol in 1954, Mr. Stewart continued his tenure under Presidents Kennedy, Johnson and Nixon.

Mr. Stewart, who died on May 24 at the age of 79, was a professional engineer. He started his career in his father's heavy construction company after leaving the University of Delaware. He served one term in the House of Representatives, after which he returned to work in his father's firm, Stewart & Donahue, in Washington. During the '40s, he worked with the Hercules Powder Co. in conjunction with the Department of the Army. He also was associated with the Pennsylvania Engineering Co. for a time. Prior to his appointment as Architect of the Capitol. Mr. Stewart was a consultant to the Army Corps of Engineers and to the Department of Justice's land division. In 1957, the AIA made him an honorary member.

Mr. Stewart is probably best known for two controversial projects: the 32-foot extension of the East Front of the Capitol, which he argued was needed to save the dome, and the construction of the Rayburn Office Building, erected at the cost of \$22 million more than had been estimated, and derided by critics. His proposal for an extension of the West Front of the Capitol has been condemned by the AIA as a move which would destroy "the last vestiges of the Capitol as it was originally built." Congress has directed that a feasibility study be made to determine if the West Front can be restored without additions or extensions.

In his 15 years as Capitol architect, Mr. Stewart directed the remodeling of the Cannon House Office Building, removed the greenhouses belonging to the US Botanical Gardens, modernized lighting and wiring in the Capitol and directed acquisition of eight blocks for Capitol grounds expansion. He worked also on the plans for the proposed new building for the Library of Congress, the James Madison Memorial, for which funds have been appropriated in the House but are still pending in the Senate. In charge of the 133-acre Capitol Hill, Mr. Stewart sought to beautify the area and to give it a campuslike atmosphere.

Secretary Volpe Is Among Newsmakers On the Octagon House's Register

"I have enough faith in American ingenuity to know instinctively that we will not cover over the nation with concrete, will not throw people out in the streets in order to build better streets, that we will not fill precious urban land with parking lots, garages and interchanges."

That statement was made before the 13th Highway Transportation Congress by Secretary John Volpe, who later was to become the first Cabinet officer to be honored at a reception at the newly restored Octagon House.

The answer to the problems of highways and the environment, Volpe continued, "is not to halt the building of highways" but "to make sure that the vehicles using the highways do not foul our air, choke our lungs, take our lives." The Transportation Secre-



Octagon guests include Secretary and Mrs. Volpe and Institute Honorary Members Miller and Gardner flanking AIA Executive Vice President William L. Slayton.

tary stressed the need for protection of the environment in building highways, stating that "We cannot build an inch of pavement without full planning, full consideration for the environment, full consideration for human and natural resources."

The AIA cited the Transportation Secretary for "his leadership in the fields of improved urban design, balanced transportation systems, humane relocation policies and other directions that promise hope and opportunity for the nation." At the reception, Volpe discussed transportation solutions and other pertinent topics with more than 125 Congressmen, AIA officers and members and other interested guests,

The Octagon House has been the scene for other festivities honoring dignitaries. In May, John W. Gardner and J. Irwin Miller received citations for the honorary memberships conferred upon them by the AIA in 1968. Neither had been able to be inducted at the time of the convention in Portland.

Gardner, who heads the National Urban Coalition (*see* AIA JOURNAL, June '70, p. 32), is a master spokesman for matters pertaining to the environment. He holds the Presidential Medal of Freedom, the highest civilian honor in the United States.

Miller, chairman of the board of Cummins Engine Company and the Irwin Union Bank and Trust Company in Columbus, Indiana, has long been a champion of the best in contemporary architecture. Under his inspired leadership, Columbus has become a Mecca for those who appreciate architectural beauty. *continued on page 13*

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4" 4" 4" 4" 4" 4"	3" 3" 2½" 2½" 2" 2"	2 2 2 3 3 4 4	Yes Yes Yes	1 hr. 1 hr. 2 hr. 2 hr.	37 43 41 49 45 52	51 65 68 82 86 100

**Estimate based on engineering analysis of tested assemblies with similar construction.

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outlook from page 10

Public Housing Pioneer Oskar Stonorov's Contribution Goes Beyond Architecture

The French sculptor, Aristide Maillol whose creations adorn museums throughout the world, once had the architect Oskar Stonorov, FAIA, as a student. This training served Stonorov well: He became noted for integrating sculpture into architecture. In 1965, he won a prize from Philadelphia's Fairmount Art Association for a sculptured fountain. He was a versatile person whose interests ranged from collecting classic statues from Egypt, Greece and Mexico to breeding Guernsey cattle on his Avon Lea farm in Phoenixville, Pennsylvania.

A partner in the Philadelphia firm of Stonorov & Haws, Stonorov was killed on May 9 when a chartered jet plane that also carried Walter Reuther, president of the United Automobile Workers, Reuther's wife and three others crashed in a northern Michigan fog. Stonorov was the designer of the \$14 million UAW Family Education Center near Onaway, Michigan, the destination of the plane's passengers. Stonorov had worked also on the headquarters building of the union in Detroit in the mid-1950s.

Born in Frankfurt, Germany, in 1905, Stonorov studied in Switzerland and Italy. He came to the United States in 1929 and worked for the New York architect, Harvey Wiley Corbett. He opened his office in Philadelphia later where he designed the first major public housing project of the New Deal era, the George Mackley Houses. Collaborating with Louis Kahn, George Howe and Alfred Kastner, his firm pioneered in public housing and won numerous awards. Among his designs was a public housing project sponsored by the American Federation of Full-Fashioned Hosiery Workers in Philadelphia, the Government of India's pavilion at the 1964 New York World's Fair and the medical facilities and laboratories at Temple University.

Deaths

K. C. COWLES Lake Forest, Ill. ARTHUR K. HYDE, FAIA Detroit, Mich. E. CHESTER NELSON Fort Smith, Ark. JAMES R. WILDE Garden Grove, Calif. Members Emeriti **ROBERT H. AINSWORTH** Pasadena, Calif. MEADE BOLTON Altadena, Calif. LLOYD J. FLETCHER Lemoncove, Calif. PAUL JERMAN New York, N.Y. OTTO F. LANGMANN New York, N.Y. EUGENE WESTON JR., FAIA Pauma Valley, Calif.



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the institute

A Look at AIA Advertising

Response to AIA's first national advertising campaign makes it increasingly evident that it has been successful in helping focus public attention on the environmental crisis and get improvement action underway.

The first advertisements on television and one-page, black and white pollution ads in national magazines stressed the importance of individual recognition and involvement in these problems. The two-page "Why—Why Not?" ad series in color was originated to point out specific problems in our man-made environment and to recommend solutions for them. The advertisements have appeared in such magazines as *Fortune*, *Time*, *The Saturday Review*, *Harper's* and *The Atlantic*.

Two television spots based on ghetto conditions and pollution were given to stations for public service use on a national basis. The success of these TV spots is seen in the



above. According to reports, over 360 stations in more than 400 markets have used the commercials over 4,400 times. Had this time been bought, the estimated value would have been between \$1.5 and \$2 million. In addition, *The Saturday Review* has awarded the "Why?—Why Not?" ads and the one-page statement ads two separate awards, the first for Distinguished Advertising in the Public Interest and the second for Distinguished Advertising in the Public Service Category.

Readership of AIA advertisements has been high. For instance, the waterfront "Why?—Why Not?" ad in *Fortune* was the third best read ad by male executives.

Various publications have requested permission to reproduce one or more of the ads. *The New York Times* reproduced the water pollution ad in its entirety in the February 15 issue of its News of the Week in Review section. The four black and white ads are to by NEAL E. TONKS Vice President, Doremus & Company

be included in the college textbook Introduction to the Social Sciences — Selected Readings, to be published by Holt, Rinehart & Winston, Inc., in 1971. Family Health magazine reproduced the same four ads in March and April. The "City Streets" ad will be in a college textbook tentatively titled Man in Society, to be published by Canfield Press, a department of Harper & Row. The Student Lawyer Journal used the photos of the statement ads on the cover and in their April issue, giving the AIA editorial credit.

Another advertising activity has been directed at members of Congress and political leaders. The first of these ads established the Institute's stand on national priorities; the second dealt with a bill before the Congress to allow for the extension of the West Front of the Capitol. In this case, the advertisement and other AIA efforts helped stop the extension.

To merchandise the magazine advertising, special letters with copies of the magazines containing the ads and letters were sent to leaders in American industry by *The Saturday Review*; to administration officials and Senators by *Harper's*; to industrial and environmental leaders by *Fortune*; and to members of the House of Representatives by *The Atlantic*. The replies from the various sources indicate an increased awareness of the architect's role.

The Institute's advertising program is possible because of the interest in it by AIA members and their dues to fund it.

Currently under consideration is an expansion of the ad campaign entitled "Environment by Design." It is a major communications' project in which leading experts in science, economics, communications and industry present solutions to the environmental problems. This concept, which would be in the form of a 16-page insert of ads and editorial material, is being explored by *Newsweek* and *The Saturday Review* to determine how much advertising support can be gained from others. Contacts are encouraging.

Looking to 1971, the Public Relations and Advertising Committee, whose chairman is A. Bailey Ryan, FAIA, has been working with R. E. Millsap's Committee on Architecture for Commerce and Industry to plan new advertising to create a demand for good design and discuss the role and contribution of the architectural firm.

We believe that the implementation of the above in the years to come will produce even more interest and beneficial results. \Box

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Coming into favor with American architects is the use of "Brickplate," a type of ceramic tile with the density of natural granite that has been popular with European designers for years. Since 1963 it has been available in this country and Canada by Gail International Corporation, a subsidiary of Wilhelm Gail Ceramics, Giessen, Germany.

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South Center, Seattle, Washington. John Graham & Associates, Architects.

Although mass produced in one of the most automated ceramic facilities in the world, thus modest in price, Brickplate has a warm, handcrafted quality achieved through its controlled color variation. The same dense body is used for both glazed and unglazed finishes.

For additional information, prices, samples, local representative, etc., write Gail International Corp., or see our Catalog in Sweet's Architectural, Interior Design, and Industrial Files.



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AIA JOURNAL



AIA JOURNAL/JULY 1970 17

Mies van der Rohe called the Bauhaus an "idea" that Gropius formulated with great precision. He attributed its great influence throughout the world to the fact that it was indeed an idea. "You cannot do that with organization, you cannot do that with propaganda. Only an idea spreads so far." Here is an insight into the Bauhaus as an educational concept and a view of some of the giants who formed it, to whom we are in debt for instilling in us a continuing desire to find a harmony of art and science.

The international influence of the Bauhaus lasted long and was both formidable and inspiring. We must concede eventually, however, that like everything else, elements of the Bauhaus and their many mutations have been made so much a part of our thinking and doing in all these years that they no longer stand out as such. To make this influence still more obscure, perhaps, we experienced during the last 'two decades of unmanageable opulence a spreading of the vines of mannerism, eclecticism, personal stylism and just plain mercantilism over the entire body of architecture.

The greatest profits from the Bauhaus engrossment remain in the schools of architecture by way of enlightenment in the perception of space and "vision in motion," which must be traced back to the versatile Moholy-Nagy; to the experimenting interest in prefabrication, dear to Gropius' heart; and to Hannes Meyer's encouragement of systematic building research and more sophisticated methodology, which in a farsighted manner foreshadowed modern systems analysis and design.

Architectural students of today may not be fully aware of the fact that the way they are taught contains not only Beaux Arts approaches but also many elements of Bauhaus doctrine. During the '40s and '50s, the Bauhaus prestige in the United States was at its height, if for no other reason than that the towering figures of Gropius, Mies van der Rohe and some of their original collaborators had established their personal influence. Despite the fact that this country had its own modern tradition in the Chicago School, notably Sullivan and Wright, several of the Bauhaus meisters, after coming to this country, could permeate the entire educational system of art and architecture schools. When mention was made recently that the teaching in a British school of architecture had changed emphasis from Bauhaus and "basic design" influenced pattern to concentration upon the development of "problem solving" skills, an error was committed by overlooking the fact that the "problem solving" approach of today can be traced back to the Bauhaus, particularly under Hannes Meyer, the Swiss architect.

History is being written fast these days, and the history of the Bauhaus is no exception. Among the many books published by and about the Bauhaus, including the volumes by and about former Bauhaus teachers and students, is a giant compendium by Hans M. Wingler entitled *The Bauhaus: Weimar, Dessau, Berlin, Chicago*, translated by Wolfgang Jabs and Basil Gilbert and edited by Joseph Stein (Cambridge: MIT Press, 1969, 703 pp., \$55). Published in German in 1962, this book is a spectacular one, and it outdoes the original edition both in size and content. This weighty volume is more than a book. It is truly a monument to the Bauhaus, its masters and students.

Wingler's book is divided primarily into sections which describe and document in detail the Bauhaus according to the stations of its turbulent history: Bauhaus Weimar, Bauhaus Dessau, Bauhaus Berlin and the New Bauhaus in Chicago. The postwar Institute of Design in Ulm is mentioned only briefly. Wingler's historical introduction clearly shows that there is not yet enough distance in time to develop scholarly objectivity.



THE BAUHAUS





An Idea Whose Time Had Come





by H. H. WAECHTER, AIA

Across page, above and below: drawings by Paul Klee from an essay, "Exact Experiments in the Realm of Art," published in the journal *bauhaus* (Dessau, Vol. 1, No. 2/3, 1928). At the time, Klee was primarily investigating problems of geometrical construction. This page, above left: idea and structure of the Staatliche Bauhaus by Klee (1922). Above right: reproduction from the prospectus of the New Bauhaus, Chicago, showing the program (1937-38). Left: Johannes Itten's lithograph with a figural theme (1919). Appointed to the Bauhaus that year, Itten introduced his educational principles there. Second left: color lithograph by Herbert Bayer (1923). He made a creative contribution as a junior master.

All illustrations from The Bauhaus: Weimar, Dessau, Berlin, Chicago, courtesy MIT Press.

There are forced attempts to write history as if all roads lead to the Bauhaus.

Nothing better defines the social significance of the German Bauhaus than that it was born and died simultaneously with the Weimar Republic. Something that is not properly brought out by Wingler, but later documented is the fact that the Bauhaus was a product of that great revolutionary period after World War I. While some of the Bauhaus painters spent several years in Munich, the center of postwar modernism was Berlin. It was here where an incredible number of German and international leaders of the modern movement lived and congregated.

Among the architects were the Taut brothers, Gropius, Mendelsohn, Häring, Scharoun and many others. Most of these architects were members of the Werkbund, this wonderful organization of leading pioneer architects, designers and industrialists who perhaps had the greatest influence in Germany on the actual development of modern design since 1907. Expressionism, Dadaism and Functionalism radiated their influence from the Berlin days of the revolution and the years just thereafter, while there were connections also with Russian Constructivism, the Dutch de Stijl group and French Cubism. Least pronounced was the influence of the short-lived Italian Futurism. Further, we ought not to forget that there were other parallel developments in the world, such as the work done by Richard Neutra and Rudolph Schindler in the US. Neutra's Lovell house, in fact, was ahead of anything built in Europe up to that time. For that reason, it would be rather misleading to keep alive the legend that the Bauhaus was an isolated phenomenon where all the action was. It certainly was unique as a school and institution, but it should be understood in the context of its time.

Much is being made of the debate on what the Bauhaus really was and what it represented. Each of the masters had his own understanding, which sometimes changed, and each outsider looked at it differently. Gropius' first program for the Weimar Bauhaus contains elements of the manifesto of the Arbeitsrat which functioned during the revolution, and for which Bruno Taut was the principal author. Gropius' own suggestion at that time (1919) was that architects, sculptors and painters should return to the crafts, and that there is no essential difference between the artist and the craftsman. A little later, in 1923, the combination of art and technology was stressed. The transition apparently was not easy because, when Georg Muche, a painter, thought of synthesizing the arts and crafts with industrial production by the design of an experimental prefabricated house in 1925, he encountered some difficulties. He did receive the support of Gropius and the practical assistance of Adolf Meyer.

The rather spectacular and searching Weimar era was denigrated by some critics as an "expressionistic interlude." Another idea, to draw a straight line from early standardization efforts in industry to the Dessau Bauhaus as a sort of self-fulfilling prophecy, appears to be absurd. But somehow, to Wingler at least, everything came out right as a "sovereign creative act." Here history becomes theology.

Gropius did not like the idea that the Bauhaus might be considered an experiment. But he, and others also, stated that it was an experimental institute. Only Mies van der Rohe knew what the Bauhaus was in a way that made less appear more. He said that it was an "idea" that Gropius formulated with great precision, which "is the cause of the enormous influence the Bauhaus had on every school around the globe. You cannot do that with organization, you cannot do that with propaganda. Only an idea spreads so far . . ." Wingler's book is evidence



Above: entry of Hannes Meyer and Hans Wittwer in competition for League of Nation's general secretariat building (1926). Across page, above: design by Walter Gropius and Adolf Meyer for Academy of Philosophy in Erlangen, illustrating characteristic arrangement of architectural masses. Below: penand-ink drawing, "Bazaar Still Life," by Klee (1924). He was a master at the Bauhaus from 1920 to 1931 and was most influential in educational activities which he carried out in conjunction with preliminary courses.



enough that enormous efforts did go into propaganda, continuous propaganda and very effective propaganda.

No doubt, the Bauhaus was the brainchild of Gropius. This book and other literature bear out that he was not only its director in the fullest sense of the word until he left in 1928, but he also commanded decisive influence, directly and indirectly, throughout the entire Bauhaus history. He was a genius as a conceptual thinker, organizer and teacher. The vitality was maintained amidst the chaos. Yet his lack of talent for systematization was a real shortcoming. He never tired of preaching the "total building." He plowed the furrows into which many artists of extraordinary gifts were placing the seeds of new ideas and daring experiments. The resulting growth was uneven but exciting, and its seeds spread all over the world.

If we consider the history of the Bauhaus as a whole and look at the changes in leadership, the dramatic coming and toppling of teachers, the never-ending turmoil among the students and the need to battle constantly the onslaught of reactionary forces on the outside, we must marvel at the fact that, in retrospect, the phenomenon of the Bauhaus looks much more solid than it really was. As a "nonschool," the Bauhaus was a haven for creative minds to which outsiders also looked for inspiration. The Bauhaus lived its philosophy that art cannot be taught and that a good school has to be a "house" where good minds and talents meet to participate in the struggle for ideas and to experience creative adjustment.

Josef Albers said that "experimenting surpasses studying." Probably he was the most typical Bauhaus master, a product of and a teacher in the institution until the very end and also perhaps the most enduring and influential man to carry on in the New World. As founder of the New Bauhaus and a teacher of great significance, only Moholy-Nagy had a comparable position in America. Unfortunately, his untimely death cut short his rising importance. Marcel Breuer, who was trained and taught at the Bauhaus and later at Harvard, became influential in this country as a leading architect rather than a teacher.

The practical results of the Bauhaus count more than rhetoric, intrigues and political difficulties. Not only design education but also industry profited greatly from the workshops — a great idea — despite the fact that the struggle of being production shops as well conflicted with the purposes of a training institution. The trouble was that there were not many industrial firms where this kind of training could have supplemented the theoretical schooling. But there was the need for the Bauhaus to make money to supplement its budget. Weaving, wallpaper design, advertising design, furniture and lamps were probably its most successful endeavors. The housing development at Dessau-Törten was an outside work-study project, where, for the first time after Muche's house in Weimar, the Bauhaus was able to combine its activities in a single project.

Although the workshops produced some famous prototypes for industry, the Bauhaus was after all an educational institution which can never supersede the vital forces of the practicing professions, particularly in the applied fields. The artists in residence, however, were not only teachers but also independent producers of their art. They created works that became outstanding and probably longer lasting than the industrial products. The many reproductions of paintings by Klee, Kandinsky and Feininger that one sees in the hippies' bookstores do not find their way into "total houses." They gained a life of their own.

The painters, however, made one important contribution to architecture that lasted in architectural education. It is the



Above: entries in the competition of the German Werkbund (1931) for standardized home furniture. The work by the students of the design seminar won several awards. Below: a sample of textiles of the second half of the '20s, the creations of Lis Beyer.







Above: oil on canvas, "Plants in a Thunderstorm," by Georg Muche (1922), the form master of the weaving workshop. Left: table lamp designed by Wilhelm Wagenfeld and K. J. Jucker with globe of frosted glass and base and stem of glass, attempts functional form (1923-24). visual training program that was contained in the "basic course," compulsory for all students. Initiated by Johannes Itten, the visual training was expanded and underwent various interpretations by succeeding teachers, foremost Moholy-Nagy, Kandinsky and Klee, the author of *Paedagogical Sketchbook*.

Other important activities were the unique theater workshop under Oskar Schlemmer and the influential work of Herbert Bayer, Moholy-Nagy, Albers and Joost Schmidt in the area of typography and lettering. The uniform use of the lower case had cathartic significance for Germany.

In Wingler's book, the section of illustrations together with the marvelous color plates are to this writer particularly delightful, well-reproduced and informative documentation of selected examples of Bauhaus work. They give cause for sentimental musings to anyone remembering the '20s and '30s and, for the American student, the '40s. Because of the addition of pictures from the New Bauhaus and the Institute of Design in Chicago, some material contained in the German edition was omitted. For example, one misses the important S-curved tubular chair by Mart Stam that should have remained at the expense of some of the earlier experimental designs. In fact, some of the curios that belong more in a high school annual could have been omitted for more informative materials.

Gropius, who gave many speeches to battle "misunderstandings" inside and outside the Bauhaus, once defined its field of endeavor as one that "embraces the whole range of visual arts under the guidance of architecture." Yet it took until the middle of 1927 for a small architectural department to be added with Hannes Meyer in charge. He became director of the Bauhaus a year later. Another Swiss, Hans Wittwer, was his assistant. Meyer's successor as director, Mies van der Rohe, was also in charge of architecture.

For architects of today the Meyer era is of great interest. Much is made of his political views, which were radical and Marxist, although he disclaimed any kind of party affiliation and eliminated a student Communist cell active at the time. His philosophy was clear, however. He told the students: "You speak of chaos and I admit that this term is not entirely false. But chaos is not only to be found here in the Bauhaus, the whole world is full of unresolved problems . . . Today, as yesterday, the only correct thing is to be 'children of (one's own) time.'"

It speaks for Wingler's account that, despite his own bias, he gives for the first time in a major publication on the Bauhaus some deserved credit to Meyer's great qualities. It is surely misleading, however, to call Meyer's achievements "quantitative" in view of the evidence of the work presented in this book. Meyer certainly added to the qualitative achievements of the Gropius era as well as his own, despite the supposition that both eras could not be "merged." After all, the Gropius era itself was beset with ups and downs, and Gropius' departure looks very much like the scene where the hero is thrown from the bucking horse at the rodeo. Meyer introduced new programs and drew the cooperation of an illustrious array of scientists, social scientists and psychologists, among them Vienna's social reformer Neurath, the *Gestalt* psychologist Krueger and the architect-planner Hilberseimer.

The idea that the internal political conditions precipitated

Mr. Waechter, an architect in private practice in Oregon since 1953, has held professorships in various universities both here and abroad and for the past six years has lectured at the California State Polytechnic College. Trained in Berlin and Munich during the '20s and '30s, he studied with Bruno Taut and Robert Vorhoelzer and worked with Max Taut and Hans Hertlein. the external political difficulties is rather unrealistic. Even if Mies had taken over after Gropius instead of Meyer, that would not have held up the Nazi counterrevolution and the end of the Bauhaus. As far as radical social ideas are concerned, however, Meyer came too late anyway. The loss of the revolution in Germany was already impressively documented by Mies' monument in memory of Rosa Luxemburg and Karl Liebknecht. The radicalism in art and architecture which came to the surface during the revolution was by no means restricted to the Bauhaus. The sum total of Bauhaus success must be understood as composed of a great number of attempts, experiments and achievements that stand out as extraordinary and meritorious.

It seems to blur the good view of these achievements in a turbulent time by presenting, as in Wingler's book, such a solid picture of the institution, guided by one god though disturbed by Meyer's infidelity. Even if we imagine Meyer to be not good enough an operator to do the impossible, he was in all his naiveté a most foresighted man.

While architects the world over have received by now the visual training à la Bauhaus, we are still beset with the same problems of how to meet the design challenge of this age of fundamental social changes and how to turn to mankind's advantage the technical developments that run amok. In our struggle for survival as a race and for decent living conditions that would make our political democracy come to life, Meyer's vision can still give much encouragement and hope that the architect will have useful functions in the future, no matter by what name.

Meyer actually caused Gropius' ire primarily because Meyer neglected the painters. The argument about the matter of "party politics" does not merit much consideration in view of the general political situation. For the same reason, it is hard to understand why Mies had illusions that the Berlin Bauhaus could succeed. But Gropius' concept of the unity of the arts was basically sound, and Meyer seems to have modified his position in this matter in later years. To Meyer, being an uninhibited idealist was not breaking the promise to keep out of politics. To keep quiet would have done little to save the Republic.

What to us seems of greater importance is that Meyer was farseeing with regard to architectural policies. Aside from the Taut Seminar in Berlin, Meyer's department was the only group which undertook studies of human behavior in building in a systematic fashion — something we are taking up again at a higher level of science and technology. To neglect human factors in the analysis that leads to design decision making in favor of overemphasis of visual theory was what Meyer called "formalism," something he considered art for art's sake. Both sides in this feud were overindulging in orthodox attitudes, and the increase in polarization, which had beset the Bauhaus throughout its history, was regrettable, of course.

We are badly in need of more comprehensive thinking in design and a reconciliation of the rational with the irrational in man's personality. The tremendous discourse contained in the Bauhaus book ought to make clear that the important socioeconomic factors cannot be neglected in a complete analysis of those problems and that their solution requires a harmony of art, science and the mundane life where greed must be controlled.

Much of the anxiety of our time stems from the question as to whether there will be time to cope with such a long-range goal. An educational institution cannot make the decisions in this development. But the Bauhaus, no matter what the "era" was, can take credit for having introduced and encouraged the search for the questions and for the development of some of the tools which help to find the answers.



ISE GROPIUS AT THE CHICAGO EXHIBIT

In recognition of the 50th anniversary of the founding of the Bauhaus in 1919, an exhibition sponsored by the West German Government made its international rounds. It was displayed in Chicago at the Illinois Institute of Technology in August and September 1969, where it drew record crowds and lavish press attention.

Some 2,000 displays filling 30,000 square feet of floor space included some of the best works of such masters of modern art and architecture as Paul Klee, Wassily Kandinsky, Laszlo Moholy-Nagy, Lyonel Feininger, Josef Albers, Walter Gropius, Mies van der Rohe, Marcel Breuer and others. All aspects of the Bauhaus were covered in the exhibition, including its history and daily life, its teachers and students.

In connection with the exhibition, IIT played host for a Bauhaus symposium, which lasted three days. At a dinner in tribute to Gropius, the book *Bauhaus*, which plays a prominent role in the preceding article, was introduced. On hand was author Hans M. Wingler, shown above with Mrs. Gropius.







Old Buildings Need Lots of New Love



by GIORGIO CAVAGLIERI, FAIA

A preservationist rejects imitation of past concepts and procedures but pleads for a respect of our architectural heritage to stimulate continuous creative ability.

For about two centuries, the life of the white man on this continent was geared to the impression that there was a complete "new world" to conquer. The wide open spaces promised each generation of pioneers and immigrants the certainty that the world of tomorrow was to be more attractive and more rewarding than that of one's parents. Action and inventiveness at all cost were presented as the lure of the future; "progress" was new, and anything new by definition would be better than anything old.

Although the western Europeans who filled this continent brought to it recollections and nostalgic souvenirs of customs and visions they had in the old country, architectural expressions were always interpretations rather than imitations. Our ancestors created distinct forms and environments typical of their way of life, their ambitions and the means at their disposal.

The main element America added to old forms was the scale, the size, the grandiosity of the general thought. It was so even when the technical means were modest and the purposes of the buildings were limited. The houses on Beacon Hill are small constructions rising within narrow streets, but near them is the open vista of the green Common. Williamsburg was built about the time of Versailles, but it was open to the countryside and the wild forest. Even if the buildings were considerably smaller than the châteaux, they were widely spaced and part of a large open natural environment; they were not compacted into a single huge mass, isolated in the manufactured landscape of Versailles.

It was only in the middle of our century, only after mobility and ease of communications — visual as well as physical arrived, that we became aware that the infinite charm and the fascination of our great spaces might vanish. The sudden interest in things of the past, which has characterized the America of the '50s and the '60s, probably is the consequence of the recognition of the end of an era.

The new world to which came the dissatisfied, the persecuted and the idealist of the European continent for two centuries has come to an end: Its spaces are filled, its opportunities are not unlimited. Destroying and rebuilding, clearing up and moving on, are not anymore a promise of progress, nor are they complete answers. Some of the achievements of the past may be greater than what we can accomplish now; some of the products of the past may be better than what we can devise today. Some of our inheritance may be worth keeping, reusing and cherishing.

This feeling is most visible and acceptable when we examine our buildings, and we become aware that our rush to production has given us minimum standards. The search for functionalism has come to call impractical all that is not directly and immediately useful.

By so doing, we have ignored the spiritual life created by high ceilings, by long perspectives, by unexpected spaces and forms. Unconsciously or consciously, this is what most people look for, and find, in many old buildings and in their environment. This is why so many of us suddenly have realized the value of many old structures. This is why we want them preserved. Their very naiveté, their free composition, their unrushed detailing, carefully produced by work of skilled hands and not with repetitive molds, give to the old buildings a charm that we do not produce with our own conceptions and methods.

Is it possible to foster these characteristics by carefully imitating procedures and concepts of the past? I do not think so. Our life of today is a complex one. Legislation, mechanical equipment, habits, time schedules intervene in nearly all our actions.

Even if one gifted individual can abstract himself from the pressures of modern life long enough to conceive forms of the past useful for specific functions, the large number of people necessary to execute his concept would hardly be capable of separating themselves from the tools, the materials and the means of production which are part of their life. They would not be able to identify completely with a design foreign, or at least unrelated, to the activities to which they are accustomed.

To avoid misunderstanding, some definitions are in order.

Mr. Cavaglieri, newly elected president of the New York Chapter AIA, is preservation coordinator for New York State. His article is adapted from an address delivered before the technical personnel of the Port of New York Authority and the South Street Seaport Planning Conference.

Preservation of a building is the effort to maintain it, to keep it similar as much as possible in visual appearance to the form, color and texture with which it was originally designed. *Restoration* is the series of technical operations through which the soundness and appearance of the original building is maintained. *Reconstruction* is a complete rebuilding in terms, guessed or known, of some structure which has already disappeared. *Imitation* is an interpretation by any particular designer of today of those forms and details of the past reassembled to suit some conditions, possibly even unknown at the time the forms were invented.

Most buildings of the past are viewed in the existing environment from perspectives different from the ones for which they were designed. In general, the successive taking over by traffic lanes has changed considerably the streets and the open areas around them which used to be green with grass and trees. Also, the lots adjoining the building of the past have become much more densely built so that the entire scale of the building's original design has lost its initial meaning.

Yet in most cases when people develop affection for a building of the past, they have accepted its present environment, against which it stands out as a relief and a point of interest.

If and when large investments are made to preserve and restore an old building, its character and its form must be conceived and visualized as a part of the urban texture which will arise around it. It is *against or with* these new future forms and developments that the investments of preservation must be considered. Every urban community gains enormously by the presence of old buildings because of the variation they create in the urban pattern, even if the impact of their form is far from the one originally intended.

Changes in the ways of life are the main reason for obsolescence of existing buildings. The land values usually suggest new uses, and under the pressure of real estate interests the old buildings are destroyed to make room for the new. The industrial revolution and the great development in building materials were the prime motives of the modern concepts of architecture; the "form follows function" dictum encouraged destruction of old buildings, while the enthusiasm for abandoning the old and seeking the new seemed to favor increase in jobs and in economic well-being.

Yet it is perfectly possible to use old spaces properly for many new uses, provided selective attention is given to the requirements of the occupants. Form is the result of a net of many functions: A creative designer can change old forms enough to satisfy the needs and still maintain the basic characteristics which keep alive the impact of the old design.

The "old" form is above all the geometric composition of the masses and the texture and color of the materials which are assembled. Details count mainly because of the line and shadows they mark; they are not the determining factor for the impression a building imparts.

The moldings around a doorway, the coloring of a stone or the depth of a carving have become through the years lines and shadows, elements of general texture, not specific elements of design. Their actual shape is generally of secondary importance in today's world.

Instead, the requirements of mechanical equipment have exceptional influence on appearance and design. To use an old building means inevitably to insert in it new pipes, ducts, cables, equipment; some of these may be very large in volume and size; some may need contact with the exterior.

No user today under any circumstance would accept in a

building the discomforts of temperature and ventilation nor the limitations in lighting which were common as late as half a century ago. This will force *corrections in the form* of the restored building; at times, however, it may offer exceptional opportunities for new effects and new designs, if properly handled by a creative mind. It is with this perspective that the crucial dictum is stated: *Restoration is an opportunity to create more, not a chance to imitate and fall back on the past.*

From the beginning of time, as buildings were developed to house individuals and their goods, construction and architecture have reflected the different ways of life with forms and techniques. This is valid not only when statements are made on very broad lines encompassing centuries, but also when we come down to closer and shorter periods.

George Washington did not live or act like Lincoln, and for that reason the famous Ford theater evening could not have been held at Mount Vernon. Thomas Jefferson did not live or act like Commodore Vanderbilt, and therefore Monticello would not look right on Fifth Avenue. The palace of Lord Baltimore would not seem adequate, nor close enough to the Stock Exchange ticker-tape, for a meeting of the board of directors of the Chase Manhattan Bank. In an attempt to install sufficient cable and electric power for closed circuit TV and telephone installations in the gardens of the state Capitol, we would change the face of the sleepy old town of Annapolis. It is obvious that the physical needs of today extend their influence much beyond the room where meeting or studying occurs.

The way people can reach a building is reflected in the appearance of the open spaces around it. What was an adequate approach for a few carriages and horses has nothing to do with parking cars, links to subways or other means of public transportation. Yet when a building of the past is used today for some new purpose, nobody would expect it to be reached differently from any of the buildings around it.

We have to face the fact that a set of buildings and activities based on the past may be enjoyed and used by us and the generations after us mostly for educational value and for entertainment, or for some exceptional purpose. They will be visited by crowds much larger than the ones for which the buildings were originally designed. These people will not think of themselves as an integral part of the environment, but they will accept and judge what they see and probably retain only a general impression of it.

Whenever the buildings of the past exist and are loved and appreciated by the public within the urban texture, this very interest enhances the real estate value of the neighborhood and the value of the land on which the buildings stand.

Notwithstanding any legal protection such as landmark designation, bronze plaques, historical notices, etc., there is and will be a constant pressure toward the sale of the old buildings, with a view toward the construction of new structures of much higher volume and suitable to a much greater density of population. *The only real protection the old building has is the psychological one of love by the public*. This will have to be provoked continuously and supported by the intellectual community with articles in the press and statements in all modern means of communication. The public will be led from the universities, lecture halls and learned societies, when these are convinced of the ultimate educational and esthetic value of the object of their attention and love.

Respect for the things of the past will emphasize our wish to have our own concepts respected in the future. Continuous use of the work of our predecessors will prove its vitality and stimulate our own creative ability.



It all started at the baseball game of the Frank Grad & Sons' first annual picnic. A partner had slid safely into second base, beating the throw by a mile. He stood up, ready to kid the second baseman about his dropping the ball when the partner realized that he didn't even know the name of the employee playing second base. The firm had grown so large that its members were becoming strangers to each other. It was then that the partner resolved to find some way of providing better communication within the firm.

This is what had happened. From the establishment of the firm in Newark in 1906 to the present, Frank Grad & Sons had increased to 130 people (*see* Practice Profile, AIA JOURNAL, Oct. '68). As a result, the

firm outgrew its office space and moved several departments to remote locations. This fragmentation plus rapid growth changed a closely knit, centralized organization into one with extended communications, waning familiarity and with all the resultant problems. So the brainstorming began.

At the weekly Monday morning partners' meetings, many ideas were bounced against the four walls. Finally, the initiation of a company newsletter seemed the best solution. All agreed: This would be an excellent means of closing the identity gap, of informing, encouraging, praising and building stronger unity among all Grad employees. It was worth a try. Many fine details had to be thought out and worked out with the conclusions reported to the partners by the per-

son who would be editor. The decision: As the new director of information, working with the partner responsible for public relations, I would gather the facts, organize the publication and move the idea into a happy reality. At that moment, I was handed the title "editor."

Then the mental gymnastics began as the firm tried to formulate what we call the basics. We realized that "why" was the central and operative question. Because after the philosophy and purpose of a project are clearly formed, the "how" flows naturally, though at times awkwardly.

After much talking and listening, we understood that the newsletter had to serve two practical purposes: internal employee communication and external information. Since the project was 100 percent overhead, it had to perform several jobs simultaneously. Therefore, the challenge of the "delicate balance." The newsletter must contain news stories about our completed projects, well illustrated. It must note new projects in the office that hold the promise of a busy, productive future. It must communicate a sense of history and stability by tracing the firm's growth. It must highlight architectural awards and the professional and community activities of the partners and staff. On the other hand, it must accent the personal: sports, recipes, poetry, cartoons and feature stories on personalities.

Coordinately, the tone of the newsletter would reflect the subject: a formal style for the business articles and an informal style for the personal articles. Generally, the writing style would tend more to the conversational, informal and, at times, entertaining. Next, the investigation and footwork began.

Name: We decided to run a contest asking for suggested names from all the employees. We distributed several memos outlining the details of the contest, the deadline and hinting at a mystery prize. From over 100 submissions, we isolated eight names and a committee of partners selected the winning name. The result: *Grad-About*. We held a brief awards ceremony with trumpet accompaniment at 5:00 p.m. on a Friday as the two winners, who had submitted the identical name, were presented their bottles of imported champagne. So we had a name.

Design: Since, as architects, design is our product, we felt that our newsletter must

Masthead: To graphically capture the tone and purpose of Grad-About was difficult. Ted made his presentation of four designs, the partners reviewed the submissions, then he tried again. Only after we thoroughly understood and could communicate the purpose of Grad-About to Ted, could he arrive at a design we all accepted enthusiastically. The masthead read: "Grad-About news from Frank Grad & Sons, Newark, New Jersey." Then volume, number and date. Ted supplied us with the finished artwork and photostats for the printer. In various issues we rearranged the copy and reversed the colors of the masthead.

Size: Since several of our recent publications were 10x10 inches — what we affectionately termed the "Grad size" — we stayed with this. We chose the four 2-inchcolumn page because it adapted easily to varied layouts and experimentation. We wanted something dynamic and growing. And best of all, the newsletter would fit perfectly into the envelopes which had been specially made for our latest current projects brochure. Although this size would cost more, we believed that the continuation of an image was important.

Paper: We selected a medium-weight paper, 80-pound, recommended by the printer and a color to match our envelopes, a beige tone. The printer ordered a year's supply to cut costs.

Ink: Since our paper color was a neutral shade, we decided on a brown ink to avoid the harshness of black. We wanted soft tones.

Type Face: We accepted Ted's suggestions

lish the newsletter quarterly; but as editor and journalist, I asked for elasticity knowing that we wanted to produce something of top quality. If we were lacking exciting material at one quarter, we wanted the option of extending publication several weeks or even



a month if necessary. Also, the publication of *Grad-About* was only one of my many varied duties so there were times when it was not tops on my priority list.

Number of Pages: Similarly, this was based on economy and available material.



represent a high quality in that regard. So we decided to hire an expert in graphic design as a consultant. Ted Eisenberg Associates of New York City had successfully planned several brochures for us. Thus he was the logical choice. His services for us included the design of a four-page dummy in two colors with the presentation of various masthead styles, typography and printing estimates. The total cost for his services was about \$750.

here also. He selected Mistral for the masthead title, Times Roman for the text and News Gothic for the features, and suggested type sizes for the various articles and the headlines.

Frequency of Publication: As so much in our lifestyle, this decision was based on cost and on my time schedule. I had consulted with three local printers to isolate the cost possibilities, just what we could do within a reasonable budget. Our aim was to pubSo we decided on a four-page newsletter, with the possibility of an insert when needed.

Costs: We planned to use a local printer rather than someone in New York. For 500 copies of a 10x10-inch page newsletter, using one-color ink, one printer quoted approximately \$400 for hot type or \$326 using the slower process of cold varitype with an initial printing of 3,000 color mastheads at \$170. Another offset printer figured about \$285 per issue. Actually, a 400-copy issue ost us \$324.45 and an earlier 300-copy ssue cost \$293.55.

Photos: We were fortunate to have an xcellent supply of architectural photoraphs of all our completed facilities taken by Gil Amiaga of New York City. But what bout the people-oriented articles? We wantto a balance between precast and physiognomies. Fortunately, the office Polaroid ande good quality prints. So as editor I liscovered myself doing the same things as when I had been a high school yearbook adviser and a college public relations assistant — I and the camera became one.

Style: Since I wrote the entire newsletter, had difficulty in varying the style of the articles. One solution was to invite guest columnists to submit material, but the response was slow and awkward. Another solution was to space my writing over a two-month period to bring a change in mood to each article.

Material Gathering: All senses acute! All eyes and all ears, everywhere! Since this was impossible, someone in each department was asked to supply me with a list of story possibilities and personal items each month. I had to be all listening. Periodically, memos and questionnaires were circulated to each employee for story possibilities. But personal contact was most productive.

Continuity: Because the newsletter would be published only four times a year, we wanted to create a continuum by repeating certain columns. Most fun was "The Grad Story," which traced the history of the firm. As I wrote in the first issue: "Since we are not historians, our presentation of 'The Grad Story' will be selective and personal." Our sources: a dusty, veteran-vintaged scrapbook and undistinguished but interesting people.

Most difficult was "Mole Hole News" in which we tried to include an item of personal interest about each Grad employee. A list was kept, and his name was checked every time it appeared in print. If he were photographed, a "P" was put next to his name. Hopefully, at the end of the first year, no one would be omitted. But as usual, there were those who grumbled.

Most challenging of all was "New on-the-Boards." In this column, we tried to discuss all our new projects. The problem: very little specific information. So we functioned on generalizations. And of course, the article always had to be cleared with the client.

Most mobile was "On The Site," since I visited the construction sites of our larger projects, interviewed and photographed the men, and then introduced them to the entire firm through *Grad-About*.

With these regular columns, we hoped to generate familiarity and expectation.

Formats and Theme: To achieve our delicate balance, I outlined each issue about two months before publication and discussed the content with David Dibner, AIA, the partner supervising this effort. The first page of each issue focused on a unique aspect of the firm's personality. In addition to suggesting new ideas, Dave was helpful in adding architectural elements to the articles. He also had the continuing responsibility of reviewing and approving all material before it went to the printer. Here are two examples:

Vol. 1, No. 1, June Page 1 — Feature story on the State Capitol Complex, Augusta, Maine (photos). Page 2 — "New on-the-Boards," employee profile (photo), poem or cartoon. Page 3 — "The Grad Story" and "Mole Hole News" (photos for both). Page 4 — "Sports Spectrum" golf and base-

ball, feature on our work in France by one of the partners (photo), employee participation in New Jersey Society of Architects.

Vol. 2, No. 1, February Page 1 — Feature story on educationalarchitectural seminar (photos). Page 2 — Employees' presentation to high

school students and related office tours (photos), employee profile (photo).

Page 3 — "New on-the-Boards" (photo), architectural awards (photo), congratulations box.

Page 4 — "Mole Hole News" (photos). For me, the month before publication date was hectic. I wrote, rewrote and wrote some over the place. Curiously, an editor seems to hear the negative reactions in greater number than the positive ones. One employee was greatly disturbed and complained that a project director had been mentioned three times in the latest issue, and he felt this would harm the morale of the office. I had difficulty following his logic.

Another problem was manner and time of distribution after the newsletter was printed. Some of the men objected loudly to distribution during office hours because it distracted the employees. So after trying several approaches, we decided that 5:15 p.m. on a Friday afternoon was safe. But as usual, there were those who grumbled.

But then there were the sunny days and people smiled. Some offered constructive criticism and rational suggestions. Letters arrived from associates and clients: "Your new house organ *Grad-About* reflects the spirit of progress that you have instilled within your organization." "Its format is an effective follow-through of your 'corporate

Grad-About &
Grad-About

more; made the layout, edited copy to fit the layout and then rewrote; typed the articles column by column, erased and retyped. Each article was submitted to one or more of the partners for review. Important! Check facts, spell names correctly, include names of employees who directed projects, credit as many people as possible and always clear the article with the client. It was exciting, creative and frustrating, full of new insights and new disciplines.

The Editor's Armor: After several publications, I learned that the major problem was people's sensitivity. If an article or a phrase happened to touch someone's sensitive spot, he would charge into my office emoting all look'-clean, well designed, tightly written." And so the comments went.

Is it worth the effort? The answer is yes, measured by the employee's reaction and the client's response. We intend to continue. Further, we feel it can be an effective tool for firms of our size or larger who have the problem of getting acquainted.

Mrs. Flannery, following her marriage last year, left her post as director of information for Frank Grad & Sons to move to Middletown, Ohio. With a master's degree in English from the University of Notre Dame, she has taught English on the high school and college levels as well as in adult education programs.

THE BEST OF CANADIAN HOUSING

"Design of multiple housing in Canada appears to be too much concentrated on buildings as buildings only, with not enough thought given to the total environment for living." This was the comment of the Canadian Housing Design Council after viewing the 284 entries in the 1969 Awards for Residential Design. And, the jury went on, "this is reflected in the comments by the entrant describing his entry.

"Architects or developers made frequent statements about materials, square foot areas, time of construction, etc., in short, the physical aspects covering the entry. Seldom was there a statement of concept or any hint of the philosophy behind the physical solution. There was too much preoccupation with facades.

"In apartment buildings most suites were very similar and

quite unimaginative — they had four walls, a floor, a ceiling and little else. The rental gimmicks of pools, saunas, intercoms, etc., while of some attraction, do not represent genuine amenity and contribute very little to the quality of the living environment. In most entries, there was little evidence that the quality of the interior spaces had been a major consideration. The site development of many highrise entries was weak. Landscaping was often little more than a lawn and planting of small evergreens.

"Family housing for the most part seemed restricted to row housing and garden apartments. One wonders if the highrise is acknowledged as being not suitable to the family with children. Have we given up trying to provide family accommodations in this form? Outdoor living spaces in row house developments



The Canadian Housing Design Council has periodically offered awards for residential design of detached single homes, semidetached or duplex homes, multiple housing and developments with a mixture of housing types. Presented here are the top winners in 1969.

were often mere concrete slabs, quite inadequate in terms of usefulness, privacy or identity. Rarely was there any storage provided for garden furniture and accessories. Entrances to many of the units were dull and uninviting."

The jury felt that the entries well represented the quality of Canadian housing today and, although it found that there was little experimentation or innovation compared with previous competitions, it did find it noticeable that the general level of design of multiple housing continues to improve.

In all, 13 National Awards for Residential Design were given, as well as 25 Honorable Mention Awards and 13 Regional Awards of Merit. The first 13 awards are shown here, along with the jury's comments.

McBrian Island, Georgian Bay, Ontario: C. Blakeway Millar (across page).

"This is the most interesting house submitted in the detached, single house category. There was some discussion about the exaggerated vertical concrete elements: They do not seem to come as a natural development from the plan but rather from a sense of form in the landscape. It was agreed, however, that it is precisely this designer's sense of form which qualifies it above the rest. We felt that what at first glance seems to be structural necessity seems at closer inspection to be poetic expression. When a house makes a play to our constructional senses, we feel that the elements involved should be constructional, i.e., the connections should be played up, the sometimes redundant cross beams played down. There are, and have always been, many buildings that are both expensive and lousy; there are very, very few at any cost which are, as this is, very, very good."

The Canadian Housing Design Council, founded in 1956, is made up of 24 persons drawn from across the country. Included are architects, planners and home builders; people in business and commerce; representatives of women's and professional organizations and the general public. Members serve on the council as a public service, usually for a period of three years.

The results of the awards program are published as an illustrated booklet which, together with lectures and featured articles on housing design, is made available in Canada as free educational material. Exhibits at home shows, trade fairs and other outlets are also part of the council's overall activity contributing toward its main objective, that of improving the design of housing.





Ladner, British Columbia: Barry V. Downs.

"This is part of what has become a tradition of modestly scaled, pleasantly textured and intelligently planned houses being done on the West Coast. This is not to downgrade the achievement but rather to point out the remarkable intelligence pervading much of the work from this region of Canada. Light enters the house easily and effectively. Wood and textured plaster walls produce tactilely comfortable interior spaces. The house has a convincing warmth and practicality that holds up well to continued scrutiny."

Ste. Foy, Quebec: L. Gilles Tremblay.

"Most entries by merchant builders in the category of semidetached or duplex housing were standard solutions which offered little in the way of improved design. This attempt succeeds in several ways but particularly in its siting, in the consistency of materials and in the simple honesty of its design. The units vary, either a four-bedroom or a three-bedroom house, both having 1½ baths. Handling the car is a problem in semidetached housing. This solution handles it well, but it is a compromise: It has car space for only one unit."



Toronto, Ontario: Satok & Poizner.

"An excellent solution to the difficult problem of obtaining good design in semidetached housing. A piece of private urban renewal. Two related pairs of houses replace an existing single house and separate garage. The plan is spacious with interesting elements such as high ceilings and rooms at half level, two-story space above the dining area and an open gallery linking the bedrooms. The car is well handled and the whole structure is in sympathy with the traditional houses in the neighborhood."

Port Moody, British Columbia: Erickson Massey.

"This condominium housing — a pioneer of its kind in British Columbia — through the simple use of local materials and good siting achieves a natural architectural character. The retention of treed areas, the consideration of grading for access and siting for views indicate the high degree of attention given to living considerations. The suites are well planned. The vertical stacking of the suites was necessitated by requirements in the early B.C. strata titles act concerning individual ownership, which have since been changed. Perhaps the most significant feature of this project was a moderate selling price. It is encouraging to see that such good housing can be provided at reasonable cost."

THE BEST OF CANADIAN HOUSING



Whistler Mountain, British Columbia: Gardiner Thornton, Davidson Garrett, Masson & Associates.

"This development provides housing for recreational purposes and although the use of such housing is increasing, few entries were received. As wealth and leisure increase in our society undoubtedly developers will pay more attention to this area of housing. This particular scheme is handsomely sited around the brow of a rock outcropping. The architects have relied upon the interplay of wall and roof planes to produce a visual richness to the buildings. Good use is made of local materials to blend the buildings with the setting. Even the unmasked expression of the supporting pole structure is sympathetic and in character. The irregularity of the building form and the stepping of the various levels of the different units add to the appeal of the project."



Edmonton, Alberta: Holland-Rockliff.

"This development appears deceptively simple at first glance but closer inspection reveals that considerable thought has been given to it. The single rows could have been disastrous if they were less skillfully handled. Careful offsetting of units, tree forms, paving, etc., have resulted in pleasing spaces. Traffic is well controlled; private and public spaces are defined. Tot play areas are well located close to supervision of parents and there is a central play and recreation area. The design of the buildings is quite simple; they have good residential quality. The fencing of private areas is well done and appears as an extension of the housing. This also helps shape the exterior spaces."





Calgary, Alberta: McMillan, Long & Associates.

"This relatively small development should integrate quite well with its single-family residential neighborhood. The architects have made every effort to create a livable environment for the tenants. Private courtyards lead into each dwelling. The juxtaposition of the housing units, together with careful landscape treatment, has resulted in a unique parklike setting. This was one of the few submissions which indicated any imagination with respect to the treatment of the interior of the units, both in form and material finish." Fort Garry, Manitoba: Libling, Michener & Associates.

"A fine example of row house development. The architects have admittedly sought to control the environment by creating an introverted scheme. The siting of the building is quite pleasing and results in some attractive vistas. The relationships of the spaces within the scheme develops considerable interest with the use of a simple building form. Spaces flow one to the other, expand, contract, rise and fall. Grading and plant forms are well used. The architectural expression is tasteful, simple and positive. The individual family unit is identifiable and has been used to establish scale and rhythm to the whole site composition. There is variety in the units. They are well planned, giving attention to zoned areas that allow for different living styles."

THE BEST OF CANADIAN HOUSING



Toronto, Ontario: Lyle & Basil.

"A sophisticated urban townhouse development. The basic cruciform of the quadruplex cluster appears quite economical to construct, and when sited as skillfully as this example, some very handsome spaces result. The rooms are grouped about a private atrium. Maximum privacy internally and externally is thus achieved. The visual relief of the wrought iron gate should alleviate any claustrophobic effects of the solid garden walls. The simplicity of architectural forms, the interplay of wall planes, positives and voids, the integration of brick garden wall and base of living unit lead to a rich and unified architectural work that holds together both individually and as a group. The landscaping is excellent; ample provision has been made for community spaces; traffic appears to be well controlled."





Toronto, Ontario: Seligman & Dick.

"The program given the architect for this sophisticated apartment development called for the creation of an environment giving maximum privacy; units that were individual in character, nontypical, flexible and with an image which would project a distinctive urbane character. The glass curtain wall, coupled with the glazed rail of the wraparound balconies achieve very desirable results that were rarely evident in other submissions. There is a strong indoor-outdoor relationship. Maximum advantage is taken of the views of the surrounding parks and cityscape. The site development is well planned; servicing is well located; paved and landscaped areas are pleasantly related to produce a handsome setting for the buildings. The buildings are a bold, simple statement which reads well from a distance and yet can still bear the scrutiny of attention to detail when the observer is in close. It is a graceful, wellconsidered architectural statement."



Vancouver, British Columbia: W. D. Buttjes & Associates.

"A very handsome form in sculptured concrete standing against the beauty of Stanley Park, each complimenting the other. The developer has gladly sacrificed some measure of efficiency and therefore of economy in order to produce a tall, slender tower which rises above the trees to captivating views. A large measure of open site has been retained and this is well landscaped, thus providing breathing room in a densely developed area. The suites are well planned and are carefully oriented to the views. The scale of the building is dramatic yet still human and the restraint of architectural materials is commendable."



Toronto, Ontario: James A. Murray & Henry Fliess.

"An articulate solution to a relatively recent housing concept: that of providing a mix of housing types together with shops, service facilities and offices. The variety of suite types should appeal to a wide cross section of the rental market. Because of its central location the building covers most of the available land. However, through careful attention to the massing of the foreground forms and the articulation of the various elements, a bold, sculptural, well-scaled building is the result. The townhouses appear particularly attractive; the roof garden is handsome, if a bit formal. This building will undoubtedly set a precedent for future projects which will establish programs that seek to provide amenity and imaginative forms of shelter for the everincreasing number of urban dwellers."

Bridging the Information Gap

by Hyman Cunin, AIA

The author suggests that informative abstracts be published with articles in this magazine so that readers may glean their essence in a fraction of the normal reading time.

Today the information explosion in architecture, one of the more comprehensive of all professions, is probably as monumental as that in any other discipline known to man. And volumes of print continue to proliferate.

What can be done about all this clutter — these hundreds of pounds of verbiage that submerge the nuggets of worthwhile knowledge that cross the desk of every professional architect year after year in ever-increasing volume? Must we continue to submit to a situation that relegates us, more and more, to relative ignorance of new developments in the multiple facets of architecture? Let's face the facts. As individuals, even as groups of professionals, we are getting to know less and less about more and more with each passing day.

This is more true, of course, of the small practitioner than of the architect in a large office, in which each of several principals is able to specialize in some particular phase of total professional comprehension. Is it reasonable or just that most of us continue to have only the vaguest of notions about what is included in most of those publications that discuss the changing nature and the evolving aspects of our profession? How many of us have time to read what is published about planning of all kinds, including transportation and highways, the problems of cities and depressed areas and what architects should know to become more relevant in their resolution? Furthermore, can we truly afford to learn so relatively little about the multitudes of new evolutions in building technology, construction systems, new materials and their qualities, etc.?

It has been suggested that when a system for computerization of information adaptable to the needs of our profession is evolved, the information gap can be readily overcome. There is nothing farther removed from actual fact, as affirmed by information experts. The computer can retrieve instantaneously anything that has been fed into it. It can assemble all the facts relating to any particular subject or group of related subjects, if so programmed. It can project answers to infinity from formulas installed in its memory. But the computer is absolutely unable to reduce the information gap. It cannot read to us nor for us in any less time than we ourselves can read or hear

Our Needs

Basically the essence of our problem is simple indeed. In should be possible for us to read information of value in a fraction of the time required to read full-length works. This may be accomplished by including "informative" abstracts along with the entire articles. Note that there are two basic kinds of abstracts: "informative" and "descriptive," the latter the far more usual form.

The descriptive abstract may be thought of as a "come-on" — an inducement to the reader to read a work. For example, a descriptive abstract of this article might be:

A case for informative abstracts to be included in the AIA JOURNAL with full-length articles.

This might be amplified:

To help bridge the information gap in architecture; also to see an example for other publications.

In contrast, the informative abstract here advocated is far lengthier. It makes it possible for the reader to know exactly what is discussed without reading the full article. For example:

To reduce the information gap within the architectural profession, the AIA JOURNAL should adopt the pattern already established in civil engineering and other professional and lay publications, i.e., require authors to submit abstracts to be published with their full-length works. Such abstracts will enable harried professionals to glean the essence of articles in a fraction of normal reading time.

After initiating abstracts, the AIA could influence other architectural publications to follow suit, thereby advancing know-how and the continuing education of professionals.

A system of classifying the recommended abstract cards could serve also as an updated filing system for architectural plates, etc. Also envisioned is the evolution of key words for filing purposes that could serve, in addition, as a thesaurus, essential in computerization.

The above is a relatively short informative abstract. I trust

Mr. Cunin, associate professor emeritus of Howard University, Washington, D.C., for a number of years has devoted time and effort to the improvement of communications in the architectural profession.

that the reader will recognize the importance of this effort and will continue to read the elaboration that follows.

Precedents

There is nothing new about the quest to reduce the information gap in other professions. In 1895, probably the first comprehensive publication of this type,* *Review of American Chemical Research*, was founded at the Massachusetts Institute of Technology. Today, the American Chemical Society conducts a worldwide abstracting service, second to none, and it is among the leaders in progress toward complete computerization of information.

It is difficult to imagine how chemists, or scientists of any discipline, or physicians or lawyers could function without quick access to the discoveries, the determinations and the prior experiences of their colleagues. Until recently, apparently, architecture has been considered more an art than a science. The mistakes we make, through lack of experience or knowledge of the experience of others, do not usually result in irreparable damage. With the rare exception of death or permanent injury that may result from the collapse of an occasional structure, the most that is likely to occur to any one of us is the loss of money through liability suits. And that, as all of us are reminded by escalating liability insurance rates, is not something we should continue to endure as an unavoidable adjunct to our profession.

There are other publications, far less technical in nature than those mentioned, that can help guide us in reducing the information gap. For example, *Fortune* is an outstanding illustration of a magazine that recognizes the problems of too little time that beset everyone who wants to keep abreast of developments in this increasingly complex world. There on the contents pages, in less than 20 minutes, one can read the salient information included in 60 or more pages of illustrated text that comprise the featured article.

The Annals of the American Academy of Political and Social Sciences is a meritorious example of emphasis on informative abstracts. These become the bolder type first pages that precede each full-length article. There can be little question as to what both publishers and readers consider most important in the issues of the Annals. Nor can anyone doubt what those professionals read, unless they are particularly interested in the specific details of the subject discussed and can take the time to read the full-length article.

The American Society of Civil Engineers is an associated profession that can contribute much experience in our initiation of informative abstracts in the interest of conserving reader time. The ASCE, together with the American Chemical Society and others, are member societies of the Joint Engineering Council. In 1962, the JEC sponsored a plan for information retrieval of engineering literature. Since 1963, each journal of the component organizations of the ASCE has required its authors to submit abstracts with their full-length articles. These abstracts are published, three per page, on the two or more pages that follow the contents pages. Each abstract is card size, 3x5 inches, ready for cut-out and filing. Each tells the essential facts included in the full-length article, or as much as the 250-word limit allows. There appears to be no reason for anyone not particularly interested in the details to spend more than a minute to find out what that author has to say about any subject included in those publications.

Each of the ASCE abstracts includes several key words, intended to facilitate personal retrieval by the subscriber. This is a system we can emulate and perhaps improve upon.

The foregoing are but a few evidences of the concern associations and publishers have for readers who have too much to read in too little time. One will note that these abstracts add to the total printed matter in those publications because they actually repeat what is told in the full-length articles. But their importance is incontestable.

The value of abstracts may be further attested to by the fact that there are dozens of private abstracting services in this country. One such service offered architects in early 1969 is *Building Industry News*. The sample many of us received was a four-page issue, 26 issues a year, subscription rate \$40 per year (sheet size $8\frac{1}{2}x11$ inches).

Proposals

There appears to be little reason why abstracting should not be started in the AIA JOURNAL soon. Then it seems that we ought to influence other architectural publications and invite them to follow our lead. Furthermore, we should encourage product manufacturers and associations of manufacturers to include informative abstracts in all publications intended for architects. Subsequent steps should include a library of abstracts of the most important evolutions and writings in our profession. These items might be culled from other publications. The important abstracts might be reissued, originally as part of the AIA JOURNAL, as a service to the profession. When and as their number warrant, they could be issued as quarterlies or annuals, subdivided into separate categories.

At this time, too, the AIA should take necessary steps to assist the architect in organizing and classifying information. Classification should include major categories broken down into sub and sub-sub subdivisions, emulating to some degree the simplification attained by the Construction Specifications Institute in its widely adopted format for specifications.

Such a classification system might become the simplified AIA Filing System for Architectural Plates and Articles, of which a major revision is long overdue. Such a system would make it possible for the average architectural office to keep better track of treasures accumulated through the years.

After abstracting is well instituted, the AIA should intensify its investigations as to various alternatives in information processing and retrieval systems and the computerization of information. The classification system could be the beginning of a list of key words, the thesaurus and hierarchy of terms, which are essentials in the input into and retrieval from the computer.

But let us not wait for the computer. Beginning with the experience of others, we should be able to develop a system for the visual filing and retrieval of abstracts that will put information at our fingertips without resort to computers. This should be a challenge some of us will gladly accept. After all, we have nothing to lose but our ignorance.

In summary, if we were all truly speed readers or scanners, if all of us were 3,000 to 5,000 words-per-minute geniuses and really comprehended the articles thus devoured, the existing wordfest might not be an especially great burden. But for most of us, the average 500 or less words-per-minute variety, help is desperately needed. Short cuts must be devised to enable us to glean morsels of value in a fraction of the time required to read full-length articles. Would not abstracts be a giant step toward bridging the information gap?

^{*} Legal digests have been in existence since 533 AD, when a commission appointed by Emperor Justinian completed the task of extracting the essentials from laws that had never been codified before.

A Piece of the Action, II

by ROBERT ALLAN CLASS, AIA

For some architects, there may be better ways to approach diversification and to provide for future income security than the Keogh Plan or the stock market. This second of a two-part report — the first appeared in February — on working sessions of the Committee on Professional Consultants shows one way.

"We built the framework at our last meeting. Now is the time to add the flesh to the bones." This statement set the stage for the special March session of The American Institute of Architects' national Committee on Professional Consultants. The purpose of this meeting was further exploration of the concept and application of team action in building for investment.

A first look was taken last fall at the potentials of the team approach to conceiving and initiating building projects. A pilot group of practitioners in finance, real estate, law, engineering and architecture was called together to outline steps for preparing a typical development proposal. A scenario structured around a lung cancer research project was used as a base for discussion.

Members of the original pilot group were augmented by additional participants* at the March meeting at AIA Headquarters to conclude the assigned task. The original scenario was

* Participants at the AIA Committee on Professional Consultants meeting: Harold I. Miller, Campbell L. Reed, Associated General Contractors of America, Inc.; Edgar A. Prichard, attorney for Gulf Reston, Inc.; Emanuel Pisetzner, William A. Sowers, K. Dale Litherland, Consulting Engineers Council of the United States; Donald Alpert, developer; L. Arnold Schafer, Mortgage Bankers Association of America; Frederick A. Marsteller, Charles T. Stewart, National Association of Real Estate Boards; Louis A. Bacon, Morton S. Fine, National Society of Professional Engineers/Professional Engineers in Private Practice; Robert F. McConkey, United States Savings and Loan League; and Russell O. Deeter, AIA, David R. Dibner, AIA, Herbert E. Duncan Jr., AIA, chairman of CPC, Joseph H. Flad, FAIA, Harry A. Golemon, AIA, Frank Knoble, AIA, Cecil M. Tammen, AIA, and Robert Allan Class, AIA.

slightly modified to provide a clear definition of time and project factors for the team members.

The participants were divided into three teams to make the simulation as real as possible to reflect the competitive element and the community of interest and expertise in the team approach. As far as possible, each team had representatives from each of the major disciplines which might be found in a typical development team. Two of the new participants were asked to play the role of the owner or user to provide response to the team proposals. An experienced land developer was present to provide technical comments and general observations.

Prior to the opening of the meeting, each team was closeted in a charette or "midnight oil smoke-filled room" atmosphere to put the finishing touches to their proposals. Meanwhile, through the generosity of one of the participants, a complete terminal was installed adjacent to the meeting room to provide access to a computer (located in another city) which was used to check the economic feasibility of each team's proposal as it was presented.

Short presentations by each of the three teams were followed by immediate feedback of reactions to the proposals. Breakdown listings of cost figures comprising elements of each team's proposal were compared and their economic viability checked. Based upon the team presentations, a simplified critical path network analysis of necessary steps leading to a proposal was constructed, and comments concerning the total process were recorded.

The team presentations emphasized the integrity, capabilities and competency of the team to provide a soundly financed quality project in timely fashion. The presentations also indicated the importance of a thorough understanding of the user's require-



PROJECT FINANCE ANALYSIS

(From Computer Printout)

BUILDING A LUNG CANCER RESEARCH INSTITUTE PROJECT NO. 9105 A MIDWEST CITY OF 100,000 POPULATION LOCATION OWNER A LARGE DRUG FIRM TEAMS A, B & C ESTIMATOR 2,500 EMPLOYEES 2,000 PARKING SPACES 49 ACRES @ \$2,095 BASIS OF EST. BASIS OF EST. GROSS RENTABLE BASIS NET-NET LEASE 3-4-70 DATE

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Finder's Fee), Legal/Accounting Fees, Construction Loan Fees, (Incl. Broker's Commission and Finder's Fee), Economic Research Fee, Interest/Taxes/Insurance During Construction, Completion Bond, Surveys and Tests, Contingency, Developer's Profit and Broker's Fee for Permanent Financing.
 Assumed by User
 Assumed by User

DEVELOP SCHEMATIC DESIGN FOR BUILDING AND SITE

PREPARE COST ESTIMATES FOR BUILDING AND SITE IMPROVEMENTS

REFINE ECONOMIC ANALYSIS AND DEVELOP NET RENT TO USER

CONFIRM FINANCING, AND a. Obtain Other Equity Partners as Needed b. Determine Cash/Land Input by Investors c. Reconfirm Tax Consequences

FIRM UP LEGAL STRUCTURE OF INVESTORS

PREPARE WRITTEN AND GRAPHIC PROPOSAL PRESENT PROPOSAL TO

USER



ments and attitudes as well as a detailed knowledge of alternative solutions. A professionally prepared sample proposal brochure was used as a tool by one of the teams. In addition to providing pertinent data on the team members and their backgrounds, the brochure detailed the services proposed, lease terms for the research facility, locational factors and the team's plans to construct related development projects for housing and shopping correlated to public plans for educational, recreational and transportation facilities.

Computer runs were made from each team's breakdown listings of cost estimates used to develop a net rent to user. These computer runs produced an economic analysis which included important tax consequences. It was shown that one team could go broke if they used their first set of figures without adequate adjustment and reanalysis.

The computer runs were then averaged and produced a viable proposal. It should be noted that the item "developer expense" will vary from week to week with money market conditions. Greater understanding of the terms employed and the implications of the analysis may be achieved by additional reading on the subject and by participating in similar meetings sponsored by local AIA chapters. The figures are illustrative of a principle and will vary with each project. Additional reading is recommended to explore other approaches to calculations; for example, see the article by Paul B. Farrell Jr., on the discounted cash flow method of analyzing return on investment in the AIA JOURNAL, August 1968.

The participants produced a simplified critical path network analysis of suggested steps leading to the proposal that relates time and events. In producing a similar analysis for an actual project, it is suggested that man-hour and cash flow factors be included.

Many cogent points were made by the participants concerning the real estate investment process. Some of the more important ones are:

• Architects and other design professionals should become as skillful at "economic orientation" as "design orientation" and "technical orientation," especially in building for investment. Orientation to economics will help build other skills.

There are many possible forms of joint ventures, limited partnerships, corporate structures, etc., which can be applied to the team approach concept. The form is secondary to the concept.
Composition of the team is more important than worrying about who will be the "leader." It is more important first to be able to recognize opportunities, then to assemble a team with the best balance of talent and resources. Recognize what the team lacks, and either hire talent or enlarge the team as needed. Key team members may include a developer, a design or design/build professional and a financier. It is of overriding importance that the basic team be continuously involved in the decision-making process from the very outset.

• In a project of the magnitude used in this simulation, an expert developer/coordinator is a most important member of the team in terms of overall depth.

• A highly professional presentation should be made to sell the capabilities and approach of the team.

· Expenses should be kept to a minimum.

• A thorough study of the zoning implications and possible citizen reactions to the project should be made. Be prepared to show how the project will benefit both the public and private sectors of the community.

Mr. Class is director of Technical Programs for the AIA.

• Tax shelter potentials which may prove to be the key to financial success should be checked out.

• A thorough knowledge of specific user requirements is necessary before making a proposal.

• Cash equity requirements will increase as the project size increases; the team may therefore need other equity partners, such as the landowner, local businessmen, the lender and even the user.

• Escalation clauses should be included in the proposal, based on tax escalation and cost of living index.

• Terminology used in real estate investment is a matter of custom, with no published universally accepted definitions of terms. Meanings vary from state to state. It is therefore necessary to spell out the terms in the proposal and the agreement. Use an attorney knowledgeable in these matters.

• A land sale/leaseback transaction to an institutional investor should be considered to increase the amount of financing.

• Options should be offered to user for partial or full ownership of project. Consider renewal options in terms of lease.

• Professionals should cross traditional lines for a better understanding of all phases of the process. Don't try to work in a vacuum.

• All fees should be normal as a part of the capital investment and should not be lowered as turnkey incentives. Team members may wish to consider applying a share of their anticipated profits to their equity positions.

• Ethical and conflict of interest considerations should be faced before they become problems. It is suggested that the design firm (architect, engineer, planner, etc.) and the joint venture team be separate entities. The design firm should render professional services on a professional basis apart from the joint venture and should receive normal fees for services. Members of the design firm should take equity positions only on an individual basis and should refrain from making professional decisions within the design firm on matters relating to business decisions of the joint venture.

• Experienced cost estimators and experienced economic analysts are a must from the inception. The key words are "experienced" and "inception."

The process described above will appeal to the design professional who is concerned with challenge, diversification and future income security and who is willing to look beyond the traditional approach. Traditional practice methods utilize shortterm income from fees, plus necessary borrowing, to finance the short-term practice future with the only long-term consideration being that of building good will. The process described above will add the ingredients of potential long-term capital gain and substantial tax benefits as additional assets.

At the conclusion of the meeting, Chairman Herbert E. Duncan Jr., AIA, emphasized that the scenario was written around a single program to provide a working platform for the simulation. He pointed out that it illustrates only one of many types of joint ventures where allied professionals can profitably join together on development projects. There are many other ways of doing it.

The national AIA Committee of Professional Consultants hopes that these reports providing guidance and suggestions on the development concept will stimulate local AIA chapters to sponsor similar meetings. Opportunities can thus be provided for members of the various disciplines to learn to understand each other, to work together and to share in the team action. In addition to potential long-range economic benefit, the early involvement of the architect in the decision-making process will provide him opportunity to apply his broad planning talents for a more meaningful influence on the quality of the built environment.

Low Cost Housing, High Grade Results

For the first time in its 14-year history, the R. S. Reynolds Memorial Award goes to a housing project located in a new town in France, and one that is factory produced.



"Rouen housing development is not a monument"

"This industrialized building concept is not tied to any type o building or setting. It is a tool to be used by the architect in the design of any structure." Thus Paul Depondt of the Paris architectural firm of Lods, Depondt, Beauclair describes the low cost 500-apartment development, site-assembled in Rouen from factory-produced components, which has won the 1970 \$25,000 R. S. Reynolds Memorial Award, administered by The American Institute of Architects.

It is of particular interest to note that the field assembly re sulted in significant economy. The lightweight components repre sented 85 percent of the entire cost of construction, with field erection being only 15 percent. In traditional methods, field con struction expenses are usually from 35 to 50 percent of the entire cost. Construction costs totaled about \$10.50 per square foot The entire development was completed within a year from the building start.

"High quality materials were used throughout, the economy being entirely in the labor requirements," explains Depondt, di rector for the Rouen project, who has devoted several years to construction with lightweight industrialized building systems Marcel Lods has long been recognized for his role in that area The third partner is Henri Beauclair.

The French architects have formed a joint venture with a Chicago consulting engineering firm—The Engineers Collabora tive—to develop low cost housing in the United States with meth ods which evolved from the Rouen job. The Chicago-based join venture, known as Component Building Systems, Ltd., hopes to begin construction soon on a 450-unit urban renewal housing project there, where Depondt represents the Paris firm.

"Our Rouen housing development is not a monument," De pondt explains. "It is an idea, the initial expression of a philoso phy of building design which will grow and improve with each new experience."

Principal components, shown above in an on-site shed, are manu factured and entirely finished in factories situated long distances from the job. They are light and of reasonable size to be easily transported and, for further practicability, must be mass produced in the future On the assemblyline, all parts of the floor are bolted together to the steel frame, including the sliding window railing it supports and the floor facing. The complete apartment is lifted into its definitive posi tion. Both facade and interior elements are raised by a special crane where necessary.



"Not tied to any type of building or setting"

Project Experimental de la Grand'Mare, as the awardwinning complex is officially called, consists of 25 five-story buildings with five walkup apartments on each of the upper four floors and utility spaces on the ground floor. The structural frame is of weathering-type steel; the exterior is formed entirely of industrially produced aluminum and glass sections, assembled at the construction site primarily by unskilled labor. Steel frame doors, which also carry utility lines to individual apartments, are preassembled and placed in position by a crane.

The facade consists of three types of vertical components: aluminum sandwich panels, sliding glass window sections and sliding aluminum louvers for privacy. Aluminum handrails and vertical supports are provided on a large portion of the exterior, giving something of the effect of a balcony when the sliding doors are opened. The exterior components were erected entirely from within the structure; no scaffolding was required.

The three types of aluminum used-painted, natural anodized and cast-give the facade a textured appearance. The weathering surface of the roof is made up of sheets of high-ribbed aluminum.

Despite the low cost, the buildings offer special features. Each apartment has individual heating temperature controls. The interior walls can be moved with relative ease to give flexibility in space planning. Soundproofing, which is achieved through the use of air spaces, is reported to be "excellent."

In making the award, the AIA jury-George E. Kassabaum, FAIA, chairman; William W. Caudill, FAIA; Samuel M. Brody, FAIA; Ian Mackinlay, AIA; and Boyd Auger of London, last year's winner for his Gyrotron structures built for Expo 67offered these comments:

"It is most successful architecture. Its scale is correct. There is an orderly and most interesting play of appropriate and logical elements permitting a variety of eventual solutions. Great flexi-

Air is blown at medium temperature from the ground floor to a general duct system connected to all apartments and fixed to the steel frame in the factory. A secondary duct system geared to the individual unit is placed in the free horizontal space of the tridimensional structure. It is commanded by a heat exchanger and regulates the tem-perature of the air blown horizontally from the vertical side of the opening sash. The facade consists of only three vertical elements: the louvers, sliding windows and insulated fixed panels-all produced in modular dimensions.









"The initial expression will grow and improve"

bility is allowed so that accommodations can change as the needs of the tenants change.

"In addition to these qualities, it seems unusually appropriate for its time in that it set out to provide a solution to one of our world's greatest problems—relatively inexpensive housing—by using the industrial technology of our time. The speed and ease of installation of the prefabricated elements, the integration of the mechanical and electrical systems, and the careful handling of connections, when added to the concept and its development into a grouping of handsome structures, become 'architecture' that deserved recognition as winner of the 1970 R. S. Reynolds Memorial Award."

Discussing its review of the overall submissions in this year's program, the jurors said:

"In general, the use of aluminum was logical and well handled, but there were a few examples where sensationalism seemed the goal and the architect almost seemed to have designed his building with this program in mind. The most common failure apparent in the submittals was not in the way aluminum was used but one of architectural development with the quality of some of the entries being so low that the jury was surprised that obviously successful architects could seriously believe their projects justified submission to a major international awards program. After this experience, we on the jury realize that the profession must always continue to seek means of raising its own standards. The client's acceptance should not be a sufficient judgment.

"However, the jury's task was made most difficult by the submission of 13 projects that justified deliberation as being fine examples of architecture. The beauty of the concept of each, the sensitive recognition of the project's geography and climate, its relationship to its site and surroundings, and the skillful development of the concept into three-dimensional form and in detail deserve international notice."

Thirteen of the ultimate 25 buildings, each with 20 apartments, are now in use, the first having been completed in October 1968. Since this region is rainy and can be cold from four to five months of the year, infrequently used balconies were considered an unnecessary expense. However, the good weather is doubly appreciated when it comes. For this reason, the sliding windows can be moved so as to open two-thirds of the surface of the facade in certain rooms. In the living room, for example, a bay of 10 feet 9 inches can be opened, giving an aliveness to the exterior.

PRACTICE AIDS

Management Procedures for Profit

by FRANK L. CODELLA, AIA

Previewed here is a new manual dealing with financial management,* prepared by the AIA. Featured are portions of the first three chapters which suggest procedures for partners and project managers to follow concerning financial information flow from source documents to reports, organizational responsibilities and the manner in which profit goals should be established and major elements of income budgeted.

For the past several years The American Institute of Architects has recognized the need for greater emphasis on the importance of good financial management for its members. Regardless of the scope of professional services a firm chooses to provide, good management and good accounting go together in building a successful practice. This is particularly important for small firms. A small or medium-sized firm which chooses to remain so and merely refine its practice methods will need to control its costs to maintain an adequate financial position. A firm which chooses to grow and expand its scope of services must know its costs accurately in order to venture profitably into the newer, more diversified requirements for total architectural involvement in our society.

In pursuing his everyday work, the architect often finds that he is attempting to satisfy several goals. The services or designs he renders must fulfill his client's functional requirements, meet his own esthetic standards, reflect the principles of sound engineering design and respect the financial limitations specified by his client. Traditionally, these have been salient objectives for the architect.

Today, however, an additional element must be considered. The complexity and costs of contemporary business processes force businessmen, regardless of their profession, to adopt upto-date techniques in the management of their business. This fact is particularly germane to the architectural profession where many firms currently are experiencing a "profit squeeze." It appears, then, that the architect now must be as creative in his approach to the management of his business as he has been with his architectural concepts and technical problems. An inadequate performance in either firm management or professional services can significantly affect his entire professional status.

Therefore, the following procedures are recommended to assist the architect in managing effectively his own resources of capital, manpower, skills and professional talent so that he can successfully execute and complete projects in a manner that will assure him of the successful continuance of his practice.

The techniques and procedures are specifically oriented around the architect and his practice. However, in order to provide a framework for coping with these requirements, the architect must be willing to consider and perhaps reevaluate his basic business and management viewpoints. For example, the present manner in which the compensation arrangements are commonly negotiated is a percentage of construction cost. In

* Financial Management for Architectural Firms: A Manual of Accounting Procedures, prepared and published by the AIA with the assistance of Arthur Anderson & Co. The 163-page manual retails for \$12, but is available to AIA members at a 20 percent discount, or \$9.60, by ordering through the Institute's Publishing Department, 1735 New York Ave. N.W., Washington, D.C. 20006. this arrangement, the compensation of the architect is directly tied to the costs of other parties with the assumption that inflationary trends in the architectural field will reflect the comparable trends in the construction industry. In fact, the cost of professional services has been rising at a higher rate than the rate of increase in construction costs, thereby placing the architect in his unpleasant squeeze. To remedy this problem, client arrangements are encouraged in which the architect is compensated for his professional time at per diem rates or billing values in the same manner that other professionals such as lawyers, accountants and management consultants are paid.

Similarly, the management of architectural firms frequently has not exercised any formal control over projects. Financial information with respect to work for clients is normally kept entirely within the partner group. This means that in large firms, a project architect who has first-line responsibility for project control may not receive the information required to effectively control his project. Project "costs" should, therefore, be expressed on a retail basis or at per diem values. These should be compared to either the anticipated compensation or an equivalent retail "budget" for financial management control purposes, and reported regularly to the project architect.

Further, a project budget should be developed as soon as possible after the project has been defined. For large jobs, percentage of completion should be estimated formally on a periodic basis to determine the amount of the budget that can be related to the actual work completed to date. The value of work performed then should be compared to the budget amount which corresponds to this part of the work. This portion of the budget then may be characterized as "earned." This approach differs significantly from the practice of comparing revenues received to actual costs incurred and then relying upon the potential profit as a cushion.

The financial management concept defined herein is a new management approach for architects rather than just a new accounting system. It is characterized by management's participation in establishing certain criteria such as overall profit goals and return on investment that are developed from specific plans for revenues, costs, manpower, personnel utilization and compensation arrangements. The project performance and the personnel utilization that result from overall operations are then directly related and compared to the original targets. With such an approach, the architect can begin to measure the impact on profit of alternative pricing arrangements, effectiveness of project control, overall manpower utilization, identification of extra services, nonreimbursable expense control and the prompt billing and collection of charges for services rendered.

Organization

What kind of organization does an architect need to operate his firm effectively and practice successfully? This question, perhaps, can be answered best by first recognizing the factors that are fundamental to good profit performance. An effective business development program and outstanding technical competence are generally recognized as fundamental to good profit performance in any professional firm. But there are other factors which are critical to the well-being and professional vitality of the firm. These include such management responsibilities as maintaining an effective utilization of staff personnel, the timely billing of work that has been performed and the collection of compensation that has been billed to clients. Once these elements have been identified by the firm's management, a plan can be developed that will hold specific organizational position accountable for each of these factors.

One important conclusion to be drawn from any consideration of management of a professional firm, regardless of size is that the partners are obliged to devote some portion of the time to administrative tasks. This duty is the consequence of ownership and cannot be wholly delegated without forfeiting a visibility of critical indications of the firm's performance.

Although each partner is an owner in the business, it important to distinguish between his proprietary rights and h management responsibilities. Good management of a profes sional firm is predicated on a good organization that is tailore to fit the firm's objectives and the clear delegation of manage ment responsibilities to qualified personnel within that organ zation. This concept usually calls for a managing or administ trative partner to be appointed with the overall responsibilitie to direct the firm's management. Typically, his duties would include supervising the functions for determining the policie and objectives for the firm, its scope of practice, proprietorshi development and personnel administration as well as its technica performance. In a small firm, these responsibilities can be dele gated by the managing partner, in whole or in part, to other individuals. Consequently, in larger firms it is quite natural t expect a partner to be responsible for personnel administration for example, and to report to the managing partner. Because the functions and control factors of a corporate type of archited tural organization are essentially the same as those of a partne ship or individual proprietorship, these forms cannot be treate separately. For this reason, the terms partner and principal an used synonymously and they also can be considered the same as a proprietor or corporate executive.

Unless an architectural firm is adequately compensated for its services, it cannot continue to provide the quality of design which should be its first professional objective.

Most partnerships enter each fiscal year with some type of profit objective in mind. Unless this objective is formalized an stated in terms of its prime determinants, the firm will find extremely difficult to discover why profit variances occur.

It is important here to identify the technique of prof planning as one of the key responsibilities deserving partnershi attention. In a small proprietorship the draft of a plan may b summarized in an hour or two by its owner. Since almost all of the management responsibilities rest with him, he is close t all day-to-day activities so that he can anticipate and plan for the factors that determine profit:

- · Negotiations of compensation and value of services
- Manpower utilization
- Project management
- Expense control
- Cash management including the billings and collections.

A larger firm often requires that the forecasting of thes factors and their subsequent review and control be assigned to other partners or individuals. The following describe how the individual elements and the balances between the key responsibilities should be considered.

Whether he is called partner, project manager or architec the individual who coordinates and supervises the administration of a client contract has the frontline responsibility for in success or failure. Most firms recognize this fact, but many fa short in providing him with the information or participatio he requires to exercise adequate management control. For example, a project architect often will find himself responsible for cost control of a budget he had no hand in preparing. If the



udget is inadequate initially and the project incurs a cost overin, it will be difficult to separate poor project management om inadequate budget estimates. Therefore, if the firm is to a budgetary responsibility, it seems logical that the architect esponsible should participate in the initial preparation of the adget. Partner review can always evaluate its reasonableness, at this initial participation, in a very real sense, creates an greement between the project architect and the partners so that the architect agrees to complete the assignment within the postraints of the budget he participates in developing.

When the budget reaches the desk of the partner who will egotiate the compensation, he has received the budgetary agreetent of the architect primarily responsible for the project's access and the assurance of the department heads that the firm an commit the manpower required to perform the work. If he project is arranged, the responsibility is squarely upon the roject architect to utilize these resources efficiently to complete he engagement and realize a profit for the firm. Any significant prodictions such as client changes or phase overruns that tend o affect the project's profitability should be recognized promptly by the project architect and either corrected or brought to the tention of the project partner who can consider appropriate illing arrangements to the owner for the extra service.

Because of the vital nature of negotiations for the firm's ompensation, this responsibility is normally reserved for the roject partner or a partner responsible for all contractual negoations. Equipped with a project budget, the partner can evalute alternative rates of compensation in comparison with the alue of architectural services required to complete the project. then is his responsibility to negotiate a compensation for the rm that can be equated to the budget developed. If the payment to be received is less than the budget, it should be accounted for and attributed to promotion or government work, for example. Conversely, arrangements for compensation in excess of the budget also should be identified.

This approach has several distinct advantages. First, if a project is unprofitable, the owners can establish from analysis whether this is attributable to a poorly negotiated compensation or loose project management. Second, the adoption of both profit planning and project budgeting enables the firm's owners to immediately evaluate the effects of an individual project upon profit expectations of the firm.

These concepts apply to all architectural firms regardless of size. In a very small practice one individual may be assigned several of these management responsibilities and, for example, he may both prepare the budget and negotiate the contract. This fact does not, however, detract from the importance of identifying these tasks as separate management responsibilities.

The responsibility for timely billing and collections should rest with specific individuals. Even if the routine billing and collection functions are performed by clerical personnel, a partner should review the status of both functions at regular intervals to assure the firm that these responsibilities are being met in the manner planned. Tighter control can be achieved if partners or project architects approve all bills prepared for work on their projects. In this way the firm has assigned line management to the review and control of its billing function. A summary report showing unbilled and billed but uncollected services by project should be prepared for the partner who has been assigned overall financial responsibility for the firm. This

Mr. Codella is administrator, AIA's Department of Professional Services.

report should indicate to the partners how the individual partners or project architects are meeting their cash management duties under the profit plan criteria.

Service is the basic commodity of all professional firms. Likewise the income of architectural practices is generally determined by the amount of service they provide to their clients. The greater the percentage of time that employees devote to billable projects, the greater will be the firms potential income.

The utilization of the architect's manpower resources represents the final key responsibility. Managing this function for the firm properly calls for the level of management responsibility normally associated with a department head. Because of budgetary limitations, a project architect may try to use only certain preferred personnel on an assignment. A department head, on the other hand, is motivated to keep all his personnel fully utilized on projects, to assign work appropriate to individual skills and to meet training and professional development objectives. This represents healthy competition that should be preserved since it creates a balancing of personnel resources that otherwise might not be achieved.

In a small firm, it may be necessary to combine manpower utilization and project control responsibilities in one individual, but as the practice grows, a separation should be planned which can assure the owners that each element is receiving equal attention and matches the rate of the firm's growth.

Profit Planning

Profit planning is a management tool that formalizes the definition of financial objectives of the partners of the firm. It establishes a profit goal and the required billings and level of expenses necessary to attain that goal.

The profit plan is an integral part of the overall technique for management planning and control for the year. It is the basis for the monthly budget that will control overhead expenses; it is the basis for the cash flow projections that will indicate the needs for cash during the year and the reasons for these cash requirements. It will form the basis for establishing billing rates for professional personnel. All partners should participate in its preparation, but the coordination of the profit plan is the responsibility of the managing partner.

There are several basic reasons why a profit plan is important to architectural firms; these include the following:

• Every architectural firm recognizes that it is service oriented, and this service basically is the design of buildings that are esthetic and functional. To achieve this objective, the firm must be able to offer attractive and competitive salaries to attract top professional talent and to provide continuity of employment and a continuity of client service. This means that the firm must be managed as a profitable, going concern.

• The development of a formal profit plan serves to emphasize for all firm management personnel that profitability is an approved objective. In too many professional firms, profits have been considered as an afterthought. After the work has been done, there is little income left to call a profit.

• Planning for profits requires management to anticipate costs and other requirements such as personnel, training, space and capital availability.

• A formalized profit plan can serve as a measuring device by which actual results can be evaluated. The detailed plans which underlie the planned profit should permit an analysis of actual results so that difference from the profit plan can be explained. As a result of these analyses, the management of the firm

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should be able to determine whether corrective action ca improve the results.

• Similarly, if in developing a reasonable profit plan the profit projected fall below an acceptable level, management may pla corrective measures at the outset of the period planned.

• Finally, long-range profitability cannot be left to chance It must be planned. All firms should follow a formalized plan ning procedure. The larger the firm, the more detailed shoul be the procedure because of the number of partners involve and the need for greater definition and evaluation of objective

Billing rates should be used for billing clients when the contract provides that the firm's charges can be based on the cost of services performed. In those instances where compersation will be based on percent of completed construction cost or other methods not directly related to the architect's actua costs, the billing rates should be used for controlling work of the project and assisting the architect in keeping his cost within the amount of compensation provided.

The cash flow statement should provide the followin planning information to the partners of the firm monthly:

- · Cash income
- Cash requirements
- Cash balance
- · Requirements for partner investment.

Cash flow planning is a valuable tool for managing an business organization, particularly those where the activity vo ume is larger and the cash commitments are more substantia It is a procedure which requires considerable thought in order to anticipate each item of income and expense that affects cash Many smaller firms have not found this degree of planning to be necessary for reasonable accommodation of their needs for cash to operate the firm.

While overhead budgets for the firm are normally prepare once each year, provision should be made to adjust the budge during the year if unusual or unforeseen changes require it.

A preview of future business and an overview of pa business may be prepared by the partners in the form of planning letter. The letter also summarizes the objectives of th firm and their implications on business. It establishes th groundwork and explains what is required from each manage

If the profit objective cannot be attained with reasonab billing rates, the overhead budget may have to be reduced. Whe this is necessary, each expense should be analyzed for eac department. It is difficult to make cuts arbitrarily. Management should solicit potential solutions from department heads.

Once the plan has been established, actual profit resul should be compared against the plan and corrective action take by management to improve the result.

These, then, are some of the ways in which profit goals ca be established and the methodology by which the major elemen of income and expense may be budgeted.

The manual uses the concept of "billing rates" developed from the firm's profit pl for cost accounting purposes. Some firms may desire to use actual cost for such pu poses, in which event the forms and procedures contained in the manual would modified.

The present AIA standard accounting system and forms will be continued for while. However, eventually they will be phased out when the new accounting syste has become widely adopted.

A computer program is currently being prepared for AIA by CLM Systems, In of Cambridge, Massachusetts, and is expected to be ready for use by January 197 Firms which are planning to computerize their cost accounting procedures are urg to postpone commitments until the AIA system becomes available. It is expected th the cost to firms will compare favorably with existing computerized systems and, mc importantly, will standardize reporting methods for financial management data with the architectural profession. Seminars are being planned for presentation at AI chapter and regional meetings on the use of the entire financial management system

the cost to firms will compare favorably with existing computerized systems and, mic importantly, will standardize reporting methods for financial management data with the architectural profession. Seminars are being planned for presentation at Al chapter and regional meetings on the use of the entire financial management system Task Force on the new accounting procedures manual. Financial Management system Architectural Firms: Murray A. Slama, AIA, chairman; John G. Wells, AIA, Gusta R. Keane, FAIA, Jack D. Train, FAIA, S. Scott Ferebee, FAIA, Frank L. Codel AIA, staff executive, and Arthur Anderson & Co., consultants.

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There's Condulite, for example.

Advocacy and the Architect

The Advocacy Urban Design Workshop, sponsored by the AIA, was established to explore the effectiveness of the advocate architect. Michael B. Barker, director of the Institute's Urban Programs, gives an account of this workshop, augmented by recent Community Development Center transpirations.

The catchword "advocacy" has come to symbolize the involvement of the typically middle class professional in the urban crisis. There are at least two basic criteria that an advocate must meet: 1) He must understand the needs of the poor and the racial minorities and 2) be capable of helping them express their cause to the government and society at large.

The serious problems of urban blight and decay in the nation's slums beckon the architect. Personal commitment to bettering the socio-physical environment, feelings of guilt for the sorry state of urban affairs and paternalism for the ensnared population are all potential motivating forces.

Traditionally, architects have served their clients (whether individuals, corporations, or government) with little direct contact with the actual users who will be affected by the buildings. The architecture of public housing is a poignant example; here the architect is working for a board or a commission and usually is quite removed, both physically and culturally, from the real clients — the eventual residents. Add to this the growing evidence that those who typically serve on housing boards and commissions rarely understand or identify with the needs of the poor for housing, and the results are often a case of "the blind leading the blind."

The design professions must broaden their conception of the word "client." Ways should be found to create clients outside the normal monetarily inspired client/professional relationship. The problems of the slum are not of physical architecture alone but rather of a social, political, economic and physical nature. The architect can offer expertise in the area of physical change only after he understands the social needs involved. The advocacy concept supposes that this understanding can come best from dealing directly with the client/community.

Young architects, some still in universities, across the country are leading the architectural profession into a broader involvement in the urban crisis by their participation in the Community Development Center (previously called Community Design Centers) program. CDCs provide, on the one hand, a vehicle by which residents of slum areas can seek technical assistance from the architectural community to better their environment; and on the other, a means for architects to educate themselves so that they can better discharge their social responsibilities.*

The CDCs are staffed by volunteers and fulltime people. Sponsors and funders include universities, The American Institute of Architects, the American Institute of Planners, the Office of Economic Opportunity and the Department of Housing and Urban Development, foundations and, in some cities, even commercial interests. The national AIA, through its Task Force on the Profession's Responsibility to Society, is devoting energy and money to the development of these centers. Information is being circulated to interested parties on techniques, concepts, programs and funding sources.

The AIA's CDC "Guidelines" brochure cites the following functions, of which a CDC may perform any or all:

• Act as a representative of the neighborhood in obtaining action and/or funds from



Volunteer Quaker high school students from the Bay area rehabilitate San Francisco's Imperial Hotel according to local CDC plans so that its elderly residents can continue to live there.

local, state or federal government agencies under the many programs available but unknown to the community.

 Serve as a spokesman for the neighborhood in its dialogues with these agencies.

• Provide architectural or planning services of value to the community, both to individuals and the neighborhood organizations.

· Furnish job training to young people who

may later decide to enter one of the design professions, as well as to students already enrolled in professional schools. (In addition to professional job training, there may be many opportunities to provide training in the building trade skills. This is especially important to the area residents themselves.) • Inform professionals in the problems of lower income neighborhoods.

• Demonstrate to the residents of these neighborhoods the value of architecture and planning.

• Indicate the active concern of members of the design professions with social problems and promote better communications between diverse elements of our society.

CDCs help the community by getting the architect tuned in to the communities' needs and in establishing communications links to the right places, necessary for advocating a need. There are presently more than 40 CDCs using the talents of hundreds of architects. Projects range from residential rehabilitation and neighborhood parks to housing complexes and master planning.

Frequently, advocacy planning acts as an adversary to municipal agencies and private concerns, thereby presenting constructive alternative plans. At other times, advocacy serves to initiate development that would not otherwise take place.

With architects becoming involved in advocacy, a more "lawyerly" concept of professional camaraderie may develop with benefits accruing to both clients (better architecture) and architects (more work).

The success of CDCs is tempered by the fragility of the relationship between the essentially white outsiders manning centers and the usually black community requesting the professional assistance. At the March 1970 CDC conference in Washington, some CDC activists strongly objected to CDC white "cadillac liberals" because the paternalism was demeaning to the community. This situation can be dealt with if both sides are honest about capabilities and desires.

There is an obvious need for more black architects to work in the CDCs. Recognizing that less than 1 percent of registered architects are black, the AIA is sponsoring programs to:

• Accredit five essentially black universities offering architecture.

 Train black youths in architectural offices for careers in architecture.

• Attract more black students to careers in architecture so that the profession will be able to provide from within its ranks architects who better identify with the people in the slums.

Advocacy among architects will manifest itself in many ways other than the CDC approach. Architects are involved in political advocacy at the federal, state and local levels, as well as through public education.

At the 1969 convention in Chicago, a resolution was adopted by the AIA, part of which states that "neither hope, time, nor technology will solve the problems that presently make urban life a dirty, difficult and dangerous experience. Only a wholehearted commitment of will and money will enable us to apply the skills needed to erase the shame of urban America."

^{*} For more information on Community Development Centers (CDCs), see "Vital Questions" No. 1, "Can Community Design Centers Do Any Good?" and "Guidelines for Community Design Centers." Both are available from the AIA.



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Abandoned Autos: Economic Asset

Some surprising results have come out of a recent conference sponsored by the Institute of Scrap Iron & Steel, as reported here.

In 1900, just 13 years after Gottlieb Daimler invented the gasoline automobile, passenger car sales in Detroit numbered 4,192; in 1968, the number (including trucks and buses) had risen to over 10,800,000. Hand in hand with this phenomenal growth in production came the dramatic rise in abandoned automobiles.

New York City, for example, removed over 13,000 abandoned autos in 1964; in 1969 the number approached 60,000. Moreover, the national annual retirement rate is more than seven million cars, added to the estimated 20 million automobiles that have accumulated through the years.

The question is what to do with these seemingly useless hulks that are spread across the country.

In an attempt to find the answer, the Institute of Scrap Iron and Steel, Inc. recently sponsored the National Conference on the Abandoned Automobile which featured speakers from the Department of Health, Education and Welfare, the Department of the Interior and the Department of Commerce, as well as spokesmen from various State and local departments and from private industry.

Opening the conference, which was entitled "Landscape: 1970," Leon J. Coslov, president of the Institute of Scrap Iron and Steel, Inc., noted that the abandoned auto problem has grown in "dramatic proportions" since the institute held the first National Conference on Auto Salvage in 1964.

Assistant Secretary of the Interior Hollis M. Dole, expanding on the theme, stated, "Junked cars must never be looked upon merely as eyesores to be concealed or buried. Automotive scrap is now generated at a rate that, if totally utilized, can provide industry with over 10 million tons of ferrous and onehalf million tons of nonferrous metals annually, with every indication that this rate will increase."

Hollis outlined a number of Bureau of Mines research projects designed to improve methods of recovering reusable metals from obsolete automobiles. They included the following:

• Development of a smokeless incinerator (a cooperative effort with the Wasatch Metal & Salvage Company of Salt Lake City). • A related study which showed that an average 3,600-pound car burned in this way and hand-dismantled could yield 2,500 pounds of steel, 500 pounds of cast iron, 32 pounds of copper, 54 pounds of zinc, 51 pounds of aluminum and 20 pounds of lead. (A cost evaluation study showed an annual rate of return on investment of about 20 percent.)

• An air separation technique that the Bureau of Mines laboratories are perfecting to recover nonferrous metals that are rejected in shredding operations. Some 300,000 tons of aluminum, copper, zinc and lead are being lost annually because there is no practical way to recover them.

• A simple method which bureau researchers have also developed for recovering copper from starters, generators, armatures and other components. The material to be stripped is dipped in a solution of calcium chloride, which quickly melts the copper. The metal collects at the bottom of the vessel and can be easily drained off. About 99 percent of the copper can be reclaimed in this manner, and the salt can be reused.

Moderator Noah Liff, chairman of the ISIS Task Force on Disposal of Obsolete Automobiles, reviewed the background to the current situation, noting that the introduction of the basic oxygen furnace in the United States in the mid-1950s reduced the big steelmakers' demands for scrap metals.

In the depressed market that followed and lasted until almost 15 years later — the only markets available were overseas markets and the so-called "mini-mills," which used scrap almost exclusively in small electric furnaces. Automotive scrap was hardest hit during this period, he said, and this accounts for the dramatic buildup in the number of obsolete cars. In recent months and for a number of reasons, Liff went on, large domestic steel producers have increased their demands for scrap, with the result that prices have gone up and automotive scrap has started to move again.

David Reichert, special counsel to the ISIS, discussed the ways in which present laws act as bottlenecks in the disposition of abandoned automobiles. "Probably the most



obsolete statute restricting the voluntary movement of obsolete motor vehicles requires the processor to obtain a certificate of title to the motor vehicle in his own name . . . notwithstanding the fact that the car is about to be processed," he said. This, he noted, takes time, and the \$1 or \$2 title fee is a significant cost factor in the economics of scrap processing.

A statute enacted by the State of Ohio in 1967, through the efforts of the ISIS, has now abolished this requirement, provided the vehicle is dismantled within 10 days after the processor receives it. The processor merely turns the title certificate over to the Clerk of the Court. This accomplishes three objectives, Reichert said:

• It enables the registrar to clear his files of titles to processed vehicles.

• It prevents titles from getting into the black market.

• By saving processors time and money, it encourages the processing of old vehicles.

"Many states no longer require processors to transfer certificates of title into their own name, and it is hopeful that the states still retaining the old law will amend their statutes to eliminate this unnecessary requirement." Reichert said.

Statutes dealing with abandoned cars also are "exceedingly cumbersome," he pointed out, requiring that the car be impounded for a statutory period in case the owner claims it and that police search the records and inform the owner by certified mail before the car can be sold at auction.

Reichert suggested that inoperable cars abandoned on streets or private property should be taken directly, without the owners' consent, to a scrap processor if they meet the following criteria:

· They have been left more than three days

- They are more than five years old
- · They have been extensively damaged
- They are inoperable
- Their value is less than \$50

William S. Story, executive vice president of the ISIS, described the State of Vermont's program for the disposal of junk autos.

The program, started in 1968, is conducted by the State Highway Board in cooperation with local governments, he said, and operates in the following manner:

The town selects a collection point and collects the old cars for disposal. The state then guarantees to dispose of the vehicles.

"Collecting done in this manner has been very successful in Vermont because projects have tended to become community activities in which efforts are made to have all citizens participate," Story said.

"Money, trucks and labor have been donated in these local programs. Free publicity in news media has aided in bringing the programs home to the citizens and in getting their cooperation. As soon as the minimum number (200 cars) has been reached, the State Highway Board contracts with a private car crushing firm, which operates a mobile car crusher. The cars are crushed and transported on flatbed trucks to a processor in Boston for processing into scrap. Since the program went into operation in the summer of 1968, the board has completed 32 contracts with local municipalities. Game room in an apartment in Philadelphia, Philip Mastrin, architect. Stanleigh Ward Krewson, interior designer. Susan L. Haag, lighting consultant. The apartment is a National I.E.S. winner.



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books

Whole Earth Catalog: Access to Tools. Spring 1969. Menlo Park, Calif.: Portola Institute, 1969. 128 pp. \$4.

The cover of the Whole Earth Catalog is a NASA photo of the earth, taken from the moon's surface. There is a hand superimposed, big enough to scoop up the earth and throw it away, and a quotation from Energy Flow in Biology by Harold Morowitz: "The flow of energy through a system acts to organize that system."

Inside the catalog, we are told that it functions as an evaluation and access device and that items are listed if they are useful, relevant to independent education, of high quality or low cost and available by mail. Under "Purpose," the editors say:

"We are as gods and might as well get good at it. So far, remotely done power and glory — as via big government, big business, formal education, church — has succeeded to the point where gross defects obscure actual gains. In response to this dilemma and to these gains a realm of intimate, personal power is developing — power of the individual to conduct his own education, find his own inspiration, shape his own environment and share his adventure with whoever is interested. Tools that aid this process are sought and promoted by the *Whole Earth Catalog.*"

The categories of items are "Understanding Whole Systems," "Shelter and Land Use," "Industry and Craft," "Communications," "Community," "Nomadics" and "Learning." Through this catalog, you can acquire such items as books by Christopher Alexander, the magazine Archigram, The Home Guide to Plumbing, Heating, Air Conditioning, a 4-wheel drive Coot, buckskin, a Leclerc loom, a Hewlett-Packard 9100A calculator (\$4,900), a Nagra tape-recorder (\$1,123), Kaibab boots, an Airstream Travel Trailer and a Spilhaus space clock. The authors claim that the insights of Buckminster Fuller initiated the catalog.

One of the more simple things that can be said about the catalog is that it is great fun. It is jam-packed with items that, had you ever known about them, you could never have lived without. The significance of the catalog, however, far outstrips that which it simply is. Some of the more obvious follow.

The idea of selling things was initially thought of by the editors as a truck store for rural communes, such as the dome village near Corrales, New Mexico, and others which have proliferated (and often failed) around the country. The realization that these communes *needed* certain things is related to both the cause for many of those failures and the cause of this catalog. The realization also represents a certain coming to grips with society (the authors admonish at one point: Memorize your zip code!). My old planning professor, Julio San Jose, used to tell us that the man who sees himself as free from society because he lives in the Cascades alone, but with a chain-saw, a Land Rover and several Coleman lanterns, is simply living a lie. And that we can't live without those things anymore because we're too dumb. So many commune dwellers have learned, after a bit of frustration and often real hunger, that some sort of compromise was in order.

The return to society to which the *Whole Earth Catalog* is a testament is different, as is the nature of homecomings. It sifts and winnows the work of technological achievement and services available — not that careful selection of goods is a new discovery —



but the catolog does reveal that there is a sense of quality and integrity left in a cheap and often dishonest mercantile world and that the buyer may place some confidence in a black walnut tool chest from Dayton, Ohio, or in L. L. Bean's hunting shoes. The residual warning, however, implicit in the existence of the catalog itself is that items such as these are rare and must be ferreted out. But the willingness to search tempers the sense of having dropped out.

There are other significances, closer to home. It is a fortunate profession that has an underground to learn from, and architecture is just beginning to come into its own. The 1969 convention of The American Institute of Architects revealed one component, namely the political activists, and suddenly the profession was forced to deal (and did!) with the demands of its students.

There is yet another component represented by the *Whole Earth Catalog*, nonpolitical in nature, really, but more concerned with the individual and his ability to understand and manipulate his environment. The editors of the *Whole Earth Catalog* really believe that a person's relationship to the built things around him is precious and that each and every item a person owns or occupie should hold a great truth. There is such a student in every architectural school class – someone who thinks that architecture is comic or embodies mystical qualities — an perhaps he helps us stick it out even thoug he invariably leaves. The irony, and the tragedy, is that this segment of the architectures school or, when they do, they drop out.

On page 80, the editors say: "Nobody in volved in this book is an architect, which pretty interesting, because most of its impl cations are architectural." That *is* indeed in teresting, and sad, because being so far removed from each other, both the mainstrear of architecture and this tributary get littl from each other. DAVID CLARK

Paints and Protective Coatings. David Litte Laboratories. Washington, D.C.: US Govern ment Printing Office, 1969. 225 pp. \$7.25.

Despite the vast complexity of publishe technology on paints and coatings within th industry, concise nonproprietary information suitable for the architect's use in selectin materials and preparing specifications ha not been readily available. Usually the specifier relies on manufacturers' brochures for reference, and his confrontation with the conflicting terminology and recommendations of various producers often develop inteutter confusion. Dilemma follows confusion when the federal specification system o standards is superimposed on his effort.

This manual, prepared for the Departmen of Defense to furnish "information abou products, practices, procedures, materials equipment, methods and safety measures used in the protective coating of building and other permanent facilities at DOD instal lations," offers a solution for resolving much of the current confusion. Designed for use by those who select and apply paint systems it is simple in presentation, practical in organization of information essential for selectior of materials and procedures and comprehensive in providing a perspective of systems referenced in the grade specifications of various federal government agencies.

Discussed are coating applications for both interior and exterior surfaces of buildings and related facilities, including floors, utility systems, traffic markings, signs, special areas and swimming pools. Coverage is, however, inadequate on fire-retardant coatings, organic and inorganic tilelike systems and some special purpose products which may have limited sanction for defense installations.

The text includes such rare bits of information as a list of open and closed grain woods, details of abrasive blasting materials and methods, recommendations for proper roller and brush selections and description of airless spray equipment. The unsuspecting may even be surprised to discover sketches of knots and hitches often used in painting operations, a diagram of ladder stability limitations and a table for choosing proper fire extinguishers.

Bound in standard loose-leaf binder, suitable for revision, with chapter tabs, glossary, index and reference tables, this study is in *continued on page 62*

The reviewer, a former teaching assistant at the University of Oregon, is with a Brooklyn architectural firm.

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ideal, readable form. Illustrations effectively supplement the text, particularly in the chapter on deterioration of coatings. The organization of material, unfortunately, has resulted in some needless fragmentation of information, especially in that for surface preparation, which should be revised in subsequent editions. Use of the imperative mood is also disconcerting when the text shifts indiscriminately from the specifier to contracting officer, contractor superintendent or applicator.

Use of this manual is not limited to government projects. It warrants endorsement as a valuable unique reference and belongs in every architectural office library.

EVERETT G. SPURLING JR., AIA

Comprehensive Urban Planning: A Selective Annotated Bibliography with Related Materials. Melville C. Branch. Beverly Hills, Calif. Sage Publications, 1970. 477 pp. \$20.

Prepared by the Professor of Planning in the Graduate Program of Urban and Regional Planning, University of Southern California in Los Angeles, this bibliography reveals its compiler's expertise in an increasingly complicated field. Now incorporating economic, political, social, legal, environmental, communicative and technological considerations, urban studies cover a great variety of materials. In this book some 1,500 references are included, selected to "scan the field and provide points of entry from numerous viewpoints and particular interests." The focus is upon the American city, its experiences, problems and future. Well organized, the work's usefulness is enhanced by the inclusion of annotations. Separate indexes by subject, author and title contribute to the easy utilization of the bibliography.

The Use of Color in Interiors. Albert O. Halse. New York: McGraw-Hill, 1968. 134 pp. \$16.50.

Halse, an architect, says that a great deal of color is selected emotionally and irrationally. He sets forth clear and practical guidelines to prevent error and to enhance architecture. He takes a look at the historical use of color and discusses color theory and design, the effect of light on color, the psychological effects of color and the application of color to built-in materials, to furniture and to furnishings. A most helpful book for the architect.

Schools for Elementary Technical Education: Documentation Compiled for a Comparative Study. School Building Commission, International Union of Architects. Mexico City: Comisión de Construcciones Escolares, 1969. 243 pp. \$6.

The School Building Commission of the UIA made a study of 17 schools for technical education in Germany, Austria, Argentina, Czechoslovakia, France, Spain, the United States, Great Britain, Greece, the Netherlands, Israel, Italy, Mexico, Morocco, Switzerland, Sweden and the Soviet Union. Now published in three languages, the manual is in three main parts covering statistical data of demographic, economic and social aspects of each of the countries studied; a series of examples of school buildings with information about the use of space; and a consolidation of information that could not be included in the other parts.



Junior College Libraries: Development, Needs, and Perspectives. Edited by Everett LeRoy Moore. Chicago: American Library Association, 1969. 104 pp. \$3.

A collection of 19 pages presented at the first national conference on junior college libraries in 1967. Among the topics covered are library needs in the development of the new campus; the library as it supports instruction; the library and research; library education and personnel; the library and information retrieval; and library facilities and equipment.

University Space Planning: Translating the Educational Process of a University into Physical Facility Requirements. Harlan D. Bareither and Jerry L. Schillinger. Urbana: University of Illinois Press, 1968. 153 pp. \$12.50.

A systematic methodology to follow in order to determine the space requirements of a university based on extensive work by the authors in the University of Illinois' former Central Office on the Use of Space.

Landmarks of Dutchess County, 1683-1867: Architecture Worth Saving in New York State. Dutchess County Planning Board. New York: New York State Council on the Arts, 1969. 242 pp. \$4.

This book, beautifully illustrated with photographs by Joe Alper, presents 93 landmarks grouped according to historical period and function. It contains four tour guide maps to assist the visitor to Dutchess County. It is the third in a series of books on architecture worth saving in New York State.

Aycliffe to Cumbernauld: A Study of Seven New Towns in Their Regions. Ray Thomas. London: Political and Economic Planning, 1969. 161 pp. \$3.

A look at seven older new towns outside London from the standpoint of regional planning.

Creative Facilities Planning for Occupational Education. Fred C. Finsterbach and William C. McNeice. Berkeley Heights, N. J.: Educare Associates, 1969. 2 vols., \$12.

The layouts here provide practical assistance for school boards, architects and others concerned with planning of facilities for occupational education. The Politics of Architecture: A History of Modern Architecture in Britain. Anthony Jackson. Toronto: University of Toronto Press, 1970. 219 pp. \$8.50.

Jackson portrays British architecture since 1930 as something of a battlefield with the old idiom and the new and various social and technological viewpoints in conflict. Here he describes the issues and tells how they arose.

From the Beginning: Archaeology and Art in the Israel Museum, Jerusalem. Karl Katz, P. P. Dahane and Magen Broshi. New York: Reynal, 1968. 286 pp. \$15.

The Israel Museum possesses many rare treasures of grace and beauty. This is far more than a catalog, however, providing a background to the museum, its architectural expression, its accomplishments, its aspirations.

Architecture in Australia: A History. J. M. Freeland. Melbourne: F. W. Cheshire Pub. Co., 1968. 328 pp. \$9.95.

A most commendable history of architecture in Australia from the first canvas tents at Sydney Cove in 1788 to the Sydney Opera House in 1967.

The Cathedrals of England. Alec Clifton-Taylor. New York: Association Press, 1970. 288 pp. \$7.95.

This book carries one through nine centuries of cathedral building in England. Characteristic features of each example are examined and related to their French counterparts. The treatment is by period and style rather than cathedral by cathedral. Beautiful photographs by Martin Hurlmann and others.

Metropolitan Cathedral of Christ the King, Liverpool. Frederick Gibberd. London: Architectural Press, 1968. 161 pp. 45 shillings.

An interesting account of the growth of a cathedral from the earliest stages of its planning to the final consecration of the building.

De Stijl. Paul Overy. New York: Dutton. 1969, 167 pp. \$2.45.

The Dutch magazine *De Stijl* was founded in 1917 by Theo van Doesburg and edited by him until his death in 1931. Among the persons associated with it were the architects Rietveld, Oud, van t'Hoff and van Eesteren Here Overy relates the journal to Art Nouveau, Cubism, Futurism, Constructivism and the Bauhaus.

Library Buildings 1967-1968. Edited by S. G. Berriman. London: Library Association, 1969. 78 pp. 25 shillings.

Descriptions and comments on 21 British libraries "which the author found stimulating for one reason or another" in the matter of design or presentation of facilities.

Neighborhood Analyses. Morton Farrah West Trenton, N.J.: Chandler-Davis, 1969 78 pp. \$1.50.

A useful guide for field workers and planners in municipalities under 50,000 in population to assist them in evaluating the need for urban renewal activities.

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books from page 62

Principles of Natural Lighting. J. A. Lynes. New York: Elsevier, 1968. 212 pp. \$7.50.

This is a technical work, but the architect concerned with window design, glazing materials, roof lights and other aspects of visual environment may refer to it with benefit. Heretofore, little has been published for neophyte research workers, and this book is aimed at correcting the situation.

Lighting Fittings Performance and Design. A. R. Bean and R. H. Simons. New York: Pergamon Press, 1968. 321 pp. \$8.

Here in one volume is much of the technical information advanced in recent years on the design and performance of lighting fittings. The authors presume that the reader has a basic knowledge of photometric terms and the laws of optics.

Comprehensive Structural Design Guide. Max Kurtz. New York: Macmillan, 1969. 328 pp. \$13.50.

Detailed solutions to many problems in structural engineering.

Prestressed Concrete Beams: Design and Logical Analysis. C. B. Wilby. New York: Elsevier, 1969. 97 pp. \$8.50.

A technical book dealing with all types of post-tensioned prestressed concrete beams. Of particular use to designers of highway and railway bridges.

Construction Planning, Equipment and Methods. 2nd ed. R. L. Peurifoy, New York: McGraw-Hill, 1970. 696 pp. \$14.50.

The first edition of this book was published in 1956; since that time there have been many improvements and changes in construction planning, equipment and methods. Among the new materials included are the critical path method, soil stabilization and compaction, mechanical moles, the time value of money, tractor shovels and timelapse moving pictures.

Sound, Noise and Vibration Control. Lyle F. Yerges. New York: Van Nostrand Reinhold, 1969. 203 pp. \$9.95.

Written in the idiom of the practicing professional, this book emphasizes the human factors which affect the environment. Sound is so much a part of our daily life, reminds the author, but "there is lamentable ignorance of the subject, even among professionals." This working guide will greatly help the architect who wants a more thorough knowledge of acoustics and skill in sound control.

Basic Soils Engineering. 2nd ed. B. K. Hough. New York: Ronald Press, 1969. 634 pp. \$13.50.

The scope of this work, now published in a revised edition, includes the entire field of soils engineering.

Reinforced Concrete Design. George E. Large and T. Y. Chen. 3d ed. New York: Ronald Press, 1969. 634 pp. \$13.50.

A revised and updated edition of a work first published in 1950.

events

AIA State and Region

- Sept. 24-26: New Jersey Society of Architects, Chalfonte-Haddon Hall, Atlantic City
- Oct. 14-17: Western Mountain Region, Western Look Guest Ranch, Tucson
- Oct. 29-31: Architects Society of Ohio, Stouffer's Cincinnati Inn, Cincinnati

National

- Aug. 3-7: Conference & Arts Festival for Planners and Users of Facilities for the Arts, Calvin College, Grand Rapids, Mich.
- Aug. 3-7: A Systems Approach to the New City, Oakland University, Rochester, Mich.
- Aug. 9-14: (repeated Sept. 13-18) Environmental Planning for Learning, ET-200, Palo Alto, Calif.
- Aug. 18-21: Symposium on Trees and Forests in an Urbanizing Environment, University of Massachusetts, Amherst
- Sept. 10-11: Conference on Practical Aspects of Historic Preservation in Urban Areas, Pittsburgh
- Sept. 13-19: Noise and Vibration Control, Red Jacket Beach Inn, Cape Cod, Mass.
- Sept. 29-Oct. 2: National Environmental Pollution Conference & Exposition, Sheraton Park Hotel, Washington, D.C.
- Nov. 1-3: Architect/Researchers' Conference, Stouffer's Cincinnati Inn, Cincinnati

International

- Sept. 13-18: Interamerican Society of Planning, Salvador, Bahai, Brazil
- Sept. 13-18: Panamerican Congress of Architects, San Juan, Puerto Rico
- **Oct. 4-7:** National Association of Home Builders International Apartment Conference, Statler Hilton Hotel, Washington, D.C.
- Oct. 4-16: International Union of Architects, Public Health Seminar, Dusseldorf

Competitions

- Sept. 9: Registrations due, plan for Fontivegge-Bellocchio Comune, Perugia. Registration fee of 25,000 lire to be sent to order of Economo del Comune di Perugia Palazzo de Priori, 06100 Perugia, Italy.
- Sept. 30: Registrations due, plan for a district on the southern fringes of Vienna. Contact: Magistrat der Stadt Wien, Magistratsabteilung 18, Rathaus A-1082, Vienna, Austria.
- Nov. 15: Submissions due, renovation of old town of Karlsruhe and its integration within the town center. Contact: Sekretariat des Wettbewerbs, Rathaus Stadtplanangsamt, 7500 Karlsruhe, Germany.

Tours

Aug. 14-29: Oriental American Symposium on Architecture and Urban Design, including two days at Expo '70, for AIA members only. Contact: Professional Seminar Consultants, Inc., 3194 Lawson Blvd., Oceanside, N.Y. 11572. □

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Built at a cost of \$10 million, this complex at the University of Utah consists of five individual buildings connected by hallways at the lower underground level. The Special Events Center, a circular facility with 15,000 permanent chair seats, will serve for athletic events, lectures, entertainment, conferences and commencements.

Other facilities include two exhibition areas, offices, classrooms, a three-pool natatorium, and men's and women's physical education departments. In addition to the basketball floor in the Special Events Center, the complex has five other multiple-use gym floors and six handball courts. All are finished with Trophy Seal and Trophy Gym Finish.

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letters

Systems Design a Hot Topic

Mr. Ehrenkrantz's discourse on systems in the May issue is interesting and should help clear up some of the confusion in the verbiage of this subject.

It is hoped that additional material on this subject might be published in future issues to convey to your readers more precisely the methodology of systems design.

The limited study we have given to the systems concept indicates that distinction between two concepts of the systems approach is important: first, the use of systems design as a disciplined methodology in solving architectural and engineering problems and, second, the use of systems building as related to the adoption of integrated building subsystems. Both are referred to by Mr. Ehrenkrantz.

The latter has received considerable attention in recent current literature, but the former has been mentioned seldom except occasionally in connection with computer programming. The systems design approach is one that we believe can be extremely useful to architects for both small and large projects and with or without computer applications, but more information is needed for its full understanding.

G. ROBERT JOHNSON, AIA Glenview, Ill.

Lack of Social Responsibility?

For the past several years, the architects have been admonished — and rightly so — for their lack of "social responsibility" in their practice of discrimination against certain segments of our society.

In analyzing the Design Awards (1970 Community and Junior College Design Awards, March '70) — and in particular the jury comments for each award — there seems to be a glaring lack of "social responsibility" and the practice of discrimination in the designs and concepts. Where are the solutions for the physically handicapped? And why discriminate against our senior citizens who are unable to climb stairs? Most of the schemes pictured in the issue show beautiful buildings on well-designed raised podiums with nicely conceived stairways. Yet they are "architectural barriers" to the physically handicapped and the elderly.

In my judgment, the selections for the awards were very good, and it may be that the architects did in fact provide ramps and elevators for those unable to maneuver the stairways.

What disturbs me the most is the fact that the jury did not mention (I'm sure they considered this design requirement) how the award-winning projects solved this vital problem. They did comment on "the desirability of separation of pedestrian and vehicular traffic." A further comment on how the "architectural barriers" were overcome would have shown that architects do not discriminate against the elderly or the physically handicapped but do have "social responsibility." SAMUEL SCHEINER, AIA Massapequa, N. Y.

The Chairman of the Jury Comments

Mr. Scheiner's observations on the jury's comments are well considered. It would perhaps have been desirable to mention as a general comment that access to all areas for the physically handicapped was a consideration. As he knows, in buildings such as these, in which service access at grade is essential, each floor area is generally accessible by elevator and such access is a requirement in many cases. This writer observes that ramps are not always desirable for the physically handicapped, especially when used out-ofdoors in those parts of the country where winters are severe.

It is regrettable perhaps that because of space limitation it is not possible to publish plans as well as photographs of such projects in order to explain more fully the solutions submitted. ROBERT S. HUTCHINS, FAIA New York City

Urban Housing and National Goals

Carl Koch's article in the February AIA JOURNAL was the finest statement I have ever read concerning the contemporary approach to urban housing.

During the last three years my partner, myself and our firm have suffered through the design of three housing projects for New York City.

The first is low income and is ready to go out for bid. The second is a rehabilitation project in Harlem. The third will provide over 1,300 units of new construction, if it survives the Scylla and Charybdis of inflated costs on one side and bureaucracy on the other.

I have learned through the agonies of these projects that we must develop an industrialized approach to housing which was described so well in Koch's article.

I would like to have any information available about Koch's construction system and would like to know if there is a center in New York City where information is available. HERBERT B. OPPENHEIMER, AIA New York City

I was interested in Carl Koch's article in the February JOURNAL, but I wish to explore one small item in the text.

He indicates that "the architect's fee need not be cut" by virtue of employing an industrialized housing system and thereby reducing the cost of the project . . . to the owner. "Instead, architectural services *can* be expanded into the site and social and public facility considerations for which there is seldom time, opportunity or budget on typical jobs."

I underlined "can" because under normal market conditions I don't believe Koch's thesis would hold true, except in the case of highly motivated public-spirited entrepreneurs. If savings in architectural fees could be realized by the developer in one area, I doubt if he would invest these in other aspects of the project.

Our only guarantee for an improved environment — and this should be the principal objective — would be to *insist* that these other amenities suggested by Koch be provided, therefore persuading the developer to economize in other areas so that he might afford to employ the required design effort to assure us decent living environments within specified cost parameters. (Put the pressure on variables which *should* be softer: restrictive labor practices, codes, cost of money, funding of federally assisted programs to the extent authorized.)

All of this implies the development of national goals and priorities, performance criteria and a process which is flexible enough to evaluate alternatives and allow for the restructuring of variable elements over time.

If we were to find the answers to some of the latter problems, we would not only improve our environment but guarantee that informed professionals would be employed in the development process.

> DOUGLAS S. STENHOUSE, AIA Washington, D. C.

Japanese Books for Sale

I am the widow of the late Leslie I. Nichols who was a member of the Institute for many years. As you may know, he worked a great deal in the Japanese medium and had quite a library of architectural books on that subject, which is now for sale.

A listing of the books will be sent to anyone who contacts me through this magazine. Mrs. Leslie I. NICHOLS *Atherton, Calif.*

Operation Breakthrough Credit Omitted

The April issue lists housing system producers selected for Operation Breakthrough together with participating architects. One important member of our consortium whose name was omitted is Ewing Miller, AIA, who is responsible for many of the planning concepts submitted in the proposal. I hope that you will be able to give Ewing Miller & Associates appropriate credit in future articles concerning Operation Breakthrough. E. H. BRENNER, AIA

Lafayette, Ind.

ED. NOTE: We apologize to Ewing Miller & Associates for this oversight. Among the housing system producers selected to build prototype units is the Ball Brothers Research Corporation; participating architects are Elliott H. Brenner, AIA, Bradley & Bradley and Ewing Miller & Associates.

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