



A door and frame system that cuts installation time from hours to minutes.



A new fiberglass panel for sanitary areas that makes cleanup quick and easy.

Easy-to-apply 16" wide tongueand-groove planks in 8' or 10' lengths.

7504

murals.

Marlite flexible wall coverings from James Seeman Studios—design excellence in flocks, vinyls, foils, scenics and

> Your Marlite representative has the full story on all our interior building products. Marlite, Dept. 960, Dover, Ohio 44622.



James Seeman Studios, Inc. is a subsidiary of Masonite Corporation. Marlite Panels are hardboard with man-made finish. Marlite and Masonite are registered trademarks of Masonite Corporation.

8'or 10'

The most beautiful roofing material you can use just happens to be the best insulation, too.

Residence, Michigan, William Kessler and Associates Inc., Architects.

Red Cedar shingles and handsplit shakes are twice as resistant to heat transfer as asphalt shingles. Three times more resistant than built-up roofing. In fact, red cedar out-insulates such roofing or siding materials as asbestos-cement shingles, slate, aluminum and architectural glass.\*

Red cedar deserves close consideration for architects and builders concerned with the energy conservation of their structures. Its unique cellular structure makes it even more insulative than many other woods. And the traditional overlapping application method affectively multiplies cedar's resistance to heat transfer.

Add to this the design flexibility and durability of red cedar on residences and commercial structures. It's no wonder the most beautiful roof and sidewall covering you can possibly use is also most efficient.

For more details, write Red Cedar Shingle & Handsplit Shake Bureau, 5510 White Bldg. Seattle, Washington 98101. (In Canada 1055 West Hastings St., Vancouver 1, B.C.)

\*ASHRAE Handbook of Fundamentals, 1972 ed., Chap. 20 "Design Heat Transfer Coefficients" Table 3A, pp. 362-63.



These labels under the bandstick or on cartons of red cedar shingles, handsplit shakes and grooved shakes are your guarantee of Bureau-graded quality. Insist on them.

Red Cedar Shingle & Handsplit Shake Bureau

One of a series presented by members of the American Wood Council

#### **Board of Directors**

#### Officers

Archibald C. Rogers, FAIA, President William Marshall Jr., FAIA, , First Vice President Van B. Bruner Jr., AIA, Vice President Louis R. Lundgren, FAIA, Vice President John M. McGinty, AIA, Vice President Hilliard T. Smith Jr., FAIA, Secretary Joseph Tuchman, FAIA, Treasurer William L. Slayton, Hon. AIA, Executive Vice President

Directors (Year indicates expiration of term) Whitson W. Cox, FAIA ('74), California Eugene Crawford, FAIA ('75), California Rex Lotery, AIA ('76), California Herbert E. Duncan Jr., AIA ('75), Central States Robert M. Lawrence, AIA ('76), Central States Harley B. Fisk, AIA ('76), East Central States H. Leslie Walker Jr., AIA ('75), Florida Matt L. Virden III, FAIA ('74), Gulf States John F. Hartray Jr., AIA ('75), Illinois Clarence H. Rosa, FAIA ('74), Michigan Alexander S. Cochran, FAIA ('74), Middle Atlantic

William L. Ensign, FAIA ('75), Middle Atlantic Robert A. Burley, AIA ('74), New England Sarah P. Harkness, AIA ('76), New England Arthur E. Rigolo, FAIA ('74), New Jersey Frederick G. Frost Jr., FAIA ('74), New York Herbert Epstein, AIA ('75), New York Donald J. Stephens, AIA ('76), New York George A. D. Schuett, AIA ('76), North North Central States Robert E. Fehlberg, FAIA ('75), Northwest Vladimir Ossipoff, FAIA ('75), Northwest Willard C. Pistler Jr., AIA ('76), Ohio

Ehrman B. Mitchell Jr., FAIA ('75), Pennsylvania William A. Carlisle, FAIA ('74), South Atlantic Leslie N. Boney Jr., FAIA ('76), South Atlantic Thomas A. Bullock, FAIA ('75), Texas Howard R. Barr, FAIA ('76), Texas Robert A. Fielden, AIA ('76), Western Mountain Patrick B. Davis Jr., ex officio, President, ASC/AIA

#### Observer

Fotis N. Karousatos, Chairman, Council of Architectural Component Executives

#### Headquarters

William L. Slayton, Hon. AIA, Executive Vice President James A. Scheeler, FAIA, Deputy Executive Vice President Robert Traynham Coles, AIA, Deputy Vice President, Minority Affairs William G. Wolverton, Hon. AIA, Administrator, Business Management James E. Ellison, AIA, Administrator, Education & Research Michael B. Barker, Administrator, Environment & Design Arnold J. Prima Jr., AIA, Administrator, Government Affairs J. Winfield Rankin, Hon. AIA, Administrator, Institute Affairs Edward G. Petrazio, AIA, Administrator, Professional Practice Muriel Campaglia, Administrator, Public Relations John P. Eberhard, AIA, President, AIA Research Corporation John H. Schruben, FAIA, Executive Vice President, Production Systems for Architects and Engineers, Inc.

#### AIA JOURNAL

Exploring China: The 15-Man AIA Delegation on Tour—William L. Slayton Photos of the tour along with impressions of China's people and planning		19
	rams by the AIA's executive vice president	
New Setting for the	Centerpiece of Cincinnati	28
An AIA citation for community architecture awarded to Fountain Square Plaza		
The Addictive Histo	oric District of Savannah—Picot deBoisfeuillet Floyd	29
	storation society in a city where organized town planning	
Oregon Blazes New	Trails in Environmental Protection. Where Do They Lead	
Next?—Donald Canty		34
The AIA's first citation for "excellence in environmental protection and improvement" is given to a state determined to retain its natural beauty		
	elf-Portrait of the Profession-Mary E. Osman	38
Responses show that the architect's preeminent concerns are design quality and adequate compensation		
Another View: The Architect as He Is Pictured in Fiction—Cecil D. Elliott The George Apples vs. the Marcus Welbys, or Are architects getting a fair shake?		40
Seeing the City Whole—Charles A. Blessing, FAIA		42
The pen and prose of Detroit's veteran director of city planning		
Let's Concentrate (	On Saving Rail Service Instead of Stations—Lawrence O.	
Houston Jr.		50
	ern about the function of old structures has produced servationists a concern that is only facade deep"	
Masterspec's Mechanical and Electrical Phase—Joseph P. Manzo		53
How the difficult	engineering aspects of the system are being developed	
Departments		
Going On	4 Events	62
Books Letters	54 Advertisers 62	72
Cover: Suzy Thoma		
Kathy Yu, Editorial Department of Educ Director; Michael J	tor; Mary E. Osman and Peter H. Share, Associate Editors; Assistant; James E. Ellison, AIA; Dave Clarke, Institute cation and Research, Consulting Editors; Suzy Thomas, Art . Hanley, Publisher; Michael M. Wood, Sales Manager; Georg oduction and Business; Michael A. Benoit, Circulation Manage	
1735 New York Ave. 1	magazine of The American Institute of Architects, published monthly at N.W., Washington, D.C. 20006. Telephone: (202) 785-7300. Subscripe, by title, architects, architectural employees, and to those in architec-	

All JOURNAL, olicial magazine of The American Institute of Architects, published monthly at 1735 New York Ave. N.W., Washington, D.C. 20006. Telephone: (202) 785-7300. Subscriptions: for those who are, by title, architects, architectural employees, and to those in architectural education (faculty and schools), and to libraries, building construction trade associations and building product manufacturers: basic rate \$7 a year, \$12 two years, \$6 to architectural students in the U.S., its possessions and Canada. For all others: \$12 a year in the U.S., its possessions and Canada: other countries to those who are, by title, architects: \$12 a year. All others outside the U.S., its possessions and Canada: \$22 a year. Single copy: \$2, payable in advance. Publisher reserves the right to refuse unqualified subscriptions. Change of address: give Circulation Department both old and new addresses; allow six weeks, second class postage paid at Washington, D.C. Microfilm copies available from University Microfilm, 300 N. Zeeb Road, Ann Arbor, Mich. 48106. Referenced in *The Architectural Index, Architectural Periodicals Index* and *Art Index*. (© 1974 by The American Institute of Architects. Opinions expressed by contributors are not necessarily those of the AIA.® VOL. 62 NO. 3

#### Housing Bill Consolidates Some Programs But Continues Others

On August 22, the President signed a major housing bill, four years in the making, that has something for nearly everyone.

The Administration got its community development block grants (once called special revenue sharing), consolidating 10 categorical grants programs, including model cities and urban renewal. Funding authorization is \$2.5 billion in fiscal 1975 and \$2.95 billion in each of the ensuing two fiscal years.

The Administration (which can be considered a Nixon-Ford continuum in terms of housing policy) also got its expanded program of subsidizing the leasing of housing (once called Section 23 and now revised and renumbered Section 8). Together with an increase in funds for experiments with housing allowances, this will enable the Administration to pursue its announced intention of emphasizing assistance to people in need of shelter over the subsidizing of housing construction.

However, defenders of the construction subsidy program won a reprieve for the scandal-tainted Section 235 and 236 programs of mortgage subsidy for sales and rental housing respectively, and also for public housing. Authorizations for these programs were far below the \$1.23 billion put behind the leasing push and will come from money previously appropriated but impounded.

The ailing housing industry got an increase in the maximum Federal Housing Administration mortgage for a singlefamily home from \$33,000 to \$45,000, more realistically reflecting the average price of new homes in this inflationary era. The limit on loans that can be made by savings institutions also was raised, from \$45,000 to \$55,000.

Even the poor got a little something out of the bill. In addition to public housing, the new block grants will be apportioned according to a formula that assigns the incidence of poverty in a locality double weight. Where housing is plentiful, the poor also will benefit from the leasing program. Elsewhere, it will mainly benefit their landlords.

In a statement prepared at the request of the secretary of the Department of Housing and Urban Development, the AIA said that it "is generally pleased" with the act. Citing two major deficiences in the act, the statement drew attention to several sections worthy of special praise. Included in these, among others, were: authorization of HUD guarantees up to \$500 million of taxable borrowings of state housing finance and development agencies; authorization of \$130 million in fiscal year 1975 and \$150 million in 1976 for grants to local and regional government planning, particularly the requirements that governments which receive planning assistance funds prepare housing and land-use plans; the establishment of a National Institute of Building Sciences; and authorization of \$10 million to a research project to study the needs of the elderly, handicapped, displaced persons and large or broken families.

The deficiencies found by the AIA pertain to metropolitan considerations and low- and moderate-income housing. About the former, it said: "The need to provide more effective governmental mechanisms at the metropolitan level has been clearly and overwhelmingly demonstrated. The governmental problem in metropolitan areas is similar to the now partially remedied chaotic categorical grant programs. The act, rather than encouraging metropolitan governmental reform, would seem to have the effect of further entrenching local governments in patterns which are not well equipped to deal with housing, transportation, recreation, environmental pollution and other metropolitanscaled problems. To remedy the situation, the act should be amended to provide bonuses to those states and metropolitan areas which are effectively dealing with planning and development at the metropolitan level."

On low- and moderate-income housing, the AIA said: "It is well documented and increasingly understood, particularly by suburban governments, that housing for low- and moderate-income people, even

using the available federal subsidies, is only the beginning of the costs incurred by the community with respect to social services and other services the inhabitants of these dwelling units will require. This factor, combined with an increasing emphasis on managed growth in local suburban governments, would tend to make it economically imperative that full subsidies for low- and moderate-income people in suburban communities are provided for local suburban governments to cope with the housing needs for low- and moderateincome people. There is little likelihood that the pattern of further concentration of low- and moderate-income people in central cities will be avoided unless the economic argument of suburban governments is responded to. To remedy this, legislation is needed to subsidize the full costs to local jurisdictions of low- and moderate-income housing, particularly around major metropolitan-core cities."

#### Minority Scholarship Fund Drive: New Totals

In the July article "AIA Minority/Disadvantaged Scholarships: A Commitment Yet to Be Fulfilled," the message was correct but the figures in the accompanying bar graph were not. Due in part to computer lag, the performance of some regions in meeting scholarship quotas (notably that of Texas) was understated. To set the record straight, below are the most current available figures (total of pledges and dollars to date for both national or local use and percentage of regional quota). California, \$34,732, 52%; Central States, \$14,762, 54%; East Central, \$5,647, 51%; Florida, \$6,718, 32%; Gulf States, \$5,410, 22%; Illinois, \$4,910, 21%; Michigan, \$4,085, 21%; Middle Atlantic, \$31,146, 98%; New England, \$14,702, 49%; New Jersey, \$7,541, 57%; New York, \$50,803, 91%; North Central, \$8,085, 47%; Northwest, \$2,956, 10%; Ohio, \$5,970, 30%; Pennsylvania, \$14,316, 62%; South Atlantic, \$7,005, 27%; Texas, \$31,626, 100%; Western Mountain, \$3,115, 17%.-Ed. continued on page 9

4 AIA JOURNAL/SEPTEMBER 1974

# IS THIS THE FUTURE BUILDINGS?

The energy crisis has triggered a ground swell of opinion against glass.

In the search for a scapegoat the recurring theme has become: get rid of glass.

Glass, we're told, wastes energy.

Glass buildings have been labeled "energy sieves."

Glass vision area has come to be thought of as a necessary evil (if, indeed, all that necessary).

Rash solutions are a dime a dozen.

And virtually all these solutions are just arbitrary proscriptions against the amount of glass used.

The fact of the matter is that compared to marble, steel, aluminum or wood, only wood insulates better than glass. Even so, since insulated backing can equalize them all, the argument against glass in nonvision areas becomes moot. But of the five, only glass is transparent. So for vision areas there's not much choice.

Another fact is that in a typical 10- to 20-story building a mere 15% of the energy consumed goes to compensate for heat gained or lost through the walls and ceiling.

And that's using basic 1/4" single-glazed clear glass.

A building's energy efficiency should be judged by performance, not prejudged by outdated misconceptions.

And you can get efficient performance without resorting to high-rise log cabins or towering dungeons. You can get it from glass. PPG Glass.

## PPG WARTS YOU TO

### Glass is glass is nonsense.

Virtually all of the criticism of glass is aimed at the simplest, most basic kind—clear, singleglazed, ¼" thick.

But glass is more than that. Much more.

Glass is a product of modern technology. And at PPG it has evolved and grown until, today, glass is a whole host of architectural materials that are as scientifically sophisticated and esthetically advanced as any other building product available.

In short, there is a glass to meet virtually every building demand. Including those made by the energy crisis.

#### Mirror, mirror.

glass. And there is insulating glass.

And there is PPG <u>Solarban®</u> <u>Twindow</u>® reflective insulating glass.

It is as far superior to single-glazed clear glass as a 747 is to a single-engine prop.

A comparison (see diagram) shows that there is indeed no comparison. <u>Solarban 575 Twindow</u> reflective insulating glass is practically four times more efficient in reducing solar heat gain.

Esthetically, its reflectivity produces an optical effect no other building material can approach. A building of <u>Solarban Twindow</u> reflective glass becomes virtually one with its surroundings. No matter how monumental the structure, it's never a ponderous, heavy-handed intrusion onto the scene.

Solarban Twindow reflective insulating glass combines high performance and enviable esthetics to help produce buildings that can, in effect and efficiency, please everybody.

#### It's not brand new.

PPG <u>Solarban</u> <u>Twindow</u> reflective insulating glass fits in so perfectly with the demands created by the energy crisis that you might think it was designed specifically to meet them.



Relative heat gain, 200 Btu

Solarban® 575-20 Twindow® Unit



Relative heat gain, 40 Btu

## KNOW THE FACTS.

But it wasn't. <u>Solarban</u> <u>Twindow</u> insulating glass was already being used when energy was still a cheap commodity. So it's not some novel curiosity to be viewed with a skeptical eye. In more than seven years of use in some of the most prestigious buildings in the country, <u>Solarban</u> <u>Twindow</u> reflective insulating glass has proved itself a highly effective energy saver.

#### The Equivalent Energy Benefit.

Some people are saying that, to save energy, glass should comprise no more than 20% of the wall area.

In addition to the obvious esthetic and psychological shortcomings of this suggestion, it's once again a case of talking about the wrong kind of glass.



To prove our point we conducted computerized research. Using a hypothetical office building 15 stories high, we plotted (see graph) the annual energy consumption of this building as a function of different quantities of different kinds of glass.

As you can see, you can achieve greater energy efficiency using 70% <u>Solarban</u> 575 <u>Twindow</u> reflective insulating glass than you can with 20% single-glazed clear glass.

In fact, the difference in energy consumption between a wall 70% <u>Solarban</u> 575 <u>Twindow</u> insulating glass and an opaque wall\* is virtually negligible.

So the answer to more efficient buildings is not a headlong rush to less glass, but a calculated move to highperformance glass.

\*Nonvision wall areas in this study are presumed to be heavyweight construction (U=0.09).

Billions of Btu's required annually for heating and cooling as a function of the percentage of glass to total wall area.

## PPG HIGH-PERFORMANCE GLASS IS NOT A GAMBLE.

#### Smart money is still on glass.

The big developers the ones with the most to lose from inefficient buildings — haven't been scared off by all the clamor against glass.

They know that a building that doesn't rent, no matter how efficient, is the biggest waste of all.

Like us at PPG, they believe that glass buildings can meet any reasonable, sensible standards of efficiency (measured, perhaps, in Btu's/sq. ft.).

#### **Computer analysis.**

Before we try to sell you even one square foot of our high-performance glass, we'll have your building specifications and our glass recommendations evaluated by PPG Computer Analysis.



The analysis can evaluate a wide variety of alternative glass products, giving you specific energy requirements for each option, and long-range costs It takes the guesswork out of selecting glass.

So if you're planning a building, get in touch with PPG. High-performance glass can give your building efficiency as well as excitement.

Write: ENERGY, PPG Industries, Inc., One Gateway Center, Pittsburgh Pa. 15222.



The First International Building Owner: The First National Bank in Dallas Architects: Harwood K. Smith & Partners, Dallas; and Hellmuth, Obata & Kassabaum, Dallas and St. Louis

#### Maryland Scandals Bring Expulsions from NSPE

In June, the National Society of Professional Engineers and its affiliate, the Maryland Society of Professional Engineers, accepted "with prejudice" the resignation of three engineers who were central figures in the investigation of alleged kickbacks to former Vice President Spiro T. Agnew and former Baltimore County Executive Dale Anderson. "With prejudice" means that the engineers cannot be readmitted to membership in either society. More recently, both societies expelled five other engineers for unethical conduct involving payoffs in the same scandals.

The first three engineers whose resignations were accepted are Jerome B. Wolff, former president of Greiner Environmental Systems, Inc., and Lester Matz and John C. Childs, former owners of Matz-Childs Associates, Inc. All were key witnesses in the U.S. investigation that led to Agnew's resignation and plea of no contest to a charge of income tax evasion.

Expulsion of the other five engineers was recommended by the Maryland society's ethical practices committee after months of investigation; the action of its executive committee was announced simultaneously by Leslie C. Gates, president of NSPE and by Lawrence E. Jones, president of MSPE. The engineers are Allan I. Green, James Petrica, George W. Stephens Jr., Walter P. Weigand and Robert A. Whiteford.

The Maryland society has also filed charges of misconduct with the State Board of Registration for Professional Engineers and Land Surveyors against a number of engineers. The board is the only body with the authority to bar professional engineers from practice in the state.

At its annual meeting recently, NSPE considered the whole matter of ethics violations and disciplinary measures and established a special committee to consider how best to strengthen its constitution, bylaws, policies and procedures regarding ethics.

#### Peace Corps Recruiting

Architects and planners are increasingly needed by developing "third world" countries as they come to grips with rapid urbanization and attendant demands for more sophisticated sanitation systems, land planning, pollution control, etc. Consequently, the governments of many of these countries are turning to American architects who volunteer their skills through a joint Smithsonian Institution/ Peace Corps environmental program. There is at present a great need for arch-

## Vicrtex invites you to find out what you and your clients can expect from Vinyl wallcoverings



Don't be confused by conflicting statements about vinyl wallcoverings. Now you can get the FACTS. Learn what causes Tearing . . . Staining . . . Mildew of vinyl wallcoverings — and more. Learn why VICRTEX is the only vinyl wallcovering that can be guaranteed for a full 5 years! These and other facts that can help you are all in the new VICRTEX® Guidebook.

To specify the right vinyl wallcovering for the job, it's just as important to know its limitations as it is to know its advantages. You can specify with confidence with the factual information in this new VICRTEX® Guide. Write today for your copy — or call your Vicrtex man!



964 Third Ave., New York, N.Y. 10022 • (212) 355-3080

DISTRIBUTED BY:

VICRTEX SALES DIVISION, New York, Atlanta, Chicago, Dallas, Los Angeles, San Francisco, Boston Minneapolis, Toronto / HOWELLS, INC., Salt Lake City, / PAUL RASMUSSEN, INC., Honolulu. Circle 4 on information card itectural and planning skills in Iran, Morocco, Malaysia, Tunisia, Botswana, Gambia, Micronesia, Nicaragua, Venezuela, Honduras and the islands of the eastern Caribbean.

The Smithsonian works with the Peace Corps and host country officials to plan the most appropriate use of volunteers within the framework of the country's own scientific and technical program. Then the Smithsonian endeavors to find qualified U.S. volunteers and to match them with the Peace Corps program in which their skills are most needed.

The program, says Robert K. Poole of the Smithsonian, who heads the Smithsonian/Peace Corps environmental effort, often gives the young architect opportunities and challenges that he may never encounter in traditional practice in the U.S. Although monetary remuneration is low by American standards, Poole believes that the volunteer usually returns with more important rewards than money, such as new and highly developed professional skills, greater cultural understanding and sophistication, foreign language fluency, life-long friends and other "fringe benefits" that aren't formally a part of the Peace Corps offer.

Peace Corps volunteers have made important and lasting contributions. For example, in Western Samoa they have spearheaded the design and construction of the national Parliament building, airport facilities, market buildings, schools and government complexes. And in a Venezuelan city, an architect volunteer helped to revise a plan for urban growth, plan a children's park, conduct planning surveys of city services and facilities and define development priorities.

At the present time, Iran is requesting architects to help design and construct a wide range of buildings and to undertake with Iranian officials both urban planning and design. Morocco wants architectural and planning professions to help design and build public housing, municipal buildings and other structures. Nicaragua wants to enlist architects, city planners and civil engineers to help redesign and rebuild the capital city of Managua that was virtually destroyed by earthquake in 1972.

Design professionals who would like more information about the program may write to Robert K. Poole, Office of Ecology, Smithsonian Institution, Washington, D.C. 20560.

#### Purnell Joins AIA Staff

Marshall E. Purnell has been appointed co-director of the AIA's federal agency liaison program and will work with Bruce Schafer in the department of government affairs. A graduate of the University of Michigan with bachelor and master degrees in architecture, Purnell comes to the Institute from the Washington, D.C., firm of Fry & Welch Associates. He also served on the design faculty at the University of Maryland's school of architecture.

#### Solar Energy Bill Calls For Design Competitions

House- and Senate-passed versions of the Solar Heating and Cooling Demonstration Act have been reconciled, and at this writing the legislation is awaiting the signature of President Ford. During Senate hearings, changes in the legislation were recommended by the AIA, some of which are reflected in the final bill.

Archibald C. Rogers, FAIA, president of the Institute, wrote to members of the solar energy conference committee saying that the AIA was opposed to "stock plans for limited hardware applications." He asked for a long-term national energy policy and for the development of "innovative design concepts or technological alternatives."

The bill authorizes \$60 million over the next five fiscal years for the National Aeronautics and Space Administration and the Department of Housing and Urban Development to foster the early development and commercial demonstration of solar heating and combined solar heating and cooling technology. Following the establishment of performance criteria, HUD will select-on the basis of open competitions-a number of designs for various types of dwellings suitable for solar heating or combined solar heating and cooling systems. Technical information, including facts on the design and construction and maintenance of buildings compatible with solar energy concepts, will be collected in a data bank and disseminated nationwide.

When the Energy Research and Development Administration is established, the program will be transferred to it. Legislation for the creation of ERDA has been passed by House and Senate, and a conference committee is expected to begin meetings to resolve differences.

#### Landmarks of Black History Designated

Thirteen sites associated with the history of blacks in this country have been selected as National Historic Landmarks. Such designation by the Secretary of the Interior is an honorary recognition of sites and structures "deemed to possess exceptional value in U.S. history." To date, about 1,200 landmarks have been named.

The new designatees are: • Dexter Ave. Baptist Church, Montgomeryn, Ala., where Dr. Martin Luther King was pastor from 1954-1959.

The Ida B. Wells-Barnett House, Chicago, named for the civil rights advocate in Tennessee in the 1890s who was editor of the weekly *Memphis Free Speech*.
Fort Des Moines Provisional Army Officer Training School, Des Moines, Iowa, the base of the first black officer's

training camp in 1917.
Yucca Plantation, now Melrose Plantation, Melrose, La., established between 1775 and 1800 by a former slave, Madame Marie Thérèse Coin-Coin Metoyer, a wealthy businesswoman and slave owner herself. The earliest buildings on the plantation are of African derivation, and are perhaps the only extant structures of their

kind in the nation.
Port Hudson, La., where two Union regiments of New Orleans free blacks and Louisiana ex-slaves participated in an attack on this Confederate stronghold.
Paul Cuffe Farm, Westport, Mass., owned by one of the most prominent black men of the 18th and 19th centuries who pioneered in the struggle for minority rights in Massachusetts. The frame house, built about 1797, still has interior original elements, and the docks built by Cuffe have been maintained.

• Harriet Tubman Home for the Aged, Auburn N.Y., established in 1908 by the most famous conductor of the underground railroad and spy for the Union Army, who was largely responsible for a successful raid by blacks from Port Royal, S.C., resulting in the liberation of nearly 800 slaves.

• Col. Charles Young House, Wilberforce, Ohio, a stately brick structure, where the highest ranking black officer in World War I and first black military attache in American history lived. Young was one of three blacks to be graduated from West Point between 1877 and 1936.

• Mother Bethel A.M.E. Church, Philadelphia, the site of the first black religious denomination, founded in 1787 by Richard Allen. The property, the site of all subsequent churches since the one dedicated in 1794, is the parcel of real estate longest to be continuously owned by black people in the U.S.

• Site of the Battle of Rhode Island, Portsmouth, R.I., the only engagement of the Revoluntionary War in which blacks participated as a distinct racial group.

• Robert Smalls House, Beaufort, S.C., the home of a man who first occupied the house as a slave and later as owner of the property. After participating in the Civil War on the Union side, he was elected to the state legislature and elected to Congress in 1868.

• Stono River Slave Rebellion Site, Rantowles Vicinity, S.C., where an insurrection occurred in Sept. 1739, exacerbating *continued on page 14* 

#### SURGEON'S SINKS

The overall and consistent quality of Elkay stainless steel equipment has special significance for surgical scrub-up sinks. Careful fabrication and unique finishing methods assure easy and thorough cleanliness. Models from stock available with a choice of foot control, knee control or wrist control as well as a temperature controlled model. Lavatory with instrument trays can be ordered with any of the above types of controls—is ideal for many hospitals and clinics.

## from the ELKAY. family of firsts

Lavatory with trays Model ESLV-2820-F

Scrub-up Sink Model EWS-2520-W

For complete information write for Catalog No. IPC-2 or call Customer Service Dept., Area Code 312-681-1880. ELKAY MANUFACTURING COMPANY, 2700 S. Seventeenth Ave., Broadview, III. 60153



Federal Reserve Bank of Minneapolis. Architect: Gunnar Birkerts & Associates, Birmingham, Michigan

#### DOORWAY NOTES ...

CLOSER CONCEALED IN HEAD FRAME IS LCN 2010 SERIES. PRESERVES THE SPECIAL EFFECT OF DOOR IN FLUSH WALL PANEL. FULL HYDRAULIC CONTROL BY NON-CRITICAL REGULATION WITH ADJUSTABLE SPRING POWER. LOW FRICTION ROLLER AND TRACK LET DOOR OPERATE QUIETLY, EFFICIENTLY. WRITE FOR CATALOG. SWEET'S, SEC.8.



Circle 6 on information card



#### How to keep your customers from doing a slow burn. Install the scorch-proof Contura.

Duramel. The material we spent seven years developing. Available now in two shapes. The classic round Contura<sup>™</sup> and the new Oval Contura.

The beauty of them, aside from the obvious, is that they travel light, arrive on the job chip free (and stay that way while you're installing them). And once installed their high performance continues: they're stain resistant and rust proof.

Even more, they're scorch-proof. Impervious to cigarette burns. (A great selling point.) And they come with "Fast-Lav Strip." To hold the lavatory in place while fittings are being mounted and the sealant is drying. (To make for quicker installation.)

For further information, write American-Standard, Plumbing/ Heating, P.O. Box 2003, New Brunswick, New Jersey 08903.

## Lavatories made of Duramel. The high performance material.





#### Going On from page 10

the fears of the white population and resulting in the state's adoption of the most comprehensive slave code adopted in the English colonies.

• Fort Pillow, Tenn., which was garrisoned by black and white Union soldiers and attacked by Confederate forces under Gen. Nathan Bedford Forest, with heavy and disproportionate casualties suffered by the black troopers. A Congressional committee later concluded that the Confederate soldiers had committed atrocities against the blacks. Fort Pillow became a rallying cry for many black soldiers, hardening their resolve to avenge the death of their brothers.

#### Conversion of Philadelphia Mansion Spurs Controversy

A controversy has developed in Philadelphia in which local preservationists are opposing plans of Design Research to make changes in the old Van Rensselaer mansion at 18th and Walnut Streets, known today as the Penn Athletic Club. DR, a Boston-based retailer of welldesigned contemporary furnishings, has rented the mansion for 20 years from the Presbyterian Ministers Club.

Peter Saylor, AIA, in the July issue of the *Philadelphia Chapter AIA Bulletin*, said that the four-story townhouse, designed in 1898 by the renowned Boston architects Peabody & Stearns, is a "splendid example of late 19th century architecture" that contains "perhaps one of the finest first floor residential interiors in the city."

In its June *Preservation Newsletter*, the preservation committee of the Philadelphia chapter of the Society of Architectural Historians describes the "spectacular entrance hall, with a handsome fireplace and the curving balcony overhead, capped by a stained glass dome." The so-called Doge Room in the mansion has a gilded and carved ceiling decorated with 94 medallions that contain portraits of Venetian doges.

Nessa Forman, art editor of the Philadelphia *Sunday Bulletin*, in a recent column wrote that "rooms on the first three floors will be gutted—except for the Doge Room—the circular balcony will go, long corridors will replace separate rooms."

The Philadelphia Chapter AIA's committee on conservation and historic preservation, writes Saylor, has reviewed the DR plans and objects to them. The committee questions "the value architecturally or commercially of a Walnut Street doorway, and has requested another review in which the architects, Architectural Resources Cambridge, Inc., will be asked to 14 AIA JOURNAL/SEPTEMBER 1974 show greater concern for preserving the dining and living rooms, hallway and staircase." Indeed, the committee believes that to keep the ornamental plaster throughout the first floor "would, in fact, enhance the products displayed by DR."

Phillip Doub, president of DR, writes that stories circulating about his organization "having the money and power and coming on like gangbusters are both inaccurate and unfair." For a year and a half, he says, DR has been "trying to find an acceptable way to retain the important heritage of the building, while paying annual total lease costs of more than \$100,000." At DR's initiative, "meetings have been held with the Philadelphia Historical Commission, newspaper reporters and other interested committees" to review plans, and some suggestions have been incorporated into the design. Doub says that DR will keep changes to a minimum. Meanwhile, if anyone "will come forward promptly and take over the building for a use requiring no changes, we offer them the opportunity." For those unprepared for this responsibility, he asks for "sympathetic cooperation" as the mansion is restored to "compatible use."

Meanwhile, the AIA JOURNAL has been informed that the Philadelphia Chapter AIA has organized a task force to study the controversy and will make a statement after it has had an opportunity to study DR's proposed changes more thoroughly.

#### Russian Mission Being Built from Top Down

A sight that evidently intrigues passersby is the 20-story, \$8-million Soviet Union apartment house/foreign mission that is "rising" from the top downward in Riverdale, N.Y. Each steel-framed floor is



ground-assembled and then jacked into position. This method is patented by International Environmental Dynamics, which claims that it will save seven months in

building time and \$1 million in cost. IED says that the system has been used before, but "never in a building of this height."

The June issue of a newsletter distributed by the Joint Committee on Tall Buildings, however, reports that a 22story office building in Bogota, Colombia, is using "suspended design." The structure will be finished in 10 months—four months ahead of conventional design. "The contractor," reports JCTB, "working from the top down around a concrete service core, casts and encloses a floor a week, as opposed to their four-weeks-perfloor required for conventional design."

The building in Riverdale is the design of Skidmore, Owings & Merrill, and construction is being supervised by Boris Eguerev, a Russian architect/engineer. The structure will contain 240 apartments, classrooms, a gymnasium, cooperative stores, a barber shop and a 100-car garage.

Construction started with raising two concrete cores, each 40x23 feet and 260 feet high. Two jacking rods, suspended from the top of each tower, permitted the use of 32 jacks, two per rod. It takes about five days to complete the installation of each floor. Each floor consists of about 65 steel members joined by highstrength bolts. The 30-inch-wide flangeshape girders average 190 pounds per foot.

On the first day, a steel floor frame is assembled that measures 65x175 feet. On the second day, corrugated steel decking about one-sixteenth of an inch thick is spot-welded to the frame. On the third day, three-and-one-half inches of lightweight concrete is poured over the steel, with space allowed for electrical and other outlets. Next, the panels of exterior walls are attached to the floors, which are then hoisted. When lifted, each complete floor weighs 430 tons. And while floors are hoisted, they are used to carry such things as paneling, plumbing and other fixtures.

Pneumatically driven hydraulic jacks operate in unison and grasp the jack rod with two lower claws while the piston extends, lifting the floor. Two top piston claws grasp the rod, and the jack is reset. In this way, the floor moves up at a rate of 15 feet per hour. IED says that the building will take 15 months to finish, as contrasted with 20 to 24 months if more conventional methods of construction were used.

#### Was Your Office Recycled?

As a followup to our August 1974 article on adaptive uses of ordinary buildings, we invite members to send photographs and descriptions of unusual adaptive uses of their own office space to AIA JOURNAL, 1735 New York Ave. N.W., Washington, D.C. 20006 by Dec. 1, 1974.

continued on page 62

## Albetex

A NEW TEXTURED STONE COMBINING BEAUTY, HARDNESS AND LOW COST





We've taken the famous green Alberene Stone from our Virginia quarries, given it a special deep texturing and called it Albetex—a stone of unique character and wide application. The soft green tone makes it an interesting material for walls and features, while its hardness and non-slip surface make it ideal for paving. It costs much less than granite, incidentally.

We'd like to show you samples of Albetex Stone, because it's genuinely new and different. It can add a fresh touch to your designs and ease the squeeze in the budgets. Give us a call or drop us a line.



Albetex Stone was selected for the base-course wall of the Gulf Life Building in Jacksonville, Fla. Albetex is combined with terrazzo in the paving around the building. Architects: *Welton Becket* & *Associates.* 

#### georgia marble

company

3460 Cumberland Parkway Atlanta, Georgia 30339 404/432-0131

a Jim Walter company

Circle 8 on information card



When fires occur in hospitals, nursing homes, extended care and day care centers, the vital life-safety factor is time. Pyr-A-Larm early warning fire detection systems can sound the alarm at a stage early enough to allow safe, orderly evacuation.

Pyr-A-Larm is the most versatile early-warning system ever designed. In fact it is capable of detecting a fire BEFORE there is any visible smoke, flame or noticeable heat. The system sounds the alarm, can activate the automatic extinguishing systems, close smoke doors and dampers, and alert the fire department—all at the same time. Multi-zone systems, perfect for large facilities, pinpoint the location of a fire in seconds. Single and two zone systems are ideal for day care centers and remote buildings.

For your Fire Detection Application Guide for health care facilities write or call (collect) Bill Columbus, Pyrotronics, 8 Ridgedale Avenue, Cedar Knolls, New Jersey 07927 (201) 267-1300. It's free.



### Pyr-A-Larm. The early warning fire detection system that can save lives.



## Now, the way to buy a PD-80 is to rent it.

We claim the odorless, instant-on, 110-volt PD®80 is the best thing going for quality and convenience in engineering copying. Four years in the marketplace and lots of happy customers bear us out. But you don't have to take anyone's word for it.

The good news: a unique *Rent with Option to Buy* plan for the PD-80. Yes, we understand capital is tight. You want to be sure before you commit. So rent your PD-80 for \$30 a month, and make your



buying decision after you realize you can't afford to be without one.

For the first three months, every cent you pay in rent is applied toward the purchase price of a PD-80. From four to six months, 75% of your rent applies. A declining scale sets in after that. Don't confuse our plan with anyone else's. Ours gives you a no-questions, no-penalty, 30 day cancellation.

The Rent with Option to Buy plan is our way of showing you out front that in cost, convenience and quality, the odorless PD-80 can't be beat.

Call 800-447-4700 toll-free (in Illinois call 800-322-4400) to get the whole story. Or send for complete information. Bruning, 1834 Walden Office Square, Schaumburg, Ill. 60172.

#### We help engineers communicate.



BRUNING

ADDRESSOGRAPH MULTIGRAPH





## ALAJOURNAL



If two words can summarize the kaleidoscope of impressions one brings back from China, they are unity and uniformity. The sense of unity is pervasive. One gets the feeling that here are 800 million people working toward a single objective: the improvement of China, and of its standard of living and quality of life. The sense of uniformity is mainly visual. It is felt in the standardization of dress (men and women alike wear Mao jackets, caps and trousers) and in the sameness of the new urban environment that is now

For 20 days in April, a 15-man AIA delegation toured China, visiting 11 cities. The tour was led by Max Urbahn, FAIA, as a past president of the Institute. At right and on the following pages are photos from the tour and impressions of China by AIA's executive vice president. abuilding. Next to the grace of antiquity and even the oddities of the Russian influence and other relatively recent periods of Chinese history, the new architecture is pleasant but dull. Nonetheless, it is not oppressively dull as it is in other Communist countries that I have visited and the quality of workmanship is immeasurably better. There are still building crafts in China, as there are not, for example, in Russia.

There is less oppression in the atmosphere generally. Most of the police one sees are directing traffic. Yet the incidence of crime is low. This seems a matter of agreed-upon societal norms and controls.

Similarly, the sense of purpose of the Chinese seems truly to emanate from the people, rather than being exacted from above. This is not to say that it is a political system that we would choose there is too great a price in loss of individualism and freedom of choice. We were surprised to find, for example, that permission must be acquired to travel outside of one's own community. And the choice of where to live is largely outside of the individual's hands.

On the following pages are further impressions: of the people of China, the housing programs that symbolize their efforts to build a new society and the planning of their increasingly urbanized environment. *William L. Slayton* 









Photos: counterclockwise from above. New hotel in Canton; great hall in Peking (ceiling detail on preceding page); the Forbidden City, Peking; hotel in Shenyang; industrial exhibition hall, Shanghai; sports palace under construction in Shanghai; office building, Sian; diplomats' housing, Peking.







**The people.** Our hosts could not have been more thoughtful and considerate. And the people we encountered in our travels were immensely friendly and obviously curious about Westerners. Most impressive of all were the children who were, in a word, captivating. In contrast to that of the adults, the children's clothing is bright and colorful.

It is perilous to attempt to characterize a people on the basis of such brief exposure as we had. Yet I think it is safe to use the word industrious as particularly characteristic of the Chinese people.

Except for the infirm and the elderly, virtually everyone has a job. Both men and women work and get the same salaries for the same jobs. In light industry these salaries average between 40 and 50 yuan a month and in heavy industry 60 to 70 (a yuan equals approximately 50 cents American).

Retirement pay is 70 percent of the worker's salary. Retirement is not mandatory, however, and many people continue to hold either full- or part-time jobs until they are well along in years.

Food costs approximately 15 yuan per person per month. As is the case in most countries with planned economies, housing costs are low. Rent for a family apartment, including utilities, is approximately 10 yuan per month. But the apartment is likely to be crowded because the family may well consist of three generations—grandparents, parents and children. Furniture may be rented also. A chair costs one cent Chinese per month and a bed two or three cents.

Medical care is free for the worker and half-priced for his dependents. Medical costs are low even for those who pay the full rate. The most expensive operation, brain surgery, costs 40 yuan.

Except in families where they are cared for by grandparents, children enter nurseries when they are three. The cost is five yuan per month for day care during the working week and eight on a full seven days' basis.

Among the objectives of early education are to teach the children to be independent of their parents and to value labor. In fact, when the children reach five or six they are given light work to do. The pre-elementary school curriculum includes foreign languages, physical education, dancing, singing and the giving of performances—which the children do with self-confidence and pleasure.

From kindergarten through university, education is free, and children are required to attend through middle school (our high school). Every middle school graduate must work in a factory or agricultural commune or enter the armed services. After two of three years, he may make application to the university through the group with which he has been working.

As for consumer goods, they are available but don't seem to be terribly important to the Chinese. A transistor radio costs between 20 and 30 yuan, a sewing machine about 100, and women's shoes seven to eight. Mao jackets vary in price: about 90 yuan for gabardine and eight for cotton.

Bicycles cost between 130 and 140 yuan, and they are the primary mode of transportation other than feet. Peking alone has 1.8 million bicycles.

There is a good deal of public transportation in the cities: buses, trolley buses and some streetcars in the older cities, all very crowded. Peking has a subway under construction. A few of the old-style pedicabs are still in use, although no new ones are being built. One sees only a few cars, and then only in official use. There are more trucks, but carts pulled by horses or garden tractors also are in common use to transport goods. 22 AIA JOURNAL/SEPTEMBER 1974







Bicycles and Mao dress (jackets, caps and trousers of gray or blue) are equally ubiquitous in China. The children dress more colorfully. They are trained from nursery school to perform in public and do so with great precision, enthusiasm and charm.







**Housing.** The new government of China started in 1949 near point zero. Very nearly all of the workers' housing in the cities was substandard, partly reflecting the pressures of ruralto-urban migration.

In Shanghai, for example, thousands of people who had moved in from the countryside during a period of famine built what the Chinese call hovels — structures no larger than a good-sized doghouse with straw roofs and walls of flimsy scrap materials. The hovels provided nothing more than minimal protection from the elements.

One of the first tasks undertaken by the new government was to build new housing for those who lived in the hovels. Typically, this housing took the form of one-story buildings with little else than running water. Most of it was built in 1952 with the idea that it also soon would be replaced.

The next, and current, stage of the housing program began in 1963. This newest generation of housing is mainly four- and five-story walkups, usually concrete, similar to American-style garden apartments. The rooms in these buildings are not large but are adequate. Some have balconies. The bathrooms and kitchens are shared by two families.

We did not obtain statistics on how much of this housing is being built, but almost everywhere we went we saw substantial amounts of it under construction.

Another form of pre-revolution housing was the compound, with dwellings for six to eight families arranged around courtyards. The compounds have a not unpleasant mazelike character, and are surrounded by walls.

They were lowrise, high-density slums before 1949, but the new government chose to modernize them rather than replace them as it did the hovels. The compound streets were paved, running water and sewer systems were installed, and the dwellings were wired for electricity and provided coal-burning potbelly stoves for heat.

Here, too, facilities are shared, but the Chinese seem to be accustomed to living in a close-knit atmosphere and there is respect for privacy.



24 AIA JOURNAL/SEPTEMBER 1974







Above, a hovel in Shanghai, retained as an example of what used to be. Above right, temporary housing built for the former hovel-dwellers. Below left, compound housing in Peking, some of it 300 years old. Once a slum, it has now been rehabilitated. Below and right, the current generation of housing.









AIA JOURNAL/SEPTEMBER 1974 25

**Planning.** In 1949, the cities themselves were in scarcely better condition than their housing. Many had neither water nor sewer systems, there was little electricity and many streets were left unpaved. The new government launched an immediate program of rebuilding the cities in economic as well as physical terms.

Factories were made the nuclei. Small factories producing consumer goods were established in areas where there was decent housing available — since there was so little transportation it was important for workers to live close to their jobs. Subsequently, factories and housing were built simultaneously.

The same local governing body (called a revolutionary committee) builds and operates the factory and housing. It also provides for education, medical facilities, shopping, recreation and other community needs. In Peking, the "household revolutionary committee" presides over a community of 20,000 households and 80,000 people.

Provincial and national governments control the construction and location of factories and housing and thus exert control over the growth rates of the cities. In fact, some industry is now being shifted from the cities to peripheral new towns in order to reduce the cities' populations. There are 12 new towns around Shanghai alone.

These new towns are being built beyond an agricultural greenbelt. The communes of the greenbelt provide food for the new towns and central city alike — and these communities in turn provide the communes with consumer and industrial goods. The need for long-range transportation of either food or products is thus minimized.

Beyond economics, the planners of the new China have paid salutary attention to the quality of the urban environment. Streets in the older cities have been widened into boulevards; there are many parks and public spaces; and enormous efforts have been made to restore old structures such as temples that give continuity to urban life. There is a notable concern with cleanliness; streets are washed and swept continuously. A major effort has been made to rid the cities of vermin.

A particularly impressive program is what has been called the greening of China. Begun shortly after 1949, it is a massive program of tree planting. Mountains that were formerly barren are now green, and cities that previously had little greenery are lush. In Hangchow, for example, 30 million trees have been planted along the streets, in groves rather than single rows.

We left China with the feeling that we had been in another world and in fact we had. It was a major travel experience, and more, for all of us.

As I have indicated, we left much impressed with the people of China — with their drive to improve their society, their rate of progress, their hard work. And while all of us prefer to live under our own system, their single-minded ideology may be essential in this period of Chinese history and development.  $\Box$ 



26 AIA JOURNAL/SEPTEMBER 1974







Far left, Chairman Mao presiding over the central square of Shenyang; immediate left, a new town near Shanghai; above and below, trees lining a street and dominating the horizontal cityscape of Canton; right, one of China's countless temples, ubiquitous reminders of antiquity.





AIA JOURNAL/SEPTEMBER 1974 27

### New Setting for The Centerpiece Of Cincinnati

The board of directors has awarded AIA's citation for community architecture to Fountain Square Plaza in Cincinnati, designed by RTKL Associates. The Board acted on a nomination by the Cincinnati Chapter and the recommendation of the commission on environment and design. Abstaining from the vote was AIA President Archibald C. Rogers, FAIA, RTKL principal in charge of the project.

The plaza was built around the Renaissance-derived Tyler-Davidson Fountain as centerpiece of Cincinnati's ambitious downtown redevelopment effort.

The fountain has been the traditional heart of Cincinnati since it was given to the city in 1871, but stood isolated and almost inaccessible in a traffic island surrounded by busy streets.

The plaza not only gives the fountain a more suitable setting, but also provides two kinds of public space: a large main space for sizable gatherings and three groves of trees for quieter activites. The groves have granite checker tables, teak benches and space for art exhibits.

Major design elements of the plaza are the fountain itself, the elevator tower and stairs and a flagpole. The plaza roofs an underground garage.

The plaza won an AIA honor award last year. At that time the jury commented: "The elements in Fountain Square are well placed and effective in giving unity to the space and in relating it to the surrounding buildings. The hope is that many more such public squares can be carved out of our congested urban areas."

Richard K. Chalmers, AIA, was RTKL project architect for the plaza, Betz, Carey & Wright consulting architects and George Patton landscape architect.



28 AIA JOURNAL/SEPTEMBER 1974



### The Addictive Historic District Of Savannah

#### **Picot deBoisfeuillet Floyd**

EDITOR'S NOTE: A citation for excellence in community architecture also has been awarded to the Historic Savannah Foundation, Inc., "for promoting and preserving the quality and liveability of the historic district." The following account of this effort and its roots is by the city manager of Clearwater, Fla., who, as the text makes abundantly clear, has deep personal ties to Savannah and its remarkable restoration.

Historic Savannah is an addiction. Hardcore addicts can be found throughout the United States and abroad—natives and others who have lived there are bound together in covens. I have found them in Washington, New York, Florida, London and even Paris.

Credentials for Savannah addiction are only to have lived there and to love it. I am doubly blessed: I was born there and have lived there off and on. I have known the principals—mostly some remarkable women—who have brought about the enormous rehabilitation of that gracious city.

The addiction is no wonder. Entering Savannah from the north can be very dramatic. It's the first city the traveler has seen since Richmond, Va., a long 500 miles ago. The first thing that appears across the flat South Carolina marshes is the skyline, all at once. As one rises swiftly up the north approach to the high bridge over the Savannah River, one is presented with the bluff facade of antique cotton warehouses and offices, in shades of pink, buff, brown and gray. At the top of the bridge, the river is exposed to a cross view of the incredibly verdant canopy of trees, punctured only by an occasional church spire or one of Savannah's few highrise buildings.

Through the tollbooth, a left turn, and the voyager is on Oglethorpe Avenue, a wide street with a green center plat. Within 500 yards, one is in the national historic district. Under the green canopy, the city is cool and dark even on hot summer afternoons.

Her squares sparkle like green oases. All 24 of them, much as they were conceived in Oglethorpe's original plan for



AIA JOURNAL/SEPTEMBER 1974 29



30 AIA JOURNAL/SEPTEMBER 1974

the first city of the Colony of Georgia. Savannah's urban squares and surrounding blocks reflect one of the longest continuums of organized town planning in America.

Much has been written of Savannah's marvelous town plan. One point is not often made: It is possible to see green space from virtually every front stoop in the old city.

Around the squares, always in perfect scale, are the houses and public buildings of a century ago, closing up the spaces which open out into the streets. Everywhere are live oaks and azaleas.

Savannah's a city of human scale, wonderful for strolling as vistas open and close. No guidebook is needed for the simple pleasure of changing textures of brick, tabby, stucco, and changing patterns of light and shadow. Brick walks are herringbone in one block, straight-across in another. Garden gates are closed or open. Some of the squares are lush, heavy, tropical in their thick vegetation. Some are square and plain. Most contain monuments and a few have fountains. The play of water is a delight in shade and sun.

Glorious for walking, Savannah is not so good for driving. The automobile window shuts out all sense of scale, which is paramount to the enjoyment of Savannah. The squares interfere with the rapid flow of traffic and automobile exhaust makes plants and people droopy.

This anathema for the automobile may have been what sent Savannah into a decline. But it also served as a blessing in disguise, preventing the all-blighting hand of "progress." Savannah simply decayed, in great part rather gracefully, until people were ready to get back to work and restore its beauty.

As far as I can determine, the roots of the present historic preservation activities began in the 1920s with a determination by Augusta DeRenne to do something about the shabby condition of Wormsloe Plantation outside Savannah. She and her husband, Wymberley DeRenne, under-

Left, the city's durable plan and one of its verdant squares. Starting at right, a sampling of historic Savannah houses.

#### A city of finely scaled buildings arranged around squares that declined gracefully, then awakened to its beauty.

took extensive restorations and rehabilitation of his colonial-grant ancestral house.

The DeRennes, out in the country, started a tradition of literary and artistic soirees, setting off cultural sparks in the community. A particularly vital spark was struck when Augusta introduced her historian/librarian friend, a widow, Dolores Boisfeuillet (Mrs. William Neyle) Colquitt, to her historian/cotton-business brother, Marmaduke Hamilton Floyd, at one of her soirees.

They married in 1930. The new Mrs. Floyd brought to Savannah her experience in restoring a Georgetown, D.C., house in the mid-1920s, at the start of the renaissance there.

The Floyds (who became my parents) acquired a dilapidated row house in Savannah and renovated it, using the basement as a library and building a high board fence around a private rear garden. Privacy may have seemed more important in those days on Taylor Street, as the view across the street, where two and three families might share one high-ceilinged Victorian room, was one of slums. I was reared there, but forbidden to play with any of the thin, dirty, pinch-faced, whitehaired neighborhood children.

From the porch of this house today can be seen the lushness of Calhoun Square to the east. To the west is the charm of beautifully restored townhouses. The typically Savannah high-stoop second-story entries have their brass polished to a high shine and their clean white doors outlined with perfect strokes of dark paint against the gray brick of stucco. It is so unlike the shabby scene in the '30s.

My mother in those Depression years was librarian of the Savannah public library's branch at the Georgia Historical Society. My father was struggling with his family's cotton business, so little money and much hard work and imagination went into their rehabilitation in downtown Savannah.

The Floyds' pioneering example left them isolated downtown only briefly. Soon Mary Wallace Ravanel Gignilliat and Thomas Heyward Gignilliat did over a house at Floyd and McDonough Streets, further into the enormous decayed area





that was downtown Savannah. Enid Porter Cope and George Daffin Cope redid and moved into a house at Abercorn and Gaston Streets. Harriet Lawrence Cann and Samuel Adams Cann were soon painting and sanding on Gaston between Abercorn and Lincoln Streets.

In the late '30s, Alida Harper (later Fowlkes) started the still-active Pink House restaurant, which can be viewed through oak prosceniums from one of Savannah's moss-draped oases (p. 70).

Two great names in architecture, William Jay and Matthew Clusky, had designed buildings for Savannahians during a period of prosperity in the 19th century. Some of Jay's work had been maintained, thanks to public-spirited ladies; most of it had not. Some of Clusky's, specifically the convent of the Sisters of Mercy, had been maintained, even improved over the years; much had not.

A young Georgia architect, Edward V. Jones, who later designed the reception rooms at the U.S. Department of State and worked on White House interiors, lived in the early '40s in an upstairs apartment in one of Jay's Savannah masterpieces, Miss Meta Thomas' house. Miss Thomas, in her will, left her mansion to the Telfair Academy of Arts and Sciences.

Some ladies besides Miss Thomas and the Sisters of Mercy had stayed in downtown Savannah, sadly watching the decay increase around them, almost grimly keeping their own properties in repair. Churches also helped to stabilize their neighborhoods.

When I was eight years old, Walter Charlton Hartridge, my godfather, was an officer in a local historic preservation society. He accepted my life savings of \$5.10 as the first paid membership, a fact that made the papers. The fledgling group foundered as World War II began. Walter was later a prime mover in Savannah's preservation, knowledgeable and generous with time, ideas, information and money.

Interested in doing "something" about Savannah during the Depression, Antonio J. Waring, a young medical student/archaeologist, in 1939 took my mother to show her, apologetically, a charming series of buildings. The dirty houses, packed

AIA JOURNAL/SEPTEMBER 1974 31

**Individual efforts** coalesced into Historic Savannah, Inc., and it in turn led to a restoration of the entire downtown.

with impoverished residents, were in the rankest slum in the city, at the foot of the gas manufacturing plant and huge gas storage tanks in an area called the Old Fort. She and my father, on a shoestring, bought three of them on the spot and later acquired two more. Shoestrings went further in those days-they are extremely valuable real estate today.

My parents, after a year of cleaning and decorating, established there the Pirates' House, a museum recognized by the Smithsonian Institution. They thought, perhaps innocently, that tourists would flock to see the house at only 50 cents each. They were furious to learn that they would have to bribe the tourist bus drivers to bring the crowds their way, and absolutely refused to do it, so the museum was never a financial success.

In the late '30s, Stella (Mrs. Lindsey) Henderson did over a charming house in the neighborhood of Clusky's convent and at the end of World War II, Mrs. Henderson extended the Floyd restoration in Old Fort. She and my schoolmate Gratz Myers' mother bought several houses just to the south of the Pirates' House and Mrs. Myers opened a tearoom and antique shop in the rehabilitated enclave, now seven houses strong.

In this postwar period, Anna Habersham Colquitt (Mrs. George Louis Cope) Hunter returned to Savannah after serving with the Red Cross in North Africa and Italy. She turned her incredible energies on Savannah as the right time and the right person hit the old city together-war and Depression gone and Anna Hunter back home.

Anna's verve and vivacity were put to work as cultural affairs writer for the Savannah Morning News. She developed in that job an interest in art and as she became a serious primitive painter, after a few years, she rented a warehouse studio on Bay Street facing the Savannah River. She was the only nonmaritime resident of that beautiful business street.

Although she did not own her studio,

Savannah's waterfront warehouses, behind the cotton exchange now house a lively collection of restaurants and shops (right).



she began an unceasing campaign to "do something" about the riverfront. She had small success in this effort, although Lillian Spencer and Captain Frank Spencer kept the building shipshape, even painting the garbage cans regularly in true naval style.

Anna lost no time racing to the newspapers and wire services the day she was interviewing Lady Nancy Astor. The tarttongued member of Parliament was asked what she thought of Savannah. "Savannah is like a beautiful lady with a dirty face," she replied, with some justice. The resultant publicity found Savannah with a red face and brought forth a clean-up campaign affecting both public monuments and private buildings.

By the mid-1950s, more and more historic houses were being torn down, saddening many people but angering Anna Hunter and some of her friends. The squares on Montgomery Street were gashed open to let U.S. highway traffic go through, the first attack on the heart of Savannah's original town plan. When municipal officials decided to demolish the beautiful but rundown city market, which occupied Market Square, Anna took off with a newspaper campaign and marshalled forces to save the old building. When the effort was unsuccessful, she and her friends organized a huge farewell costume ball in the market. It was at that ball that many people, for the first time, felt they could enjoy themselves in a historic building. From the ashes of the market, now a grossly ugly two-story parking garage, arose Historic Savannah Foundation, Inc.

Historic (or Hysteric as it was at first often called) Savannah was formed by Anna Hunter and some other ladies to put a stop to the demolition of architecturally and historically important structures and to intrusions on the plan of the city. It has succeeded in those goals, even beyond their dreams, and has gone beyond them to a vast restoration project.

Another lively and talented lady, Mary (Mrs. Hansell) Hillyer, came to Savannah after the war and had an enormous impact. Hansell Hillyer was the new president of the Savannah Gas Co., and when

the Hillyers arrived in the city they bought and renovated a large house on Gaston Street into quarters fitting for the president of a major utility.

Mary Hillyer was another whirlwind of energy. No sooner had she completed the interior decoration in her lovely new home and entertained widely and successfully than she was looking for more worlds to conquer. She saw and liked the restorations at the Pirates' House and the Henderson-Myers holdings. Soon she had persuaded her husband to buy, through the gas company, the seven-house compound and to acquire all holdings in the Trustees' Garden, an incredible seven and a half acres of slums.

The Hillyers renovated and leased or sold to others the entire stock of buildings. The Old Fort portion of the garden they undertook, to the disbelief of Savannahians, to make into a beautiful modern home for themselves. The Pirates' House was converted into a restaurant.

The Girl Scouts of America was founded in Savannah in 1912 by a lady with connections in two beautiful neighborhoods. Juliette Gordon Low's girlhood home looks out over one of the wide, median-centered avenues, and she lived later in a mansion facing a tree-filled square. With the sparkle and verve of a girl, Miss Robertine McLendon (now Mrs. Arthur M. Phillips) moved to Savannah at the behest of the national scouting organization and restored and refurbished the Low house as it must have been in 1912, right down to the dresses in the closets and the tiny telephone books. Mrs. Phillips' interests extend far beyond the house itself to embrace all things historic in Savannah, and she has given visiting scouts a view like her own.

By early '60s, Malcolm Maclean, assistant city attorney and later mayor, had instituted a practice which made the Historic Savannah Foundation, Inc., task much easier: A lapse was required between an application for demolition and its issuance. Citizens concerned about a fine building could use the time to seek to acquire the property.

Walter Hartridge underwrote the mortgage on a beautiful builder-designed home







on Columbia Square, the Davenport House, so it wouldn't be torn down for the valuable brick. Many people who want spiffy new suburban houses also like the look of solidity imparted by "Savannah gray brick," used brick from demolished old houses, so many old houses are more valuable down than up. The Davenport House was later headquarters for Historic Savannah.

Leopold Adler II, who served as Historic Savannah's president, had the vision and courage to see the entire downtown area as a restoration project. Until he put this view over to the foundation's board, valiant efforts were put into saving important houses, but gaps, ugly as missing teeth, were occurring around the squares and along the beautifully proportioned little streets of the city. His no-nonsense approach to ways and means, learned as a hard-headed investment counselor, ensured an adequate income for the undertaking.

During his presidency, I had been assistant city manager and decided, after his very effective encouragement, to take over the job of administering the beginnings of Historic Savannah's more wide-flung efforts as its first executive director. We undertook to compile a catalog and inventory of 2,800 buildings in the historic district. Paul Dulaney, AIA, of the school of architecture at the University of Virginia headed a task force, using some of his students as field workers for the summer's compilation.

My wife and I had bought for \$2,500 in September 1960, a three-story stuccoon-brick house and a two-story carriage house separated by a courtyard filled with enormous pyracantha trees.

What shocked my fellow city officials was that it was deep in the darkest slum of the city. Building maintenance around us was nonexistent and the only bank money available was on a personal signature basis. The house was considered worthless as collateral—our car was worth more. We financed our renovations out of current income, which wasn't a great deal, and did most of the work ourselves.

The day the mother across the street continued on page 70

### Oregon Blazes New Trails In Environmental Protection. Where Do They Lead Next?

Next month AIA presents its first citation for excellence in environmental protection and improvement to the state of Oregon, its citizens and government officials, with a special commendation to Governor Tom Lawson McCall "for his inspired and untiring leadership in making Oregon a model for the nation."

The citation lists some of the state's "outstanding achievements in preserving and enhancing its natural environment and assuring that its built environment is harmonious with nature":

—The cleansing of the Willamette River, described in the 1950s in the *National Geographic* as "the filthiest waterway in the Northwest and one of the most polluted in the nation." Today fish run in the river in profusion, its entire length is swimmable and the river corridor is a 255-mile "greenway." Oregon was the first state to develop federally approved water quality standards and has authorized pollution abatement bonds tied to the percentage of the state's cash value so that they increase with growth.

—Passage of legislation banning nodeposit and pulltop beverage containers, assuring public access to the state's magnificent beaches in perpetuity, creating a statewide uniform building code, and mandating counties to develop comprehenive land-use plans under state guidelines.

The history of this last piece of legislation, lastest on the list to be passed, tells a great deal about this unusual state and the even more unusual brand of political leadership that it has experienced in recent years. The following account draws heavily from *The New Oregon Trail*, published by the Conservation Foundation early this year and written by Charles E. Little.

"In the early 1960s," writes Little, "it was becoming apparent to many Oregonians that they might be on the same ticky-tacky treadmill as California, their neighbor to the south." McCall was elected governor in 1966 after a campaign in which environment was the central issue, and passage of the environmental protection legislation listed above soon followed. In 1969, the state took its first major initiative in land use, with passage of a bill requiring local governments to zone their land and draft comprehensive plans. Deadline for the drafting was the end of 1971—after that, the governor could step in and do their planning for them.

It was a remarkably strong piece of legislation for the time, but it had some crippling flaws: No standards were set for evaluation of the local plans, no machinery was provided for their coordination and no money was given the localities to do the planning.

Paradoxically, the most grievous weakness of the law was the very strength of the powers that it gave the governor: "It was so strong that I knew that I'd better not use it," McCall said in an interview with the JOURNAL. And so deadlines came and went and extensions were issued with regularity.

But McCall was moving on other fronts to protect the crucial resource of land. He commissioned a consultant report on the planning of the Willamette Valley, the 100-mile strip where 70 percent of all Oregonians live, stretching from Portland to just below Eugene and including the the state capital of Salem.

He then made the report, by Lawrence Halprin & Associates, the centerpiece of "project foresight"—an intensive communications campaign aimed at developing a constituency for planning in the valley and the state at large (the original land-use bill had been instigated by farmers frightened by the depletion of agricultural land). The campaign sketched two alternate "scenarios" for the future of the valley and the state: one of sprawling, polluting, planless urbanization, the other of controlled growth and development in harmony with the verdant natural environment of Oregon.

McCall appointed L. B. Day, a most unusual Teamsters' Union official and former regional director for the U.S. Department of Interior, to head the state department of environmental quality. Given broad powers by the new environmental legislation, the department began exerting more influence than any other agency over the shape of development in Oregon. In 1972, McCall directed the department and the state health division to shut down development in coastal Lincoln County because of pollution hazards.

Meanwhile, more direct state initiatives in land use were picking up new proponents in the state legislature. One of them was Senator Hector Macpherson, whom Little describes as "a raw-boned, somewhat cerebral dairy farmer who was to become a self-taught expert on land use planning." Macpherson attempted to establish an interim committee on land use during the legislature's 1971 session, but the leadership wasn't ready.

Macpherson found a good deal more receptivity in the local government relations division of the state executive department, headed by ex-city manager Robert Logan. "Macpherson just walked in here one day," Logan told Little. "Hell, we were delighted." Together they formed a broad-based volunteer "Land Use Policy Action Group" to work toward introduction of legislation in the 1973 session. "We took land use from a zero issue to the main issue in just two years," Logan told Little. "I had so many fronts going I felt like an Israeli general." Just before the session McCall convened a "conservation congress" on land use.

The major legislation was introduced by Macpherson. It divided the state into 14 planning districts structured like councils of local governments and mandated to zone and plan for every acre of Oregon land. It also called for creation of a commission (and administrative department) on land conservation and development, which was to develop goals and guidelines for the districts' plans and to coordinate them one with the other.

The state commission, appointed by the governor with confirmation of the Senate, would have the power to reject plans that did not meet its goals and do the offending districts' planning for them out of their own local revenues (the governor retained his similar authority under the earlier

The classic image of the Northwest: Mountain peaks and unspoiled forests and lakes. Oregon intends to keep it that way.

34 AIA JOURNAL/SEPTEMBER 1974
Gov. McCall believes other states — and the nation — could do likewise. But some worry about Oregon itself once he is out of office.



law). Legislative oversight was to be provided through a joint land-use committee.

In addition, special "permit authority" was to be lodged in the state for development in "areas of critical state concern," including land near scenic waterways, parks and interstate highway interchanges. Similar authority was to be given the state for "activities of critical state concern," including transportation, sewer and water systems, nuclear and thermal power plants and transmission lines. Comments Little, "To control these public 'infrastructure' elements was, the drafters believed, to control the process of urbanization itself."

And further, "It was a tough, uncompromising bill, and it managed to gore nearly everybody's ox." Local officials, landowners and others readied for battle against the bill. McCall rose to its defense. and it acquired an important new ally: Senator Ted Hallock of Portland, whom Little characterizes as "mellifluent, urbane and persuasive" and a perfect complement to the rough-hewn Macpherson. Hallock is a Democrat and Macpherson, like Mc-Call, a Republican. Hallock became chairman of the senate environmental and land use committee, with Macpherson as a member, and they launched a series of stormy hearings.

It looked bad for the bill, with major opposition focusing on the planning districts and the "areas of critical concern." At Macpherson's behest, Hallock appointed an ad hoc committee of the interests both supporting and opposing the bill chaired by L. B. Day (who by then had returned to the union). The committee produced a compromise version of the bill which passed.

Instead of new districts, the counties were made prime planning coordinators. The critical concern areas were dropped, but with the door left open for the land conservation and development commission to propose their revival as it works out its goals and guidelines for local plans. A sturdy citizen participation mechanism was added in the redrafting—but the idea of state assistance to the newly required local planning efforts was dropped.

Some environmentalists felt that the





The all-important goals and guidelines are now being drafted against a deadline of January 1. The state citizens involvement advisory committee held 28 meetings around the state in spring to get citizen input, and will hold another series in the fall.

The list of subjects chosen for initial consideration in drafting the goals and guidelines is in itself revealing of the Oregon approach to land-use matters. It is heavily weighted in the direction of environmental protection. Housing and employment are included, but under separate subheadings rather than in relation to one another.

McCall recently has been speaking and writing about new and denser forms of urban settlement, relating them to the energy crunch, in his response to which he has also put Oregon in a leadership position. Yet the new state land-use tools are primarily regulatory in nature, and do not lend themselves well to the positive fashioning of such forms.

McCall puts the land-use legislation in a kind of spectrum of responses to problems of growth and development. The first stage that he took Oregon through was the effort to "frustrate" growth, with his widely publicized invitations for visitors and potential settlers to go elsewhere.

In numerical terms this effort has failed —Oregon is growing far faster than neighboring California and Washington. But McCall properly asks what the growth rate might have been without it. "Project foresight" and the land-use legislation were first steps in an effort to accommodate inevitable growth while minimizing damage to his beloved Oregon environment. He believes the effort to limit growth should also continue, "but we need to have a plan of accommodation ready."

Logan acknowledges that the land-use legislation "can't make things happen." Its significance, he believes, is in creating a "policy umbrella" and a system by which critical issues can be identified and resolved—ultimately by the people's representatives in the legislature.

Very much on the mind of Logan and others is what happens to the land-use thrust when McCall leaves office—the governor ends his second term this year and cannot run for another. McCall, Logan says, "created an atmosphere for accomplishment, in which the question became not do we need planning, but how to go about it."

36 AIA JOURNAL/SEPTEMBER 1974





Development in Oregon: Freeway-ringed Portland (top), sprawling into the countryside, and mountain and coastal housing that has followed the McCall precept of environmental respect.

Says Hallock, "My whole concern is that things will be rolled back." Asked whether a constituency has been built behind planning that will survive McCall's departure, Hallock says that "in 26 out of the states' 36 counties the good guys are outnumbered." The opponents, moreover, "know what the odds are."

Hallock plans to push for state planning assistance to the counties. He characterizes most Oregon counties as archaic at best; "At least 15 of them have never heard of paid planners." Cogan agrees to the need for aid: "We can't expect to lay regulations on the counties and not help them."

Whatever the fate of specific programs in a McCall-less Oregon state government



(which depends in large part on the choice of his successor) the larger significance of the state's recent history may be in demonstrating that problems can be solved given public will and political leadership (and, McCall would add, hope).

McCall has preached this "can do" gospel far and wide in the dwindling months of his administration. He has, in fact, openly worked toward creation of a "third force" in national politics. "People ask me if I don't believe in the two-party system," he says. "Of course I do, but does it have to be *these* two?"

Those involved in the third force discussions have included George Romney, Elliot Richardson, John W. Gardner, Ralph Nader and Clare Boothe Luce. Interviewed just after the inauguration of President Ford, McCall said that the third force probably would go into "hibernation" for a time because of the transition, although it might seek a chance to give President Ford its views about a livable environment and other matters. "His openness gives hope that you can feed in new ideas," McCall says of the President.

It can legitimately be asked whether the Oregon experience is exportable. This is, after all, a somewhat small state (population four million) and a very homogeneous one in terms of both class and race. It is also an unusually beautiful state, where McCall's ideal of "livability" can seem a right of nature.

McCall is convinced that other states can go as far as Oregon if they but have the will. He is also convinced of the need for federal ground rules to prevent the few states that act to maintain their livability from being penalized by inundation. "We need the threat of federal sanctions hanging over us," he said in Congressional testimony on the late, lamented national land use bill. "I don't think states' rights should be used as a shield for malfeasance." Donald Canty

AIA JOURNAL/SEPTEMBER 1974 37

# The Case Survey: Self-Portrait of The Profession

The typical AIA member, in his midforties, is pleased with his progress in his chosen profession and is likely to be an owner of his firm (ownership being defined as the possession of at least 5 percent interest). He works more than 40 hours a week, performing a wide range of duties, despite his title. His 1973 income-the average salary wage or draw \$23,380 -was about 8 percent higher than the year before, an increase that didn't quite keep pace with inflation, estimated at 8.8 percent. But this salary trend, if it's any consolation, is better than for executives in commerce and industry, where top management earnings increased by 6.9 percent and middle management increased by 5.4 percent.

This hypothetical architect is likely to believe that design quality and adequate compensation for services are among the major problems confronting his profession. Surprisingly, he is not apt to be familiar with the total range of assistance available from AIA. He's inclined to believe that his profession's "impact and influence on society in general is decreasing" but that it is making an "increasing contribution to the environment." However, he doesn't play a "very large role" in community activities that "affect his work or the environment with which he is concerned."

These and many other findings are included in the report "Survey of the Profession: Individual Members," prepared for the AIA by the San Francisco-based management consultant firm of Case & Co. A questionnaire was mailed in December 1973 by the AIA to the 24,119 members on its roster. At the cut-off date of February 28 of this year, 10,495 returns had been received directly by Case & Co. The aim of the survey was to obtain facts about the personal characteristics of AIA members and opinions on Institute programs, publications and activities. A future survey is planned of firms and other organizations to which AIA members belong to obtain data on wage rates and finances and personnel and management practices.

Throughout the Case report, there are comparative references to the U.S. Census

Bureau's 1970 figures for "architects." Such comparisons should be watched with care, however, because the bureau's total of 57,081 Americans whose profession is "architecture" includes such categories as landscape architects, marine architects, "building consultants" for educational facilities and others.

There is also a statement in the Case report that would indicate the census figures are too inclusive if one wants to know the number of practitioners of the building arts in this country. It says, "U.S. census data include a number of persons in the 16 to 20 year range."

Using the census figure of more than 55,000 architects, the Case report says that male AIA members represent slightly more than 43 percent of the total male architectural profession in this country and female members 10.5 percent of the total female architectural profession. These percentages would be much higher if the census figure was more stringently confined to actual architectural practitioners.

The reader of the Case report will find a massive amount of information. It is interesting to compare the data with survey findings gathered by the AIA in 1950 and published in a book titled *The Architect at Mid-Century: Evolution and Achievement* (New York: Reinhold, 1954). Some things haven't changed very much. For example, the 1974 survey found that the average age of all AIA members is 46.2 years; the 1950 survey put the median age at 46.5 years. Short shrift was given the female practitioner in 1950, and if there is any reference to her in the 513 pages of the book, this reader was unable to find it.

The AIA membership is still preponderantly male, with female members making up slightly less than 1 percent of the total. The average age of the women members is 45.5 years, and about 44 percent are classed as owners of their firms. Extrapolations of the survey sample figures show that there are about 222 women who belong to the Institute, 169 black members, 145 Japanese, 169 Chinese and 121 with other minority backgrounds. Their average age is 42.4 years, and about 7 percent are owners.

For total AIA members, 71 percent of the respondents are "owners," 25.3 percent are non-owners and 3.7 percent are neither, such a designation including public employees, corporate officers, limited partners, professors and retired partners. Non-owners have put in more educational years than owners, with an average of 5.6 years of college and postgraduate work and 1.2 degrees, as contrasted with 5.5 years of preparatory education and 1.1 degrees for owners (a fact which may reflect the presence of academics in the first category). Owners have been in practice an average of 22.7 years and nonowners have 18.9 years of professional experience.

The 1974 report shows that over 38 percent of the responding owners are sole proprietors, and about 30 percent each are partners or corporate firm owners. Only 1.1 percent are associated with such types of organizations as construction management, design/build or community development firms. About 9.8 percent of all AIA members are employed by governmental agencies. The 1950 survey figures revealed that among AIA members 81 percent were "practitioners," 11 percent were private employees and 3 percent were in "public bureaus." AIA members still strongly emphasize private practice.

A "substantial portion of AIA members are practicing their profession at the same small scale as in the past," says the Case report. This is indicated by the fact that 83.2 percent of the responding owners employ less than 20 persons, and 48.4 percent are in firms with one to five employees. Conversely, only 37.7 percent of the non-owners are in firms with fewer than 20 employees, and 27.6 percent are in firms with over 100 employees. As the Case report says, "This may be expected in that as firms increase in size, additional layers of non-owner management become necessary." The 1950 survey showed that "very small offices with one to four employees' accounted for 52.5 percent of AIA-member offices. The Case report says that "it would be incorrect to characterize the membership as dominated by members of small firms" because a large portion of

### Its preeminent concerns are design quality and adequate compensation.

members are associated with larger ones.

In the 1974 survey, 72.4 percent of the responding owners say that the term "chief executive officer" best describes their function. Some say that all such terms as project principal, design director, new business development director and finance and accounting director do not describe their work adequately, and some say that they perform all these functions. The non-owner also has multiple functions, with the terms project architect, construction administrator, designer or researcher predominating. The average owner says that he spends at least 10 percent of his time in more than six distinct job functions. The chief executive officer most frequently mentions architectural design (87.9 percent), administration (64.9 percent), new business development/client relations (60.6 percent), specifications preparation and writing (59.5 percent), and drafting and drawings (58.8 percent).

In 1950, a principal spent 20 percent of his time on "overall activities of general practice" and 30 percent on architectural design. The remaining time was devoted to client relations, working drawings, specifications, field supervision and office administration.

Robert J. Piper, AIA, in his book Opportunities in an Architecture Career (New York: Universal Publishing & Distributing Corp., 1970), says that he has seen annual salaries in the design profession move from about \$6,500 in 1966 to \$8,000 in 1970, with an average salary rise going from \$15,000-\$17,000 to \$19,000-\$21,000 in the same period. Writers of the Case report point out, however, that surveys have revealed that the earnings of architects are below those of other professionals. And they comment that the Engineering News-Record average construction cost index increased over the 1972-73 period by 17.4 percent, suggesting that "while that proportion of fees dependent on construction costs may have increased (and assuming roughly comparable volume for the two years), architects' income did not rise accordingly.'

The elements of members' annual personal incomes for 1972 and 1973 show these averages for owners and non-owners combined:

Element	Average annual income	
	1972	1973
Average salary, wage or draw Average cash bonus	\$21,790	\$23,380
or profit share (where paid) Average other pro-	7,120	7,920
fessional income (from services only)	6,210	6,690
Total average annual income	24,680	26,630

Where there was a bonus or profitsharing remuneration, this extra pay averaged 25.4 percent of the total income in 1972 and 26 percent in 1973. Bonus payments to executives in commerce and industry, the Case report says, rose 16.3 percent in 1973 over the 1972 figure. About 42 percent of some 30,000 executives in commerce and industry received bonuses in 1973, compared to 29.5 percent of architects who responded to the survey. Bonus payments in commerce and industry averaged 31.4 percent of 1973 salaries; bonus payments to architects averaged 35.1 percent of 1973 paid salaries, the percentage for owners being 44.5 percent and 14.4 percent for nonowners.

Firm owners reach their highest level of personal income between the ages of 45 and 49; non-owners, between the ages of 50 and 54. The corporate organization owner has a higher income than owners of other forms of organizations, averaging in 1973 \$34,000, with partners averaging \$29,000 and sole proprietors about \$25,000. The salaries of non-owners range between \$13,500 for a draftsman to \$24,700 as a federal agency architect.

Annual incomes for women who responded averaged \$15,450 in 1972 and \$15,850 in 1973, this being almost identical to the average annual income of individuals who are job captains. A number of women members work on a part-time basis, with lower earnings. "When their earnings are omitted from this particular analysis, the average total annual incomes of women members becomes \$17,264 for 1972, and \$18,833 for 1973," the increase being 9.1 percent.

Total annual incomes of minority members who responded averaged \$20,810 in 1972 and \$22,650 in 1973, an increase of 8.8 percent. This average annual income is comparable to incomes of department heads and state agency architects.

There are charts in the report that indicate that owners' average incomes by firm size increases dramatically as the number of firm employees increases, with some leveling off when a firm the size of 100 persons is reached. For some reason, owners' average income dips rather severely in the 76 to 100 employee range, and also dips slightly in the 36 to 50 range. In every size range, the owners' average annual income was higher in 1973 than in 1972 by an amount ranging from 2 to 15 percent.

There is not the dramatic rise in income levels for the non-owners, and income levels are evidently not affected by size of firm. In every size firm, income was higher in 1973 than the year beforewith one exception: In the one to twoman firm, the average income declined about 3 percent. Only owners under 39 years of age were able to maintain an increase in income above the inflation rate, and only the non-owners below the age of 44 have kept up. Both owners and nonowners between 50 and 54 had increases below the cost of living increases: the average income of the owner increasing 2.6 percent and that of the non-owner 5.1 percent.

Those who hold a master's degree in architecture earn only slightly more than those with a bachelor's degree, and those with a doctorate earn about 17 percent less than those with basic degrees. The Case writers do not say so, but this may be due to the fact that those with doctors' degrees are employed primarily by universities, where salaries may be lower. Also, doctorates in architecture have only been offered widely in recent years, so that the recipients would tend to be younger than the average survey respondent.

Those owners whose positions relate to continued on page 65

AIA JOURNAL/SEPTEMBER 1974 39

# Another View: The Architect as He Is Pictured in Fiction

#### Cecil D. Elliott

After decades of Perry Masons and Dr. Kildares the bright and baleful eye of television was bound sooner or later to fall on the architect. A few months ago, in the mid-season scramble to cover disasters and build upon fresh piles of sand, CBS devised a sitcom known as "Apple's Way," a desperate attempt to find a unique idea as much as possible like one with high ratings.

There is no reason to argue the quality of this series, but the fact that its hero was made an architect should cause considerable soul-searching among members of the profession. Not that this hero pauses long enough in his addlepated dogooding to draw a line or bill a client. Far from it. Nevertheless, he is supposed to be an architect, and one can only assume that a conference of network tastemakers decided that the written character corresponds to the public's notion of the architect's temperament and behavior.

Not a hopeless situation, certainly. This ancient profession will doubtless survive the series; but a study of fictional architects has led me to the reluctant conclusion that the same perceptions that put Mr. Apple in the profession of architecture have guided writers in the past.

(The Fountainhead doesn't rate consideration here because it was essential that its hero, Howard Roark, be an architect in order to fit into a souped-up version of Wright's life—just as The Agony and the Ecstacy really had to be about a painter.)

Lawyer-heroes and doctor-heroes, those other professionals, can be idealistic, materialistic or downright venal without losing their credibility. But in the case of architects, the public less often deals with them and their smaller numbers seem to make each characterization more meaningful. And how have they been seen through the writer's eyes?

When John Galsworthy laid out *The Man of Property* (1906), the first novel of his Forsyte Saga, he looked about for a contrast to the stiff-backed and money-

**Mr. Elliott** is professor of architecture and director of the graduate program at the University of Detroit school of architecture and environmental studies. clutching character of the title, a contrast to provide a lover for the hero's wife. Now, it would have been too much to make up a brooding poet or a wild-eyed painter, although in the second novel she travels on to a painter. An architect was just about right. Romantic and sensitive, but not beyond the pale. And for this purpose Philip Bosinney, the architect, was created. In appearance he is certainly romantic, "prominent forehead and cheekbones and chin," moody poses and visibly somewhat unprosperous. One man calls him "the Buccaneer" and a relative explains a lot by saying that Philip inherited "a streak of his father's Byronism."

Although he is not doing particularly well as an architect, Bosinney seems to have talent. The house he designs for the lady's husband is original and he strongly insists that it should be so—insists to the point of exceeding permissible costs on the construction and the furnishings. After all, it is assumed that fiscal irresponsibility goes hand in hand with artistic sensitivity. All this leads in the end to Bosinney's suicide, accomplished by throwing himself under a carriage.

Bosinney may be sensitive, but at least he has the decency to practice good oldfashioned artistic self-indulgence. This isn't always enough for other authors' architects. Take Gimpty, a main character in playwright Sidney Kingsley's mid-Depression Broadway success Dead End. Gimpty is an incurable and unlovable idealist. And that is surprising, for Gimpty is just about the saddest case since Horatio Alger stopped writing. Rickets crippled him as a child, and after six years in college he is an unemployed architect. He worked for a short time on a slum clearance project, but of course that folded. As Gimpty explains to a childhood pal-currently hunted by the FBI-"nine out of 10 architects are out of work." Once in a while he goes looking for a job, but his last attempt to find work ended with the prospective employer asking him if he knew of any jobs.

Gimpty's answer to his problems would only be understandable to today's fans of daytime tube-drama. He spends his days sitting along the East Side wharves sketching housing schemes and pausing only to "stare out over the river with deep-set eyes, dream-laden, moody." It's hard to tell how good Gimpty is at this sort of thing—designing housing, not staring—but he is obviously a winner at unadulterated idealism. Act Two has hardly begun before he hotly tells a heartof-gold girlfriend:

"It's not right that anybody should live like this, but a couple of million of us do ... I wonder when they'll let us build houses for men to live in?"

That's about as far as it goes, although such noble sentiments can be weighed against Gimpty's collecting the reward for turning in his former pal. At least this form of professional frustration seems more convincing coming from an architect than it would have from a muckraking journalist or a reform politician.

There is none of this romanticism in the architects that Charles Dickens wrote into The Life and Adventures of Martin Chuzzlewit (1844), and it is hard to avoid feeling that Dickens had somehow developed a rather low opinion of architects. In the first place, Seth Pecksniff, one of Dickens's sneakiest and most hypocritical characters, calls himself an architect and land surveyor. However, it is made clear that Pecksniff has never built a building. He seems to support himself solely by a combination of conniving and taking in apprentices who are kept busy drawing "Salisbury Cathedral from the north. From the south. From the east. From the west. From the south-east. From the nor'west." So perhaps Pecksniff can be written off as a poseur, actually outside the profession of architecture.

But Martin Chuzzlewit himself is not much better, that is, before he suffers through some 40 chapters and acquires a degree of late-blooming maturity. Martin begins his architectural apprenticeship under Pecksniff but soon ends it and departs in a fine mid-Victorian huff. As an English wastrel of good family his most obvious option was to come to America. (Wastrels were one of England's major exports at that time. Moreover, Dickens had a lot of ideas about American ignorance.)

### Romantic and sensitive, but why is he always hanging around the house?

In the course of seeking his fortune, Martin lands a job as architect and surveyor for the Eden Land Corporation, an organization in the highly competitive business of selling lots in the new cities being built in the Midwest. (I assume that the corporate name was made up and does not today survive in any builder of Florida condominiums.) In the truest tradition of early American real estate it turns out that Martin has been suckered. The City of Eden in the Valley of Eden proves to be uninhabitable swampland, and nasty vapors that cause fatal fevers are about the only things that abound there. Once recovered from a bout with the fever, and purged of selfishness by his contact with Yankee cunning, Martin returns to England for Dickens's complicated denouement.

Henrik Ibsen is an author who provided us with an architect, a genuine practicing architect who comes with enough heavy Scandinavian neuroses to warp all idealism and sensitivity. In *The Master Builder*, an 1892 play, architect Halvard Solness is a "poor boy from a country village," mostly self-educated. But it didn't take him long to get ahead. At middle age he is kept busy insulting and suppressing his staff (his former employer and the old man's son), carrying on with two young women, and brooding.

Solness's wife and his doctor are convinced that he is crazy, and it's hard to find an argument against their opinion. He started out with a mild religious mania and a passion for church-building. But he gave that up and concentrated on residences, ending up just as unhappy and thoroughly convinced that "this building homes for human beings isn't worth a rap." On top of this problem Solness is convinced that soon "some young man will shout, Get out of my way!" and do him in as he did his employer years before. These worries would probably not seem overpowering if Solness did not have the notion that only he should be allowed to design buildings, an idea so powerful in his head that he has begun to "sit here alone, in silence brooding over it."

In addition he suffers from acrophobia, so much that he won't go out on a secondstory balcony. A minor quirk? Not really, when his latest girl forces him to repeat a trick of his younger days, climbing up a tower to place a wreath at the building's highest point, a sort of topping-off ceremony. And it is this, not any threatening younger architect, that brings Solness's career to a fast-falling end.

To find the kind of architect one usually encounters in today's writing you have only to read Rose Frankin's Claudia, a tearjerker novel of the late Depression. (Its subtitle is The Story of a Marriage.) Claudia's husband, David Naughton, first wanted to be a doctor, looks like an athlete, and has a smothering Southern-belle wife who finds it "pleasant to be married to an architect and a caveman combined." David goes every morning to the New York office of his partnership. In the sequel, Claudia and David, he reneges on his opposition to residential jobs when the client is an attractive widow. He even attends the Los Angeles convention of the "American Society of Architects." It all sounds comfortingly normal.

But, David Naughton in his thirties gives every indication of becoming a stuffed shirt. At one point Claudia, who is not particularly perceptive, has to remind him, "Just because a youngster's father runs a cigar store, is no reason to call him a hoodlum." And, having at one time been introduced to stone-face Calvin Coolidge, David feels that the country just doesn't realize "what a wonderful person he [Cal] was underneath."

From a women's novel like Claudia, it is only a short step to the accumulation of murder mysteries, romantic movies and television shows in which we periodically notice a character labelled as an architect. Strangely enough, these characters are much more uniform than those that have occurred in major roles in major works. And here we probably find most accurately rendered the current folk-idea of the architect, the professional stereotype.

What is he like? (Sorry, libbers, it is a he.) Well, he matches very well some of the findings published in the '60s by psychologists "assessing" architects who were considered creative. In interviews they found that the creative architect was

good-looking, unusually self-confident, waved his hands a lot when talking (of course, all actors tend to do this), but did not have a really rugged, masculine appearance. And they came up with a string of adjectives that begins: "alert, artistic, intelligent, responsible, ambitious, capable, cooperative, civilized, dependable, friendly, pleasant, resourceful, active, confident, industrious, reliable. . . ." With all these flattering qualities one wonders why writers have used architects so seldom.

It is wise to recognize that the greatest part of today's writing, the massive subliterature of our time, uses architects as characters simply for the author's convenience. Television scripts, probably the most influential form of pulp writing, have given us "Apple's Way" and "The Brady Bunch." Both clearly put forth the notion that architects are at home most of the day, on hand for mid-morning conversations, lunchtime family crises and any afternoon activity that might be useful in advancing some frail plot. Stereotypes are even more obvious and more frequent in that lowliest literary form, the paperback love story. In Renée Shann's potboiler Forecast for Love (Beagle Books, 1972) an architect appears as Other Man in a triangle that never gets farther than temptation, tears welling up in the eyes and lumps in throats. Although mentioned only once in some 200 soggy pages, the Other Man's profession still makes plausible the fact that he "lived nearby and was a constant visitor" in the home of the Restless Young Wife. In this way the architect provides authors with the same advantages they find in painters, writers and the unemployed.

It may be just as well that the architect does not appear more often in current fiction. The stereotype has remained relatively unchanged throughout the recent decades in which the profession has struggled to redefine itself. But really, how can you persuade the reading public that architects are on to computers, capable in urban planning, expert at fiscal management and deeply concerned about complex social problems if it remains convinced that you just hang around the house all day?



# Seeing the City Whole



#### Charles A. Blessing, FAIA

EDITOR'S NOTE: The pen of Charles Blessing, Detroit's veteran director of city planning, is something of a legend in urban design circles. As he travels the cities of America and the world, it is always in motion, seeking and sketching those elements—natural and man-made that give each city its individual form.

His sketches carry a lesson about how to look at a city. They also often go beyond present-day reality to future opportunities for exploiting the major determinants of city form. With this issue the JOURNAL begins publication of a series of Blessing's sketches and commentary on American cities. On these two pages, by way of introduction, Blessing explores some of the lessons to be found in antiquity and in nature.

The most important feature in the design form of Athens is not the refinement of the design of the individual buildings, near perfect in scale and design as they are, but rather the relationship between the parts of the city, above all the visual, spatial and sequential movement relationship between the agora and the Acropolis, those two crowning glories of classic Greek city building.

Experiencing Athens is a dynamic process of moving from city gate to agora, through the agora following the ancient and hollowed Panathenaic Way, skirting Mars Hill, ascending the massive Acropolis finally to reach the Propylaea and its dramatic view of the Parthenon. This entire experience is enriched by a continued visual awareness of the Acropolis. The Parthenon is constantly in the sight and in the mind of every Athenean.

Athens was in its entirety a stage for the exciting drama of ancient Greek civilization. Nowhere was there monotony; everywhere was a sense of dramatic fitness between the man-made city and nature.

Three lessons from Athens stand out. First, the remarkable harmony between city and natural setting, exploiting every river and stream, every natural form to accomodate activities of man: Acropolis, temple, theater, stadium, agora, stoa. Second, the achievement of human scale, with man always the measure. Third, the masterful refinement of architectural proportion and design. Athens relates function, structure, spatial form, human use to each other as parts of a single whole.

Panoramas occurring in nature suggest cities: the pinnacles, buttes and mesas of the Grand Canyon; the buttes and rock towers of Monument Valley; the vast eroded earth shapes of the Badlands of the Dakotas. Consider the Four Corners area (below) and Park Avenue in the Arches National Monument (bottom).

The power of these forms in nature may stimulate us to create and arrange the man-made forms of the city in patterns at once functional and in harmony with their natural setting.









**San Francisco!** That magnificent city at the tip of a wooded, hilly penin-sula—its 40 square miles hemmed in by the suburban communities to the south—has probably the finest city site in America, some say in the world if one can rule out Rio and Istanbul.

What makes San Francisco perhaps the most dramatically beautiful city in the world? The magnificent natural setting, surrounded by the waters of San Francisco Bay, the Golden Gate, and the Pacific. Next, its remaining dramatic hills -some were cut down to provide ballast for China-trade ships returning to the Orient and to increase land for development at the edge of the bay. San Francisco's gridiron street pattern, defying gravity and offering magnificently dramatic views of bay and ocean from some of the steepest city streets in any city in the world. The great parks on the Twin Peaks, the Presidio and the Golden Gateway Park, providing easy access for recreation to hundreds of thousands. The cable cars and the historic Victorian city, the restored red brick warehouses and factories, the luxurious green forests everywhere on the hills and in the parks. Two world-famous bridges, and the restored ferry service to Marin County. Fine cultural institutions, art museums, art galleries, symphony music, theater-the ambiance of a great world city, gateway to the Orient and port city to the world. An invigorating climate with daily variations of temperature and humidity. Exciting paths, districts, edges, nodes, distinctive landmarks-all these elements enrich the image of this lovely city.

What an exciting challenge it would be to create a true-scale design concept model of San Francisco in three dimensions in order that every proposed new project might be obligated to show respect for this lovely but delicate and fragile city and be not a threat but an enhancement of the whole.





**Boston,** an historic city founded more than three centuries ago, has occupied a peninsula capped by Beacon Hill and originally connected with the mainland only by a thin neck of land along Washington Avenue. Boston, like San Francisco and Seattle, cut down many hills. It filled in the Back Bay and, over the past three centuries, created one of America's finest urban environments, enriched by the Boston Common and the Public Gardens. A single tree-lined boulevard with a spacious pedestrian mall in the center, Commonwealth Avenue, gives unique distinction to the entire Back Bay area.

In recent years, the Prudential Center, on the old Boston and Albany Railroad yards, and the John Hancock Center, near Copley Square, have introduced a powerful and to some an overwhelming new scale to the Back Bay characterized traditionally by five- or six-story buildings. The lineal nature of the pattern of huge towers has suggested an urban design theme of a spine extending to South Station and on around the central artery to the Civic Center, now widely heralded as the symbolic center of the Boston region.

As redevelopment nears, there will be an opportunity to repeat the highly successful concept of the Storrow Embankment along the Charles River Basin in an even more effective and dramatic way along the south side of Boston Harbor itself, providing much-needed waterfront parks and esplanades, pleasure basins for sailing and model boating and a variety of waterfront housing offering choices ranging from lowrise town house clusters and stepped terraces to point block and other tower units overlooking the harbor.

Boston continues, after three centuries, as one of the most delightful and rewarding of American cities. Its many natural advantages and rich human educational and cultural resources promise that its present renaissance should continue unabated through a fourth century.





Los Angeles is a city of paradox. Its flat coastal plain is a seemingly endless expanse of unrelieved gridiron pattern. Overlooking this same coastal plain are beautiful, dramatic mountain lands. Gertrude Stein's dismissal of the core of Los Angeles with, "When you get there, there's no there there," today evokes an emphatic rebuttal.

The core area already dramatically dominates the vast spreading city. As we view the central business district and nearby stadium area from the east, we see that an already impressive central place has emerged, albeit the result of major energies going to concentration of office headquarters and hotel convention facilities rather than to retail shopping activities and housing. All this in a decade. Los Angeles may soon present one of the most clearly articulated core areas of any city in the world.

Vitality is evident also in the continued growth of the office-commercial spine along Wilshire Boulevard. Intervals of low building areas separating more clearly the nodes of high towers would be found still more desirable, as suggested in the Urban Design Plan of the city.

Los Angeles has an opportunity to create an exciting neighborhood articulation throughout the city—with the combination of local parks, service centers and pedestrian greenways as form-giving elements.

This still leaves the basic recognized but unresolved challenge of providing relief and variety for the visual environment of the city as a whole.

Flat, endlessly spreading Los Angeles! How unlike San Francisco and Boston, blessed as they are by constantly modulated natural surface, enriched by sharply accented coastal features: peninsulas, inlets, bays and islands.

Los Angeles should never forget that its fine-grain repetitive grid pattern is the identical design matrix out of which, centuries ago, grew a design (with man-made hill and lake) to make of ancient Peking the loveliest, most beautiful city that man has ever made.  $\Box$ 

# Let's Concentrate On Saving Rail Service Instead of Stations

#### Lawrence O. Houstoun Jr.

The preservation movement in America needs to ask itself regularly, "Preservation for what-and for whom?" There are elements in the movement which are so obsessively and narrowly concerned with the past that they are blind to the needs and realities of the present. There are obvious elitist elements in the movement as well. Together, these values often take historic preservation in directions which are not entirely suitable to a democracy. A conference intended to deal with the re-use of the railroad stations is a fitting place in which to raise these questions since one may infer from the word "reuse" that the original use is foreclosed.

This premature obituary on rail transportation is considerably more unfortunate than the one to which the aging Mark Twain took exception since it carries with it some degree of self-fulfilling prophecy. While still widely ignored, it is nevertheless demonstrable that rail transportation systems-intercity, commuter and transit-are not dead in the United States. It is also true that insensitive, eager-beaver re-use schemes can serveand in at least one monstrous example is serving-to impede the building and rebuilding of this necessary transportation mode. Given a clearer vision of the future of our cities than most appear to have today, however, preservation can make a contribution to the quick, safe, economical and comfortable movement of people by rail.

No new role as an art museum, or as a classy boutique, or as a priceless antique store—no, not even as an "indispensable" visitors center—is as important for a passenger station than to serve as a passenger station.

A lack of concern about the function of old structures—in part traceable to the seemingly desperate need to adopt any use that promises to preserve the structure for whatever purpose—has produced

**Mr. Houstoun** is acting director, Office of Planning and Management Assistance, Department of Housing and Urban Development. This article is taken from a speech he gave at the conference on "Reusing Railroad Stations," at Indianapolis. among many preservationists a concern that is only facade deep. If the exteriors can remain the same, there is a feeling that this is all that one need be concerned about. Sometimes, indeed, that is all we can afford to be concerned about. Sometimes, we can do a little better. What follows is the tale of two stations. In one case, a concern for function shaped the preservation effort. In the other, it did not.

Preservation is necessarily a dollars and cents business. Great economic forces shape these matters and we are told about them every day. The people will never ride trains again or even come to town again, and the exceptions which penetrate the barrage of value-conditioning advertising are of such relatively minor scale that they are deemed not to pose a threat to the invincible forces of progress that are strangling the cities and the rail systems that served them. You are probably not much younger than I if you can recall seeing a pre-Amtrak ad for passenger service, unless it was placed by a Canadian or European rail system. What you have clearly felt for the past 10 or 20 years, however, was the result of an intensive public relations campaign designed to convince everyone that train travel was dead and that we had better get out of the way before the corpse collapses on us. In making this point, the invincible economic forces that shape consumer purchasing patterns were influenced by the wholesale downgrading of service, constant pleas to the Interstate Commerce Commission to abandon service (accompanied by deceptive bookkeeping), and total cessation of station maintenance.

In consequence, the station became just another piece of the urban mess. To officials seeking a new image for the old downtown, the terminal offered a lounging place for winos and poor service to the non-powerful among the electorate within architecture associated with another, presumably inferior, era. Although coal burners may have left 30 years before, the adjacent neighborhood remained undesirable in part because folks once heard too much noise and felt too much soot there. The nearby hotel could not even attract hookers, and the Railway Express Agency had moved so as to further its association with the airlines. The station restaurant, once the best in town, had been replaced by a bad quick food counter.

It was within this general climate of opinion that a one-last-try effort was made one morning about a year ago to try to save H. H. Richardson's Union Station in New London, Conn. A handful of civil servants scattered throughout the United States have the soul-satisfying but generally frustrating responsibility of looking after the Department of Housing and Urban Development's role under the Historic Preservation Act of 1966. Acting in the face of a pervasive assumption that local governing officials always know best and that urban renewal, among other programs, must be advanced without the delays sometimes associated with preservation disputes, this isolated band on occasion puts a timely finger into teetering dike and helps save some worthwhile structure.

Union Station had few friends. The city officials had already rejected offers to save the structure for commercial reuse purposes. The HUD bureaucracy in the field saw no reason to question the local government's decision. Amtrak had earlier said that it could not afford the place. The state government was not leading a fight for retention, and the local preservation group appeared even less politically influential than most. Removal in the interest of giving a new image to the downtown mall appeared assured.

The federal preservation act offers plenty of latitude but virtually no authority to intervene in such cases. To my eyes, the exterior was less than lovely. The building was held to be significant primarily because of the fame of the architect, an argument that found little favor with the local leadership. Thereby was raised the persistent conflict between the values of a local governing body and the generally amorphous values of those outside the municipality who have a flimsy sort of standing because of the federal law. What neither I nor most of the local officials could envision was the potential of Union Station in the hands of imaginative and skilled professionals.

'Eager-beaver schemes' to reuse the buildings can prematurely foreclose their original function.



Union Stations in New London, Conn. (above), and Washington, D. C.

To me, the most significant value of the building is that it serves the passengers arriving and departing on 20 trains a day, and that it continues to connect Boston and New York passengers with boats to the southern New England islands which depart from adjacent docks. Here, in miniature, is probably the last American facility where rail-water transfers can be made, similar to those serving Europe's boat trains.

The facility had other possible pluses. A nearby bus station, then housed in a trailer, conceivably could be relocated to Union Station. Train service to New London is expected to improve further when Amtrak introduces new French streamliners. Since New London is the site of the Coast Guard Academy and a submarine base, there was no reason to expect passengers to abandon its station if it did not abandon them. Moreover, the city has inconvenient air service.

In response to one last phone call from HUD, Amtrak explained that it really did not want to walk away from the structure, in part because there were no funds or plans for a replacement. Amtrak could afford to rent perhaps a fifth of the space, it was estimated. A great many development schemes start with less. This was encouraging enough to call the HUD field representative to Washington for a conference with the staff of the Advisory Council on Historic Presrvation. The consequent agreement by the city to permit other developers to make proposals for Union Station did not come without considerable conflict, and it probably came at all because of an assumption that no developer in his right mind would possibly want the drab, old structure. A HUD central office staff member took it upon himself to help find such a crazed profitseeker, and as a result there are handsome mixed-use proposals available today for a reborn transportation facility. The fact that the building stands at all after two New York Times obits, is because of the willingness of a very few individuals in the federal bureaucracy to take the heat which generally comes when one attempts to force a reconsideration of a plan with considerable local economic force behind

### 'Is it somehow anathema to the preservation spirit to suggest that we spend for the living?'

it with a necessarily inadequate alternative scheme and a federal statute without important powers. I hope soon to have a celebration dinner in the restaurant proposed for Union Station, one as good as the one I had in that other 19th century white elephant, the highly successful old city hall in Boston.

Very little of America's imagination, particularly its commercial imagination, is applied to preservation. Most local folks cannot remember how a passenger depot looked when it was bustling with activity, and most cannot dream of what a difference a steam cleaning and some paint would make. As commercial ventures, the larger stations were designed to attract customers beyond those who used the trains. Railroad stations still need commercial, rent-paying tenants today, perhaps even more than National Register status. Attractive plans to encourage new tenants should be a first priority.

There is no law, moreover, which says that passenger stations cannot continue to serve passengers. When you consider how abused the rail passenger has been for the past 15 years and how unpleasant the stations have become, it suggests that rail travel has a great, if unappreciated, vitality. Indeed, rail transportation is on the upswing. The privately financed autotrain is an astounding success. Commuter, as well as intercity, systems are receiving extensive state and federal financial assistance and more is expected. Groups concerned with the preservation of stations should join in the fight to expand rail travel.

This is not to say that we will soon see so many trains that some stations are not regularly threatened by various efforts posing as public improvements. We should not be duped by well-intentioned and other officials such as those who decided, needlessly, to "save" Washington's Union Station by converting it into a visitors' center. Union Station has received at one time or another every President since the first Roosevelt, and virtually every one of the men who unsuccessfully challenged them. It has seen half the crowned heads of Europe, the reigning stars of Hollywood and Broadway, the historic leaders of Congress and the equally famous men and women who came before Congress, some unwillingly, to make their case. In the past decade, Ike's funeral train started there and Bobby Kennedy's ended there. In each of hundreds of dramatic instances, the eyes and ears of the world were there to proclaim the event through newspapers, radio, newsreels and television. To the nation's credit and to architect Daniel Burnham's, the setting for such pageantry was appropriately monumental.

Today, Union Station, the fourth or fifth busiest terminal in the nation, is losing its function along with the floor of the magnificent waiting room, while other pieces are being nibbled away in the interest of progress. Above the yawning pit where thousands of travelers walked or waited is a monstrous banner professing the wish that no one is inconvenienced by this desecration perpetrated in the name, of all things, of the nation's bicentennial celebration.

Was this one of the facilities saved from the wrecking ball after passenger service had ceased? Strangely, no. A hundred trains arrive or depart from Union Station on a typical day. More of the popular Metroliners are on order. Rail travel in the Northeast corridor is booming and promises to grow further when a subway station begins service to the station in a year or so. This is perversion, not preservation. A building that needed little more than cleaning up and a few new tenants, a structure that was ripe for enhancement in its intended use, has been wastefully and foolishly abused. I submit that those who imposed this kind of sex change surgery have, by altering its function, destroyed Union Station, not saved it as they claim. The trains still run, but, like Penn Station in New York, the place isn't there anymore.

What then is preservation for, and for whom is it? If it is not for the preservation of function whenever possible, it is a misdirected and wasted pursuit. I see no hope, for example, for the Reading Terminal in Philadelphia, which includes the last of the great train sheds in America. That, too, is a bustling passenger facility with a grand market on the lower level. Faced with news that the trains won't run there anymore (they will be re-routed to the Penn Central facilities), a portion of the preservation fraternity clamored to save the old office building on Market Street and to use the shed as a site for shops and restaurants. What is the significance of a great train shed unless it is full of working trains and passengers? Who wants to look at a bloodless corpse? Give Reading Terminal a decent burial when the trains leave, and spare us from more little shops selling scented candles and souvenir coffee mugs.

The preservation movement in the U.S. is doing the nation a disservice if it offers us images of obsolete steam trains and fails to concern itself with the need to move people on energy-saving equipment out of attractive, workable terminals. The best way to save railroad stations is to expand rail service. Among the larger communities, those pursuing non-transportation options are probably taking the lazy way out which the city will later come to regret. There is something a little sick about a community waiting passively until the station ceases to function as such before spending the considerable funds required for a so-called restoration. Is it somehow anathema to the preservation spirit to suggest that we spend for the living? Is civic responsibility so dead that the hundreds of still functioning commuter and intercity stations cannot benefit from municipally-purchased paint or the occasional attention of the county parks department? If there are two run-down stations in town, might not the functioning one sometimes deserve priority over the abandoned one? In small communities outside metropolitan areas, these questions will rarely need to be raised. Within metropolitan areas, however, where energy, environmental and transportation issues are becoming increasing significant, it is important to question preservation objectives in terms of the preferred future of the downtown area and the alternative interest groups to be served. The first would-be preserver with a breezy idea for saving the facade may not have the best vision of the future, whatever his commitment to the past.  $\Box$ 

# Masterspec's Mechanical and Electrical Phase

#### Joseph P. Manzo

After five years of work on the architectural divisions of Mesterspec, Production Systems for Architects & Engineers, Inc. (PSAE) is moving into the engineering divisions of the national master specifications system. Work has already begun on the mechanical and electrical specifications, which represent a significant amount of the work on most projects. With divisions 15 and 16 in the works, PSAE has moved much closer to providing a complete and uniform master.

Part of the raw material for the two new divisions is contained in the nearly 40 office master specifications received from engineers across the country. It is from existing office masters that **PSAE** will gain both basic content and the insight needed to produce a proficient national master. These office masters are being analyzed to develop the uniformity and wide range of options needed to make the engineering divisions usable nationwide. They are also being studied for insurance-related aspects and reviewed for such practice-oriented ideas as scheduling, detailing and drawing coordination.

So far, an exploratory table of contents has been developed. Publication in the bulletin of the American Consulting Engineering Council drew a wide range of reactions. Some readers found it too short, others too long; some felt it should have been arranged by trades, others by products and still others by systems. "If I were to try to write 'pumps' as one article,' commented Glen F. Gaussman, P.E., "all of the systems using pumps would have to be first worked out and a schedule of pumps provided. With that format, the specification has to be turned over to the typists at the last minute, rather than allow them to type sections of the specifications by systems."

It is difficult to say, and probably risky to guess, at the exact form and content of PSAE's divisions 15 and 16, but some of the points raised in preliminary commentaries may give some indication. Charles H. Healy, P.E., who represents

**Mr. Manzo**, a registered professional engineer in several states, is engineering program director for PSAE.

ACEC on the PSAE board of directors, feels that "the specification form must necessarily be a performance specification ... the work should be divided into sections of the work which generally correspond to work done by the various subcontractors in the area ... I think that a master specification should be very complete so that on any given job, sections or paragraphs can be deleted where they are not applicable."

Louis A. Bacon, the PSAE board representative from the National Society of Professional Engineers, foresees difficulty in "integrating portions of the proposed mechanical electrical masters into existing office specifications . . . a scope-type specification for the design-build or fasttrack project is a possibility, and the smaller firm could even use this as their master."

Whatever the reactions to content, format or arrangement, almost everybodyarchitects, engineers, professional organizations and trade groups-seems to agree that it is important to complete Masterspec. "The world has for too long overlooked the mechanical and electrical divisions of the specifications," says Thomas R. Hollenbach, administrator of technical and educational programs for the Constructions Specifications Institute. There is no argument about the need for a complete and uniform master specifications system, and no argument with PSAE Executive Vice President John Schruben's comment that "the unification afforded by the widespread use of Masterspec is a security blanket for the entire construction team on each project."

For Masterspec to benefit the entire construction team, it is important that all those who will use it play a part in its development. And while PSAE's board of directors has for some time coordinated this effort with representatives from the engineering societies, the importance of cooperation is underlined with the start-up of work on the engineering content. NSPE and ACEC have named four of their members to provide technical review.

Further input and review will come from a variety of trade and contractor groups. The Sheet Metal and Air Conditioning Contractors National Association has agreed to provide drafts of technical content for the entire air handling equipment and systems sections, and three associations—the Mechanical Contractors Association, the National Electrical Contractors Association and the National Association of Plumbing, Heating and Cooling Contractors—have agreed to review the content.

Many of the engineers who have donated their office masters, which now make up PSAE's stockpile of raw material, will also review the two divisions. One firm, The VVKR Partnership in Alexandria, Va., may well give the new divisions 15 and 16—or at least sections of them—a test run by using them on actual design projects. "It's about time they were done," says VVKR partner Jack Redinger. "They represent 30 to 50 percent of most projects, sometimes more."

It is a sizable job, developing these two divisions. Together divisions 15 and 16 may include two-thirds as many pages as the other 14. And even with input from all segments of the construction industry, there will still be a number of considerations to be taken into account—CSI's three-part format, PSAE's option-oriented organization of text, what is shown on drawings, what is specified.

And, there are differences between architectural specifications and engineering specifications. To begin with, architectural firms usually have a spec writer, while engineering firms generally don't; in the engineering firm, the designer is usually the spec writer. The differences are reflected in the options given in the specifications; architectural options are generally more specifier-oriented; engineering options, more contractor-oriented.

In an industry as fragmented as the construction industry, it is no easy task to come up with a master specification that will accommodate all the differences among regions, trades and state and local ordinances. The key is cooperation. As Schruben says, "We have architects and engineers meeting regularly on the **PSAE** board of directors and in other liaison committees to guide the development of this first of many production systems and that's a step towards coordinating and unifying the design professions."

PSAE gratefully acknowledges donations of office masters from CTA Architects Engineers Planners, Inc. of Billings, Mont.; and Davis Cochran Miller Bauman Noyer Architects of New Haven, Conn. The following ACEC firms are gratefully acknowl-

The following ACEC firms are gratefully acknowledged in providing their office masters of divisions 15 and 16 to PSAE: Barnard + Maybeck, Rochester, N.Y.; Benjamin S. Notkin & Associates, Inc., Seattle, Wash.; Blair & Affiliates, Inc., Oklahoma City, Ok.; Brunch & Morrow, Inc., Minneapolis, Minn.; Byers-Urban-Klug & Pittenger, Cleveland, Oh.; Carson Associates, Inc., Fairfax, Va.; Carter Engineering, Inc., Silver Spring, Md.; Centennial Engineering, Inc., Denver, Colo.; Clark Engineering Company, Tuscumbia, Ala.; Con'eers Moore, Inc., Stillings, Mont.; Cooke & Holle, Houston, Tex.; Denk-Kish Associates, Inc., Cleveland, Oh.; Filson-Gingrich & Minnich, Inc., Harrisburg, Pa.; Frank E. Williams Jr., Falls Church, Va.; Gamje-Korobkin-Colger, Inc., Chicago, Ill.; Gausman & Moore, Inc., St. Paul, Minn.; George S. Campbell & Assoc., Inc., Chattanooga, Tenn.; Healy, Hargan Mattern, Inc., Tampa, Fla.; Keck & Wood, Inc., Atlanta, Ga.; Keith Kruckek/Consulting Engineers, Inc., Portland, Ore.; Love, Friberg & Associates, Inc., Fort Worth, Tex.; McCarron, Hugnogle & Vegkloy Associates, Inc., Boston, Mass.; Miller & Weaver, Birmingham, Ala.; Nack & Sumderland, Los Angeles, Cal.; Newman-Hibble & Associates, Inc., Omaha, Nebr.; Rist-Frost Associates, Glens Falls, N.Y.; van Boerum Associates, Inc., Sat Lake City, Ut.; Vosbeck, Vosbeck, Kendrick, & Redinger, Alexandria, Va.; Watson & Company, Tampa, Fla.; Whitman, Requardt & Associate, Baltimore, Md.; William & Werks, Inc., Grand Rapids, Mich.

The following NSPE-PEPP firms are gratefully acknowledged in providing their office masters of divisions 15 and 16 to PSAE: Barton Associates, Inc., York, Pa.; Conditioned Air Engineer, Inc., Atlanta, Ga.; Herbert Fox & Associates, So. Orange, N.J.; Jones & Fellers Architects, Engineers and Planners, Inc., Atlanta, Ga.; P & W Engineers, Inc., Chicago, Ill.; Reynolds, Smith & Hills, Inc., Jacksonville, Fla.; Simmons-Eastern Co., Atlanta, Ga.

## BOOKS

The Architecture of Frank Lloyd Wright: A Complete Catalog. William A. Storrer. Cambridge, Mass.: MIT Press, 1974. 500 pp. \$9.95.

Here is the whole Frank Lloyd Wright catalog—not another thematic discourse, limited period or subject evaluation, artbook photo collection or the like, but an ambitious compilation of every built project designed by FLW, which has been needed for over a decade.

William Storrer, in gathering his material, traveled some 78,000 miles, took over 12,000 photographs, visited the site of each project, made a regional map of its location, documented on-site observations, noted the relationships of various owners of projects located in a particular time and place, prepared seven maps showing the geographical distribution of Wright's work by decade and prepared various floor plans to classify Wright's planning concepts in residential design.

Not all the data that Storrer amassed is presented, of course. What the book does contain are illustrations of Wright's built projects; the seven distribution maps mentioned; a unique zip code index, crossreferenced to each project's catalog number; the usual alphabetical index; a brief introduction that defines the author's intent; and a laudatory preface by the eminent dean of Wrightian history and lore, Henry-Russell Hitchcock.

Hitchcock establishes the work as a major contribution to the history and scholarship of Wright, placing it in per-



54 AIA JOURNAL/SEPTEMBER 1974

spective with previous related efforts. He writes that Storrer "has performed an inestimable service not only in what he has amassed but also in opening the way to a renewed study of the entire canon."

Hitchcock also calls attention to the resource of Storrer himself: "... though Mr. Storrer disclaims the intention of providing any concerted critical consideration of Wright's work, the extent of his firsthand knowledge, unrivaled by that of any other scholar of his or an older generation, lends the innumerable decisions he has had to make a special authority."

This may be true for other architectural historians, but the architect will find some of the accompanying descriptions to each project to be confusing, if not misleading. We find the term "dry wall" reappearing time and again, for example, which in this context means the solid partition construction of a plywood core with dressed and matched finished lumber screwed to each side, not plaster board on stud wall framing. Similar references to materials of superficial finishes emerge now and then, rather than the hoped for relevant use of structure to achieve the space and form of what Wright's work is all about. Such shallow account of materials and methods has been a problem with contemporary architectural chroniclers of little technical training and experience. What would we have, however, without them?

Another disappointment is the quality of the sketches that attempt to represent long since demolished projects or more



recent ones whose owners threatened legal action against the author if a photo of their houses or their names appeared in this published record. Storrer was caught in a difficult situation to maintain the integrity of his work. Help from Taliesin could not be expected, even though original perspectives of these few projects surely exist.

Similarly, many photos are not what they could be, although Storrer is a capable photographer. When the price of a book is budgeted low to allow for the widest circulation, some technical aspects of an ambitious publication may be compromised or fall victim to expedient measures. The book's design, type style, type size, type weight and photographic reproductions all fall short of similar efforts in bookmaking from the MIT Press.

Of unusual interest are references to works heretofore unpublished. Because of the nature of the publication as a catalog, the information on them is sparse. As such, it contains only an identification title of the project, the owner (if permitted), an appropriate description and a general record photo or sketch. Full documentation of a project would require more than one photo, plus complementary plan graphics to reveal its scope and intent.

Variety in Wright's work only becomes apparent as it is seen evolving over a span of 70 years. We see in this book his ages and attitudes as he searched for expression and principle and appropriate means to realize fundamental ideas. He is revealed in five projects illustrated here : First, as an idealistic young architect of 26 in 1893 introducing his first independent project in the Chicago suburb of River Forest; then as a young, maturing, innovative architect who in 1903 achieved a bold blend of space, form, function, economy and light in the Unity Temple in



# **POWERBOND** The problem solver.



### UNIQUE CONSTRUCTION GIVES IT DIMENSIONAL STABILITY.

We make Powerbond by thermo-welding a dense, tough pile surface to a closed cell vinyl backing that adds comfort, quietness and wear-life.



### POWERBOND MAKES UNDER FLOOR SYSTEMS TRULY ACCESSIBLE.

When you need to get to your underfloor access just cut and remove as much Powerbond as you have to. Thermo-welding assúres the materials stability. Just follow the prescribed directions—fold back—replace. It's that easy!



### SOIL-HIDING NYLON PILE SURFACE ASSURES APPEARANCE RETENTION.

Powerbond's esthetically beautiful, tough, dense pile surface is made from a second generation anti-soil nylon. This allows for maintenance as low or lower than other floor coverings. And it comes in a great range of colors that stay clean and colorful.

### POWERBOND TEX-TILES MAKE A TRULY PORTABLE FLOOR COVERING.

Powerbond comes in 18x18 inch squares called Tex-Tiles, that you can pick up and put down as required. They've got the same "miracle" properties as Powerbond. And they come in a wide variety of colors that let you design your own patterns.

### CUT IT OUT.

If for some reason you need to replace or repair your Powerbond, no problems. Cut out the damaged spot and put in a new piece. No one will ever see the patch and it won't take any more time to do than cutting out and sending in this coupon for more information about this beautiful problem solver. Or call (212) 953-4356

	919 THIRD AVENUE NEW YORK, N.Y. 10022 Box B-9
	I'd like more information on Powerbond Floor Covering
NAME	
ADDRESS_	
CITY	
STATE	ZIP



### THE FUNCTIONAL UPHOLSTERED STACK/GANG CHAIR #297

**New-Patented-Hidden Gang** (one side only) No unsightly protruding gang on each side of the chair to snag hose, bump people or other chairs at banquet tables. But this chair does have a positive gang for uniform row auditorium seating that meets fire codes. Safe-interlocking stack on the floor 20 high is only 79" tall and within easy reach.



Chicago; next as a man in his early 50s in 1923 who employed the technological potential of systems application in the Ennis residence in California; still later as a senior citizen in 1938 exuberantly sculpturing concrete at the Florida Southern College; and finally, as the aged patriarch in his 90s creating the forms of a fantasized space age in his last built project, the Lykes residence in Arizona.

It is now time for others to come forward to define the "why" and "how" of this man and his work, if they can. Most architects who know his accomplishments and what it takes to achieve a notable building realize that the notions expressed by his historians have little to do with how he achieved what he did. Storrer has put the historical household of past and future study in order and given it a solid foundation on which to build. His work will stand strong in the stream of a final account. *Denis Charles Schmiedeke, AIA* 

**Peace of Mind in Earthquake Country: How to Save Your Home and Life.** Peter Yanev. San Francisco: Chronicle Books, 1974. 304 pp. \$9.95 hardbound, \$4.95 paperbound.

About every four years, a major earthquake occurs in this country's Western states. Not only are such cities as San Francisco, Los Angeles and Anchorage earthquake-prone, but such metropolitan areas as Salt Lake City, Seattle and Portland, Ore., are situated on or near active faults.

This book, written by a structural engineer who is an expert on earthquakes, is for the layman, the property owner. It answers such questions as: Is my home constructed in a way that it will ride out a quake? Are utilities and furnishings hazardous? What should my family and I do during and after a quake? What about earthquake insurance? In nontechnical language, Yanev tells of safeguards that will bring peace of mind.

The section on the architectural and structural hazards of earthquakes and how to avoid or correct them is important. The kinds of structures that failed in 1906 also failed in 1971, says Yanev. And failure will continue until "building codes, builders and property owners pay heed to history and the principles of physics and earthquake engineering."

The informative text is complemented by hundreds of photographs, diagrams and maps. If you live—or build—in earthquake country, this is a good book to read.

Design, Siting and Construction of Low-Cost Housing and Community Buildings to Better Withstand Earthquakes and Windstorms. Editors: William F. Reps and Emil Simiu. Washington, D.C.: National Bureau of Standards (for sale by U.S. Government Printing Office, Wash-

Circle 13 on information card



# Constantly developing better ways to form concrete

Ceco's research and development of forming systems affords architects, engineers and contractors the benefits of new and better ways of executing poured-in-place concrete construction. As always, Ceco's experience gives you simplicity, reliability and economy. With monolithic reinforced concrete systems, all materials and forming equipment are available locally everywhere. You can design with true versatility in rib slab, waffle slab or flat slab construction. And with Ceco's forming services, you get a dependable floor system fast. You can have large modules and attractive finishes for exposed ceilings by specifying Ceco's fiberglass forms. Ceco crews of formwork specialists erect and remove forms of steel, fiberglass or wood, on schedule, on a firm lump-sum contract. For more facts, please see Sweet's files or consult your nearest Ceco district office.



Montgomery Ward Corporate Offices, Chicago Architect: Minoru Yamasaki & Associates Structural Engineers: Skilling, Helle, Christiansen & Robertson General Contractor: Turner Construction Company Concrete Contractor: S. N. Nielsen Company



The Ceco Corporation • General Offices 5601 West 26th Street • Chicago, Illinois 60650 ington, D.C. 20402; order by SD catalog no. C13.29/2:48), 1974. 133 pp. \$4.85.

From 1926-72, earthquakes caused nearly 1 million deaths and an estimated damage to structures and public works of \$15 billion. Windstorms are even more destructive: A typhoon-generated flood in East Pakistan in 1970 killed an estimated half million people. The extensive loss of life and property in developing countries may be reduced by improved design, siting and construction procedures. Recognizing that developing countries have cultural patterns, socioeconomic restraints and inadequate technical expertise to adopt and implement such procedures, the Agency for International Development asked the National Bureau of Standards to conduct a study to identify restraints, investigate technology and propose practical solutions.

This report by NBS's Center for Building Technology is commendable. It gives technical information, supplied by authorities, on the characteristics of materials and building systems. There are discussions of the structural performance of lowcost housing and community buildings under earthquake and windstorm conditions, with specific reference to structures typical of developing countries. Ways are suggested as how to make the structures more resistant, and siting considerations to reduce the effects of earthquakes and windstorms are suggested. There is also attention given to such topics as building codes and regulations; methods of housing construction; social and economic factors which influence the advancement of housing technology; and mechanisms for stimulating technical improvements. Throughout, there are references to countries which have suffered devastation from natural disasters.

The Structure, Size and Costs of Urban Settlements. P. A. Stone. New York: Cambridge University Press, 1974. 284 pp. \$14.50.

This fascinating book attempts to quantify the economic efficiency of various urban forms in Great Britain by size, population characteristics, transportation systems, land use distribution and whether the settlements are growing or declining. Professor Stone's work is, of course, most pertinent for British architects and planners, particularly those involved in the new towns program. This kind of information would have been invaluable to me in the mid-60s when I was project director for the development of the plan of Warrington, a new town in the Northwest Economic Planning Region in Great Britain.

In the United States, information such as this is only now beginning to be developed. Here, the rule of supply and demand seems to apply. Until the public

and seems to appry. Onthe the put

58 AIA JOURNAL/SEPTEMBER 1974

plays a greater role in determining the quality and timing of urban growth, similar U.S. analysis will remain generally incomplete and unapplied.

Some of Stone's conclusions are very interesting. He states that "the settlement offering the lowest costs both for construction and the journey to work would be a small- to medium-sized town, with a compact shape and with employment areas spread evenly over the town in relation to the residential areas. Densities should be low enough to be achieved with conventional two- and three-story buildings and most of the car-parking should be at ground level. The main road system should probably be a grid with a central road box. There would be no particular advantage in attempting to induce workers to use buses for the journey to work rather than their private cars, and no advantage in providing a bus-only road system. If larger settlements were required, it might be cheaper to plan them as a cluster of smaller settlements, although how far this was worthwhile would depend on the extent to which workers were deterred by the length of the journey to work.'

From the economist's point of view, then, most of the British new towns are economically inefficient. Cumbernauld, with its expansive central complex and lack of flexibility, may be more of a dinosaur than an omen of the future that The American Institute of Architects thought it was when awarding it a 1966 Reynolds Design Award for Community Architecture. Stone's conclusions also tend to support the AIA's idea of the growth unit as the most desirable scale to expand metropolitan areas.

This book is highly recommended to serious students of urban form. It is rich in tables and statistical material which could be a bit of a bore for those with only casual interest in urban economics. *Michael B. Barker, Administrator, AIA Department of Environment and Design* 

**Restaurant Planning & Design.** Fred Lawson. New York: Van Nostrand Reinhold, 1974. 180 pp. \$24.95.

Many photographs and diagrams are combined with a text in which technical information is provided to make this a useful guide for the design of restaurants. The business, financial, functional and practical aspects of restaurant design are discussed, with attention given as well to such things as interior construction, furniture, heating and ventilation, color, noise and acoustics, hygiene requirements, table linen—and even the design of the menu. There is a great deal of information not only for the designer, but also for the administrator of restaurant services.

Where applicable, there is a list of related British standard specifications as a source of reference for detailed technical information. Such standards, it is explained, are intended primarily for British practice, but the "basic functional requirements are generally relevant on an international scale."

The book's author is associated with the University of Surrey, England, in its department of hotel and catering management. Most of the examples of specific restaurants in the book are British.

Encyclopedia of Urban Planning. Arnold Whittick, editor-in-chief. New York: McGraw-Hill, 1974. 1,218 pp. \$29.50.

The publication of this encyclopedia is an event that should not be treated casually by planners. Whittick has done an admirable job of providing a basic desk reference for urban planning. Over 70 leading authorities from many parts of the world joined in to produce the volume.

Great differences in planning philosophies and cultural biases are characteristic of the planning profession, which makes even a commonality of terms nearly impossible. The questions of who should be included in such an encyclopedia and what theories and programs covered are exceedingly difficult ones. Despite these formidable obstacles, Whittick has done about as much as possible. The encyclopedia will be a useful addition to any urban planner's library. *Michael B. Barker, Administrator, AIA Department of Environment and Design* 

**Golf Course Developments.** Rees L. Jones and Guy L. Rando. Washington, D.C.: Urban Land Institute, 1974. 105 pp. \$15.

Anyone who has the responsibility for designing a golf course should certainly have this book at hand to consult. Written by two golf course architects, it gives detailed information on such topics as the relationship between golf courses and community development, site analysis, construction methods and costs and clubhouse design. The text is complemented by site plans, photographs and diagrams of golf courses. There is also a detailed analysis of Point Aquarius, a golf course development project near Birmingham, Alabama.

As the book indicates, 77 of the 157 regulation golf courses opened in 1972 were designed as integral parts of new communities or developments, and the prediction is made that "real estate developers will be the major golf course builders in the future." The book's primary aim is to help such developers better understand the complexities of golf course design and to indicate that a high degree of technical and design expertise is required. It will also give the golf course designer much information regarding construction methods and related costs.

# FEELING SECURE IS ONE THING...

# BEING SECURE IS ANOTHER.

**B.F.Goodrich** 

GATE 1

Being secure means having instant information and control at your fingertips. CardKey's Total Concept Access Control capability delivers all the information you'll need to control the flow of people, data and material. Simply. Economically.

OYEENO

By employing the invisibly coded CardKey Securiti-Card,<sup>™</sup> you'll know who went where and when. It can permit or deny access to any given point, or points of entry, from the parking lot to the vault. It can log or transmit that information. It can deliver cost accounting inventory control or payroll information and gather data at the source. Instantly. Accurately. Economically.



TOTAL CONCEST ACCESS CONTAC

UNITED AIR LINES

General

Motors

Thirty years ago, CardKey originated and pioneered Total Concept Access Control and today some of the world's largest industrial, educational and financial institutions wouldn't be without it. Through constant research and development, CardKey continues to meet the everchanging needs of the industry. If you want to know more about how Total Concept

Access Control can help you, call us. We'll tell you how to control who (or what) goes where and when. Instantly.



CARDKEY SYSTEMS A DIVISION OF GREER HYDRAULICS, INC. 20339 NORDHOFF STREET CHATSWORTH, CALIFORNIA 91311 (213) 882-8111/TELEX: 651-375

# AN INTELLIGENT RESPONSE TO RISING ENERGY COSTS.

Guesthouse, Dr. Louis Atkins Northern Florida



INSULATION YOU CAN SEE THROUGH, FROM LOF.

Even the most beautifully designed residence can still be economical and practical. For example, this residential guesthouse in Florida, is insulated against solar heat gain by reflective monolithic Vari-Tran<sup>®</sup> glass. As a result, Vari-Tran also reduces airconditioning operating expenses.

#### COMMERCIAL OR RESIDENTIAL

For Detroit & Northern Savings & Loan in Hancock, Michigan, Thermopane<sup>®</sup> insulating units were specified to help prevent heat loss in winter. In summer, Vari-Tran/Thermopane insulates against solar heat gain.

Computer studies show that compared to ordinary tinted glass \$47,000 was saved in initial construction costs for heating and cooling alone. Our more expensive glass also saved enough in heating and cooling operating expenses to more than offset the difference in glass cost in the first year of operation.

Intelligent? Definitely—in terms of energy savings and cost-benefit ratios. A total energy concept of design should, of course, take into account all construction materials. But you can see the potential for insulation you can see through.

One of our highly qualified architectural representatives will be happy to help you save energy dollars with the right glass. Call (419) 242-5781. Libbey-Owens-Ford Company, 811 Madison Avenue, Toledo, Ohio 43695.



60 AIA JOURNAL/SEPTEMBER 1974

S. Parker U wakes the wakes the guality hardware guality need gov need at a cost PARKEA 600 SERIES DOOR CLOSER you won't believe! No. 2640 CYLINDRICAL LOCKSET 500 SERIES PANIC EXIT DEVICE No. 1279 FULL MORTISE TEMPLATE BUTT HINGE No. 2180 SINGLE CYLINDER DEADLOCK Nos. 366 and 718 LEVER HANDLES. 18 Styles, 4 Finishes

Precision built, quality hardware had been an S. Parker hallmark for over seventy years. Volume production and sales gives you an edge on cost. Check the S. Parker line now, before you specify for your next project.



# LETTERS

Generosity to Mankind: There was a moment of true greatness during the AIA convention, whose theme was "A Humane Architecture," when architect Bernhard Winkler of West Germany, winner of the third R. S. Reynolds Memorial Award for Community Architecture, donated his portion of the prize to the poor of the world, to be distributed by the United Nations. *Robert H. Mutrux, AIA Bridgeport, Conn.* 

A Literary Threat? I truly enjoyed Dave Clarke's review of the book *Conversations with Architects* in the April issue. I actually agreed with *almost* everything he said. But, oh, the way he said it! The style was so integral with the content. Those sons of architects, Don Barthelme and Kurt Vonnegut, can eat their hearts out! John Blanton, AIA

Manhattan Beach, Calif.

All One Animal: I should like to point out two factual errors in the article in the June issue titled "Texas' Big Thicket." First, the correct designation of the area is the Big Thicket National Biological Preserve. (The word "Biological" was omitted in the article.) Second, cougars, panthers—U.S. variety—and pumas are common names for the same animal: the mountain lion (*Felis concolor*).

The article, however, is substantially correct in that the Big Thicket represents a unique biological area that should be preserved for future generations to enjoy.

Dr. Milford Fletcher National Park Service, Southwest Region Santa Fe, N.M.

In Tribute: In early June, Samuel Inmar Cooper, FAIA, of Atlanta passed away. He was one of the Institute's most distinguished members, and we are all endebted to him for his large commitment to international affairs.

In addition to his many years of service as chairman of the AIA committee on international relations, he also served as president of the Pan American Federation of Architects in the mid-60s, his leadership culminating in the FPAA-AIA congress in Washington, D.C., in 1965.

Without Samuel Cooper's commitment and conviction that the American architect has strong ties with his colleagues to the north and south in this hemisphere, FPAA would not exist as it does today as a strong, vital and inter-American professional organization. Created in the 1920s, its service to the profession of architecture in the Americas has contributed substantially toward the maintenance of a system of communication for architects. Cooper's dedication to this aspiration was immense, and his loss can only be justified by our continued support and furtherance of this aspiration. *Richard Sharpe, FAIA Second Vice President, FPAA Norwich, Conn.* 



Sept. 30-Oct. 1: Council of Educational Facility Planners International annual meeting, Marriott Motor Hotel, Atlanta. Contact: CEFPI, 29 W. Woodruff Ave., Columbus, Ohio 43210.

**Oct. 1:** Abstracts due, call for papers for the Inter-American Conference on Materials Technology to be held in Caracas, Venezuela, May 1975. Contact: David Black, Southwest Research Institute, P.O. Drawer 28510, San Antonio, Tex. 78284.

Oct. 2-3: Institute on Energy Conservation: Industrial Plants and Facilities, University of Wisconsin, Madison, Wis. Oct. 3: Seminar on Urethanes in Building and Construction, Ramada Inn, Pittsburgh International Airport, Pittsburgh. Contact: Technomic Pub. Co., 265 W. State St., Westport, Conn. 06880.

Oct. 8: Institute on Hospital-Based Medical Office Buildings, Hilton Inn, Atlanta. (Other institutes in Philadelphia, Boston, Omaha, Chicago and New Orleans.) Contact: American Hospital Association, 840 N. Lake Shore Drive, Chicago, Ill. 60611. Oct. 9-11: Central States/AIA Regional Conference, Tulsa, Okla.

**Oct. 10-11:** Symposium on Social/Environmental Problems and Directions of Change, University of Maryland, College Park, Md.

**Oct. 14-18:** Designing with Plastics Seminar, New York University, New York City.

**Oct. 15:** Requests for application forms postmarked, 1975-76 grants for graduate study or research abroad and for professional training in the creative and performing arts. Contact: Institute of International Education, 809 United Nations Plaza, New York, N.Y. 10017. **Oct. 15-17:** Producers' Council conference, Antlers Plaza Hotel, Colorado

Springs, Colo. Contact: PC, 1717 Massachusetts Ave. N.W., Washington, D.C. 20036.

**Oct. 18-19:** Recycling Old Buildings Conference, Boston Architectural Center, Boston.

**Oct. 19-22:** National Office Products Association convention and exhibit, McCormick Place, Chicago. Contact: NOPA, 1500 Wilson Blvd., Arlington, Va. 22209.

Oct. 20-23: Architecture for Health ex-

hibition, American Public Health Association annual meeting, New Orleans. Contact: APHA, 1015 18th St. N.W., Washington, D.C. 20036.

**Oct. 24-26:** Institute on Building and Landscape Design That Structures the Regional Environment for Optimum Human Performance, University of Wisconsin, Madison, Wis.

Oct. 26-31: Pacific Architectural Conference, Camino Real Hotel, Mexico City. Contact: California Council AIA, 1736 Stockton St., San Francisco, Calif. 94133. Oct. 27-30: American Institute of Planners annual conference, Denver-Hilton Hotel, Denver. Contact: AIP, 1776 Massachusetts Ave. N.W., Washington, D.C. 20036.

**Oct. 31:** Entries due, Decade '70 National Housing Awards program. Contact: Architectural Editor, Better Homes and Gardens, 1716 Locust St., Des Moines, Iowa 50336.

Nov. 2-3: Workshop in Gestalt Principles for Architects, Gestalt Institute, Cleveland. Contact: Philmore J. Hart, AIA, Gestalt Institute, 12921 Euclid Ave., Cleveland, Ohio 44112. Nov. 3: World Energy Engineering Exposition and Congress, McCormick Place, Chicago. Contact: Clapp & Poliak, 245 Park Ave., New York, N.Y. 10017. Nov. 6-8: Systems Engineering Conference, Radisson Hotel, Minneapolis. Contact: American Institute of Industrial Engineers, 25 Technology Park/Atlanta, Norcross, Ga. 30071.

Nov. 8: Postmark deadline, 1975 AIA honors program. Contact: Maria Murray, AIA Headquarters, 1735 New York Ave. N.W., Washington, D.C. 20006.



continued from page 14

### International Conference Held on Flexible Schools

AIA was represented by Mario C. Celli, FAIA, of Pittsburgh, at a seminar on flexibility in educational buildings held recently in East Berlin. Sponsored by the Society of Architects for the Democratic Republic of Germany with the aid of Unesco, the seminar was attended by 120 architects and educators from 27 nations.

The more affluent countries, reports Celli, have developed the technology and imagination to cope with and master flexibility, but the "great majority cannot afford today the longer spans, carpeting, acoustical materials, demountable partitions, hardware and mechanical systems *continued on page 66* 

# Welsbach...one of America's unbroken traditions



When charming gas lights graced our city streets last century, Welsbach was their name. Today, Welsbach is still expanding the heritage it started in 1877 . . . still designing and manufacturing America's No. 1 line of classical street light fixtures and poles. And combining them with the newest mercury vapor and sodium vapor light sources available. In Charleston, S.C., San Francisco, Philadelphia and other great American cities, streets and parks and historical restoration projects are being made brighter and safer without looking overmodernized. Because the Welsbach tradition remains unbroken. For more information, call us direct.

### Street lighting since 1877 Welsbach Lighting Products Company, Inc.

3001 E. Madison Street Baltimore, Md. 21205 (301) 276-4600



# YOU DIDN'T PLAN ON AN INERGY CRISIS, BUT NOW YOU'RE PLANNING YOUR NEXT BUILDING.

Which building material will you use?

You've got energy shortages to think about. Air-conditioning costs. Heat gain through the long, hot summers. Heat loss in the winter months. Heating equipment costs. The whole set of energy-use factors suddenly has become critically important. The building material you use affects all of them.

Compare the energy conserving capability of masonry, for instance, with double-plate glass walls.

At 4:00 P.M. on a hot August day in Washington, D.C., the heat gain through a square foot of west-facing insulated brick and concrete block wall will be 2.2 Btus an hour.

The heat gain through a doubleplate glass wall in the same location will be 173 Btus a square foot in an hour. A big difference.

Project this differential over 10,000 square feet of wall. You come up with a heat gain through masonry of 22,000 Btuh, while the heat gain through double-plate glass is 1,730,000 Btuh.

In the case of the masonry wall, cooling equipment with a two-ton capacity can handle the heat gain. But with the double-plate glass wall, about 143 tons of cooling capacity will be needed.

An analysis of a typical 10-story building shows that over its useful life, the air-conditioning cost for a square foot of our masonry wall will be about 23 cents. For the double-plate glass wall, it will be \$7.60.

It takes a lot of money to buy, install and create space for all the extra air-conditioning equipment required by the double-plate glass wall. A lot of money and a lot of energy to run that equipment.

Compare the heat loss in winter. It has a dramatic effect on energy consumption and building operation costs.

Our masonry wall, for example, has a "U-value" of .12. The doubleplate glass wall has a "U-value" of .55. (U-values are used to determine heat loss through one square foot of wall area in Btuh per degree Farenheit differential across the wall.)

This means that the masonry wall is about 450% more efficient, on the average, than the glass wall in reducing heat loss.

IMI

Over the useful life of the building, the heating cost per square foot of wall area for masonry will be about 30 cents. For double-plate glass, about \$1.38.

In a time of one energy crisis after another, masonry makes eminently good sense as a good citizen.

The masonry industry believes that the thermal insulating qualities of masonry are an important economic consideration to building designers, owners and investors, and all citizens.

Masonry walls save on airconditioning and heating costs. And just as important, they are less expensive to build. The masonry wall we've described would have a 38% lower initial cost than the doubleplate glass wall.

If you'd like to find out more, write to us and we'll send you a booklet comparing the thermal

insulating qualities of masonry walls with double-plate glass walls, metal panel walls and pre-cast concrete walls.

Please send the booklet comparing insulating qualities of masonry with other building materials.			
Name		Title	
Address			
Company		THE WAY	
City	State	Zip	

**International Masonry Institute** 

Nature of Business

AIA



823 15th Street, N.W., Washington, D.C. 20005 / (202) 783-3908

#### Survey from page 39

the "business side of architecture" make more than those who work with the design and technical aspects. The average pay for the personnel relations director increased a dramatic 25.6 percent from 1972 to '73; conversely, however, the finance and accounting director received only a 4.4 percent increase. Pay for production manager, design director, construction services coordinator and project principal increased 7.4 percent in 1973 over 1972; for other categories, the increase was 10.1 percent.

Respondents were asked to reply to a number of questions on the activities, programs and publications of the AIA. In its summary of this section of the report, Case points out that a "relatively small percentage of architects is active in national activities of the Institute, and less than half of the membership is active in chapter affairs." National participation is limited to 7.9 percent, and less than 4 percent participate in all levels of chapter, state/ regional and national affairs. Nor do architects appear to spend a great real of time on community activities. Only about 17 percent are active in community affairs, and many of these activities are directly related to the profession, such as membership on preservation committees and boards of zoning appeal. Over a third of the respondents have membership in another professional society.

Members use a variety of sources to keep informed, and among AIA sources 93.8 percent cited the AIA JOURNAL as first in order of usage. For non-AIA sources, architectural magazines rank first by 94.9 percent. Of the Institute's services to members, the professional practice documents are considered the most helpful, all other AIA activities ranking much lower in being "very helpful." The five practice aids termed "excellent" include the AIA Handbook of Professional Practice, "Practice Aids" articles in the AIA JOURNAL, Masterspec, Methods of Compensation Manual and Profit Planning Manual. Over 80 percent of the respondents suggest as "potentially very helpful" such things as a small office practice manual, a business development manual, the man hour data bank, a construction cost control system and information on energy conservation.

Case & Co. found that the "most striking finding" about AIA outputs is the "degree of unfamiliarity" with these services and programs. One-fourth of the membership is unfamiliar with over half of the AIA's programs, activities or services. "Fully half . . . are unfamiliar with over half of the specific practice aids." For example, over 45 percent do not know about such services available to all the membership as the AIA library, regional/urban design assistance teams and computerized financial management.

Over the past five years, 60.9 percent of the respondents have attended at least one national AIA convention, the predominant reasons for non-attendance for those who have attended no convention in that time being lack of time and the costs involved. For future conventions, 73.2 respondents think that more emphasis should be placed on practice programs and 75.1 percent want more of the Marketplace of New Ideas. Over 30 percent have attended continuing education laboratories, with 91 percent finding the experience "excellent" or "good." Again, lack of time and expense are given among the reasons for not attending.

Writers of the Case report found it "of interest" that one respondent said that the "image of the architect could be popularized through television. 'Doctors have Marcus Welby, M.D.; attorneys have Owen Marshall, counselor-at-law. What do we have?" "Perhaps he is consoled to a degree if he watches the fairly new TV Sunday night show called "Apple's Way," wherein hero George Apple diligently practices architecture in a small Iowa community. What's more, he's a believer in adapting old structures for modern use, having converted an old mill into his Hollywood-type home, which is lush enough to indicate that his fees are fairly substantial. For more on Apple and other fictional architects see page 40.

Mary E. Osman



# Your building won't move this much but we're not taking any chances.

That's because Elastalum expansion joint seals can expand to 9 times their original size without loss of seal. Problems usually associated with vertical shear, lateral shear and compression are eliminated because of 360° omni movement. Elastalum's monolithic seal is waterproof, dustproof, economical and easy to install. No vinyl gaskets, screws, bolts to assemble. Cuts installation time by 50%. It's shipped to your specified lengths, completely assembled.

Available in three permanent colors. Test for yourself. Write for free sample (and literature).



CONSTRUCTION SPECIALTIES, INC. P.O. Box 380, Muncy, Pa. 17756/(717) 546-5941 725 Twin Oaks Valley Rd., San Marcos, Ca. 92069

#### Going On from page 62

that we associate with flexibility. The notable exceptions are Switzerland and Sweden.

Celli describes the schools being built in Eastern Europe especially as being of "prefabricated sections—mostly precast concrete—with double-loaded corridors and small rooms." Representatives from these countries "pointed out the nonuse of technical machines already installed and the unfortunate fact that teachers have not been trained to use the new shaped spaces nor educated to new concepts."

A highlight of the seminar was a paper by El Jack Kamal of Senegal, which was illustrated with slides of native schools. Most of them, says Celli, were "four wood posts supporting a palm frond roof," with no walls or floors, or even a blackboard. Others were a "single post supporting handsome cantilevered outriggers with a hipped palm roof."

Then Kamal showed slides of a \$10million gift to his country-a secondary and teacher preparatory school. The fourstory stone and concrete structure has four-foot high windows at each floor and a rectangular flat roof. Its designer, Celli surmises, "probably never visited the country and certainly was not sensitive to the regional architecture." Kamal pointed out the "ghastly inconsistency-that teachers left this \$10-million gift to teach in palm frond huts." Then he showed slides of what Celli termed "really excellent schools" by native architects in the native tradition to indicate what could have been done with the gift money.

### Federal Building Made Test of Noise Standards

Noise pollution control standards developed during the construction of the U.S. Courthouse and Federal Office Building in Philadelphia are expected to have wide impact on federal construction sites across the country. In their bids, contractors were required to consider noise abatement techniques and to use sophisticated instrumentation to measure and record noise levels on the job site at specified intervals. They were also encouraged to suggest new construction procedures to reduce noise pollution. The data obtained will be used in the development of standards for the construction of federal projects in urban areas.

The 23-story, \$70-million project is the design of J. Roy Carroll Jr. & Partners; Bartley, Long, Mirenda & Reynolds; and Bellante, Clauss, Miller & Nolan, all of Philadelphia and operating jointly as Federal Courts Architects & Engineers.

In a proposal to General Services Administration officials, project coordinator Ralph J. Reynolds, AIA, said, "The time 66 AIA JOURNAL/SEPTEMBER 1974 has come for effective action to be taken to combat noise pollution, against which most of us are virtually defenseless." He points out that authorities have found that "long-term exposure to excessive noise can result in a substantial increase in physical fatigue, in levels of nervous tension, in our ability to concentrate and, in the extreme, to varying degrees of nerve deafness." When the "discordant, often unnerving sounds of construction" are added to the "already jarring sounds of traffic," the results are much more than an annoyance.

The courthouse building, which will open for occupancy in February, is said to be the first federal project to limit allowable externally perceived noise levels generated by the building's own mechanical system and the first to meet new Occupational Safety and Health Administration noise level guidelines and to require careful balancing of all rotating mechanical equipment by electronic instrument checkout.

### Generating Electricity From the Ocean's Energy

Ocean and energy experts are trying to find ways to generate electricity from ocean energy by using temperature differences within the ocean. Under a grant from the National Science Foundation, a team headed by TRW Inc., of Redondo Beach, Calif., is joined with Global Marine Inc., of Los Angeles, and United Engineers & Constructors Inc., of Philadelphia, in studying a number of design proposals that would involve the possibility of 100- to 500-megawatt power generating plants operating from floating ocean platforms.

Project manager Bob Douglass explains that ocean temperatures can drop to near freezing only a few hundred feet from the warm surface, this temperature difference being the key element in powering a floating generator. The warmer water, a heat source, would "vaporize a refrigerant gas, such as Freon, to drive a turbine-generator. Colder water would be pumped upward to cool the gas again and start the cycle over." He says that a 100-megawatt generating system might be supported by an ocean platform about 300 feet in diameter.

Several design proposals will be investigated before NSF approves construction of a pilot facility. Douglass is optimistic and says that a "pilot plant to prove the concept could be operating in the early 1980s." Under the initial nine-month grant, the team will "review existing concepts for ocean thermal power systems, develop the best possible baseline design and propose a test program for critical components."

### Funds Sought for Restoration of Wright Buildings in Oak Park

The Frank Lloyd Wright home and studio on the corner of Forest and Chicago Avenues in Oak Park, Ill., has been purchased and will be restored by the Oak Park Development Corporation and a newly formed citizens' organization, the Frank Lloyd Wright Home and Studio Foundation. Wright designed the house in 1889 when he was a 20-year-old architect, and he and his family lived there for nearly 20 years. He added the studio in 1895. Paul E. Sprague, an authority on Wright and director of the Illinois Historic Buildings Survey, says that it is "unlikely that there exists in America a more hallowed shrine to the art of architecture" than this home and studio of Wright.

The home and studio were bought from its former owner for \$168,000 with a temporary loan from Avenue State Bank, and other local banks have indicated that they will participate in permanent financing. Richard Mehring of the Department of Interior's office of archeology and historic preservation says that this "show of faith" by the financial and general community of Oak Park is "very encouraging and unusual in the sense that it's 100 percent funding."

Title to the property is held by Avenue Bank in trust for OPDC, which will soon assign its beneficial interest to the foundation. Restoration and preservation will be undertaken by the foundation. Wright's eldest son, architect Lloyd Wright, who was born in the home, will assist in the restoration. The foundation will appoint an architectural advisory committee, composed of architects interested in Wright and his work, to advise on such matters as priorities and techniques in restoration.

Funds to repay the bank loans are being sought from individuals, government agencies and organizations. The home and studio will continue to be open to the public, and it is anticipated that admission fees will produce income to help pay for restoration and maintenance.

Wright began work on the house at the time of his marriage to Catherine Tobin, and he built it with a \$5,000 loan from Adler & Sullivan, the Chicago architectural firm for which he worked. Wright stylistically updated the house and studio to reflect his current architectural thought, this evolution being reflected in the leaded glass windows, fireplaces, roofs and details of finish and materials. Even before the studio was built, Wright used the home as a place where he designed some of his first houses.

William B. Dring, AIA, who is vice president of the foundation, says that do-

# How can electrical contractors help with change orders?

#### NECA study reveals opinions of design professionals.

To determine how electrical contractors are viewed by construction industry decision makers, the National Electrical Contractors Association (NECA) recently completed an industry-wide survey.

Regarding change orders . . . most participants viewed electrical contractors as valuable project consultants. Before change orders are issued, professional electrical contractors can be counted on for reliable information to aid in decision making. Not only concerning costs and potential schedule delays. But also all the electrical installation factors affected by the impact of change orders.

As members of the building team, professional electrical contractors also have the specialized manpower, equipment, and tools to insure overall on-site proficiency. Their knowledge of change order efficiencies can help save time, money and future operating costs. For more information, mail this coupon today.

STOUTIS ILICIAIC	
2 57320	2
A - QUALIFIED	۱
E NECA	0
12	1

National Electrical Contractors Association, Inc. Dept. I-09, 7315 Wisconsin Ave. Washington, D.C. 20014

If electricity makes it possible, electrical contractors make it practical. Please send a free copy of the NECA Change Order Handbook, with helpful hints on handling change order situations.

Name	Title			
Firm				
Address			-	
City	State	Zip		



There are a few things you need to know about laundry systems. But only a few. The rest is up to us. And that's why we have a full-time planning staff to assist you.

We'll help you with cost analyses. With production analyses. With staffing analyses. We'll even help you lay out an entire laundry system. At no charge, of course.

What you need to know is that in most cases, an in-house laundry system can save your clients a lot of money. That it pays to put in the very best from the start. And most of all, you need to know about MILNOR.

To find out how MILNOR can help you, fill out the reader service card in this magazine and we'll send you a set of planning questionnaires.



### PELLERIN MILNOR CORPORATION

P.O. Box 398, Kenner, La. 70062 (a suburb of New Orleans) 504/729-7381 Sold and serviced by independent dealers the world over Engineering Excellence in Laundry Equipment nations toward the restoration may be forwarded to the Frank Lloyd Wright Home and Studio Foundation, P.O. Box 1889, Oak Park, Ill. 60301.

In another effort to restore and maintain a Wright building, the Edgar J. Kaufmann Charitable Foundation of Pittsburgh has offered a matching grant of \$250,000 to provide endowment funds for Unity Temple in Oak Park. The offer is contingent upon the ability of the Unity Temple Restoration Foundation to raise matching money over a three-year period. John J. Michiels, AIA, Oak Park architect, who is president of the foundation, says that over the past five years \$230,000 has been raised and spent on the restoration of the exterior and that \$350,000 will be required to complete the interior's restoration. The Kaufmann Foundation has contributed \$115,000 to the restoration work, and "hundreds of individuals have come forward to meet the total bill." The endowment fund will insure the interior's restoration and maintainence "for generations to come." The Unity Temple Restoration Foundation is located at 130 S. Oak Park Ave. (c/o Poplett & Thomson), Oak Park, Ill. 60302.

### Home Builders See New Market in Small Offices

The National Association of Home Builders recently sponsored a three-day seminar in Los Angeles on the subject of the development of small office buildings. A major theme was that "builders can effectively counter the cyclical nature of homebuilding by diversifying into small office building development," particularly in suburban and rural areas.

Donald E. Cunningham, president of a land use consulting firm in Los Angeles, said, "More and more communities, who heretofore resisted development because it absorbed their open space, are now realizing that open space doesn't meet the needs of its tax base. This is opening the door to commercial development."

The homebuilders were cautioned to do their "homework" before tackling office buildings, and Robert J. Siegel, president of his own firm in New Orleans, called for market research, saying that builders can expect to spend about \$4,000 for a good market study. He urged an "in-depth feel" for the office building demand in a community before proceeding. "If it's a new market for you, start with a 30,000 square foot building and go from there."

### **Architectural Detente**

Detente between this country and the Soviet Union has been furthered by the approval of an agreement for the construction of an American chancellory in Moscow. There have been several years of delay, and as recently as May the Russions rejected preliminary design plans. They have now reversed themselves, and a decision has been made to go ahead with a joint venture design of the San Francisco office of Skidmore, Owings & Merrill and the New York City firm of Gruzen & Partners.

The Russians themselves have submitted preliminary plans to the National Capital Planning Commission in Washington, D.C., for a Soviet embassy. The Washington office of John Carl Warnecke & Associates is consulting with the Soviets on the embassy design and construction. The complex, which will include a residence, office building, apartments, school and recreation facilities, will be sited on Wisconsin Avenue on 13 acres near Georgetown.

### **Fellows Choose Officers**

A highlight of every AIA convention is the investiture of new members into the College of Fellows, and this year was no exception. On May 20, there were 73 new fellowships awarded to AIA members, who were selected for this high honor because of notable contributions to the advancement of the profession (*see* Apr., p. 8). The convocation dinner in honor of the new fellows had a record attendance of 550 fellows, their spouses and guests. During a business session of the College of Fellows, the following officers were elected: Robert S. Hutchins, New York City, chancellor; William J. Bachman, Hammond, Ind., vice chancellor; Philip J. Meathe, Detroit, secretary; and Sam T. Hurst, Los Angeles, bursar.

### Deaths

Alvin L. Aubinoe, Bethesda, Md.
William F. Bowen, Lafayette, La.
James R. Brust, Claymont, Del.
William H. Deitrick, FAIA, Raleigh, N.C.
Anton G. Dohmen, Birmingham, Mich.
Charles D. Gardner, Vincennes, Ind.
David A. Hart, Dayton, Ohio
Hans C. Hulbe, Portland, Ore.
G. Burleigh Krona, Tacoma, Wash.
Armand J. Laudadio, North Brunswick, N.J.

James M. Murray III, Hobbs, N.M. Edwin F. Noth, Highland Park, Mich. Donald M. Robertson, Lawrence, Kans. Rhodes Robertson, La Jolla, Calif. Hiram A. Salisbury, Medford, Ore. David Sholder, Phoenix, Ariz. Jack Bass Smith, FAIA, Virginia Beach, Va

Johnston P. Stemplowsky, Birmingham, Mich.

Carl E. Swanson, Moline, Ill. Robert C. Weinberg, FAIA, New York City

George O. Wilkinson, Philadelphia

# Newslines

Larry Dean, AIA, who is a vice president in the Atlanta-based firm of Heery & Heery, has been elected president of the Construction Specifications Institute.

Walter Hoving, chairman of the board of New York City's Tiffany & Co., was presented the first Dow Jones award by the American Assembly of Collegiate Schools of Business. Hoving has established a number of awards to encourage original design and set up a lecture series at the Wharton School to "expose students to the importance, role and application of esthetics and design to the many facets of business management."

"New Life-Cycle Construction Costing" is the title of a recently published pamphlet that evaluates how initial costs can be related to lifetime efficiency and energy savings. A copy may be obtained without charge from Stran-Steel Corp., Department LC-474, P.O. Box 14205, Houston, Tex. 77021.

Rotch Travelling Scholarships for 1974 have been awarded to Nelson Scott Smith, who is associated with the Cambridge, Mass., firm of Hugh Stubbins & Associates, and to Craig E. Rafferty, who works with the St. Paul, Minn., firm of Rafferty, *continued on page 71* 



Circle 22 on information card

AIA JOURNAL/SEPTEMBER 1974 69

#### Savannah from page 33

fell through her kitchen floor, her legs poking out of the ceiling below as though the hungry old house had swallowed her, we were very discouraged. We worried about Troup Square, our "green space," really a gray, sandy square relieved only by the great oak trees and used as a school playground, surrounded by a chainlink fence.

We optimistically planted azaleas, grass and a redbud tree in the space between our brick sidewalk and the curbing, and dragged a garden hose through the house from the back yard to water them, but elsewhere on the block the earth was packed. I saw the same hard eyes and pinched slum faces I remembered from my childhood. I wonder where the children have gone.

Today, that street seems like a movie setting to me. There are green strips where the packed black earth was. The missing bricks in the facades have been replaced. The awful slum row across the street, where our neighbor fell through the floor, is one of Savannah's swankiest addresses, its stucco fronts pointed up to look like stonework, neat little gardens at front and rear doors. Our green space at the corner is really green, and Troup Square is one of the showpieces of Savannah. It is centered by a beautiful and enormous brass armillary sphere, a gift to the city from banker Mills Lane, himself an active preservationist.

How could all of that happen? Anna Hunter's Historic Savannah provided the impetus. Our willingness and that of a few friends to move into a blighted area and do over houses helped, of course, and gave courage to others. A fortunate coming together of funds helped, too. Most of all, it was recognition by Savannahians that their city is beautiful and liveable.

A revolving fund was established by Historic Savannah Foundation, Inc., and was supplemented by a line of credit extended jointly by Savannah's commercial banks. With this money, endangered houses were purchased and held until interested buyers could be found. If interested buyers were not immediately available, foundation members were prepared to bone up on the historic and architectural aspects of the house, to sing of the beauties of the nearby square, the friendliness and convenience of the neighborhood, and even to twist arms, until a formerly disinterested person found himself, perhaps a little bewildered, holding a new mortgage under a leaky roof. Longterm covenants were put in the deeds for all the buildings that Historic Savannah bought and sold, ensuring they would not be demolished and would be properly maintained.

The U.S. Department of Housing and Urban Development allowed some funds in response to local pleas for rehabilita-70 AIA JOURNAL/SEPTEMBER 1974



tion rather than the then-standard clearing and rebuilding. The Troup Square area, shortly after I left Savannah to become assistant city manager in Alexandria, Va., was made a demonstration conservation and rehabilitation area. The effect of this was to assist the city in putting in public improvements, such as sewers and streetlights, and in redoing the square, and to assist homeowners in rehabilitation of their buildings through moderate-interest, long-term loans.

When I came back to Savannah (addict that I am) several years later as city manager, I stimulated city officials to undertake several new and very extensive urban renewal projects in the historic area, building into the plans safeguards to ensure that their historic character would be secure.

The historic preservation plan for these urban renewal projects developed a series of criteria to maintain the integrity of the historic city. The criteria document, prepared by Eric Hill & Associates, planning consultants, with the help of Paul Muldauer, AIA, has become a classic in urban affairs.

HUD also made extensive grants to the city while I was manager for the rehabilitation of the city's parks and open spaces for those parts of the city not covered by the urban renewal projects, in further recognition of the importance of Savannah's unique system of parks and squares.

Throughout these federally assisted programs, Historic Savannah Foundation, Inc., provided expertise, consultation and advice as plans were being developed. There existed a natural close working partnership between them and me.

Just outside of our vast new urban renewal areas is a marvelous old brick railroad terminal, the land for which had been dedicated in the 1840s to the Central Railroad for as long as the railroad provided scheduled passenger service from Savannah. With the coming of Amtrak, the Central discontinued its last passenger train. My godfather, Walter Hartridge, reminded me from his vast store of documents and information of the condition of the grant to the railroad. After some further research by the city attorney, the mayor and aldermen took formal note of the 125-year-old provision. Now the land has reverted to the city and the passenger terminal building is being restored to serve as a visitor center.

A few blocks away, and just outside the urban renewal area, is the Scarborough House, the most splendid of William Jay's accomplishments in Savannah. The house faces the broad avenue that is the western boundary of the old city. Today, the area and the house have deteriorated sadly. But the trees are still lovely and the avenue is still broad. Behind the grime and through the gaping railings can be seen the intimation of beauty that is being restored. The Scarborough House, when restoration is complete, will be used as Historic Savannah Foundation's headquarters.

The waterfront, where Anna Hunter was once the only nonmaritime resident, is today the liveliest part of town, bustling with crowds in its shops, restaurants and nightclubs day and night. I wonder if she sometimes wishes she had stayed out of preservation efforts when she is rewarded with the noise of Dixieland or rock bands in the middle of the night.

Shortly before I resigned as city manager of Savannah, in 1971, my cousin, Eudora DeRenne (Mrs. Wainwright Ripley) Roebling gave me for the City of Savannah a large, cast-iron fountain as a memorial to her parents, who had loved the city so much and at whose long-ago soirees preservation was talked about. The fountain had been in the garden at Wormsloe, where I remember seeing it as a child.

Now the fountain forms the focus of Columbia Square, gracing it in perfect scale and proportion.

An idea's time has come.  $\Box$ 

Newslines from page 69 Rafferty, Mikutowski & Associates. Deadline for information about the 1975 scholarships is Mar. 6, 1975. Details may be obtained from Hugh Stubbins, FAIA, 1033 Massachusetts Ave., Cambridge, Mass. 02138.

**Portland Cement Association** has made available more than 200 sets of slides on construction-related topics. For the first time, the slides may be obtained at nominal cost by colleges and schools, government agencies and the general public. The "PCA Slide Set Catalog" (MS263G) may be obtained free from PCA, Order Processing Department, Skokie, Ill. 60076.

**Richard N. Wright**, formerly professor of civil engineering at the University of Illinois, Urbana-Champaign, has been named director of the National Bureau of Standards' Center for Building Technology, the nation's most comprehensive building research laboratory.

The "Architects in Government Roster" is now available in a second edition from the AIA's publications marketing department, 1735 New York Ave. N.W., Washington, D.C. 20006. The document lists in alphabetical order by states over 1,400 architects employed by federal, state and local governments. The cost to AIA members is \$2.40 and \$3 to nonmembers. **Charles E. McGuire, AIA,** director of the specifications department of James Associates in Indianapolis, was presented the Ben John Small Memorial Award by the Construction Specifications Institute at its 1974 convention. The award is given to a CSI member "who has attained special proficiency and outstanding stature as a practicing specifications writer."

**The job outlook for architects** is "favorable," says the Department of Labor's Bureau of Labor Statistics in its recent publication *Occupational Outlook Handbook*. Most rapid growth will probably be in urban redevelopment and environmental design and planning.

**"The Federal Client,"** a 36-page directory prepared by the American Consulting Engineers Council, lists names, addresses and telephone numbers of national, regional and state administrators of more than 25 federal agencies which use design professionals. The publication (No. 46) is available for \$2 from ACEC, 1155 15th St. N.W., Washington, D.C. 20005.

**Hubert B. Owens**, dean emeritus of the University of Georgia's school of environmental design, has been installed as president of the International Federation of Landscape Architects, which includes 25 associations of landscape architects with 4,000 members in 34 countries. American plywood manufacturers will soon begin operating under the new U.S. Product Standard PS 1-74. There are a number of changes of concern to specifiers that affect grading, species of wood and synthetic patches. Three publications by the American Plywood Association include the latest requirements: "Commercial and Industrial Construction Systems (Y300)," "Residential Construction Guide (Y405)" and "Plywood Specification Guide (R820)." They are free from APA, 1119 A St., Tacoma, Wash. 98401.

Joseph G. Sprague has been appointed director of the American Hospital Association's division of design and construction. He holds a bachelor of architecture degree from Auburn University and a master's degree in architecture from Texas A&M. Formerly, he was assistant professor of architecture and planning in Texas A&M's college of architecture and environmental planning.

Architectural License Seminars, an organization that provides study aids for architectural license examinations, will hold one-day crash seminars in November in Atlanta, Houston, Los Angeles and New York City. ALS also has developed four new home-study courses directly related to the new professional exam. For further information, write to ALS, P.O. Box 64188, Los Angeles, Calif. 90064.







### Outstanding design and execution

DISTINCTIVE STYLE . . . it takes a distinguished method to produce it most effectively. That implies MFG Concrete Forms — the re-usable waffle-slab forms with strength, smoothness, light weight, and other advantages you will appreciate. We'll be glad to supply details. Ask us.

MFG CONCRETE FORMS CO. Box 675AA • Ashtabula, Ohio 44004 216/998-1241



AIA JOURNAL/SEPTEMBER 1974 71

Michael J. Hanley Publisher Michael M. Wood Sales Manager Tom Crow National Accounts Manager George L. Dant Manager, Production and Business 1735 New York Ave. N.W. Washington, D. C. 20006 (202) 785-7300

#### **ADVERTISING SALES OFFICES**

Chicago (312) 251-4960 John Bradbury Central Sales Manager 2206 Elmwood Wilmette, Ill. 60091

New York (201) 729-9331 Tom Crow 79 Hilltop Trail Sparta, N.J. 07871

Washington, D.C. (202) 785-7271 Michael M. Wood 1735 New York Ave. N.W. Washington, D.C. 20006

West Coast Representative (213) 459-3278 Genia Logan 615 Kingman Ave. Santa Monica, Calif. 90402

American Standard 13
Foote, Cone & Belding
Bruning Div. Addressograph
Multigraph Corp 17
Campbell-Mithun, Inc.
Cardkey Systems 59
Ralph Lacher & Associates
Carpenter, L. E. & Co., Inc 9
Harold Marshall Advertising Co., Inc.
Ceco Corporation 57
Fensholt Advertising, Inc.
Collins & Aikman Corp 55
Needham, Harper & Steers, Inc.
Construction Specialties 65
Keyes, Martin & Company
Elkay Manufacturing Co 11
The Biddle Advertising Co.
Fixtures Manufacturing Co 56
Scher & Jones, Inc.
Georgia Marble Company 15
Lowe & Stevens, Inc.
Haws Drinking Faucet Co Cov. 3
Pacific Advertising Staff (PAS)
International Masonry Institute 64
Henry J. Kaufman & Associates, Inc.
LCN Closers 12
Alex T. Franz, Inc.
Libbey-Owens-Ford Company 60
Campbell-Ewald Company
Marlite Div. of Masonite
Corp Cov. 2-pg. 1
Howard Swink Advertising
MFG Concrete Forms Co 71
Watts, Lamb, Kenyon & Herrick, Inc.
National Concrete Masonry
Association Cov. 4
The Harpham Company Advertising
National Electrical Contractors
Assoc. (NECA)
VanSant Dugdale
Palmer Fixture Company 69
Le Sac Advertising
Le suc Auvernising

Parker Hardware Mfg. Co 61	1
Michael W. Scoen Co.	
Pellerin Milnor Corp 68	8
Halsey, Stakelum & Brown, Inc.	
PPG Industries 5-6-7-8	8
Ketchum, McLeod & Grove, Inc.	
Pyrotronics, Inc 10	5
Keyes, Martin & Company	
Red Cedar Shingle & Handsplit	
Shake Bureau	2
Ayer/Baker Advertising	
Scharf, Edward Galura & Sons 18	8
Sherm-Ad Agency	
Wellco Carpet 7	1
Hogan-Rose & Co., Inc.	
Welsbach Lighting Products 63	3
Robert K. Skacel Advertising	

Acknowledgements: 14, courtesy, Bethlehem Steel, Inc.; 19, William L. Slayton (WLS); 20, Walter Wagner (WW); 21, top left WLS, top right, center right, bottom left WW, bottom right William Marshall Jr. (WM); 22, WW; 23 top & center WLS, bottom WW; 24 left & bottom right WLS, top right WW; 25, top left, top right, center right WM, bottom left & bottom right WLS; 26, left & top right WW, bottom right WLS; 26, left & top right WW, bottom WLS; 28, left Joseph W. Molitor; 29-33, 70, photos courtesy Historic Savannah Foundation, Inc., Georgia Historical Commission and the Savannah Area Chamber of Commerce; 35, Roscoe Laing; 36 bottom & 37, Edmund Y. Lee; 51, top Randolph Langenbach, bottom Paul Conklin; 54, WAStorrer. The JOURNAL is grateful to Mr. Wagner, editor of *Architectural Record* and a participant in the China tour, for generously sharing his photographs.

This popular Haws thirst-appeaser adds to your project appeal... gives a refreshing drink of water when it's most appreciated. It adds to the eye-appeal of your project. Rugged Haws pedestal concrete fountains come in beautiful natural stone colors in either light sandblast or exposed aggregate finish. And, they're equipped with all of the latest Haws vandal-resistant features. **They're built to last... designed to please!** Write: HAWS DRINKING FAUCET CO., 1441 Fourth St., Berkeley, Ca 94710.



# Thirsty-People Pleasers...

**Model 3120** with an exposed aggregate finish. Square or circular models in 30", 36" or 42" heights; freeze-proof models available.

Circle 25 on information card

### Select your own design, color and texture from the new faces of Customized Concrete Masonry **Marketing Department**

Now your wall designs can be as personal as your own signature with customized concrete masonry. You can select the face, the texture and the color you want. You can even design your own units-limited only by the manufacturing capabilities of the block making machine.

And these new architectural finishes are locally available. Contact your nearest NCMA member block producer for details or mail the coupon at right.



National Concrete Masonry Association P.O. Box 9185, Rosslyn Station, Arlington, Virginia 22

Send me further information on customized com masonry and the name of my nearest NCMA me Send me details and entry forms for the Customized Concrete Masonry Design Contest.

(title)

(zip)

Circle 26 on informati

(state)

(name) (firm name) (address)

(city)

Customized Concrete Masonry Design Contest. \$1500 Grand Prize. Get details by mailing coup