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100 New life for a dead letter office

Rescued from the threat of demolition, Pittsburgh's Old North Side Post Office is now a museum of city and county history; author: Walter Kidney

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Cover: On a Beaux-arts building in downtown St. Louis, florid plaster figures support a Moderne light cornice while seeming to pay homage to an air conditioner; David Morton photo.

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Letters from readers

Views

Canada controversy

Before any of your many talented readers of the September issue about glorious Canada get the idea that all is perfect and unspoiled here, please read my notes on the real everyday life. I'm a New Jersey transplant living in Toronto for the past three years. Next month I'm leaving for the U.S.A., and the old country never looked so good.

If the reader decides that Canada is the place for him, bring plenty of long underwear, chains, ropes and snow tires. Winter starts in late October and ends in the beginning of April. Consider also the career side of the picture. The few good buildings here don't make up for the destruction wrought upon Toronto itself and on the suburbs. Did you know that over half the total population of greater Toronto lives in



apartments, mostly hi-rise? Most of the single unit housing in the metropolitan area makes Levittown look like a baronial estate. Due to sky rocketing land prices, many families are forced to buy duplextype houses, separated from the next family by a cinder block wall and a bit of plaster. Some of these homes are just a few yards from a busy road and roads into the city from these "estates" are too small, badly planned or nonexistent. Public transportation is a bad gamble on a busy morning. Is this all beginning to sound familiar? No, I am writing about Metro Toronto, Ontario, not the U.S.

Graduates with legitimate diplomas and credentials can start to work for as low as \$90 a week. If after four hard years they work up to \$200 a week, they still can't expect to be paid overtime for the extra hours put in. Inflation is running away with the Canadian dollar as well. There are no wage or price restrictions. Cars, same as U.S. models, cost \$400 more, clothes 30 percent more, televisions twice as much and food prices are just spiraling away!

The people here, though poorer than we, do want many of the same things Americans want. They have many of the same problems and will encounter new ones. In our constant American quest for heroes, let's not look to the North; let's look to our own backyards, cities and suburbs. If we work hard enough and well enough we can still create our own better tomorrow.

Kristina DeBaylo Don Mills, Ontario

We finally did it! Canada broke into the columns and made its stage debut. We extend our appreciation to you. However, after reading the articles devoted to Canadian architecture, I feel that a few comments are in order.

As for statements such as our cars and gas stations looking like YOURS, Canadians speaking YOUR language (p. 92), certainly we are influenced by the U.S.A. Your imperialistic habits assure that.

Harsh criticism of our mountains, prairies and cities as written is well warranted. We have seen what has happened to many American cities, and we trust that we will not repeat the same total error. *Carol Jaye Rowan Vancouver, B.C.*

Making cities smaller

Are cities an anachronism and is mankind merely flogging a dead horse by perpetu-[continued on page 10]

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Views continued from page 6

ating their existence or planning to build larger and more densely populated metropolises in the future?

Although as architects our very existence stands to be improved by producing building designs to be erected anywhere and everywhere, it is with considerable apprehension one views the increased massing, in large clusters, which now constitutes not only the core of but also the fringes of every burgeoning urban area. These fears arise from reflecting upon the fates which overtook many cities and city states that have flourished and then passed into oblivion since the dawn of recorded history. However, people continue to abandon permanent places of residence in the wide open spaces.

It is interesting to note that over a decade ago a study was made by planners and demographers at one of New England's most renowned universities concerning cities. A figure of 300,000 people was reached as the maximum number that could be efficiently accommodated, all

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ATLAS MINERALS & CHEMICALS DIVISION ESB INCORPORATED Mertztown, Pennsylvania 19539 (215) 682-7171 things considered, in a concentrated and populated area. Unfortunately, those in authority seem to have chosen to ignore the results of this research.

Crime, ghettos, racial strife, drug abuse, overcrowding and pollution are just a few of the many obstacles to decent living which we continue to encounter—with the promise of even more to come. As we are admonished that our world is overpopulating to the danger point, paradoxically we are informed that agricultural engineers have succeeded in the irrigation of desert country in the western United States, the Mid-East and Australia. In a matter of a few years these areas will become food producing fields and pastures.

If this is the case, perhaps the threat of over-population must be viewed as a city problem rather than a world problem. A combined research and operational program is needed whereby the population mass could be directed away from, rather than concentrating it into ever enlarging metropolitan centers. Some method must be found so that the economic, sociological and cultural advantages of cities could be realized in small but industrially energetic communities.

As matters now appear, advantages and profits are to be realized in the cities, but they seem to be restricted to speculators, real estate corporations, land developers, builders, financiers and the very affluent. The remainder of the urban populations, due to spiraling prices and inflation, are compelled to lead progressively more marginal forms of existence.

Let us hope that any future buildings which are to be designed by our profession will impress posterity by being monuments to a generation's artistic, scientific and technological prowess and not merely tombstones in metropolitan ruins. *Creighton Aquin, MRAIC–NCARB Montreal*



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Progressive Architecture

News report

P/A names advisory panel

This month brings the first meeting of the newly organized P/A Panel, an eight-member advisory board set up to provide a way to check the magazine's editorial course against the changing interests of the architectural profession. The interdisciplinary panel is not just a list of impressive names for the masthead; it is to be a working panel, meeting yearly with P/A's editors for wide-ranging and free-wheeling discussion which will help P/A better serve its readers.

The first P/A Panel includes: William Bagnall, dean, School of the Boston Museum of Fine Arts and principal, Bill Bagnall Associates; Michael Brill, president, Buffalo Organization for Social and Technological Innovation, Inc. and professor, State University of New York at Buffalo; David Crane, dean, School of Architecture, Rice University and partner, David A. Crane & Partners; Craig Hodgetts, partner, Works (West) and faculty member, Department of Architecture and Urban Planning, University of California, Los Angeles; Theodore Liebman, chief of architecture, New York State Urban Development Corp., Walter Netsch, design partner, Skidmore, Owings & Merrill, Chicago; Joseph Newman, vice president, Tishman Research Corp. and Tishman Realty Corp.; Herman Spiegel, dean, School of Architecutre, Yale University. Members will be replaced on a rotation basis, so that each one will serve a maximum of two consecutive years.

Fort Worth's Kimbell: art housing art

It took a full week of parties to celebrate the opening of Louis Kahn's Kimbell Art Museum in Fort Worth, Tex. last month. Reactions of guests ranged from "superb" to "superlative." The only complaints heard were from those who would have to come back another time to view the collection because the building itself demanded so much first-night attention.

The building is essentially a series of cycloid post-tensioned concrete vaults; 16 vaults, 24' x 104', are separated by 10-ft-wide flat slabs. Each vault bears on four columns at each end, leaving gallery spaces unobstructed. It is impossible for a visitor not to "read" the building. Structural concrete is exposed while all nonbearing walls are travertine. Movable partitions are covered with white oak (matching the gallery floors), cork or fabric.

Natural lighting throughout is the unique feature of the museum. The cycloids, in addition to strip windows at ends and bottoms, carry 3-ft-wide skylights along their lengths, protected below by continuous, inverted gull wing-shaped aluminum reflectors. These are pierced by millions of tiny holes, each calculated to let light through but trap any direct sunlight. Basic mechanical and electrical distribution is via stainless steel channels directly below the 10-ft flat slabs.

In addition to galleries, the \$6.5 million structure contains a reception area, a 180-seat auditorium, a major art research library, bookshop, a conservation laboratory, photography studio and office, storage and maintenance facilities. All me-[continued on page 29]



Kimbell Art Museum: "definitive, excellent"



2

Buildings on the way up



1 Two unequally sized loft office spaces and a central service core make up the Federal Aviation Administration's Northwest Regional Headquarters at Boeing Field near Seattle. The building, depressed 5 ft below grade and surrounded by an earth berm, consists of two floors and a partial third floor, set back because of visibility requirements for the airport's main runway. Structure is pre-cast concrete. Mel Streeter AIA & Associates are architects; engineers are Kelley, Pittelko, Fritz & Forssen (s); Benjamin S. Notkin & Associates (m) and Sparling & Associates, (e).

2 Two sky lighted courtyards, one formal, the other a market center, connected by arcades lined with shops are the key features of Circle Court Shopping Center, being built on urban renewal land near the Chicago Circle Campus of the University of Illinois. Each courtyard will have a ramp system connecting the four shopping levels and roof parking. Completely air conditioned, the center will include a bank and offices, supermarkets and shops; service areas will be screened by brick walls and main entrances marked with plants and graphics. Metz Train Olson & Youngren, Inc. are architects for \$5 million project; engineers are C.A. Metz Engineers, Inc. (s) and Environmental Systems Design, Inc. (m).

3 A new civic office tower is linked with the existing office building by a public concourse to form a civic plaza for the Santa Clara (Calif.) County Government. The concourse includes a visitor reception center, new judicial chambers, a board room and a meeting hall. An elevated pedestrian bridge links the plaza with nearby parking structure. The tower provides 11 stories of office landscaped office space; The judicial chambers include a 252-set assembly area along with supporting facilities. Exterior of the tower is weathering steel and reflective and clear glass; frame is steel. Architects are the Los Angeles office of Caudill Rowlett Scott and Albert A. Hoover & Associates.

4 Band shell proposed for Chicago's Grant Park will occupy a lakefront site now used for parking. The parabolically arched space frame will be covered with transparent glazing and act as an acoustical shell as well as a shelter providing seats for 3000 people under cover; 5000 more people could be seated on the earth berm beyond the covered seating area. Beneath the park, which will surround the band shell, will be a two-level parking garage for 3700 cars. C.F. Murphy Associates are architects.

5 Recycling old buildings in Brooklyn's Bedford-Stuyvesant neighborhood will provide a block-long complex for shopping, community services and recreation. The project is organized as three interconnected yet different squares; the first provides a supermarket, drug store and a medical clinic; the second, a skating rink that can double as an amphitheater. The third is an existing court in an old industrial building which will be turned into an entertainment center, complete with three movie theaters and a restaurant. Upstairs will be crafts workshops and a film studio. Arthur Cotton Moore Associates are architects.

6 Walden School alumnus Edgar Tafel designed the \$2.5 million addition to the New York City private school's 70-year-old Renaissance building. The four-story annex will include a gymnasium, auditorium, kindergarten and laboratories and allow the school enrollment to grow from 400 to 650. The stucco and brick exterior will blend with the old building.

7 About 80 percent of the 212,065-sq-ft building designed for the College of Architecture and Design at the University of Michigan, Ann Arbor, will be used as studios and workshops for students in art architecture and urban planning. Designed by Swanson Associates, the \$8.5 million building will have an exterior of brick and steel panels; glazing will be bronze glass and studio areas will be sky lighted. The building will consist of three 2-story rectangular sections; between two of them will be an open courtyard for display of sculpture and architectural models.

8 New home for the National Association of Home Builders was designed by Vincent G. Kling & Partners for an odd-shaped site in Washington, D.C. Trapezoidal building will take up less than half the site; the rest will be landscaped with trees, plazas, pools and a fountain and waterfall. The building itself will have long glass walls on the north and south, with the south wall of solar glass sloped outward to reduce heat loads. Structure is poured-in-place concrete with post tensioned beams; ends of the building are sheathed with brick. Engineers are: David Geiger-Horst Berger, PC (s); Robert J. Sigel, Inc. (m,e).













The low-down on glue-down!

"Jute is the key to successful glue-down, we have found from long experience."

...says Gary Feverston (standing), sales manager, Don Mendenhall's CarpeTalk, Dayton

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Don Mendenhall's CarpeTalk met rigid standards with this H.E.W. installation. Double Jute-backed carpet adhered directly to subfloor without attached or separate pad passed all tests with flying colors.

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Jute is over twice as thick as other no-pad back-

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- Unmatched dimension stability, vital with floor cut-outs.
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• For "stretch" installation in selected areas, jute hooks permanently taut on tackless gripper pins.

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*In new Montgomery County Administration Building in Dayton. Architects: Brown & Head, Dayton; Edward Durell Stone, New York

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Kimbell's vaulted interior

chanical, electrical and security functions are controlled from a single console.

Although the 9½-acre site was donated by the city of Fort Worth, both the museum and its collection are funded by the Kimbell Art Foundation, established by the late Kay Kimbell, industrialist and art collector. The Foundation, under the direction of Dr. Richard F. Brown, has added major acquisitions from throughout the world to the original collection. Because two nearby museums deal with American art, the Kimbell will display non-American works whose dates span some 4500 years.

Dr. Brown, formerly director of the Los Angeles County Museum of Art, has arranged the collection in what he describes as "the manner of a 14th Century private pallazzo, where guests are shown objects chosen for their aesthetic quality and individual interest." His goal has been to acquire definitive works in excellent condition, and arrange them "so that they have conversations with each other." Looking at the museum as the Foundation's major acquisition, it is indeed a "definitive work in excellent condition."

Columbia University to sponsor architectural film festival

Amateur or professional 16 mm films relating to any aspect of architecture, planning or architectural technology are eligible for entry in a film festival to be held at Columbia University in April 1973. The university's school of architecture is the sponsor.

Films may be abstract or realistic; they may deal with historic or contemporary architecture, landscape or environmental issues, people as affected by architecture or architecture affected by humanity; whole cities or parts of them; the importance of building technology. Silent and sound films are eligible, and sound may be magnetic or optical. Preferred lengths are between 5 and 30 minutes.

Films will be reviewed by a jury of design professionals and film makers and cash prizes will be given. First prize will be \$2000; second, \$1000 and third and fourth, \$500. All films selected for the festival will be copied by the university to be part of a film lending library, and will be described in a permanent catalog published in conjunction with the festival. All [continued on page 30] **For Wood Paneling**



Home in Tacoma, Wash.; Architect: Liddle & Jones, Tacoma, Wash.; Cabot's Stain Wax throughout.

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films submitted will be listed in a bibliography in the catalog.

In order to enter a film, the following information must reach Columbia by Dec. 1, 1972: film title, subject matter, names of film makers; length, type of film (sound or silent, color or black and white) and any other miscellaneous information. Films themselves must be received by Jan. 1, 1973. Entries and requests for information should go to Francois Confino, School of Architecture, Avery Hall, Columbia University, New York, N.Y. 10027.

Reynolds Award time again

The AIA is now accepting nominations for the 1973 R.S. Reynolds Memorial Award. The prize, as usual, is a \$25,000 honorarium and an original sculpture in aluminum.

Nominations by architects or others may be submitted to the Reynolds Architectural Award Programs, AIA, 1785 Massachusetts Ave., N.W., Washington, D.C. 20036. Data binders describing entries must be postmarked no later than Jan. 22.

National Endowment for the Arts focuses on 'City Edges'

Problems of freeways, riverfronts, suburban fringes and other natural and man-made "edges of cities" will be the foci of a \$500,000 program recently announced by the National Endowment for the Arts. Called "City Edges," the program will give priority to proposals and plans that call for broad interdisciplinary approaches and have real possibility of being put into action.

The deadline for grant applications is December 11, 1972; proposals are invited from individuals or from nonprofit organizations. Requests for information and application should go to Director, Architecture and Environmental Arts, City Edges Program, National Endowment for the Arts, Washington, D.C.

Hot dogs under the hypars

What looks like a forest of rusty steel morning glories is really a picnic shelter designed by Joseph Roth & Associates for Cook Field, Yonders, N.Y. The hyperbolic paraboloids, made of weathering steel, are of varied heights averaging 16 ft tall; they are 17 ft in diameter and weigh about 3 tons. One of them, inverted, makes a hood and chimney for the outdoor fireplace in the background.

Cost of each unit was around \$8000, says Roth. The entire shelter came in under \$4.75 per sq ft.



Hypars make a picnic shelter

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Lehigh conference on tall buildings looks at social problems

There aren't many limits to the heights of buildings these days, and those that do exist are social rather than structural. That's a quick one-sentence summary of a lengthy conference on the planning and design of tall buildings, held at Lehigh University in Bethlehem, Pa. during August. The conference drew some 600 engineers, architects and other professionals from 44 foreign countries and 33 states.

Numerous technical reports were heard, but the real message was that the importance of social and environmental concerns is growing. "Soft sciences (social, legal and behavioral aspects) are becoming just as important as, if not more important than, the 'nuts and bolts' of planning and designing tall buildings," Dr. T.C. Kavanagh, of URS/Madigan-Praeger, Inc. told the conference. L.E. Robertson, of Skilling, Helle, Christiansen, Robertson noted that "we could start erecting a mile high structure next year—but do we really want to? The question is not *can* such a building be built, but *should* it be built."

Kavanagh was the moderator of the conference's opening session, at which he suggested that the most important single factor in planning and designing tall buildings might be the "political and organizational ecology of the cities." Once characterized by a monolithic power elite that could get things done, American cities are becoming "polylithic" with greatly dispersed political decision-making processes. He contrasted recent attempts to raise height restrictions in Washington, D.C., with planning efforts in Moscow and San Francisco which deal with the height and bulk of buildings.

Jonathan Barnett, architect and educator with the City University of New York, pointed out some basic problems related to tall buildings. Ways should be found, he said, to relate tall buildings to one another, instead of letting them spring up wherever they can. Better land use should be sought, he said; in many cases high rise buildings are put up not because they are needed, but because they are signs of success. Citing London, San Francisco and Tokyo, Barnett called for better ways to make tall structures fit harmoniously in cities originally established without tall buildings. Another problem, he pointed out, is that many skyscrapers may be too small: "Maybe we should have 10 World Trade Centers instead of 40 Chase Manhattan Buildings."

Among the numerous technical reports were ones dealing with fire safety, wind loads, and earthquakes. Richard E. Lenke of Skidmore, Owings & Merrill told the conferees that "present thinking (on fire safety) is to create safety zones within the building which would provide safeguards against smoke and fire beyond what is normally provided in buildings at the present time. These would have increased fire resistant construction and special heating, ventilating and air conditioning systems to provide smoke-free air and safety from fire during an emergency." More and more experts are becoming convinced that it is impractical to move large masses of people out of a building in a short time. Lenke's report also suggested such features as discontinuous stairwells and elevator shafts. Another report, by B. Rafeiner of Hamburg, West Germany, talked about the possibility of locks and baffles like those used on ships. "In high rise buildings, as in ships," he said, "rescue possibilities are limited."

Concern with winds had less to do with the danger to the building than with the danger to pedestrians from high winds [continued on page 32]

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around tall buildings. At the base of tall buildings, winds can be strong enough to blow pedestrians off their feet, and there is the possibility of injury from broken glass or dislodged parts of buildings. Prof. Sean Mackey's summary of the wind committee's findings called for international cooperation in wind studies. Mackey, who is a professor at the University of Hong Kong, has constructed a 10-story building specifically collecting data on wind effects.

And in case anyone is worried, a number of authorities pointed out that a well-constructed tall building is actually a safer place to be during an earthquake than an ordinary building; "Tall buildings, with their improved structure and elements, can assure high resistability to earthquakes," said Prof. Kiyoshi Muto, president of the Muto Institute of Structural Mechanics. Raymond W. Clough of the University of California at Berkeley, added that he felt that any well-designed building in his state could survive a quake up to 8.5 on the Richter scale. He did point out that one problem in designing quake-resistant structures is that little is known about the effects of major earthquakes: "With respect to severer quakes, we are dealing with uncertainties, and are therefore not quite sure how best to prepare for them."

The conference was sponsored by the National Science Foundation, American Society of Civil Engineers, American Iron and Steel Institute and the International Association for Bridge and Structural Engineering. Dr. Lynn S. Beedle, director of Lehigh's Fritz Engineering Laboratory was chairman of the international committee that planned the conference, which was directed by Dr. Le-Wu Lu, also of Lehigh.

OAE affiliates with carpenters

I

To get more bargaining power, the San Francisco-based Organization of Architectural Employees has joined with the Carpenters Union. The affiliation will let OAE back up its contract demands with the 800,000 members of the Carpenters Union and AFL-CIO building trades councils, but OAE will remain independent, in name and policies.

Lowell, Mass. planning to recover minerals from trash

By crushing, screening, separating (by density and magnetic attraction) and floating (froth flotation), the city of Lowell, Mass. is planning to recover reusable minerals and metals from trash. It will all happen in a plant to be built next to the city incinerator; the "mineral benefication techniques" will separate and sort the residue from the incinerator into aluminum, zinc, copper, ferrous metals, glass, sand and a small amount of unreclaimed residue.

The process has been proved by the U.S. Bureau of Mines in a pilot plant in College Park, Md., but the Lowell installation is said to be the country's first full-scale, operating recovery plant. Initially, it will process 250 tons of residue a day; later it will reach its designed capacity of 670 tons a day.

For the city, there are a number of advantages, starting with a reduction in the land needed for solid waste disposal; compared with unincinerated waste, there is a 200 to 1 reduction, and with present incinerated residue, a 20 to 1 reduction. The sale of the minerals and metals will support the operation (once it is in operation) and other improvements to the town's [continued on page 38]

News report continued from page 31

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News report continued from page 32



Greek Revival chapel



19th Century Elsah looks the same



after 70 years; only cars, paving differ

Stone cottage, Village Hall (Lynne Darner photos)





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incinerators. And of course, by recycling non-renewable minerals and metals, it will be a step towards conservation of some natural resources.

The cost for setting up the plant is \$3.2 million, threefourths of it coming from the Environmental Protection Agency; city and state funds are also being used. Raytheon Co., the city and the Bureau of Mines have spent the past year adapting the process for use at Lowell, and Raytheon will design and supervise construction of the facility, as well as run a year-long test, evaluation and demonstration program. The design should be ready in about a year, and construction should start after that; operation tests are expected to begin in mid-summer of 1974.

Greek Revival revived

High above the Hudson River opposite West Point, stand the sad remains of a small, dignified Greek Revival chapel. The oldest standing church in the archdiocese of New York outside Manhattan, the Chapel of Our Lady at Cold Spring is being saved by a local citizens' group out of genuine affection for the building, and also out of a strong commitment to the preservation of their cultural heritage.

The Catholic chapel was built in 1833 with funds and land donated by the Protestant supervisor of nearby West Point Foundry; it served the Irish immigrants employed there, where cannon were later made for use in the Civil War. Constructed of red brick coated with pink concrete and stucco, the chapel served its congregation through the Civil War, when most of its walls were weakened by cannonry testing against the mountains across the river. After the war the walls were repaired and strengthened, the nave was extended, two transepts added, and two Victorian steeples, one with a clock, were added. It was used for 40 more years, then closed in 1906 when the parish moved. Shortly after that it burned, leaving only the original structure; the upper walls had crumbled and the floors were destroyed, but most of the cedar beams and cross pieces remained intact. In the 1920s brewery owner Jacob Ruppert began a restoration, but reputedly lost interest when he was unable to purchase the building. In the '50s, a later attempt at restoration fell through, and finally, recently, the local administrator was directed by the archdiocese to sell the land and ruins. A local citizens' group purchased the parcel for \$10,000 in 1971, and it was transferred to the Chapel of Our Lady Restoration, Inc., a nondenominational group who are now raising \$500,000 to restore the original chapel and rebuild the pier that led to the river.

Under the chairman of the sponsoring committee, actress Helen Hayes, the committee will restore the chapel as a place for services of all faiths and for solemn civic occasions; and eventually a proposed museum addition behind the chapel will house an exhibit of religious arts.

Elsah, III.: social and architectural history that lives

Nestled in a hollow beside the Mississippi River, Elsah, III. never had room to grow. And although it was a bustling river port during the end of the 19th Century, its low level of economic activity since then has kept change to a minimum. It is possible to look down a street today and see little that is different from a photo taken in 1900—little different except utility poles, pavement and larger trees.

The natural sort of preservation that has kept Elsah as it [continued on page 40]

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News report continued from page 38

was years ago can't go on forever; the expanding suburbs of Alton, III. and St. Louis could eventually engulf the village. Preserving it for the future is the aim of the Elsah Historic Foundation.

There are a variety of reasons for saving the village, says Dr. Charles Hosmer, a history professor at Principia College, which owns property in Elsah and has its campus on the bluffs to one side of the village. Elsah is, in effect, the front door to the college; it is an unusual example of a 19th Century river town that has not changed dramatically in its 120 years; and it is an interesting combination of social and architectural history that is still a living and breathing community, not a museum.

The Foundation by itself, has "only limited hopes of saving much of Elsah," Hosmer says. One immediate goal is to put the Village Hall, a frame structure built in 1887, into working order. "I hesitate to use the term 'restore,' because we intend to rip off the clapboards, and we hope to insulate the building and straighten it," says Hosmer. For the long run, the Foundation does have plans to buy and restore one or two key buildings, he says, ones for which there probably would be no immediate use without a good bit of alteration. And the College has been asked to include in its sales contracts a clause that would prevent significant changes in façades or exteriors of properties it may sell.

What the Foundation has done so far has been to influence others to buy and restore properties in the village. The College has recently purchased an antique shop and house that includes a log cabin built in 1847, six years before the village was founded. Five other houses are currently being restored by college faculty members or other individuals, and there are plans for others. One structure that no one can figure out what to do with is a gas station—probably the only one ever designed by Bernard Maybeck, who was the architect for the Principia College campus.

Awards

Eight Chicago buildings were named Distinguished Buildings in the 18th annual awards program sponsored by the Chicago Chapter AIA and the Chicago Association of Commerce and Industry.

The awards are given to the owner and contractor as well as the architect. Honored were: Booth & Nagle (Award Gas Station, Mount Prospect); Graham, Anderson, Probst & White (United Air Lines Chicago Regional Reservation Center, Elk Grove Township and St. Joseph Mercy Hospital, Aurora); David Haid (Dyett Middle School, Chicago); Holabird & Root (Oakbrook Fire Station No. 2, Oak Brook); Metz, Train, Olson & Youngren, Inc. (Lake Forest High School West Campus, Lake Forest); Shipporeit, Inc. (880 Wells Building, Miller Village, Gary, Ind.) and Skidmore, Owings & Merrill (O'Hare Plaza, Chicago). Two service awards were given for contributions to Chicago architecture through work in related fields. One was given to John D. Entenza, formerly editor and publisher of Arts and Architecture and director of the Graham Foundation for Advanced Studies in the Fine Arts; the other was given posthumously to architectural photographer Richard Nickel. He was also a prominent activist in architectural preservation.

Personalities

Frank W. Orleans of The Grad Partnership, Newark, N.J., has been appointed a member of the Planning Board of New Providence, N.J.

Hermann H. Field, FAIA, AIP, has been named professor of environmental planning and design in the Department of Political Science, Tufts University, Medford, Mass.

Robert T. Dorsey has been elected president of the Illuminating Engineering Society, New York City.

Richard Dorman, FAIA, has been reappointed consulting architect for California State College at San Bernardino.

The following have been appointed adjunct professors in the Department of Architecture and Architectural Engineering in the University of Miami School of Engineering and Environmental Design: Edward D. Stone, Jr.; H. Samuel Kruse; James A. Garland, AIA; David L. Peterson; Dean K. Newberry, IBD; and H. Richard Schuster.

The University of Texas at Arlington has named six adjunct professors in the Department of Architecture: Martin C. Growald; Khan Husain; R. Jerrald Vincent; Sarah Moore; Kenneth M. DeHaas; Helaine Frost.

Nomer Gray has been elected president of the New York Association of Consulting Engineers, Inc.

Edward J. Quirin has been named vice president for university affairs at Polytechnic Institute of Brooklyn, New York. Ulrich Franzen was awarded the Medal of Honor of the New York Chapter AIA at the chapter's 105th Annual Meeting. Honorary membership in the chapter was conferred upon Donald G. Elliott, chairman of the New York City Planning Commission; Dr. Anthony G. Adinolfi was honored posthumously for his work as head of the New York State University Construction Fund.

Calendar

Oct. 16–Nov. 12. Exhibit of the Italian Art & Landscape Foundation Inc., University of Pittsburgh Art Gallery.

Nov. 9–12. Board of Governors meeting and mid-Atlantic regional conference, American Institute of Interior Designers, Washington, D.C.

Nov. 15–16. National conference on solid-waste management in buildings, sponsored by the Building Research Institute of the Building Research Advisory Board, National Academy of Sciences, the National Research Council, at Stouffer's Riverfront Inn, St. Louis, Mo.

Nov. 15–17. Seventh annual meeting of Automated Procedures for Engineering Consultants, Inc., Hilton Palacio Del Rio, San Antonio, Tex.

Nov. 17–18. Ninth Architectural Research Conference, Chicago. Nov. 17–20. Convention of the Society of American Registered Architects, New Orleans, La.

Jan. 7–11. Twenty-ninth annual convention and exposition of the National Association of Home Builders, Houston, Tex.

Jan. 21-Feb. 18. Exhibit of the Italian Art & Landscape Foundation Inc., Toledo Museum of Art, Toledo, Ohio.

Jan. 29–Feb. 1. International Air-Conditioning, Heating, Refrigerating Exposition, McCormick Place, Chicago. The event is cosponsored by the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. and the Air-Conditioning and Refrigeration Institute.

Feb. 6–9. Twenty-eighth conference of the Reinforced Plastics/Composites Institute, Shoreham Hotel, Washington, D.C. Feb. 20–22. International Building Exhibition, Automotive Building, Exhibition Park, Toronto, Canada.



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If, as Schopenhauer said, architecture is truly frozen music, then SCOPE, Norfolk, Virginia's new cultural/convention center, is an upbeat in contemporary counterpoint. The straight, clean lines, stark concrete pillars and simple dignity of Chrysler Hall, the center's civic theater, serves to accent the flowing curves and graceful concrete ribbons of the Convention Hall with its dramatic domed arena and ground-to-apex visual sweep.

Taken from the Greek word "kaleidoscope," the center's name, SCOPE, reflects the variety the center will offer in professional sports, theater, conventions, exhibits, and local civic affairs.

At the surface level, the two halls are connected by a paved brick plaza with reflecting pool and lighted fountain for focal points. However, the bulk of the center—including exhibit hall, offices, meeting rooms, restaurant, rehearsal studio and a 640-car garage—is located beneath the plaza adjoining Convention Hall.

Essentially the center is a large "boat" with a three-foot concrete slab floor that extends as much as fifteen feet below the area's water table. It takes 4,000 concrete piles to stabilize it—some keep it from sinking and others from floating upward. It required 100,000 cubic yards of concrete to complete the center—and every yard contained *POZZOLITH* admixture. *POZZOLITH* helped to enhance the beauty of the concrete and to provide it with outstanding performance in workability, placeability, and finishability.

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Architecture west

The Gamble house in Pasadena, the famous 1908 work by Greene & Greene, is unique in the annals of preservation. James Gamble, grandson of the original owners, spent months learning how to give away a historic monument, one in perfect condition containing furniture, rugs, etc., designed for it by the Greenes and accompanied by a handsome endowment. In 1966 he turned it over to the city of Pasadena and USC, which marked the first time a city and university joined in preservation.

USC was an obvious choice because on the architecture faculty was Randell Makinson, who published, in 1960, a fine monograph on the Greenes. The university provides funds for restoration, maintenance of structure and daily operating costs. The city maintains the gardens and is now restoring them to the original plan, redrawn by Emmet Wemple, a landscape architect teaching at USC.

Even with a full-time curator (Makinson) and part-time secretary and housekeeper, the house could not have assumed its place among the major cultural attractions open to the public without the docent council. There are now 80 docents and among them they contribute services equal to that of 15 full-time employees. All receive the equivalent of a semester's study in architecture, from the Industrial Revolution to World War II; the crafts from William Morris through the 1910s; daily operating procedure of the Gamble house and library practices. A docent can then conduct tours of children or adults, staff the Greene & Greene research library (expanded lately to include the whole craftsmen's movement) work on a public school pilot program that provides slides and background material on architecture, run the bookshop, plan the Wednesday luncheon, make the frequent distinguished visitors comfortable—or simply restore library furniture.

Ten of the docents are of the original 12 selected in 1966. Each year 20 new ones are screened by old members. Makinson is proud of the fact that the council is composed of "the rich, the poor, the old, the young." They are not used as fund raisers but the proceeds from their two annual open houses go to enrich the house—new curtains, oriental runners, a Tiffany vase, etc.

The council began when board member Sam T. Hurst, dean of the USC School of Architecture and Fine Arts, requested Janann Strand to set it up; she and Dorothy Byles, wife of a Pasadena architect, tested various docent systems until they found a workable scheme for the Gamble house. Mrs. Strand is dedicated enough to return to college for a degree in art history, even visiting Japan to research oriental influences on the Greenes.

Administrator of the house is USC, and an advisory board determines policy. Three advisory board members are appointed by James Gamble; Pasadena is represented by the city manager and city director; the vice president of business affairs and Dean Hurst act for USC.

The budget of \$10,000 for the first years has climbed to \$20,000, due mainly to expanded activities. But with the income at present around \$16,000 new ways are being sought to meet the deficit; one of them is to establish Friends of the Gamble House who will contribute \$50 a year each.

The concentration of cultural interests near the house, which includes a dozen Greene & Greenes, has increased the number of local visitors, and the exhibition of the Greenes' furniture at the Metropolitan accounts for more eastern visitors. The total is about 10,000 this year—a great incentive for making up the deficit. [Esther McCoy]



Gamble House lives on (Marvin Rand photo)



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Editorial

Progressive Architecture

November 1972

Our guest editorial by Arthur Cotton Moore is excerpted from his foreword to *The Historic Buildings of Washington, D.C.* by Diane Maddex, published by Ober Park Associates, Inc., in association with The Historic American Buildings Survey

One of the serious blind spots in many preservation efforts seems to be the belief that if enough people of good will stand up and say a building must be saved, it will be saved; as though there were some omnipotent czar, some god, from whom we could gain an audience (if we sent enough letters), and once persuaded by our logic on irreplaceable quality, etc., at the 11th hour, his magical hand would come down and catch the wrecker's ball in midswing before it strikes. But all this image does is point out the dreamlike quality of some preservation efforts.

Buildings are destroyed on ledger books, years before the proverbial ball. Despite all their derived benefits so loudly apparent to some of us, buildings, all buildings, are economic vessels. No buildings—not churches, post offices, mints, galleries, houses—are without functional purposes with some sort of economic justification.

All this is to say that a building cannot be out of economic gear too long or it will surely expire. Long before the door fences go up and the collectors (often left-handed cousins to preservationists) perch about ready for the dismemberment, a rewarding replacement for the obsolete use of the building must have been found or else the goal is lost. Few municipalities today can justify the holding of a building, unlike a painting or an archaeological artifact, for museum purposes only, i.e., purely to see how we housed a now-defunct economic purpose at a former time. I would suggest that if preservationists want to save as much as possible and do not want to be labeled as merely anti-new, anti-development or anti-everything, we should be finding new economic uses for buildings. To preservationists now fluent in social protest and legal recourse as last ditch efforts, I would add the ability to make cash flow and realistic construction costs projections as a first ditch effort.

In the four attempts to preserve worthy structures that I know well, success has been obtained by going on the economic offensive; not only finding a new use appropriate to the structure, but also demonstrating what a bargain conversion could be as opposed to new construction, and translating economic new use and favorable construction costs into impressive cash flow figures. The reception from bankers, brokers, lenders, governments and, therefore, the chances for effectiveness are significantly different.

The fulcrum in this argument is construction costs. Conventional wisdom has always held that complete demolition and all new construction is not only cleaner and neater but also cheaper; the preservationist must show that conventional wisdom is wrong. The argument hinges on a cash credit for the basic building shell, the inherent advantage of having the existing wall, floors and columns. This advantage must offset the usual touted disadvantages of cramped and difficult working conditions for the contractor, uncertainty about the integrity of the structure, the difficulty of fitting new systems into a building which wants to reject them as foreign objects, much like the human body tends to violently reject transplanted organs. Stated in simplistic terms, a cash credit of \$3 a foot for the shell against a replacement cost for total new construction of \$25 may make the difference between profit and loss; in the process a building may have been saved.

I am talking about preservation, not restoration, which is a painstaking return to a former time exemplified by detail, moldings, repair and invisibility of new systems. There are no economics for these buildings. Save for a handfull of pivotal historic structures, this is not a major route for preservation.

In all of our projects, we have derived significant aesthetic fallout from the frank juxtaposition of old and new. The building is old and shows its age, even its dirt—or better, its patina—and highlighting that quality is a clear show of new systems added—air conditioning, lighting, electricity, telephone, partitioning and so on. This is not to say that the juxtaposition is not a tricky problem and demands considerable skill, but done well it is the crux of successful preservation through renovation. Badly done, transmography is the result—the Victorian façade with the violently updated shiny tile facial.

Any approach has its excesses, but these are not likely to occur in the hands of preservationists whose ultimate motivation and concern remains not highest economic use but conservation of resources.

Preservation in context

On May 30th at the Metropolitan Museum of Art in New York, P/A co-sponsored a symposium on preservation with The Italian Art and Landscape Foundation. The discussions were held in conjunction with the Foundation's photomural exhibition in the Blumenthal Patio entitled 'Art and Landscape of Italy, Too Late to be Saved?' By using Italy as a tragic case in point, the primary goal of the exhibition, which is now traveling throughout the U.S. and Europe, is to focus attention on preservation problems within the context of the causes and effects of the environmental crisis. Video tapes of the symposium were later shown at the U.N. Conference on the Human Environment at Stockholm. The excerpts presented here are accompanied by illustrations drawn from the exhibition.

Participants

Kenneth Frampton, moderator, architect and Fellow of the Institute for Architecture and Urban Studies.

Luigi Barzini, former Deputy of Italian Parliament, author of *The Italians*.

Giorgio Bassani, president of Italia Nostra, author of *The* Garden of the Finzi-Contini.

Roberto Brambilla, architect, director of Italian Art and Landscape Foundation.

Barry Commoner, chairman of the Department of Botany and director of the Center for the Biology of Natural Systems at Washington University, author of *Closing Circle* and *Science* and *Survival*.

James Marston Fitch, founder and director of the graduate program of Restoration and Preservation of Historic Architecture at Columbia University, author of *American Building*. Herbert Gans, professor of sociology at Columbia University, author of *The Levittowners*.

Richard N. Gardner, professor of law at Columbia University and senior advisor to the Secretary General of the U.N. Conference on Human Environment.

Bernardo Rossi Doria, architect and Secretary General of Italia Nostra.

Niccolo Tucci, author of *Before My Time* and *Unfinished Funeral.*

Frampton: Preservation is obviously a larger issue than that of preserving art works in merely an archeological or curatorial sense, of the redemption of artifacts as the stuff of tourism, of the isolation of monuments as though they were fossilized specimens. The issue, too, clearly extends well beyond Italy, which is merely a highly dramatized version of a process that seems to be happening everywhere. America, for instance, is well into the wholesale destruction of its 19th Century heritage. Hannah Arendt once wrote, "In a need for more and more rapid replacement of the worldly things around us, we must devour, as it were, our houses and furniture and cars as though they were the good things of life, which would spoil uselessly if they were not drawn into the never-ending cycle of man's metabolism with nature." She saw the issue of preservation not merely as a matter of culture but also as a matter of survival. So what appears to be at stake, if one accepts her thesis, is a present tendency to consume, despite museums, every human artifact, and with it the natural world. What is the motive force that drives us in this direction? One response being given with ever increasing frequency today is that it is an issue of ideology, not political ideology in the usual sense, but the ideology of the gross national product, the cult of ever increasing industrial growth. The feasible limits to growth, and how they are to be established, are two questions which in the last analysis may well be political. Clearly we cannot dream like William Morris of a pre-Raphaelite life returned to a pre-industrial past, nor can we expect the younger inhabitants of 13th Century villages in Italy to remain at their posts, as it were, for the benefit of tourists when clearly a viable economic support for life has long since been depleted. Yet by the same token, why do we have to passively accept legislative and fiscal provisions which seem to favor exploitation of both men and resources? One answer always given is that these things are done in the name of accelerated consumption and finally in the name of profit, however uncomfortable that may be to accept. These are uncomfortable issues, yet I don't see how we can discuss the question of preservation and action without confronting them. What can we do? The idea of an overnight redemption is obviously a daydream, by the same token the idea of zero GNP can hardly be seriously countenanced, and yet surely it is possible to distinguish between restricted and optimized growth. It seems to me that we



Venice: Palazzo Ducale, marble statue of "Temperance." Photo, G. Lotti.

Venice: Church of S. Alvise, marble bust of S. Alvise. Photo, G. Lotti.





Ferrara: Church of S. Michele. Photo, R. Bazzoni.

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ultimately stand before a threshold where public opinion will or will not come to exert some pressure on the power system whose sole raison d'etre appears to be an abstraction, i.e., infinite growth. However, public opinion cannot do this unless it is informed, which brings me back to this panel discussion which surely should have as one of its more modest aims to inform and perhaps as its more ambitious long-term aim, the intent of reform.

Brambilla: In this exhibition, our thesis is that increasing misuse of world cultural and environmental resources is depriving mankind of an essential aspect of civilization. This impoverishes the quality of life and ultimately affects man's physiobiological and psychological behavior. Our objective is to increase public awareness and concern for the complexity of the problems facing environmental and cultural change in order to anticipate the process of change or transformation, and to present a program for a worldwide strategy of preservation. Our message is directed to the highly industrialized nations of Europe and America, which have greater responsibility in the world development process. Our purpose is to try to collaborate with other conservationist groups to try to start as soon as possible a comprehensive effort on an international scale.

Fitch: It's perfectly obvious that preservationists all over the world today see very clearly that this is a problem of environmental protection. It becomes increasingly clear that, except in isolated country churches or a castle here or there, any monument worthy of preservation can only be preserved in its context and that the issue is fundamentally an environmental one. This, of course, explains the new kind of unity that exists between conservationists, as we call them in this country-the people who are dedicated to the protection of the natural or God-made environment-and architects and historians who are interested in protection of the man-made environment. It is now understood that these are two sides to the same coin. It's really impossible to intervene at any smaller level. It's also become increasingly clear that these artifacts which we inherit from the past, with very few exceptions, cannot be handled as museum items. Wherever possible, in the field of architecture, they have to be returned to a viable role in the tissue of which they are part. The environment produced by the human settlement is the result of living processes. When we intervene we're not dealing with dead tissue but, to the contrary, when you decide either to maintain or to remove a given section of this urban tissue, you're intervening in the very life processes of the city itself. There is an analog between the preservation and restoration to active use of old buildings and districts, and the work of the doctor. The more serious the pathology, the more discreet the intervener has to be. This, in turn, I think, exposes the fallacy of a great deal of current work in this country that goes under the heading of ... urban renewal, which doesn't very often renew at all, but acts to terminate the life of the patient more quickly than otherwise would be possible. Some of the younger men in this field have coined two very nice concepts which I think are much more attractive. One is "environmental retrieval" and the other is "environmental recycling." Both these terms remove the field from the opprobrium of thinking that it is done only by old ladies interested in preserving grandfather's birthplace.



Unidentified church in Italy, not in exhibit. Photo, G. Lotti.

Unidentified church in Italy, not in exhibit. Photo, IT/Ns Pavia.



Gans: Every society tries to eradicate its shameful aspects and leave and preserve only those things of which it can be proud, which means that we get largely aristocratic leftovers, buildings, artifacts, what have you. We don't really get a bill which indicates how many people were enslaved, in one form or another, to build these aristocratic monuments, how many people were killed in the war to finance this church or that temple or that monument. Preservation is a sanitizing act and in some ways one that lets us forget that the past is evil, which allows us to think the past was great and therefore justifies all kinds of worship of the past. About the idea of stopping growth for cultural reasons, because we or some of us don't like modernization, I think we ought to remember that when we talk about stopping growth, we're really saying that for the last 500, 1000, 2000 years the rich have been able to consume, to make profit, to speculate in land, among other things, and now things are getting critical so we've got to stop. It now also happens to be a time when the rest of society is beginning to get its share of the action, and the share of the action doesn't look very historic or aristocratic. It often looks like American or English or international suburbia, but it's a damn sight more comfortable to live in than a drafty medieval apartment six stories up. I can understand why no one wants to live in them. I think that we do have to look at those people who have not yet had a chance to get the advantage from growth that the affluent have had. Unless we come up with solutions which not only preserve the patrimony of the rich from the past, unless we have a growth and a preservation policy which gives something to 90 percent of the population which so far has been left out of history, they're not going to stand for it and the environment is going to change as it has changed in America, as it's changing everywhere else, and nobody is going to be able to stop it.

Commoner: I find it enormously encouraging that those of you who are concerned with preserving our cultural heritage have begun to discover its links to a broader issue; namely, the environment as a whole. As I interpret the presentations here, and the content of the exhibit, it is now recognized that the preservation of our culture is not something which can be pursued simply for its own sake in isolation from the rest of the world, but that it represents, in effect, a kind of symptom of a larger disorder in the environment as a whole. We have to join forces to preserve the environment to conserve our resources for the sake of our culture as well as for the sake of our own well-being. Now I want to take it one step further. In my view the same relationship that exists between preservation of the culture and preservation of the environment exists between preservation of the environment and a much larger and dominant issue; namely, the way in which our economic system allows us to use our resources. What I want to tell you is a very simple thing. If you start on this path, and I applaud it, of saving the statues and the paintings and the buildings, of saving the environment, you will have to end up considering the basic unsolved issues of poverty, of racial discrimination, of war. There is no way out. You're on that path. That's a flat assertion but let me give you some data to go with it. I find it incomprehensible that the President of the United States should go to Moscow and sign an international agreement to conserve the environment; meanwhile, under his own personal orders, without the support of the U.S. people or the U.S. Congress, rain bombs on Vietnam, destroying the environment in the first ecological warfare we've conducted since the Indian wars. There is no way of solving environmental issues without dealing with the issues of the rich and the poor that Professor Gans mentioned to you, and I think there is no way of dealing with environmental issues without asking why we have done this insane thing of building an industry which destroys its own foundation. I want to remind you that our steel foundries use oxygen which is only produced on the

earth's surface by green plants, and these same steel foundries are destroying the green plants. This is suicide and the question is why has it happened. I think the answer is really quite simple. It pays to destroy resources for your own business operation if in the course of that destruction you gain enough profit to go somewhere else in the environment and set up a new business. It pays for the business but in the end there will be no earth left for the rest of us. The point I want to make then is very simple. I applaud and I think it is a remarkable step forward that the cultural questions of the preservation of our heritage have been linked to the environment and I think it's time now for all of us to link that to the issues of social justice.

Barzinl: Think of Rome. It's a baroque city. Where is the medieval Rome, where is the Gothic Rome, where is the Romanesque Rome? It has disappeared because every generation in Italy destroys everything around them and builds again in whatever the contemporary taste dictates. In Italy we have always had this problem but it has become monstrous today. One of the reasons, of course, is that Italy in two generations has become an industrialized country. We have been revolutionized by a complete transformation in Italian society, people have been lifted rapidly from one class to another. People who have not eaten for centuries are now eating for the first time twice a day. Italy of the grandpapa-they don't want it anymore, they want Italy to be like Beirut or some South American capital. It is very difficult to be an Italian; there are a lot of foreigners who are better Italians, especially among art lovers, than many Italians of birth. I was a member of Parliament until three days ago and I know how worried many people were about the problem of preserving the inheritance of Italy. We all know that you can't preserve Venice without preserving the Venetian mainland, but to preserve terra firma you must give meaning to all these things. They must live in the contemporary world. How can you make these things live in the contemporary world? It's a very difficult problem. We do not even tackle it in Italy. You talk to ministers, they say we do not have the money. But you point out that in order to run Italian railways, we spend 3 billion lire a day. Couldn't we spend a little less for the railroads and spend a little more for preserving our inheritance? Gardner: Dr. Commoner made a great point about denouncing racism and war. I guess everyone here is against racism and war, but I think we ought not get into the state of mind that we can't do something about the environment unless we also immediately solve the problems of racism and war. For example, there are many environmental problems that are not the result of racism. There are black African countries with no racism that are rapidly despoiling their wildlife and soil. I think we ought to recognize that there are some things we can do about environment even though we may not solve the problem of racism. He also made a great effort to link our environmental problems to the economic system. I would point out that the environmental problems are not unique to any one social or economic system. The Soviet Union, a system of central socialism, has very severe environmental problems even though they don't have a profit system as we do. I think an argument could be made that a market economy has within it a very effective means of doing something about environment. For example, if we established the proposition that the cost of environmental cleanup had to be paid by the producer of a product and that cost had to be incorporated into



Palermo: Piazza Pretoria. Photo, Del Comune.

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product price, we would go very far towards solving some of our environmental problems. We also have some built-in defenses that the state controlled societies don't: active citizens in environmental groups of a kind that don't exist in eastern Europe, which can bring pressures on governments. If a bureaucrat in the Soveit Union wants to put a pulp mill on a lake, he can get away with it and there is no citizen's group to do anything about it. One final point. Dr. Commoner asked us to do something about racism and war but there is one subject he didn't mention-population. Now let's face it, people pollute, and the greatest hazard to this world with respect to environmental degradation is the existing rate of population growth around the world. The population of this world is growing by one million people per week, and at this rate, you can forget all your attempts at environmental cleanup unless you deal with the population problem.

Commoner: I am rather astonished that Professor Gardner feels that I was unwilling to attack other economic systems. I don't know of any economic system operating today which has from its base taken into account the simple fact that our economy depends on the environment and not vice versa. I think every economic system will have to make fundamental adjustments. If the Soviet Union has difficulty doing it, that does not excuse us from facing the issues. Let me get right down to a couple of examples. I don't think that it makes sense to invent a solution which is superficial when the problem is radical, in the sense of the root. I've maintained that environmental degradation is an intrinsically radical issue. It has to do with the way in which we use our resources, and this is the beginning of all civilization. Let me take an example. Professor Gardner suggested that in our economic system we could easily adjust to environmental degradation by internalizing the cost. What do you suppose would happen to the poor people? Given the economic disparity in the United States, any effort to add the environmental costs (which the producers have been saving) to the cost of fundamental goods would enormously intensify the gap between the rich and the poor. It is a problem of our economic system which must be faced.

If there is planning, as there has to be, someone will have to be in control. The famous Ecologist report in England describes a totally new Britain; over a 100-year period, year by year, they say when this will be done and that will be done, how many people will live in what cities and so on. What they do not tell us is who is in charge of all of these controls. I want to remind you that not only does your concern with preservation of art, and therefore your concern with the environment, lead to questions of poverty, of war, it also leads to the question, if we are going to reorganize our society, of whether it will be in terms of popular control or fascist control.

I'll say something about population. It is a political, not an ecological problem. There is no evidence whatsoever scientifically that the United States is overpopulated. The big changes in our environment come about because we have changed the way in which we produce our goods. For example, since World War II, the air pollution has gone up by a factor of 10. Are there 10 times more people? No. Are there 10 times more cars? No. What has happened is that the cars have been turned into smog generators because they operate at high compression, they have lead put in the gasoline, and so on. Now the world's problem is something different. Human societies go through a population explosion as a result of improving their standard of living. But people are not terribly stupid. When they see that their children are living longer and going to school rather than working, which converts the child from an economic asset to an economic liability, they understand that they do not need as many children as they





Mentana (Rome): Roman bas-reliefs. Photo, R. Bazzoni.

thought they did. The result is that fertility drops and the population levels off. This is what's happened in every Western country, and it is now happening in the rest of the world. Have you ever noticed that all of the countries with a high rate of population growth happen to have been former colonies? They were exploited by having technological changes introduced into their culture that allowed their population to go up. Now we say these countries should reduce their populations before they have reached the standard of living which makes it sensible. If you want to save the world by turning to the people on whom we imposed the population explosion and say now you ought to do what we tell you about contraception, that's a political decision.

Fitch: I'd like to change the scale of the discussion, but I hope not its importance. Professor Gans said quite correctly that the tendency in the past has been to save upper class, aristocratic artifacts, and that this has largely been the work of upper class people. This is true. It's also true that a qualitative change is taking place all over the world. The younger people in the field understand very clearly that the whole culture merits scrutiny, not just the ruling class culture. Fortunately, history has left us all kinds of remnants of vernacular, folkloristic and primitive architecture all over the world. A great deal of attention is now being placed upon this. There is a great hunger among people for some knowledge of where they came from. I think that in this area, the field we used to call preservation offers unparalleled opportunities for teaching history. Not the way Williamsburg teaches it, where all the sub-structure is expunged from the record. The whole of Williamsburg could be on display, including its foundation in slavery. We shouldn't ignore for a moment the fundamental importance that there is a utilitarian aspect of preservation. It is not just a museological operation by any means; it involves the whole continuity of human culture, and God knows we've got enough trained archeologists, anthropologists and sociologists in the world today whose talents can be brought to bear upon this subject.

Commoner: It seems to me that the enemies are those who would duck the issue, and by that I mean the question of asking the basic question—what are the resources of the earth to be used for? Are they to be used to improve human welfare? Are they to be used as raw material for a productive process which is governed by the immediate and often private gain? In other words, are we producing for the sake of a productive process, or are we producing for people? What has happened is that we have designed our buildings, our factories and the way we run our farms for the sake of extracting maximum immediate profits. It so happens that this does not coincide with what's best for the environment or for human welfare, and I think that's what has to be changed.



Cornegliano (Genoa): Villa Durazzo. Photo, G. Lotti.

Large scale preservation

Saving places for people

In Louisville, Seattle, Lockport and Lowell, preservation isn't only a matter of saving buildings one by one, but of preserving neighborhoods and communities for people

It's one thing to save a single building, but it's something else again to preserve a place. To begin with, it's more complicated. Everything that has to be done to save an individual building gets multiplied in saving an area: the spaces as well as buildings that give an area its character must be identified; interdependent uses must be worked out for them; the political strategies are more intricate because there are more parties involved. And while one building may conceivably be out of use while it is being restored, an entire area can't be taken out of service.

It is a knotty problem, partly because a place, as opposed to a single building, is apt to loom large in the public mind. Saving one takes clairvoyance (to read the public mind), political acumen (because the decisions often end up in the political arena), a grasp of guerilla tactics (for the in-fighting that comes with preservation projects) and a touch of paranoia (because the threats to a place can be far more subtle than the threats to a building).

In the pages that follow, P/A has knowingly overlooked some well-known large-scale preservation efforts—historic districts in Charleston, or Savannah, or New York City, for instance—simply because they are so well known. The ones we show differ widely in size, historical background and in the kinds of assets to be saved. They differ in techniques and strategies being applied; the outcome, in all four instances, is by no means certain. What links them is simple: while buildings of architectural or historical significance may be involved, greater emphasis has been given to preserving places where people can live and enjoy life.

There are still meatpacking plants in Butchertown, but the community is changing. Old firehouse, now an interior design shop (top), is one of its largest buildings; small rowhouses are more typical.







'We pride ourselves on our past'

One morning shortly before the 98th running of the Kentucky Derby, Jefferson County Judge Todd Hollenbach was telling a group of visitors about the bonds that hold Louisville together as a community. Louisvillians, he said, "have a love of the present and pride in the future." And then he added: "We pride ourselves on our past."

Proof of all three statements is easy to come by. To many Louisvillians, there is no better—no other—place to live: business is booming, downtown and waterfront areas are being renewed, the county government includes a court to deal with polluters, there are parks, there is the river, there is talk of a new airport. Yet with all this love of the present and rosy view of the future, the past has not been forgotten: true, part of this pride in the past centers on traditions, but part of it is based on the real importance of the city's history. This has, in recent years, prompted a real and growing effort to save worthwhile older parts of the city. Entire neighborhoods are being restored and rehabilitated; it's not so much buildings that are being saved, but environments for people.

Some of it has been preventive preservation; other efforts. rescue work. And sometimes, as in the case of the Belgravia Court-St. James Court area, the difference can be as little as a short city block. The two courts form a T-shaped showplace of turn-of-the-century houses in the middle of what is known as Old Louisville. Since the sale of the first lots in 1889, St. James Court, wider and lined with larger grandeur houses than Belgravia, has had its own residents' association which maintained the street and worked to preserve the neighborhood. The Belgravia Court Association was formed in 1964. Belgravia Court and much of the surrounding Old Louisville area had been declining for several years. In 1961, to rebuild the old rather than clear away everything for large scale renewal, the Old Louisville Association was formed; a spin-off, Restoration Inc., bought nine houses on Belgravia Court, beginning its restoration. Private owners have since bought most of the 30 or so houses and restored them.

Other preservation efforts are being made in Old Louisville, and still others could be made. A small residential court, Floral Court, is showing signs of wear but could still be saved. The main streets running through Old Louisville are linked with magnificent turn-of-the-century houses, some restored for private owners, some turned into offices or rooming houses; others have been threatened by demolition to make way for apartment projects. But no one gives up; so far, according to the city's Urban Renewal and Community Development Agency, some \$1.7 million has been spent on improving houses in Old Louisville. Completely rehabilitated houses contain 334 dwelling units, while another 186 are in buildings being renovated.

The same combination of neighborhood pride and initiative is doing the job in Butchertown, a few blocks east of the central business district. It was once the center of the meat packing industry in Louisville and five plants are still operating. Some of the earliest buildings in Butchertown were built during the 1830s, and the area was at one time a wellkept "just right" neighborhood of solid German immigrants.





Parts of Main Street are returning to 1874 appearance, starting with block (above) being filled in with shops, night spots and offices. The Board of Trade (top) facade will be preserved in new development.

Now after years of decline, Butchertown is pulling itself up.

The key to the effort is Butchertown, Inc., a neighborhood development corporation that got its start as a neighborhood club which took up a complaint about zoning. Says Jim Segrest, president of the corporation, "Back in the 1930s, all of the downtown was rezoned for industrial zoning, which allowed people to put up anything, anywhere, from houses to factories. Our neighborhood club went to the mayor a few years ago to complain and got the zoning commission to study zoning in the neighborhood. The club decided not to stop there, so we kept going and formed a corporation and sold stock to local people, the local churches and others to raise capital." Thus, Butchertown, Inc. is a profit-making venture, although it hasn't yet shown a profit.

The money goes to rehabilitate old houses and, recently, to build new ones. The corporation is working on three row

Saving places for people

houses designed by architect Roger Hughes to meet a \$17,600 cost, and there are plans for rehabilitating three old houses as a commercial development. Since the formation of the corporation, a number of outside people have moved into the area, buying and restoring houses, opening shops and becoming an integral part of the community.

In downtown Louisville, pride in the local past is becoming visible in a different sort of preservation effort. Along with the construction of new office towers, hotels and shopping malls, the renewal includes plans to make good use of a wealth of 19th Century buildings. One new development, Shipping Port Square, will front on Main Street and preserve the façade, at least, of the city's venerable Board of Trade Building. Across the street, a national landmark, the Greek Revival Bank of Louisville is being preserved as part of a new theater for Actor's Theatre of Louisville.

With the growing realization that preserving and reusing a declining neighborhood is as important as preserving one old house as a museum, has come the need to coordinate the efforts of all the preservation groups that have sprung up in Louisville in recent years. The vehicle for the coordination is a newly formed group called the Preservation Alliance. "Every conceivable body—city, county and neighborhood groups, preservation groups—will be represented," says Jefferson County Archivist Sam Thomas. The aim is to get the individual groups to pull together and prevent overlapping activities.

John Cullinane, a young architect previously with Design Environment Groups Architects, is the group's first executive director, and he fills what Thomas says is a real need. Federal, state and local programs and laws dealing with preservation are complicated, and Thomas says the Alliance "really needed someone looking at these problems full time, someone with knowledge of adaptive uses, zoning ordinances and the like, and someone who could use this knowledge and the power of the group behind him."

Cullinane sees the Alliance as "the salvation" of Louisville's preservation efforts. It will be a major force for attracting federal preservation funds to Louisville, from HUD and other agencies, and pulling in money from the state, too. The Alliance will actively seek contracts for surveys, studies and consulting work (it is a nonprofit group): "If it's economically feasible," says Thomas, "we'll do it."

Another aim of the Alliance is to put some teeth into preservation efforts in Louisville, and Thomas hopes to draw up an ordinance imposing a specified period of time for opponents of demolition to come forward with reasons and proposals for saving a given building or neighborhood; during that period demolition could not start.

Cullinane and Thomas are both involved in other efforts to heighten the public's awareness of historic preservation and neighborhood renovation. This fall Cullinane has been giving a series of workshops at the University of Louisville; previous forums, Thomas says, have "really just taken the cream off the top, talking about museums and the like. We need to talk about financing and other problems." Thomas is teaching a course at the Urban Studies Center at the University. "People sometimes want to save something not worth saving," he says. "They need to know how to evaluate what they have."

Thomas describes himself as "a chemist who went astray," and he has been active in preservation in Louisville for sometime; before becoming the county archivist (a part-time job; he is also a book editor for the publishing arm of the Louisville Courier) he ran Locust Grove, a restored house that was the last home of George Rogers Clark. "I've been fooling around this game for 10 years in a house museum," he says. "That's the deadest thing in the world. It's one thing to help a bunch of little old ladies restore one house; it's another to take on a whole district."



Reusing a national landmark

Renovation is something of a habit with Actors Theatre of Louisville (ATL). The theater has always been in reused spaces, and its third home, into which it has recently moved, preserved as its lobby a Greek Revival bank that is a national landmark. Built in 1837 and designed by Gideon Shryock ("The father of Greek Revival architecture in Kentucky" according to the plaque out front), the bank was acquired in a curious transaction in which the theater traded the only new building it ever built for the bank.

Cost has been a major consideration in all the theater's renovation projects, but their concerns have gone further than that. Its last home preserved, at least for a while, an old railroad station in the heart of downtown Louisville, and the new theater, which is seen as a permanent home, saves a real treasure from the wrecker's ball. "One of the things we felt," says Alexander Speer, ATL's managing director, "was that we were preserving and opening to the public one of the finest


St. James Court (top, far right) has had a neighborhood association since lots were first sold in 1889, so houses were maintained through the years. Belgravia Court (right) went through years of decline before preservation efforts got underway in the early 1960s. Today both streets are among Louisville's showplaces. All photos by Day Johnston.





examples of Greek Revival architecture in this part of the country. Very few people in the city have ever been in it."

Those that have, have fallen in love with it, impressed, as Harry Weese was, by the elegance of the two-story skylit main banking room. Weese had been engaged by the theater when ATL decided that a renovation project was the only way they could afford a new permanent theater.

To use the building, ATL had to buy an adjoining office building, and then build the actual theater from scratch at the back of both buildings to gain the needed width. Buying the next door office building was no problem—all it took was money—but the bank was something else. Years before, it had passed into the hands of the Louisville Credit Men's Association, a tax-paying nonprofit group. The Credit Men felt that the capital gains on the sale of the fully depreciated building would prohibit any new construction. ATL bought a building a few blocks away, tore it down and built a new one to the specifications of the Credit Men's Association. When the new building was done, ATL traded it for the old bank.

Except for the main banking room which has been returned

to its original condition, the project created a "very contemporary" theater, says Tom Hickey of Weese's office. The basement of the bank was turned into a lounge and bar; offices for ATL, a large workshop for building sets, small experimental theater and the 600-seat main theater round out the project. Total cost is about \$1.6 million.

For their money, says Speer, "we're probably getting more space by acquiring and renovating two buildings than we could have by building from scratch. It also lets us concentrate our efforts on the theater. We could never have afforded to build a lobby of equal grandeur."

From the outside, the bank will look as it did when completed in 1837; the building next door, a typical late 19th Century office structure, has stone columns on the front, which when cleaned, will blend nicely with the bank's façade. And, adds Owsley Brown, an ATL board member and chairman of the building committee, "In the long run it may be a finer thing to have preserved than the bank. The bank would have been preserved anyway, by someone, sometime; but the old office building . . ." [CP]

Seattle: two humanity preserves

The core of Seattle is remarkable for its lack of public open spaces or focal structures; it is as if the views of surrounding waters and mountains are supposed to compensate for an almost total absence of man-made assets. The downtown area may yet be saved from suicide by dullness through two preservation efforts—Seattle's *only* two—one, the rehabilitation of a ragtag market complex dating from 1907; the other, re-use of commercial buildings from the 1890s clustered around the world's original Skid Road.

It may be the very lack of conventional landmarks—of fine civic buildings, churches and houses—that makes the current, broader meaning of preservation so clear in Seattle, so clear that voters supported a popular initiative to save the Pike Place Market. This complex of loft buildings, is one of the few historic districts in the country to win its designation at the ballot box; it is also one of the most unprepossessing landmarks—in traditional terms—ever recognized.

Pike Place Market is being preserved for reasons that have nothing to do with style, craftsmanship or historic associations, but as a setting for a lively mix of functions—food-sellers, flea markets, crafts shops, cafes, rooms to let. "With its emphasis on face-to-face, producer-to-consumer transactions," says a Department of Community Development fact sheet, "Pike Place offers urban dwellers an alternative to standardized living."

A typical market customer, met by chance at one of the shared tables of Lowell's Cafeteria (while watching ferries come and go over breakfast coffee) tells why he makes the trip to Pike Place from West Seattle: ''I don't even have to cross the street to get to a supermarket, but a supermarket is just a commercial thing; this is a social thing. I come down here often, sometimes join the talk around the big table over there (gesturing to the center of Lowell's upstairs dining room). Everybody gets a chance to say his thing, you know, and it's like an education. The people who own this place just keep bleeding it for rent, waiting to sell out so that it can be torn down for high rises and more supermarkets. A place like this ought to belong to the people.'' This from no political radical, just a retired man who has lived in enough cities from coast to coast to know how rare Pike Place Market is.

The voters did not act to save Pike Place from total demolition, but from a more subtle threat: a plan to embalm a 1.7acre portion as a sanitized centerpiece for a 22-acre urban renewal development. The market buildings had been allowed to deteriorate during the 1960s, and owners were not encouraging tenants to renew leases. In 1969 the city-armed with earlier studies by a powerful downtown business association-came up with a plan to redeem this "blighted" tract of "prime real estate" with a 4000-car garage, a 600-room convention hotel, a row of high rise apartment towers, plus 300 units of low-income housing, which would have sheltered about half of the single men then in old hotels on the site. The preserved fragment of market at the center would soon have been preempted by souvenir shops and cafes for the convention and tourist trade. Actual market activity would have had to leave the highly accessible site that was critical to its

success—and the market was drawing more and more customers, despite neglect by both owners and city.

Back in 1963, a group called Friends of the Market had been formed to keep Pike Place whole and functioning. Among its organizers were architects Victor Steinbrueck, Fred Bassetti, and Ibsen Nelson, along with other architects, attorneys and market merchants. As soon as the official urban renewal plan was published, the Friends mounted a campaign which culminated in the popular initiative measure of November 1971, calling for a seven-acre historic district subject to control by a 12-man Market Historical Commission. Opposing the initiative were the downtown business leaders, newspapers and radio stations closely allied with them, the project's would-be developers and the city government; there was even an opposition group deceptively styled the "Committee to Save the Market." The initiative carried by 20,000 votes.

Now that the earlier Pike Place renewal plan has been rejected, the city has turned over replanning to a special team of the Department of Community Development, working out of an office on the site. The office is staffed with five architects—including Project Manager James E. Mason—an urban planner, an economic analyst, specialists in relocation, community services, historical documentation, real estate and public information, backed by outside consultants on engineering, financial planning, etc. Among current studies is a critical one on housing or relocating single people who now live on the site and another on the projected future of farmer participation in the market. Allocation of \$14.6 million in federal funds for the project has recently been approved by HUD.

Planning for the historic district centers around two vital objectives: maintaining the continuity of its activities and bringing its structures up to minimum structural, health and housing standards. Mason estimates that up to 40 percent of structures in the district will have to be replaced to meet safety standards, with new structures that maintain the existing pattern of space and use. Continuity in the market will demand very sensitive phasing of rehabilitation and rebuilding a game of "musical market stalls"—and it will also require economic arrangements that allow present tenants to rent space in the refurbished buildings.

Current rents in Pike Place Market are not especially low for comparable uses in Seattle, nor is much of the merchandise low-priced. Market merchants are now prospering, but even a *slight* increase in rents could tip the balance toward highmarkup businesses. "We don't want the market to be Ghirardellized," says Mason, referring to San Francisco's stylish bazaar. "It has to remain meaningful for the average citizen."

Fragmented ownership of the market buildings obviously complicates the process of rehabilitation—and subsequent management. But official policy is to allow present owners to become "owner-participants" in the market rehabilitation if they are willing to accept the city's plans and policies for it.

Although the remainder of the 22-acre Pike Place renewal site is not covered by the historical district ordinance, the planners recognize the need to make it a transition zone between the markets and high density downtown development.





Location of the main market buildings along a bluff (above) allows for several levels of commercial use. A continuous market arcade (below) runs along the uphill access street (below, right). Harbor side of building offers seclusion and broad views (bottom, right). Ingenuous lighting and graphics dominate exterior and interior.



Mary Randlett











After a decade of private, building-by-building rehabilitation, the Pioneer Square district is now benefiting from public open space development (long-range plan, above, by landscape architects Jones & Jones). Occidental Square (A) has just been completed on the site of a parking lot; adjoining Occidental Avenue has median plantings, may eventually be closed to traffic. Jones & Jones' glass-roofed shelter/bandstand in this new park (top left) is an updated version of the 1909 iron pergola (left) in Pioneer Square (B). This relic of the Alaska-Yukon Exposition is now being restored to its original, glass-roofed splendor. The triangular plaza will be extended by incorporating the street along one side and planting median trees on the bordering avenue.





Charles R. Pearsor

Unofficial headquarters of the district is the Brasserie Pittsbourg (top left and above), downstairs in the Pioneer Building on the square. Among the many refurbished commercial spaces in surrounding structures is the Salsbury interior design studio, once the Capital Hotel saloon.

Saving places for people

Mason hopes to include some rehabilitation in this connective zone, and wants to avoid "overwhelming the market with skyscrapers." These would not hurt the market aesthetically, but economically—in terms of prevailing rents, Pike Place parking spaces, etc.

The public might not have realized the potential of in-town preservation if it were not for the privately sponsored example of Pioneer Square. Preservation in that area began in the early 1960s, when architect Ralph Anderson rehabilitated an old office building near the square for his own use. Up to then the square had been known only as the center of Seattle's Skid Road community of vagrants and alcoholics. Yesler Street, which runs along one side of the square, is the original Skid Road (down which logs were skidded to the sawmill)—a street so long established as a center for the down-and-out that it has contributed the phrase Skid Row to the American language.

Back in the 1890s, however, Pioneer Square was the commercial heart of Seattle, and its buildings reflect the exuberance of a city that was cashing in on the Alaskan Gold Rush. Later, as business migrated north, the solid office buildings and hotels around the square sheltered flophouses, saloons, hiring halls and missions. The flamboyant iron-and-glass pergola in the square became a refuge for vagrants, and the tall totem pole near it became a sardonic symbol of the many American Indians on Skid Road.

After Anderson showed the way, one building after another in the area just south of the square was reconditioned for use as art galleries, furniture showrooms, design offices, even a law firm, all attracted by high-ceilinged, broad-windowed space at relatively low rents. Along with them came a few sophisticated bars and restaurants, including Seattle's first sidewalk cafe. City recognition of the area did not begin until 1970, when a 38-acre portion was designated a historic district (over the violent objections of organized downtown businessmen). The city's first financial commitment has been for rehabilitation of Pioneer Square itself, the development of a nearby vacant tract as Occidental Park and the planting of street trees—at a total investment of about \$300,000.

The completion of these open space improvements will only add momentum to an on-going preservation movement. (Even the sudden collapse of half a building while rehabilitation was under way promises to be only a temporary setback.) The major drawback of Pioneer Square's prosperity is that the old Skid Road residents are gradually being dispersed along with the services they need. Already the number of panhandlers and winos in Pike Place Market, nine blocks north, is increasing noticeably. So far, the indigents and the new clientele seem to coexist comfortably around Pioneer Square; the new Occidental Park is reported to attract a broad mix of people, none apparently repelled by the sight of drunks. But if you stop to take a photograph in the area, you may hear a short message from one of the old residents about how "they're forcing out the little people."

A threat to the future character of Pioneer Square is a domed sports stadium planned for a site just one block south of the historic district boundary. The demand it will generate for parking and crowd-oriented cafes is bound to exert strong economic pressures on uses within the district.

Successful preservation of these two enclaves is essential for the survival of downtown Seattle. Despite overall drabness, the core of Seattle has remained a concentrated focus of regional commerce. This may be due in part to the fact that many workers can arrive by ferry and walk to work from there (an opportunity that has all but disappeared from other U.S. cities). A proposed transit system that could have strengthened the centralized pattern has been defeated by voters. Until some other way is found to reduce Seattle's dependence on cars, the city core needs all the help it can get to stave off dispersal. Pioneer Square and Pike Place Market—successfully executed—can do much to make downtown Seattle an attractive objective for visitors, shoppers and workers. [JD]

Advocacy planning on a town scale

If group dynamics, advocacy planning and increased awareness are viable tools for helping underprivileged communities, what about applying those techniques to town questions concerning preservation versus development? Lockport, N.Y. is not a poor town, in terms either financial or physical. When Malcolm Holzman of Hardy Holzman Pfeiffer Associates (of downstate New York) was working on a theater in Lockport (upstate), he was impressed by some much-overlooked potential in the town. Together with James Burns of Lawrence Halprin Associates, Holzman and members of Burns' class at Cooper Union sought ways to help Lockport, without imposing their own architectural/planning values.

Lockport takes its name from the Erie Canal locks around which the town grew. Its most prominent physical features the canal, locks and rock escarpment—form dramatic views adjacent to the central business district. That area also includes some fine old brick and stone buildings such as the present City Hall (1864) and the Ruhlman Building (1825). Both were built as mills, and occupy key sites near the locks and CBD. Another section of Lockport, Lowertown, is what remains of Niagara County's high finance district of the 1820s, now occupied by a largely black population. The canal there is (or was) edged by a delightful array of low buildings, both brick and stone, used for various purposes. There are also many handsome old residential sections of the town, which derives most of its financial stability from General Motors' Harrison Division plant.

Still, as in many communities, business is a tough business. Commercial developments on Transit Avenue (toward Buffalo) began to usurp CBD profits. Urban renewal proposals



Workshop score for boat trip on the canal

Go to Site A on your walking tour map, the Duckboat landing, and board the duckboat.

1 During the voyage downstream and back, record your impressions of: uses of the canal; uses of the canal's borders; what occurs where land and sky meet; how many people you can see and what they are doing.

2 On arriving at landing B in Lowertown, disembark and walk across to the north (grassy) side of the canal to the next bridge. Observe natural and manmade forms, and potentials of the environment.

3 At Adams St. bridge, climb one of the towers and record your feelings about the overview by using the TV videotape camera that will be there with someone to help you film.

4 Descend and walk back to the Duckboat dock along Market St., stopping twice to record your impressions, including: relationships to canal; relationships to history; relationships to people; relationships to the future.

5 Board Duckboat and return to dock at the foot of the locks. Proceed to next activity. Bon voyage!





Through walking tours (top) and duckboat trips on the canal (above), residents took a fresh look at Lockport. Old five-stage locks (right) are still of scenic interest, with replacement two-level locks adjoining them on the left, out of the picture. Park proposals for this area along the canal may preserve at least that part of Lockport's fast-disappearing visual legacy.

Saving places for people

were formed on paper, wiping out Lowertown's charm and favoring development over people in downtown areas. An apathetic Lockport had lost interest in the canal and was allowing aging assets, both physical and financial, to slip through its collective fingers. A very familiar pattern developed—the momentum of developers, shopping malls outside city limits and urban renewal plans, had become formidable. Any attempted new proposal must now play catch-up ball against overwhelming odds.

Holzman, Burns and the Cooper Union students organized an exploratory Community Workshop for Lockport in 1971, to try to allow residents a chance to affect those odds. This led to CWII in 1972. This time, reinforced by experience and students from the State University of New York at Buffalo, the group had high hopes. With funds appropriated by the Lockport Common Council and New York City donors, a matching \$5000 grant was obtained from the New York State Council on the Arts. Avoiding the obvious path of informing townspeople what they ought to do, the organizers planned sessions to help residents set their own course. Despite all hopes, only about 140 of the 27,000 residents elected to take part. Although people of all ages and political-economic levels attended, there were no representatives of the black community (nor, some contend, enough of Lockport's leading citizens). Four open one-day workshops were held, with participants discussing observations gathered on scheduled walking, driving and boating tours. Following a printed score, tours suggested ways to observe town sights that residents, through familiarity, had ceased to notice. On a one-hour walking tour, for instance, participants were asked to follow routes without talking to each other, so that individual observations would result. As the boat trip score shown indicates, suggestions were used to increase awareness without forming predetermined results. "What is your objective?" was CWII's predominant question.

But business is still business, and plans are still plans. If the town doesn't get on with its urban renewal, it will lose promised funds. Lowertown must go, as must a number of CBD structures. Plans for a new building skirting the canal show the escarpment lined with yet another parking lot. A public hearing held the fifth day of CWII produced presentations and suggestions of workshop groups, and lively discussions with officials. There, again, were those inevitable conflicts between new awareness and vested interests. Referring to the new building and parking lot, an urban renewal official scolded the group for thinking that last minute changes might yet be made. "Don't keep talking about this development as a plan," he warned, "it is definitely going ahead." The only apparent effect by CWII was a walk along the canal edge of the parking lot (designed by the town engineer) to let people "use" that side.

Results of the sessions, therefore, seem to be mixed. A list of CWII suggestions, compiled for review by city officials, probably gives the most optimistic viewpoint. In matters concerning town policy, the group asked for strict code enforcement, an architectural review board and regular town meetings for open discussion of city problems. For the canal and locks, residents want park areas on both sides, better lighting and maintenance and a listing on the National Register. Although bulldozers are almost ready to level many buildings, the list includes recommendations for City Hall and the Ruhlman Building and asks that a survey be made of all existing historic places. Another plea is that future development will emphasize the canal, allowing people, not parking, to use the brow of the escarpment.

New life apparently has come to one town organization, Historic Lockport, which had all but died just as CWII was being set up. Its new head, David Zimmerman, spoke out for citizen action at the workshop presentation session. He was charged by a "native" with being a newcomer who had not made any contribution in his seven years in Lockport. Acknowledging his—and everyone else's—apathy in the past, Zimmerman hopes that Historic Lockport can be effective by staking out realistic goals. By not dissipating its energies on doomed projects, the group will accomplish more and sustain member interest. The scheduled October demise of Lower-



Ruhlman (Electric) Building.



City Hall and adjoining spaces.



Park space along locks and canal will help, although escarpment may be rimmed with parking lots.

town buildings, for instance, allowed too little time for action.

In the words of a representative of the New York State Historic Trust, "The town will wake up when it [Lockport's heritage] is all gone." Although applauding CWII efforts, he thought that workshop organizers would do well to work harder at aligning more powerful allies within the town, and at subordinating the "outsider" role when trying to help a community. Those who participated, of course, held less resentment for the "outsiders and college kids."

Some of the students agreed with Lockport's David Haley that there was a breakdown. Haley, a former council member and present member of the Lockport Environmental Improvement Committee, felt that the workshops suffered by not having specific objectives or a final result. There was some feeling that the frustrations of recognized problems might be better served with careful doses of expert advice.

Other reactions to CWII range from optimism to pessimistic resignation. Most participants agree that the canalside park is a definite possibility. Some feel that a few old buildings have a fighting chance. Everyone is aware that the workshops would have been more valuable in halting Lockport's disintegration 10 years ago. Town problems, however, seldom produce a determined effort until consequences actually threaten residents in some clear way. The workshop's full impact, or lack of effect, on Lockport will take time to assess. One of the most promising products of the workshop is the edited videotape of CWII proceedings. All sessions were taped, and this technique was a highlight for participants, who enjoyed seeing themselves "on the tube." The final version of the tapes will be used to help other communities apply the Lockport experience to their problems. If Lockport succumbs to the bulldozer, that record may be the contribution of CWII. [JM]



Residence testifies to Lockport history.



Lowertown's canal scale lost out.

Lowell discovery network





Lowell, Massachusetts, is the product of industrial growth and decline—a city that in the last 50 years has had an unemployment rate hovering around 15 percent. Yet Lowell is an extraordinary example of a town planned around the resources of an earlier industrialization which could not adapt to changing technologies and a shifting economy. "Lowell exemplifies an environment," say the planners, "about which little is known and even less is understood by those whose lives it shapes. Economic, physical and social decline characterize the life of the city. Stimulating educational, rec-

NIX

VI M



city-forest interchange

Map (left) shows canal system with open space pedestrian paths as well as various historical sites proposed for development. Cartoons indicate specific ways of implementing some of the ideas suggested for turning the city into an educative environment. Commenting on the plan, EFL said, "It is a project which will use found space rather than building from scratch. It will use all the resources of the city, churches, historical architecture, railroad yards, factories, even its old jail, for a find of total education for all its citizens."

reational, cultural or artistic resources are almost nonexistent. Many Lowell youths want nothing more than to leave."

The Lowell Discovery Network by planners Michael and Susan Southworth is a broadly based plan to use those remaining elements of Lowell's past that are unique to its industrial history; the plan emphasizes processes and consequences of industrialization by integrating education with the life of the city. As defined by the planners, an educative environment is "a place where one cannot help but learn, not because one has to or even wants to, but because the place itself communicates something of its form, function, people and past." Part of the apathy toward the city, the Southworths feel, is due to a lack of ability to understand the forces that shape the environment and, consequently, the inability to deal with changing it. By drawing on the resources of the city for learning about it, the planners want to involve the community in a process of change. "Community development efforts," they feel, "should be aimed at making the physical, social, and institutional environments of the city into resources for learning. Carried out with the active participation of Lowell residents, this creative process as well as its products would help individuals discover new interests, develop new work skills, articulate needs, values and ideas, deal more effectively with environmental change and more fully comprehend the forces

Saving places for people

which affect their lives."

The by-product of this effort is the reuse of many urban elements that have been lost through disuse and neglect. After initial historical and contemporary studies of the city, the planners proposed eight major areas of resources for development: Indians, river, forest, canals, mills, contemporary people, visual environment, contemporary industries.

The proposal for dealing with the economic, social and physical decline of this city goes far beyond the usual remedial efforts of both urban renewal and preservation. Initially funded under the Model Cities Educational Component, the plan was limited in scope by the definition of the environments as educational. Even though the education takes place in a nontraditional setting or, in the case of proposed muWhile many of the specific ideas in the plan are only suggestions of possible ways to reuse the Lowell resources, many of the ideas are historically based and their proposed reconstruction is meant to attract outside visitors, develop a tourist industry and provide an economic stimulus both with new jobs for residents and supportive services to tourists. While this is an acknowledgment of the economic problems and an effort to provide new economic inputs, the planners' suggestions for dealing with the historical context of the city have some serious consequences beyond those of the potential economic benefits.

Historical reconstructions—an Indian village, an 1850 mill yard and old manufacturing processes—can offer some form of recreational pursuit for the residents, but it cannot offer the



seums, traditional ones, the participants are still being taught. The Southworths' proposal would make Lowell a self-evident learning setting through a central communications facility, providing information not only about educational opportunities, but new physical development, social and public services as well. Perhaps more to the present and future benefit of Lowell as far as its residents are concerned, is the conversion of one mill into a social center set up and managed by students for themselves. Also proposed are maps and models that will help residents understand new projects or developments and supply information about citywide and neighborhood oriented events. This is the city telling about itself and telling people what they want to know. Since the original proposal was drawn up, the program has been transferred from the Model Cities Educational Component to the Human Services Corporation, which has allowed the planners to expand their ideas beyond those of an educational nature. The first proposed development-with a matching fund grant from the National Endowment for the Arts-is the conversion of one mill into a cultural center to include space for drama, concerts, artist studios, ethnic restaurants, an art gallery and community art facilities.

long-range commitment or involvement needed by the community for change. In view of the planners' aims to recover and revitalize the resources of the city, the reconstruction of historical sites seems a static clog in what should be a dynamic and changing process of growth and adaptation.

How does all this make life better for the individual residents, especially the unemployed or underemployed? How much of this plan makes a connection with the day-to-day lives of all the people of Lowell? Rather thoughtfully, the planners recognize this open-ended question: "The need for improved housing, health care and social services is certainly of higher priority than development of the educational environment. Might not people resent [money] being spent [on education] while the more important shortages remain unrelieved? These questions can only be answered by involving the community at the investigative stages. Some of the answers may change entirely the purpose and direction of development for the city of Lowell."

Perhaps the most valuable role the planners can play is to help the people of Lowell see the potential of future uses rather than dwell on a past filled with memories of a struggle to survive in a declining social and economic city. [SLR]



Preservation in Great Britain

Conservation and the built environment

Peter Melvin

In this report, the author reviews the conservation acts of the UK, public participation, economic viability, individual listed buildings, new structures and the great need for public awareness of environmental quality

In contrast to landscape, where change is only accepted to meet the needs of society and the natural order of things is paramount, it is change that is the life blood of the built environment. The city, town or village is a living museum and the pressure exerted for change is to be welcomed as evidence of the vitality of the population. Many people believe that preservation is the only means by which order can be maintained, but as a universal policy it would result in stagnation of the very places we love. Whereas change is an essential ingredient in maintaining the life of urban areas, the quality of the resultant environment depends on the skill with which the change is implemented.

Great Britain has a fine heritage of buildings and landscape, and over the past 10 years public concern about the future of this environment has increased. The first signs, which gave no indication of the flood to follow, were simple protests such as letters to the local or national press. Then volunteer groups, known as amenity societies, were formed at both the local and national levels. They wield considerable power and influence over environmental matters-to the extent that sometimes even a proposal to demolish an indifferent building or cut down a spindly group of trees is met with howls of protest. Together with the environmental heritage, and perhaps because of it, Great Britain has a sophisticated system of planning control administered by means of various Town and Country Planning Acts commencing with the 1945 Act. Onward through the years subsequent Acts have introduced more definitive and complex legislation controlling land use, density and transportation, but in respect of aesthetics a negative form of control was exercised under which good design often foundered but indifferent and sometimes downright bad designs were permitted.

In 1967 the Civic Trust, a nationally orientated amenity soci-

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ety, managed to get a private Members' Bill before Parliament which led a major breakthrough in planning legislation. The 1967 Civic Amenities Act came about as an amalgam of public concern and government awareness of the need to cushion society against change. The 1968 Town and Country Planning Act gave teeth to the means of aesthetic control in certain areas and in relation to certain buildings. It has also given increased protection to buildings of architectural and/or historic interest and provided an effective section dealing with disposal of abandoned vehicles and other refuse which have long been a severe environmental problem.

The major change is summed up in a paragraph in the beginning of the Act: "Every local planning authority shall from time to time determine which parts of its area are areas of special architectural or historic interest, the character or appearance of which it is desirable to preserve or enhance, and shall designate such areas (hereafter referred to as 'Conservation Areas')." For the first time, therefore, the importance of areas was recognized and in an accompanying circular the government stresses that particular importance is attached to the designation of conservation areas; this represents a shift of emphasis from negative control to creative planning for preservation.

A system of protection covering individual buildings of merit which graded buildings into groups, had been in existence for a long time. Those qualifying for inclusion in Grades I, II or III required notice to the local authority before demolition or alteration could take place. If within two months the local authority did not issue a Building Preservation Order preventing such work from being carried out without consent, the building in question could be demolished almost overnight, or butchered beyond recognition. The new legislation changed all this. The graded buildings (commonly known as "listed buildings") are now protected as if they had been the subject of a Building Preservation Order and therefore alteration or demolition cannot take place without local authority consent. The penalty for unauthorized action can be as much as 12 months' imprisonment.

The grading or listing of buildings is a continuous process and the nomination of a building for inclusion is open to any member of the public as well as being the responsibility of the local authority. The nominations are submitted to the Department of the Environment (the central government department



- Highlights
 Frontage lines of value
 Significant walls, screens, & railings
 Space closure needed
 Significant trees
 Important views
 Good floorscape or landscape
 Floorscape or landscape in
- Floorscape or landscape in need of improvement

responsible) and those buildings considered worthy are added to the list and thereby afforded protection.

Public participation

Under this new legislation wider public participation became essential, and local authorities are required to advertise any application for development which would affect the character of a conservation area and pay attention to any representations made. Furthermore, applications for consent to alter or demolish a statutorily listed building must be advertised on the site and in a local newspaper.

The effect of this legislation is only just beginning to be felt by the average man in the street, but the enormous ramifications are increasingly evident to architects. The need for design skill benefits the profession by permitting the architect to fully demonstrate his ability to solve visual and technical problems within strict environmental constraints. In a designated conservation area, any proposal to build must be submitted to the planning authority in the form of a detailed design. The submission must fully illustrate how the proposals relate to the environment so that an assessment of the visual effect can be made as part of the overall consideration.



Portion of a conservation area survey map covering the central area of Cambridge, England, prepared by the city architect and planning officer.

Shopping development for central Stratford-on-Avon will include parking structure, service road and pedestrian access without disturbing the existing peripheral street facades. Frederick Gibberd & Partners are planners.



Conservation and the built environment

The local planning authority also has an important role to play; it not only has the responsibility to designate the conservation area in the first place, but also to back up action by producing a plan of the designated area together with substantial environmental survey information and a policy document indicating the planning strategy for the future. Unfortunately the quality of environmental information prepared by the local authority is not always high, but when it is as good as the townscape analysis prepared by the City Architect and Planning Officer of Cambridge, there can be no complaints. It is also the responsibility of the local authority to control the rate and scale of change and to understand the complex functioning of the area so as to be aware of future needs.

Economic viability

Whatever the requirements for each area may be and notwithstanding the points made above, any conservation policy that does not include economic viability in addition to good intentions is doomed to failure. There are many kinds of obsolescence in buildings, but they all show themselves eventually as economic problems. One of the real dangers is that obsolescence breeds a sort of environmental fear. Seeing buildings fall into disrepair and become dilapidated encourages inhabitants of an area to leave or to neglect the environment and the rate of obsolescence quickens. Unless the right economic action is taken, a neighborhood suffering from this problem can become a depressed area with all the sociological problems that breed within a few short years. Obviously there are many occasions when large-scale redevelopment on a comprehensive basis is necessary, but there is enough evidence now to show that this can create more sociological problems than it solves. The planning authority should keep a careful watch of an area-a sort of taking the environmental pulse-and when any signs of neglect appear must ensure that there is an incentive to avoid obsolescence and the subsequent downhill slide. Private investment, with the exception of community action, only happens with sufficient financial inducement. In many cases the conversion, extension or rehabilitation of an existing building will offer an adequate financial return. This process, together with selective redevelopment on an infilling basis will ensure environmental maintenance and the gradual change necessary to the retention of the character of a place.

The out-of-town shopping center is an example of the pressure that produces the fast rate of change that can cripple an existing environment. It is in these and similar situations that planning control must be exercised so that the right decisions are taken on a comprehensive basis and not just to obtain the benefit of immediate financial return. It is frequently possible to provide the facilities of the out-of-town shopping center within the infrastructure of an existing area to keep the town viable. With design skill, the changed environment will be







SOUTH ELEVATION AND SECTION

Protected from demolition as a listed building, Tring Vicarage in Hertfordshire was too dilapidated for use as a residence. Preserved and converted to church offices, it will become the focal point of a complex that will include a new office wing, parish hall and vicarage. Melvin, Lansley & Mark are architects; photo by Simon Dell.

- A HIGH STREET B PARISH CHURCH C GATEHOUSE D NEW CHURCH HALL E NEW OFFICES F OLD VICARAGE
- G DEMOLISHED BUILDINGS
- I NEW LINK ROAD



Conservation and the built environment

graced by the old and enhanced by the new. This kind of environmental surgery is being performed skillfully at Stratfordon-Avon by Frederick Gibberd & Partners in the central shopping development. The proposals are based on the need to maintain the existing medieval character; to preserve the existing contrast between the closely built-up inner core of the town and the openness of the river frontage; to maintain the existing street character derived from the considerable number of remaining half-timbered buildings; to confine the redevelopment to the outworn and nondescript heart of the area; and finally to plan the servicing in a form which would permit the existing perimeter shops to be included. Apart from the successful visual integration and the obvious financial success, the scheme provides all the amenities such as convenient parking, safe undercover pedestrian shopping and proximity of various types of shops, that an out-of-town center can provide.

Reusing old buildings

In safeguarding the character of an area, the re-use of individual listed buildings requires perhaps the highest degree of ingenuity. Protected from demolition, perhaps in a poor state of repair and rarely needed for their original functions, they demand new uses to ensure continued life in a well-maintained state. Here is a great architectural challenge, for coupled with the need for ingenuity is the whole problem of designing in a historical context. The new use frequently requires an extension, or at least a major rehabilitation, and in these circumstances the designer's skill is fully tapped. As opposed to preservation, where painstaking restoration is the order of the day, adaptive use conservation requires good modern design which does not devalue the existing buildings by copying. The example illustrated here suffered a long history of dereliction before a suitable use could finally be found. Tring Vicarage, in Hertfordshire, is a Grade II listed building in Jacobean revival style erected in the 1820s. It was no longer suitable for use as a vicarage, as it cost too much to maintain and was in an advanced state of dilapidation. Since conversion to ordinary residential would not attract sufficient rental return it was decided to convert the building to church office use. An extension was added to provide additional office space together with a new parish hall to serve both Anglicans and Methodists. The injection of these new mixed uses, as well as providing the important ingredients for the opportunity of visual success, enables the vicarage, trimmed down to its original size, to be restored. It is now the focal point of the complex and the new buildings have been linked to it to form a collegiate type of development involving the church, gatehouse and the new vicarage.

New buildings

New buildings should be built within the discipline of the local identity. Sometimes a whole area is focused on some simple feature such as a hill, river, crossroads, church or quite small-scale elements such as balconies, railings or a particular form of detailing. At Tewin, a small village in Hertfordshire, architects Adams, Huntley Associates decided that a small housing project should close the end of the green. It would have two-story terraced units reminiscent of the pattern of the village as a whole. This respect for the identity of the place manifest in the handling of scale, form and detail permits the totally modern vernacular of the new houses to completely harmonize with those existing.

In the High Street of Berkhamsted, solutions to the problems of scale posed by a new headquarters office building have been attempted in various ways. Adjoining the development on one side is a two-story nondescript Georgian revival building of 1930 vintage and on the other, across a side



New housing at Tewin, Hertfordshire, closes off the village green; their long raking roofs and dormer windows are traditional features of the area, and the small scale relates well to the Victorian terrace houses in the background. Adams, Huntley Associates are architects.





street, is a delightful single-story terraced group of 17th Century almshouses. Architects Melvin, Lansley & Mark chose to maintain the height diversity by building a four-story block linked to the adjacent building with a single-story pitched roof shop unit. From the other side the return elevation of the fourstory block acts as a backcloth to the almshouses. The shops at ground level are expressed as individual units, further identified by a lead-clad oriel window over each which echoes the small scale nature of the remainder of the town. The oriel window, a typical feature of the town, occurs in various forms on several existing buildings.

In conclusion, it is clear that the heritage we admire evolved largely through natural pressures. In addition to having a full understanding of the environmental quality of a place, it is necessary to understand these pressures so as to direct and coordinate the energy generated by them into buildings that maintain and enhance the environment. Of paramount importance to the success of this process are two further factors that should always be borne in mind. First is the need to create a public awareness of environmental quality that, in turn, will produce an enlightened legislative framework in which the designer can work advantageously. Second, no matter how good the rules, there is no substitute for skill.



New office building (end of block, left) fits into a Berkhamsted street by continuing the shops at street level (above) and repeating traditional oriel windows such as those over bookshop (bottom). Photo below shows how the new building acts as a backcloth to the 17th Century almshouses at right. Melvin, Lansley & Mark are architects. Photos by Julian Barker Kaal.





The facets of renovation

Portfolio

Reuse, rescue, refurbish, restore, redecorate, preserve, polish and protect; a portfolio of projects that succeed in accomplishing one or more of these goals

Salvaging a site

When the Burroughs Corporation was faced with the need for a new administrative headquarters, it could have, like so many other companies, fled to the suburbs. Instead, for polítical and economic reasons, it chose to stay in Detroit and rebuild its 20-acre factory site. After demolition of 18 outbuildings, three large factory buildings were stripped to their skeletons to house corporate administrative offices, computer rooms and product display areas. Reinforced concrete foundations, columns, floors and roof framing were all that remained of the five-story structures that had been built between 1914 and 1918. A few steel beams and columns were added during the renovation.

Precast concrete panels with exposed limestone were attached to the existing concrete frames to form the new façades. The panels weigh about 7 tons each and incorporate two lights of bronze heat absorbing glass, separated by a solid aluminum mullion. Other additions included concrete floor fill over the existing floors to accommodate underfloor trench duct systems, 5-ply built-up roofs, gypsum board partitions, new stairs and elevators as well as all plumbing, mechanical and electrical systems. The precast walls and structural members were fire-proofed with sprayed asbestos. At the first floor, computer and display areas are enclosed with 1 in. insulating clear glass with a few porcelain steel panels installed for privacy.

Architects Smith & Gardner describe the project, at 675,000 sq ft, as the largest rehabilitation ever undertaken for reuse of such buildings.

Data

Project: Burroughs Corporation World Headquarters. Architects: Smith & Gardner.

Site: 20 acres of company-owned factory buildings.

Structural system: existing concrete frame sheathed in new precast concrete window units.

Mechanical system: dual duct, high velocity air conditioning with hot or chilled water; separate air supply to computer room.

Major materials: precast concrete, bronze glass, exposed aggregate paving, aluminum and glass doors, gypsum board partitions. **Costs:** approximately \$26 million, including demolition.





David Jordano photo

New wall components replaced exterior shown in 1913 photo.



Yesterday's grace, today's usable space

This year the doors to Cooper Union's old art and architecture Foundation Building did not open to the students and public who have used its facilities for almost 120 years. Classes, however, continue in nearby rented spaces. Under the direction of John Hejduk, chairman of the school's architecture department, in association with Peter Bruder of the Engineering Department, the building will be completely renovated inside and impeccably restored on the outside. "This will not be a glossy restoration," says John Hejduk, "we want a building we can use, that can respond to any curricular changes in the future." Part of the trouble with the old building was the amount of valuable space wasted in grand hallways, foyers and stairwells; over the years the need for more space prompted piecemeal alterations that gradually cluttered and disorganized the interior. The purpose of the renovation is to enlarge the spaces, clarify them, and bring the building up to modern fire-code regulations.

The famous Great Hall in the basement will be air conditioned, relit and refurbished to bring back its 19th Century architectural dignity. The library, the first public one in New York and once the city's largest, will be consolidated on the first floor where it will be more accessible to the public as well as students; a new mezzanine will provide quiet reading rooms and an audiovisual center. There will be offices and seminar rooms on the second floor, while the industrial-loft spaces of the four floors above will be given over to large art and architecture studios. The smaller seventh floor will house more offices, and on the even smaller eighth floor clock room, where the works of the huge tower clock will be encased in glass, there will be a new trustees' room with a roof terrace at one side. Anticipating the invention of the elevator, but not its shape, Peter Cooper's original design included a round core for the device. Now, the square elevator that has been used for years finally will be replaced by a round one.







Typical new floor plan

Correcting post-Victorian mistakes

When William P. Clements bought Cumberland Hill, the oldest public school building in Dallas, his only plans were not to tear it down. He liked it, even if it had been "modernized" so many times since 1889 that it wasn't even a good example of Victorian architecture.

But when architects Burson & Hendricks located an old picture of the original building that showed a steep roof and cupola instead of a 1920s flat roof and crenellated parapet, Clements decided to remodel his prize once more. This time previous architectural blunders would be corrected and the building used as headquarters for Sedco, his oil drilling firm.

Off came the flat roof and parapet, along with a corner

"castle" entry tower and its pointed arches. Additions made in 1901, 1905, 1913 and 1919 were kept, but their windows and decorative details were modified to blend with the oldest part of the building. A coat of ochre paint helps hide the fact that different brick was used for different additions. The new roof, of standing seam metal, has a lead pewter finish that is similar to 19th Century roofs common in the area. The cupola has a slate roof and bronze glazing; below it is a well open to the first floor lobby and grand staircase. Interiors were furnished in Victorian style and the landscaping further emphasizes the contrast between the building and its curtain wall neighbors in downtown Dallas.







Data

Project: renovation of Cumberland Hill School, Dallas, as corporate headquarters for Sedco, Inc.

Architects: Burson, Hendricks & Associates; A.H. Pierce, consulting architect.

Consultants: Chester R. Reed, structural engineer; D.W. Torry & Associates, mechanical and electrical engineers; Lambert Landscape Co.









Opulence revisited

When the Eastman Theater was reopened at the University of Rochester last winter after a \$2.3 million refurbishing, concert patrons found everything just about as it had been before. There were two exceptions: embellishments and decorations long hidden under dust and grime suddenly were visible; and a new steel acoustical shell projected sounds from the stage so well that the audience could hear the conductor quietly wish the orchestra "good luck" as it began playing.

Mechanical efficiency, rather than returning the luster of the 1920s opulence, was the prime object of the restoration. In addition to the acoustical shell, which can be lifted out of the way when not required, improvements included an air conditioning system, water coolers in the formerly dry lobby, a new stage floor and orchestra pit that can be raised to stage level for dance performances, new rigging and lighting and new seats (wider than the originals) upholstered in a warm Etruscan red.

Carpets and the stage curtain were replaced, as were 12 "Psyche and Cupid" scenic wallpaper murals in the lobby and mezzanine. The scenics had been printed from woodcuts commissioned by Napoleon in 1814, and could not be cleaned. John Wiste, interior designer for Ellerbe Architects, located another set, printed in 1923 and the last available from the same blocks. A plastic finish will preserve them.

Much of the refurbishing was a cleaning and polishing job, from walls and ceiling to paintings and wall sconces. Original furniture was reupholstered, and the final touch was replacing the original teardrop, lost for years, in the main chandelier. Two items not replaced are gilded washtubs which had been installed 50 years ago as "temporary" substitutes for balcony chandeliers that never arrived.

The theater, designed by McKim, Mead & White and first opened in 1922, was a gift from George Eastman to the Eastman School, forerunner of the University. The renovation was paid for by the Eastman Kodak Company.



Data

Project: Eastman Theater renovation, Rochester, N.Y. Architects: Ellerbe Architects.

Consultants: George C. Izenour Associates, theater; Paul S. Veneklasen & Association with Anderson-Angevine, acoustical; Mather, Zimmerman & Shwabe, design; Carl K. Hersey, historical.

Prairie school commercial

When Purcell, Elmslie and Feick's Merchants Bank of Winona, Minn. opened in 1912, it was far ahead of its time and not generally appreciated by the public. It was essentially a simple cube of brick, glass and terra cotta, with a symmetrical plan and elevation. Unlike the prevailing neoclassical rural banks of the time, it typified the architects' conception that such a structure need not be rigid, formal and lifeless, but could be dignified, functional and economical. Purcell and Elmslie, now recognized as important figures in the prairie school movement, had earlier worked with Adler & Sullivan.

Scheduled for demolition in 1968, the bank had by that time





become widely known as one of the last surviving examples of prairie school commercial architecture. Although it had been expanded and remodeled several times, public interest soon made it apparent that the building should be retained and restored. Dykins-Hanford, Inc., the Minneapolis architects who had been commissioned to design a new building, were retained as restoration architects and directed to follow the original design as closely as possible. Fortunately, the original architectural records had been preserved in the University of Minnesota archives.

Today the impressive main entrance leads to a restored central banking room where the glass skylights, destroyed by an earlier remodeling, are now back in place. In the 24-ft-high room the murals of local scenes have been cleaned, the oak trim has been restored to its original finish, and the six 10-ft columns topped by large globe lights have been restored. The exterior has been cleaned and repaired where necessary, and Dykins-Hanford's new addition has been sensitively subjugated in ornamentation and fenestration to allow the original building to remain the focal point.





The best of both worlds

America's newest opera house is 94 years old. Not only is it the second largest, it is also one of the very best. For 77 years the 3642-seat Victorian Music Hall in Cincinnati has been home to the Cincinnati Symphony Orchestra, but without air conditioning, it could not be used during the summer. For over 50 years the city's Summer Opera has been performing in the park of the Cincinnati Zoo, never having a real home of its own. Now it has, for in June the Opera took up permanent residence, along with the symphony orchestra, in the exquisitely renovated Music Hall.

Over the past three years Schatz Associates, with Alan Schatz and Bruce Schweninger in charge, have painstakingly renovated and refurbished the old hall without marring any of its 19th Century grandeur. And, almost miraculously, the acoustical quality for which the hall is renowned has remained unchanged.

To change a concert hall into an opera theater, while retaining its original function, a pit must be created for the opera orchestra. Yet the concert orchestra must continue to play on stage, not separated from the audience by a large pit. The major task of integrating the two functions was done by extending the forestage farther into the orchestra and installing a hydraulic lift under most of it, and there is now the choice of either orchestra pit or concert stage. But opera also requires extensive dressing room facilities, rehearsal rooms, workshops and storage space for costumes and sets. And fortunately, in the large hall, there was room for all of these, plus space to store sets for more than 40 operas.

At the time of renovation a new, completely electronic system of stage lighting was installed, the building was air conditioned and escalators to the balconies were discreetly installed in a foyer adjacent to the main lobby. The auditorium and public spaces have been redecorated in red, white and gold, and the exterior has been sandblasted to bring out the original, warm colors of the old, pink brick.

The total cost of the renovation was \$6 million, about half of which was contributed by the Corbett Foundation. But even if the city had paid the whole bill it would have been a bargain now with its two functions, the Music Hall truly gives Cincinnati the best of two worlds for the price of one.







Missouri mix

In keeping with the fact that Missouri's first state capitol was in use only from 1821 to 1826, its restoration as a museum of the period includes two rooms from its subsequent use. After the legislature moved from St. Charles to the more centrally located Jefferson, the first floor became a hardware and dry goods store while the upper story was divided into apartments. A reproduction of the store is stocked with typical 19th Century items and the room where the storekeepers lived has been redone as a bachelor residence of the period. The Governor's office, Senate Chamber and the House of Representatives, however, are once again intact.

The restoration was a 15-year project of the Missouri State Park Board, which started by tearing out brick walls that had been put up in front of the originals, replacing "modern" copper gutters and spouts with wood ones, opening up sealed fireplaces and replacing gas heaters and oil stoves with potbelly stoves.

Not wanting to cope with 1821 inconveniences such as ashes and soot, and being unable to conceal radiators or hot air ducts, the architect, Kenneth E. Coombs, used electric radiant heating panels for both ceilings and walls. Because the heating cables are concealed within %-in.-thick gypsum board panels, a code variance was required for the wall panels (the cables could be severed if pictures or fixtures were to be hung without care). As a final "authentic" touch, the drywalls were plastered and whitewashed to match original walls, and thermostats were hidden behind pictures or furniture.











RR reuse

Old railroad stations are prime candidates for refurbishing and reuse. They are romantic, roomy and available. Even before the last passenger train left the Rock Island depot in Lincoln, Neb. in 1966, the station was the subject of sketch problems by architectural students at the University of Nebraska. The building, constructed in 1892, has now been listed in the National Register of Historic Buildings, and has begun a new life. Under the direction of Lawrence Enersen, of the architectural firm of Clark & Enersen, Hamersky, Schlaebitz, Burroughs & Thomsen, the station has been spared both the wrecker's ball and excessive modification.

Purchased by the City National Bank of Lincoln, the building is now a satellite drive-in bank. Restoration of the main space has substituted tellers for ticket agents, with old cages serving new uses. An extensive effort was launched by bank officials to refurnish the depot with authentic items of the appropriate era. With cooperation by various railroads, banks and the architects, the interior authenticity and condition was restored, living harmoniously with the new electronic and pneumatic systems for drive-in banking.

Egg and dart





The Robert Lewis Showroom in New York City occupies a 4000-sq-ft loft space with a 15-ft-high ornamental plaster ceiling. The first and most important decision made by the client and architect Kenneth Walker was to retain as much of the architectural detail as possible. This led to the obvious problems of fitting in a new mechanical system and overall illumination, and breaking up the space into small offices, clerical space and a showroom. The first two problems were easily solved: the mechanical system was hung from the ceiling and painted a bright magenta while overall illumination was installed in the partitions and reflects off the ceiling.

But to have white partitions stopping short of the ceiling would have provided no contrast with the white shell. Both as a necessary visual ending to the partitions and as a humorous gesture to the 19th Century detailing, the architect designed his own two-dimensional version of the classical egg and dart motif as a cornice for the partitions. The addition of the graphic motif creates a tension between the new and old symbols, allowing each to be appreciated for its own qualities.



The old post office museum

New life for a dead letter office

Walter Kidney

In 1968 it was scheduled to be demolished in the name of urban renewal, but today Pittsburgh's old North Side Post Office has been restored to new use and new life as The Pittsburgh History and Landmarks Museum

Until 1907, the North Side of Pittsburgh was an independent community with all the appointments of an old-fashioned small town. As Allegheny City, its post office had to be a representative building, that is, one that "showed" the flag *and* absorbed and disgorged mail. Begun in 1894 to designs by William Martin Aiken, the architect of the U.S. Treasury, it showed, along with the determination to impress, a certain indecision as to how. For it is a naive building, the product of a time of violent change in fashion. Had it been done five years before, it would probably have been Romanesque, with rockfaced sandstone walls and a pyramidal roof in red tile. But the World's Columbian Exposition and Stanford White's Quattrocento experiments had begun to set new fashions by 1894, and the post office was thus tentatively modish. Of a slightly somber granite, it was a little unsure of itself in proportion, but airily classical, with plenty of big round-arched windows, pilasters and balustrades, and a truly Federal dome above it all.

Inside was an impressive public ambulatory, but a woodand-glass screen separated it from a much more impressive space that lay behind, under the great coffered inner dome. Postal workers labored in what was virtually a mosque interior, while officials looked on from rooms above. Ornamentation was not spared here; the plaster ceilings were most elaborately modeled, and the second-floor gallery had a castiron balustrade whose detailing was perhaps the most spec-

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Completed in 1964, Allegheny Square was designed by William N. Breger to relate formally to Pittsburgh's old North Side post office, which is

flanked by new apartments on the left and the Buhl Planetarium on the right. The building's exterior, in perfect condition, only needed cleaning.







In the great central space (above), the new mezzanine provides additional display area and privacy for offices. On mezzanine (below) stained glass from old houses screens offices, partitions are topped with unframed glass.



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tacular and successful in the whole building.

As the years went by, the North Side became a neighborhood of the poor. Mansions became rooming houses or business offices; cornices, mansards and verandas were stripped away, paint peeled, grass was neither mown nor sown.

In the early sixties the area around the major crossroads of Ohio and Federal Streets became the site of Allegheny Center, one of the last Zeckendorf projects. Despite protests, the handsome old city market was razed, along with many decrepit houses. In their place rose a covered shopping center, a somber office building, and some apartment slabs with very peculiar face brick, as well as a huddle of townhouses off to one side that look as if they had wandered into the wrong part of town.

It was intended that the post office, which the government was to vacate in 1968, should be the site of yet another slab. But the Pittsburgh History & Landmarks Foundation was anxious to salvage it as a museum of city and county history that



On mezzanine, elaborate ornamentation is complemented by gate made from roof cresting of old houses (above). Members' lounge (below) was formerly post master's office; old fireproof vault at rear now leads to new pantry.



would fit into a chain of cultural institutions in the area. Artifact and photograph collections did exist in Pittsburgh, but no real facilities for displaying them frequently or permanently. The architectural fragments the Foundation was diligently accumulating from demolished houses, public buildings and even bridges languished in an abandoned firehouse and other obscure places. To bring the artifacts and records of Pittsburgh together was an obviously worthy goal, and no place was better for the purpose than the post office site, and the building could be saved in the process.

The Urban Redevelopment Authority, which had final say in the matter, yielded in 1969 to petitions from the Foundation and the community, provided the Foundation would purchase the building for \$116,000 and restore it suitably, spending an estimated \$750,000. Williams/Trebilcock/Whitehead were retained as restoration architects. Late last year the first stage of restoration and remodeling was finished, and the Foundation moved into its offices on the new mezzanine floor. The first show opened early this year.

One of the most conspicuous alterations was the removal of the old screen, which opened out the central space on one side into two minor galleries. A new wall enlarged the lobby space at very little expense to the central space. The resulting central exhibit area is irregular, but the central space beneath the dome, very nearly square, dominates and unifies the whole. In this it is helped by the low new mezzanine (first floor ceiling height is 10 ft). To create this mezzanine, lower portions of the structural columns were stripped to their thick cast-iron cores and new concrete, ending in mushroom capitals, was poured around them. Pairs of needle beams, supported at the other ends by the outer masonry, passed across these capitals, and the intervening areas were filled in with ordinary bar-joist construction. The upper portions of the columns were carefully preserved. The remainder of the building, aside from repainting, repairs and mechanical work, has been, and will be, left substantially as originally built.

One enters the building through massive, highly carved old doors. Off a large lobby, to the right, are the stairs and the elevator; to the left is a ticket window (cannibalized from part of the old ambulatory screen) and space for sale of antiques, souvenirs and books. Beyond, the postmaster's old office is now furnished with Victoriana as a members' lounge. Out of this open two smaller spaces: the postmaster's former lavatory, now (appropriately, perhaps) a study alcove, and what used to be a fireproof vault is now a small pantry, its door restored to its original fancy paint job. Two great windows on either side of the entrance are partly filled with stained glass rescued from the stairways of demolished Pittsburgh mansions, while the elevator signs on the main floors are art glass work from a famous downtown grocery.

The basement will be the starting place for large shows that observe some sort of sequence. Here are the cloakroom, the lavatories and the mechanical room, with a large exhibition space leading to small, irregular spaces. The floor is fully carpeted, but otherwise the bare bones of the structure are the decor: piers of rich red brick, supporting a floor of girders and plastered brick segmental vaults, strong, rigid and at one time deemed to be fireproof.

The mezzanine contains a lecture space and the offices and library of the Pittsburgh History & Landmarks Foundation. Here, the ornamental plasterwork of the cornices and ceiling, carefully restored, dominates the rooms. Calculated for a 22'6" ceiling height, and rather ornate at that, the ceiling is only 9'6" above the new floor; the high-pressure effect is augmented by the proximity of the old Corinthian capitals, richly carved doors of 1891 from the old Oliver mansion and an abundance of leaded and stained glass from other demolished houses. Furthermore, only the lunettes of the original windows, a bit under 5 ft high at the most, give a view of the out-of-doors. On the other hand, there is quite a bit of glazing (rescued from the screen) toward the great central space of the Museum. One refinement of the partitioning is the use of glass panels to butt against the columns so that they can be seen, both from inside and outside the offices, in the round.

The third floor will be finished later; it has five offices as well as "clerestory" windows for the central space. Above this, between the pendentives of the inner dome, is another tier of clerestory windows on all four sides; this has its own gallery, making three in all with the new mezzanine.

Some second thoughts

Official and commercial architecture in the 1890s often had the air of aspiring, from sincerity, to urbanity. It was moving out of a matter-of-fact, hard-edged mid-Victorian way of getting the job done toward something more gracious—it was feeling its way from Mullett to McKim. That the Corinthian columns of the central space, seen in their uninterrupted height, contain great cast-iron tubes is no surprise; a lot of Victorian design is conventially debrutalized fact, and here the tube shows up more than the Corinthian column.

To this architectural frame have been added certain new elements of gentility. Ornamental work cannibalized from destroyed and decrepit Pittsburgh mansions has been handsomely cleaned and refinished; if the doors show signs of being trimmed down to fit new openings, their solidity, their taste and their overall lavishness still make them welcome. This skillful reuse of such treasure may serve as an example to homeowners undertaking their own rehabilitation projects.

Another kind of gentility comes from the architects responsible for the remodeling who, like Giorgio Cavaglieri at the Jefferson Market Courthouse ("The Return of Old Jeff," P/A, Oct. 1967), decided to make a clean but neutral break with the old architecture. It could be said that, as far as the conspicuously new work went, they designed a railing. A handrail of varnished wood, separated from plain, light tan plasterwork by a narrow quirk, runs up the new main stair and goes around the central space at the new mezzanine level. It begs you to discount it, as tiptoeing interloper-yet so broad an expanse of light tan plasterwork cannot be discounted in the central space. The quirk, however, holds a channel for molding hooks, and from these any amount of Victorian woodwork, carpets or paintings can be hung, and the blank balustrade (so built to spare the blushes of passing secretaries and to give the officers of the Foundation, who have many acquaintances, a chance to go about their business uninterrupted) thus becomes a neutral background, an annex to the display space.

If the spaces remain filled, so far so good. But pale tan is not too far from that very pale green favored by welfare agencies and other dismal places. It reflects an age which is guilty about a lack of color without really understanding what color is all about. The carpeting of the first floor is dark brown, a slightly less grudging admission that there is such a thing as color, but in this context it still reflects a kind of

New life for a dead letter office

prudery. It is to be hoped that the whole question of color will eventually be rethought.

The building, as a museum space, is arbitrarily layered, thanks to the original plan. In bad weather the visitor enters, sees large, inviting doors ahead of him, and must ignore them in order to check his coat in the basement.

Given the plan of the building, this is inevitable, since the main-floor space is very rightly given over to the major displays. But the basement stairs could be made more conspicuous and inviting, with a wallpaper, or a gorgeous object hung on the first landing, or some other sumptuous decoration to legitimize it as a major traffic route. It is inevitable, too, that the columns around the inner space are halved and lose their original, gaunt dignity. Inevitable, but a pity.

In sum, there is a truly princely quality about the building itself and about the ornamental work that has been added to it; the building, as restored, will always be the Museum's prize display, and one that museum directors will envy. But the purely new work is too bland, and something should be done about it. Pittsburgh, as it has evolved through the decades, is sometimes grand, but never bland. It is not a smooth, pastelcolored city. And its Museum should reflect its very real, nottoo-easily-defined character.

Data

Project: The Old Post Office Museum, Pittsburgh, Pa.

Architects: (original building) William Martin Aiken; (remodeling) Williams/Trebilcock/Whitehead, Pittsburgh.

Program: to convert the former main post office of Allegheny City into: a historical museum; the headquarters of a foundation for the recording and preservation of historic monuments; rentable office space. **Site:** an old civic center with adjacent parkland; much new apartment and

commercial construction in the adjoining areas. **Structural system:** (old building) load-bearing masonry walls; cast-iron interior columns; steel beams; steel-framed dome; (new work) concrete slab floor on open-web steel joists, supported on reinforced concrete capitals attached to existing columns.

Mechanical system: hot/chilled-water heating/cooling system; fan coil units.

Major materials: (original work) pale gray granite ashlar on brick; steel; (new work) reinforced concrete; steel; plasterboard; ornamental work from demolished structures.

Costs: acquisition of building, \$116,000; restoration and new construction (with architect's fee), \$600,000 to date; estimated final cost of work, \$750,000.

Consultants: Deeter-Ritchey-Sippel, Inc., Pittsburgh, engineering; Griswold, Winters & Swain, Pittsburgh and Williamsburg, Va., landscaping; Chester LeMaistre, Pittsburgh, interior design.

Contractor: Henry Busse, Inc., Pittsburgh.

Client: The Pittsburgh History & Landmarks Foundation. Photography: Erol Akyavas.



FIRST FLOOR PLAN (BEFORE)





Environmental engineering

Uniform health codes for hospital wastes

William E. Herdman

A national health organization is needed to begin a responsible move in assisting health departments to formulate standard hospital waste disposal methods

The need for standardized state health codes is not unlike the need for standardized automobile driving rules throughout the nation. A nationally coordinated driving program has successfully produced standard regulations for common conditions and now the driver can recognize his legal controls almost anywhere in the country.

The hospital field needs double yellow lines and standardized directional signs in the handling of solid wastes. Local conditions can be handled in the same manner as local speed limits. Some standards have been legislated by the Federal government, such as those for handling radioactive wastes, which are stringently controlled. Guidelines have been issued in the areas of air and water pollution and most states have established, or are in the process of developing standards.

But other areas of solid waste handling for hospitals generally have been untouched, principally because the amounts of such wastes are small in comparison with the overall problem of waste handling and because little attention has been given to the effects such waste might have on a community.

A review of state health codes reveals some overall interest in the disposal of pathological wastes; that is, the disposal of human tissues. Many states require incineration; some permit disposal in landfill; some do not distinguish pathological wastes from other types of hospital waste.

Some states require the incineration of experimental animals and their bedding, most say nothing about this kind of waste. Some states mandate that laboratory wastes must be autoclaved and burned; others do not mention such wastes in their health codes. Some states consider all hospital wastes contaminated, requiring incineration. Others consider all hospital waste identical to that coming from any home and therefore not requiring any special handling.

Many states have no instructions at all regarding hospital wastes but simply rule that disposal shall be as approved by the appropriate state or municipal authority. More important than the political implications of the problem is evaluation of the effects of hospital wastes upon a community. Specifically, are these wastes dangerous to the community if they are not processed before the community is exposed to them? Although opinions differ widely, from "no harmful effects" to "definitely dangerous," studies indicate that a potential danger does exist and a national trend toward incineration of all hospital wastes seems to be developing. State health authorities should now reevaluate their health codes, in concert if possible.

The Federal government is aware of these problems. A list of definitions of various types of hospital wastes is to be released soon, and other parameters are being developed. Most of this material will be in the form of guidelines and it becomes the responsibility of the states to incorporate this information in the form of health codes. It is recognized that state conditions vary, for example, in geography, topography, demography and economy, and that codes must also vary.

The use of landfill, for example, can be affected by climate. Very cold winters create cover problems and therefore specific code considerations may have to include provisions for emergency handling. The same provisions would be unnecessary in southern states. Landfill usage will be different for the high water table states in the south and the mountain states in the west. Population concentrations, with accompanying industrial complexes, generate different types and larger quantities of waste than farmland areas.

Although health codes must necessarily vary, there are many areas directly relating to hospitals where waste is identical and health codes should be in agreement: definition of terms; requirements for handling pathological wastes; the effect of all hospital wastes on a community; the use of incineration for hospital wastes, both hazardous and general; control of special wastes such as radioactive, laboratory, and all sharps; the use of decontamination procedures prior to disposal. All of these are of common interest, and should be treated in a scientific manner.

Within Federal standards states could have different options in addition to mutual problems. State codes can be more restrictive than the Federal guides, but should have engineering and scientific data to justify the stronger stand.

Of no less importance is a clear line of responsibility within state operational organizations so as to avoid direct conflicts in regulations. In at least one area of the country all of the various possible methods of hospital waste disposal are in violation of codes, which are issued independently by legally established authorities.

Many studies covering all phases of hospital solid waste handling are available. They have been performed by universities under Federal grants, by engineering and consulting firms in the course of their everyday business, and by systems manufacturers in the promotion of their products. There are differences in conclusions but there is an equal amount of agreement. Most of the data obtained and the recommendations developed are valid.

Just as a national automotive association has taken the initiative in generating national driving regulations, so should a national health organization begin a responsible move in assisting health departments to formulate standard hospital waste disposal methods.

Author: William E. Herdman is a member of the Elevator and Materials Handling Department, Syska & Hennessy, Inc., Consulting Engineers, New York City.

Cane Intaglio Herringbone Fossil Leather Fresco Shantung Slate Stucco Prism



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design concept for architects—and shows how glass walls work under somewhat adverse environmental conditions. Libbey-Owens-Ford Company, Toledo, Ohio 43695.



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Products and literature



Glass box



Plastic bubbles

Rocking chair

Logged for play

Plastic planters



The glass box. Not a true box, these are open frame glazing panels to be used in open-planning office arrangements. The perimeter is a steel frame with extrusions for glass installations, plexiglass or other materials. (The maker does not provide the glass and recommends the use of safety glass.) Panels come in two heights: 62 and 80 in., two widths: 24 and 48 in. The glazing panels offer sound privacy while permitting visual surveillance of an adjacent area. Herman Miller, Inc. *Circle 101 on reader service card*

Plastic bubbles. Pedestal bases molded of weather-resistant rigid urethane foam support globes of translucent white polyethylene. Bubbles come in 36-in. and 54-in. heights, suitable for indoor or outdoor use. Egg cup chair also available. Foam by Uniroyal; lamps by Vaungarde, Inc. *Circle 102 on reader service card*

Rocking chairs. Designed by Paris architect and sculptor Marc Held, these chairs in fiberglass reinforced plastic rock and pivot without counterbalance or mechanical devices. Reportedly, the chair is comfortable as well as functional. Knoll International.

Circle 103 on reader service card

Fan-case lighting. Recessed luminaire for commercial applications combines an Alzak reflector with phospher-coated HID light sources. Described as a low maintenance lighting system, the plug-in ballast cuts installation time; specular reflector controls brightness by putting light where it is needed. Adjustable socket allows beam spread variations to tailor lighting to fit needs. General Electric Co. *Circle 104 on reader service card*

Transit shelters. This company built the 50-ft-long prefab train station at Transpo '72, and their literature offers its description as well as other bus and train shelters. The structures are fabricated with special aluminum extrusions and Plexiglass or Lexan glazing and Plexiglass skylight dome roofs. All are described as vandal-resistant, largely maintenance-free, weatherproof. 27 models available. Columbia Equipment Co.

Circle 105 on reader service card

Logged for play. Constructed of logs, pipes and collars in abstract forms, this equipment is described as a wholly integrated structure for play. Cargo nets, firemen's poles, tire swings, swinging bridges and aerial tramways are also used, with design based on the kinds of play experiences wanted, budget, site and safety considerations. Each Big Toy is individually designed; a scale model is submitted with each proposal. Big Toys.

Circle 106 on reader service card

Plastic planters. Made of high density polyethylene these planters are suitable indoors or out, come in a range of shapes, sizes and colors. Lightweight, they are also described as resistant to temperature extremes, suitable for natural or artificial plantings and chipproof, crackproof, rustproof and dentproof. Custom shapes for special design requirements. Hub Floral Corp.

Circle 107 on reader service card [continued on page 122]



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Products continued from page 116



Door pulls





Patterned glass

Man made stone panels



Doorpulls. Designed in geometric forms, there are 40 doorpulls available. Metals include bronze, nickel, silver and aluminum in varied finishes; wood pulls come in oiled Brazilian rosewood, walnut or teak. Sizes range from 21/2-in. diameter to 11" x 34". Forms & Surfaces. Circle 108 on reader service card

Patterned and tinted glass. Suggested for use as partitions, door panels and windows, this patterned glass is now available in a variety of tints. Fade-resistant, the new tints allow special light and color effects. Pilkington Brothers Ltd. Circle 109 on reader service card

Street furniture. Designed in concrete, but light enough to be repositioned as requirements change, the concrete bases of this furniture integrate with contemporary concrete architecture. Can be used in extreme climates, both tropical and arctic, since rain, cold or heat are said to have little effect. Suggested for outdoor and indoor street use and in malls, gardens, parks, airports, terminals. Muller & Stewart Limited. Circle 110 on reader service card

Wood burning. Prefabricated wood-burning fireplace is designed for installation without masonry foundation, framing, finishing or remodeling. Triple wall construction insulates the unit, allowing it to be placed directly against existing walls and on any floor material. Included is a large decorative metal hood to ceiling height of 7 to 8 ft, a raised hearth and firebox. Venting is by standard 9 in. all metal prefabricated chimney components through a minimum opening in ceiling and roof. The Majestic Co.

Circle 111 on reader service card

Vinyl wallcovering. Koroseal vinyl wallcoverings include such patterns as Planks, designed to offer the rustic look of cedar panels; Adobe, with a sculptured stucco effect; Atwood, a corklike design in a montage of squares; and Galaxy, a swirling design of color on color. All are fire-rated, and are resistant to stains and abrasions. B.F. Goodrich Co. Circle 112 on reader service card

Mirror light. PyraMirror features inverted mirror-bright stainless steel pyramids in 18 or 24 in. modules-highlighted by exposed incandescent lamp filaments which reflect against the pyramids' surfaces. Integrated Ceilings, Inc. Circle 113 on reader service card

Free-floating desk. From a collection designed by Stan Hutchinson of Selje, Bond & Partners, desk comes in walnut or oak with vinyl or plastic laminate tops. Credenzas, seating, lounge chairs and sofas also available. Benedetti Corp. Circle 114 on reader service card

Man-made stone panels. A mosaic texture of stone blocks in sheet form, these panels are suitable for exterior and interior walls. A mixture of synthetic calcium aluminum silica binder and finely dispersed mineral fibers, pigments and fillers, its makers report that it cannot burn, is weather-resistant, and has the lasting qualities of natural stone without its imperfections. Panels are 4'x8' and weigh two-thirds as much as natural stone. In brown, white and gray. Johns-Manville. Circle 115 on reader service card [continued on page 126]

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1

Products continued from page 122

Carpet convention. "Convention" is the name given this carpet made of 100 percent Antron Du Pont nylon fiber. With a tight tufted loop pile construction, it is said to have improved soil-hiding characteristics, can be used for conventional installation or direct glue-down. Antistatic control by Brunslon is available on foam or jute back. Comes in 11 colors; 12 in. width. Patcraft Mills.

Circle 116 on reader service card

Lettering kit. A pressure-sensitive lettering kit that is designed so that letters can be quickly applied and removed, permitting experimental layouts to be changed and shifted until a final design is selected. The sharp, precision die-cut edges and solid opacity of the characters make them useful for photography, and they can be reused after being photographed. Transferite Font System.

Circle 117 on reader service card

Insulating glass. The extra insulation of inert gas is available in Thermopane insulating units. The use of inert gas instead of dry air in a 3/16-in. air space is described as increasing the efficiency of the unit to that of a 3/8-in. air space. The glass is said to create more comfortable temperatures and increased humidities without increasing fogging or condensation on the room side surface of the glass; also helps to reduce heat loss. Libbey-Owens-Ford Co.

Circle 118 on reader service card

Literature

Ideas for swimming pools. Color brochure illustrates design applications of ceramic materials for institutional pools. Photographs of more than 20 pool designs include open air, indoor recreational and therapeutic types with a wide variety of ceramic facings, edgings and gratings. Mechanical drawings of alternative pool edging and overflow systems are given. Buchtal Ceramic Works, Amsterdam Corp. *Circle 119 on reader service card*

Planning school space. Brochure details use of Hufcor partitions to help in efficient use of space in school. Sketches illustrate the portable partition, which locks into place between floor and ceiling; the semi-portable, which uses a ceiling channel; Tackwall, a low-cost paneling to be applied to permanent walls as a display surface; sight divider panels, used to create individual work centers. All panels offer full tack display surfaces, wide color choice, interchangeable clip-on accessories such as chalkboards, shelves, desks. Hough Manufacturing Corp.

Circle 120 on reader service card

Noise control. Noise and noise control are examined scientifically in this 26-page booklet, which also describes the qualities of Antiphon, a sound-damped sheet metal. Sound levels are defined and analyzed; charts and graphs present varied aspects of noise identification, measurement and control. Scason, Inc.

Circle 121 on reader service card

Windows. Booklet describes rolling windows for application in high or low rise apartment buildings, commercial and institutional buildings. Pre-engineered, they are designed to satisfy varied installation conditions without incurring excessive window engineering costs. Can be used as window wall units incorporating fixed glass and/or panels. Sash operates on inside track which has nylon rollers; latch is adjustable vertically to any desired position. Booklet on aluminum industrial windows that need no painting also available. Lupton Manufacturing Co.

Circle 122 on reader service card

Electrical distribution system. Feed-way is a high capacity system that supplies multi-services from a single access hatch. Made up basically of headers and distribution cells, the single hatch reduces visible floor openings. Designed for high performance electrification in slabs on steel or concrete frame, large capacity headers bring service from cabinets and closets to modern in-floor electrification systems. Distribution cells are available to carry power and telephone service throughout the floor area. Granco Steel Products Co. *Circle 123 on reader service card*

Abrasive vinyl flooring. For commercial and industrial installations, Altro flooring combines hard aluminum oxide abrasive and resilient chemical-proof vinyl. Defined as tough, hard and resistant to abrasion, abrasive particles carry the floor load as the vinyl recedes under load. Thruway Building Service, Inc.

Circle 124 on reader service card

Mill and products directory. Compiled by the 12-state western lumber industry, this 44-page directory lists member plants with their lumber products, facilities and capacities, species processed, shipping services and addresses. (Listed mills account for about ½ of the U.S. softwood lumber output.) The manual also lists WWPA's wholesaler associates and firms belonging to Western Red Cedar Lumber and Fir and Hemlock Door Associations. Western Wood Products Association. *Circle 125 on reader service card*

Office planning kit. Basic components in the kit include desks, swivel arm, posture and straight back chairs, legal and letter size files, stationery cabinets, telephones, coat trees and even the office drinking fountain—all accurately scaled ¼ in. to 1 ft. Office machines and other equipment may be ordered to augment the kit. Brochure describes computer planning models too. Visual Industrial Products, Inc. *Circle 126 on reader service card*

Food for thought. Brochure describes advantages of porcelain-on-steel panels for walls of food-processing plants and other areas where food is used or prepared. Panels are vermin- and rodent-proof, impervious to odor and disease-bearing bacteria and are approved by the Department of Agriculture. The crevices and cracks that allow invasion routes for insects are eliminated; paint flaking and plaster chipping cannot occur. Available in 101 standard colors with fadeproof, marproof and scratchproof finish, panels are guaranteed for 50 years or the life of the building. AllianceWall Corp. *Circle 127 on reader service card*



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Books

Dynamic approaches to environmental change



Arthropods by Jim Burns. New York: Praeger Publishers, 1972. 165 pp. \$5.

Reviewed by Ray Pierotti, administrative assistant to the executive vice-president of the American Crafts Council; former assitant director of the Museum of Contemporary Crafts.

It is apparent when first reading *Arthropods* that Jim Burns, author/coordinator, uses a lot of big words. Upon closer examination of the text of this very important book about Art, one is fully aware that Jim Burns not only uses a lot of big words but he also knows what they mean—certainly a rare quality to be found among the current Art critics.

There will certainly be many groups who will denounce the book simply because they are not included in it. Granted, all of the arthropodic groups of the current art scene are not listed; however, Mr. Burns does justice to those he mentions and certainly allows that there are others doing similar things, some better some worse. He presents to the reader a comprehensive view of various facets of an extensive movement. Most museums, art historians and critics continue to ignore the movement's activities. A major reason for not dealing with them is that they cross interdisciplinary lines and have a tendency to frighten and confound reviewers of the "art exhibition," the "ballet critic," the "musical notes by . . ." and "the reviewer of serious theatre." One can only be impressed by Jim Burns's writing. His ability to synthesize all of these disciplines into a very coherent exposé is another rare quality-today's critics often tend to be irrational and incomprehensible.

Mr. Burns, along with the arthropods, takes a swing at the establishment architecture which continues to try to force the visions and fantasies of the masses into its own narrow "Master Builder" syndrome ... and connects squarely. The book is a bound set of portfolios with a Foreward and a Summary. It is pregnant with information. Here is a group of people beyond all classification; their actual as well as implied effect on our civilization is staggering. In opposition to the master builder, who first must destroy in order to fulfill his own vision, these arthropodical societies would rather build onto or around present structures. This is not to say that they are not willing nor capable of proposing new structures, events and environments to be developed on sites presently void of any man-made structure. Their main theme, or at least this becomes apparent in seeing so [continued on page 134]

ROFIOP RENASSANCE



Cration: Corporate Headquarties, Sedco, Iar

Architects: Burson, Hendricks & Associates, A. H. Pierce, Architects, Dallas, Te

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Circle No. 419, on Reader Service Card



Books continued from page 130

many groups pulled together in one setting, is that of helping man perceive his present environment . . . once he has perceived, he then is capable of effecting meaningful change.

The publication deals with changing man in a changing world. Unlike the current craze for self-flagellating ecological publishing, it is a positive document. The collection of ideas and portfolios represents activities and proposals by one segment of the current artistic community. It is their version or vision of how to cope with those changes and how to influence them.

Arthropods is one of those rare illustrated books on Art and Design that merits being read as well as seen. Even if the reader is familiar with this segment of the artistic world, the Foreward deserves reading. It is the clearest statement about a trend that had its beginnings prior to World War II and only emerged from underground in New York City at the Museum of Contemporary Crafts when Haus Rucker Company (one of the groups mentioned) in



Circle No. 397, on Reader Service Card

1969 had policemen jumping on a giant inflatable sculpture that blocked traffic on 53rd Street.

The book is a presentation of groups (or individuals who are somehow related to a group) who prefer to be known by their "company" name. Their penchant for adopting a fanciful name rivals that of the rock musical groups. If one is compelled to categorize them, they prefer being called artists rather than architects, designers, educators, social psychologists, engineers, biologists, physicists, etc., which they are by formal training. The product resulting from their combined efforts spills outside the traditional boundaries of their academic disciplines.

Like an element in the overall arthropod concept, Jim Burns's observations bring to the group-community activity the role of the literati. Acting as an individual, within a collective effort, he effects change in the perception of the reader and offers his own contribution, thus effecting environmental change.

Documents

[The documents listed below are available from the associations and agencies cited. Request for such documents should be directed accordingly.]

Plan: International 1972. Swedish Society for Town and Country Planning, Bagaregatan 10, 216 18 Malmo, Sweden. Att: Mrs. I. Bostrand. Upon inquiry.

This is a special issue of the Swedish magazine *Plan*, a periodical for planning rural and urban areas. It is published in conjunction with the United Nations Conference on the Environment which recently took place in Stockholm. Although a number of the articles deal with environmental and planning research in Sweden, several are concerned with the broad fields of urban and energy planning.

Congress: A Report on the AASA Congress held at Auckland, New Zealand, May, '71. Copies available from Kerry Francis, 4 Heywood Cress Epsom, Auckland 3, New Zealand. \$1.50 plus postage.

Counter-culture enthusiasts and others interested in some interesting dialogue will find this publication, the product of last year's convention of the AASA, worth securing. Professor Serge Chermayeff and Sim Van der Ryn, both of whom attended the congress, are represented; a 16-page supplement entitled "Groundworks" describes the design and performance of an "experiment in minimal shelter." AURATONE* 5/6" x 24" x 48" Acoustical Ceiling Panels in suspended exposed grid system continuous over partition. Double layer 1½" THERMAFIBER Sound Attenuation Blankets above ceiling extending 4' on both sides of partition.

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These photographs illustrate results of a recent 1-hour furnace fire test witnessed and certified by Wiss, Janney and Elstner, independent consulting engineers. Temperatures were controlled to follow the ASTM E-119 standard time-temperature curve. THERMAFIBER (left) and a glass fiber insulation (right) were tested in two identical partition panels for one hour. The result proved that THERMAFIBER adds an extra margin of fire safety to an assembly. Before you specify, evaluate THERMAFIBER Products for all types of construction on 3 important counts: **1. SOUND ATTENUATION.** THERMAFIBER used as shown here achieved 45 to 48 STC ratings in single layer wall partitions, 45 to 49 STC ratings in ceilings. **2. THERMAL EFFICIENCY.** THERMAFIBER Insulation is used by leading curtain wall manufacturers in such buildings as the 100 story Sears Tower in Chicago

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Notices

Appointments

George Erdstein has been appointed to the board of directors of Leonard G. Siegal Associates, Inc., AIA, Detroit.

R. Kring Herbert and William F. Shinnick have joined Ostergaard Associates, Caldwell, New Jersey.

Richard S. Heitz has been appointed an associate of H.A. Williams & Associates, Inc., Columbus, Ohio.

Ross Olding has been appointed product research and applications engineer for Albert Kahn Associates, Inc., Detroit.

Gerald A. Crawford and Dennis F. Walsh have been elected vice presidents of Ellerbe, Minneapolis and St. Paul, Minn.

Stone, Marraccini & Patterson, San Francisco, has announced the following appointments: Wilbur H. Tusler, Jr., AIA, director; Robert J. Barnecut, PE, and Spencer Jue, AIA, associate directors; W. Richard Armor, AIA, James A.S. Borthwick, ARIBA, and William F. Wedemyer, associates.

F. William Heilman, Jr. has been elected to the board of directors of STV, Inc., Pottstown, Pa.

Leonard Harding has been named general manager of Associated Space Design, Inc., affiliate of Atlanta architects Finch Alexander Barnes Rothschild & Paschal, Inc.

Roger Keating has been named associate planner for Bernard Soep Associates, Inc., Boston. Denis F. Curran has joined the firm.

Alan Cooper has joined the staff of Gresham & Smith, Nashville, Tenn.

John Gaccione has been named director of graphics for the Rex Allen Partnership, San Francisco.

Caudill Rowlett Scott have announced the following appointments: Malcolm T. Tengler, Paul A. Kennon, Jr., Jack DeBartolo, Jr., senior vice presidents; James T. Collier, Solomon Su Pan, David N. Scoular, Robert D. Williams, vice presidents; Allen A. Ambrose, Norman G. Clendenin, William W. Ferro, Billy S. Jumper, George R. Lopez, Neil S. Madeley, Charles H. Pollard, Paul R. Roy, Walter H. Rusby, Ronald L. Skaggs, David A. Trowbridge, associates.

John L. Schmidt, AIA, has been named vice president of Environmental Systems International, Inc., Los Angeles.

B. Robert Swartburg has joined Grove-[continued on page 144]

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EXCLUSIVE: Lock-Deck consists of 3 or more kiln-dried boards, offset to form tongue on one side and end, groove on the other, laminated with weatherproof glue. We invented it.





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DURABILITY: Unlike solid decking, knots or checks can go through only one ply in Lock-Deck. Weather-proof glue and exclusive process make bond stronger than the wood itself.





Richmond High Natatorium, Richmond, Indiana. Architects: R. W. Clinton & Assoc.

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Lock-Deck is wood made better than nature could. Laminated of three or more kiln-dried boards under great heat and pressure, Potlatch Lock-Deck is available in four thicknesses from 3" to 5", nominal 6" and 8" width (10" and 12" in some species on inquiry) and lengths from 6' to 16', with 40' and longer available on special inquiry. Faces, in a choice of grades and species, can be smooth-surfaced, saw-textured or wirebrushed and factory-finished in Colorific acrylic penetrating stains.

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ing. It combines the unique warmth and beauty of wood with the superior strength and span capabilities of modern laminated members, and makes possible structural and aesthetic concepts not previously possible. Write for more information. Potlatch Forests, Inc., P.O. Box 3591, San Francisco 94119.





Headquarters, New York State Bar Association, Albany, N.Y. Architects: James Stewart Polshek and Associates, New York, N.Y.

Photographer: George Cerno

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"The headquarters of the New York State Bar Association," as a most distinguished critic recently wrote, "is an object lesson in how to build intelligently, sensitively and well... In a happy alliance, the lawyers and the architects, James Stewart Polshek and Associates, have preserved a row of handsome 19th-century town houses and incorporated them, not as a false front, but as a working part of a completely and strikingly handsome contemporary complex built

behind them. The words that come to mind are skill, imagination and taste, qualities not encountered too often on the urban scene."

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Notices continued from page 140

Haack Associates, Fort Lauderdale, Fla., as consulting architect.

The firm of James D. Lothrop, White Plains, N.Y., is now Lothrop Associates with the appointment of **Frank Raimondi** as partner.

Ann Brandt and James A. Ferguson II have joined Schweizer Associates Architects, Inc. of the Environmental Design Group, Winter Park, Fla.

Gary A. Bowden and Thomas R. Witt have been appointed associates of RTKL, Baltimore, Md. The following have been named associate vice presidents: Sandor Csobaji; Edward Haladay; Robert Kolker; Vernon Moorer; Joseph Scalabrin.

R. Lawrence Dunlap, RA, has been made an associate partner, and Harry W. Wright an associate of The Cannon Partnership, Niagara Falls and Buffalo, N.Y.

James E. Sulewsky has been named manager, architectural acoustics, and Frederick M. Kessler, manager, engineering acoustics of Lewis S. Goodfriend & Associates, Morristown, N.J.

D. L. Stafford has been appointed vice president of Arnold Thompson Associates, Inc., White Plains, N.Y.

Derr, Stueber & Cornachione, Kent and Akron, Ohio, is now Derr, Stueber, Cornachione & Brown with the appointment of W. Prentiss Brown as partner.

Vincent Sena has been appointed project manager, and Robert Zaccone assistant chief designer of the J.R. Stevenson Corp., Hempstead, N.Y.

Expansions and reorganizations

Richard P. Browne Associates has opened a major regional office in Peachtree City, Ga.

Perkins & Will has acquired SPA/REDCO, Inc., Chicago.

Fraioli-Blum-Yesselman of New England, Hartford, Conn., has been formed to continue the former practice of Fraioli-Blum-Yesselman of Connecticut.

William Wilde & Associates, Tucson, Ariz., is now William Wilde & Associates, Inc., Architects and Engineers, a corporation.

Ecodesign, Inc., Cambridge, Mass., has opened an office in Charlotte Amalie, St. Thomas, U.S. Virgin Islands 00801.

New addresses

Llewelyn-Davies Associates, 410 E. 62 St., New York City.

Wallace McHarg Roberts & Todd, 1737 Chestnut St., Philadelphia, Pa. 19103.

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Efficient building idea: Recent report tells how to solve the acoustical problems of open offices.



Good news for architects who like the design freedom of open offices—but don't like the acoustics.

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*T.M. Reg. O.-C.F.

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If you'd like the whole story, send for our free design guide, "Achieving Acoustical Privacy in the Open Office." Write to Mr. P. A. Meeks, Owens-Corning Fiberglas Corporation, Fiberglas Tower, Toledo, Ohio 43659.

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Textured Plywood Portfolio. We've added to the APA textured plywood idea collection. Full-color photos show varieties, patterns, species. Paneling and siding suggestions for office buildings, apartments and restaurants. Application and finishing suggestions, brand names, list of manufacturers.

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Architect: Architect for establishment of architectural design services and partnership in existing land planning/landscape architectural office in rapidly growing resort area. Great opportunity, right person. Applicant must have Maryland registration or equal. Send inquiries and confidential resume to: Repsher Associates—P.O. Box 388—Ocean City, Maryland 21842.

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Architects: Outstanding opportunity for the project architects who have 5 years plus experience with medical projects. This experience should include all phases of project programming, design development, construction document preparation and substantial client contact. You will be exposed to a variety of projects in an established firm with a team of highly capable professionals. Your benefit program will include: life, hospitalization and disability insurances, profit sharing, retirement program, regular salary reviews, merit bonuses and a four day work week. Please send a resume of your professional experience to: Cliff Schroeder, Ellerbe, Architects/ Engineers/Planners, 333 Sibley Street, St. Paul, Minn. 55101, An Equal Opportunity Employer.

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Architectural designers, job captains, architects: Growing Charlestown, South Carolina, A-E-P firm seeks experienced architectural designers, job captains and architects. General practice includes wide variety of commissions. Good working conditions in America's most historic and liveable small city. Send complete resume in confidence to: General Manager, Lucas, Stubbs and Long Associates Ltd., 255 East Bay Street, 29401.

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Project architect: Expanding architectural/ engineering firm has opening for talented [continued on page 152]



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it. If you want to pass fire codes, use what you want. But if you want to protect your investment, use concrete or clay masonry. It protects your building from going up in flames. Or down the drain.

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architects as project architects and project designers. Located in Western New York and maintaining a regional practice through the states of New York, Pennsylvania, Vermont, New Hampshire and Connecticut, this firm can provide exciting challenges to Architects oriented to the design of medical, education, commercial and industrial facilities. License and/or degree helpful, but not mandatory. Please send confidential resume, including salary requirements, to: Mr. Franklin D. Guidone, AIA, Director of Design, The Cannon Partnership, 2170 Whitehaven Road, Grand Island, New York 14072.

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Architect: U. S. citizen, NCARB, AIA, 18 years experience, all phases of architectural practice. Graduate several South American universities. Interested in working with architectural projects, within Spanish speaking countries; emphasis - bi-lingual, design, production, management, family willing to travel. Reply to Box #1361-440, Progressive Architecture.

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really makes a home appealing to a potential buyer.

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Some sash designs need to put the pressure on glazing tape.

Stick curtainwall systems and pocket-glazed windows provide structural economies in many applications. But they also present you with some formidable glazing problems.

For one thing, the pocket channel allows the glazer very limited working space. This

means he must either, 1) position the glass first and then apply a gunnable sealant from the outside —necessitating costly swing stages or, 2) do the glazing from the inside by using a tape sealant and then insert the glass, applying a positive pressure by means of wedges or gaskets. This tape sealant must be 25%-50% compressible, yet must not squeeze out of the channel despite the pressure.

Another problem — illustrated on the opposite page — is the offset condition of channels in stick system glazing. As you can see, there is a

> ¹/₈-inch differential between the vertical and horizontal members in the illustration. When glass is put in under pressure, the two tapes are compressed to provide a uniform plane, in order to prevent leaks and distribute stress evenly.

Besides the design problems just mentioned, you and your glazing contractor are faced with increasingly critical glazing conditions as buildings go higher and higher. For example, larger lights of glass, greater pressure differentials and higher windloads all put a bigger burden on glazing techniques. Omitted, misplaced or incorrectly chosen shims compound these problems and raise the possibility of leaks and glass breakage.

3/8"

1/1

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Staggered Steel Truss is a new structural design concept for multistory structures. It's been proven across the country to compete with and often beat other framing systems. And it can compete on a number of counts.

For instance, Green Feathers, Inc., owner and builder of St. James Apartments, Treasure Island, Florida, chose Staggered Truss for construction speed. They wanted faster occupancy for a quicker return on their investment. The main body of the building, which utilizes the Staggered Truss design is a rectangle, 207 ft. x 40 ft. and 7 stories high. It was erected in just 5 working days. (a 68 ft. x 46 ft. wing in the rear of the structure was erected with the conventional braced steel frame method.)





The Staggered Truss design also provided an ideal solution to offstreet parking requirements by making possible a column-free 207 ft. x 40 ft. ground level parking area under the building. Additional benefits were realized in a relatively light weight steel frame and less costly foundations.

Essentially, the Staggered Steel Truss system is made up of one-story high trusses that span transversely between exterior steel columns and occur in a staggered pattern from floor to floor. Trusses at a given floor are placed midway between those of the floors below and above. Each floor rests on the top chord of the trusses below and is supported, alternately, from the bottom chord of the adjacent trusses.



Staggered Truss concept was developed for U. S. Steel by the Massachusetts Institute of Technology. The St. James Apartments is just the latest of many buildings around the country to use it effectively—and profitably.



We'll gladly send you a complete structural report (ADUSS 27-5588-01), which describes how Staggered Truss was used on this building. Also a free 26-page booklet on Staggered Truss, that shows a design for a typical 20-story apartment building in full detail. Write U. S. Steel, P. O. Box 86, Pittsburgh, Pa. 15230.

Construction Details

Description: A 7-story apartment building with penthouse atop. The main unit is a rectangle 207 ft. x 40 ft., to which a short wing 68 ft. x 46 ft. is appended. The latter is conventionally steel framed and cross-braced. 53 apartments, of which 8 are one-bedroom, 40 two-bedroom, and 5 three-bedroom. The entire main unit is set on pedestals, providing a 207 ft. x 40 ft. column-free parking space on the ground floor. **Design live loads:** 40# psf in apartments/100# psf in corridors/20# psf on roof/Wind loading as per code.

Applicable Code: Southern Standard Building Code, Coastal Region.

Structural Steel: Total steel frame weight, 206 tons. Weight of other structural steel, 121 tons. Field connections are high-strength bolts. Floor System: 16" joists on 2'6" centers. %6" formed metal deck with 2½" poured concrete. Roof Construction: 28 gage galvanized steel formed decking; 3" lightweight concrete slab; built-up roofing with tar and gravel. Foundations: augered caissons.

Interior Walls and Partitions: Partitions ½" drywall on 3%" metal studs. Party walls without truss: %" Fireguard X Gypsum wallboard plus 1" soundboard on each side of 8" lightweight concrete blocks. Party walls with truss: %" Fireguard X Gypsum wallboard plus 1" soundboard on 1%" steel studs. Exterior Wall: 8" concrete block, sprayed with stucco.

Elevators: 1 bank, 2 elevators. Fire Resistance: 1 hour for floor/ceiling. 2 hours for columns, spandrels & trusses (dry-wall). Steel Erection Time: For the main unit of the building, 5 working days. Total steel erection time: 12 working days. Gross Area: 90,098 Floor-to-Floor Height: 9'8"

Floor-to-Ceiling Height: 8' (7' in bathrooms and corridors).

Owner: Green Feathers, Inc., Treasure Island, Florida Architects: Edward W. Hanson, Architect, Inc., Clearwater, Florida Structural Engineers: O. E. Olsen & Associates, St. Petersburg, Florida General Contractor: Green Feathers, Inc., Treasure Island, Florida Structural Fabricator: Musselman Steel Fabricators, Inc., Tampa, Florida Structural Erector: West Coast Steel Erectors, Inc., Tampa, Florida



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