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Cover: Photograph by Willard Clay of Bass Harbor Lighthouse in Maine's Acadia National Park (see page 42).

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LETTERS

Lighting Details: Michael J. Crosbie's article on CIGNA's corporate offices in Bloomfield, Conn., (Oct., page 61) fails to mention some important aspects of the lighting for that project that are harbingers of some new trends in behavioral illumination applications.

As lighting design consultant to Inter-pace, Inc., we assisted in the development of the luminaire-partitioned integrated system noted in the article. In the development of the lighting system we were fortunate to explore many alternatives. There was a great sensitivity to the needs and comfort of the employee. CIGNA showed notable concern on subjective lighting characteristics resulting in two subtleties to the illumination system that were not noted in the article: One, it is the first major office installation of high-color rendering (tri-phosphor) lamps in the country. The use of such lamps greatly increases an individual's visual acuity. Two, the pendant fluorescent tube uses a low glare edge-lens along its length to provide widespread indirect lighting with controlled source brightness. The result is increased visual interest within the office, adding a positive vitality in the workplace. It also heightens the sense of brightness within the space. This concept counters the typical low-keyed or bland lighting usually found with totally indirect ambient systems. Again, it is the first major installation following this philosophy and a forerunner of trends in office lighting.

While the significance of these details may be small compared with the total scope of the architecture, it is to CIGNA's credit that the commitment to the company's employee environment allowed such unique fine points found in all items of the building.

Lee Waldron
Grenald Associates
Philadelphia

A Postmodernist Responds: Reyner Banham presents a curious (and poignant) spectacle, first digging, then dancing on the grave of postmodernism (see August Books, page 79). He ought to have been more careful to inter the corpse, however. Somehow, the deceased remains among us, continuing to build.

Professor Banham, an important modern movement critic, lays to rest two myths. First, that architectural history has a value for the contemporary practitioner. Second, that architecture might include ideas that are not, of themselves, architectural. Imagine, Portoghesi making architecture of politics?!

For some of us, those who Banham, wishfully consigns to the architectural spirit world, however, these myths are compelling. Great architecture is, and always has been, about people, and all those things (ideas included) that matter to them. This is the value of history and the reason for the enthusiasm currently attached to it: The past is a source of places that, in addition to providing four walls and a roof, also acted in substantial ways on peoples' imaginations, memories, aspirations, and fantasies. Architecture may not be politics, any more than it is a language or frozen music. Still, it is crucial for architecture to reach outside itself again and become re-alloyed with all those aspects of human culture of which it had lately been purified. Only in this way might building move beyond the empty expression of purpose and function, and center attention on its inhabitants.

Professor Banham snarls that our description of our Cafe Figaro is "the ultimate in presumption" and a "fin de siecle blasphemy" to boot! Our description claims for architecture the potential to transform commonplace experience, rendering it vivid and full of meaning. If this is presumption, it is a presumption to which the best architects make regular resource.

David Weingarten
Ace Architects
Oakland, Calif.

Quite the Reverse: Australia may be upside down, but it is not backward, as indicated in the lower photograph on page 188 of the September number of Architecture.

William H. Lathrop
San Francisco

Corrections: The Times Square competition drawing shown on the lower right of page 16 in the October issue was printed as a positive image; the original was negative. We also regret the misspelling of winner Christopher Genik's name and the omission of David Stein, also a winner. Photographs of the Ford Foundation Alexandria, Va., were miscredited in the November issue. Images on pages 88 and 90 are by Max MacKenzie, as is the photo on page 89, top left. Mark Segal is the photographer of the interior view on page 89.

To clarify the roles of those involved in the design of the CIGNA building (Oct., page 61), The Architects Collaborative was architect; Interspace, Inc., was interior space planner; and Turner Construction Co. was construction manager. All were contracted separately by CIGNA. Engineering and energy consultants to TAC were Syska & Hennessy and Van der Ryn Cal-thorpe & Partners, respectively. The client built the mock-up mentioned in the article.
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NEA Names Chatfield-Taylor
As Design Arts Director

The National Endowment for the Arts has named Adele Chatfield-Taylor director of the design arts program. A professional preservationist and educator, she succeeds Michael Pittas as the leader of the $4.4 million program that is geared toward "creating opportunities for excellence" in the design arts.

In discussing her appointment Chatfield-Taylor said, "My predecessors have laid solid groundwork in the design arts program. I hope to build on their efforts and accomplishments. The challenge is to develop, nurture, and celebrate good design and at the same time, protect the diversity and quality that is its essence." Chatfield-Taylor calls the design arts program's accomplishments "extraordinary" considering its "limited funding and relatively short life" [19 years].

The program first embraced architecture, planning, and design, as reflected in its appellation, a direction that Chatfield-Taylor called an "appropriate place to begin." Under the second director the program was changed to architecture + environmental arts. Chatfield-Taylor calls this a "telling expansion ... taking the focus from something as specific as architectural design to the broader context of urbanism."

It was the program's pioneering support of, for example, adaptive use and historic preservation, particularly of often abandoned railroad stations, that Chatfield-Taylor sees as tremendously important. "I think the effect of what the design arts program did in the cities in the '70s is simply immeasurable. Certainly the endowment didn't invent it [adaptive use], but the endowment was able to articulate that it was an important thing to do. As a result the entire American landscape has been affected and not at a great cost to the endowment or the government." In addition, the "little bit of money" that the endowment put toward articulating and supporting adaptive reuse "spurred a lot of private investment."

The program that Chatfield-Taylor inherited in the early part of November supports all the design arts—architecture, landscape architecture, interior design, industrial design, urban design and planning, graphic design, and fashion design disciplines that Chatfield-Taylor sees as being fundamentally interrelated. "The wonderful thing about design is that one area does inform another. There is and should be a real coherence between all those things." She suggests that "modern life after the Industrial Revolution has been about fragmenting things into specialities. I think the 20th century at this point is largely about knitting everything together so that you have a coherent environment. You can have diversity and coherence at the same time."

Maintaining the diversity, which is one of the stated goals of NEA, is of "found interest" to Chatfield-Taylor. She believes "one of the great things about this culture" is the rapid acceptance of a "wonderful image or a good idea," as was the case with the rediscovery of our cities. But she cautions against the trend toward making every city, or every building, interchangeable. "What I'm talking about, whether it is a new design or an old building or a streetscape, you have to pay attention to the place, and the integrity of that place is what will guide you."

Asked why the design arts program is important to our society, Chatfield-Taylor says, "design probably has the most enormous constituency of any of the art forms that exist because it involves everybody, and everyone is exposed to it every single day. Whether you are designing your stationery or buying a house or crossing a bridge on a highway, all of those things have been designed and the consciousness of that has been rising steadily over the last couple of decades ... I think this program has something to do with that awareness."

Chatfield-Taylor believes that "we have further to go" in increasing the awareness of a quality environment and also of how one design discipline works with another. "We have to understand how important design professionals are to producing all these things that are designed and how much better those things are when design professionals are involved, whether it be a graphic artist or an architect or a landscape architect."

In all likelihood, the design arts program will have to continue functioning in the foreseeable future with limited funds. Chatfield-Taylor points to past achievements of NEA's efforts where "a very small amount of money has had this huge effect." Currently she believes "we are very interested in having the private sector remain involved in the arts. The design arts program is a great lever for that. I think this program shows how a little investment in one design problem that can make a big difference."

Personally, Chatfield-Taylor sees her appointment as the "perfect next step. ... It happens that my interest in historic preservation is something that includes urban design, new architecture, landscape and other design disciplines," and so she sees the diverse perspective as "not something that is brand new." Historic preservation says Chatfield-Taylor is a "device for establishing a relationship with change, and all design disciplines are part of that process too."

Chatfield-Taylor comes to the endowment from the New York Landmarks Preservation Foundation, a non-profit organization that she helped create and was first executive director of in 1980. Her association with the New York Landmarks Preservation Commission began in 1973 as assistant to the chairman and later as director of policy and program. Prior to that she was co-founder of Urban Deadline Architects, Inc., a firm concentrating on restoration, rehabilitation, and recycling of buildings in older urban areas.

A graduate of Manhattanville College (B.A.) and of Columbia University's graduate school of architecture and planning, Chatfield-Taylor is currently adjunct assistant professor in historic preservation at Columbia. She is a member of the U.S. Delegation of Women in Architecture and the U.S. Delegation of Historic Preservationists. N.R.G.

News continued on page 13

ARCHITECTURE/DECEMBER 1984
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Mixed-Use Scheme Chosen for Washington's Market Square

The Pennsylvania Avenue Development Corporation has chosen a design by Hartman-Cox of Washington, D.C., for the avenue's Market Square site. The project, which combines office, retail, and residential uses, will be developed by Western Development Co. along with Kan Am Realty, Inc. The $130 million scheme, now only in its conceptual stage, will begin design development subject to final review by PADC and the Fine Arts Commission.

The selection of the Hartman-Cox design marks the end of a review process that began last August when PADC received six development proposals for Market Square. The square is located at the foot of Eighth Street directly across Pennsylvania Avenue from the National Archives building. By the end of October PADC had narrowed its decision to two contenders: the Hartman-Cox proposal and one by Skidmore, Owings & Merrill/Washington.

In announcing the selection of the winning design, PADC Board Chairman Henry A. Berliner Jr. said that Hartman-Cox and Western Development offered the best overall proposal, going beyond program requirements and arriving at a better solution for combining residential and retail uses. The proposal includes 379,000 square feet of office space, 247,000 square feet of residential, and 70,000 square feet of retail. Construction on the project will begin in February 1986 and should be completed by March 1988.

The Hartman-Cox design takes the form of two separate buildings, joined at their below-grade parking level. The two are mirror images of each other although the west building is notched on its northwest corner, jogging around a property not included in the Market Square parcel. Mimicking the 1930s neoclassical architecture of the Federal Triangle buildings to the south of the square, the Hartman-Cox design has a tripartite division of base, column, and cornice.

On their north and east sides the build-
Above, Hartman-Cox’s winning design and, right, second-place scheme by SOM.

ings incorporate facades salvaged from demolished structures that once stood on the site, creating a transition from the formal, Beaux-Arts character of Federal Triangle to the smaller scale, mercantile buildings to the north. The two buildings bend around the square to create a half-circle focused on the site of the future U.S. Navy Memorial by Conklin Rossant of New York City, now in its working drawings approval stage.

The Market Square buildings also have a tripartite interior organization with restaurants, cafes, shops, and other retail at street level; office space on the second to ninth floors; and residential on the top four floors, which step back. The 225 condominium units on these floors will range in size from 725 square feet to 1,200 square feet and are expected to sell from $137,000 to $210,000.

In comparison, the SOM scheme offered similar numbers: 350,000 square feet of office space, 80,000 square feet of retail, and 273,000 square feet of residential comprising 225 rental units. SOM’s plan also took a similar form: two buildings framing an axis between the archives and the National Portrait Gallery and curving around Market Square. Two towers (similar to the Old Post Office tower not far away) flanked the Eighth Street axis.

Berliner said subsidizing units for more moderate or lower income residents would “only work the first time,” because subsequent residents would sell them at full market rates, so no subsidized units will be offered. He said that more moderate housing could be located north of the square. PADC’s present plan is to provide 1,200 units in this section of the city, down from an earlier proposal of 1,500.

Preservation
Montpelier to Become Museum Honoring Fourth President

A settlement has been reached by the heirs of Marion du Pont Scott over the fate of Scott’s Virginia estate, Montpelier, the one-time home of James and Dolley Madison. The family has agreed to abide by Scott’s will and turn over the 2,677-acre estate to the National Trust for Historic Preservation to open the peach-colored stone mansion to the public as a museum honoring Madison, the country’s fourth president.

The mansion is located about 100 miles southwest of Washington, D.C. Its central brick section, two stories high over an elevated basement, was built by Madison’s father around 1760. In 1809 during his first term as president, Madison began a major remodeling after design consultations with Thomas Jefferson and William Thornton, architect of the Octagon House in Washington and the U.S. Capitol. At this time the central portion was enlarged; two step-down, one-story wings were added; and the exterior brick walls were stuccoed. A large Doric-columned portico was also added sometime in the early 1800s.

William du Pont, father of Marion Scott and grandson of the founder of the giant plastics and chemical manufacturing company, bought the estate in 1899 and added a second story to the wings and enlarged the house to its present dimensions. continued on page 16
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Preservation from page 14

Behind the mansion is a large terraced garden Madison designed to resemble an English park.

Scott, who lived in the mansion from 1902 until her death in September 1983, was not able to bequeath the property directly to the National Trust because of provisions in her father's will that called for the property to go either to her brother, William, or to his heirs if she did not have children.

However, Scott's will required her five nieces and nephews to give or sell their interests in Montpelier to the National Trust in order for their children to receive a share of the $3.1 million in income from Scott's trust fund. Scott had also given the National Trust $10 million to help acquire those shares and provide for its furnishing and future maintenance.

Henry du Pont, Scott's nephew who had hoped to live at Montpelier, filed suit with his brother John in January over the conditions of the will, contending that his aunt was violating her father's intentions. He claimed that requiring her nieces and nephews to sell their shares of the estate to benefit from the trust fund was "nothing less than blackmail."

A bitter 10-month feud, Henry and John du Pont agreed to sell each of their 1/5 interests in Montpelier for $2 million dollars each. The other three siblings had already sold their interests for $1.28 million each. The siblings agreed to allow Henry's heirs to receive their share of the income from Scott's trust fund. They had contended that Henry had forfeited his claim to the trust fund for not selling his share by August 1984.

In the settlement, the National Trust agreed to create an advisory council on Montpelier and make Henry du Pont and his wife permanent members of the council. Two rooms in the mansion will be dedicated as a memorial to Scott's fa-

President Madison's estate, Montpelier.
ther, William du Pont, for his role in developing the historic house. The National Trust also agreed to maintain the property's two cemeteries—a small brick enclosure containing the Madison family plot and a graveyard near the house that is the burial site of three of Scott's most famous race horses.

The mansion and surrounding property is in excellent condition, and the National Trust plans to open the estate to the public several times this year and to allow regularly scheduled tours by 1986.

Washington Attorney Named President of the National Trust

J. Jackson Walter, a Washington, D.C., attorney, is the new president of the National Trust for Historic Preservation. Walter, a graduate of Yale law school, comes to his new post from the presidency of the National Academy of Public Administration in Washington. He has also served as director of the U.S. government office of government ethics and as secretary of the Florida department of business regulation.

Walter says that his initial focus as president will include the trust's stewardship of Montpelier, a newly acquired property in Virginia, built in the 1700s (see related story above), and the next session of Congress, which will consider the future of the preservation tax credit program. Walter also mentioned his hope to expand membership in the trust, which, he said, would more faithfully mirror the groundswell of interest in preservation nationwide.

As president, Walter will replace Michael L. Ainslie, who resigned last July to become president and chief executive officer of Sotheby's Holdings, Inc.

Funds Sought for Restoration Of Jefferson's Country Retreat

A campaign is currently underway to raise money for the preservation of Poplar Forest. Thomas Jefferson's private retreat located in Bedford County, Va., approximately 70 miles southwest of Monticello.

In December 1983, the Corporation for Jefferson's Poplar Forest, a nonprofit organization, acquired title to the little-publicized estate and was offered an option to purchase a large tract of undeveloped surrounding land. The Jefferson Poplar Forest Fund was later organized to raise $5 million to restore the property and open the house to the public as a museum honoring Jefferson.

The 4,300-acre plantation was bequeathed to Jefferson by his wife. His first recorded trip to the estate was in 1773, and during the Revolutionary War Jefferson and his family sought refuge there from the British in the existing undistinguished house. In 1806, during his second term as president he decided to build a private retreat on the working plantation. The house he eventually built and partially completed in 1809 (although he continued to make minor changes as late as 1822) was an octagonal design he had originally planned for a plantation owned by his daughter Maria and her husband John Eppes. Her death in 1804 caused Jefferson to abandon that project.

The brick house has one main floor over a basement that becomes a second floor along the rear of the house because of the natural slope of the site. The octagonal plan revolves around a central, 20-foot-square dining room with a skylight, surrounded by four equal octagonal rooms. One of the four chambers is divided by a passage that leads to the door. The drawing room is beyond the square room and opens onto a tetra-style portico. The two remaining rooms serve as bedrooms. The small rectangular projections on the left and right sides of the house contain stairways to the basement.

In contrast to Monticello's plan, the house is centralized and open without lateral or private suites.

Jefferson left Poplar Forest to his grandson who within two years sold the estate to William Cobb. The property remained in the Cobb-Hutter family until 1946, when it passed through two more owners before being acquired by the nonprofit corporation.

Chris Stevens, campaign coordinator for the Poplar Forest Fund, said that so far the campaign has been very successful. "We have already met our local goal of $700,000," she added. The group plans to complete the restoration and open the house to the public by 1986.

News continued on page 21
Australian Architecture: Concern With Regionalism, Contextualism

To Americans eager for every new Australian film and novel, it comes as a surprise to learn how frail and new is Australia's sense of cultural confidence. Despite unarguable accomplishments, Australians still often view themselves with a sense of "cultural cringe," as they call it—born perhaps of convict beginnings, a short history and until recently a colonial one, geographic isolation, a small population. That there is much reason for pride is again demonstrated by the exhibition "Old Continent New Building," now touring the U.S. It is accompanied by an excellent catalog, edited by Leon Paroissien and Michael Griggs, containing four essays and an illustration plus architect's statement for each building in the show.

Not surprisingly, as a young country intent on finding its bearings, Australia's recent architecture, though diverse, tends toward regionalism of several types. As architect Philip Cox writes in one of the catalog's essays, "The notion of an old, tired continent figures largely in the cultural history of Australia. From the earliest times there have been two reactions: one of complete hostility toward the landscape, and the other an affection unparalleled in other cultures."

Writing about his own house at Shoreham, Victoria, Daryl Jackson says, "landscape is all important. It used to threaten and was rejected; it has never ceased to command respect." This approach deals with Australian mythologies of the bush, of agrarianism, of the 19th century.

There is a certain irony here, of course. For the vast majority of Australians lives in its modern coastal cities—a full half either in Sydney (37 of the 90-odd exhibited buildings are in New South Wales) or in Melbourne (23 are Victorian). Yet with some significant exceptions, such as John Andrews and Harry Seidler, Australian architects have been relatively uninvolved in inner city building. Even more than the U.S., Australia is a city of suburbs and of the buildings on display almost half are houses. Conrad Hamman writes of the younger architects' new "search for an overall view through inclusive theory, history, structuralism. . . . Arguably, the reappraisal of the suburb has been the central stimulator to their search."

They are concerned primarily with a Venturian contextualism, which would say that suburban Australia—with its ordinariness, patterned brick facades, verandahs, bright colors—is almost all right.

This self-consciously theoretical attitude holds sway only in Melbourne. Sydney architects remain more pragmatic, experiential—hedonistic, Melbourners say.

But a broader sort of contextualism is typical of almost all Australian architecture. Most of the architects represented in this exhibit work with unusual concern for site, climate, local conventions, traditions, and history. It is in this sense that Australia's diverse architecture is regional.

The exhibit began its U.S. tour at the University of California, Berkeley. Its subsequent schedule is: School of Architecture, University of Tennessee, Knoxville, Jan. 3-21; Templeville Art Gallery, University of Illinois, Chicago, Jan. 28-Feb. 28; Australian Embassy, Washington, D.C., March 15-April 18; and Memphis, May 3-June 2.

ANDREA OPPENHEIMER DEAN

News continued on page 23
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Rotating Sculpture Program. Sculptor James Rosati’s “Triple Arc I” has been installed in the courtyard of the Institute’s headquarters as the first piece in AIA’s rotating sculpture program. The 5,000-pound, 16-foot-high piece combines curves and planes that conjure up images of the human form and modern bridges, two of the many themes of Rosati’s work.

Rosati, born in 1912, left a successful career as a concert violinist in 1934 to pursue sculpting through the Works Progress Administration’s Federal Arts Program during Franklin D. Roosevelt’s New Deal. Rosati’s works are in public and private collections, including the National Gallery of Art in Washington, D.C., and the Museum of Modern Art in New York City.

The rotating sculpture program is supported by an art collection fund established by the Institute in 1974 and by contributions from the AIA College of Fellows, board of directors, members, and non-affiliated architects. The piece is on loan from the Marlborough Gallery in New York City and will be on exhibit in the courtyard through next April.

Four Honored by NOMA

The National Organization of Minority Architects has honored four architects in its annual awards for design excellence. The winning firms are:

- Stull Associates of Boston for the Jackie Robinson Middle School in New Haven, Conn. It is one of a number of city-administered neighborhood “community schools” designed to serve as education, recreation, service, and cultural centers. Located on a sloping, park-like site adjacent to a residential neighborhood, the building is placed against a hillside overlooking a lagoon. The school is divided into three elements containing “unified arts” and administration, and instructional and physical education.

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Circle 12 on information card
Awards & Exhibitions from page 23

- Devrouax & Purnell Architects/Planners of Washington, D.C., for the Carter beach house in Whalehead Beach, N.C. The program called for a summer rental house the client could use during the off-season months. The 2½-level, 2,200-square-foot house has four equal bedrooms on the entry level, each with an observation deck; a living room with a loft; and a large deck with views of the ocean.
- John Chase, FAIA, Architects of Houston for the Texas Southern University Campus in Houston. The firm is responsible for two campus master plans, as well as seven major structures on the campus, beginning with the Martin Luther King humanities building in 1967 and including the Ernest Sterling student center, the school of education, music center, and the Thurgood Marshall School of Law.
- Heard & Associates of Chicago for the Cook County Institute of Forensic Medicine in Chicago. The 88,346-square-foot facility houses administration offices, autopsy suites, laboratories, a conference center, and an employee lounge. The structure has a basement and two floors above ground and was designed to allow the addition of a third floor.

Graphics Competition Winner: First place winner in the second annual graphic communications competition sponsored by the Austin, Tex., Chapter/AIA is Dongik Lee, a local architect. Lee's Red Groomesque drawing (above) was one of 11 winners in the competition, which was open to architects and architecture students. The competition drew over 100 submissions, which were about evenly split between practitioners and students. The competition drawings were juried at the University of Texas school of architecture at Austin by architects Charles Moore, FAIA, and James Coote and Betty Osborne, graphic artist. N. Thomas Kosarek, AIA, who chaired the competition, says that the work of the 11 winners will be exhibited around the Austin area to stimulate “public awareness of the fine art of architectural drawing,” adding that such activity has seen a rebirth over the past few years.

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Nine students were recently recognized in an international design competition, "Tomorrow's Think Tank Today," sponsored by the Royal Institute of British Architects and Sinclair Research, Ltd. The program called for the design of a research laboratory, with its site to be determined by each student.

Andrew Bird of Polytechnic of Central London was awarded first place. In his winning scheme, modular laboratories that resemble gargantuan building blocks articulated by glass strips are built into a rocky coastline to form two man-made cliffs separated by a vertical void containing circulation.

The second prize was presented to R. Mullan of the University of Bath for a "deceptively simple" plan reminiscent of a Mies van der Rohe design.

Third place was shared by D. Turnbull of the University of Bath, D. Naessens of the University College in Dublin, and a joint design by A. van der Merwe and M. Maszewski of the University of Cape Town.

Honorable mentions were awarded to Janos B. Toth and Zoltan Sukosk of Budapest University; R.A. Simons and A. MacDonald of the University of Sheffield; N. Husband and P. Cook of Kingston Polytechnic; and K. Nakamura, K.I. Inamura, Y. Akie, M. Hayafune, and H. Oka of Nihon University in Tokyo.

Concrete Institute Awards

The Prestressed Concrete Institute has honored 11 buildings and three bridges in its 1984 awards program that recognizes "esthetic expression, function, and economy using prestressed and precast concrete."

Philip Morris Manufacturing facility by Herbert Beckhard, FAIA, and Frank Richlan, AIA; Tracor office building by Benjamin E. Brewer Jr., FAIA; Goldomme Bank for Savings corporate headquarters by Kohn Pedersen Fox Associates; One Civic Center Plaza by Hellmuth, Obata & Kassabaum; Justice Center by Zimmer Gunsul Frasca Partnership; 8000 Regency Parkway office building by Thompson, Ventulett, Stainback & Associates; Maryland Concert Center parking garage by Conchran, Stephenson & Donkervoet; New Center One by Skidmore, Owings & Merrill; Christiania corporate office building by Matthew J. Warshauer Architects. Special awards were presented to the Leonard Natatorium and Gymnasium renovation by Leonard Parker Associates and the Walter Street substation by William Morgan Architects.

News continued on page 88
An 'Exploded' Desert Room
"A pathway to the horizon," is how artist and architect Pat Patterson describes his tripartite sculpture in southern Colorado, a pathway through which the visitor moves across the desert floor beneath the gaze of snowcapped mountains.

Actually, the project was undertaken to solve a landscape problem. Patterson's client, a man with Middle Eastern roots and an aviation background, built a small house in the San Luis Valley, which is defined by the Sangre de Christo Mountains to the east, the La Garita Mountains to the northwest, and the San Juan Mountains to the southwest. Just one of the natural wonders here is the Great Sand Dunes National Monument, a 50-square-mile patch of enormous piles of wheat colored sand, almost surreal in their play of light and shadow. A ridge a mile from the house hid the view of these dunes, so a method was sought to survey them.

Patterson started with the tower. Its form evolved from allusions to flight and ancient Assyrian ziggurat temples, two influences that the client readily related to.

At the other end of the composition is found the portal, roughly 13 feet square, that demarcates "an alternative realm to
the house," explains Patterson. The portal's stripped pattern of black painted sawcuts adds a dimension of texture and shadow. The pattern is also reminiscent of level marks used on architectural drawings, and Patterson says that it serves to call the visitor's attention to the sloping character of the valley floor.

Between the tower and the gate is found the red compass, a concrete slab that traces the horizon line as the visitor turns about at compass center. Its color, and that of the tower and the gate, are part of the simple, abstract palette that Patterson found appropriate in this landscape. The colors are also similar to those found in Southwestern Indian culture.

The entire ensemble suggests an "exploded room" in the desert, says Patterson, a room defined by the mountains, sky blue ceiling, desert floor, doorway, and the tower, which ceremoniously rises into the heavens. **Michael J. Crosbie**
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Our theme this month is the relationship of buildings to nature. We begin with a remarkable pavilion in which it is intentionally difficult to tell where building begins and nature ends. Then on to a two-part look at the National Park Service's decades of building in some of the most sensitive natural settings imaginable; then a 20th anniversary look at what may be our most celebrated melding of nature and development; a Kaleidoscope of buildings that closely relate to, or contain, nature; and finally a 100th anniversary appreciation of the nation's most celebrated sculpture in the middle of the national lawn.

Looking ahead, as we promised to do once in a while, a sampling of 1985 themes: In February, corporate headquarters and other buildings of business; in July, housing of all kinds and scales; in August, more of the profiles of architectural schools that proved so popular this year; in October, “the consequences of transportation”; in November, “the spaces in between”; and in December, indigenous and vernacular architecture. Plus, of course, our annual reviews of U.S. and world architecture (May and September respectively) and an issue on the 1985 convention site, San Francisco and its region, in March. D.C.

Callaway Gardens is an unexpected delight. The highway cuts through the raw fields and scrub pine thickets of West Georgia and then, just outside the neglected little town of Pine Mountain, leads to this immaculate wooded resort. You turn to enter a botanical garden where winding drives thread among lakes and banks of hollies and azaleas. Tucked away in a far corner of the natural arboretum is a fine-grained garden that spills from a pristine enclosure like jewels from an overturned box. The John A. Sibley Horticultural Center is a child’s dream of a secret garden.

Completed last March, the $4.7-million Sibley center is the most controlled and manicured element in the 2,500-acre preserve. Callaway Gardens was conceived and developed by a second-generation industrialist, Cason Callaway, whose family’s mills made LaGrange 30 miles west an important textile center in the early 1900s. In the 1930s, Callaway bought land, mostly worn-out cotton fields, surrounding his family retreat with the thought of developing it into a retirement community for the wealthy. But for some reason he enlarged his vision. Perhaps it was the dire fate of the Georgia cotton farmer in the Depression, or maybe the influence of a neighbor, Franklin Roosevelt, who had made Warm Springs, 20 miles east, a treatment spa for polio sufferers. Although a staunch Georgia conservative, Callaway admired FDR, and the president visited the textile executive when encamped at the rustic Georgia retreat. At any rate, Callaway resigned from his mills in 1938 and devoted much of the last 23 years of his life to developing a public garden there. Callaway Gardens first opened in 1952 as a nonprofit venture, and is supported today by adjacent resort and conference center components.

Above, the Sibley center from the south edge of the garden with its 24-foot-tall folding doors closed. The enclosure steps up to admit winter sun through two rows of clerestories under the domed fabric roofs. Right, the west section showing the doors open. The two lower bays to the left lead to the entrance.
The Sibley center, one of a variety of attractions scattered within the gardens—including a pioneer log cabin and a demonstration vegetable garden—is the least didactic and most ambitious. It is the result of a four-year collaboration by landscape architect Robert E. Marvin of Walterboro, S.C., the architectural firm of Craig, Gaulden & Davis (Kirk R. Craig, AIA, principal) of Greenville, S.C., structural engineers Geiger Berger Associates, and energy consultant Bruce Anderson.

Approached from a landscaped parking lot, the center is first seen from its bermed backside. The materials are Corten steel for the structure, clear glass block infill, and fabric roofs. The garden building is oriented 45 degrees off the dominant axis of the linear parking lot and a long, tan brick, pre-existing building, one end of which has been adapted as an entrance to the garden.

The low-ceilinged reception/sales area is quiet and rather dark, contrasting the views through glass into an abutting, traditional greenhouse, through which you walk next. This bright space acts as a sort of decompression chamber and harbinger of whatever floral display is current in the garden that lies beyond. (Displays are changed six times a year. A huge cascade of yellow mums, suspended from the greenhouse roof, was the centerpiece in early November.)
From the old greenhouse you emerge under a row of fabric roofs that draw you to the edge of the garden. There, from a semicircular platform, the U-shaped, steel and glass, south-facing enclosure opens like a blossom to accept the oblique autumn sun. The lawn sweeps in front of you, bordered by curves of flowering color and backed by echoing curves of trees. You ascend a steep berm along the west wall of the enclosure, then walk tight under a 22-foot-high waterfall emanating from the north wall and emerge on a platform high in the largest space of the building.

From here you look down on loose swirls of flowers, grass, fieldstone, and redwood seating, and the building recedes. The dark, four-column clusters seem almost transparent, and they promise less prominence as vines cover them. The clear glass-block walls read as thin scrims that filter the view of trees and sky beyond. And the fabric roof admits an even glow.

There is no design focus, no single event, inside the building, and none seems needed. But from here, as you take in the first full axial view south into the garden beyond the building itself, your eye searches in vain for a single point of reference. (Asked about this, landscape architect Robert Marvin and architect Kirk Craig agreed that a focus is needed in the garden, although they each favor different solutions. Marvin envisions a trellis and perhaps a fountain; Craig recommends a single high water spout backed by an arbor.)

From the high platform you walk down into the swirling landscape forms within the building, cross a bridge over a pond that extends across the south elevation at the base of the 24-foot-high folding doors, and walk out on an unenclosed pavilion and then to the garden, where you can follow paths that either draw back near the building or pull away from it.

Close inspection of the walls, doors, columns, and roof system reveals satisfying proportions and simple, well-worked-out details. The 12-inch-square block on the east, north, and west walls is joined with brown mortar that visually ties it to the structure, and the square profile of the blocks echoes the square roof modules. The latter are in two sizes: six, sheltering the large space, that are 32 feet square, and 47 that are 16 feet square. Over the part of the structure that is capable of being enclosed, two membranes of silicone-coated, glass fiber fabric are stretched taut on sandwiched cross arches. On modules over unenclosed structure, only an upper membrane is employed.

The long view from the garden suggests various design influences, including Wright, traditional Japanese forms, the Victorians, and even Moorish architecture. But Craig and Marvin emphasize that the design grew laboriously and entirely from a program created by the owner, the landscape architect, and architect. Says Craig of Marvin: “We both critiqued each other’s work during the course of the project as though there literally was no separation between our professional skills.”

Callaway Gardens first commissioned Robert Marvin 10 years ago to design comprehensive plans for the conservatory greenhouses that the Sibl ey center partially replaces. A 35-year veteran land planner, Marvin is an eloquent proponent of architecture that takes its form from the site. Last month he talked about his work on the Sibley center:

“Specialization today makes it impossible for one person to work alone. First you have to get together the right team.”

The bird’s-eye view on the facing page shows a corner of the pre-existing greenhouse, now incorporated as part of the entrance. Above right, the unenclosed east wing extending over a shallow pond. Here the roof modules employ single plies of fabric over crossed arches. Right, the view from inside with doors and clerestories open. Roof sections here are two-ply.
Two layers silicone coated fiberglass, 45 percent translucency.
Above, the big interior space with swirling landscape forms. Vines are trained on the four-column clusters. The 12-inch-square, clear-glass block walls, shown in closeup from the outside, left, have brown mortar joints to blend with the Corten steel structure. Far left, visitors walk under the man-made waterfall.

Then you have to ask the right questions and refuse to let any member of the team get a preconceived idea of what the structure ought to be or look like. . . . We visited most of the major greenhouses around the country and asked what a greenhouse should be like. Of course, the first thing it shouldn’t be is a greenhouse. . . .

"The angles and directions of the spaces and the big berm on the north all came from asking questions about energy. Once we built a berm and put trees on it, we calculated that the north winds would never hit ground again until they were 25 times the height of the enclosure. We have then blown the cold air beyond the garden. . . . The step down the hill was a good way to let the sun in in winter and keep it out in summer. . . . We wrote an orchestration to move people [through] a garden part roofed and part not, rather than a greenhouse with an outside garden."

Marvin believes that good architecture grows from the site, nurtured by the sun and an understanding of the land. To impose art into nature is shallow, he says, "unless you happen to be a brilliant artist, which most of us are not." Even so, the Sibley center demonstrates well that nature can be molded into a work of art. □
The Park Service as Client: I
The early decades of rustic grandeur: By Phyllis Myers

In the much-quoted text from the 1916 legislation that established the National Park System and a bureaucracy to administer it, the National Park Service was given the responsibility to: “conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.”

These words are primarily the work of Frederick Law Olmsted Jr., a key influence on the drafting committee for the historic act. The thoughts hark back to his distinguished father who had spent the summer of 1864 camping in the wild of Yosemite Valley and Mariposa Big Tree Grove, newly ceded by the federal government to the state of California. In his 1865 report the senior Olmsted advised state officials that, in managing these unspoiled expanses of beauty, their objective should be “the preservation and maintenance as exactly as is possible of the natural scenery... within the narrowest limits consistent with the necessary accommodation of visitors... [and] the prevention of all constructions markedly inharmonious with the scenery or which would unnecessarily obscure, distort, or detract from the dignity of the scenery.”

The “necessary accommodation of visitors” was, to Olmsted, no grudging phrase. “To simply reserve [lands] from monopoly by individuals... is not all that is necessary,” he wrote. “They should be laid open to the use... of the people.”

Because of the intertwined mission to protect resources unimpaired and to make them available to people, the park service has, from its inception, been responsible for a good deal of building, either to accommodate visitors or to house staff.

By 1916, of course, “harmony with nature” was a recurring architectural theme as American expansion penetrated the wilderness at a rapid pace. Never entirely divorced from architectural styles outside the parks, the park service nevertheless became a unique client. Its struggle to reconcile the tensions between preservation and development have produced some of the most well known elements of Americans’ shared architectural heritage, sometimes defining a national park as much as the canyon or geyser.

Its guiding sensibility, until the 1950s, established even before the park service was created, is generally known as “rustic architecture,” a term which, as “park-itecture” historian William Tweed observes, applies to “a number of styles sharing a central concept or ethic.”

The central concept used natural materials, handicrafting, and a variety of informal motifs inspired primarily by American pioneer log cabins and commodious Bavarian and Swiss Alps retreats. Rusticism was not a straitjacket, however, and there was considerable room for individualism and artistry—for regional responses to the shapes and scale of the Western landscape and the designs of the American Indians, and for eclectic echoes of English cottage, shingle, Oriental, and Prairie styles.

The underlying ethic also embraced a spectrum of attitudes about “harmony.” Some structures are created in nature’s image, reflecting or vying with the awesome imagery. Others seek a dynamic fusion with the setting, others obscurity.

Buildings ranged from the giant, luxuriously casual resort hotels constructed in the parks’ early days to accommodate wealthy tourists to the laboriously mass produced log cabins and other structures built under the New Deal to employ the jobless and provide outdoor recreation facilities for needy young adults. At both ends of the economic scale, the early park buildings were romantic fantasies, made possible by the unimportance of labor costs and made handsome by the quality of design and spirit that guided their creation.

Fourteen individual national parks had been established by the time the park system was created in 1916. Buildings had already been constructed—by the Army in Yellowstone, which was responsible for running this first national park before the park service was created, and by the railroads, which played a seminal role in opening up the West, and not incidentally, in creating the national parks.

Jay Cooke, a financier connected with the Northern Pacific Railroad, was present at that famous 1870 campfire at Yellowstone when the gathered elite decided that the great wonders they saw around them should be protected from commercialization. Cooke supported a famous artist to paint the awesome scenes for Easterners and lobbyists to convince Congress to pass legislation establishing the park. A subsidiary of Northern Pacific was responsible for the hotels in Yellowstone, the Atchison Topeka & Santa Fe Railroad for El Tovar at Grand Canyon, and the Great Northern Railway for the hotels at Glacier National Park.

To our good fortune, these railroads linked their own success to the quality of development in the wilderness areas they opened up. They paid attention to the stations, to the administrative offices, and to the hotels along the line. The keen eye with which they sought out promising talent was evident in such choices as Robert C. Reamer, who designed Old Faithful Inn in 1904 and the New Canyon Hotel in 1910, both in Yellowstone, and Charles Whittlesey, architect of Grand Canyon’s El Tovar in 1904. Reamer, born near Cleveland, was only 31 when Old Faithful opened. Self-trained, having quit school at the age of 13, his appointment resulted from a fortuitous introduction to the head of the Yellowstone Park Co., according to Montana architect David Lavengood, who has researched the eclectic Reamer for a decade. Reamer was responsible for a number of other concessioner structures and a series of distinctive buildings in Seattle. Whittlesey, who had trained in the Chicago office of Louis Sullivan, went on to design highly regarded residential and commercial buildings in Los Angeles, including one that contained the largest auditorium west of Chicago.

An important driving force in the railroads’ insistence on quality was their ability to identify with the market they were serving: The men who ran the companies, who invested in the hotels, and who came to the resorts were linked by networks of marriages, investments, and vacation memories of Europe. The Old World was a constant prod, setting a standard of achievement that went beyond profits. Advocates explicitly described the West’s amazing natural sights as America’s “monuments,” an answer to the cathedrals and castles of old that was distinctively American.

To attract affluent travelers, the adventures of the wilderness—including the dusty stage coach ride from the railroad station to the Ahwahnee Hotel at Yosemite, shown here in a photograph by the late Ansel Adams, was typical of the elegant but powerful rusticity of the early park buildings, both those built by the NPS and those built by railroads and private concessioners.

Ms. Myers, a senior associate at the Conservation Foundation, is co-author of National Parks for a New Generation: Visions, Realities, Prospects, to be published in early 1985 by the foundation. Research fellow Christine Reid assisted in the research.
Increased sensitivity to individual sites.

to remote areas—had to be softened by convenience and luxury once they arrived. Structures were sited near the parks' main "features"—the lakes, mountains, waterfalls, and geysers.

Reamer's Old Faithful Inn was an immediate success. A huge creation of rusticated stone, logs, and shingles, the imposing several-storied interior lounge, reminiscent of a cathedral or mountain, featured unpeeled tree trunks supporting the roof, interior balconies with railings made of branches, massive stone fireplaces, and casual furniture. In its masses and materials, it is, in landscape architect Regula Campbell's view, a "choreographic...recollection of the Yellowstone landscape." Yet wealthy visitors from the Adirondacks would have felt at home. There, under the influence of a widely traveled railroad tycoon who, according to Syracuse University professor Harvey Kaiser, showed local craftsmen a cuckoo clock, the wilderness was pleasingly developed with enormous woodsy American fantasies of Swiss and Bavarian chalets. These structures, Kaiser comments, "were not conceived as a means of living simply, despite the calculated appearance of the simple life."

Just seven years later, Reamer designed the Canyon Hotel, near Yellowstone's awesome canyon. In the horizontal low massing of the exterior and the polished blonde beams, lighting, and columns of the interior, this handsome building embodied fashionable Prairie School and Japanese influences. If its scale (a mile around) was inspired by the physical grandeur of its setting, its accouterments were, as Western Architect observed, "as completely appointed as any metropolitan hostelry...an elevator, cold storage and ice-making plant, electric lights, steam heat, a modern steam laundry and a vacuum cleaning plant."

This seems a long way from the vision of the senior Olmsted, whose guidance about development at Yosemite to accommodate visitors included the building of a "narrow road" for carriages and five cabins supplied with "certain simple necessities" for cooking and other camping activities. Nevertheless, Olmsted had not been totally consistent. In his Yosemite report, he foresees that "if proper facilities are offered, the hundreds who now visit Yosemite will become thousands and in a century...be counted by the millions."

It is doubtful that he had in mind the restriction of these visitors, as opposed to their accommodation through sensitive design. Olmsted was deeply committed to the uplifting, democratizing influences of parks and in his life's work more concerned with the appearance of naturalness than in preserving nature unimpaired. Moreover, although deeply committed to social justice, considering the wealthy and influential circle of persons among whom he moved and for whom he worked, Olmsted may well have viewed the resort hotels as pleasing improvements to the landscape.

Charles Whittlesey was chief architect for the Atchison Topeka & Santa Fe Railroad when he designed El Tovar, at Grand Canyon. Although Whittlesey drew on Swiss and Norwegian Alpine motifs, he consciously muted his colors to harmonize with the gray-green of the Canyon. He used Navajo rugs and artifacts as interior furnishings amid the heavy peeled logs, wood, and stone that created the hotel's stunning interior.

Beginning in 1911, the Great Northern Railway constructed chalet-type rustic hotels in Glacier Park's remote vastness that it described as "all remarkably in rhyme with this mountainland." The Glacier Park Hotel and Many Glacier Hotel were immense, decorated log cabins. Gigantic tree trunks marked the stage coach entrance, and, inside the lobby, supported the roof trusses. Japanese influence was evident as well, although more superficially than at the Canyon Hotel.

All the hotels were sited close by spectacular natural "features." Old Faithful Geyser spouted barely an eighth of a mile from the Inn. The New Canyon Hotel was a quarter mile from the great chasm. El Tovar perched on the Grand Canyon's south rim, and Crater Lake Lodge, built in 1914, was sited on the shores of the mesmerizing blue volcanic lake.

Other resort hotels were built at Mount Rainier and Yosemite, drawing increasingly on eclectic motifs. The Sierra Club, whose founder John Muir had been a vigorous advocate for creating many of the parks, built a rustic pioneer lodge at Yosemite, designed by Bernard Maybeck's brother-in-law. According to Tweed, this building was notable not only for its unobtrusive rusticity, but also for its fakery: "The battered stone walls had concrete cores."

Below, the almost postmodern Yellowstone/Mammoth hotel of 1913. Right, tourists leaving Zion Lodge for a guided trek.
Quality construction, reliance on giant private companies to build accommodations, use of design professionals, and appeal to the rich continued under Stephen T. Mather, the park system's dynamic first director. An energetic millionaire and outdoorsman, Mather concluded quickly that catering to wealthy and influential visitors would build a defense against repeated questions about what good these vast parks were. Hesitant at first, the Sierra Club became an ally after it lost the battle to save Yosemite's Hetch Hetchy from being dammed.

Under Mather, the railroads and their subsidiaries stepped up their promotion of travel, expanding existing hotels and building new ones. Disturbed by ramshackle tourist accommodations springing up in the parks, Mather ensured the concessioners of monopoly status and gave them proprietary rights in their buildings.

Guided by Mather's 1918 dictum that all construction should be "devoted always to the harmonizing of ... improvements with the landscape," professional review was set in place. The private hotels and the numerous simpler park offices, sheds, staff housing, comfort stations, entranceways, and other structures were all, says Tweed, constructed "under the watchful, if overworked eyes of the landscape engineering division." This small field center of landscape architects and engineers, located first at Yosemite and then San Francisco, reviewed parks' plans and construction and provided technical assistance.

Increased sensitivity to the site created notable variations on mainstream rustic concepts. The pueblo-type structures in Mesa Verde National Park, designed by superintendent Jesse Nusbaum, for example, were authentically Hopi in construction methods as well as design and materials. Imaginative setting-inspired designs by Mary Colter for the Fred Harvey Co., and by California architect Herbert Maier for the privately contributed museums at Yosemite and Yellowstone, used boulders, stone, and wood in highly original fashion. Said Maier of his low, organic structures: "To attempt altitudinal impressiveness ... would have meant entering into competition with the cliffs: and for such competition the architect has no stomach."

Harvard-trained Los Angeles architect Gilbert Stanley Underwood had stronger gastric juices. Underwood, working for the Utah Parks Co., a subsidiary of the Union Pacific Railroad, designed hotels at Zion, Cedar Breaks National Monument, and the Grand Canyon, as well as the one at Bryce, then administered by the U.S. Forest Service. According to Tweed, Underwood had to tone down some of his designs to meet skepticism by Mather and others about their appropriateness for national parks.

The Ahwanee, Underwood's first Yosemite hotel, opened in 1927. It blended inspiration from the natural setting with the romantic fantasies of the '20s—art deco, Persian, Indian, and medieval European motifs with great stone piers and wooden walls and beams. Fantasy was even greater than it appeared: Of all the woodwork, says Tweed, "only the log room truss of the dining room was real." Here, and in Yosemite Lodge at Angel Point, Underwood explicitly massed the buildings to resemble the shape and size of the canyon.

The park system's own construction activities increased significantly at this time, as it built roads, administrative buildings,
From heroic lodges to cabins for the needy.

and simpler lodges and the automobile brought growing numbers of visitors to the parks. Under chief architect Thomas C. Vint, appointed by Mather, professionalism and the system's commitment to simple rustic architecture increased. Vint, whose park service career in construction and development spanned 40 years, sought architects with a sensitivity to landscape and landscape men with a sensitivity to the special needs of the parks.

This in-place design perspective and professional staff enabled the park service to take a prominent role in shaping President Roosevelt's pet project, the Civilian Conservation Corps, one of the major reforestation and construction initiatives initiated under the New Deal. The idea, says Phoebe Cutler, was "to build men while conserving nature."

The National Park Service transformed Roosevelt's idea from one that involved workers "doing the simplest type of manual labor" to one that "assumed the capabilities of a massive landscaping machine," Tweed observes. Sensing that the president's multi-agency program of "simple reforestation and ditch digging" wasn't appropriate for the national parks, a sharp park service landscape architect convinced director Horace C. Albright that the program presented a remarkable opportunity to tie together the funds available in the president's emergency program with the needs of the parks. Millions of unemployed were organized into a construction army that built a variety of structures in national, state, and local parks across the nation.

Strongly influenced by the park service's tradition the CCC program in the national parks was at the same time a turning point in its history. In the 46 Recreational Demonstration Projects, which combined land reclamation with the construction of group camps near major cities, the CCC effort was the precursor of the urban park initiatives in the 1960s and 1970s.

Despite its desperate beginnings, the CCC was guided through out by an esthetic sensitive to the natural environment in which it built. The architecture that expressed federal social experimentation in the parks was simple, labor-intensive, and geared to the recreational needs of ordinary people, rather than that of the affluent traveler. Yet it was linked to the earlier outlook by its commitment to harmony with the natural environment, its use of pioneer motifs and handwork, its affectionate of simplicity, and the employment of professionals to plan and manage all aspects of construction.

It was also linked by the lack of concern about costs, which gave designers and laborers a great deal of freedom. The railroads used extensive handcrafting to accommodate the tastes of the wealthy at a time when there was no alternative; the New Deal, to give the unemployed a job and teach them new skills.

To accomplish its task, the park service hired professionals and technical supervisors on a large scale. "They weren't hard to find," says the 85-year-old Conrad Wirth today, the landscape architect in charge of the service's work in state and county parks and later the director of the park service. "They were all looking for work." Wirth credits architects Abraham ("Ab") Good, who worked in his Washington office, and Herbert Maier, director of the Rocky Mountain district (one of four established to deal with the heavy volume of work), as having the greatest influence on design. Maier, who had already shaped his design ideas in earlier work as a private architect in several parks, was "the dean of the type of architecture we used—heavy big stones and wood."

In all, the CCC employed 3 million youths and spent $3 billion. Thousands of landscape architects, architects, and engineers were hired, some as supervisors in the parks, and others in the districts and in Washington. As landscape architect and author Norman T. Newton, once a CCC inspector, tells us, "Haphazard unplanned work was not allowed; for every park an approved master plan was required... for every project there had to be detailed plans... submitted... for review, comment, and approval" by professional teams made up of landscape architects, engineers, foresters, architects, naturalists, and geologists. Professional field squads worked on site with park staff during the winters and architectural students in the summers.

Good's personal stamp of quality control was imposed by extensive traveling and publication of the extraordinary three-volume Park and Recreation Structures. Soon a familiar text in the parks, its pages were crammed with photographs and detailed plans of exemplary gatehouses, entrance pillars, administration buildings, cabins, latrines, cook stoves, and chimneys. The writing is sensitive and romantic, aimed at purifying the rustic architecture whose use had, Good admitted, become "worn."

Sympathy with natural surroundings, to Good, meant deference. In well-done buildings, the individual building "must be subordinate to its environment and not seek to intrude on the scene, or be visible from afar." Variety results from the different ways the buildings will be used, while the commonality of style assures that the buildings will not attract individual attention. While he supported regional differences—for architecture responsive to snow-covered mountains, forests, deserts, prairie, and sand dunes—it was in the Southwest, under Maier, where this was best expressed.

Good's sensibilities come to life at Catoctin Mountain Park in Maryland, which was originally developed as a Recreational Demonstration Area. Under this program, 400,000 acres of impoverished agricultural lands near cities—mostly in the East—were bought, restored, and reforested, and group camps were built to serve needy campers brought by the flowering number of social service agencies. (Because these sites were not selected on the basis of significant natural values, it was understood that they would become state parks. Catoctin is one of the handful that did not.) Catoctin was a destitute area in 1935. The lands were worn out by poor farming practices and illegal stills sustained many
Across page, the prepossessing Old Faithful Inn, an early ornament of park architecture. Above, Glacier Park Hotel and its portal.

of the descendants of the original Scotch and German settlers. The 50 families living on the 33 tracts acquired by the government were resettled and their residences destroyed. (The park service's sensibilities about the landscape in constructing new buildings did not extend to buildings that were on the sites it acquired. The park service then only had three historians.)

Good himself designed Misty Mount Camp, the first of three group camps built at Catoctin. (Misty Mount was followed by Camp Greentop and Camp Hi-Catoctin. The latter served President Roosevelt as his "Shangri-la" hideaway during World War II. Renamed Camp David by Dwight D. Eisenhower, it continues in use by presidents as a rural retreat.)

Good praises his little 15x13 cabins as "outstanding for ... their simple excellence and true craftsmanship." The chestnut logs are squared off, with spaces chinked in with white concrete. In traditional fashion, the corners are formed by logs fitting into right angles cut near the log ends. The horizontal plane of the logs is natural so that the chinked-in materials present the non-precision look favored by advocates of the rustic style. Stone steps lead to chestnut doors with hand-fashioned closings.

All of the oversized bolts and screws were crafted on site, by blacksmiths, as were sections of the handsome hanging chandeliers in the dining room and meeting rooms. The greenish stones that form the base of the cabins, the massive fireplaces, and the steps to the group buildings were quarried nearby. Old photographs in Catoctin's files record the expectant arrival of groups of workers, men 18 to 25 years old who arrived in groups 200 strong. As the camera captured them at their daily activities, the faces show a pride that undoubtedly has a good deal to do with the quality of the workmanship.

Underlying the affinity for the land, the workmanship, and the crude but charming pioneer-structures characteristic of the CCC was an anti-urban sentiment sharpened by the Depression experience. If earlier rustic architecture was also anti-urban, its roots were in awe of the wilderness—not in despair. "The iconography of the New Deal era recalled a simpler, freer past as an antidote to a distressed present," says Cutler.

The park service's views about harmony in nature were subjected to increasing criticism. One strong current came from those who saw rusticism as artifice, an overly sophisticated affection out of touch with modern architectural tastes and advances in technology. Another came from the increasingly influential wilderness movement, which saw the extent of development in the national parks as contrary to the park service's responsibility to preserve natural areas. Ideally, they said, man should only leave "footprints." During World War II, of course, the issue was moot, since the parks marked time with decimated staffs.

Disdain and the heavy costs of upkeep led to neglect of the great hotels as well as many of the buildings built by the CCC. Only the lack of funds to build replacements saved many buildings from demolition. Although continuing to serve visitors, a number of the great hotels became unsafe. The Yellowstone Parks Co. wrecked Reamer's New Canyon Hotel in 1957 because it didn't want competition with its new motel-type units. Park service Director George Hartzog looked at Misty Mount's cabins in the early 1970s and wanted to replace them with more easily maintained prefabs.

With the passage of time, these remnants on the landscape of the national parks of earlier attitudes are becoming increasingly appreciated. They are being nominated for the National Register of Historic Places, and funds are desperately sought for rehabilitation and adaptive use. They are a remarkable reminder of the park service's role in creating, as well as protecting, some of the nation's most treasured landscapes.
Shifting emphases since World War II.
By Carleton Knight III

The problem of making Ellis Island a memorial to immigration is nothing new. Philip Johnson, FAIA, had quite an idea for it some 20 years ago. Asked by then-Secretary of the Interior Stewart L. Udall to come up with a scheme, Johnson devised an inclined drum with a ramp leading up the side. The walls of the drum would have been covered with copies of various ships' manifests enlarged and cast in bronze so that visitors might find their families' names.

But Udall, in a recent interview, said the best part was Johnson's solution for the Great Hall, the cavernous, arch-roofed main building that all immigrants passed through. The architect told the secretary, "Don't tear it down or restore it. Just stabilize it. America needs ruins. There aren't enough in this country. We're too young."

For his part, Johnson recalls the experience as a heady one and adds frankly that his plan "tore down many buildings. Preservation sentiment wouldn't allow that today."

Udall's commissioning of Johnson was just one of several instances of "big name" architects being hired in the 1960s, when the National Park Service was in the midst of Mission 66, a 10-year program that was to cost more than $1 billion and affect every national park in the country. Udall, secretary of the interior for Presidents Kennedy and Johnson, says he has "lively memories" of the period, especially his work with architects. Kennedy, he recalls, put strong emphasis on quality at the opening of his administration and included architecture in talking about excellence. "That word got down to the rest of us," Udall said, and he responded by commissioning Frank Lloyd Wright's firm, Taliesin Associated Architects, and Richard Neutra's, Neutra & Alexander, to design visitor centers at Rocky Mountain National Park in Colorado and at Gettysburg National Military Park in Pennsylvania, respectively.

Mission 66 came just in time. The peaceful Eisenhower years had brought increased leisure to Americans, and park attendance jumped from 17 million annually in 1940 to 54 million by 1954.

The parks were deteriorating and not able to handle the increased visitor loads. Conrad L. Wirth, NPS director, conceived of and implemented Mission 66 in order to upgrade all national parks by 1966, the agency's 50th anniversary. He recalls that it was difficult going to Congress each time for an individual park service project. Inspired by the dam-builders at the Bureau of Reclamation who he thought got everything they wanted at once, he formed a committee to develop an overall concept. Mission 66 was the result, but the program never had specific legislative authorization. Wirth chuckles in recalling that he just went to the sympathetic House Budget Committee, which "gave us the dollars and we spent them."

The vast scope of Mission 66 mandated the hiring of outside architects for the first time by NPS in a big way because the in-house staff could not possibly do all the work. The sticks and stones era was ending, and in 1958 the park service got its first modern building: a visitor center at Dinosaur National Monument on the Utah-Colorado border. Designed by the San Francisco firm of Anshen & Allen, it was an angular, generously...
glazed building with a fossil-filled mountainside as one of its walls. "It was the first time that a museum was brought to an exhibit," says the firm's Richard C. Hein, AIA.

Hein recalls the design review as being relatively easy, saying simply, "The San Francisco office stuck up for our idea, and Conrad Wirth okayed it."

Shortly afterward Mitchell/Giurgola was commissioned to do the visitor center at the Wright Brothers National Memorial on the Outer Banks of North Carolina. There, an expressive arched roof—symbolizing flight—floats over the base structure, which overlooks the site at Kitty Hawk where man first flew in 1903.

It was also during this period that the Gateway Arch, Eero Saarinen's masterful design that won a competition in 1948, was built. Ground was broken in March 1962 and the final segment lifted into place Oct. 28, 1965. The 630-foot-high arch, which according to Saarinen, had "no details to mar its sleekness," opened to the public in 1967, but it would be nearly another decade before the underground Museum of Westward Expansion, handsomely laid out beneath the arch by the Potomac Group, was ready.

The architectural success of Mission 66 resulted in NPS receiving AIA's "citation of an organization" in 1970. The agency was commended for "its continuing effort to provide excellent design at all levels in our national parks."

Until Mission 66, all design and construction was done by NPS regional offices. To handle the wide scope of the new program, three separate design and construction offices were established, in Philadelphia for the area from the East Coast to one state west of the Mississippi River, in San Francisco for the area from the mid-continent to the West Coast, and in Washington, D.C., for the national capital. By the late 1960s, with Mission 66 accomplished and workloads decreasing, these offices were reduced, first by combining Philadelphia and Washington, and then in October 1971, merging San Francisco and Washington to form the Denver service center.

The use of outside architects continued, but the procedures for selection were changed by passage of the Brooks bill in 1972. That legislation, combined with a belief by some NPS officials that the "name" architects were not producing adequate build-

Left. Eero Saarinen's stainless steel Gateway Arch in St. Louis, and, below, Anshen & Allen's Quarry Visitor Center at Dinosaur National Park, the park service's first contemporary building.
Leadership, and a problem, in preservation.

often the smaller, less visible ones—restrooms, warehouses, garages, code rehabilitation, handicapped accessibility, staff housing—in short, the small potatoes. But the smaller scale and less visibility has meant no less concern for quality and for the context, even if only for a comfort station or an overlook.

Increasingly, NPS building dollars are being spent on rehabilitation rather than new construction. Over the years NPS and its parent Interior Department have given major impetus to the historic preservation movement in America. The legendary Historic American Buildings Survey was started by Charles E. Peterson, FAIA, a park service architect, during the 1930s to put architects to work. Today, the agency’s historic structures reports, done mostly in-house by the Denver staff, are regarded as models. The Old Faithful Inn, a 1904 log revival style building at Yellowstone, has been brought up to code recently without damaging the historic fabric of the structure, a task aided by such a report.

Russell Dickenson, NPS director, is proud of the park service’s noteworthy preservation record, remarking particularly about the massive work done around Independence Hall by a number of public and private agencies and organizations. He thinks that the Ellis Island effort now going on represents a great opportunity for adaptive use and adds that he expects there will be further leasing to the private sector of excess historic structures. He cited an old lighthouse at Fire Island on Long Island, whose Corten steel decorative frame has turned more red instead of its usual purplish hue because of the purer mountain air at that high altitude, says architect E. Thomas Casey.

In-house architects have made a major contribution to parks. Below, Benjamin H. Biderman’s spiraling Shark Valley observation tower at Everglades National Park and, right, Richard J. Kusek’s simple, wood overlook at White Bird Canyon in Nez Percé Historical Park in Idaho. Kusek was inspired by Indian motifs, and design concern extended even to trash receptacles.

Left, buildings from Mission 66 include Neutra & Alexander’s visitor center at Gettysburg, Pa., and Taliesin Associated Architects’ visitor center at Rocky Mountain National Park in Colorado, whose Corten steel decorative frame has turned more red instead of its usual purplish hue because of the purer mountain air at that high altitude, says architect E. Thomas Casey.

In-house architects have made a major contribution to parks. Below, Benjamin H. Biderman’s spiraling Shark Valley observation tower at Everglades National Park and, right, Richard J. Kusek’s simple, wood overlook at White Bird Canyon in Nez Percé Historical Park in Idaho. Kusek was inspired by Indian motifs, and design concern extended even to trash receptacles.
Dave Hamill of Barker Rinker Seacat & Partners, a firm that has also done design work for the NPS directly and for concessionaires, agrees that the review process can be very bureaucratic with "everyone giving his two cents worth." The problem arises, he says, in deciding whose comments will be included in the final report. But partner R. Russell Seacat points out, "They are easy to get along with as long as you realize they are going to call the shots. Their standards are very high, higher than needed, but that's their right." He says the somewhat tedious review process is ameliorated by the fact that they place "a high priority on design. With the Park Service, unlike HUD or EDA, you deal with designers. They are concerned about the product from a design point of view."

George M. Notter Jr., FAIA, of Anderson Notter Finegold, joint venture architects on the Ellis Island project, finds NPS "as diverse as any client," but what he appreciates is that there is always someone in charge. "Their people are accessible. That's unique," he says.

For Franklin Court, the recreation of Benjamin Franklin's home in Philadelphia by Venturi, Rauch & Scott Brown, the firm's David Vaughan reports the review process went very smoothly, due in part, he surmises, to the tight time-frame enforced by a bicentennial deadline. "There were no politics involved. It was very straightforward, and we were able to do mostly what we had intended architecturally. It almost seemed like it wasn't the federal government," he notes. Vaughan is also especially complimentary about the NPS staff abandoning its original concept in favor of the architects'.

John D. Milner, an architect who consulted on the preservation aspects of the Franklin Court, finds the park service "very responsive. You deal with architects and engineers who understand the process and what we do and thus their expectations are very realistic." Milner, who also has done work for NPS at Perry's Victory and International Peace Memorial in Lake Erie and at Fort McHenry in Baltimore, notes that NPS "stacks up very well" when compared to other government agencies, federal and state. "The staff is very professional."

Despite the legal complexities involved in designing and building the Jordan Pond House, a new visitor center and restaurant at Acadia National Park on Mount Desert, Me., John G. Williams of Woo & Williams found the staff "superb and very supportive of design innovation." As far as he is concerned, NPS "is at the top of the list of public clients." The building, which replaces a national historic landmark that burned, took four years to design and build.

Colden R. Florance, FAIA, of Keyes Condon Florance in Washington, D.C., also thinks NPS is the best federal client "in terms of flexibility and liveliness." The firm, which designed a wood-framed pavilion structure in a park along the Anacostia River for the bicentennial, "was allowed a lot of freedom in how to do it," Florance says, adding, "We were treated with a light hand, to our considerable enjoyment." John Lawson of Mitchell/Giurgola, architect for the insect-like glass pavilion that enshrines the Liberty Bell and for a handsome maintenance facility for the Independence Hall area that retains the small-scale character of the surrounding neighborhood, also thinks NPS is an excellent client, finding it "less bureaucratic and easier to get along with" than other government agencies. The review process can hardly compare, Lawson notes, with the firm's major current project—the new government building complex in Australia, where Mitchell/Giurgola must deal with "150 bureaucrats."

"They see the longer view, not just tomorrow, like most clients," comments David M. Childs, AIA, of Skidmore, Owings & Merrill/Washington, which renovated the Mall and designed Constitution Gardens for the park service. NPS staff people "are an outstanding group. They sense the value of what they have and are holding in trust for future generations," he says. "They have an enormous sense of dedication for America's heritage. Their hearts are definitely in the right place."

As with any client relationship, he admits there are "frustrat-
Going beyond ‘old log ranger stations’

ing moments.” It was not perfect, and he complains that architectural firms in general are not allowed to do the site supervision to assure the original design is followed through. The service center’s Lopenske says this choice depends on the workload of its staff, and if its personnel are available, they have to be kept busy.

Is there a key to design success by all the various architects who work with NPS? In a way, yes. Park service officials put it simply, saying that they do not want architecture with a capital A. “We are not building monuments,” says Lopenske. “Most times we want buildings that blend in with their surroundings, not that compete with the resource.”

John Belle, FAIA, of Beyer Blinder Belle, one of the architects working on the $50 million renovation of the Great Hall on Ellis Island, agrees with Lopenske’s intent, but not necessarily the solution. “There is a difference,” he notes, “between architecture with a capital A and architects with a capital A.” He says pointedly that NPS projects require a sensitive hand, not an architectural ego.

That’s not easy. Benjamin H. Biderman of the service center’s Washington satellite office says it is “hard to get an architectural or engineering firm to think like we do. The opportunities for great architecture within the National Park System are limited, but we don’t want to squish them. When they do arise, we want to do the most we can.” There is no finer example of this than in the Gateway Arch, now almost 20 years old and, with its plantings, from an original design by landscape architect Dan Kiley, maturing at last.

Biderman concludes, “Many architects want to make a splash, but the best solution is one that is unnoticed.” This emphasis on subdued architecture requires that the designer give first priority consideration the setting or historic structure, and then defer to it. But visits to a number of parks demonstrate conclusively that deference does not mean indifference to design quality.

NPS planning chief Stewart says, “We want clean lines and compatibility with the environment. Buildings can use native, indigenous architectural motifs, but they should not just copy local styles.”

NPS Director Dickenson believes “one of the most important elements of park management is adoption of an architectural theme, so you don’t wind up with a hodgepodge of styles.” He also declares emphatically that it is not a function of management to “dictate styles.” Although he likes them, Dickenson says he realizes NPS “can’t replicate the old log ranger stations” and adds there is no reason old and new buildings cannot be mixed, “but they have to be complementary.” The director cites the rustic Paradise Inn on Mt. Rainier and the adjacent visitor
Historic preservation has always played a large role at the park service. Across page, top, the lodge at Crater Lake National Park, which NPS earlier considered for demolition but is now re-examining to determine the feasibility of bringing up to code, and bottom, Paradise Inn at Mount Rainier, rehabilitated. Recent work in Philadelphia includes, top, a new maintenance facility by Mitchell/Giurgola, and Franklin Court by Venturi, Rauch & Scott Brown, the only park service building to win an AIA honor award.

The staff delights in twitting GSA, which, they say, is always trying to make a "statement," but without the budget to match. Planner Stewart says emphatically that NPS buildings are not "federal architecture."

That the NPS work is federal architecture at its best, however, was evident this fall when the first-round winners in the National Endowment for the Arts' presidential design awards program were announced. Of the 91 achievement awards for excellence in architecture, engineering, interior design, landscape architecture, graphics, industrial design, and urban design and planning, 14 went to the Department of the Interior, and 11 of those were for NPS.

The 630 entries represented more than 50 federal agencies and were reviewed by juries of professional designers in various disciplines. Those winners are now under scrutiny by a sec-
Current design in parks includes: above, the renovation of the Great Hall on Ellis Island by Beyer Blinder Belle and Anderson Notter Finegold that will feature a new entrance canopy; and right, the restaurant at Grant Village in Yellowstone National Park by Spencer Associates for the concessioner, TW Services. Shingled structure has dark glass with red mullions. Below and across page, the Island Pond House by Woo & Williams for Acadia National Park on Mt. Desert, Me. The building, according to its designers, has antecedents in the shingle style and in the indigenous farm buildings of the area. It contains a restaurant, shop, and information center.

Consistent quality and an island challenge.

NPS facilities honored include Franklin Court in Philadelphia, the Jordan Pond House in Maine, and the Lowell National Historical Park visitors center in an adapted old mill in Lowell, Mass. That last design was done by the in-house staff at the Denver service center, as was a winning master plan emphasizing preservation at the Klondike Gold Rush National Park in Alaska.

There were other awards as well, but the special significance is in the honors for the NPS staff. The service center’s effort at excellence was confirmed a year ago when it held an awards competition for all NPS design work since 1981. Unlike previous years, this time the NPS staff went head-to-head against the outside architectural firms it has hired. Of the 22 winners, two-thirds were for projects designed in-house. Admittedly, much of the in-house work involves planning and historic preservation, but the center’s designs for new facilities, even if only a solar-powered comfort station at the edge of Crater Lake or a similar facility buried underground at Great Sand Dunes National Monument in Colorado, are handsomely conceived.

One of the competition jurors, Fred E. Hummell, FAIA, a former California state architect, says he was “surprised at the high level of work. You don’t expect that from government.” He attributes part of the NPS success to the agency staff’s attitudinal approach. “They don’t see the private sector as a threat. They work as partners.”

As for the future, if anything will test NPS to the utmost, it is likely to be the Ellis Island project, another partnership. The coming of the Reagan Administration brought a new emphasis on the private sector in the public sector. In an effort to find a solution for Ellis Island, which had been lying fallow for the two decades since NPS had acquired it, the park service asked for proposals from private developers for the southern half of the island. The Great Hall and ancillary buildings on the northern half, it had already been decided, were to be restored, as would the neighboring Statue of Liberty in time for its 100th birthday in 1986. NPS chose a plan that, as designed by Conklin Rossant, would recycle the old buildings into a conference cen-
ter and hotel. The developer, William N. Hubbard, would utilize the rehabilitation incentives in the tax code for the privately financed venture.

Subsequently, Congress passed and President Reagan signed legislation naming a Statue of Liberty-Ellis Island Commission with Chrysler Corporation's Lee A. Iacocca as chairman. The commission was charged with raising some $230 million for the restoration through a private, nonprofit arm, the Statue of Liberty-Ellis Island Foundation. But the commission/foundation sees its role as more than financial and ceremonial. It wants to have some say over what it was paying for, much to the consternation of NPS officials.

Restoration of the Statue of Liberty is well along, and work on the Great Hall is about to begin, but the development portion is on a temporary hold. Part of the problem is political, part is architectural. The foundation hired John Burgee, FAIA, as its consultant on design, and he came up with a plan that would add two new buildings: an IMAX theater for a film on the immigration experience and an exhibit hall. With some 650,000 square feet of space on the island, not all of it fully utilized, NPS thinks no new buildings are needed. Burgee responds that some of the unused space is unsuitable for a first-class museum—third and fourth floors, for example—and adds, "The whole history of the island is new buildings." He points out that the original one burned and was replaced, and that during the Depression, an art deco ferry terminal was added. "The whole island was not built at once. I don't think it's appropriate to say at the centennial of Ellis Island we cannot add our own building," Burgee says, and there is no reason to think he is not speaking for Iacocca.

He chafes at the limits NPS imposes on itself and says, "The problem is to get the park service to think in terms of a plan that will stir men's blood. Being government people, they think of the restraints. I understand, but I think big, see the restraints, and try to find solutions. They can't buck the system. I can." Burgee adds that he realizes he can also make himself unpopular in the process.

"If you start with restrictions," he concludes, "you can't have a grand plan. And this must be the grandest." The problem now, as it was 20 years ago with his partner, Philip Johnson, is how to achieve that goal. NPS has its work cut out but also has an excellent record on which to build. ■
Describing the building of the traditional dance and ceremonial house of the Kashia Pomo of California’s north central coast, the late Chief Herman James said:

“Before He made the People, He had to speak four times. When He spoke for the last time, the People appeared and were laughing and talking, happy and joyful in the Round House. A Round House or Sweat House. Upon the dirt they placed dried grass and covered it with deerskins. The Creator didn’t create just one man; He created many People. When He spoke for the last time, the People appeared and were laughing and talking, happy and joyful in the Round House.”

Today, the Kashia Pomo are neighbors of Sea Ranch, the famed development of 10 miles and 5,000 acres of coastline a little more than 100 miles north of San Francisco. The area was, in fact, the hunting and fishing grounds of the Pomo for thousands of years.

When the demonstration plan for the first 1,500 acres of Sea Ranch by Lawrence Halprin & Associates began realization in 1964 with prototype projects of the first condominiums by MLTW (Moore/Lyndon/Turnbull/Whitaker) and hedgerow houses by Joseph Esherick, FAIA, there was an aspiration to revere natural processes like the Pomo. The client (Oceanic Properties of Castle & Cooke; Alfred Boeke, director of planning), the planners, the architects, and the landscape architects shared the Pomo respect for the site and appreciation of the natural environment. They had a vision of trying to live synergistically with natural forms and processes.

The Pomo, according to anthropologist-biologist Vinson Brown, were so attuned to living in this environment that their “fathers, grandfathers, and great grandfathers as far back as imagination cares to wander have enmeshed their feelings, thoughts, and bones with the earth in a way we superficial newcomers can never equal.” The aim of the 1960s plan was to try and achieve as much of a correspondence with nature as people in the mid-20th century can.

The environment at Sea Ranch does not tolerate traditional concepts of resorts and getaway places: holiday lounging and casual or programmed recreation. This is not a languorous clime like Puerta Vallarta, not a “place to be” in the summertime like the Hamptons, not a place for sun and sand and swimming like Hawaii. It is a rigorous, vigorous environment with a bracing climate. It engages the visitor or resident in no uncertain terms; one must come to grips with its unambiguous character. It can be austere and threatening, and it can be effervescent and exhilarating, frequently in the same 24-hour period. It is incredibly beautiful in the ways the Orkneys and Shetlands are beautiful: sweeping moorlike meadows atop rugged sea cliffs; darkling wooded hills beyond; and behind the hills a swift tarnlike river full in season with the runoff from distant mountains. This environment casts a spell over many people and also alarms not a few with its uncompromising qualities. For those who come to love it, the enchantment is lifelong.

How to design and build for such a place? In The Place of Houses Charles Moore, FAIA, and William Turnbull, FAIA, wrote that “houses which merged politely into the land would seem to provide little sense of security on this wild coast. Houses which stood out too strongly would emasculate those very astringencies which made the land special. What we and Esherick thought was needed was a limited partnership—not a marriage—between the buildings and the land.” The matrix for this creative partnership was provided by Halprin’s dynamically responsive plan. By taking the variable qualities of nature over the centuries as the seminal resources for planning, Halprin and his colleagues, in close collaboration with Boeke, created a plan that would permit people to “live lightly on the land” and try becoming part of the ecological process, not its violators.

What emerged in the plan for the first 1,500 acres, joined by the designs for the condos and hedgerow houses, was an unusually powerful image of what could be produced by an innovative approach to designing and planning with nature. A brilliant, high-powered public relations campaign orchestrated by the late Marion Conrad of San Francisco got this image into professional and consumer media all over the world. Even 20 years later, major articles about the first Sea Ranch projects are still appearing in foreign publications such as Japan’s Process: Architecture. As a result, Sea Ranch has become, to many professional and lay people, the very paradigm of sensitive ecological planning and architecture.

What has actually happened at Sea Ranch since those heady days of the 1960s, when the consultant team worked so excitedly
Across page, the original stables reflect the heritage of Sea Ranch. Top, the first site plan clustered development at the north end. Above, MLTW's condominiums, a prototype design.

with Boeke and the Oceanic team to produce these charismatic results?

One is tempted to turn to social history for a parallel, as the openness and experimentations of the 1960s became the commercial exploitation of those hopeful trends in the 1970s (glibly marketed “sensitivity and growth” packages, for example), and finally have become lodged on a plateau of self-interest and social indifference in the 1980s. Though there is something of a parallel in the history of Sea Ranch, more particular influences have been at work: the personal attitudes of the participants in that history, economic and governmental pressures, and a recent resurgence of the feelings and commitment of the ’60s.

While generating their influential international image, the prototype plans and architecture had an uneven impact on the subsequent development of the remaining land. The ecologically based plan for the first 1,500 acres has been superceded, on the ocean meadows at least (the area most people think of when they think of Sea Ranch), by denser subdivision planning of the “city beautiful” persuasion seen in many American suburban developments. The appropriateness of the MLTW and Esherick designs has been cartooned into clichés inappropriately applied in many cases to different houses in different locational situations. The powerful image that still resonates in the name Sea Ranch is in danger of being diluted and misdirected into run-of-the-mill development on this still spectacular site.

The poignance of this situation is that it is not necessarily the chief aim of anyone. The Oceanic group (now OCI, Oceanic California, Inc.) professes faith in nature-based design but cites economic pressures for higher densities. The homeowners’ group representing the community, The Sea Ranch Association
(TSRA), has attained greater independence from the original owner-developers in recent years and is calling more and more for a return to nature-oriented principles.

Last autumn, the original professional team members, several of them long professionally or emotionally disassociated with what was happening to the rest of Sea Ranch, began working with the community to try and discover ways to realign the relationships between the man-made and natural environments. While Moore has one of the original condos and Halprin has a Sea Ranch house, Turnbull has been the only original team member to do a number of projects there over the years. Today, Moore, Turnbull, and Esherick are all designing Sea Ranch houses.

The plan: The Sea Ranch site is characterized by several distinct zones, proceeding eastward from the ocean bluffs. Between the bluffs and Highway 1, which traverses the site north-south, is a great sweep of ocean meadow that had been logged over more than 100 years ago, then devoted to agriculture and finally sheep grazing. East of the highway, the terrain slopes to an upper terrace, thence upwards again through second and third growth forest to a 600-foot-high ridge. Behind the ridge the land descends steeply to the Gualala River.

On the ocean meadow are cypress hedgerows planted many years ago at right angles to the coast as wind breaks. According to Halprin, these hedgerows "set up a kind of spatial module that breaks up the long linear 10-mile stretch into rooms." It was the intention of the original plan to strengthen this situation by reinforcing the hedgerows and planting new ones where appropriate. As demonstrated by Esherick's hedgerow houses, this feature was seen as a major matrix or site-planning determinant for placement of house clusters and roadways in the ocean meadows. By siting houses in conjunction with new and existing hedgerows and clustering them in several ways, and running most of the road systems at 90-degree angles to the coastline
Across page top, hedgerow houses designed by Joseph Esherick, as seen in the '60s, and, above, in 1983. Cyprus hedgerows are used as windbreaks with views across the ocean meadows maintained. Across page bottom, one of Obie Bowman's original "walk-in" cabins nestled in the forest.

in what Halprin called a "T-formation," views could be preserved and generous expanses of "commons" left open for all to experience. Halprin specifically warned against the "suburban S-curve of beauty" in future site planning, since arcing roadways and house lots parallel to the coastline would violate views and diminish the scale of the commons in the potentially great "rooms" between the hedgerows.

The hedgerows were there for a very real purpose: protection from the strong northwest winds that scour the site. Therefore, it was important to locate houses sensitively to enjoy this protection and create warm sun pockets on south-facing walls. Additionally, the original plan kept houses back from the bluff line so that the meeting of land and water could remain a special experience for everyone.

Above Highway 1, the plan proposed that houses be kept back from the edge of the woods and merge into the trees, and that they be kept off the visible ridgetops and knobs. The sweep of land up to the tree line was to be mostly common land similar to the commons on the ocean meadow below. Above the tree line, there was to be a variety of siting possibilities, including clustered plans and individual forest dwellings. After the first demonstration projects of the 1960s, Oceanic built several demonstration cluster projects in the forest, including the notable "walk-in" cabins by Obie Bowman.

The architecture: Describing the approaches that he and MLTW took for their prototype projects at Sea Ranch, Esherick recently told an AIA audience in San Francisco that they were different in approach but similar in the concept of establishing a "limited partnership" with their natural environment. In the case of the MLTW condominiums, the partnership is one of mutual distinction, the building forms announcing themselves forthrightly as do the barns, lambing sheds, and stables that have existed on the North California coast for generations. The building mass juts from its rocky outcrop with a coalesced vigor; it evokes and extends rather than imitates its powerful location. It is a strong shelter from wind and rain and cold—a place for people both to be together (under a shared roof) and apart (looking outward to wide-ranging views from individual units). Nature is not mimed but respected as a principal partner in creating a new environmental composition. The patterns of wind and land and rain and sea spume combined with the talent of the designers to make a place that is uniquely appropriate to this place.

The hedgerow houses imply a different kind of partnership. If the condos are metaphorically a handshake, an agreement between two partners to respond positively to one another, the houses evoke the image of "hand in glove," slipping snugly into the forms and patterns of the site to become part of the larger scene (in the Gestalt attitude of the time, the parts combining to form a greater whole). Here, the architect learned what the environment had to teach about wind force and direction, the role of the hedgerows in protection and making micro climates, how views could be opened, framed, and made accessible, and how access routes could work with the terrain and natural growth instead of against them.

In both the condos and hedgerow houses, as well as such early buildings as the store, the walk-in houses and hill clusters, and the recreation centers, the use of untreated redwood siding, simply framed windows (frequently square), and roofs that tilted and angled to respond to wind directions and the flow of topography and tree lines set the visual image for much succeeding architecture. And there, it now appears, was the rub.
The subsequent design process: When Sea Ranch started, Boeke, himself an architect, ran a tight ship on the design review process and kept a stern, minatory eye on the early houses. Eventually, however, his attentions were turned to another Castle & Cooke project, the Mililani new town in Hawaii, and the purview of design at Sea Ranch passed along to others. A discernible difference resulted.

People who buy and build at Sea Ranch agree to abide by two documents, “The Sea Ranch Restrictions” and “The Sea Ranch Guidelines for Design.” The restrictions have to do with private, semiprivate, and commons land ownership and stewardship, land uses and participation in resources, funding and assessments, and similar established rules and regulations for managing such a community. The design guidelines are administered by the design committee, which consequently makes most of the decisions that affect the architectural quality of the place. The guidelines are an unillustrated document that attempts to put the essences of Sea Ranch into words—not always successfully, at least in terms of being helpful to architects and clients.

As the design review power at Sea Ranch gradually transferred from OCI to the design committee something happened—or failed to happen. Instead of a lively, protean, ongoing evaluation and re-evaluation of the lessons implicit in the first plans and prototype designs, their most copyable elements became more important than the qualities these elements were intended to teach. Designs that faithfully disported themselves in unfinished redwood siding and tilted their roofs aslant over minimally framed windows usually had a good chance of approval. Obie Bowman, an outgoing committee member, says that too many architects who submitted designs were also too willing to do whatever necessary to get the project approved.

It should be acknowledged that the same thing was happening all over America and in some foreign climes as well. The multifaceted plan, the seemingly helter-skelter wall and fenestration elevations, and the fractured rooflines of Sea Ranch became liberating devices for people trying to break out of four-square, 90-degree-angle architecture. Slanted roofs, huge square windows, and untreated siding popped up out of vacant farmlands outside many an American city. Everyone, it seemed for a time, had to have his or her own “Sea Ranch” project. Part of this was a feverish leap toward dissolving rigid geometries and discovering new ones. Part—perhaps the large part—was simply adapting prize winning design ideas for profit in inappropriate places for inappropriate uses.

But whether imitating the original ideas of Sea Ranch at the place of origin or transporting “Sea Ranch condos” to sit across from Midwest shopping centers, the style was aped but the essence was usually ignored. Given different sites and differing environmental stimuli, the MLTW condos and the Esherick hedgerow houses would have been different buildings. This is
the lesson — to be responsive to conditions. Responsiveness to ecological patterns and environmental forces as taught by the prototype buildings (and their design ancestors the farm and ranch structures), while romantically characterized in the guidelines, nevertheless seldom has been a compelling determinant in many post-1960s houses.

But the design of individual dwelling, after all, does not have the overall community-shaping impact on Sea Ranch that the general plan has. Houses can be either good or mediocre, but if some common but variable characteristics are shared they might combine into an acceptable whole. More important to the Sea Ranch concept are the ways the houses are sited, their density on the land, and their roadway systems, preservation or loss of views, trees and groves, and relationships between people and nature.

That larger view, currently, is out of the hands of the design committee or TSRA. Mary Allen, the project manager for OCI at Sea Ranch, says that all OCI can do at Sea Ranch from now on “is cast in granite.”

An “Amended Precise Development Plan” has been approved by the Sonoma County Board of Supervisors and is the instrument of record. Since the original Halprin plan for the first units, OCI has employed Brelje & Race/Carlile/Daugherty/Carlenzoli who are “civic and sanitary engineers, land surveyors and planners” in Santa Rosa, the Sonoma County seat. They have prepared the subdivision plans for the remaining development parcels.

Allen points out that OCI has endured what was, in effect, a moratorium on development in recent years. The mid-’70s saw the passage of the coastal act and establishment of the California coastal commission, to monitor and approve all development within 1,000 yards of the coastline. Also, passage of the Bane bill, a measure designed to open coastal accessways along Sea Ranch to the public, resulted in long and arduous negotiations between the state, the county, homeowners, developers, and activists on both sides of the fence. The State Coastal Conservancy interceded to facilitate agreements and compromise, and will fund accessways and development of a transfer parcel negotiated with OCI. This long period caused economic hardships for OCI. One consequence in planning terms was an increase in the density of development parcels — an attempt to try to recoup some of the economic impetus lost during the moratorium. But many Sea Ranchers compliment OCI for not selling out.

Along with the densities, unfortunately, have come plan configurations that are the antithesis of the original plan precepts. When they reach buildout, the plans for many units will produce a North Coast “suburb” with no city to call its own. In his book on Moore, David Littlejohn called Sea Ranch today a “compromised utopia.” Subtopia would perhaps be a better term — in too spectacular and remote a location to qualify as a real suburb and not utopia by a long shot.

This situation has apparently been exacerbated by the tendency since the late 1960s of real estate salespeople to deal with prospects with scant candor from time to time and to push the “hot items” of the ocean meadow lots. The tendency, according to Sea Ranchers, had been to go for quick and easy sales instead of interpreting the Sea Ranch concept to prospects and working with them to find the precise appropriate location for their individual needs. Resident Janan Strand remembers that when they bought, “we had the best, most sensitive salesman here, but even he didn’t show us exactly what we’d been asking for until the very end.” The Strands wound up with one of Bowman’s walk-in cabins instead of down on the bluffs where they were first directed. She says that a number of owners who bought ocean meadow lots have since sold and moved uphill away from fog and wind.

Strand and many other residents think a major problem is the lack of education of both prospects and salespeople about the underlying philosophies and principles of Sea Ranch. If the one-plot, one-house mentality has outstripped the ideas of clustering and responsiveness to the natural scene, perhaps a new emphasis on the uniqueness of the place is needed. Today, people complain that they were told “the view you see is the view you’ll keep,” only to discover in dismay that buildings subsequently intruded and trees have an astonishing tendency to grow (many people were surprised by this second situation).

Planning at the north end has been “financial planning, not land planning,” says Richard Shrieve, design committee task force chairman. “Those units were designed by accountants,” he quips.

The suburban image recurs constantly in talks with residents and TSRA members. Jack Cosner, AIA, design committee administrator, who has a good working relationship with Allen, nevertheless sighs that the northern lots were designed with “sewer planning,” with lines running down beneath streets and branching to side-by-side lots just as in any American suburb.
Today, there is an additional concern. Several homeowners have proposed enlarging Sea Ranch's little daylight-only airstrip on the upper terrace with permanent hangars for their planes. To many people, this causes immediate horror fantasies of a "Club Med" type of mentality invading the community. OCI having ceded the airstrip to TSRA, Allen says relievedly, "that's their problem."

Emergence of a Sea Ranch community: Sea Ranch as a community has been in steady transition since its birth. Many people who came originally as "second homers" now live here permanently. Not just the predictable retirees, either; there are artists, writers, and others whose career or business allows them to work in this distant place. The permanent population is now past 200 and rising. These people as well as owner-visitors and lot owners who have not built yet have come to agree over the past few years that perhaps design and environment are slowly degrading at Sea Ranch. Cosner came from eight years on New Orleans' Vieux Carré architectural commission to join TSRA as administrator of the design committee. His aim is to upgrade design processes and results. He made the re-establishment of contact with the original planners and architects of Sea Ranch as one of his requirements for taking the job.

Last fall and winter, a series of community workshops brought these professionals—Halprin (conductor of workshops), Moore, Turnbull, Donlyn Lyndon, FAIA—back to work with people to evolve ways to improve the situation. Major results of those workshops included formation of citizens' action task forces on design review, historical preservation, natural environment, communications, and other salient needs. A visible early result has been publication of an excellent quarterly community newspaper, The Sea Ranch Soundings.

An example of how fresh cooperation can turn the tide came out of the workshops. OCI had a subdivision for unit 36, fronting the old stables, that would have treated that space in much the same manner as the intensified units to the north. This is a very special area to Sea Ranchers; it speaks to them strongly of the heritage of the place, of its history in the old buildings, and its great meadow overlooking the ocean. Learning of the plans in the workshops, people became agitated. The final result is that the plan was simplified and made less dense, leaving more contiguous commons space and views.

The design committee, which formerly found its members from among the small group of local architects and landscape architects, has now been reconstituted with distinguished "outside" professionals who might bring the advantages of objective aims for design excellence and fresh viewpoints for the future. The new members are landscape architects Hideo Sasaki and Deborah Faaborg (formerly on Cosner's staff) and architects George Homsey, FAIA, (of Esherick, Homsey, Dodge & Davis), Lyndon, (who now teaches at the University of California, Berkeley, and J. Carson Bowler. Resident Shrieve thinks the aims of the design committee should be to attain "quality, diversity, and clarity." Told that this resembles the commodity, firmness, and delight of Vitruvius, he exclaimed, "Delight! We must add delight!"

Many of the updated design requirements and guidelines this group will be enforcing under the managerial hand of Cosner are being formulated this very month by a blue-ribbon professional panel assembled by TSRA to evaluate the positive and negative aspects of Sea Ranch for the past 20 years and articulate design and planning solutions that will set things on course for a brighter future. The members of this group include those who were on the spot when Sea Ranch began as well as people who can bring special inputs and expertise to the problems. In the first category are original Oceanic planning director Boeke, Moore, Halprin, Turnbull, Esherick, and Reverdy Johnson, the attorney who wrote the original Sea Ranch restrictions. They are joined by architects Daniel Solomon, FAIA, and Donald MacDonald, AIA, and landscape architect Sasaki.

At the beginning of this essay, Pomo Chief Herman James recalled his grandmother telling him how the Creator spoke four times before the community came into being "laughing and talking, happy and joyful in the Round House." Sea Ranch had been spoken for three times thus far: First, when the famous plan and building prototypes set the image in the 1960s. Second, when sales practices and pragmatic subdividing diluted the original intents in the 1970s. Third, when the people of Sea Ranch got together to realign their basic principles, to take some responsibility, and to plan for the 1980s and 1990s. The fourth "speaking" is being conceived now and can prophesy what Sea Ranch will become toward the turn of the century.
Cordial Waterside Development
In a Historic Coastal Town

Geologists believe the scores of small estuaries forming Maine’s serpentine coastline were carved by glacier-fed rising oceans. Today the inlets serve as harbors rimmed with human-scaled buildings that support shipbuilding and fishing, yachting and tourism.

One of the most beautiful is Camden, whose pristine houses and picturesque harbor make it seem the quintessential coastal New England town. (In the 1950s Camden and nearby Rockport were chosen for location filming when Hollywood made “Payton Place.”) Long a summer resort for the Philadelphia and Boston yachting set, Camden has increasingly become a year-round community over the past decade.

Harbor Square, a mixed use development that is Camden’s most recent waterfront addition, functionally supports the tiny 19th-century port and fits in visually. Its design is by Richard L. Bernhard, AIA, and Stephen G. Smith, AIA, whose partnership occupies second-floor offices. (Bernhard and Smith also were developers of the $2.5-million project.) Built over a disused marina basin that had been drained and covered with a parking deck, the new complex rests on a higher deck of concrete supported on pilings that penetrate the parking platform.

On this 165 x 140-foot site, restricted to a 32-foot building height limitation by the city, Bernhard and Smith designed a complex comprised of three retail shops of 1,200 square feet each that contribute to the commercial streetscape; offices and apartments above the shops; six townhouse condominiums, 1,700 square feet apiece, facing the harbor; and parking for 43 cars.

The two residentially scaled, slightly staggered rows that make up Harbor Square are aligned parallel to the water’s edge. The commercial row closest to the street is set back slightly. An open archway through this grouping lines up with a 15-foot-break in the residential row, creating a view corridor to the harbor. The long courtyard between the rows is paved in waterstruck brick.

The buildings are beautifully simple, clad in white cedar shingle to the tips of their gabled roofs. And the interiors are efficiently planned to incorporate loft spaces, and handsomely appointed, with locally crafted woodwork and fireplaces of the same rich, waterstruck brick used on the courtyard.

Throughout, Camden harbor has a quiet indigenous demeanor tempered with an adventurous Yankee spirit. A.F.
Joseph Paxton's Crystal Palace or the grand, geometric volumes of Boullée might come to mind upon first seeing this botanical bridge in Oklahoma City's Myriad Gardens. William Conklin, AIA, of Conklin Rossant, New York City, says that the comparison he prefers is that of a "machine in the garden," a smoothly finished, reflective object contrasting with the curvaceous land forms and meandering waterways of this lush urban park.

Myriad Gardens, for which Conklin Rossant did the master plan, itself sits in the middle of the city, a green space four blocks square for retreat from the city's hot summer days and blistering dust storms. The botanical bridge connects to Oklahoma City's extensive pedestrian tunnel system, which roots its way through the gardens, poking above ground for a breath of fresh air. Serving as a further refuge, the enclosed garden, when it is finally planted, will be alive with tropical plants and mountain flora. Its interior steps up on the north and south ends, replicating the terrain of a mountainside, while down below the grade levels out into a "valley" for strolling visitors. A suspended walkway made of a curved piece of steel mesh will allow visitors to walk amid the palm treetops. To span the man-made lake, the bridge is supported by a story-high concrete box beam that contains mechanical equipment. All of this is protected by the circular canopy made of white space trusses and double-skinned acrylic. Michael J. Crosbie
Research Center Repeatedly Penetrated by Nature

The scientists and researchers at the Westvaco Forest Science Lab in Summerville, S.C., are engaged in finding better and faster ways of reforesting lands for wood products. So it is only appropriate that their work take place in a built environment that takes advantage of its heavily wooded, 25-acre site, blending nature with architecture. Thompson E. Penney, AIA, of Lucas Stubbbs Pascullis, Powell & Penney, Charleston, S.C., says that the lab takes its form as a long spine stretched out in a wooded clearing to meld the users with the landscape. The spine is layered, starting on the north side with offices; laboratories and workspaces are in the middle; and on the south face, greenhouses and a headhouse for receiving plant and soil specimens. Stretching the building out allows it to stay at one level—ground level—subtly reinforcing the connection with nature.

Along the spine are three interior courtyards, one at the entrance lobby and two others framed by lab spaces. These courtyards introduce nature into the labs and provide additional views outside no matter where one might be in the multilayered plan. The courtyards have a safety function as well: Genetic research on plant life demands constant ventilation for experiments with highly toxic chemicals. In the event of a power outage the courtyards can be used for immediate ventilation. Placing the greenhouses on the south side allows the scientists ready access to them (unlike many other labs that Penney visited that located the greenhouses in separate structures out back).

The building's shed forms provide proper orientation for domestic hot water solar collectors to the south and, on the north side, pull diffuse, natural light into the interior spaces. As much wood as possible was used, such as the weather stained cedar exterior and the oak interiors. Dark earth tones reiterate nature as a theme and focus of the lab's function. M.J.C.

Below, the greenhouse spaces are integral with the building's overall form; above right, the south face of the lab and, across page, left, the north side with light scoops; across page, right, the library, which receives soft, northern light from above.
The Conservatory, a 500-room $50-million addition to the enormous Opryland Hotel, is a sunbelt winter garden with a strong Nashville flavor.

Earl Swensson Associates, given virtual carte blanche by the client to bring “something distinct and new” to the sprawling convention hotel, designed a pentagonal wing centered on a Victorian garden and crowned, six stories above, by a sloping roof that rises to 110 feet at its pinnacle. In between is an elevated ramp walkway allowing promenading by guests at treetop level. The rooms opening into the cavernous interior have sitting-balconies with ornamental iron railings.

The glass skylight is an acre in area, one of the most extensive extant, which raised the prospect of overheating under the Tennessee summer sun. But the architects wanted the sparkle of unfiltered natural light. The solution is a filtered central portion surrounded by a ring of clear glass. Scrims are drawn over the clear glazing in summer to further mitigate the heat.

Vegetation in the dense garden ranges from tropical along the northern wall that gets the most direct sunlight to plants accustomed to more temperate climes on the southern side.

The Conservatory has proved to be popular. Earl Swensson, AIA, now has in design a second winter garden for the hotel that would equal this one in size. A.F.

Left, a 72-foot-high ‘Crystal Gazebo’ sculpture of steel tubes painted white. Below, a view at the level of the elevated walkway.
It is a greenhouse, appropriately enough, since Ridgeway Center is the new entrance and educational complex of Missouri’s Botanical Garden in St. Louis. And with its projecting, barrel-vaulted, translucent portal, it literally reaches out in welcome.

Though Hellmuth, Obata & Kassabaum used conventional construction, concrete—surprisingly—and individual arches made of I-beams, their center is innovative in using a synthetic curtain wall that transmits abundant light yet provides excellent thermal insulation. The portal extends within to cap a central atrium flanked by two symmetrical wings containing a plant sales shop, auditorium, classrooms, display, research, and storage areas.

By day, light levels are carefully controlled to avoid heat build-up, with perimeter track lights automatically adjusting to compensate for low light levels. In the floral sales shop, solar shades are used to screen light and, when needed, metal halide lamps to augment it. Welcoming visitors at night are festive-looking rows of tiny, low voltage lights lining the portal’s exterior ribs.

Andrea Oppenheimer Dean
The Rio Grande Nature Center is a building about movement, movement across the landscape and into the water, movement that enhances the educational function of the center. It is sited in a wetlands preserve in Albuquerque, a place where water management has been practiced for over a hundred years. Albuquerque architect Antoine Predock, FAIA, says that his building celebrates the site's history while providing a connection between the visitor and the water.

One arrives at the nature center by car. Predock located the building about a block's distance from the parking lot, setting up a processional theme, starting the visitors on their journey. Walking through what he calls a "tunnel of trees" that winds its way through the preserve, you approach the center obliquely. In fact, the building is barely visible, hidden behind earth berms and vegetation, save for its corrugated metal culvert entryway that pokes out of a berm.

Moving into this pipe, one starts the descent (albeit only perceptual) into the center itself. The pipeline is part of Predock's "Army Corps of Engineers" aesthetic, a recall of the headwalls, earth berms, and culverts used in water management facilities. The culvert entry is also a concession to the frequent school-aged visitors to the center. "I remember as a kid running through metal culverts, clicking sticks along the side," says Predock, "and the kids really respond to it."

Once inside, the procession continues as you make your way either directly to an outpost at the center, which gives you an overview of the exhibits below and the landscape beyond, or down stairs and a spiraling ramp, which deliver you to a water pump exhibit and a reverse periscope with views beneath the water's surface. The circular geometry of this central space is echoed by 22 water columns that curve around the space at entry level. In plan they look like water bubbles trailing each other. The columns catch the rays of the sun admitted through skylights, giving the visitor the illusion of being underwater even at night, when they are lit from above by artificial light.

A great deal of care was taken in locating the windows in the curving wall of the center space, which appear to be no more than randomly placed cutouts. Predock explains that each focuses on a special feature of the landscape beyond the building—one on the crown of a cottonwood tree, another on the wetlands just beyond the nature center, and still another on the distant mountains to the east. During design, Predock took transit readings from different points on the site to ensure that the vertical view lines would be perfect. Mindful of his audience once again, he framed the vistas at a lower level—an optimum kid's height, if such a thing exists. Thus from the interior, the fenestration appears like picture frames in a gallery presenting an exhibit of the landscape. M.J.C.
Left, the nature center from across the water of the wetlands, its cutout windows framing views of the landscape; above and right, top and bottom, the center's entry as one moves through the woods and into the culvert that leads to the front door; below, view of the exhibit area past the water columns.
The Monument and the Mall

A minimalist marvel has its centennial. By Michael J. Crosbie

In the shadow of the Washington Monument in Washington, D.C., bulldozers and dump trucks grade the hill that rises to meet the marble obelisk. The site is being prepared in accordance with a new landscape design, one that, if successful, will strengthen the natural setting sufficiently to complement the bold, sculptural object. Congress has yet to appropriate money for the plan (whose finer points are still only conceptual) so the National Society of Professional Engineers has volunteered its support to install sidewalks on the west side of the grounds. This site had been destined as the place for a monument to George Washington ever since L'Enfant drew his plan for the city. The obelisk was capped a hundred years ago this month, but no landscape plan has ever been successfully implemented; a curious history mirrors that of the monument itself.

The plan now underway is by the National Park Service. Dennis Piper, a Park Service landscape architect and planner, says that it evolved from a plan by Skidmore, Owings & Merrill in the late 1960s, combined with recent studies of visitor behavior. Time-lapse photography and interviews revealed a need for sidewalks to the west toward the Lincoln Memorial, no need for a visitors' center (although there will be a concession stand), and gentler grades of no more than 8 percent. A north parking lot will be removed and more pedestrian walks will be installed. Piper says that trees planted in the corners of the site will serve to contain its space while others will be removed to open vistas. Trees will also "enclose" part of the seating area at the monument's base, and paths will radiate out to crosswalks designed with pedestrian safety in mind. When will the work be completed? "A long time from now," says Piper, adding that much depends on the re-alignment of 15th Street, scheduled for 1986, "so maybe all the work will be finished by 1989."

This stately pace of completion is consistent with the monument's history. L'Enfant's plan of 1791 indicated a site for an equestrian statue of "General Washington, a Monument voted in 1783 by the Continental Congress." The site was the cross of the north-south and east-west axes of the plan. Because of limited funds the statue was designated a low priority by Congress, and no further action was taken. Washington's death in 1799 spurred new interest, and a year later Congress passed a bill to erect a pyramid-shaped mausoleum, but this too languished. Finally, in 1833, the Washington National Monument Society was formed to organize the funding, design, and construction of a monument. Three years later, having collected $28,000, the society called for design submissions and selected that of 29-year-old Robert Mills, who would also design the city's Treasury Building and Patent Office. His design comprised a nearly flat-topped obelisk, 600 feet high, rising from a round, colonnaded "National Pantheon." Above the entrance Washington would be depicted at the reins of a Roman chariot drawn by six horses. The pantheon, which would be 100 feet high, 250 feet in diameter, and supported by 40 columns each 12 feet in diameter, would display statues and paintings of Revolutionary War heroes. At its center would be a crypt with Washington's remains. Mills estimated that the structure would cost $1 million.

A decade passed and the society had managed to collect $87,000, enough to commence construction. The monument's site was on the banks of the Potomac where the river wound its way around to join Tiber Creek. The location had not only historic precedent in L'Enfant's plan but offered access to the river for the transportation of stone from a quarry near Baltimore. But the exact spot of the cross axes was too marshy to support the structure, so a new site was chosen 125 feet south and 375 feet west. The symmetry of the Mall has never been the same. Today, if you stand at the east side of monument at its center and look toward the Capitol, its alignment is obviously off. When the Mall was refurbished in the early 1900s its axis between the Capitol and the monument was shifted one degree so that its east and west ends meet the two respectively at their centers. To the west the monument is perfectly aligned with the Lincoln Memorial, completed in 1922. This causes the Lincoln to be even further out of line, so much so that the true east-west axis passes the memorial several hundred feet north.

On July 4, 1848, Benjamin B. French, grand master mason of George Washington's Masonic chapter, laid the 24,500-pound cornerstone using the same silver trowel as Washington had to lay the cornerstone of the Capitol. Construction progressed
Across page, the capstone is lowered into place on the Washington Monument, Dec. 6, 1884; above, the grounds of the monument today, currently undergoing landscaping for a new plan, right. The grounds have been the subject of a number of plans, none of which has ever been implemented entirely. Of the more ambitious, Andrew Jackson Downing's saw the grounds as a quaint English garden, while the McMillan plan attempted to remedy asymmetry by placing a pool at the cross axes.
Robert Mills' original design for the monument, above right, was later simplified due to its $1 million price tag. When construction on the monument resumed in the 1870s many plans were put forth to embellish it, including a Beaux-Arts wedding cake scheme by Arthur F. Mathews, above, and a Lombardy tower by W. W. Story, right. The simple shaft, however, shows dynamic sculptural qualities, across page left, to be appreciated by contemporary viewers; across page center, the monument stands stunted after construction was halted in 1854; across page right, the foundation reinforced with poured concrete buttresses in 1879.
slowly, and because of the estimated cost the society decided to reduce the height of the obelisk to 500 feet and delay construction of the National Pantheon. The foundation's base, at 80 feet square, was begun 7 feet below grade. The foundation of rough-cut blue gneiss rock rose in a stepped pyramid to 15 feet above grade. Next came the fine grained white marble of the obelisk, its base measuring 55 feet 1½ inches square, with walls 15 feet thick backed with the same stone as the foundation. Contributions continued to dribble in, as did commemorative stones for the shaft's interior. The first such stone was sent, unsolicited, from the State of Alabama in lieu of a cash contribution. The monument society urged other states and municipalities to do likewise and eventually extended the invitation to other countries.

In 1854 a stone was contributed by Pope Pius IX on behalf of the Vatican. The stone had been cut from the Temple of Concord in Rome, but its historic pedigree did not dissuade a vocal anti-Catholic political party, the Know-Nothings, from objecting to its placement in the monument. On a Monday night in March of that year, a band of Know-Nothings tied up the monument's night watchman, stole the stone, and reportedly dumped it into the Potomac. Controversy over the incident and a takeover of the monument society by the Know-Nothings cast the monument in poor public light, and contributions dried up, just as Congress was to vote a $200,000 appropriation.

The confusion over the leadership of the society and the coming of the Civil War halted construction for 25 years. The 152-foot-tall shaft sat abandoned, causing Mark Twain to remark that it looked like "a hollow, oversized chimney." But the grounds themselves proved handy for drilling Union troops and later as a huge stockyard to raise cattle for rations.

The American centennial prompted Congress to renew its commitment to see the monument finished. In 1876 it appropriated $200,000, assumed ownership of the monument and grounds, and designated the Army Engineers to oversee the work. The foundation was found to be unstable, so the first order of business was to reinforce it. Seventy percent of the area beneath the foundation was excavated, and sections of the stepped pyramid were removed to insert poured concrete buttresses.

Meanwhile, the design of the obelisk was reconsidered. The society received many suggestions for "improving" it, everything from a Lombardy tower and a Beaux-Arts pile to a Gothic confection. The Lombardy scheme by American sculptor William Wetmore Story was seriously considered by Congress as a less expensive alternative to the obelisk. The sculptor himself stated that the simple shaft was "the refuge of incompetency in architecture. When an architect has no ideas he resorts to the obelisk."

Fortunately, Congress didn't agree. But the proportions of Mills' obelisk were refined. A directive from the secretary of state instructed all American diplomats abroad to supply any information they had on foreign monuments. George Perkins Marsh, U.S. minister to Italy, made a pastime study of the obelisks of antiquity, finding that their height was generally 10 times the length of the base. He suggested that since the base of the Washington Monument was 55 feet 1½ inches square, the height should be 550 feet. Congress settled on 555 feet.

After reinforcement of the foundation was complete, construction of the shaft proceeded by leaps and bounds. Twenty-six feet of stone were added in 1880, all of it cut from a quarry in Massachusetts. The following year the quarry near Baltimore, where the original stone had been cut, was reopened, although the new stone was cut from a different vein, accounting for its slightly darker color. A steam-powered hoisting machine allowed the stone to be raised much faster than by muscle and block and tackle, and in four years the monument reached its full height, growing nearly four times as fast as it had between 1848 and 1854. On Dec. 6, 1884, the 100-ounce cast aluminum capstone (the largest piece of aluminum ever cast at that time) was ceremoniously lowered into place by Colonel Thomas Casey, chief engineer. The monument had taken 36 years to build at a cost of $1.2 million. Other commemorative stones were added as new states joined the Union, and a new papal stone (an exact replica of the original) was installed in 1981.

Today, with 150 years of hindsight, it seems remarkable that such an abstract and minimalist structure was created during a time of rampant eclecticism, although its roots in Egyptian architecture no doubt made it palatable to such an audience. Its simple form is quite sculptural when viewed beneath the changing light and weather. Its illumination, which occurs like a patchwork along the shaft, heightens the monument's abstract qualities. And at certain angles its lines converge to suggest a quintessential modern structure at the other end of the Mall—J.M. Pei's East Building—although the monument appears to be destined to prove more timeless.
This page, the view of the monument from our editorial offices reveals the constant play of light and shadow across its surface, which dramatically changes its character according to daylight and weather conditions. Across page, the monument backlit offers a two-dimensional quality and demonstrates its unintended function as a celestial sundial.
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A Demanding Epoch in California Architecture

The Second Generation. Esther McCoy. (Peregrine Smith Books, $27.50.)

This volume proves to be Esther McCoy's missing book. Written about the Southern California architects J. R. Davidson, Harwell Hamilton Harris, Gregory Ain, and Raphael Soriano, it gives her previous works the keystone to which they were already inclined.

Considered alone, The Second Generation is a portrait of four careers. But what also emerges, if the book is viewed as a structural link between Five California Architects, Richard Neutra, Case Study Houses, Craig Ellwood, and Vienna to Los Angeles: Two Journeys, is that the full body of her work is an ambitious, and generous, Balzacian portrait of Southern California's avant-garde society in the first half of the century.

Although McCoy claims to paint on a small canvas, she has in fact completed several, and, with their many interconnections and multiple points of view, they now amount to a cycle. Central figures in certain books, such as Schindler and Neutra, here walk in the middle ground; other younger figures, such as Charles and Ray Eames and John Entenza, are emerging. Throughout, people like Galka Scheyer, an art dealer who introduced German expressionism to America, and the highly politicized Pauline Schindler appear, establishing a broader social context and climate of thought in which the architects are building. In The Second Generation alone, McCoy sketches a genealogy of the area's architectural influence that ties Frank Lloyd Wright to Schindler, Neutra, and Harris; then roughly, to Ain and Soriano; and finally, to Craig Ellwood and Pierre Koenig, among others.

The immediacy of her broad but detailed social portrait is possible because of the 50 years she has lived in Los Angeles. These are houses she has visited and people she has known. She has also focused on individuals rather than generic subjects; the four chapters in The Second Generation are pointedly named after the architects themselves. The book is especially vivid because the chapters are as much personal stories as architectural and social histories.

Soriano, she writes, first sold fruit at L.A.'s Grand Central Market when he immigrated to the U.S. from Rhodes in 1924 and as he went through architectural school at the University of Southern California. In 1942, when his Hallaway Nursery in San Francisco was built, "he instructed the clerks how to load the trays to reveal the label on each pack of seeds, the salesmen in the lath houses how to store the additional flats of the same plant material in the racks below." She says, "There is a wondrous neatness in all Soriano does."

McCoy has said that architecture comes out of attitudes prevalent in a period, and she carefully correlates architecture and the times, weaving in The Second Generation the warp of the Depression and World War II against the woof of Southern California's regional character and the growing concerns about industrialization in housing. But the agent that carries the attitudes of a time and place is of course the individual. She may quickly sketch socialism in Los Angeles before World War I, but in this particular place, at this particular time, it is Gregory Ain's father for whom "a change in political philosophy meant only a change in cafes on Brooklyn Avenue" in Boyle Heights. The broader socialist concerns, then, are transmitted by Ain-the-demanding-father to the younger Ain, an architect for whom architecture would always be a means of social change. With the idealism of the Depression years and the unity of purpose during the war, she writes, it was a time "in which Ain was spiritually at home."

The goal of creating prototypes for housing was perhaps messianic, but the houses themselves were in fact remarkably small, though influential. Some built during the '30s and '40s were only 500 or 600 square feet; war regulations formally limited the single-family house to 1,200 square feet. There was also the great interest in simplicity. In Berlin, where Davidson lived before immigrating to America, "Simplicity was imposed by scarcity; a scarcity of materials and workmen, combined with the need for housing." In 1940, Harris built a restaurant in Chinatown for $1.39 a square foot. Here, form had an especially intimate relationship with budget, as it did in so many of the buildings done by these architects.

In a Los Angeles noted for its unique houses, Ain focused on the economic use of materials, the industrial production of houses, and comprehensive land planning for communities. His competition was not so much other architects as... continued on page 84
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his own perfectionism and the merchant builder constructing tracts across much of the L.A. basin. Ain encountered difficulties in realizing mass housing that were, cumulatively, defeating for him. In the Park Planned Homes project of 1946, in Altadena, he precut and predrilled lumber, and pre-assembled plumbing—only to face work crews demanding higher wages to handle prepackaged units.

The floor plans of many of these houses express the characteristic concern for economy, reaching a high esthetic pitch in Ain and Soriano houses, in plan, are almost haikus of brief lines. "The spirit and realities of the late 1940s and 1950s was in the plan: togetherness, large families, cheap land in the suburbs, a plentiful supply of cheap labor," writes McCoy. Besides an economy in the plan, the social evolution of changing times was reflected in its organization: McCoy says that Ain, unlike Schindler and Neutra, assumed a servantless house and that Ain, "prophetically," located the playroom off the kitchen, from which children could be watched in a servantless house.

One of the strong narrative threads in The Second Generation is the evolution of the prefabricated steel house. Having worked in the Neutra office, "Ain knew all too well that each Neutra house was unique, not assembled out of Sweet's Catalog," Harris, in a 1939 publication, "mulled over the fact that steel in the beginning followed wood forms but now steel follows wood forms." By the late 1940s, "Soriano had carried steel as far as his middle-class comfortable clients would allow . . . (most) steel was hidden behind plaster. In 1949 Eames had exposed the steel in his Case Study house, but he was his own client and could do what he liked." By 1955, according to House and Home, "the truly astonishing fact is that you can now find a completely shop-fabricated steel part for almost any wood part that goes into today's house!"

Still, at about that time, the "enlightened tract developer Joseph Eichler" decided against a whole tract of steel-framed houses, even though they compared in price to wood-framed tract houses.

It was a period of great promise and many defeats: the promise to a large extent coming from the need for housing generated by the Depression and war, and from the vast industrial capacity built up during the war years; the defeats coming from the unions, government lending policy, and the marketplace itself.

The nature of the period was complex, and especially difficult for architects, whose traditional roles were being challenged—the budgets, construction, scale, and social organization of buildings were all changing. If none of the architects in The Second Generation has the charisma of those in Five California Architects, it is perhaps because the times were so dominating; the task was to serve and to respond. McCoy's taut, cool text masks the fact that this, for architecture, was an especially turbulent period, almost a subconscious one in which the profession had to reassess what and how it was building.

The architects who dealt with these large issues were, in a way, improbable ones—as Charles Moore has observed in a different context, the vulnerable architects rather than invulnerable ones. McCoy has written about the architects who sensed the changed times and who substantially altered their architecture in response, frequently with little recognition. The book itself, because of its great personal understanding, provides a kind of protection for these "vulnerables" never offered by their marketplace or achieved by their own practices. These are important careers that, without The Second Generation, would have remained shy and overlooked. Joseph Giovannini

Mr. Giovannini, an architecture critic for the New York Times, formerly wrote for the Los Angeles Herald Examiner.

Books continued on page 86

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"Architecture is the handwriting of man."
Building a Recording Studio. Jeff Cooper. (Synergy Group, 4766 Park Granada, Calabasas, Calif. 91302, $30.)

In this manual's introductory chapters, architect/acoustical engineer Jeff Cooper explains in simple language the principles of acoustics and how acoustics affect the recording of music. He also describes how to soundproof a room. On a tight budget, existing conditions are tightened or fortified, such as the sealing of leaks. With a larger budget, however, the recording studio becomes a more appropriate environment for playing and recording, and Cooper has practical information on how to achieve a floating studio where walls, ceiling, and floor are separated from the exterior architectural shell by insulating air spaces. In final sections, Cooper discusses the design and construction of the studio and the control room.

The Market Square: Lake Forest, Illinois. Susan Dart. (Lake Forest-Lake Bluff Historical Society, Box 690, Lake Forest, Ill. 60045, $20.)

The first planned shopping center in the U.S., Market Square in Lake Forest, Ill., has changed little since the design of Howard Van Doren Shaw was completed in 1916. This pleasantly written book of 90 pages is beautifully presented with fine paper and binding. Written by Susan Dart, who is married to Shaw's grandson, the book tells the story of the square and describes its architecture. There is also a biography of Shaw. Dart tells of how Shaw learned the night before he died on May 26, 1926, at the age of 56, of having been awarded AIA's gold medal. In his last conscious moments, he smiled and said, "Pleased."

Access for the Handicapped: The Barrier-Free Regulations for Design and Construction in All 50 States. Peter S. Hopf, AIA, and John A. Raebert, AIA. (Van Nostrand Reinhold, $56.50.)

A valuable feature of this commendable reference book is a state-by-state listing of regulations for barrier-free architecture. The bulk of the volume, however, is a graphic approach to accessibility through scaled diagrams and charts arranged by topic—from site control to equipment. Through such a common sense arrangement, the user can quickly gain needed and hard to find information on a vast array of design problems, among them wheelchair dimensions and reaches, accessible parking, elevator dimensions and controls, public toilet dimensions, telephones, and drinking fountains. A final section is on special building types—assembly areas and dwelling units.

Bridges: Aesthetics and Design. Fritz Leonhardt. (MIT Press, $50.)

Internationally acclaimed structural engineer Fritz Leonhardt, who has been designing bridges for the past 50 years, brings his expertise and insights to this richly illustrated work on the design and esthetics of bridges of every type. He describes not only steel and prestressed concrete structures that span vast rivers and highways, but also old stone bridges, pedestrian bridges, and elevated streets. With text in both German and English, the book encompasses Leonhardt's knowledge of such topics as guidelines for the aesthetic design of bridges and the influence of materials. It also reveals his deep love for the subject.

The Robie House of Frank Lloyd Wright. Joseph Connors. (University of Chicago Press, $25 hardbound, $8.95 paperbound.)

This booklet of 86 pages inaugurates the "Chicago Architecture and Urbanism Series," the purpose of which is to present studies of buildings, urban systems, architects, and architectural firms "that have earned for Chicago its reputation as one of the great centers of architecture in the modern world." Joseph Connors describes this masterpiece from concept to realization. There are many photographs to supplement the lucid text, and especially interesting are those that show the house under construction in 1909. This publication, intended as a guide to the visitor to the house, goes far beyond its intention, discussing how Wright went about designing any building.
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DEATHS

Thomas H. Creighton, FAIA: A writer and editor as well as an architect, Creighton was a Philadelphia native. He graduated from Harvard University in 1926 and then attended the Beaux-Arts Institute of Design in New York City, from which he graduated in 1929. Creighton also studied at the Ecole des Beaux-Arts in Paris.

Through the 1930s and the early '40s Creighton practiced in New York City and Burlington, Vt., writing occasionally for Progressive Architecture. In 1946 he became editor of the magazine, a post he held until 1963.

Creighton then became a partner in John Carl Warnecke & Associates, San Francisco, and in 1965 moved to Honolulu to head the Warnecke office there. Two years later he opened his own firm in Honolulu. He died in October at the age of 80.

Fred Lewis Markham, FAIA: Past president of both the National Council of Architectural Registration Boards and the National Architectural Accrediting Board, Markham died Sept. 28, at the age of 82 in his native Utah. He designed numerous buildings on the Brigham Young University campus and served as chairman of the team that designed the Latter-day Saints Temple in Washington, D.C.

Charles H. Dornbusch, FAIA, Chicago
Jack Gaffney, AIA, Santa Fe, N.M.
Gilbert F. Hahn, AIA, St. Cloud, Minn.
Karl B. Hoke, AIA, Birmingham, Mich.
Fred J. MacKie Jr., FAIA, Palm Desert, Calif.
Harvey Barton Smith, AIA, San Diego
Louis V. Viola, AIA, Fleischmanns, N.Y.

BRIEFS

Architecture Tour to India.
An architectural tour of India and Bangladesh, including the cities of New Delhi, Dacca, Bombay, Ahmedabad, and Agra, is scheduled for Feb. 7-28. For more information, contact Peter C. Doo, AIA, 107 E. Preston St., Baltimore, Md. 21202.

Bicycle Shelter Design Competition.
The Strycker's Bay Neighborhood Council is sponsoring an open design competition for overnight bicycle shelters for residential streets on the upper west side of Manhattan. The deadline to register for the competition is March 22, and submissions are due on April 22. To receive competition package send $15 payable to SBNC Bike Project, 561 Columbus Ave., New York, N.Y. 10024.

Masonry Awards Program.
The International Union of Bricklayers and Allied Craftsmen is seeking entries in its 1985 Louis Sullivan Award that recognizes overall architectural quality of buildings with emphasis on the use of masonry, including brick, stone, tile, marble, terrazzo, and terra cotta. The winners are selected for achievements over a period of time based on the submission of three to five completed structures. Deadline for registration is Jan. 7, and completed binders are due by Feb. 18. AIA is administering the program. Additional information and entry forms are available from the awards department at Institute headquarters, (202) 626-7390.

Museum Design Competition.
The University of Florida is sponsoring a two-stage, national design competition for the Samuel P. Harn Museum of Fine Arts. Cash prizes of $25,000 plus commission, $10,000, and $2,500, in addition to five $1,000 awards, will be presented. Registration deadline is Jan. 12, and the submission deadline for the first phase is March 10. For more information, contact Nils M. Schweizer, FAIA, Competition Adviser, Office of Facilities Planning, 355 Tigert Hall, Gainesville, Fla. 32611.

Buell Talks in American Architecture.
The Temple Hoyne Buell Center for the Study of American Architecture at Columbia University will sponsor a program of scholarly meetings for doctoral students.
to present findings of architectural research. Candidates must be nominated by their departments with their faculty adviser accompanying them to the discussion. For more information, contact Julia Bloomfield, Room 400, Avery Hall, Columbia University, New York, N.Y. 10027.

**Fabric Designer Exhibition.**


**Competition Winners Announced.**

The 1984 Hispanic Talent Search Architectural Competition has announced winners of its annual design competition. First prize was awarded to Manuel Mergal of New York City. Honorable mentions were awarded to Rafael Marzukach, Maria Ariviado, Jose Izquierdo, and Hector Munoz. The competition was sponsored by CASTRO-Blanco, Piscione & Feder, Architects in association with the New York Chapter/AIA and the Institute of Puerto Rican Urban Studies.

**Study Tour to London.**

Pratt Institute is sponsoring a travel study program March 29-April 7 to London to explore the architecture and design of the historic and contemporary city. For information, contact International Program, Pratt Institute, 200 Willoughby Ave., Brooklyn, N.Y. 11205.

**Michigan Society’s Gold Medal.**

The Michigan Society of Architects has awarded its gold medal to William Muschenheim, FAIA, of Ann Arbor “for his distinguished contribution to the profession.”

**Lighting Design Awards.**

The International Association of Lighting Designers has presented its award of excellence to Lesley Wheel and John Aspromonte of Wheel-Gersztoff Associates for the lighting in the restoration of the art deco Omni-Netherlands Hotel in Cincinnati. Honorable mentions were awarded to Jeffrey Milham of Design Decisions for the lighting at the Aetna Institute for Corporate Education in Hartford, and to Motoko Ishii for the Sacred Garden of Shinji Shumei-Kai in Shiga, Japan.

**Information Sought on Building Materials.**

The Center for Architectural Conservation is seeking information on research labs that perform work on historic building materials, including terra cotta, brick, cast iron, stucco, mortar, and plaster. Send information to Rod Gary, Georgia Institute of Technology, Center for Architectural Conservation, Atlanta, Ga. 30332.

**ARCHITECTS**

A challenging opportunity exists for qualified individuals to join the Port Authority’s Engineering Department, which consists of architects and engineers responsible for designing, building, and maintaining projects for the New York-Nor new Jersey metropolitan region’s major airports, bridges, tunnels, marine terminals, Trans-Hudson rail rapid transit system, container ports, transportation centers, industrial parks and the World Trade Center.

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**CREDITS**


**ARCHITECTURE DECEMBER 1984 89**
The Italian firm Poltrona Frau offers about 100 different colors for its leather-padded furniture, in what it calls a “chromatic explosion of color,” and challenges buyers to specify new tones. Adding color to leather is meant to “emphasize the soft surface and accentuate tactile values.” One example is the dramatically red Interlude armchair (1) designed by Marco Zanuso. Atelier International Light’s suspended Aurora lamp (2) has a ring of clear or blue acrylic (23/8-inch diameter) sandwiched between two textured plates of glass. It is suspended from a ceiling canopy by three cables, each of which is attached to a metal cone-shaped element that houses a bulb. The cones are seen only on the underside of the lamp. Designed by Perry King and Santiago Miranda, the fixture accommodates a low-wattage, high-intensity halogen lamp and supplies direct and diffused light.

Designed by Afra and Tobia Scarpa for B&B Italia, the Polygonon table (3) has an Inox steel-plated base that seems to shimmer: It is coolly colored by films adhered to its surface. The oval table top can be marble or transparent or blue cobalt glass. Color is also an important ingredient in Stilnovo’s Nastro lamp (4), designed by Alberto Fraser. The flexible arm is multicolored plastic, and the transformer and reflector are offered in black or light blue, with clamped or sitting base.

Witty applications of simple geometry and minimal surfaces characterize Arflex’s T-line easy chairs (5) and its Argot desks (6). For the T-line chairs, designer Burghard Vogtherr combined two rectangles—one for the back and a smaller one for the seat that seems to have simply dropped from the back. Materials are leather over a metal structure and polyurethane molded foam. The minimal base and arms are steel covered with gray or black material. Low or high backs are available. Peppe Di Giuli’s design for the Argot tables, writing desks, and vanities calls for different arrangements of rectangular and square drawers piled under a simple table top. Edges are natural briarwood; drawers, tops, and sides mahogany; and supports, aluminum.
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Products

A selection of notable offerings and applications.
By Lynn Nesmith

SeiMatic 9009 kitchen series (1), available in white, cabana sand, and gray, has cabinets, doors, and corners molded into seamless convex and concave configurations with a multilayer, high gloss finish. (Circle 201 on information card.)

Modern Mode's Stratus furniture system (2) is comprised of stackable components with a 32-inch base panel. It is available in five standard woods and 15 colored lacquered finishes. Openings are created by simply removing one of the panels. (Circle 202.)

Spacecube aluminum louvered ceilings (3) by Integrated Ceilings have 2x4-foot modular panels with a continuous open cell appearance designed to be used with standard fluorescent lay-in fixtures and track lighting. (Circle 203.)

Grande Mania wall-mounted lighting fixture (4), designed by Vico Magistretti for Artemide, measures 11x5 inches and uses a standard clear bulb. The fixture is available in white or opaline hand-blown glass. (Circle 204.)

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Hotel Security System.
FuturaLok electronic security system integrates a computerized keycard system with Corbin's mortise locksets. The system's card has a coded magnetic strip that is reprogrammed for each hotel by an encoder at the front desk. A central computer records all transactions. (Corbin Hardware Group, Berlin, Conn. Circle 199 on information card.)

Fire Protection Glass Wall.
Contraflam glass wall system is designed to provide a 60 minute UL rating in stopping the passage of fire, smoke, and heat while allowing 85 percent light transmission. Modular construction allows for clear spans as large as 4x7 feet. (EICH Corporation, Los Angeles, Calif. Circle 198 on information card.)

Furniture System.
Domain open office furniture is comprised of wooden components, acoustical fabric panels, and clear, bronze glazed modules. Independently controlled task lights slide on a track and swivel 359 degrees. Powerpaths run throughout the base and vertical supports inside aluminum coverplates sheathed in wood veneers or fabric and have optional prewiring to meet computer requirements. The core of the modules is constructed of a lightweight, polycarbonate honeycomb. (Scandiline, Compton, Calif. Circle 197 on information card.)

Automatic Sun Control System.
Motorized sun and shade control system can be programmed to raise and lower awnings in sections, individually, or simultaneously by a single control switch from one or more locations in the building. (Somfy Systems, Edison, NJ. Circle 196 on information card.)

Ceramic Wall Tiles.
Shadows ceramic tiles, designed for residential and commercial wall applications, have a smooth glazed texture with a high gloss finish and cushion edges. Tiles are available in eight colors and two sizes. (Monarch Tile Manufacturing, San Angelo, Tex. Circle 194 on information card.)

Drawing Board Cover.
Preprinted sheets of Borco sized 31x42 inches are available in peach, blue, ivory white, borco green, and translucent. (Charvoz-Carsen Corporation, Fairfield, N.J. Circle 239 on information card.)

Bathroom Fixtures.
Individually hand cast sets of solid brass bathroom fixtures are designed to fit standard American plumbing. The fittings are available in finishes of polished brass, polished chrome, nickel, and gold plated. (Watercolors, Inc., Garrison-On-Hudson, N.Y. Circle 238 on information card.)

Solar Control Window Film.
Adhesive solar film with a non-fading pigment provides shading in the summer and reflects heat back into the room in the winter. Sun-Gard 10 is designed to be easily applied and reduce glare up to 75 percent. It has a 10-year warranty against scratching, peeling, delamination, and demetallization. (Metallized Products, St. Petersburg, Fla. Circle 233 on information card.)
Casement Windows.  Perma-Shield casement windows with widths of 17 inches are designed for unusually shaped windows. Available in white and Terratone color, units have removable divided light grilles and screens. (Andersen Corporation, Bayport, Minnesota. Circle 240 on information card.)

Outdoor Furniture.  Planters, bench, receptacle, and table components can be arranged in linear and zig-zag configurations. A number of textures and colors are available for the decorative side panels. (Clean City Squares, St. Louis. Circle 228 on information card.)

Exterior Stain.  Oil-based wood stain is made of fungicides and quality raw materials designed to combat mildew and sun damage. The semitransparent stain is designed for durability and to repel water. (Finnaren and Haley, Ardmore, Pa. Circle 227 on information card.)

Track Lighting.  Fixtures and lamps are designed to provide precise beam control for pinpoint accent lighting. Halo Stars are constructed with an antiglare screen to ensure even light distribution. Integral spring tensioned mechanisms can adjust lamps 350 degrees horizontal and 180 degrees vertical. (Swivelier Co. Inc., Nanuet, N.Y. Circle 237 on information card.)

Heat Pumps.  EnerCon heat pumps have dual pipe gas boilers with individual room controls. Pumps are designed for low energy use and quiet operation. (American Air Filter Co., Louisville. Circle 236 on information card.)

Decorative Lighting.  Rope lighting for interior and exterior applications including billboards, windows, driveways, and swimming pools are available in multicolor and single color as well as clear white. Standard lengths are 12, 15, 18, and 21 feet. (Verax Corporation, Los Angeles. Circle 235 on information card.)

Ceiling Panels.  Zarite modular ceiling coffers meet ASTM noncombustible code approval. Four-foot-square mosaic miter panels are designed to resemble hand carved coffers and adapt to standard T-bar grid systems. (California Reproductions, Inc., Los Angeles. Circle 193 on information card.)

Custom Kitchens.  Streamlined “Multicolor” kitchens have white laminated surfaces detailed with wooden accents, accessories, and contoured shelf units. The system includes a built-in wine rack and spice cabinet. (Regba-Viran, New York City. Circle 187 on information card.)

Sidelights.  Empress doors have optional lights with double-glazed safety glass that is heavily beveled around the perimeter. Handcrafted from Douglas fir or Western hemlock, doors have 1/4-inch-thick vertical grain raised panels and measure 80 inches in height. (Simpson Door Co., Seattle. Circle 234 on information card.)

Exterior Lighting Fixture.  Sidelite prismatic lighting fixture directs lighting out and down to reduce wasted upward projection. The fixture’s front housing is constructed of a single sheet of Lexan polycarbonate resin designed to eliminate the need for protective wire guards and shields. It can be mounted on flat surfaces or three- or four-inch outlet boxes and is available with a standard bronze or custom color finishes. (ITT Lighting, Southaven, Miss. Circle 192 on information card.)

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