

Fall 1988

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Pennsylvania Architect

JOURNAL OF THE PENNSYLVANIA SOCIETY OF ARCHITECTS





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Contents

Pennsylvania Architect/Fall 1988

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Editor-in-Chief: Herbert W. Levy, AIA

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3 Editor's Letter

4 Vision 2000

5 Remaking Cities Conference

10 Restoration of Edwin Austin Abbey Murals Pennsylvania State Capital

16 Australia's New Parliament House

22 My Reflections of Syl Damianos

24 AIA Intern Development Program

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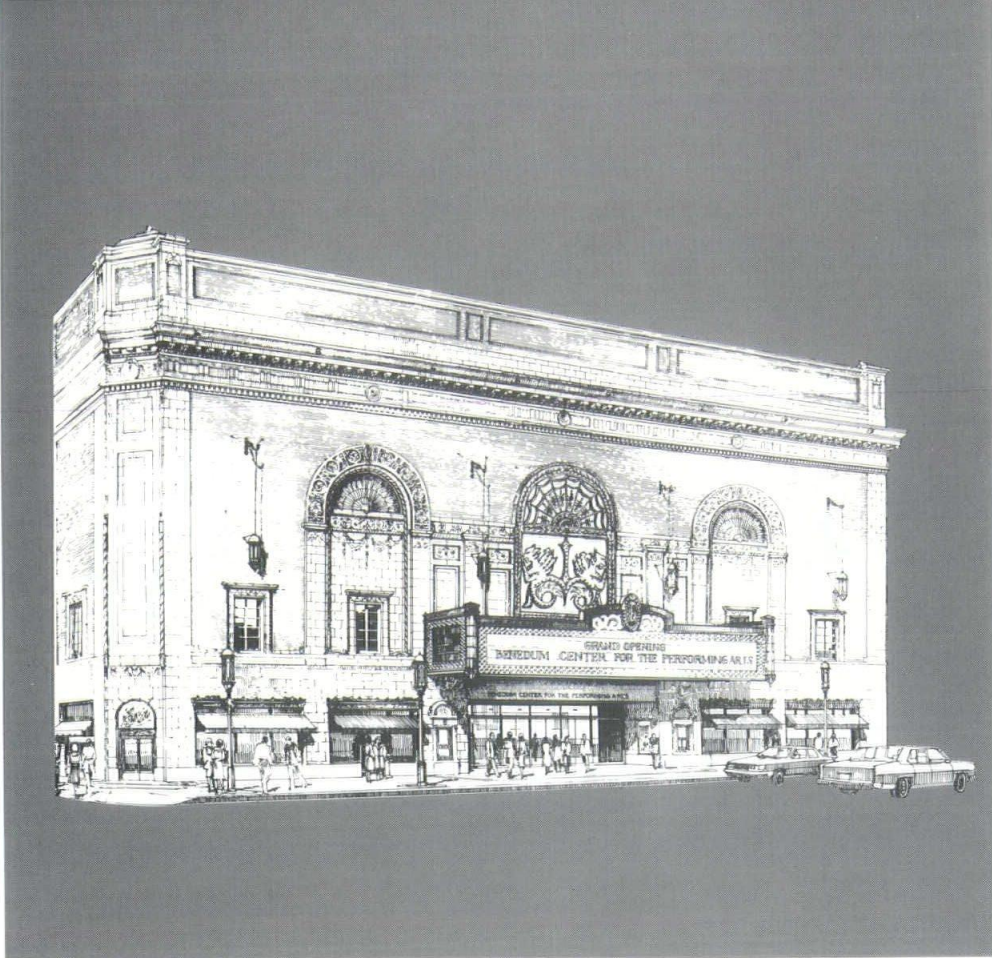
The Pennsylvania Architect

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 Mechanical Engineer: Meucci Engineering Inc.
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The Time Has Come!

Over the years, the Pennsylvania Society of Architects (PSA) has considered the possibility of developing a state-wide publication that would allow those responsible for design and construction services an opportunity to see what PSA members are doing in Pennsylvania and throughout the world. A series of events occurred this year which have made that possibility a reality and now we have our first issue of *Pennsylvania Architect*.

A number of AIA components in other states have excellent magazines and our goal is to develop *Pennsylvania Architect* into such a publication. One which, when received, can be read with interest by professional and non-professional alike. In order to make *Pennsylvania Architect* a timely, high quality publication, an editorial committee is now in place representing each of our eight AIA chapters. However, we need you to assist us by providing photos and information on projects that you would wish to have included in future issues. PSA's limited resources make you an important part of our editorial team.

In addition to Ted Pappas' "Vision 2000" and David Lewis' look back at the "Remaking Cities Conference", this first issue features two vastly different projects: one, the rehabilitation of the Pennsylvania Capitol dome and its Edwin Austin Abbey murals completed in 1906; the other, Mitchell/Giurgola's new Capitol complex in Canberra, Australia, dedicated this past May. Hopefully, future issues will contain projects and articles as diverse in scope.

This inaugural issue is being distributed to all registered architects in Pennsylvania and to a broad audience of construction oriented organizations and firms. Architects receiving future issues will be limited to PSA members.

PSA wants to call your attention to the special section on ARCON 88, to be held September 28 and 29, 1988 in Pittsburgh, as well as the companies that will be exhibiting in this, the largest trade show ever sponsored by PSA. As part of ARCON, PSA will hold its annual meeting coupled with professional enrichment seminars and the Remaking Pennsylvania Conference. Registration information for these is contained in this same section.

Coming issues will feature articles on Technology, Office Management & Marketing with successive themes being PSA Award-Winning Projects; Residential Design; State Projects; and Commercial Buildings.

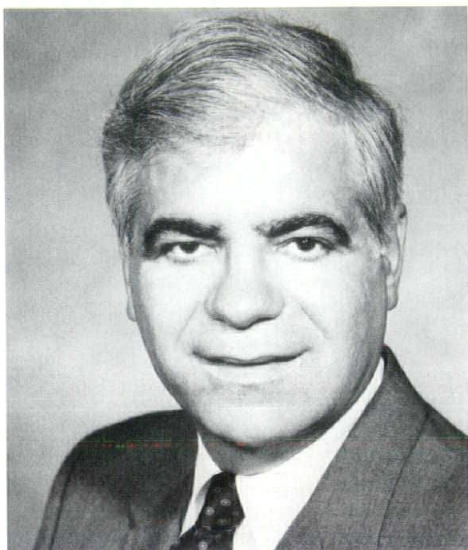
Our directive from the Board is to make this truly a PSA magazine, one that our members can use to present themselves and their work to the public.

As with all birthings, the selection of our caretaking Editorial Committee was relatively simple. But this followed a long period of development by others who worked hard and positively to bring this first issue to fruition. To Dennis Conell, A.I.A., John Fatula, A.I.A., Sally Harrison, A.I.A., Susan Maxman, A.I.A., and of course, Lela Shultz, my heartfelt thanks. Any negatives I'll accept as my own. ■

Herbert W. Levy, AIA
Editor in Chief

Vision 2000

by Ted P. Pappas, FAIA
President
American Institute of Architects



If you could get the answer to one question about the year 2000, what would it be?

In less than twelve years, we will usher in the 21st century. The closer we come to the millennium, the more likely we are to ponder the changes ahead.

Would you ask about the latest scientific development or about social issues? Would your concern focus on our economic future?

Would you wonder how you and your family will live or what your professional practice will be like?

The AIA is asking the same questions and more. We're hoping to understand how Americans will live and work in the 21st century. We want to know about their social priorities, how they will care for the elderly and the poor.

We surely can't predict the direction of design, but we can call together a variety of resources to explore what

society will demand of its architects. We can direct attention to the critical issues that architects must face in order to truly serve society in the 21st century.

No curtain will rise on January 1, 2000, to reveal a new world. It's up to us to find a vantage point from which to view incremental change.

For the AIA, that vantage point is our ambitious, multi-year program called Vision 2000. We want to chart the forces that propel us through the roiling waters of change. With an understanding of those forces, we can prepare architects to meet the social and technological needs of the next century.

In talking about the future, it's easy to get caught up in tantalizing projections of the home of tomorrow or the city of the future. But I'm not talking simply about the plastic I-beam or robot assemblers or whatever technological gizmos lie ahead.

Vision 2000 is our opportunity to stand back and take it all, to seek the broader view, to tap top minds, to bounce ideas off each other.

As our first step, we commissioned a study of social, technological, economic, environmental, political and professional trends.

That study, prepared by the Institute for Alternative Futures, has earmarked 27 significant forces at work in society today. They include such issues as the globalization of the economy, the materials revolution, growing social responsibility, and an identity crisis in the professions.

Next, Vision 2000 asked public-opinion analyst Louis Harris to survey 201 national leaders from the design and building industries, including architects, social observers, developers, edu-

cators and other participants in the built environment. The Harris survey asked which societal trends would have the most profound impact on architecture.

Our blue-ribbon forecasters ranked four trends as having profound influence in the 21st century. Those key trends are:

The urbanization of suburbia.

Today's residential suburbs will be tomorrow's cities, clustering light industry, retail, entertainment and child care with residential building. Architects' work will be tied more closely to planners, landscape architects and other development professionals. Public debate over this intense development will accelerate.

Renovating built American.

According to Louis Harris, "Sheer physical danger from rundown bridges, highways and other facilities will grow so great that drastic defensive action must be taken to save the infrastructure." Rehabilitation of existing structures will outpace new construction. Older communities will grow in importance and desirability.

Changing demographics. As our population ages, the elderly will need new forms of housing arrangements. Affordable housing for all citizens will be a national priority.

The information revolution. Workplaces will adapt to new technological and human requirements. Architectural design will rely on sophisticated "expert systems." Architects will work with greatly increased levels of information. Information-based technology will mean compact and decentralized work sites. Architects will channel information among members of an expanded building team.

We took these four trends and other tantalizing concepts to a distinguished panel to ask how those trends will challenge architects. Our "brain trust" included thoughtful people representing many perspectives, including a developer, a financier, a housing policy expert, a former mayor and architect, a critic, and others.

For a day and a half in June, we listened to our panel. Their comments were exciting, stimulating, and often unexpected.

It will be Architects who make the future human

They talked about the architect's commitment to truth and beauty. They stressed the need for responsiveness to social issues. They forecast a future profoundly changed by technology.

Our panel left us with a clear message. It will be architects who make the future *human*. Architects will temper technology with beauty. Architects must find a way to couple responsibility with high standards of imaginative design.

All this in the context of increasingly complex technical and economic demands.

Our panel asked architects to reexamine our profession, to consider what knowledge and skills architects will need to manage a technological revolution, negotiate interdependent global economic networks, and respond to changing human needs.

One message has already emerged from Vision 2000. Architects must not relinquish their mandate, as artists and humanists, to make our buildings and our cities livable, functional and beautiful. We must understand and use technology, but not be intimidated by it.

Vision 2000 does not stop here. Later this year, we will confer with architects, educators, students, clients and other members of the design and building community to begin the next phase of our endeavor.

We will explore the ramifications of these challenges to architecture. We will begin developing strategies for influencing the future. Architects may be called on to take more assertive roles in community planning, or to forge alliances like those created by AIA's Search for Shelter that tackles the problem of housing the homeless in 25 American communities.

Our participants may suggest changes in the way we educate architects of the 21st century.

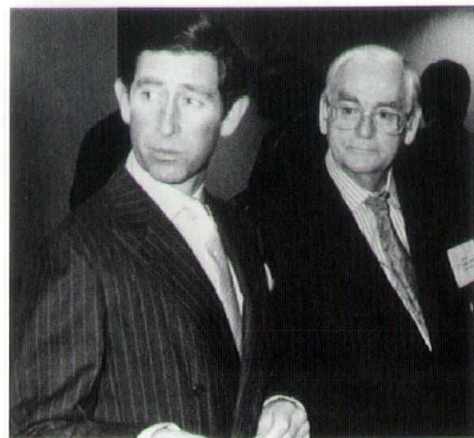
Of course, we don't know what recommendations will emerge. What makes Vision 2000 so stimulating is the constant infusion of new perspectives and ideas.

Each step in the Vision 2000 process takes us closer to our goals. Over the next few years, we will build on what we have learned as we share the information with our members and the public. In 1989, much of the work of Vision 2000 will occur within AIA components. We will help components gaze into their own crystal balls as they examine the unique trends shaping their regions. They will explore for their own communities the challenges facing architecture and the professionals who create it.

At the same time, AIA committees will examine how trends and challenges will affect discrete aspects of architectural practice.

Vision 2000's questioning and exploring will go on for several years. We already know that we will discover no single "vision" of the future, but many possibilities—some that overlap, others that conflict. But through this exercise, we can reduce uncertainty and thereby help architects to fulfill their broadest mandate, to serve the needs of society. ■

Remaking Cities Spotlights Urban Revitalization



For the past four years, HRH the Prince of Wales has called the world's attention to the plight of older industrial cities. In a series of dramatic speeches, he has spoken with a forthrightness unmatched by any political leader. His main targets have been those government agencies and private developers, together with their planners and architects, who have been responsible for the barren and anonymous urban environments so common in most of our major cities, and which he characterizes as inhumane.

His champions have been that small but growing band of architects and urban designers in both Britain and the United States who have enfranchised local citizens in determining the quality and future of their own environments, and who have developed architectural vocabularies that grow directly from inherited local contexts, traditions and aspirations. "The Cinderella of community architecture has found its Prince," said Rod Hackney, President of the Royal Institute of British Architects.

On March 5 the Prince of Wales made his first speech on urban issues on American soil, at the Remaking Cities Conference in Pittsburgh, Pennsylvania. True to form, the Prince opened by saying that in the U.S. and U.K. we

have had "40 years of practice in urban design and comprehensive planning and development. The results have been pretty disastrous." Attacking "the anonymity created by postwar urban design (that) seems to have produced a breakdown in the normal functioning of communities," he went on to ask: What really makes the best source of urban environment? What is likely to produce human happiness in the design of modern cities? Who should design? How do we avoid making the same mistakes as those of the past? With the speed of technological advance, will we be designing built-in obsolescence, only to hear our children and grand children castigating us for getting it all wrong once again?

Of course, there are no easy answers. But he felt that the key for the U.S. no less than for Britain might be to search for the continuity of local tradition; the enfranchisement of local citizens in design processes; the reinforcement of peoples' sense of belonging; the creation of places where people can walk in comfort and security; a rebirth of quality in craftsmanship; and processes that insist on accountability by government, the private sector and professionals.

Nevertheless, the Prince admitted that the issues surrounding our urban futures are far deeper and broader than architectural and urban design vernaculars.

The international Remaking Cities conference, convened by the American Institute of Architects and the Royal Institute of British Architects, March 2-5, 1988, attempted to explore these issues in some depth. Designed as a working conference, each delegate was asked to commit to one of five simultaneous two-day workshops, and within each workshop to focus on detailed recommendations.

The five workshops were:

- A) The New Economic Opportunities for Cities
- B) The Evolving Metropolis: City

- Centers Versus Suburban Expansion
- C) Preservation and Development of Neighborhoods and Housing
- D) Creating New Partnerships for Development
- E) Urban Futures: Developing A Vision for the City of Tomorrow

In the US there is virtually no national policy...

On the last day of the conference, each workshop presented its findings to Under Secretary Carl Covitz of the U.S. Department of Housing and Urban Design, with the Prince of Wales in the conference chair.

What can one expect to achieve by such a conference?

In Pittsburgh, as part of the Remaking Cities Conference, the American Institute of Architects conducted a Regional/Urban Design Assistance Team (R/UDAT) for the Monongahela Valley, which was once the steel-producing powerhouse of American industries and is now lined with silent mills and furnaces, leaving thousands of workers unemployed.

The international exposure given to the R/UDAT recommendations and the recommendations of the conference have already had a direct effect on the Mon Valley. New development initiatives and public/private partnerships are in the works. If one conclusion emerged above all others from the Remaking Cities Conference, it is that in the U.S. there is today virtually no national policy for distressed urban areas. Britain, it seems, is a step ahead of us. The British government has recently appointed a new cabinet post for inner cities, accompanied by initiatives to attract private investment and employment into the distressed urban

areas. But both countries have much to learn. With a new U.S. administration due to take office in January 1989, the time has surely come for a national urban and environmental policy backed up by meaningful and focused public/private initiatives, and a new sense of local accountability.

The Remaking Cities Conference produced a number of position papers and recommendations in economics, public policy, planning, education, housing, downtown revitalization, metropolitan form, robotics and computerization. Every speaker and workshop, which included many of the world's finest minds, was asked to focus on the challenge which older cities face as they move from their specialist industrial past into the global economics of the 21st century. These will be published in book form in the fall.

Meanwhile it is significant that the Prince of Wales is the only world leader who has made the cause of inner cities his speciality. And that is why he was invited to speak in Pittsburgh. ■

Design in Philadelphia: Glorious Past, Fabulous Future

A Celebration November 17-19, 1988

Design in Philadelphia: Glorious Past, Fabulous Future—A Celebration is a dynamic three-day event that brings together designers, developers and the public to highlight the excellence of Philadelphia's design community.

From Thursday through Saturday, November 17-19, Philadelphia will celebrate its creative professionals and outstanding spaces with awards, an exhibition and a Tour of the Towers party that promises to be the highlight of the season.

Thursday, November 17, winners of the Design in Philadelphia competition, which is sponsored by *Interiors Magazine*, will be announced at an evening reception hosted by Mayor W. Wilson Goode in the Mayor's Reception Room (room 202) in City Hall. The winners will also be featured in the November issue of *Interiors Magazine*, which is devoting the entire issue to a Focus on Philadelphia.

Saturday night, November 19, Tour of Towers—A Moveable Feast is the public's chance to party in style in splendid spaces and visit some of Philadelphia's newest corporate settings. The party is a progressive dinner extravaganza offering food, drink, entertainment and tours at four prime locations: three of the city's distinctive new buildings and one elegant historic renovation. To keep the ticket cost low,

the developers of each site are underwriting the party.

Tour of Towers—A Moveable Feast begins at 5:30 p.m. with hors d'oeuvres at Commerce Square; moves to One Liberty Place for raw bar appetizers; then to Two Logan Square for entrees. At each building there will be wine and

an open bar, music and decor that fit each site and guided tours of corporate offices.

The party concludes with champagne, cordials, desserts and dancing to two bands in the historic Curtis Center atrium from 9:00 p.m. to midnight. ■



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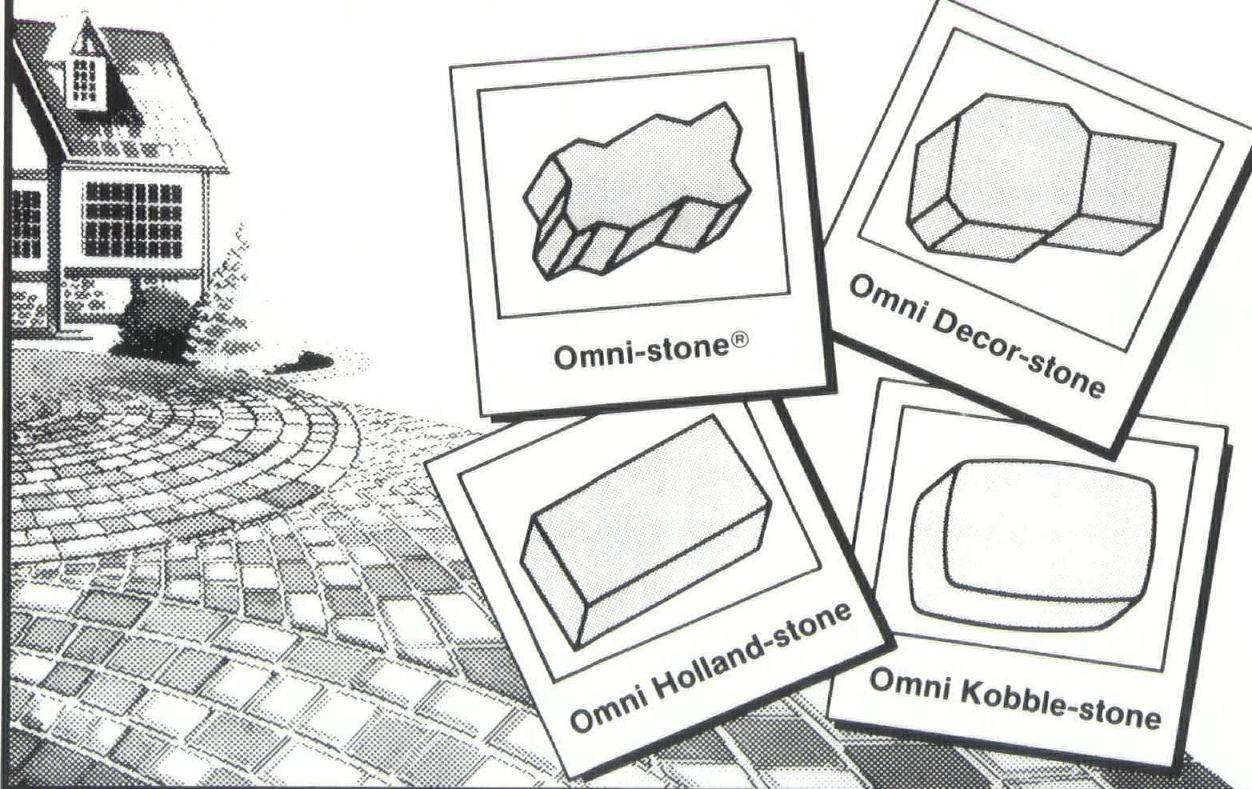
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Restoration Of Edwin Austin Abbey Murals Pennsylvania State Capitol

**Biltmore Campbell Smith
Restorations, Inc.**

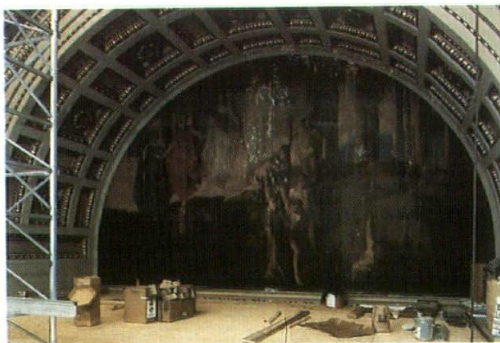
Trained in the Beaux Arts tradition and inspired by the beauty and authority of the neoclassical design of St. Peter's Cathedral in Rome, architect Joseph Huston presented Pennsylvania with a State Capitol building of handsome proportions and high style (Fig. 1). Inside the building he created a decorative scheme which incorporated the artistic genius of Edwin Austin Abbey with architectural splendor. Begun in 1902 and completed some ten years later, the Capitol of Pennsylvania is approaching its centennial with significant preservation and restoration needs and, fortunately, with an organization called the Capitol Preservation Committee, ably headed by Ms. Ruthann Hubbert-Kemper, to attend to those needs.

Visitors to the Capitol enter through a short vestibule to the heart and center of the building—the Rotunda. Under the 220-foot dome is a truly Grand Stair, which divides about half way up and continues on the right to the House of Representatives and on the left to the Senate. The principles

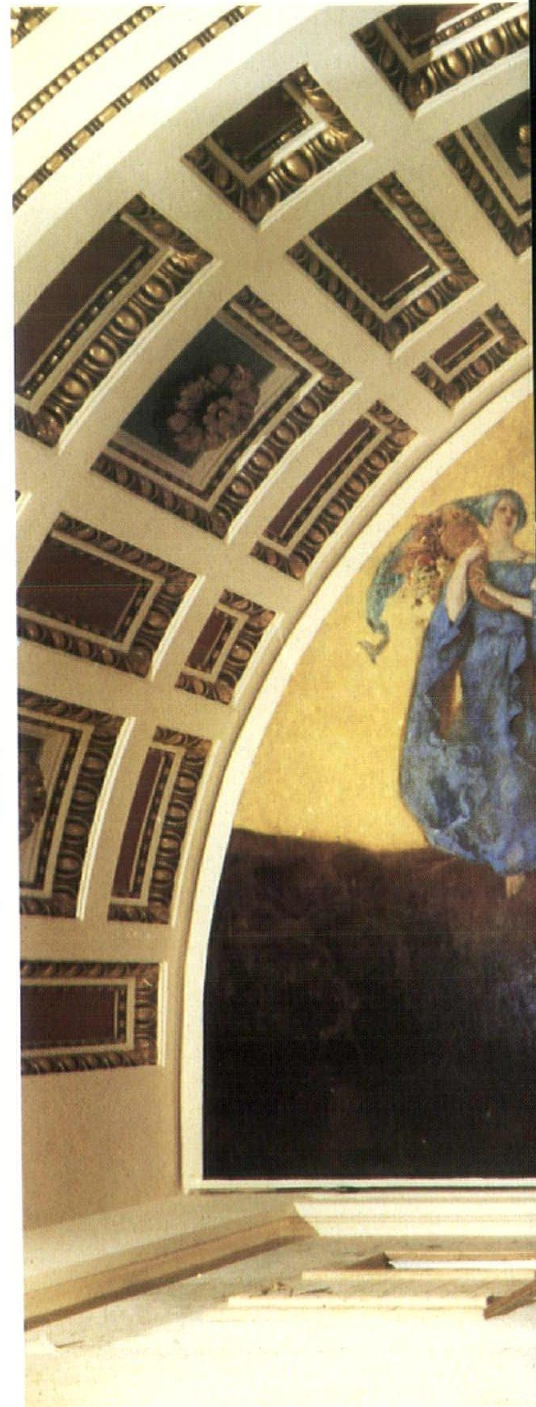
of symmetry and balance are further expressed in the works of fine art which grace the Rotunda. In the large lunettes forming the walls behind the four great arches which support the dome are four murals by Edwin Austin Abbey, one of America's greatest muralists and a native of Pennsylvania. Each measures thirty-eight feet across the bottom and twenty-two feet at its highest point.

Abbey's bravura style combined the Venetian skill in massing large works, the Pre-Raphaelite principles of truth in painting, and his own interpretation of color tonalities. The aesthetically successful result is evident in both the Boston Public Library, as well as the Pennsylvania Capitol, Abbey's next major commission.

In determining the subject matter for the Capitol, Abbey sought to emphasize his native state's most significant achievements: its tradition of religious freedom and its vast natural resources, both of which contributed greatly to Pennsylvania's economic progress. The result was four richly allegorical themes for the murals in the Capitol Rotunda.



• Science Revealing the Treasures of the Earth, *before* restoration.



• Science Revealing the Treasures of the Earth, *after* restoration.





• Science Revealing the Treasures of the Earth, view of surface shows efflorescence and generally deteriorated condition.

The first mural is based on the theme, *The Spirit of Religious Liberty*, and depicts ships on the open sea, with the figures of Faith, Hope, and Religious Freedom leading the way to the New World. This mural represents a tribute to William Penn and the state's role as a leader in protecting basic human rights. The mural on the east wall is *Science Revealing the Treasures of the Earth*. The female figures of Science, Fortune, and Abundance oversee a group of miners representing builders of the New World, and emphasizing again the great natural resources of the state. The remaining two murals focus on industrial themes in contemporary Pennsylvania. *The Spirit of Vulcan* is a salute to the state's steel business, and *The Spirit of Light* features the oil derricks of the petroleum industry.

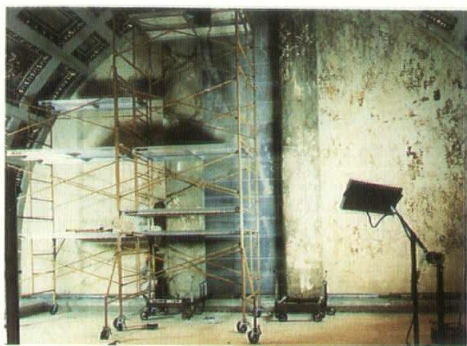
Abbey's preliminary sketches of models for both the Boston Library and the Pennsylvania Capitol were painstaking in detail and method, moving from pencil to small compositional sketches in oil to more detailed studies in chalk, charcoal and oil. With the Harrisburg project, Abbey achieved new classical strength and intensity and for the first time, accomplished the freer, bolder strokes he had so long admired in his friend, John Singer Sargent. Abbey did not live to complete the entire Pennsylvania Capitol commission, but the completed Rotunda stands as a monument to his artistic vision.

By the early 1980s, much of the glory of Abbey's vision in the Rotunda was dimmed. Poor restoration efforts earlier in the century, and efflorescence resulting from water infiltration in the dome, obscured the paint and gilding and posed a real threat to the murals. As an architectural symbol of the Commonwealth of Pennsylvania, the Capitol Building did not inspire confidence.

In 1984, the Capitol Preservation Committee, which is responsible for supervising the historic preservation of the State Capitol Building, requested proposals for restoration of the murals and rotunda. After review of the detailed conservation proposal prepared by Biltmore Campbell Smith Restorations, Inc., the committee unanimously recommended that the firm be awarded the contract for this project.

Work included conservation of the Abbey murals; cleaning, repainting and gilding surfaces in the Rotunda area; and testing surfaces to determine the historic color scheme. Although the decorative painting was a significant aspect of the contract, the focus of this article will be conservation of the Abbey murals.

The project, due to its scale and unique problems, precipitated the development of several innovative techniques including a new mural-mounting system and a cylinder recep-



• Roller reception system in use removing faced mural.

testing samples through X-ray diffraction, laser microprobe spectroscopy, infrared absorption and gas liquid chromatography.

The murals were executed in oil on canvas, adhered directly to the plaster walls of the dome. Samples were taken of the adhesive, paint and canvas, from various sites over the paintings' surfaces. The analysis attempted to determine the adhesives used to mount the paintings; the type of canvas used; the priming and ground layers of paint; the pigment and binders; and the cause of the deposits of efflorescence.

In sample one—a cross section of the red shadow on the drapery of the allegorical figure, "Fortune"—the paint layer structure was revealed. Cadmium yellow and red lake pigments were identified.

Interestingly, the irregular outline of the paint layers indicates that Abbey often mixed paint layers wet-to-wet. The layers were found to be extremely complex and thickly laid, in multiple applications. Execution of the painting, particularly the flesh painting and drapery, was extremely elaborate, given the scale of the work.

Further analysis determined that the medium used for the paint was a standard mixture of linseed oil and poppy oil, but that Abbey had added ceresin wax for tonality. Most of Abbey's pigments were in keeping with 19th century painting. Except for vermilion, a range of ochers, umbers and charcoal black, most of his pigments were developed in the 19th century and were based on metals such as chromium, cadmium and cobalt.

An important observation was made from a sample taken from an area of the mural depicting the helmet of one of the miners in *Science Revealing the Treasures of the Earth*. In that sample, it was found that a deep fissure ran in both directions, demonstrating that paint layers were separating from themselves as well as from the priming layers.

This damage to the murals was primarily due to long-term water infiltration. The deterioration appeared not only in the delamination of paint layers, but also in efflorescence, deposits of salt which streaked the face of the paintings.

Removal Of The Murals

Under normal conditions, removal of the Abbey murals would not have been recommended because of the risk to the paintings, and the philosophical objection of removing a work of art from its original location. However, the earlier analyses indicated that consolidation of the paintings from both front and back was necessary. In addition, it was apparent that having the murals flat was the only efficient way to remove stubborn overpainting from the previous restoration. Because of the damage caused to the murals from water infiltration in the dome, and the risk of repeat occurrence in the future, it was decided to remount the canvases on a mounting system separate from the wall surface.

Before removing the murals from the walls, the paintings were cleaned of surface dirt, using an organic detergent solution. A protective facing was then applied, using cheesecloth and an adhesive/consolidant. Two of the paintings were so unstable that additional consolidation was necessary before removal. This was done by injection of an acrylic adhesive, which was activated with heat.

Removal of the murals was difficult for a number of reasons. First, the white lead adhesive is soluble only in strong solvent moisture which would also attack the paint layers; consequently, it was determined that removal would have to be with mechanical means. Mechanical removal made it imperative that the canvases be fully supported during the process. Secondly, the overall size and weight of the murals, estimated at between 800-1000 pounds each, made for awkward handling.

tion device for removing the murals from the walls.

From March 1985 to June 1986 a team of six British conservators, in association with Biltmore Campbell Smith Restorations, Inc., performed conservation treatments of these murals on a monumental scale. As the completion report notes, the factor "most fundamental of all to the success of the project was the feasibility of detaching the canvases from the walls."

It is in that detaching process that this conservation endeavor proved itself most innovative, and unique in the U.S. Before discussing the remarkable removal procedure, however, let us briefly survey the steps which led up to removal of the canvases.

Preliminary Analysis

As part of its in-depth conservation proposal, Biltmore Campbell Smith undertook an analytical study of the paintings. The purpose of the study was to determine the condition and material basis of the paintings as a guide for restoration. The analytical work was performed by chemist Ashock Roy, whose specialty is cross-section microscopy of works of art. Procedures for the analysis, developed in the testing lab at the National Gallery in London, included

Inferior inlay sections were... restored with Abbey's original style



• Paint cross section, photographed at 220X, taken from helmet of miner, *Science Revealing the Treasures of the Earth*. Note horizontal and vertical cracks.



• Paint cross section, photographed at 220X, taken from drapery on figure of *"Fortune," Science Revealing the Treasures of the Earth*. Note wet-to-wet intermixing.

Additionally, the semi-elliptical shape of the murals and their placement in recessed niches, with little margins around the canvases, created a logistical dilemma for devising a method for removal.

To overcome these factors, a component cylinder removal system was engineered which would accommodate additional cylinders, increasing the height of the reception cylinder as the ellipse of the arch peaked. The component sections, approximately 2 1/2 feet in diameter, were lightweight, yet of rigid construction. The two vertical cylinders were affixed to a turntable which ran on a track bolted to the floor of the scaffold in front of the mural.

Velcro loops were placed over the facing material of the painting, and additional loops added for support as the canvas wound around the cylinders. The inert nature of the adhesive required chiseling the murals from the walls in places. Once the canvas was completely detached and rewound onto one of the cylinders, the mural was lowered to a horizontal position through a pulley system and was unrolled onto the work platform for cleaning.

Cleaning And Canvas Inlays

The reverse side of the mural was first cleaned of plaster and white lead adhesive; then canvas inlays and additions were removed. A modified consolidant and wax resin was applied onto the back of the canvas as a consolidant and heat-activated.

The murals were turned over, the facings removed, and cleaning done using alcohol and acetone. Extensive overpainting from the 1950s restoration had to be removed. During the previous restoration efforts, original sections of Abbey's murals were removed and replaced with inlays which were inferior to the original work. The artist had taken liberties with Abbey's designs, such as eliminating the Wheel of Industry above the shoulder of the figure of

Vulcan in *Spirit of Vulcan*. In another mural, *Spirit of Light*, one of the figures had two left hands. In order to disguise these new canvas additions, the entire surface of the paintings had been scumbled over, resulting in an extremely difficult cleaning process.

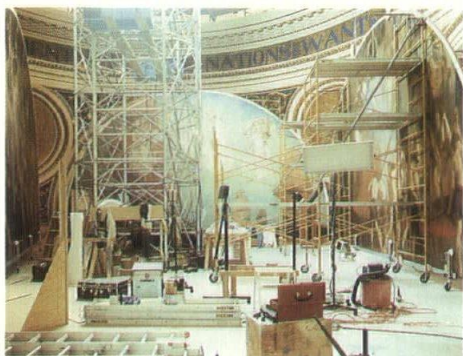
Mounting The Murals

The second innovative technique developed by Biltmore Campbell Smith for this project was the construction of marouflage panels on which the paintings were mounted for reinstallation in the dome. A PVC foam core material called "Klegecell," used in aerospace and boat industries, was employed for construction of the panels. The panels were comprised of a 1 1/2-inch Klegecell core, with a fiberglass skin laminated with epoxy resin. The Klegecell was used for its high mechanical strength and its characteristics of being remarkably lightweight, yet stable. The panels were constructed by the Harrisburg firm, Advanced Composite Products, Inc.

Although marouflage panels of aluminum honeycomb and fiberglass had been used previously in conservation, none this large had been attempted.

After the surface of the panel was coated with Beva 371, the paintings were mounted with the aid of heating blankets and cold-pressure irons. The inferior inlay sections were replaced and new sections restored in accordance with Abbey's original style and composition. This was done with the aid of photographs taken prior to the 1950s restoration work, and Abbey's original sketches, now in the collection of Yale University. The pigment analysis and cross sections were also utilized in matching Abbey's complex style of paint layering.

Final retouching was done with the panels hoisted to a vertical position. The panels were mounted on trolleys which were maneuvered to the wall, and fastened to brackets which had



• Upright mural panels on trolleys, ready for retouching and reinstallation on walls.

been bolted on the wall to receive them. After installation was complete, final coats of protective varnish were applied to the murals.

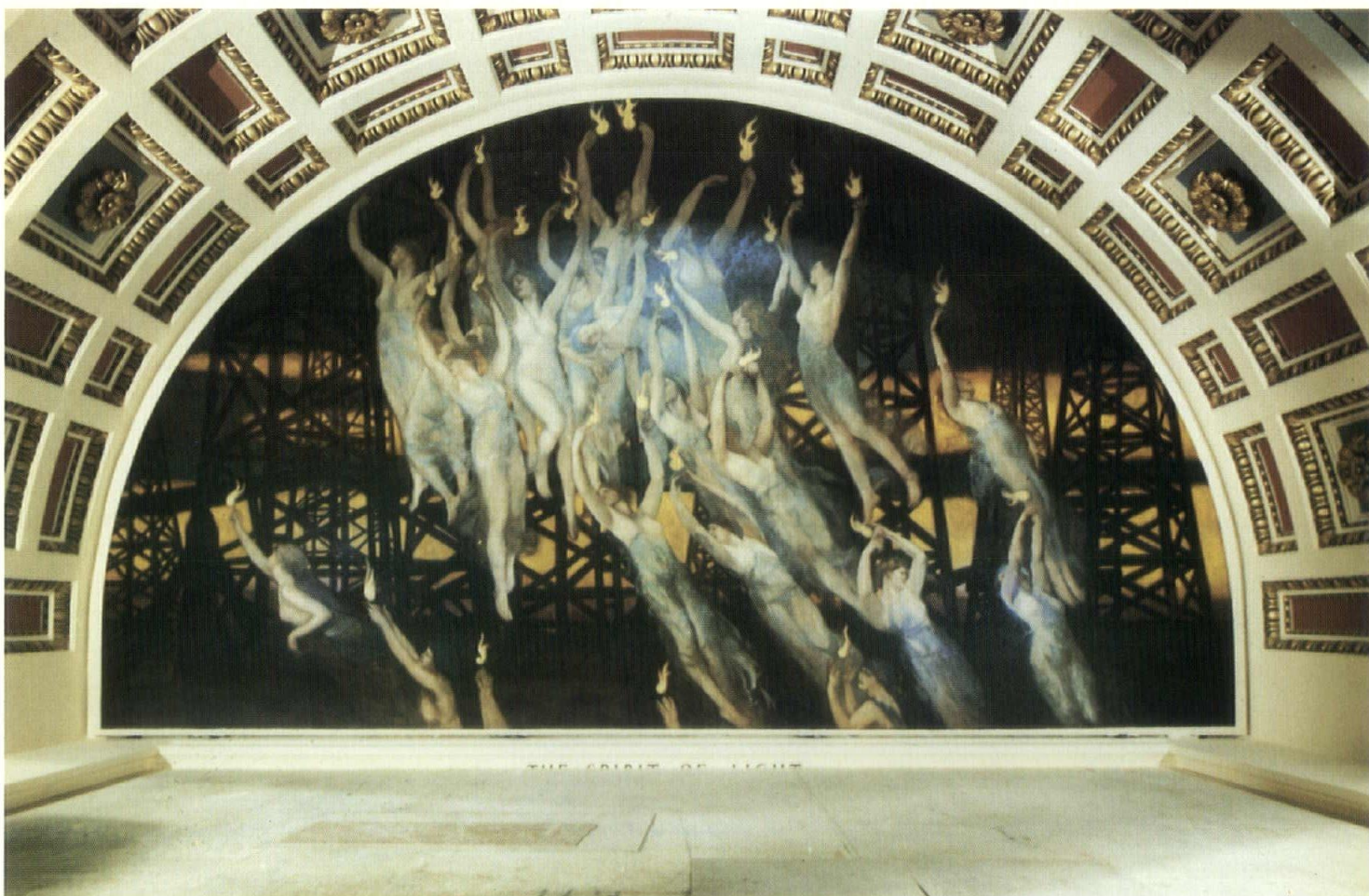
Summary

The total cost of the project was \$2.2 million; it took one year and nine months to complete. Transformation of the murals was striking, as Abbey's Monet-style palette emerged from the discolored and muddy canvases (Figs. 12, 13 and 14).

At a ceremony on September 30, 1986, marking the completion of the Rotunda restoration, the Governor of

Pennsylvania presented Biltmore Campbell Smith Restorations, Inc. with a citation for its work.

Biltmore Campbell Smith Restorations, Inc. has completed conservation and restoration projects in Flagler College, St. Augustine, Florida; Tennessee State Capitol, Nashville; U.S. Treasury, Washington, DC; Smithsonian Institution, Washington, DC; and the Valentine Museum, Richmond, VA. ■



• Spirit of Light, after restoration.

Australia's New Parliament House

Mitchell/Giurgola & Thorp Architects

Australia's New Parliament House, dedicated by the Queen in May, has represented for the architects an opportunity of many lifetimes:

To have the potential to make a profound impact on the capital city of Canberra and on the nation of Australia.

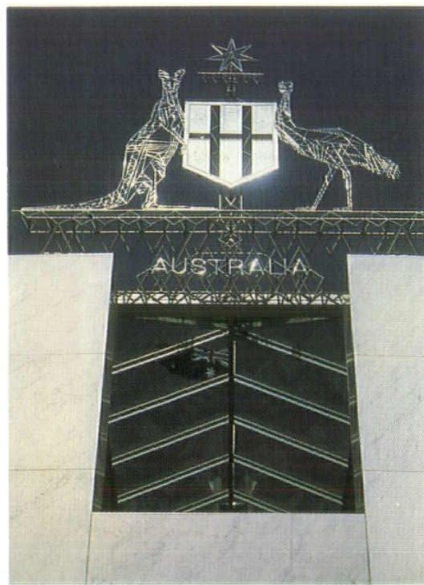
To have the opportunity to represent the best of the Australian national interests—its history, cultural diversity, future development and aspirations.

To respond to the genius of the Walter Burley Griffin plan and the special nature of the site, to enhance and be enhanced by the Griffin inspiration.

To create a wonderful building for the users and the public.

The challenge to create a broad architectural vision was paramount and the will to carry out the vision essential.

The site, established by the 1912 Griffin Plan and the 1974 Parliament Act, is a rounded hill in Canberra. The design accepts this as the generating form of the Parliament complex. Within the circle, a central, linear sequence of formal meeting rooms is framed by two massive curvilinear walls whose arcs enclose the Offices and Chambers of the Senate and House of Representatives, a central "forum" and an Executive Government area. The exterior form of the building follows the natural profile of the hill and is surrounded by landscaped gardens and native planting containing recreational facilities and parking. At the apex the Australian flag is supported by a mast structure arising from the building. Thus the general character of the architecture conveys the sense of a balanced, horizontal



"nesting" of buildings in a natural setting.

The design of the interior spaces depends for its success on the understanding by the building's users of its essential simplicity. For this reason, all ceremonial, public and central "common" areas are located in a linear sequence along the central zone, with the two chambers opposite each other on the east-west axis, their support areas and offices grouped around them. The public can move freely within the ceremonial part of the building and visit each of the major working areas of the Parliament. This engenders in the visitors a sense of involvement in the activity of the democratic systems.

The symbolic sequence of spaces begins in the Forecourt, where formal and festive occasions will be celebrated. The vista from the mall toward the city serves as an initiation to the building by creating an implicit reminder of the meaning of what takes place within. From the Forecourt the visitor proceeds

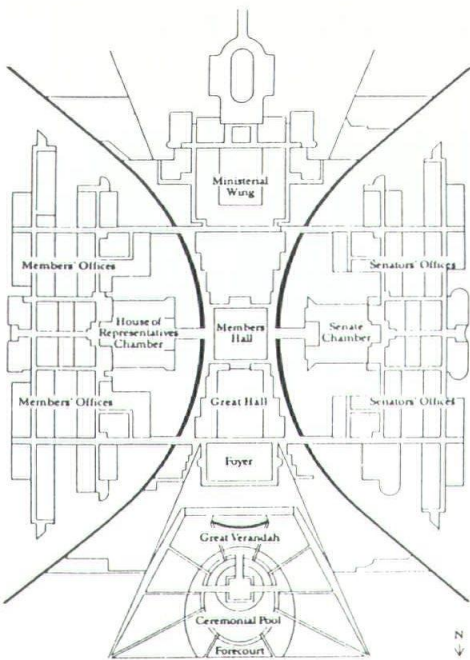
to the Great Verandah, which will be a place of constant movement. Beyond the verandah is the Foyer, which functions as a monumental space intentionally divided by columns into small bays in which a variety of activities may take place simultaneously. In this way the space can at once establish the grand scale of the building, respond functionally to large crowds, and provide the intimacy necessary to allow individual conversation or quiet reflection.

From the Foyer the interior volume of the building opens in two directions: toward the first floor along the itinerary planned for the public, and ahead into the Great Hall along a processional itinerary for parliamentarians or official visitors. The Great Hall will be used for formal banquets and receptions. Public galleries overlook the hall behind a set of lacquered columns, between which tapestries may be hung on special occasions. The Members' Hall is a lofty space at the center of the building delineated on all four sides by simple white plastered portals. The floor is natural stone, punctuated with a central pool of water reflecting the constant movement of clouds above the glass roof. Skylit glazed passages connect the central spaces with the chambers, which have different floor plans and architectural configurations. The House of Representatives Chamber is larger than the Senate, and will be capable of accommodating future joint sessions of both houses. The differing character of the chambers is also defined through the use of fine craftsmanship in woodwork and specially woven and dyed fabrics. Public galleries overlook the Senate and House Chambers and the main committee room, with soundproof

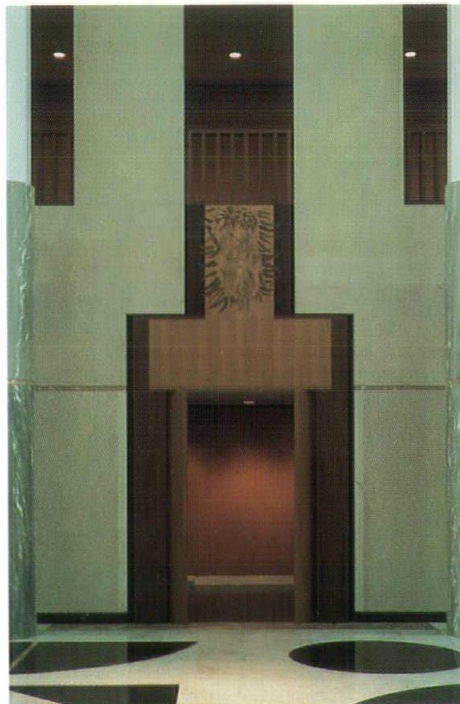




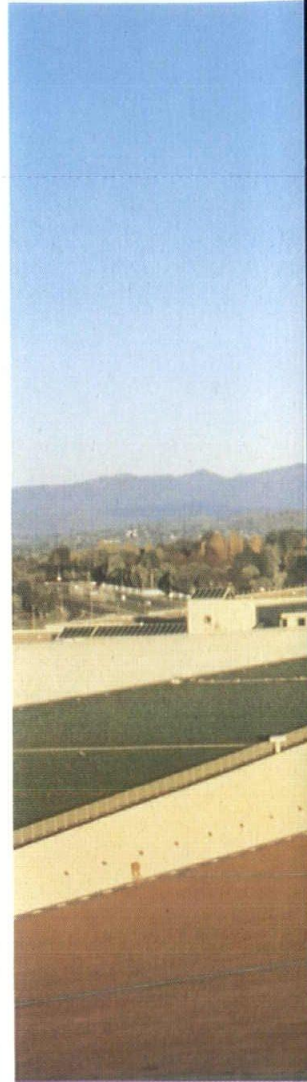
• The Foyer



• Plan indicating the major areas of the project



• Foyer paneling



• The Forecourt and Great Verandah



visitors' galleries provided on the second-floor level for use as an integral part of the guided public tour of the building.

The offices of Parliamentarians surround the Chambers and are designed to provide optimum working conditions. Their arrangement is as noninstitutional as possible, with low buildings, generous daylight in working areas in concert with sun-control, ample courts and gardens and a potential for expansion and change. The Executive Government sector is in the southern part of the central zone of the building between the two curved walls. Executive suites are grouped around a large courtyard designed to permit vehicular entry on special occasions. The suite of

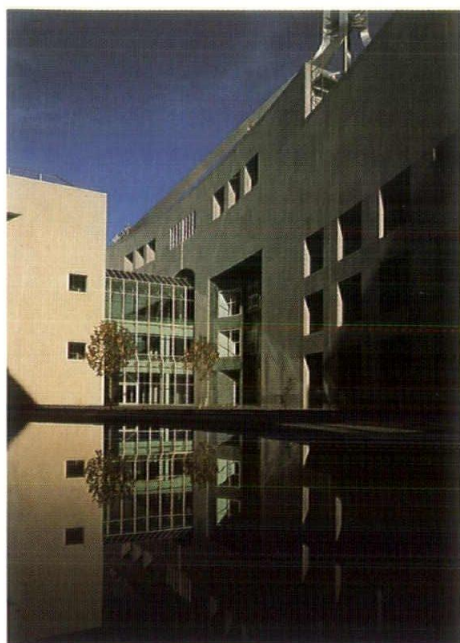
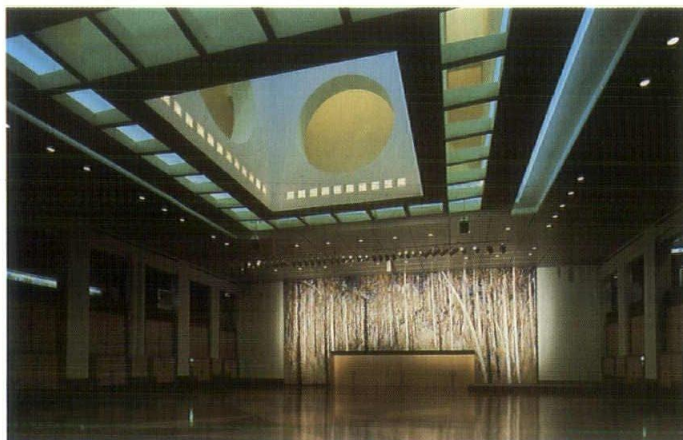
offices for the Prime Minister is the focus of the design of spaces surrounding the courtyard with adjacent suites for the Deputy Prime Minister and other ministers spread over two levels.

The landscaping retains the original profile of Capitol Hill, with views remaining open between the site and the city. In conceptual terms, the grounds surrounding the building are treated as a "carpet" consisting of a mixture of manicured lawns and various pavings. The major access road surrounding the Parliament acts as a boundary between the more formal and informal aspects of the landscaping. The perimeter area will be bordered by native eucalyptus and acacia trees, cut

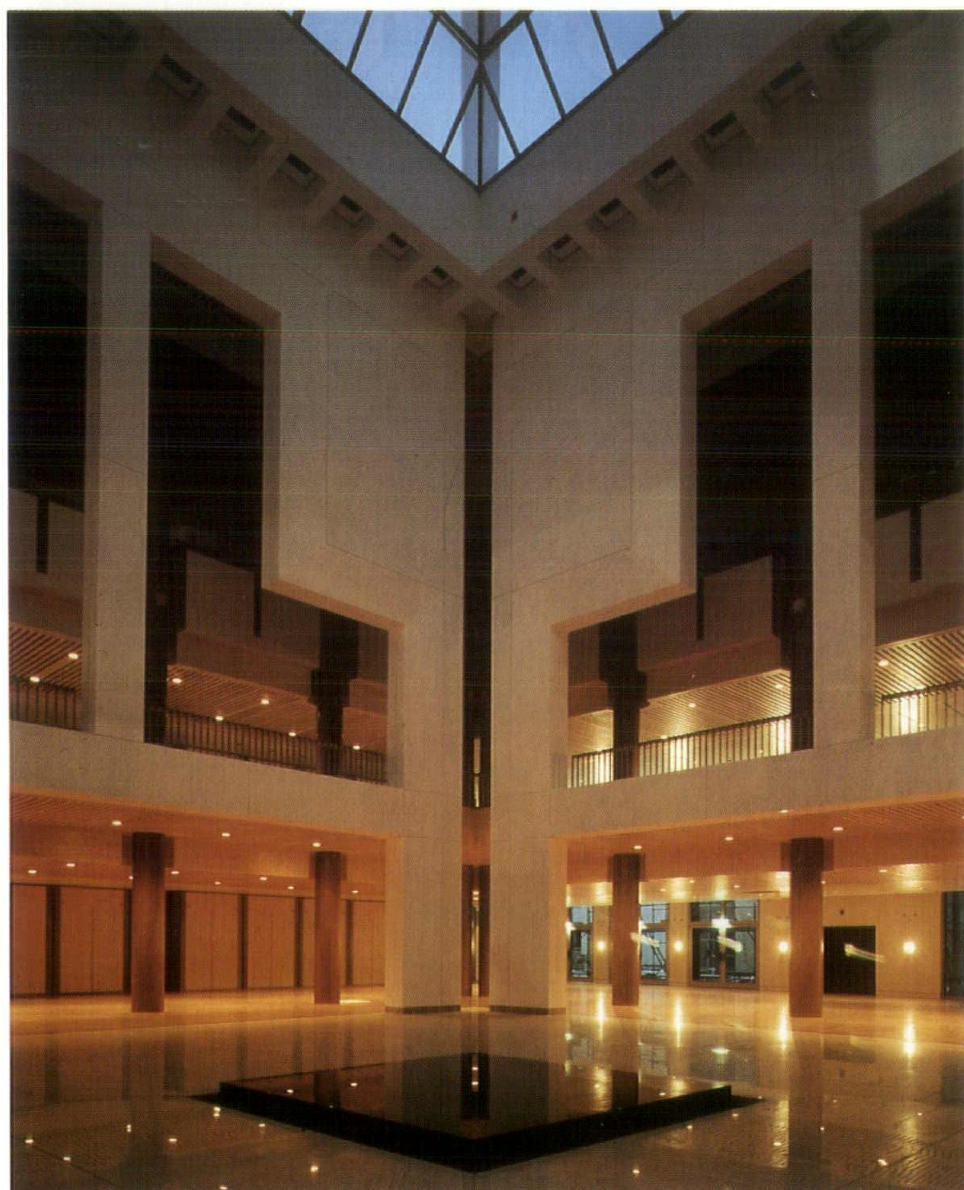
away to enclose recreational areas and parking.

The Art Program is an integral part of the character and function of Australia's new Parliament House and includes some 3000 purchased works, including paintings, sculptures, prints, drawings, photographs and ceramics, as well as some 70 pieces commissioned especially for the building. Major commissioned works include individual coats of arms for the two Chambers and the public and ministerial entrances, a 30-foot x 70-foot tapestry for the Great Hall and a 2000-square-foot granite mosaic in the Forecourt designed by an Aboriginal artist.

***Australia's vast
expanses...are
the dominant
themes***



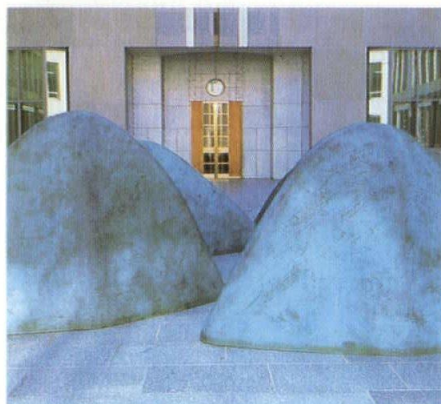
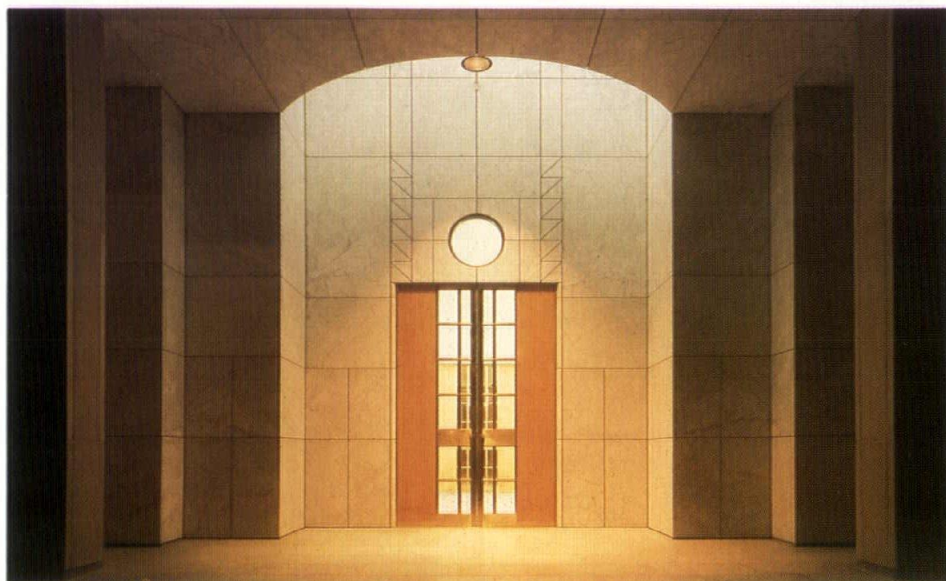
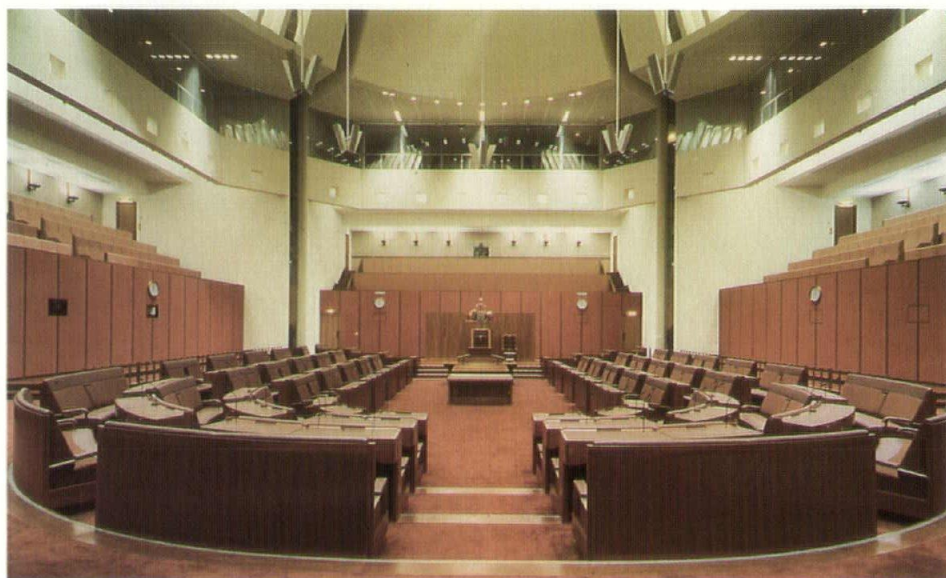
- Top, the Great Hall and commissioned tapestry. Left, link between central zone and Senate Chamber. Right, the Members Hall by night.



Australia's vast expanses, exploration and settlement are the dominant themes in the building's public spaces from north to south. Beginning with Aboriginal mythology, as represented by the mosaic, there is a natural progression to early European settlement in works ranging from engravings of maritime explorers to contemporary works about the early pioneers. This is followed by depictions of Australian society in development, culminating in images of contemporary Australia and references to the aspirations for the future as a representative democracy. Along the east/west axis, many of the works of art on display will refer to Parliamentary and Constitutional history.

The complex process involved close collaboration among the Parliament House Construction Authority's Art Advisory Committee and Curatorial section, the Parliament and Mitchell/Giurgola & Thorp Architects' Art and Craft Coordination Group. It permitted artists, craftspeople and the architects to collaborate on ideas for the interweaving of art and architecture to ensure that the works integrated with the spaces for which they were created. The effect was that as the building progressed, the conception of certain commissions and the acquisition of works for particular spaces often influenced design resolution and finishings.

Romaldo Giurgola, FAIA, described this collaborative process as "...a slow and deliberate fusion of the spaces materials and surfaces, into an environment in which all elements read together in a rich and mutually descriptive way. We wanted to work with the artists and craftspersons so that their vision and our conceptions would act as catalysts for each other, producing spaces, surfaces and works of arts which are mutually responsive to, rather than silently exclusive of, each other." ■



• Top, the Senate Chamber. Middle, the Executive Entry. Bottom, Executive Courtyard with bronze sculpture.

My Reflections of Syl Damianos

*Pennsylvania's newly elected AIA
First Vice President*

by Jim Brown, AIA

It doesn't seem like it but I've known Syl Damianos for almost 20 years. In all that time, my association with Syl, both personally and professionally, has always been enjoyable.

You simply can't help but like the guy because his sense of humor and natural charm overwhelm you as soon as you meet him.

I knew from the very beginning that he was destined for high office and, to prove it, Syl has now been elected first vice president of the American Institute of Architects.

I remember the time when we were at the Greater Pittsburgh Airport waiting to board our flight to Philadelphia so we could attend a PSA Board meeting. After waiting there for a while, we were informed that USAir had overbooked the flight and there was only one seat left; only one of us could go and we would have to make a decision. Well, before I could say a word, Syl had it all figured out; he was so dedicated to AIA that he had to take the only seat... after all, he was on the executive committee and, therefore, it was more important for him to make the meeting on time. He jumped on the flight and left me, his good friend, to find some alternate route to Philadelphia. (Of course I chose the popular Newark-Wilmington-Philadelphia connection.) Now, anyone with that much dedication deserves to be considered for high office.

Syl Damianos was not only considered for but elected to first vice president of the American Institute of Architects at the May convention and will serve in that capacity in 1989. He then will become the Institute's 66th president in 1990. He is only the seventh Pennsylvania architect to become

AIA's president and the first member of the Pittsburgh Chapter to assume the Institute's highest office. He is past president of the Pittsburgh Chapter, past director of PSA and has served as Pennsylvania's regional director from 1985 to 1988. All in all, he has been and continues to be an extremely active member of AIA for over 25 years on the local, regional and national levels.



Syl and his wife Eva Lu are both graduates of Carnegie Institute of Technology. She is an accomplished painter and Syl is an accomplished architect and sculptor. Both have had individual as well as joint exhibitions of their work in Pittsburgh, New York and London.

Syl and I are close friends though, quite candidly, we do everything we can to disguise that fact in public. I consider Lu a close friend and I do everything I can to brag about that in public. Lu is not only bright and talented but one

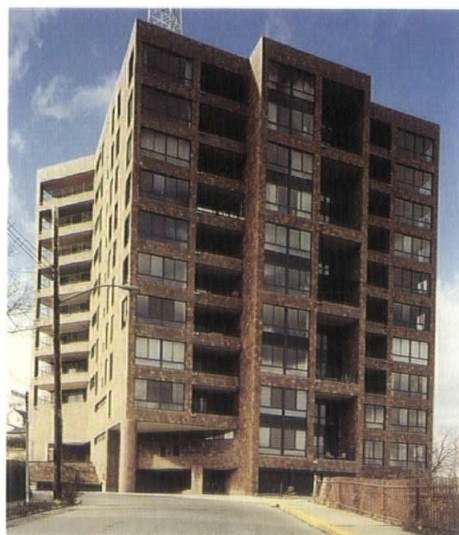
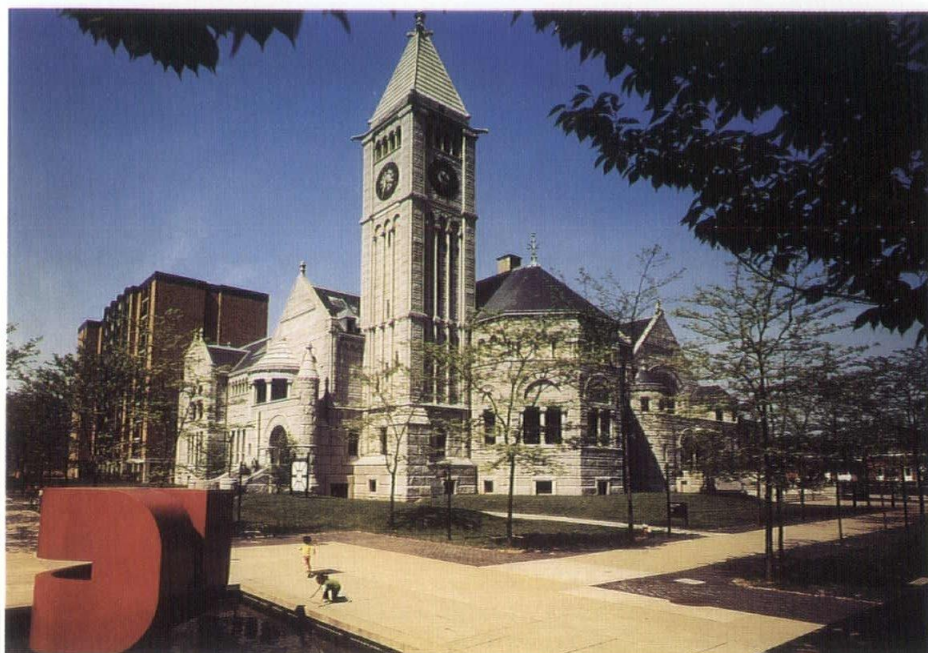
of the most considerate, patient and understanding people I've ever been around. There are probably reasons why people need to acquire qualities like that to be around people like Syl and me, but in Lu's case she didn't have any acquiring to do. I'm quite sure Lu has always possessed those strengths.

Before I continue with more of the Damianos' background and accomplishments, I'd like to introduce the rest of the family: Lynne, Laurie and Leigh, their three daughters. Lynne, the oldest daughter, is a graduate of Rochester Institute of Technology in Photography. She is married, does free-lance photography and manages a photographic business in Boston. Laurie graduated from Carnegie Mellon University in Microbiology. She is now teaching in Athens, Greece in the winter months and managing a boutique during the summer in Santorini. Leigh is a graduate of Tulane University and is currently living at home while working on her MBA at Carnegie Mellon University's Graduate School of Industrial Administration (GSIA). The Damianos family is hardworking and accomplished but, more importantly, are just plain nice people. And, except for Syl they all have a great sense of humor.

Syl was brought up in McKeesport PA, a mill town along the Monongahela River. He is one of four children born to Mr. and Mrs. James Damianos. His father was Greek and his mother French, both immigrants. Syl graduated from McKeesport Vocational High School in 1952. Near the end of the summer, after graduating from high school, Syl and his dad talked about the future. Since Syl had always worked in the family grocery, then restaurant business, his dad suggested that Syl take over the

• Syl Damianos was the sculptor of "Cubed Tension" and also principal architect for the Allegheny Regional Branch of Carnegie Library, which also houses the Pittsburgh Public Theater.

small restaurant that they currently owned. Being no dummy, Syl complained about the long hours required to run a restaurant and thought that additional education might be the ticket. Together, Syl and his dad decided that college was the answer, so Syl applied to Pitt and Carnegie Institute of Technology. He was accepted by CIT a couple of weeks before the fall semester began and entered the Department of Architecture in 1952. He graduated with honors in 1956, then studied at the University of Delft in Holland as a Fulbright Scholar. Syl served in the Army for two years, during which time he married Lu. After the Army, Syl began the full-time practice of architecture in 1959 with the firm of Celli-Flynn, where he had worked for several summers while in school, and became an



• Grandview Towers, Mount Washington, a 38-unit condominium.

associate there in 1963. In 1967, Syl and Jim Pedone opened the partnership of Damianos & Pedone and he has maintained his own practice, Damianos and Associates, since 1979. (By the way, his brother Alex took his dad's offer to take over the restaurant business. Alex can be found vacationing in Florida two months every year, but I'm sure Syl's "hours" are better than that.)

Over the years, Syl's architecture and art have received numerous design awards. His commitment to design excellence is not only exemplified by his design work, but also by his service to the profession and the community. Throughout his professional career, he has sustained an intense interest in his colleagues, chapter, and profession and has served as liaison to the world of visual and performing arts. The American Institute of Architects formally recognized Syl's talents and accom-

plishments by admitting him to the College of Fellows in 1982.

I believe that the members of the Institute made a wise choice at the 1988 convention in electing Syl (and Lu) to represent AIA for yet another two years. He has the dedication, wisdom and vision required to help lead the AIA to even new levels of accomplishment. I know Syl to be a true team player, who may challenge us all along the way but, in the end, he will represent the collective interests of the members. Good luck, my friend!

Jim Brown, AIA is principal of James D. Brown Associates, a Pittsburgh architectural and planning firm. He is a past president of both the Pennsylvania Society of Architects and the Pittsburgh Chapter of the AIA. ■

Everything You Always Wanted To Know About The Intern Development Program But Were Afraid To Ask

(Editor's Note: PSA has been advised that the House Professional Licensure Committee has changed the effective date of the IDP program in Pennsylvania to July 1, 1991. The date has been changed in the following article to reflect this change.)

by Dana G. Stetser, AIA

Through all of the civilized centuries, no profession has surpassed architecture in its devotion to mentorship as the classic way of transferring knowledge from one generation of practitioners to the next. Nowhere is the image of shared experience more vividly portrayed than in the architect's atelier, where the apprentice sat historically at the master's elbow.

You would think, given such a time-honored tradition, that internship would enjoy one of the profession's highest priorities in today's technologically complex society.

IDP training standards establish exposure to 18 training areas

Well, you would be wrong. For it is an unwelcome fact that while we now have in place the most fully realized internship system ever developed in this country, our profession has thus far been uncharacteristically sluggish in making it work.

"IDP? Never Heard Of It—What's It All About?"

IDP is a comprehensive internship program for the development of competent architects. Its major objectives are:

- to define a training standard for internship;
- to provide information on the profession and its requirements through the IDP advisory system;
- to establish a uniform system for the documentation and periodic review of training experience; and

- to augment training experience with supplementary educational opportunities.

IDP policies are established by the national IDP Coordinating Committee, whose members include representatives of:

- The American Institute of Architects
- The American Institute of Architectural Students
- The Association of Collegiate Schools of Architecture, and
- The National Council of Architectural Registration Boards.

IDP activities are coordinated at the state level, and implemented by local AIA components. Key participants are:

- the intern-architect, responsible for IDP record-keeping;
- the educator-advisor, responsible for introducing IDP;
- the professional sponsor (employer), responsible for certifying the intern-architect's training experience; and
- the professional advisor, responsible for periodic review of internship progress.

The IDP training standard establishes minimum levels of exposure to 14 training areas grouped into four major categories. Credits are measured in value units (1 VU = 8 hours), and can be gained through participation, observation and supplementary education; 700 value units are required to complete IDP.

The IDP training standard is required for licensure in 21 jurisdictions, including Pennsylvania after July 1, 1991, and is accepted as satisfying the training requirements of 18 others. Over 10,000 interns, supported by more than 2500 AIA member firms, are now active in the program.

"IDP? I Run A Professional Firm—Not A School!!"

If you run a professional firm and want to improve it, the most cost-effective way is to employ a staff that is competent, versatile and motivated—direct results of the staff development opportunities afforded by participation in the IDP. As a conscientious practitioner, you have much to gain from the comprehensive preparation of intern-architects in your firm: increased productivity, commitment and understanding of the complex world of office practice today.

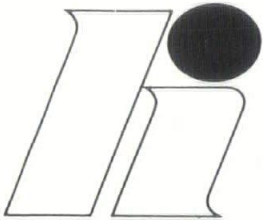
IDP participation does not require you to alter your office procedures. We recognize that the needs of the practice are of primary concern, and encourage you simply to offer—as your project schedules permit—opportunities for intern exposure to a broad range of office activities through observation as well as participation. Interns will be significantly better prepared for meaningful contributions to firm success.

IDP interns understand that internship is a two-way street. Those who receive opportunities for exposure to the 14 IDP training areas will reward this commitment with a dedication and effort that transcends office hours.

IDP offers interns access to supplementary education activities that augment and enhance the office training experience. The benefits of such independent study accrue to the office as well as the intern.

IDP documentation is the responsibility of the intern. The IDP record-keeping system can also be an invaluable personnel management tool for practitioners to assess employee assignments and performance.

IDP can serve as the basis of an in-



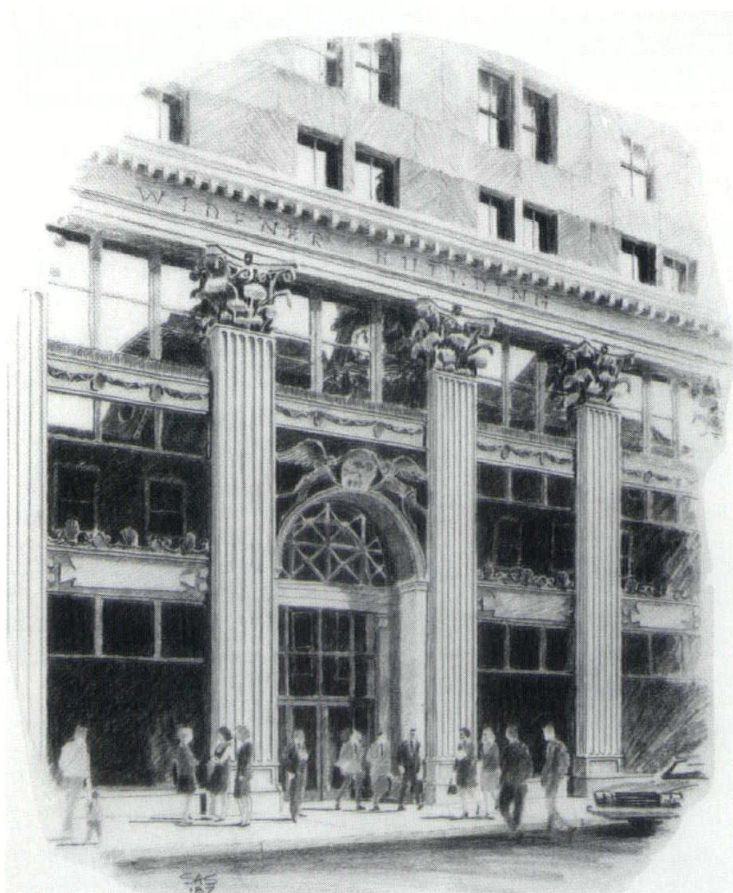
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e staff development program, and help you attract, train and keep well-qualified employees. Many firms use the IDP *Syllabus* as a guide for regular intern education programs.

As an IDP office, you will be developing a competent and versatile staff with little extra effort. IDP provides a framework for the productive application of the mentor/apprentice relationship that is an integral part of the process by which new architects are educated.

"Interns In My Office Want IDP—What's Our Role?"

The Intern-Architect Development Program—IDP—helps interns prepare for professional careers. Its *training standard* identifies critical areas of experience recognized by the profession as essential to competent practice; its *supplementary education program* encourages intern self-study to augment practical training; its *record-keeping system* provides for uniform, nationally recognized documentation of work experience; and its *advisory system* offers interns the advice and counsel of experienced practitioners.

"WHAT IS THE EMPLOYER'S ROLE?" Satisfying IDP standards is an intern responsibility. Those participating in IDP need a professional sponsor to certify the work record they keep to document training experience. Monthly review and signature of the IDP periodic assessment report is all that is required. Many practitioners find the form a useful management tool for reviewing employee performance.

"WHAT IS THE OFFICE ROLE?" Firms with in-house staff-development programs will find the IDP training standard a practical guide for intern assignment. Many offices have also established procedures that facilitate intern exposure to hard-to-get training areas such as client contact, cost estimating and bidding and negotiation by offering 'comp time' opportu-

nities for observation or participation as project schedules permit. Others use the IDP supplementary education *Syllabus* as a lesson plan for regular staff training programs.

IDP can help you attract, train and keep good employees

"HOW WILL IDP HELP MY OFFICE?" IDP can help you attract, train, and keep good employees. Your practice will benefit from the increased competence, versatility and production of employees fully exposed to the complexities of professional practice today. Interns will award your investment with greater effort, motivation and commitment on the job.

"WHY SHOULD MY OFFICE PARTICIPATE?" IDP is the profession's contribution to the quality of architectural education and practice.

"I've Been Asked To Be An IDP Advisor—What's Involved?"

Intern-architects participating in the IDP program need the advice and counsel of experienced practitioners. Within the office, the intern's employer or supervisor will serve as a professional sponsor, reviewing and certifying the training experience. For a personal and objective evaluation of internship progress, free of the pressures of the employer/employee relationship, the IDP Coordinating Committee recommends that an intern-architect also meet periodically (often in small-group sessions) with an outside-the-office *professional advisor*.

IF you are an architect concerned about the good of the profession and the education of future

architects...

IF you enjoy the mentor's role in your own office and recognize the responsibilities of current practitioners to transmit the knowledge, skills and judgment of the profession to those preparing for licensure and practice...

IF you're willing to share a few hours every three months with a motivated intern who really wants to be a good architect...

THEN you should volunteer for the IDP advisory network.

Your AIA chapter needs architects interested in serving as professional advisors to interns participating in the program locally.

You will meet quarterly to review and approve the IDP record maintained by the intern. When appropriate, you may want to suggest outside study or other activities to help the intern round out his or her training experience and ensure a comprehensive and productive apprenticeship.

You will share a special relationship with the intern-architect, one unencumbered by the expectations of the workplace. Your advice and counsel will be invaluable to those seeking the broad overview of the profession that only an experienced practitioner can provide.

GET INVOLVED—be an IDP advisor! Dividends? The satisfaction of knowing that you have contributed significantly to the education of those seeking to enter the profession... enhanced managerial and communications skills... professional prestige and respect.

A Large Firm Case Study

Houston architect Charles A. Hubbard, AIA, has long been an enthusiastic supporter of the Intern-Architect Development Program (IDP). As a partner in Morris Architects, Hubbard was responsible for implementing IDP in the Houston office, and since then

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has carried the IDP word to firms across the country as a spokesman for the IDP Coordinating Committee. Hubbard reports:

"IDP works very simply in our firm. We have a staff IDP coordinator (a voluntary position) who is notified by Personnel when a new, nonlicensed employee joins the firm. The coordinator's primary task is to acquaint the new staff member with IDP requirements in Texas, where it is mandatory for admission to the registration exam. We have found that most intern-architects then take on the responsibility for their own training.

"Each IDP intern is assigned a sponsor, usually his or her immediate supervisor, to review the periodic assessment reports maintained by the intern and to assist in assigning tasks — as permitted by the current office workload — that give the intern the comprehensive experience necessary to satisfy the IDP training standard.

"From time to time, 'brown bag' seminars and lectures on a wide range of subjects, from marketing to technical detailing, are given by knowledgeable partners. There are also occasional Saturday or late afternoon visits to job sites, as well.

"We are strongly committed to the objectives of IDP. Having an in-house program helps us hire, educate and retain productive employees who greatly benefit the firm. Our interns are well-motivated, responsible and committed, willing to spend extra time and effort to achieve project goals because they know that we are helping them to reach their professional goals."

A Small Firm Case Study

Roy Gilley, AIA, a principal in Gilley-Hinkel Architects in Bristol, Connecticut, has a broad concern for the competence of the profession that

he translates directly into IDP participation:

"Well-prepared architects are better architects, capable of producing better architecture. Our public image as a profession depends upon our willingness to support interns seeking the knowledge necessary to become truly competent. And clearly, more knowledgeable employees are an asset to any firm.

"IDP raises the level and competence of our employees."

"We joined with Merrill Associates in Woodbury early in 1985 to offer IDP training to staff from our offices and from those of two nearby firms. Four principals donate their time on alternating Saturday mornings to assist a group of eight interns in discussions based on the AIA *SupEdGuides*. Outside readings, research and guest speakers supplement the 'lessons'.

"Interns schedule and arrange the meetings. The host office supplies coffee and donuts. Program costs are embarrassingly small: a full set of *SupEdGuides* — enough material for a three-year program — cost us \$75.00. We also rely on the *Architect's Handbook of Professional Practice*, *Technology*, *Architecture* and *Architectural Record*, and have purchased a few other texts. The only other cost is the principals' time.

"Our experience indicates that IDP raises the awareness level and general competence of our employees. Because interns benefit from the input of several offices, they do not have to move from office to office to gain the comprehensive experience

they need. We have gotten to know our employees better, and office teamwork has improved. Interns have come to appreciate our problems, and sharing experiences has helped us all develop more efficient office procedures. A common understanding of the goals of the office has led to greater cooperation on the job.

"Some interesting side benefits have also come about. Principals have had to brush up on technical and presentation skills that serve us in good stead with our clients. The meetings have also provided a forum for architects to learn from one another. These exchanges of information have been an unexpected bonus for our practices."

"Internship?—I'm Still in School..."

If you're uncertain about what to expect after graduation, IDP can help. Your on-campus IDP educator-advisor can explain the profession's education, internship, examination and licensure requirements and can advise you on career opportunities and alternatives.

If you're a student working in an architectural office, your IDP educator-advisor can help you assess the value of your work experience to your program of study and its acceptability for internship credit.

IDP can help you bridge the gap between academic and practical education. Its objective is to help interns prepare themselves for competent practice. If you are now a student in an accredited first-professional degree program, you have a lot to gain from IDP participation:

IDP student-interns may apply work experience credits toward registration board training requirements after the third year in a B.Arch/4+2 M.Arch. program, and after the first year in a 3 - 4 year M.Arch. program.

IDP student-interns can document their experience through a nationally

recognized record-keeping system that provides for periodic review of your progress. The NCARB/IDP council record will reduce the time and paperwork necessary to apply for the registration examination, and is a useful addition to your portfolio to demonstrate experience and versatility to prospective employers.

IDP student-interns can plan their work experience using the IDP training standard as a guide to ensure a comprehensive exposure to the knowledge and skills identified by the profession as essential to competent practice.

IDP student-interns are eligible for deferment of NDSL and GSL educational loans after graduation and during periods of work leave from school.

Over 10,000 interns are now participating in this fast-growing program that is mandated by 21 states and accepted by 18 other jurisdictions in satisfaction of their training standard. ■

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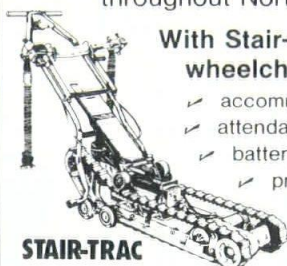
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