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MASON CONTRACTORS ASSOCIATION OF NEW MEXICO
This issue of *New Mexico Architecture* combines three 1982 issues of the magazine and for good or evil closes out that should-be-forgotten year. 1982 can be characterised by a personal disaster, a contract failure on my part, and only three issues of NMA. In short it was not my best year, nor even an average mediocre year; it was just plain BAD. May 1982 requiescat in pace!!!

Architectural Archives of the University of NM's Special Collections  
—by Edna Heatherington Bergman  

First Building in Navajo Office Complex Dedicated  
—Hitchinson Brown—Architects  

Architecture as Idea  
Drawings by Ten New Mexico Architects  
—by Emily Kass  

Architectural Drawing and the Art of Architecture  
—by Christopher Mead  

Book Review  
—Access to Historical Buildings for the Disabled—Reviewed by W.F.E. Preiser  

Index of Advertisers  

But enough of that year. 1983 begins with hope, and, a promise to myself, that it is going to be a good year. Accordingly, I shall look forward to a regular year of six issues of *New Mexico Architecture*, increased advertising (in order to pay for each forthcoming issue) and, with real good fortune, an increase in the number of pages in each issue of the magazine.

Finally we are already in production with the January/February issue of *New Mexico Architecture* magazine. It will feature the 1982 New Mexico Society of Architects Annual Awards, and will follow this issue within a couple of weeks. We expect to get back on our regular schedule. Believe-it-or-not! JPC

—Official Publication of the New Mexico Society of Architects, A.I.A.—

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"We're still looking for 'preferred' active solar homes."

Tom Nesmith, a PNM solar engineer, researches the residential use of active solar energy.

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PUBLIC SERVICE COMPANY OF NEW MEXICO
ARCHITECTURAL ARCHIVES OF THE UNIVERSITY OF NEW MEXICO'S SPECIAL COLLECTIONS

The John Gaw Meem Collection has been the basis of a growing treasury of accessible architectural documents.

by Edna Heatherington Bergman

In 1975, John Gaw Meem gave to the University of New Mexico Libraries a rich archive of architectural drawings, photographs, and other documents, along with a substantial donation of money for their cataloguing, preservation, and maintenance. This collection has been the inspiration and basis for a collection of architectural records contributed by other architects, their heirs, and other individuals.

The collection and preservation of architectural drawings and related materials was until recently unknown in the Southwest, although architectural libraries exist in some large American cities. The Meem Collection in Albuquerque and the Ponsford Collection of documents of the firm of Trost and Trost (Henry Trost, designer) at the El Paso Public Library are the nuclei of collections which will become important resources for architects, historians, and building owners in the Southwest.

Most architects are aware of the difficulties of preserving and filing construction documents. Many people, until they have some reason to look for plans or other documents of a particular building, suppose that because the city requires plans to be checked before issuance of a building permit, there is a city archive containing all building plans. Architects, who must keep their own archives and are familiar with the problems of sorting and handling project drawings and the cost of flat files, roll safes, and hanging files, understand why the plancheck department automatically discards all drawings after a certain period.

Building owners also lose or discard plans, and plans for homes and residential buildings seem always to disappear. Federal agencies and large corporations, expert users of architectural and engineering services and with large long-term investments in buildings which require maintenance and modifications, keep their own archives. Physical plant managers have extensive and active files, and central depositories hold great volumes of information. It can be difficult, however, for historians or interested outsiders to gain access to such files, which are not kept for historical purposes.

The special architectural collection based on the Meem Collection has been increasingly active, even though there is not a curator assigned to it, and one must make an appointment through the Special Collections Department to use the architectural materials. The Ponsford Collection in El Paso has been of great and immediate value to historians and building owners throughout the Southwest, for Trost and Trost designed some major building in almost every town of any size throughout New Mexico and much of Arizona and Texas. When the drawings came to light a few years ago, it was at last possible to confirm that the Trost firm designed in Albuquerque the Ilfeld Warehouse (destroyed) and the Old Occidental Building (destroyed), as well as the New Occidental Building, the Sunshine Building, the First National Bank, the Berthold Spitz house, and of course the world-famous Franciscan Hotel (destroyed).

It is appropriate that the generation of permanent public architectural archives should be based on the works - and in the case of the Meem Collection, the vision and generosity - of prolific and well-known architects of the region. But even the modest drawings of an obscure house designer may have an important place in the archives. Such is the work of Beula Fleming, whose papers, donated by her family after her death, tell a story not only of residential styles and individual houses of particular interest built in Albuquerque since the twenties, and of the general history of housing design over some forty years, but also of an individual life of particular interest.

The Meem Collection deserves the support and attention of all New Mexico architects. An informal committee has assisted from time to time in sorting and filing donated collections. An architect ready to retire or at a point to reflect on his career might select materials for donation. A set of drawings and other documents explaining the development of the design of an important building, and its construction documents, would be of great value. One might instruct one's heirs to give selected or collected documents to the collection. And of course, as architects use the collection themselves, they will develop their own ideas of how the archive should be augmented and improved. Thoughtful participation by the architectural community is essential to the growth and usefulness of the collection, and can at the same time refine and expand the horizons of thought and discussion of architectural issues. The Meem Collection is a potentially powerful practical and intellectual tool for the understanding and progress of architecture in the Southwest.

EHB
The first building in the new Navajo Office Complex in Window Rock, Arizona, was dedicated April 23, 1982. The $4 million structure, totaling 40,000 square feet, is part of a $25 million, 220,000 square foot master plan designed by Hutchinson Brown & Partners, Inc., an Albuquerque architectural and design firm.

“This first building will be part of an overall plan reflecting the geometric patterns of Navajo weaving,” said J. T. Brown, project manager and executive vice-president for Hitchinson Brown. “We used indigenous colors and material,” Brown said, “to establish an allusion to nature and a link with the past.”

The building is an energy efficient structure, earth sheltered to maintain a constant interior temperature. Features of the building include an active solar-assisted domestic hot water system and a perimeter-radiator hydronic-heating system. The entire interior is zoned for individual heating and cooling, depending on exposure and current use.

As designed, the building will use less than 36,000 British Thermal Units per square foot per year. Average buildings in recent past use 130,000 to 170,000 BTU’s per square foot per year. The emphasis in the master plan, as well as this building, was on flexibility and ease of maintenance. Since the structures will be built as needed and as money is available, “we wanted each building to stand on its own, as well as relate to any others already built,” Brown said.

“We hope that our designs and plans help the Navajo answer their dedication on this first building --‘from these buildings may we walk in beauty,’” Brown said.

A greater line of cooperation is needed between architects and home builders and between government and the private sector to produce quality housing that is affordable, the president of The American Institute of Architects told the National Association of Home Builders.

President Robert Broshar, FAIA, said that affordable, high quality housing is achievable, but it depends on stronger cooperation at the national, state, local and personal levels. He made these remarks during an AIA-sponsored seminar, “Design ’83, which highlighted design trends and housing innovations at the NAHB national convention.

Broshar, who led a panel of architects at the housing design seminar, stressed that one key to affordable housing is more compact residences. He suggested that architects and builders can learn from the automobile industry’s shift toward compact cars. “By designing smaller homes, we can provide affordable, energy-efficient housing as well as a higher life-style standard for occupants,” he added.

“When today’s 30-year mortgage is paid off in the year 2013, will the home itself deserve to exist in the 21st century? Will its 1983 design still be viable?” he asked. “Will what we design and build today create a living heritage that future Americans will admire?"

Broshar explained that in 1983, the AIA will direct its legislative efforts at a number of programs to get more affordable, high quality houses built. For example, the Institute will encourage increased use of tax incentives to stimulate private-sector financing and support solar tax credits and federal research programs in greater energy efficiency.

“In the urban environment, the AIA will support improvement in the economic, cultural, land-use and transportation systems of our cities” Broshar continued. “We will fight for the preservation of historic buildings and for adaptive use of older buildings and neighborhoods. We will pursue these housing activities at the federal, state and local levels.”

Broshar pointed out that the design trends and housing innovations showcased at the “Design ’83” seminar represent “a blending of architect skill, builder talent and site characteristics. They are specific responses to specific problems, not stamped-out designs that can be duplicated at random across the nation.”

The AIA president reiterated that the “best tool we have in creating affordable, high quality housing is the cooperation between builder and architect.”

Broshar was joined by panelists John D. Bloodgood, FAIA, Des Moines; Paul M. Twitty, AIA, West Palm Beach, Fla., and Zane Yost, AIA, Bridgeport, Conn. The seminar, which attracted more than 1,000 builders was moderated by Arthur C. Danielian, FAIA, Newport Beach, Calif.
This past fall, the University of New Mexico Art Museum held its first exhibition to deal specifically with architecture. For us, this is doubly significant because it presents a subject frequently considered outside the domain of art museums. Yet in the 20th century, architectonic ideas have become pertinent and even central to other art forms. The Bauhaus encouraged this trend with its philosophy of teaching all aspects of design culminating in architecture. More recently, with the burgeoning of large scale sculpture and environmental art, issues of architectural form have become fundamental to many artists. Conversely, one might even draw parallels between the pervasive “glass box” of the 60s and minimal art.

While each of the architects in the exhibition has produced significant buildings, the focus here was their drawings. Works were selected for the quality of draughtsmanship and with an attempt to present a cross section of drawing styles and techniques. The 40 projects shown in varying aspects tackled a wide range of formal issues and philosophical concerns facing the architects. While most of the projects were ultimately constructed, those that remain on paper are revealing for the glimpse they offer about the creative process.

The museum is grateful to Professors Christopher Mead and Peter Walch, who conceived and organized the exhibition; to the Albuquerque Chapter of the AIA for their support; and, most importantly, to the ten architects who generously lent their drawings. We hope that future exhibitions at the University Art Museum exploring architecture and design issues will encourage greater consideration and awareness of the built environment.
What is architecture? Shall I join Vitruvius in defining it as the art of building? Indeed, no, for there is a flagrant error in this definition. Vitruvius mistakes the effect for the cause.

In order to execute, it is first necessary to conceive. Our earliest ancestors built their huts only when they had a picture of them in their minds. It is this product of the mind, this process of creation, that constitutes architecture and which can consequently be defined as the art of designing and bringing to perfection of any building whatsoever.

Etienne-Louis Boullee (1728-99)

A recent exhibition at the University of New Mexico Art Museum, "Architecture as Idea: Drawings by Ten New Mexico Architects," displayed works by Hal Dean, Patrick McClernon, John McHugh, John Gaw Meem, George Pearl, Robert Peters, Antoine Predock, Bart Prince, Donald Schlegel and Robert Walters. The renaissance of interest in architectural drawing during the last fifteen years makes this exhibition merely one among many, yet the issue it addresses remains pertinent: Are architectural drawings a valid expression of architecture, or must architecture be understood only through its buildings? Because architecture serves the immediate needs of society, because it is controlled by physical laws, because it must ultimately remain practical, it can be seen as the matter-of-fact process of erecting a structure to house specific spaces with particular functions. One can do more than join Vitruvius in defining it as the art of building— one can presume that architecture is building without art. Boullee, a painter turned architect, reacts against this presumption and argues for the other side of architecture. For any building to exist, it must be conceived, it must be imagined in the mind of an individual architect. Architects are form-givers whose buildings are as much artistic creation as they are the solution of practical necessity. Boullee's definition both recognizes the synthesis of art and building (not the art of building) that makes architecture, and returns that synthesis to a creative act. This creative act precedes the existence of building and is revealed in architectural drawings.

Architects design with sketches—quickly executed drawings that rough out relationships of space, mass, function and site—and they design with renderings—measured drawings that specify precise forms and details. They can visualize their designs with plans, sections and elevations—which abstract the two-dimensional aspects of architecture; or with perspectives and axonometrics—which abstract ar-
Architectural design. This can be illustrated with the role of drawing to express the role of drawing in architecture. Architects choose a particular style—or manner—of drawing to express the role of drawing in architectural design. This can be illustrated with the drawings of three architects: John Gaw Meem, John McHugh and Hal Dean. Members of three successive generations, they each developed their drawing style under the influence of a leading contemporary architectural delineator: Hugh Ferriss, Theodore Kautzky, and Helmut Jacoby.

Meem completed his architectural training in the 1920's when he enrolled in the Atelier Denver, a correspondence course run by the Beaux-Arts Institute of Design in New York City. Starting with elaborate ink wash renderings in the nineteenth-century Beaux-Arts tradition, he soon updated his technique under the influence of the 1920's delineator, Hugh Ferriss. The effect of Ferriss' luminescent, expressionistic charcoal and pencil drawings can be seen in Meem's elevation of the Colorado Springs Arts Center (1935) (fig. 3). Structuring his charcoal drawing in layered planes, darkest in the background, lightest on the building's forward surface, etching lines with an eraser to set off the massing, Meem composes with light and shadow. Evocative like Walters' drawing, it assumes however that drawing can simultaneously express the nature of a building and depict its literal form. Meem illustrates Ferriss' definition of architectural rendering: "A branch of pictorial art and of architectural design whose special aim is to show, before buildings have been built, how they will look after they have been built."

John McHugh completed his architectural training in the 1940's, and his drawing style steps forward a generation from that of Meem. His perspective sketch of the James Meem Residence in Santa Fe (1974) (fig. 4) is drawn with the broad strokes of a chisel-point pencil that effectively suggests the design's light-activated massing without delineating every edge and detail of the house. This technique was developed by the 1940's delineator, Theodore Kautzky, who wanted to help architects who had been "taught to reproduce correctly on paper what they see before them, as a camera does...I would like to set them free from the limitations of reproductive art, to give them command over the arrangement of pattern of line and light and shadow...". McHugh, like Meem, composes with...
Finally, there is Hal Dean, who received his training in the 1960’s. His perspective of Zimmerman Library Phase III Addition and Remodeling at the University of New Mexico (1973) (fig. 5) illustrates still another style. Meticulously delineated with parallel ink lines, wall textures built up by ink splattered from a toothbrush (a variant of airbrushing), the angle of view carefully chosen to indicate the surrounding buildings and space, peopled with anthropoid beings, Dean’s drawing immediately recalls the work of the 1950’s and 1960’s most published delineator, Helmut Jacoby. Jacoby said that the purpose of his drawings was “to show a not yet existing building in its real surroundings...Professional requirements...demand minutely accurate drawings, each tailored to its specific purpose.” One hears a partial echo of Hugh Ferriss, but there is not similarity between the drawings of Meem and of Dean.

Style, however, involves only one aspect of architectural drawing. Drawing also permits an architect to think out a problem in visual terms. Take the example of how an architect defines his building site. George Pearl’s site plan for Ortega Hall at the University of New Mexico (1968-74) (fig. 6) thinks with coded lines of red, brown, purple and orange to abstract relationships of space, mass and circulation into a diagrammatic pattern. Antoine Predock’s site study for the Desert Highlands Project in Phoenix, Arizona (1982) (fig. 7) thinks instead as an image of procession and ritual that notates land forms, views, cactii, pockets of water and paths to experience an environmental context. Donald Schlegel’s perspective sketch of Faith in Christ Center Lutheran Church in Albuquerque (1980-81) (fig. 8) measures his design against the scale of an
7. Antoine Predock
Desert Highlands Project, Scottsdale, AZ, 1982
Ink on paper

8. Donald Schlegel
Faith in Christ Center Lutheran Church, Albuquerque, 1980-81
Graphite and ink on paper
idealized mountain range. None of these drawings is definitive, each is merely one moment in a sequence of drawings, yet even when isolated one can detect in them evidence of diagrammatic, experiential and ideal patterns of thought.

There is one final point to be made, a point that has been implicit to this entire discussion. If, as has been argued, architectural drawings really are about architecture, and if they really can be studied to comprehend the architect who drew them, do not these drawings invite the same careful study as buildings? Put Bart Prince’s perspective of the Hanna Residence Project in Albuquerque (1975) (fig.9) next to Patrick McClernon’s project plan, elevation and section detail for La Mesa Elementary School in Albuquerque (1979-80) (fig. 10). Both are drawn precisely, yet within that precision lie vast differences of perception, presentation and expression. Having seen their drawings, one could not mistake the character and intent of their buildings.

C.M.

9. Bart Prince
Hanna Residence 1975 (in progress)
Perspective Study
Colored pencil and graphite on mylar

10. Patrick McClernon
La Mesa Elementary School, Albuquerque, 1979-80
Graphite and ink on mylar

Back Cover:
George Pearl
La Puerta Complex Project, Albuquerque, 1971
Ink on paper

NOTES
2. The exhibition (Nov. 6-Dec. 30, 1982) was curated by Peter Walch and Christopher Mead under the direction of Emily Kass, and was supported in part by the Albuquerque Chapter of the AIA.

Reviewed by: Wolfgang F. E. Preiser, Ph.D.

To quote from the foreword "this publication is intended to assist in providing barrier-free access to historic buildings through methods that are in conformance with the Secretary of the Interior's Standards for Historic Preservation Projects".

With the exception of a few shortcomings described below, this guidebook is a well-rounded treatment of the topic and it should prove quite useful to persons in the field of preservation technology.

The determination of the applicable legal frameworks and accessibility requirements for Federal, State and private projects is outlined. The process of compliance planning is presented by juxtaposing two possible, basic approaches: fulfillment of accessibility requirements through architectural changes (Architectural Barriers Act) or through provision of program access (Section 504).

Disabled user needs are listed, followed by an outline of alternative methods for providing access. These include: program or activity changes to avoid architectural changes; interpretative materials and devices to simulate a service or experience offered in inaccessible parts of a building; portable architectural devices which can be removed or exchanged without permanent damage to historic materials; equipment aids, e.g., a special narrow wheelchair for especially narrow passageways; and aid provided by trained staff which can assist with certain architectural barriers; and lastly, architectural changes.

The range of barriers and solutions for overcoming them through architectural changes is well known and shall not be repeated here. Special care is taken to suggest solutions which do not impose upon historic buildings visually, or to otherwise change structure and materials.

Case study examples are provided accompanied by good illustrations (photography and line drawings). The appended "Guidelines for Applying the Secretary of the Interior's Standards for Rehabilitation" appear to be particularly useful for the preservation technologist. They contrast recommended and not recommended approaches to removal of barriers at different scales, i.e., the larger environment, the building site, the building's structural systems, exterior and interior features.

New construction, mechanical systems, safety and code requirements are also listed.

In an attempt to critique the publication two issues, or rather, suggestions emerge:

1. The guidelines referred to above should be complemented by a set of specific accessibility requirements in checklist format, containing dimensional and material information. A precursor exists!

2. As is often the case, the blind are only mentioned in passing. It would seem that historic buildings with richly articulated architectural detail present a unique opportunity for blind persons to experience art and building design. Further, unobtrusive, combined tactile/electronic guidance systems (complemented by interpretative audio beacons) for the visually handicapped are being developed now which will greatly increase their mobility, as well as their ability to experience historic buildings.2

WFEP

NOTES:


REVIEWER:
Wolfgang F. E. Preiser, Ph.D. is Professor and Co-Director of the Institute for Environmental Education, School of Architecture and Planning, University of New Mexico Albuquerque, New Mexico 87131

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A perspective drawing by George Pearl FAIA