

ARCHITECTURAL DRAWING AND THE ART OF ARCHITECTURE

By: Christopher Mead

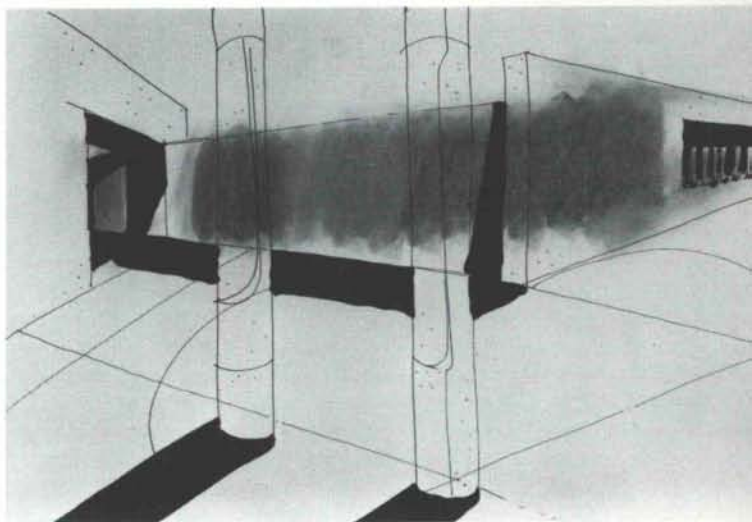
What is architecture? Shall I join Vitruvius in defining it as the art of building? Indeed, no, for there is a flagrant error in this definition. Vitruvius mistakes the effect for the cause.

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 Boullée (1728-99)¹

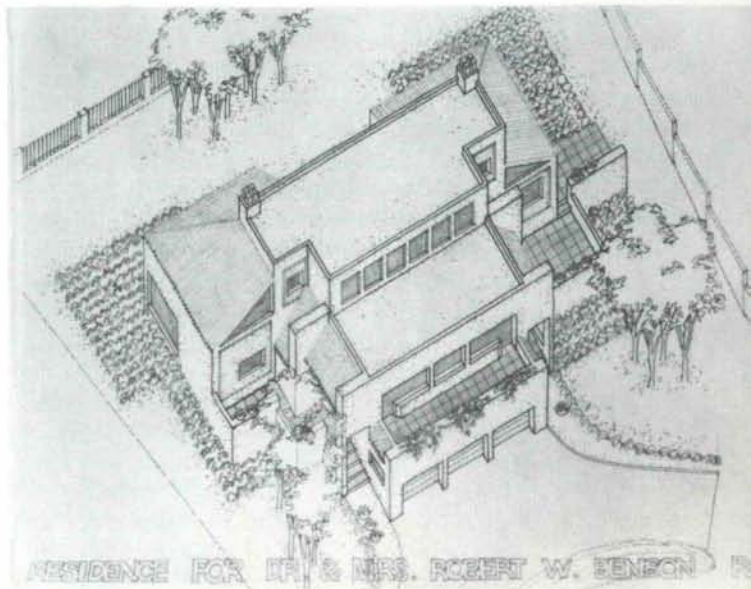
A recent exhibition at the University of New Mexico Art Museum, "Architecture as Idea: Drawings by Ten New Mexico Architects," displayed works by Hal Dean, Patrick McClernon, John McHugh, John Gaw Meem, George Pearl, Robert Peters, Antoine Predock, Bart Prince, Donald Schlegel and Robert Walters.² The 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. Boullée, 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. Boullée'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-



1. Robert Walters:
Masterplan New Mexico State Fair 2000 Project, Albuquerque, 1982.
Perspective
Ink on paper

2. Robert Peters:
Benson Residence, Tanoan, 1981-2.
Graphite and ink on paper



chitecture's three-dimensional nature. Pencil, charcoal, ink, magic marker, watercolor and collage are only some of the available graphic tools. But underlying this diversity is the consistent fact that these drawings are all two-dimensional abstractions of something meant to be three-dimensional and real. This paradox, the inescapable problem of abstracting three dimensions into two, defines architectural drawing. Balanced between imagination and reality, these drawings are the diary of an architect's visual thought.

In the first place, how an architect draws is important. Robert Walters' perspective sketch for the New Mexico State Fair 2000 Project (1982) (fig. 1) is a case in point. Thin ink lines trace walls and columns, broadly brushed ink bands indicate shadows, and a rich smudge of red chalk (with blue tips) crosses the drawing's center to give color and focus. Pavement and wall lines cut through the columns, and the red smudge assumes a nearly independent existence as it spreads over background walls and foreground columns. The illusion of perspective breaks down as the depiction of three dimensions is repeatedly denied by the two-dimensional application of line and color. Walters, from his early training as a painter, recognizes the difficulty of reproducing three-dimensional form on a two-dimensional surface. Yet it is this very recognition that makes the drawing work. Ignore for a moment the conventions of perspective, and the pattern of lines, bands, and particularly the red smudge transcend the drawing surface and draw one into a realm of three dimensions. Walters does not literally depict architecture—he evokes the experience of architecture by exploiting his two-dimensional surface to explain how form, color, light and shadow interact to create architectural space.

Robert Walters' drawing ultimately has the quality of a Le Corbusier sketch, and it implies a point of view stated by Le Corbusier in 1936: "I would wish that architects themselves, and not just architectural students, sometimes took up their pencils to draw a plant or a leaf—or to express the significance of a tree, the essential harmony of a shell, the stratification of the clouds, the everchanging ebb and flow of waves at play on the sands—and discover the successive phases of expression of the inner forces informing all these things."³ Drawings, more than a formal technique, is an interpretative act that admits one into an architect's mind. Compare, for example, Walters' perspective to Robert Peters' axonometric of the Benson Residence at Tanoan (1981-1982) (fig. 2). The axonometric, which derives a building's elevations three-dimensionally from plan, is a very analytical type of drawing that delineates a design's geometric relationships rather than its spatial experience. Unlike Walters, who undermines the convention of perspective to evoke the feeling of architecture, Peters respects the convention of axonometrics to demonstrate the rationality of architecture.

Architectural drawings have style. To attribute style to these drawings may sound dangerous, but there is a reason. 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.

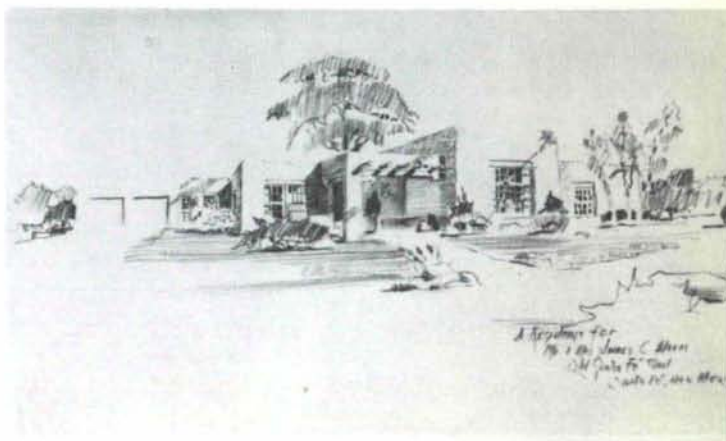
Meem completed his architectural training in the 1920's when he enrolled in the Atelier Denver, a correspondence course run by the Beaux-Arts Institute of Design in New York City. Starting with elaborate ink wash renderings in the nineteenth-century Beaux-Arts tradition, he soon updated his technique 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 -page 7) 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."⁴

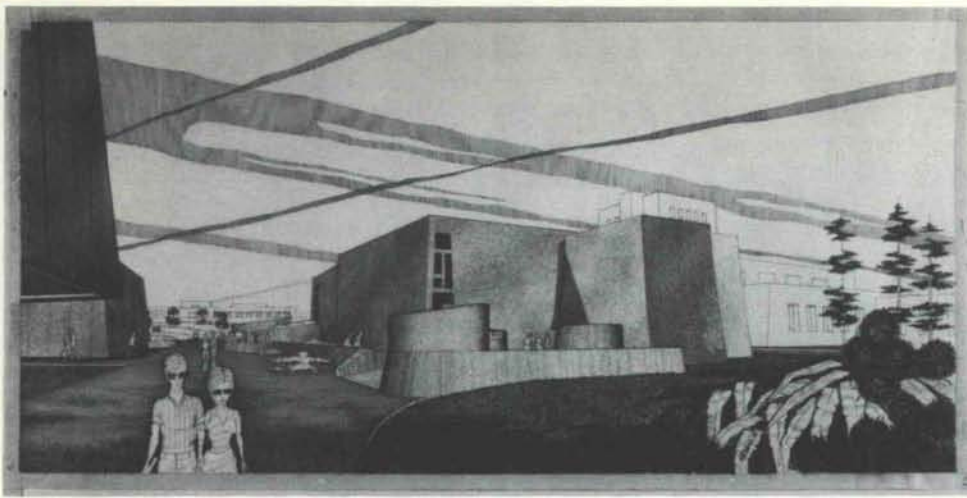
John McHugh completed his architectural training in the 1940's, and his drawing style steps forward a generation from that of Meem. His perspective sketch of the James Meem Residence in Santa Fe (1974) (fig. 4) is drawn with the broad strokes of a chisel-point pencil that effectively suggests the design's 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..."⁵ McHugh, like Meem, composes with

4. John McHugh

James C. Meem Residence, Santa Fe, 1974

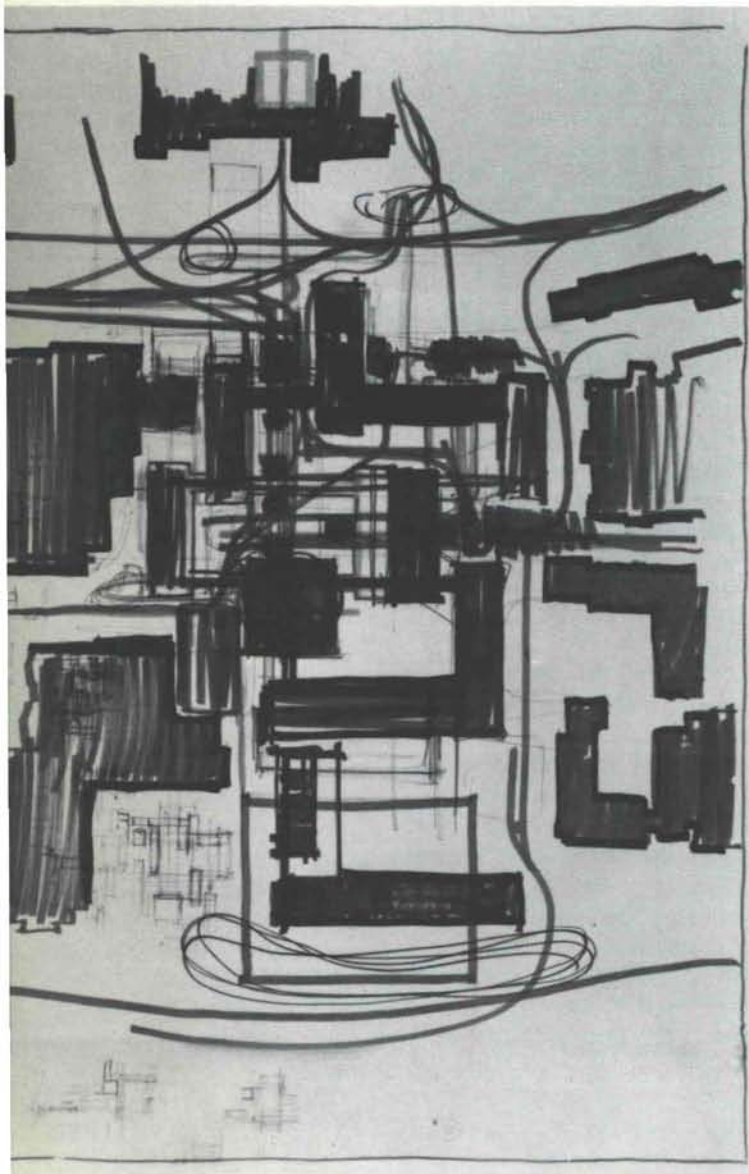
Graphite on paper





5. Hal Dean Zimmerman Library Phase III Addition & Remodelling, 1973
Graphite and ink on paper

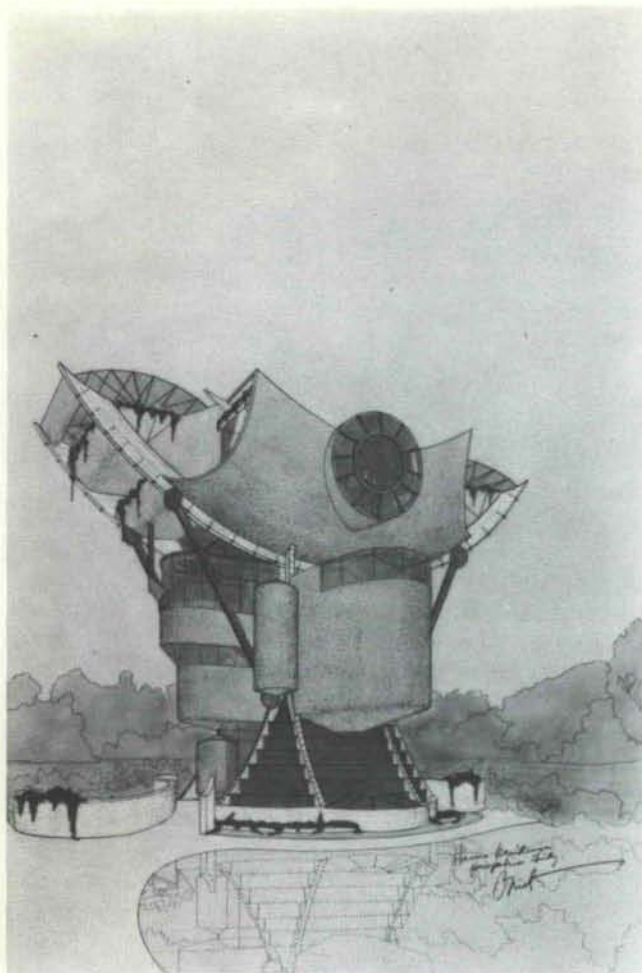
6. George Pearl Ortega Hall Site Plan, UNM, 1968
Ink on paper



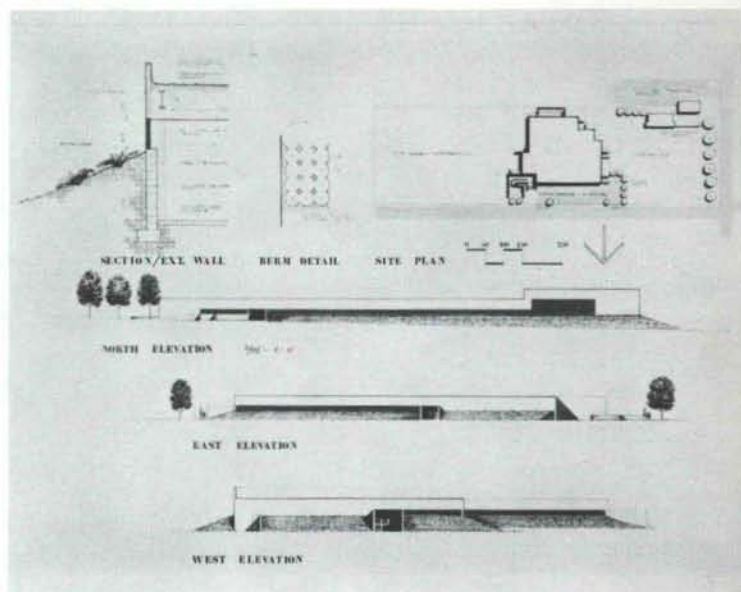
light and shadow, yet his drawing avoids literal depiction.

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."⁶ 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



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

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.

Back Cover:

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

NOTES

1. Etienne-Louis Boullée, *Architecture, Essai sur l'art*, as translated in, Helen Rosenau, *Boullée and Visionary Architecture*, London/New York, 1976, p. 83.
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.
3. Le Corbusier, as quoted in, Michael Graves, *Le Corbusier, Selected Drawings*, New York, 1981, p. 7.
4. Hugh Ferriss, as quoted in, Jean Ferriss Leach, *Architectural Visions, The Drawings of Hugh Ferriss*, New York, 1980, p. 16.
5. Theodore Kautzky, *Pencil Pictures, A Guide to their Pleasing Arrangement*, New York, 1947, p. 1.
6. Helmut Jacoby, as quoted in, Claudius Coulin, *Helmut Jacoby, Architectural Drawings*, New York, 1965, p.5.