CONCRETE MASONRY PAVERS

THE NEW WAY TO GIVE CHARACTER, COLOR, AND HUMAN SCALE IN BOTH COMMERCIAL AND RESIDENTIAL AREAS.

UNLIMITED APPLICATIONS FOR PEDESTRIAN AND VEHICULAR TRAFFIC IN PLAZAS, ROADWAYS, WALKWAYS AND PARKING AREAS.

SPECIFICATION AND INSTALLATION DETAILS FOLDER ON C.M.P. PREPARED BY THE TECHNICAL DEPARTMENT OF NATIONAL CONCRETE MASONRY ASSOCIATION ARE AVAILABLE. PLEASE CONTACT CREGO BLOCK CO.

WHEN CONCRETE MASONRY PAVERS ARE EMPLOYED, THE FIRST COST — INSTALLATION — IS NEARLY THE LAST COST. THE LONG, NEARLY MAINTENANCE-FREE LIFE OF A PAVING BLOCK SURFACE WILL DELIVER A DISTINCT COST ADVANTAGE TO YOUR BUDGET.

6026 Second Street, N.W. Albuquerque, N.M. 87107 (505) 345-4451
Kohler gives you a rare feature in single control faucets.

Control. You know the feeling. You're fiddling with the faucet in search of that elusive temperature your body tells you is right. You know it's there somewhere. But you can't seem to find it until you've suffered through a few tries.

That's why you should try Kohler's Centura. It has a comfort zone five times wider than most. So you don't have to get chilled or get burned before you get comfortable.

An ingenious tapered cam lets you turn the handle a full 180 degrees. So you can set the temperature exactly where you want it. This cam is the only moving part in Centura's cartridge. There are no springs, no washers, no O-rings. No wonder there were no leaks and no drips in the Centura even after we tested it 500,000 times. Centura is also a Water-Guard faucet, offering water-saving flow control at no extra charge. All are shown in polished chromium: lavatory faucets, bath controls, and shower and bath controls also come in 24-karat gold electroplate.

Kohler products are available in Canada. For information write DEPT. CT, KOHLER CO., KOHLER, WIS. 53044. (Please mention this publication's name.)

Centura. It puts control right where it belongs. Right in your hands.

The Bold Look of Kohler
Contact your local Kohler representative for more information today...

**Active Plumbing Supply**  
1500 Candelaria NE  
Albuquerque, NM 87107  
(505) 345-8587

**Northwest Supply Co.**  
2401 E. Aztec Avenue  
Gallup, NM 87301  
(505) 863-3807

**P-H-C Industrial Supply Co., Inc.**  
1000 Siler Park Road  
P.O. Drawer F  
Santa Fe, NM 87501  
(505) 471-4811

**Doc Savage Supply Co.**  
932 E. McGaffey  
Roswell, NM 88201  
(505) 623-0623

**Doc Savage Supply Co.**  
2116 Claremont NE  
PO Box 6549, Station B  
Albuquerque, NM 87107  
(505) 345-5646

**Vinton Eppsco**  
4220 Second St. NW  
PO Box 6569  
Albuquerque, NM 87107  
(505) 345-4522
THE HISTORICAL SOCIETY OF NEW MEXICO will hold its Annual Meeting and Conference in Taos, April 20, 21, 22, 1979. The meeting begins Friday afternoon (April 20) at the Kachina Lodge with three concurrent sessions. The varied program includes such topics as a panel discussion on "Photo Archives and Collections" chaired by Arthur Olivas of the Museum of New Mexico staff; a two session seminar, "Historic Preservation — A Challenge for the Architecture and History Student," will discuss the resources, methods and directions of the preservation profession and will include a field trip to several Taos buildings.

Twenty one speakers are scheduled to deliver papers on New Mexico history. Mark Simmons will discuss "Carros y Carretas, Vehicular Traffic of the Camino Real." Charles C. Colley will explain the "Moorish and Arabian Influences in New Mexico." Daniel Tyler will talk about the "Mexican Indian Policy."

POSTER AVAILABLE
The Historical Society of New Mexico has issued the first of its projected annual conference posters. The poster features a previously unpublished photograph taken in June, 1880 by Ben Wittick. (See above.) The poster is available for $5.00 plus $1.00 postage and handling.

For further information on the conference, or to order a poster contact:
Historical Society of New Mexico
Post Office Box 5819
Santa Fe, New Mexico 87502

---

NMA News 7
A letter from Poland — Book Reviews: "Business and Preservation," "Facility Programming."

Pre-Spanish Pueblo Towns 10
—by P. G. McHenry, Jr.

Index to Advertisers 18

(Cover—Ranchos de Taos—Photograph—State Records Center & Archives, Historic Preservation Program Files)

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

Society Officers
President—John C. Bland
President-Elect—Randall L. Kilmer
Secretary-Treasurer—Robert J. Strader, Jr.
Director—Wilbur T. Harris
Director—Kestutis Germanas
Director—Ron Hutchinson
Director—John P. Conron, FAIA
Director—Edwin C. French
Director—Channell Graham
Director—Stanley French
Director—Bernabe Romero, Jr.
Director—Ervin Addy III
Director—George C. Owen
Director—Richard Waggoner
Director—William L. Burns
Executive-Secretary—Leigh Matthewson

Commission for NMA
John P. Conron, FAIA/FASID, —Editor
Bainbridge Bunting—Editorial Consultant
Mildred Britelle—Accounting and Circulation
Flora & Company—Advertising
Charles E. Nolan, Jr.
AZTEC
MEANS...
ONE STOP
FLOOR COVERINGS

IMPORTED CERAMIC TILES
Italian, German, Japanese,
Mexican-glazed and unglazed
quarry

CARPET
Full line of residential,
commercial and kitchen
carpets — Oriental rugs,
runners and area rugs

SHEET VINYL
Armstrong, Mannington,
Congoleum, GAF

WALL PAPER
Over 200 books in stock

DISTRIBUTORS OF
CORK-O-PLAST

DECORATIVE
CONSULTANTS
AVAILABLE

AZTEC
TILE and
CARPET
SINCE 1960

2520 SAN MATEO N.E.
PHONE 265-9579

Ahead of schedule.
Because we were
behind them.

Brooks and Clay, Inc. served as general contractors for
Albuquerque’s Mound Terrace Office Complex. They
used Trus Joist components for the structural system de­
digned by Dean & Hunt Associates, architects. Here’s
what Robert W. Brooks told us later:

“We would like to compliment your organization
and the Trus Joist Co. for the way the joist system
was handled ... The easy application and quick
delivery time has our Company well ahead of
schedule.”

It figures. Trus Joists are built for speed. For labor sav­
ings. For optimum strength. Give us a call and find out
for yourself.

In Albuquerque, call
McGill Stephens, Inc.,
300 Virginia SE
Albuquerque 87108
Phone (505) / 265-5935

In El Paso, call
McGill Stephens, Inc.,
4100 Rio Bravo St.,
Suite 320, El Paso 79902,
Phone 915/544-4505

Trus Joist structural roof and floor sys­
tems distributed by McGill Stephens, Inc.,
Albuquerque and El Paso.
Since the beginning of recorded time, the strongest, most beautiful, most economical and longest lasting buildings have been built of masonry. By bricklayers.

It is as true today as it will be tomorrow. When you build with masonry, you build for keeps.


MASON CONTRACTORS ASSOCIATION OF NEW MEXICO
How to look at windows.

Energy-saving double-pane insulating glass.
Insulating wood core.
Low-maintenance vinyl sheath.
Snug-fitting design.

Heat gainers or heat losers?
That all depends on how you look at windows. And on their built-in quality.

Andersen® windows are designed to be heat gainers. And when properly sized, shaded and oriented toward the sun, Andersen windows save even more energy. In winter, they welcome in the warming sun, and in summer, they open to cooling breezes.

Isn’t it time you took a good look at energy-saving Andersen Perma-Shield® and primed wood windows?
A LETTER FROM POLAND

Dear Mr. Conron,

Thank you very much for your letter and a copy of “New Mexico Architecture” with your article on Poland. I really admire your effort to prepare such an interesting article on your trip to Poland.

The US officials are not sending me your magazine and you are the first to present me with it.

Thank you very much for so many nice words on Warsaw, Royal Castle and on myself.

With very best wishes for the New Year.

Sincerely yours,

Prof. Dr. Stanislaw Lorentz
Director of the National Museum in Warsaw

Editor’s Note:
The above letter was received last February. I learned late last year that a copy of NEW MEXICO ARCHITECTURE (September/October, 1976), containing my report on a trip to Poland, had not been sent to Professor Lorentz by the staff of the President’s Advisory Council on Historic Preservation. The trip had been arranged by the council’s staff and the council purchased a number of copies of the special NMA issue. Because Prof. Lorentz was a major host for us during the trip, I had assumed that a copy of the magazine had been sent to him.

It is a pleasure for me to know that Prof. Lorentz is still the Director of the National Museum. His energy seems undiminished after so many years of service to Poland. As explained in my report, this gentleman is one of the “Heroes of Warsaw”, the monument (see sketch below) is, in my mind, dedicated to Prof. Lorentz as well as to the thousands of Poles who died at the whim of the Hitler led maniacs.

Monument to the Heroes of Warsaw

BOOK REVIEWS


As the opening sentences of the Preface state: “This book could not have been written ten years ago, and it would not have been written five years ago. It expresses a truth become tolerable.” It seems that a commitment to historic preservation of the built environment has become, perhaps not philosophically popular for our large or small corporations but economically sound, tax-deductible and a P.R. investment. “...INFORM found that at most of the seventeen reuse projects profiled, the cost ran from 30 to 40 percent less than replacement new construction.” And: “Probably the most consistently cited benefit among all of the projects surveyed is that of enhanced image.” Whatever the underlying incentive, the results do benefit our own generation, but more importantly, our succeeding generations.

Except when I must order a new load of fuel oil for heating my house, or I am faced with the latest Public Service Company electric bill, I often cheer the spiraling costs of energy and the out-of-sight prices for basic building materials. They make recycling of old buildings and run down neighborhoods attractive to financial institutions and corporate giants.

The re-activated old bank building may well provide a better “image” for the bank than a glossy, very expensive, new structure. When I see the amount of money a local bank will spend to, often pretentiously, house its dozens of vice-presidents (otherwise known as loan sharks) in order to dazzle, impress, even frighten, a poor citizen borrower, the high interest rates become not only excessive, but, perhaps, usury!

Many historical societies, a few architects and interior designers, and dozens of little-old-ladies-tennis-shoes have been pleading the cause of historic preservation for years and have, thereby, saved an occasional building. But federal and local tax structures, the short...
Don't be Fire Safe & Performance Foolish!

There are legitimate alternatives to some components of fire rated assemblies. Building professionals know that selection of these alternatives must be done with care in order to preserve the integrity of the assembly. They are also aware of manufacturers who make their best guess as to the properties of tested components and offer untested substitutes. This is why proof of testing is required from each manufacturer of major components used in fire rated assemblies.

However, because of the recognized importance of fire ratings, substitutes are frequently evaluated on the basis of this feature alone. A "good enough" comparison on the basis of fire characteristics can lead to poor performance in other areas.

The roof deck assembly shown in the sketch below can be used to illustrate such a situation.

---

**Insulperm Polystyrene Foam Board is one of the six major features of this system.**

Insulperm was developed with engineering tests and field verification to evolve an optimum configuration. Holes and slots through the board are sized, shaped, and located to create a composite system with attributes not obtainable with plain boards or boards with a few holes punched through them.

Just how poorly these possible substitutes compare to the patented properties of Insulperm is shown in the table below.

<table>
<thead>
<tr>
<th>ATTRIBUTE</th>
<th>INSULPERM</th>
<th>SUBSTITUTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roof Load Safety Factor</td>
<td>10</td>
<td>Not Tested</td>
</tr>
<tr>
<td>Class I Roof Construction</td>
<td>FM 24667</td>
<td>None</td>
</tr>
<tr>
<td>Diaphragm Design Code Acceptance</td>
<td>ICBO 3260</td>
<td>None</td>
</tr>
<tr>
<td>Seismic Tests and Design Data</td>
<td>PE Report</td>
<td>None</td>
</tr>
<tr>
<td>Shear Strength of Composite</td>
<td>461 PSF</td>
<td>Unknown</td>
</tr>
<tr>
<td>Wind Uplift Resistance</td>
<td>UL Class 90</td>
<td>Not Tested</td>
</tr>
<tr>
<td>Relative Drying Rates</td>
<td>3 Months</td>
<td>54 Months</td>
</tr>
</tbody>
</table>

If an alternate board is considered for this system, first require proof of fire acceptance in the assembly. Secondly, consider the other attributes. Insulperm will provide the composite strength, fire resistance, seismic resistance, wind resistance, insulation value, and membrane protection necessary for good roofs.

INFO LOGS prepared by SOLICO, P.O. Box 6287, Albuquerque, NM 87197 (505) 345-1633

© Zonolite and Insulperm are registered trade marks of W. R. Grace & Co.
The Introduction contains a good, concise summary of the Federal support programs and notes several of the state or local incentive programs. It fails to note, however, that New Mexico was one of the first states (I believe that, indeed, it was the first) to offer a property tax credit for monies expended on preservation and restoration of state registered historic properties (the Cultural Properties Act of 1969).

BUSINESS AND PRESERVATION is well written, the 17-case histories are presented succinctly. The book is designed to inspire other businesses to get-into-the-act. I hope that it succeeds; the combined role of federal incentives and corporate financial support holds immense prospects for the well being of our nation.

Methods and Applications, FACILITY PROGRAMMING
Edited by Wolfgang F. E. Preiser, Ph D.

Review by Min Kantrowitz

Although the field of facility programming has been advancing rapidly for the past 10 years, until recently there has been little useful, written material covering the topic. The few books that have appeared, for example, those by Pena, Sanoff and White, have presented highly individualized programming methods practiced by the authors. Examining these books, the reader does not gain an appreciation for the variety and depth of facility programming approaches which currently abounds and which is well represented in FACILITY PROGRAMMING.

SCOPE

Wolfgang Preiser has chosen a wide range of programming approaches to be included in this book. The case studies contain information collection methods which range from highly interactive, informal exchange with potential (Petronis, Pugh, and Kline) users to the use of computers as data storage banks (Lee, Chalmers and Genova). Some of the articles represent work performed by professional programming firms, who not only specialize in the process of facility programming, but also are at the forefront of developing programming theory. Other case studies indicate the types of programming engaged in by established architectural firms. The role of research in broadening the scope and expanding the methodology of programming work is discussed in the third section.

USER NEEDS

There are several important issues which are raised repeatedly in the book which deserve special attention. One of them is basically an administrative/political one -- who controls the programming process? "User-oriented" is a term used frequently, but the issue of how those users are identified and who they represent is only addressed in a few of the articles.

Agron and Moore's article, for example, addresses the issue of conflicting user needs resulting from multiple user types in a complex medical facility. Farbstein mentions the fact the he identified approximately 120 distinct user categories in the process of programming for a juvenile services center. Dluhosch discusses the myth of an 'average user' emphasizing the need for flexible design.

ISSUES

Another theme which pervades a number of the articles in FACILITY PROGRAMMING is whether the program anticipates future change. In this regard, John M. Kurtz refers to 'programming for a changing environment' and states that since the rate of change is so fast the programming process is never really complete, at least in some types of environments and organizations. In the last article in the book, Alan C. Green states "programming has reached its ultimate level of sophistication when the facilities graciously allow for change in its occupancy -- its people and process -- over its lifetime".

The variety of user participation techniques presented in FACILITY PROGRAMMING is one of the book's major strengths. Gerald Davis, for example, describes a process for adapting existing buildings to new office uses. The process begins with specifying long term needs for facilities and progresses through a highly defined series of steps, each of which includes feedback to users. Some authors support a reactive user participation strategy, in which a number of choices are presented to potential users for their review, criticism and suggestions. General discussion, environmental simulations and audio visual materials are also used to elicit client attitudes and values about proposed projects. Other approaches emphasize the participation of users in the initial generation of concepts and alternatives.

The most provocative section in the book, written by Murray Silverstein and Max Jacobson, maintains that it is not enough to do a good job researching the efficient functioning of spaces and to attempt to make places pleasant. They question the 'hidden programs' associated with some building types, namely, those assumptions which automatically imply a certain building form. Programming, to these authors, involves questioning the system which supports present institutional forms and considering a 'fundamental restructuring' of the social system which defines the need for certain building types. They ask a disturbing question -- can programming make a form which is 'fundamentally in doubt' a little more palatable to the user? Using a supermarket as an example, the authors analyze the social/political bases of the traditional building form and suggest alternatives that would reflect community participation. Interestingly, they never state how users were involved in the redesign they present, which users were consulted, or whose values are reflected in the proposed solution.

Continued on page 15
When the Spaniards entered the Southwestern United States in search of the seven golden cities of Cibola, they found a highly complex civilization. Prior to their arrival, communal societies here had advanced to the point that a number of urban-organized type communities were well established. These communities had developed from crude, small groupings into an urban pattern. After basic improvements in agricultural techniques, which allowed a higher population density, climate changes resulted in major population shifts. Large population groups abandoned sites which had been occupied for hundreds of years, and formed new ones in locations where the water supply was more dependable.

The tenth century seems to mark one of several significant population movements and major cultural changes in the southwest. Reasonably accurate dates have been established by dendrochronology (tree ring dating), which have been further supported by pottery dating techniques. It is probable that a change in winter/summer storm patterns made earlier agricultural arrangements not workable to feed the fairly large populations that had resulted from successful farming. Water run-off was controlled and diverted to a limited degree by the development of irrigation technology, using small dams which were the beginnings of irrigation here. The food supply-population balance seemed to indicate a time of stable plenty. Defensive features were not found in these earlier times. Later, as poorer or less fortunate neighbors encroached from other areas and competition for the available food became more intense, defensive features in the construction did appear.

During the Eleventh Century, another reversal of the winter/summer storm patterns caused a protracted drought and disruption of the farming activities. The short food supply made necessary major moves in many parts of the southwest to more dependable water and food supplies. A fact that puzzles most researchers of this time is the apparent willingness of these people to pack up and move, leaving behind homes that represented an enormous expenditure of labor for many centuries in some cases. We must remember that these people had no pack animals, or even the wheel, so that all that had to be carried was on one's back. Undoubtedly, they had no choice. Looking back in history tends to foreshorten our view, and it may not have been a sudden mass movement, but occurred over a period of fifty years or more.

A look at the details, the nuts and bolts so to speak, of their planning and building techniques makes an interesting comparison to our efforts in this direction today. There were many similarities, and these forebears lived in much closer tune with their environment than we do today.

VILLAGE PATTERNS

Most communal settlements followed a pattern of either linear or circular development. (Figure 1) The choice may well have been determined by the topography of the site. Patterns for both included house blocks on various levels, creating terraces which were used for most work activities, which were protected from the prevailing winds and collected sun warmth. Most room spaces were quite small, perhaps mostly for storage, sleeping, and bad weather. Most of these patterns seem to recognize the value of solar heating effect. An excellent example of this is found at the ruin at Tuonyi. It is situated in the bottom of a narrow, high walled canyon, but is still in full sunlight at all times of the year. (Figures 2, 3)

The "Old North Ruin" at the Pecos site is of particular interest. It was first occupied about 1000 A.D., reached its peak development about 1250 A.D. and was in full development when the Spaniards arrived in 1540. Changing times forced its abandonment in 1538. It was the major pre-Spanish settlement on the route between the river settlements and the plains people. It was a multi-storied, linear village, built on a defensive ridge, enclosing a rectangular plaza.

WALLS

The walls of the buildings were built of whatever was at hand: mud, rocks, and wood. Most common was stone, mortared with mud. The stone masonry was at first very simple, the rocks being used as "fillers" to construct an essentially mud wall, but
evolved into a very skilled craft over a period of several hundred years. (Figure 4). Puddled mud walls were also common, where stone was not readily available. It was placed in courses as a liquid or plastic mix until the desired wall height was reached. It was also used as a mud "concrete", where forms may have been used. (Figure 5). Wood posts and sticks were used sometimes as reinforcement, or even as the basic wall fabric which was plastered with mud. In every case, the simplest material which was close at hand was used. The soft tufa cliffs of the Pajarito Plateau offered a unique possibility which was used to the fullest. The naturally occurring caves could be easily expanded, and the supply of soft stone at the base of the cliff supplied masonry materials to build outward from the cliffs. (Figures 6,7). Little attention to foundations seems to have been given, the builders merely leveling off the site (usually of previous structures) and starting up with the walls.

DOORS

Except for the earliest settlements, where defense did not seem to be of importance, doors were not normally found on the lower levels. In some instances, entry was through the roof, using ladders. As the pueblos developed, particularly into multi-story, terraced structures, this pattern provided defensive walls on the ground level, with protected terraces above. Doors were used in the upper levels, hatchways providing access to rooms below. The Pecos pueblo had no doors on the lower levels, used removable ladders to terraces and corridor terraces above which were roofed over with porches. These offered free movement all the way around the whole area over the lower levels. Many of the hatch-

Fig. 1. Old Pecos Pueblo, N.M. An artist's conception of what it was like at the height of its development when the Spaniards arrived. Note the few openings on the lowest level. Ladders were used to gain access to the upper levels, which could be removed.
ways to lower rooms used a “pintle” type hinge. The “pintle” hinge is one that uses an extension of the door rail inserted into a socket so that it may pivot.

Little evidence remains of what material was used for doors. It was most likely cloth or animal skins. In some instances the door frame was recessed to receive a stone slab, complete with loops on each side to hold a wooden bar, for keeping the slab in place. It seems more likely that such an arrangement would have been used for more secure storage than a daily use. It has been suggested that a major trading commodity of the time was slaves. Such a secure door would have been ideal for confining them. Another special form of doorway is found repeatedly in different sites. This is the “T” doorway, the purpose for which has never been satisfactorily explained. (Figure 8). Several theories have been advanced as the reason for this shape, ranging from religious tradition and ceremonial costumes to a ventilation device. The smaller lower portion of the opening could be easily closed to reduce floor drafts, the upper part being left open for the carry off of the smoke from fires, this pattern would provide a neat “transom”. The carefully planned ventilation systems provided a mixed blessing however, because when a fire occurred the ideal draft increased the damage. Windows, as such, were virtually unknown at this time, except for small openings, probably more for ventilation than light. This would also reinforce the theory that most activity took place out of doors.

ROOF STRUCTURES

The principal roof structure system was one using tree timbers to span the walls, sometimes additionally supported by posts. The beams were decked over with smaller timbers, the joints between packed with bark or woven material, and then topped with mud to form a floor or roof. Lintel beams in the walls were also sometimes used, indicating that the packed mud walls would not always support the roof beams.

STAIRWAYS

The idea of stairways, as we think of them was apparently known, but not common. Some steps were utilized from portions of walls, but more often by means of ladders, which could be moved. The extra long rails at the top of the ladders make a convenient support as you mount the ladder, an idea that has become lost to our modern ladder patterns. (Fig: 9).

FLOORS

Packed mud was the principal floor material used at this time. They tend to abrade and become dusty, but can be easily renewed by sprinkling with water. Some sites, and certain rooms made use of flagstone for flooring, perhaps in areas of heavy traffic. An interesting feature of some of the Pecos floors was the cove treatment at the wall junction. Mud was placed and smoothed where the wall and floor joined, making an easily cleaned corner, just as we do with linoleum today.

DECORATION

The decoration of architecture during this time seems to have been minimal. Most evidence shows that colored mud was used for murals and decoration. As it is vulnerable to moisture and rain, most original decorations have been destroyed by time. Some examples have been found that were covered by collapsing walls, and thus protected. The most common treatment was a gypsum plaster wash. As there was little natural light from windows, and the smoke covered most surfaces with soot, the walls were repeatedly covered with a thin layer of gypsum. This has been found in as many as twenty layers, indicating that these people were good “housekeepers.” Petroglyphs, patterns incised on rock surfaces, are common, perhaps for purposeful decoration, or perhaps just “doodling”.

TOOLS

Most of the tools in use at this time were of stone. Undoubtedly other materials were utilized, but the stone remains. These people had learned to classify different types of stone as to its workability and hardness, using certain types of stone for certain purposes. Various types of stone were also trade items, as some types were found far from their nearest known source. Stone axes were designed for different purposes, from wood cutting to stone dressing. Knives were made from flint or chalcedony by percussion or pressure flaking. These can be made rapidly, and are easily re-sharpened with a minimum of work. Hammer stones pulverized grain and seeds. Smoothing and polishing stones, of velvety finish, for pottery and clay surfaces may have been prize possessions. Stone files and abrading stones for grinding and polishing wood were also common. Arrow shaft straighteners and holes for sizing bone

Continued on page 14
Fig. 3. Tuonyi Pueblo was multi-storied on the North side, offering work terraces exposed to the South sun in the winter.

Fig. 5. Casa Grande National Monument, Az. Lacking stone, these Hohokam builders built a magnificent structure using only mud.

Fig. 4. Display, Visitor Center, Chaco Canyon National Monument, N.M. The development and evolution of stone masonry techniques is clearly shown, the earliest at the bottom.

Fig. 6. Frijoles Canyon, Bandelier National Monument, N.M. The soft tufa cliffs had many natural eroded openings which could be easily enlarged. The smoke blackened interiors were repeatedly plastered with gypsum.

Fig. 7. Puye Cliffs, Bandelier National Monument, N.M. The pieces of soft stone found at the base of the cliff could be easily shaped to form usable building blocks, which extended the cave shelters.
awls were quite ingenious. Metates and Manos (flat stone grinders) were common for each household, and were frequently broken and discarded from the large quantities found. These were used not only for food grinding, but for the grinding of gypsum for plaster and pigments for color for decoration and cosmetics as well.

The key to the selection of building materials at this time was availability, simplicity, and maximum utilization of what was close at hand. Our modern construction technology might well be modified by the ideas of these people, who had little in terms of modern measurement, but made do handily with what they had.

P.G. McH., Jr.

Fig. 8. Gila Cliff Dwelling National Monument, N.M. The “T” doorways were a common feature in most areas of the southwest in pre-Spanish times. The purpose of this shape has been subject to much speculation, but an obvious conclusion is that the smaller lower part was easily blocked, allowing the upper part to serve as a transom, for ventilation.

Fig. 9. Shupalovi, Az. A drawing made at the time of Mindeleff’s work in the Annual Report of the Bureau of Ethnology 1886-1887. Wall steps and ladders offer easy access to upper levels. The overhang at the upper left serves as a parapet to control rain run-off, and perhaps sun control as well.
COMMENTARY
Like most edited books, FACILITY PROGRAMMING has some repetition and some inconsistency. The organization of articles into three parts (it follows the three basic professional affiliations of the authors rather than subject matter) lacks some clarity. Despite these MINOR FLAWS, FACILITY PROGRAMMING represents a good overview of the state-of-the-art (and science) of programming. The graphics are clear and they appropriately illustrate the content. The range of user-oriented programming methods the book presents is impressive. Anyone who is interested in the field of programming, especially design professionals and educators, will find this book both interesting and pertinent. It is not only useful now as a timely and representative collection of case studies, but it promises to be a noteworthy reference work in the future for practice and teaching.

M.K.
Over 20 Years’ Experience
• Storefront Construction
• Curtain Wall Erection
• Automatic Door Sales & Service
• Glass & Glazing
• Builders’ Hardware

Call Us for Your Section 8 Needs
I

BUILDERS BLOCK

Members:
New Mexico Concrete
Masonry Association
National Concrete
Masonry Association

Quality Concrete Masonry Products
and many allied building materials.
Serving New Mexico and West Texas
for over a quarter of a century.

P.O. Box 1633
Roswell, NM 88201
505/622-1321

P.O. Drawer FF
Las Cruces, NM 88001
505/524-3633

Telephone
El Paso
915/532-9695

Congoleum

FLOR-EVER

COMMERCIAL VINYL FLOORING

TRAVERTINE

Travertine is commercial flooring at its best...designed like no other floor
to meet the changing commercial needs and demands, including virtually
seamless installations in most applications. Here is a beautiful and delicate
reproduction of a natural material...reproduced as never before. Travertine has
a subdued background and a seamless tile effect that sets it apart from tra
ditional commercial flooring. Available in 9’ and 12’ widths and 12 color choices.

A MAXIMUM-SECURITY DOOR
SHOULDN’T MAKE YOUR HOME
LOOK LIKE A PRISON.

That’s why Pease invented the
Security 3 door system. A complete
system that starts with a heavy-gauge
steel door, then adds three deadbolts —
top, middle, and bottom. So no one can
spring the latch. Plus three frame
reinforcing plates to help prevent
jamming. And self-locking hinges
designed so pulling the pin still won’t
let anyone pull the door out of its
frame. Impressive, isn’t it?
Beautiful, too. Security 3 is available
in over 40 Pease Ever-Strait door
configurations. To complement any

home, apartment, or office.
One key opens all. That’s right, a
single key will let you in. While on the
inside a turn of the thumbturn or
inside knob will release all three
deadbolts.
Ask your Ever-Strait distributor for a
demonstration, you’ll be impressed.
Then, why not use it as a security sales
feature on your next project.
Pease Company,
Ever-Strait Division,
Fairfield, Ohio 45014

Pease

Ever-Strait

Door Systems

INSULATED ENTRY SYSTEMS, INC.
3800 Academy Parkway South, NE
Albuquerque, New Mexico 87109
Phone (505) 345-8691

NMA March-April 1979

17
ALBUQUERQUE TESTING LABORATORY....
TO BE SURE!

SUBSOIL INVESTIGATIONS
PHYSICAL TESTING
INSPECTION
RESEARCH
WELDING CERTIFICATION
NUCLEAR DENSITY
LABORATORY ANALYSIS AND EVALUATION OF CONSTRUCTION MATERIALS

ALL WORK DONE UNDER SUPERVISION OF REGISTERED PROFESSIONAL ENGINEERS

532 JEFFERSON, N. E.
ALBUQUERQUE, NM
P. O. BOX 4101

PHONE 255-8916 or 255-1322

Acrylic Construction Sealant Poly Film Polycarbonates Skylights
plastic supply & fabrication 3267 Candelaria NE 345-6681

Being in hot water takes on a whole new meaning.

Plasco, Inc.
2508 Monroe N.E.
Albuquerque, New Mexico 87110
505-256-9883

INDEX OF FIRMS who make possible the publication of NMA and the page upon which their message may be found:

Albuquerque Gravel Products Co. 16
Albuquerque Testing Laboratory 18
Aluminum Sales Corporation 6
American Business Interiors 15
Aztec Tile and Carpet 4
Builders Block 17
Cook’s Building Specialties 18
Crego Block Co. 2
Featherlite Block Co. 16
Hydro Conduit Corporation 20
Insulated Entry Systems, Inc. 17
Kohler insert
Lath and plaster Supply Co., Inc. 15
McGill Stephens Trus Joist Corp. 4
Mason Contractors Assn. of N.M. 5
New Mexico Marble & Tile, Inc. 19
New Mexico Paint Mfg. Corp. 15
Plasco, Inc. 18
Plastic Supply & Fabrication 18
Santa Fe Lumber 6
SOLICO 8
Southwest Glass & Glazing, Inc. 16
Stanley Structures center spread
Stryco Sales, Inc. 17
David Sullenberger Architectural Photography 19
Wellborn Paint 19
Western Drywall Co. 19

net new mexico architecture nma
Published bi-monthly by New Mexico Society of Architects, American Institute of Architects, a non-profit organization. Editorial Correspondence should be addressed to John P. Conron, Box 935, Santa Fe, N.M. 87501. (505) 983-6948.
Editorial Policy: Opinions expressed in all signed articles are those of the author and do not necessarily represent the official position of the publishing organization.
Additional copies of NMA available from John P. Conron FAIA/FASID, P. O. Box 935, Santa Fe, N.M. 87501.
Change of address: Notifications should be sent to New Mexico Architecture, 401-C Val Verde, S. E., Albuquerque, N.M. 87108 (505) 265-7010 at least 45 days prior to effective date. Please send both old and new addresses.
Advertising: Send requests for rates and information to New Mexico Architecture, Flora & Company, P. O. Box 8263, Albuquerque, N.M. 87198. (505) 266-3637.
Printed by Halt-Pearlbaunh Press, Inc., Roswell, New Mexico

Published bi-monthly by New Mexico Society of Architects, American Institute of Architects, a non-profit organization. Editorial Correspondence should be addressed to John P. Conron, Box 935, Santa Fe, N.M. 87501. (505) 983-6948.
Editorial Policy: Opinions expressed in all signed articles are those of the author and do not necessarily represent the official position of the publishing organization.
Additional copies of NMA available from John P. Conron FAIA/FASID, P. O. Box 935, Santa Fe, N.M. 87501.
Change of address: Notifications should be sent to New Mexico Architecture, 401-C Val Verde, S. E., Albuquerque, N.M. 87108 (505) 265-7010 at least 45 days prior to effective date. Please send both old and new addresses.
Advertising: Send requests for rates and information to New Mexico Architecture, Flora & Company, P. O. Box 8263, Albuquerque, N.M. 87198. (505) 266-3637.
Marble Quarry Tile
Monarch Tile
Terrazzo Floors
Dex O Tex Floors

New Mexico Marble & Tile Inc.

2500 2nd SW
P.O. Box 25566
Albuquerque, NM 87125
(505) 243-1771

763 Cerrillos Rd.
Santa Fe, NM 87501
(800) 432-8655

Acoma Laguna Canoncito
Health Facility
Stevens, Mallory, Pearl & Campbell

DAVID SULLENBERGER
ARCHITECTURAL PHOTOGRAPHY
BOX 1628 LAS CRUCES, NM 88001 (505) 522-5200

Wellborn paint
The southwest's leader in architectural coatings
Made for our climate!

Western
DRYWALL COMPANY

416 LOS ARBOLES, NW
505 345-6517 / 344-7249
ALBUQUERQUE, NM 87107

- METAL STUD FRAMING
- ACOUSTICAL TILE
- INSULATION
- DRY WALL
- EXTENSIVE INVENTORY AVAILABLE AT ALL TIMES
Whether in shape....

or in texture....

can be best expressed in Architectural Pre-Cast

American Bank of Commerce
200 Lomas N. W.
Albuquerque, NM
Architect: W. C. Kruger & Assoc.
Structural Engineer: Robert D. Krause Engineering Co.

Mountain Bell Central Office
at
3315 San Mateo N. E.
Albuquerque, NM
Architect: Long & Waters
Structural Engineers: MacCornack & Burns