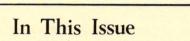


By Frederick Herman, AIA

ESTORERS OF OLD HOUSES often fall victim to one particularly subtle error: Selecting the wrong materials. This is especially true when working on exterior brickwork and other types of masonry. The consequences of error can be quite serious ... and the full impact won't be noticed for several years in some cases. Few newcomers to old houses seem to realize that what might appear to be a fine job of brickwork repair can do <u>more damage</u> over the long run than the repairs supposedly accomplished. This is especially true for structures and masonry dating from before the 1870's.

deteriorates. When you introduce new materials into a masonry wall you are changing the way that particular section will age and move in response to changes in the weather and temperature. These differences in rates of expansion and contraction can set up stresses that will wreak havoc over the years. Selecting the wrong material today will assuredly bring its day of reckoning tomorrow.

"ODAY'S MASONRY MATERIALS re quite different from those used in the past ... especially the mortars.



Marbleizing	
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Plan For Community Preservation12	
Pre-1840 Antique Hardware	

Coming Next Month

WILLIAM MORRIS, QUEEN ANNE AND SUNFLOWERS

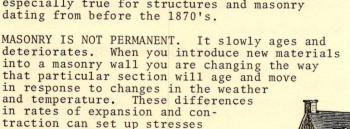
MORTARS USED IN EARLY CONSTRUCTION, disregard-ing clays, were basically "soft" lime mortar, i.e., a mixture of lime and sand. Such mortars often contained substantial impurities, were poorly mixed, and proportions of ingredients varied substantially. The result was a weak mortar.

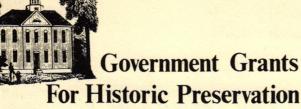
ORKMANSHIP in old masonry walls often is poor. In the interior of walls, party walls, and other areas that did not show, the early masons often threw the materials together...with the bonding of brick and mortar being strictly problematical. In addition, the bricks themselves were often very soft-approaching the quality of unburnt clay. Adding further to the softness of old brickwork is the fact that over the decades the lime will slowly leach out of the mortar. To compensate for lack of quality, the early masons substituted quantity-

in the form of thick walls.

THE END RESULT was a brickwork mass that was fairly plastic. Stresses caused by shifting foundations, changing loads, etc., could relieve themselves by movements within the wall itself. It is not unusual today for one to sim-ply pull bricks out of an old wall by hand and find that

(Continued on page 6)





EDERAL GOVERNMENT FUNDS are available to private preservationists. Unfortunately, 2 the amount of money allocated yearly falls far short of what is required to preserve our architectural heritage.

IN THE CURRENT FISCAL YEAR, 20.3 million dollars is available in matching grants. The grants are administered by the National Park Service for the Department of the Interior under the National Historic Preservation Act of 1966. Under this Act, funds are also al-located to the National Trust for Historic Preservation, a private organization chartered by Congress, that owns and maintains historic properties and assists public and private agencies in historic preservation.

THE FACTORS INVOLVED in obtaining a grant are the urgency and need for the money, the avail-ability of funds in individual states and the ability of the petitioner to maneuver through the labyrinth of State and Federal bureaucracies.

THE ACTUAL FUNDS are granted by the State. The site being developed or acquired must be on the National Register (explained on page 2 of the Dec. 1974 issue of The Journal).

THE PROJECT MUST BE IN ACCORD with the State's historic preservation plan as approved by the Dept. of the Interior. Since the individual states will vary in their qualifications, it is difficult to give specific guidelines and the preservation group will need to discuss this with the State Officer. Rhode Island, for example, granted \$40,000 to help private owners acquire and restore the Israel Arnold House, an isolated 18th century farmhouse in a state of advanced deterioration.

OWEVER, NOT VERY MUCH MONEY has been going to the private restoration sector. For instance, in New York State, \$800,000 For has been allocated to private preservationists since the program's inception. However, \$17 million was approved by the State and re-quested from the Dept. of the Interior.

WHILE THE PROGRAM is a basically sound one, it has always been starved for funds. But the enormous backlog of worthy requests in Washington should not keep anyone from applying. The petitions are re-evaluated every year on the basis of merit, and worthwhile projects should be made known to State and Federal officials.

ANYONE CONCERNED with the preservation of our architectural and cultural heritage should write their Congressman expressing their concern and hope that the program will be funded sufficiently to meet the urgent need for preservation throughout the country.

THE OLD-HOUSE JOURNAL

Published Monthly For People Who Love Old Houses

Editor

R. A. Clem Labine **Carolyn Flaherty** Paul T. McLoughlin

Circulation Director

Decorative Arts Editor

Circulation Assistants Joan O'Reilly Gerard McGuire

Midwest Editor

Contributing Editors

Anne Flaherty

Martin M. Hechtman James R. McGrath **Claire Wood**

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Government Publications On Preservation Programs

A PACKET OF FOLDERS, titled "National Park Service Preservation Programs" is available from the National Park Service. It contains: "The National Register Of Historic Places" with a listing of the State Liaison Officer in each state; and folders on "National Park Service Archeological Program," "The Historic Landmarks Program," and "The Natural Landmarks Program." The packet is 50¢.

Also available is a folder on "National Environmental Education Landmarks Program," 10¢. Both are obtained from: Superinten-dent of Documents, U.S. Government Printing Office, Washington, DC 20402.

For information about these programs, or to write directly for the address of an individual State Liaison Officer, address inquiries to: Director, National Park Service, U. S. Department of the Interior, Washington, DC 20240.

Notes From The Readers... **Protect Us From Our Winged Friends**

To The Editor:

Is there any way to get rid of bats and keep them out of the house? G. Martin Sleeman Rome, N.Y.

To The Editor:

What do you do about pigeons who love to nest in roof cornices and overhangs? Dan B. Wexler, Jr. Johnson City, Tenn.

We Brooklyn brownstoners don't have too much experience with flying fauna. Anyone have suggestions for our beleaguered brethren? --Ed.

Dual Personality Saves 1836 Greek Revival



By Claire Wood Labine

FREQUENTLY AN OLD HOUSE SURVIVES in simplest Darwinian terms: It demonstrates a capacity to change and grow and adapt to the demands of successive owners. Sometimes in the process of adaptation, however, the house cannot withstand the "improvements" visited upon it by remuddlers—and while the shell is saved, its soul is lost. Happy the house that falls into the hands of owners sensitive to its original design and personality, so that while they ask even further accommodation of the structure, they simultaneously work to restore its original harmony. Such is the good fortune of the dramatic Greek Revival house in New Canaan, Conn., now serving a dual function for its owners—Sandra and Richard Bergmann.

DICK BERGMANN is an architect and Sandra is his associate in their architectural firm. He is the restoration architect on the Winder Building in Washington, D.C., and the Bergmanns are energetic members of a variety of restoration/ preservation groups. They had spent six years renovating a dilapidated 1840 horse barn-door-



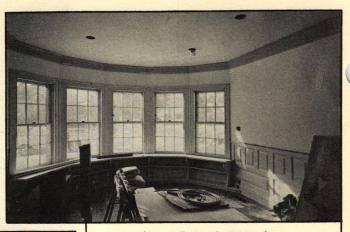
When this 1869 photo was taken, house had become a genteel boarding house and additions made to back to increase capacity. Also added: Dormer in Gothic Revival style. knob factory-artist's studio into a showcase home in Silvermine, Conn. Therefore, when they set out to find a building for their architectural offices, and a real estate agent showed them the semi-derelict in New Canaan, Dick was perfectly aware of what lay ahead should they undertake its restoration. So was Sandy. She took one look and fled in tears!

BUT THE HOUSE HAUNTED RICHARD. He returned again and again over a ten-day period, letting himself in through a broken cellar door, pacing the grim, battered, garbage-strewn rooms. He knew that in order to justify its purchase and restoration, the house would have to pay its own way by becoming both office and home. Could it harmoniously accommodate the Bergmanns' professional and private lives? Dick decided it could; Sandy gamely reconsidered. They sold the house in Silvermine and gave themselves to the house on Park Street.

THE HOUSE WAS BUILT in 1836 for the widowed Mrs. Clarinda Fitch Ayres and her bachelor brothers—descendants of 18th century Connecticut settlers. The house served as a private home and then genteel boarding house until the turn of the century. It was sold by Mrs. Ayres' daughters and became the home of one of the first New York-New Caanan commuters. In 1919 the house became the New Caanan Country Day School. And then in 1924 the house entered upon an era of considerable sophistication when it became the home of Mr. and Mrs. Maxwell Perkins and their five daughters.

PERKINS, senior editor at Charles Scribners and Sons, discovered or edited some of the greatest names in American literature: Scott Fitzgerald, Ernest Hemingway, Ring Lardner and Thomas Wolfe among others. Many of these writers visited Perkins in his New Caanan house...including Thomas Wolfe. Since it is known that Perkins personally supervised the burning of hundreds of excess pages of Wolfian prose, it is reasonable to assume that their ashes floated out of the chimneys of



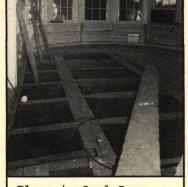


Rear of house shows a variety of additions made to the structure during the 19th century. Victorian bay window, with decorative shingling beneath cornice, gives distinctive shape to the "Oval Room." It was built sometime between 1878 and 1900.

63 Park Street. But when the house passed out of the hands of the Perkins family, it fell upon hard times. When found by the Bergmanns, it was a muchabused downtown rooming house with an absentee landlord. Better times were ahead.

S ANDRA AND DICK left the vast majority of their furnishings with the house in Silvermine,

put a few antiques in storage, and moved in with their favorite plants and a minimum of personal possessions in cardboard boxes. They cleaned out one room and turned it into Spartan living quarters-with mattresses, an electric hotplate and a small refrigerator. The first objective was to render the house structurally sound; the second was to complete the renovation of the basement floor offices. This was accomplished within the first six months, and the restoration proceeds upward.

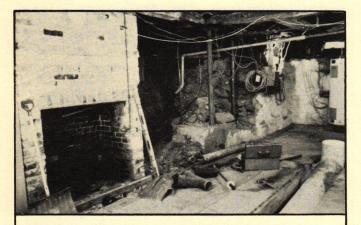


Floor in Oval Room had to be taken up to correct hump in floor caused by house settling onto rock ledge. Interior of Oval Room has been completely replastered after floor repairs. Bookcases under windows were added in 1919 when house served as a school. Also a dining room in the house's boarding house era, room will soon be Richard Bergmann's personal office.

HE HOUSE PRESENTED many struc-tural nightmares. Typical was a pronounced tilt to the floor on the first level. Trouble was traced to badly rotted joists and support posts-caused by plumbing that had been leaking for many years. Rather than fix the pipes, previous occupants had simply shoved more wooden supports under the floor. Massive replacement of floor joists plus judicious placement of steel lally columns was required.

THE BERGMANNS have carefully preserved those additions to the original Greek Revival design that are graceful and part of the organic growth of the house, such as the dormer with its Gothic Revival influence and the Victorian bay window with its Queen Anne style shingles.

DICK SET ASIDE A FORMER BOARDING HOUSE kitchen for his shop, and it was there that he did



BEFORE: Fireplace on basement level had been walled up. New lally columns in background were needed to shore up sagging floor. Heating duct is in right foreground.



AFTER: Original fireplace is now focal point in Bergmanns' architectural office. Curving hand rail on the spiral staircase was hand-carved by Richard.



BEFORE: Portion of side porch had to be removed to make room for the architectural offices on the basement level.



AFTER: Drafting room area of office is dominated by large arched window that skillfully blends new with old.



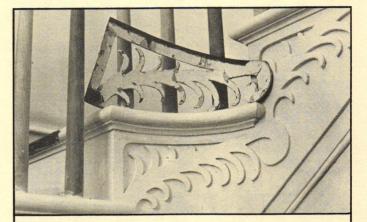
Front entry is being completely restored. Door and surrounding lights are original. Stair rail had to be re-constructed.

much painstaking work in the restoration of the main staircase. The badly sloping treads were levelled. Balusters had been warped, broken and chewed by animals...all damaged ones were replaced. Dick made a new handrail, with a graceful scroll crowning the original newel post. He carved the rail from the exact specifications published in Asher Benjamin's <u>American Builder's Companion (1827)</u>—a book of plans and patterns used by the original builder, Hiram Crissy, in 1836.

MUCH of the area over the main staircase had been floored over to make room for an additional kitchen in the boarding house. The Bergmanns cut out all of the flooring-come-lately and added a skylight over the stairwell. The sweep of the open space plus the light streaming down from overhead restores the drama that the main entry had when Mrs. Ayres first set foot over the threshold 139 years ago.



BEFORE: On 2nd floor, two bedrooms are being combined into one large living room. Plaster and woodwork had to be totally replaced.



Original decorative brackets on curve in stairway were made of leather to accommodate the bend. (One of the originals is shown propped on the stair.) Missing pieces were duplicated by laminating 1/8" poplar.



AFTER: Woodwork is authentic re-creation of the original. Richard made mouldings for mantels and re-set the hearths himself.

The Old-House Journal

(Old Brick-Cont'd from p.1)

the mortar has disintegrated —the lime having leached out leaving the bricks resting on sand. The bricks them-



selves will often have returned to a sort of clay-like consistency...or have crumbled into pieces. If one is not familiar with old masonry, confronting such a situation can generate a real panic...the sickening fear that the whole structure is about to come tumbling down.

The Peril In Portland Cement

T THIS POINT, RESIST AT ALL COSTS the temptation to run out to buy some modern mortar (premixed or otherwise) and some new bricks to quickly patch things up. If you do, you have just bought yourself some trouble for the future. No immediate action is required. What is needed far more is a thorough analysis of your particular problem. That old wall has been standing for a good many years...and it is highly unlikely that it is going to pick this moment to collapse. If your nerves are rattled, some judicious shoring will win additional time and give you peace of mind. Use this time to get expert advice.

THE TEMPTATION TO USE CONTEMPORARY MATERIALS such as portland cement mortar and modern hard burnt bricks will invariably lead to further trouble. Portland cement is a dense, unyielding material. When combined with modern bricks (for which it is well suited) it results in a rigid, inflexible wall. While this is fine if the wall is composed entirely of these materials, it is disastrous of these hard materials are mixed in with the old soft mortar and bricks.

THE NEW MATERIALS, due to their much greater strength, will not yield and give way to adjust to changing stresses like the old. New stress patterns will be created within the masonry and these will act most violently at the weakest point in the wall—which will be in the old brickwork. You will have patched one crack only to find that you have gotten two new ones.

N EXTERIOR SURFACES exposed to the weather, the new hard materials will weather at a much slower rate than the old. In extreme cases, there are records of old masonry being eaten away as much as 1/8 in. per year in areas of high pollution and rapid changes in temperature and atmospheric conditions. In such situations, the hard new bricks and mortar will not budge. The repaired masonry may end up as a wall decorated with a network of projecting mortar joints.

SIMILARLY, great caution has to be exercised in trying to repair old stucco or in trying to build up the surface of spalled stonework. The new portland cement coating will be a rigid surface, with an entirely different rate of expansion and contraction than the area to which it is applied. This new surface, thick enough to have strength of its own (and this can be as little as $\frac{1}{4}$ in. or less) can literally rip off the face of the old work to which it has been applied.



Tips On Pointing



IN REPLACING DETERIORATED MORTAR, here are a couple of other tips: (1) Remove old mortar to depth of 1 in. with hammer and cold chisel. Carbide wheels will damage the old bricks; (2) Flush particles from joints with garden hose; (3) Experiment with trowel and jointing tool to see which gives best physical match with shape of old joint. A tooled joint is the most watertight and gives best bonding. Remove excess mortar from bricks with stiff scrub brush.

THE BOND BETWEEN NEW CEMENT STUCCO and the old work will be subject to great stress due to differences in rates of expansion and contraction. Result: The older, weaker surface will give way. Examination of pieces that have broken off will usually reveal fragments of of brick, mortar and stone that the new stucco pulled off the old wall. Aside from temporary cosmetics, the new stucco has set up a situation that aggravated the very problem that was to have been corrected.

EWARE OF ANOTHER TRAP: Color. There is a natural inclination to try to match the color and appearance of the new work to the old. For all intents and purposes this is impossible. Duplication of the effects on surfaces and color wrought by 100 years or more exposure to weather, soot and plain old age just can't be achieved outside laboratory conditions.

EVEN IF THE OLD MORTAR IS MATCHED EXACTLY in composition, the new mortar would look radically different if only because it's clean. Here the only answer is patience...letting the toll of time and nature blend the old and new. Or else resort to some temporary form of surface tinting. At all costs avoid using color within the mortar itself. A colored mortar will provide a match—but only for the moment. The aging process will soon emphasize the inherent color differences that exist between the old and new. Instead of matching colors, you have actually placed side by side two substances of inherently different color characteristics, which age will only emphasize.

VEN WORSE is the desire "to make it all look like it was originally." This usually means that everything will be made nice, clean—and ruined—by sandblasting. Sandblasting is the best method invented to ruin old brickwork and shorten its life. Did you ever see a glazed header after sandblasting? No glaze left! Sandblasting will cut right through the outer face of brick and mortar to expose the soft underbody.

REMOVING THE OUTER SKIN of old bricks makes them more vulnerable to atmospheric attack. Too, porosity is increased and the bricks absorb more water. Damp walls might be an unwelcome after-effect. Sandblasting will also change the color of a wall. The interior body of a brick is almost invariably a different color than the outer skin that was exposed to the heat of the firing process. Claims that problems resulting after sandblasting can be solved with coats of sealants have to be taken with skepticism. Sealants are at best of a temporary nature and are of unproven durability over the long term.



When You Are On Your Own



F COURSE, the real question is what do you DO when confronted with a masonry wall that needs repair. The preceding wall that needs repair. Ine preceding discussion has convinced you, hopefully, that the best thing is to consult an expert with experience in old masonry and the materials used. Even experts will disagree about certain details, however, because every old wall presents its own unique set of problems.

IF THERE ARE NO EXPERTS AT HAND, a careful examination of the old masonry may yield enough data for you to proceed on your own. First problem is to determine the type of mortar already in the wall. Lime mortar is soft and will crumble in your hand with a little pressure. It will disintegrate in water, with the lime leaching out. Portland cement mortar by contrast is hard and will not crumble; rather it cracks under stress. It will not dissolve in water.

LIME MORTAR derived its color from the sand that was used. You can tell a great deal about the sand by inspecting the particles that settle out after dissolving a sample in water. Portland cement mortars, on the other hand, are varying shades of gray (white portland cement is a comparatively recent innovation). Close inspection will also tell you a great deal about the color, hardness and porosity of the bricks in the wall.

Mixing And Matching Mortar

EXT STEP IS TO GET A GOOD MASON and tell him what you found and instruct him to match things as closely as possible. If you have a mason who is inexperienced in working with old masonry-or if you have to proceed on your own—the safest course is to select materials that are as close as possible to that which is being repaired. In the case of bricks, this means reusing as much of the old brick as possible. Where you have to replace deteriorated bricks, and can't scavenge enough from the old wall, try to find other old brick from the same period of suitable color and size. In a pinch—and with some dif-ficulty—contemporary handmade brick can be obtained that approach the old both as to color and consistency. This is a costly alternative.

TO DUPLICATE old lime mortars, the following is a frequently used formula that will yield a soft mortar...but is easier to work with than the original pure lime mortar. Mix one part portland cement by volume with 3 parts hydrated lime by volume. Add 3-5 parts by volume of sand to one part of the cement-lime mixture.

For More Information

THE FOLLOWING SOURCES will give more detailed information about old masonry and will also refer you to other works dealing with the subject:

 Introduction to Early American Masonry, by Harley J. McKee, F.A.I.A. This is an excellent 92-page softcover book covering the history, maintenance and restoration of stone, brick, mortar and plaster. It covers the period prior to 1860. Book is available for \$5.00 from The National Trust for Historic Preservation, 740 Jackson Place, N.W., Washing-ton, D.C. 20006.

 Restoring Brick and Stone, by J. C. Thomas. A helpful 8-page pamphlet, this booklet has a number of very practical pointers on procedures for repointing old brickwork. Technical Leaflet #81 is available for 50¢ from The American Assn. for State and Local History, 1315 Eighth Avenue South, Nashville, Tennessee 37203.

• SPNEA-APT Conference on Mortar, by Morgan W. Phillips. Bulletin of the Association for Preservation Technology, Vol. VI No. 1, 1974. Available through APT, Box 2682, Ottawa 4, Ontario, Canada.

A SKILLED MASON is definitely the best person to mix the mortar and lay the brick. He knows how to handle such matters as width and shape of mortar joints, racking of the courses, and related problems. He will also make sure the whole thing doesn't collapse while he is working on it.

STUCCO REPAIRS are definitely not a do-it-yourself project. Minor stucco patching can be done by using a stucco formula similar to the lime mortar mixture outlined above. Old stucco, however, got its color and texture from the coarseness of the sand. Various additives such as horse hair were not uncommon. These are hard to match. In addition, stucco work often involves large areas that require cleaning, scaffolding, etc. This is beyond most homeowner's capabilities.

HOPEFULLY THE POINTS DISCUSSED HERE have convinced you that masonry repairs require longterm solutions. It's a lot more complicated than putting on a new coat of paint.

Frederick Herman, AIA, is a partner in the architectural firm of Spigel, Carter, Zinkl, Herman in Norfolk, Va. Besides his extensive professional involvement with restoration, Mr. Herman also serves as Chairman of the Virginia Historic Landmarks Commission.

Fancy Painting I



8

T HE JOURNAL DOES NOT NORMALLY ENCOURAGE the use of materials that attempt to deceive the eye—for instance, plastic panelling that tries to look like wood. However, there are a number of 18th and 19th century painting techniques that are interesting because of their historic and practical use. They are an authentic method of decorating the old house and can give it added color, variety and texture, as well as being inexpensive.

MARBLEIZING AND SCAGLIOLA were neo-classical fashions popular in 18th century France and England. Usually done by expert craftsmen, they were an architectural trompe-l'oeil, valued as much or more than the original marble because of the art of the deception.

MARBLEIZING USED PAINT TO simulate the appearance of marble. Scagliola was a more complicated technique using a plaster of paris colored and mixed with pieces of marble, flint, etc. It was used mainly on larger architectural features like columns and pilasters, and for elaborate insets in fireplaces.

THE MOST FREQUENT USE OF MARBLEIZING in grand houses was for the decoration of wall or door panelling. Generally it was combined with graining. For instance, the field of the panel would be marbleized and the stiles grained, or the panels grained and the bevelled moulding around them marbleized.

"FANCY PAINTING" was widely advertised in colonial newspapers and the tradesman offered stencilling, lacquering, japanning, graining, gilding and marbleizing in their repertoire. Future issues of The Journal will explore graining and gilding. These techniques can be valuable decorating tools, particularly for nondescript replacement items like doors, stairs, or panels that offer little character to the old house.

MUCH OF THE MARBLEIZING that has turned up on colonial walls seems to be simple or naive manifestations of the European craft. It may be that this was not altogether lack of skill, but rather an attempt to suggest the color and texture of marble and not to deceive the eye. Many craftsmen came to New York from France and England and worked in the more elaborate houses of the period, so that original marbleizing work can be found in a great range of ability.

F ANCY PAINTING WAS quite popular. It is a mistaken notion to think that colonial homes were austere. Even the Puritans liked color and paint—as long as it was not on their women. The use of all kinds of paint for interior and exterior work increased after 1700. Strong shades and fancy painted finishes gave a rich variety of pattern and texture in decorative effects. The pastel colors and the extensive use of white in the Federal period brought an end to the fashion for various

finishes and covered over many original examples of marbleizing.

THESE ARE SOME OF THE MOST COMMON PLACES in the early American home where marbleizing was used:

• Floors—All over marbleizing, usually in dark grays. Sometimes a marbleized border would run around a stencilled floor. Also fashionable for years was a pattern of black and white imitation marble squares.

• Baseboards—This was, and is, an extremely practical way to paint this easily-soiled area. Again a combination of grays was most common. A combination of blue, green and buff has often turned up.

• Stairs—Marbleizing on stairs again testifies to the practicality of the Yankee housekeeper. Dark backgrounds like gray, black and brown are most common. One New Hampshire house shows a marbleized design in circular brush strokes in black, green and blue on a gray ground.

• Overmantel—For the type of fireplace that did not have a shelf for decorative objects, the main wood panel itself became a focal point for decoration. Usually this was a free-hand painting, but a more sophisticated marbleizing was sometimes used. Old panels show colorful versions in combinations of blue and cream, greens, and black and cream on brown.

• Doors and Panelling—Following the European tradition, doors and wall panelling were marbleized in the same manner as the overmantel. A fine-veined pattern in dark bluish-gray on an off-white ground was used for a long period. Also favored was an imitation of Egyptian marble with a dark ground, nearly black, with graining and clouding in various lighter colors.

T HE BASIS OF MARBLEIZING is for the painter to work up from a ground color similar to the predominant color of the marble to be imitated. The figuring and veining is then done in lighter and darker shades. The painter has to avoid the temptation to overvein and overwork the patterns.

IN 18th CENTURY ENGLAND craftsmen marbleized with oil or water colors. The latter were often mixed with beer. A coat of beeswax was applied for protection and shine.

ENAMEL PAINTS ARE OFTEN used today for marbleizing and they are practical and inexpensive for covering large areas or for old (not antique) furniture. Begin by painting the surface a white or gray enamel, thinned slightly with mineral spirits or turpentine. Then use a large feather—about 10 in.—dipped in a darker shade of enamel, thinned even more than the surface coat. While the background is still wet, run the feather over it, varying the direction occasionally. The fine lines representing the veining are made by the feather. A final coat of varnish can be applied for added protection but is not needed over enamel.

THE METHOD WE EXPERIMENTED with here at The Journal makes use of the unique properties of acrylic. Acrylic paints allow the painter to reproduce the varying shades obtained with oil or water colors and yet are water-soluble and easy to use. Acrylic gesso reproduces the original (made with rabbit glue) in texture, and can be used the same way, but is less brittle and easier to work with.

HERE IN WORDS AND PICTURES is the story of The Old-House Journal staff at work in their first attempt to marbleize two panels on an old softwood door that needed help. The door will be

Step I

The surface should receive one or more coats of gesso. It can be thinned with water. If using a small amount of gesso, you can tint it to the desired base color. For large areas it is better to apply the gesso and then the base coat because it takes a great deal of pigment to



overcome the strong white pigment of the gesso. It should hide the grain marks of the wood and any other lumps in the surface. Similar to plaster when dry, it can be sanded to remove brush marks or imperfections. The gesso can also be smoothed while still wet by brushing the surface lightly with a soft brush dipped in water.

Step III

Many acrylic colors are transluscent when applied. (Titanium white will make any color opaque.) They can give a glazed effect by letting the under-colors show through, using as many colors as desired. In this picture, the veining is being done with a thin brush and black paint



This will usually be done with the darkest shade—black, brown, dark green. Make lines with a sponge in the other hand ready to blot and swirl the lines that don't come out the way you want them. This gives added texture and eliminates worry over doing it right the first time. Reverse veining can be done with white paint or gesso. grained and gilded, also in words and pictures, for later issues.

THE MATERIALS WE USED WERE: 1 pint of gesso, 1 tube of Mars black, 1 tube of titanium white, and a flat, nylon brush about 1 in. (a round sable would be preferable but they are much more expensive) and a small, round sable brush.

Acrylic paints are carried in all art supply stores. If there are no art supply stores in your locale, they can be bought by mail from the catalog listed. In addition to the acrylics, they list a large variety of paints, brushes, and even a stencil knife. Free from: The Arts and Crafts Warehouse, 15110 East Nelson Street, City of Industry, California 91747.



Next, a coat of medium gray paint was applied (made from the white and black) and allowed to dry. Then a much lighter gray was mixed and applied to cover almost all of the darker ground. A sponge and wet wad of paper towel was used to swirl and dab. A different effect is gotten



with wet or dry, natural or synthetic sponge and with the paper. It's interesting to try out all these effects—but helpful to experiment first on a basement wall. At this point, you are actually removing the lighter paint to make the patterns and cloudy variations that simulate marble. It helps to have marble—or a photo—handy.

Step IV The two panels are now marbleized. Acrylics a are not water-soluble when dry. However, a coat of varnish not only gives added protection but also heightens the simulation of real marble. Various pigments can be



added to the varnish to give a more mellow tone and an antique effect. Once you get the hang of it, this economical and interesting technique is simpler than it might seem.



Books About



Regional Architecture

HIS LISTING OF BOOKS ABOUT ARCHITECTURE in various regions of the country is not meant to imply either that these are the only interesting architectural areas or the only good books. Rather, it is a selection of some of the books we know are available to the reader and which have appealed to the editors. Unfortunately; many good books are out of print. Books these days seem to have a shelf life that is slightly shorter than a can of soup.

19th Century Texas Homes

This book provides a photographic survey of Texas architecture as visual history. It is divided into three sections: Frontier settlement, beginning with the dog-run cabins built by Austin and the "Frachwerk" half-timber homes of the German settlers; the Ante-bellum period of stately Greek Revival homes; and the more elaborate architecture of the American Victorian. The author, Drury Alexander of the University of Texas School of Architecture, has written a very readable history of the events that produced the great variety in Texas houses, and provided an instructive description for each of the many excellent photos. To order "Texas Homes Of The 19th Century," send \$15 to The University of Texas Press, P. O. Box 7819, Austin, Texas 78712.

New England Architecture

New England architecture from the saltboxes of Cape Cod to the covered bridges and round barns of Vermont and the mills of Lowell and Manchester is represented with over 230 excellent photos taken by the author, Wayne Andrews. But he explores more than the "simple" architecture of the area, going on to the palaces of Newport. The text tells why buildings were built in the way they were with lively quotes and informative background, particularly about the clients who paid the bills for the architectural extravaganzas. Andrews includes modern times by going on to Richardson, Frank Lloyd Wright and Saarinen. "Architecture In New England" is \$16.95, including postage and handling, from the Stephen Greene Press, Retail Dept., Fessenden Road at Indian Flat, Brattleboro, Vermont 05301.

New York Cast Iron

Cast Iron architecture originated in New York City and this book is a photographic survey of what remains of the era of cast-iron construction. Margot Gayle identifies every plate with the architect, foundry, date built, location, and history of the building. Edmund V. Gillon's photos detail these buildings and he includes views of ironwork fences, lampposts, bridges and railings. The great economy of building with cast-iron allowed for the incorporation of all the fashionable styles in city building—Neo Grec, Queen Anne, and French Second Empire—in great variety and elaborate detail. The excellent photos and commentary make this a comprehensive statement on cast iron. Available in sturdy paperback, "Cast-Iron Architecture In New York" is \$6.00, plus 35¢ postage and handling, from Dover Publications, Inc., 180 Varick Street, New York, N. Y. 10014.

The Piscataqua Region

"When a town has a personality of its own, is it not entitled to a biography?" John Mead Howells, the author, presents this quote and answers it with a fine book on Portsmouth, New Hampshire, in the region of the Piscataqua River. 300 photographs and drawings of the architecture (interior and exterior) and gardens of the town give a vivid picture of a prosperous American town in the Colonial and Early Federal Periods. The plans of public buildings, country and town houses, and various kinds of roofs, windows and doors, are common to most of New England. The interior details include full page drawings of staircase parts, mouldings and mantelpieces. This large, handsome, hardcover book is \$6.95, plus 50¢ postage and handling, from The Guild of Strawbery Banke, Inc., Book Dept., 93 State Street, Portsmouth, NH 03801.

Rural Pennsylvania

This book deals primarily with the eastern section of the state which has the greatest concentration of early buildings. This relatively small geographical area has a great range of architectural styles and traditions, mainly those created by the German and English settlers. It is the vernacular structures

that are chronicled here and which provide a view of the scale and style of rural life in the 18th and 19th centuries. The fine photos and measured drawings of houses, barns, mills, churches and springhouses show how they were built to harmonize with their settings by the intelligent placement of windows and doors and the design of roofs and cornices. The interior views show the skill and accuracy of the early craftsmen. A reprint of a valuable earlier book written in 1931, many of the buildings pictured have already been destroyed. In softcover, "Early Domestic Architecture of Pennsylvania" is \$6.95, plus 75¢ postage and handling, from Pyne Press, 291 Witherspoon Street, Princeton, NJ 08540.

Marshall, Michigan

The architectural tradition of southern Michigan starts with the New England and New York heritage of its early settlers who favored the eastern Federal and the Greek Revival styles that were fashionable in the early years of settlement. As the railroad came to Marshall, newcomers and residents built their own versions of the Victorian styles they had seen in southern and western cities. The author has recorded some of these houses in photos with a brief history of the development of the town. Most are beautifully preserved and restored and the pictures and text offer practical and inspirational help to old-house lovers. To order, write The Marshall Historical Society, P. O. Box #15, Marshall, MI 49068. Soft cover is \$5.00, Deluxe hardcover edition is \$10.00. Both prices include postage and handling.

Cape Cod Houses

"Cape Cod house" is a term widely used today to describe any small, comfortable home with a pitched roof. The history of this early American style and its variations in the "half house," "three quarter house," and "full Cape" are explained along with the difference from its modern counterparts. The early settlers built their homes with a "short hoist and a long peak," and allowed their houses to grow with the family. Doris Doane also includes salt boxes, Captain's houses and other styles found on the Cape. Over 40 full-page pencil drawings illustrate the houses and their interiors in this hardcover book. To order "A Book Of Cape Cod Houses" send \$7.95, plus 35¢ postage and handling, to The Chatham Press, Inc., 15 Wilmot Lane, Riverside, Conn. 06878.

Old Vermont Houses

This fine book by a Vermont architect, Herbert Wheaton Congdon, traces the history of Vermont architecture from its log cabin beginnings to the 1850's. In his pellucid, readable style, Congdon examines wooden, brick and stone houses as well as "more stately mansions." His ability to show the nuances of detail is exemplified in a chapter titled "A Dozen Doorways." Originally written in 1940, this is a reissue in an exceptionally good-looking paperback—with sewn binding and high quality coated paper. To order, send \$3.95, plus 20¢ postage and handling, to William L. Bauhan, Publisher, Dublin, NH 03444.

Early Homes Of Ohio

The land boom after the Revolution brought to Ohio settlers from New England, Pennsylvania and farther south along with their characteristic styles of building. An informative text and over 200 photos and illustrations give a comprehensive survey of the early landmarks. "Early Homes Of Ohio" by I. T. Frary, is a paperback with sewn binding. To order, send \$3.50, plus 35¢ postage and handling, to Dover Publications, Inc., 180 Varick Street, New York, NY 10014.

New York State Architecture

The amazing variety of architecture in New York State is pictured here in 255 photographs by Wayne Andrews. The introduction is an admirable essay on the architects and forces at work in the building history of the state. Examples of the architect's work—from the Gothic cottages of Downing and Davis to the Brooklyn tenements of White and the modern achievements of Wright and Mies van der Rohe are pictured and captioned in an informative manner. Paperback "Architecture In New York" is \$4.95, plus 50¢ postage and handling, from Icon Editions, Harper & Row, Publishers, 10 East 53rd St., New York, N. Y. 10022.

San Francisco Houses

The architectural feast that is San Francisco is represented with 200 beautiful photos by Curt Bruce, who claims with not unjustified prejudice, "the most outstanding old building of most communities would be commonplace in San Francisco." The carpenter-built architecture is mainly Italianate but runs the eclectic gamut of late 19th century styles— Queen Anne, Victorian Gothic, French Renaissance, Moorish and Eastlake. Thomas Aidala evokes an era in an informative, lively, and loving text. It is an important book for those who like history and old buildings, and are concerned about our cities. It is a visual treat for those of us who live far from San Francisco, and should give a boost to the growing appreciation of late Victorian architecture. To order "Great Houses of San Francisco," send \$12.95, plus 50¢ postage and handling, to The Old-House Journal, 199 Berkeley Place, Brooklyn, N. Y. 11217.

Products For The Old House



Pre-1840 Antique Hardware

Ruth and Robert Adamsky are a couple of old-house buffs whose passion for authentic restorations has led them into their own business: Dealing in antique house fittings of pre-1840 vintage. They usually have in stock such items as H and H-L hinges, latches (both brass and iron), strap hinges, box locks, boot scrapers, hasps, iron hooks, fireplace cranes, pintels, pot hooks and knockers. They do not carry large architectural hardware such as iron fences, nor furniture hardware. Typical prices are \$12 for a 6-8" Nor-folk latch to \$65-125 for a box lock.

Although they specialize in New England hardware, they do a mail order business with all parts of the country. They welcome inquiries. Write to: Ruth and Robert Adamsky, 244 S. Main St., Andover, Mass. 01810. Tel. (617) 475-4953.



A Plan For Community Preservation

ARSHALL, MICH., is like many other American cities in some respects-76 5.10 and delightfully different in other ways. Marshall has—like many other cities— a heritage of beautiful 19th century buildings. It is different in the high quality of these buildings—and the energy with which its citizens have set about to preserve them.

TO PROVIDE A MASTER PLAN for future preservation efforts, The Marshall Historical Society has published a handsome 100-page volume: "Marshall: A Plan For Preservation." While the information is specific to Marshall, the document can be a valuable blueprint for any community group trying to mobi-lize support for the preservation of old buildings.

MARSHALL's PLAN involves a detailed review of the architectural history of the city, maps and listings of the houses and buildings of special meritand tells why and how these buildings should be part of the city's future as well as its past. What makes the Marshall report of exceptional interest is the beautiful graphics and layout

The Old-House Journal Subscription Story: "Friends"

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of the book. The report skillfully evokes the beauty and romance of old architectureas much by the way the book looks as by what it says. T† certainly makes good sense, when trying to convince doubt-ing Thomases of the aesthetic values of preservation, to do it with a document that illustrates the values you are trying to describe in words.

THE MARSHALL REPORT was well financed...and had professional help. The architectural firm of Johnson, Johnson & Roy, Inc., of Ann Arbor, Mich., doubtless deserves much credit for the polished appearance of the book. With such a great blueprint to work from, however, it should be possible for many local groups with much slimmer budgets to turn out reports that will wow the city fathers. Amazing results can be achieved with pressure-sensitive type and an IBM typewriteronce the creative concept has been established.

"Marshall: A Plan

For Preservation"

cover with sturdy

sewn binding for \$2.20 by writing to: Marshall Historical

is available in soft-

Society, P.O. Box #15, Marshall, Mich-

--R. A. Labine



"Friends," he muttered, sitting amidst the rubble, under the glare of a single bulb dangling from the ornate plaster ceiling medallion.

igan 49068.

"What good are they?" He had plenty to party with, some to travel with, but none who would help with his newly purchased old house. They had come up with countless house-warming plans, to be sure. But at present, the house was too much of a disaster to even consider that. His musings were interrupted by the doorbell. He rose absentmindedly, stepped gingerly over the warped doorsill, peered through the vestibule

and saw . . . nobody. "Darn kids!" He opened the door, glanced up and down the block, and only then noticed the copy of the Old-House Journal at his feet. A note was attached to it.

"This will help you a lot more than we ever could." And it was signed: "Your friends."

Moral: Be a friend in need. Give The Old-House Journal. We'll send a certificate identifying you as the benefactor.

The Old-House Journal