ADOBE NOTES

OR
HOW TO KEEP THE WEATHER OUT
WITH JUST PLAIN MUD

Set Down in Prose & Linoleum
by KATE & D.N.S.
& Printed by SPUD

THE LAUGHING HORSE PRESS
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ADOBE NOTES was written by Mrs. Kenneth M. Chapman ("Kate") and Dorothy N. Stewart ("D.N.S.") and first published in 1930 by Willard "Spud" Johnson's Laughing Horse Press in Taos. It was reprinted in 1966 by the Spanish Colonial Arts Society with a Foreword by James Webb Young and a biographical description of the authors and printer. By agreement with the Society, this delightful and practical manual is once again made available. It is reprinted in its original style and format.

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Foreword

The adobe house, as it has evolved in New Mexico, is one of the very few distinctively American contributions to domestic architecture.

In both a literal and cultural sense it grew out of our own soil. And in Santa Fe in particular it has been responsible for preserving a municipal character which has attracted both residents and visitors from all parts of the world.

For the adobe house itself embodies all the unique strands of our southwestern history—Indian, Spanish, and even North African—running back to that Pharaoh who withheld from the children of Israel the straw for his sun-baked bricks!

Thus for centuries such houses have represented the practical wisdom of people who learned how to use the materials at hand, to build homes that fitted the climate and landscape in which they lived. And to give these homes forms, dimensions, and coloring, which made them a true folk art.

The adobe house, then, is one of our richest inheritances, a true "natural resource," that we may well cherish; one worthy of study to preserve its unique values within the framework of today's living requirements.

Thirty-six years ago three New Mexicans who felt this way about the adobe house, and who had practical experience with building and living in such houses, published a now rare pamphlet to encourage the preservation and development of this inheritance. It is this same pamphlet, in its original character, which is here reproduced for you—plus a Bibliography for further blessings on your homemaking.

James Webb Young

THE REASON FOR MAKING PUBlic these notes, is a conviction that behind every building tradition lies an age-long series of discoveries—practical, workaday discoveries, resulting from those struggles against the forces of nature that lent zest to primitive life. Each place developed its own methods, applicable to the materials there provided by nature: stone, wood, adobe, slate or whatever, usable to keep the weather out, conserve heat, and provide a place for the preparation of food and the sheltering of children.

When the Spanish first came to New Mexico, they found a people who had been housed long enough to bring their arts to a high state of development, but not their living to a high state of comfort. Adopting the materials they found these people using, the intelligent newcomers made house making easier. They built up their adobe walls of movable, sunbaked bricks, instead of by the slow process of "puddling." They cut their roof beams, "vigas," with steel instead of stone axes. They introduced candles, and made fireplaces and bake ovens instead of merely lighting a fire in a room-corner somewhat near a hole in the roof. They made wooden doors that would open and shut. In time they learned all that could be learned about making an adobe house, and upon this slowly gathered knowledge has been built a tradition that we would do well to follow.

"The old people deed eet like that. They deen tell eet to me why they deed eet like that, but they deed eet like that."

An old adobe always stands on ground that slopes away from the house, & the earth within a short space of the walls is swept and trampled to a water-shedding hardness. "Canales," or spouts, about two feet long, carry the water away from the edge of the roof, so that it falls on this slope, to be drained quickly away from the foundations. Often, in modern copies, or in remodelling old houses, a cement basin is built to catch the drip from the canal, but is found to defeat its own purpose by making more vigorous the splash that wears away the wall behind it.

No planting is ever done directly against the wall of a house, for in this country of irrigation the water at the roots would moisten and soften the bottom of the walls. The ever present flowers are, as a rule, happily and handily grouped about the well, at a little distance from the door.

Inertia

We advise a few hours delving in elementary physics for an understanding of Inertia, one of the strongest forces in nature, particularly in New Mexico. In this connection, nobody who was here during the War will ever forget the episode of the Army Tank and the Adobe Ruin. An old adobe house was offered by a patriotic citizen to be knocked down by the Tank. It was expected, of course, that the Tank would go through the wall at once, in a cloud of dust. The same nobody mentioned above, will forever remember the roars of laughter from the villagers, and the comic, angry sounds that came forth from the Tank, when, at the first onslaught, the great natural force called Inertia, got in its deadly work. Just plain, ordinary, old-fashioned, New Mexican Inertia, which the old-timers had counted on to keep their houses standing through the ages, and which kept this old ruin standing through the greater part of a working day, under the assaults of the Tank!

Cement capping on adobe walls, beside being excessively unattractive, is destructive to the fabric beneath, for water falling on it is concentrated in a few places along the edge, channelling the wall and undercutting the cap. On the other hand, water falling on an adobe top is led gently from grain to grain, the slow displacement from above serving to fill crevices below, thickening and solidifying the base of the wall, and building up the ground level about it.

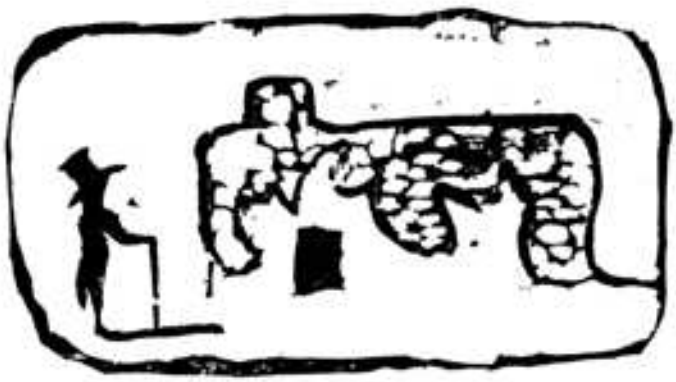
The soft, weather worn outline of pre-Spanish walls may still be seen in Santa Fe, in Manhattan Avenue at its upper end near the Acequia Madre. One of these walls is in perfect condition, standing at a right angle to the street beside a small acequia. The other is nearby, immediately on the road, and though badly eroded in former years by a shed that used to drain on it, is now ready for another three hundred years.

These walls were "puddled" in the old Indian manner, not made of movable bricks. The mud was first well "worked," a ball of convenient size being squeezed and kneaded in the hands until the air was thoroughly removed, when it was pressed into rude forms, cement-wise. Its density and toughness and water resisting qualities are extraordinary.

Permanency Removes Itself

Some people think that as adobe is ONLY MUD, and therefore soluble, it might be better to apply an outer coat of weather proof material. We are often asked if this is not a good thing to do. We reply:

This house was plastered in the eighties, with a thick coat of old style, slow-to-set lime, which had probably been slaking in a pit for a year. There is a brick coping at the top which keeps water from running between the adobe and the lime. It had only just begun to peel off around the canales in 1924, in which year the canales were made waterproof and the plaster patched. One doesn't mind patching after forty years. However, it is a good thing to remember that this type of plastered wall is well protected by the coping of brick. Where this protection is lacking, as, for instance, where plaster is run up over a firewall to imitate adobe, the life of the plaster is shorter.



This house, "permanently" plastered in 1927, speaks for itself.

Re-plastering an adobe house with adobe means, simply, taking from the dooryard the dirt that has washed down from the walls, and putting it back on top of the walls again, every third year. The weather-proof plaster, with good luck, will last between twelve and fifteen years. It has been calculated that the initial cost of the water proof plastering, capitalized, would produce enough income to keep an adobe wall in repair.

During the early days of the American Occupation, owing to the number of well trained carpenters and good saw mills, larger windows with sliding sash began to be used, and conventionally panelled doors appeared. The Italian stone cutters brought over by Archbishop Lamy to work on the Cathedral, are given the credit for introducing the brick cornice above lime plastered walls. This style calls for the portal with the graceful, tapered, square pillars and boxed-in viga ends, the box running the length of the portal, on the outside, and overhanging by six or eight inches the beam that supports the vigas. The vigas show in the ceiling of the portal, but cannot be seen from the outside. We have never seen an old house of the brick pretil type with exposed viga ends.

Whether a house is of the earliest and most primitive, the middle, or the latest and most sophisticated period, there is a general rule that was never broken, and that contributes to the restfulness of the Santa Fe "effect": the portal is either inset, with rooms on three sides of it, or it must cover the entire length of the house, or the length and one side, or the two sides of an L, or the four sides of a patio; but it is never tacked on the house around the front door, like a porch or stoop.

Adobe laid up in adobe is best, for it becomes in time one solid mass. For instance, a keystone of brick or stone acts as a unit pressing against other units. In adobe, the keystone becomes a part of the whole mass, as proven by the fact that a crack in an adobe arch is not stepped down between the adobe bricks, but runs through it as it would do in concrete. Therefore a cracked adobe wall or a cracked arch, will stand for many years if not subjected to constant jarring. On the other hand, the constant rise and fall in the wind of a pitched roof has been known to crumble to powder the adobe wall supporting it, at all the points where the uprights rested.

Temperature changes expand and contract different materials at different rates, hence "reinforcing" adobe with nails or wire or cement, breaks up its one-ness.

The uneven or hand-made surface of indoor walls, so much admired, is best produced as the old-timers produced it—by the use of a smallish, primitive trowel, wielded by a not-too-expert hand, with entire lack of mechanical guide. Even the most accomplished workman, thus equipped, will be unable to plaster with too great a degree of regularity.

To the earliest Spanish period, belong the delightfully carved and panelled doors and shutters now so much seen in Antique shops, and also the round-posted portal, or long porch, with or without corbels. This kind of portal always had an adobe pretil, or cornice, never a brick one; whereas the squared and tapered post was always coped with brick, never with adobe.

This is an important point, and we wish people would consider it more carefully. The "mixed" buildings of Europe that we find so charming, were mixed in a consistent manner. A Gothic Cathedral might be built over a Norman crypt, a house might take on a Tudor wing, but each style was allowed its own character. Nobody ever attempted to fit a bit of Tudor panelling about

a Gothic window; while the Norman crypt remains a Norman crypt today.

We do not like to see an "early" portal on a house of later style, nor carved and hand-panelled doors where the Early-American-Occupation mill work is more suitable.

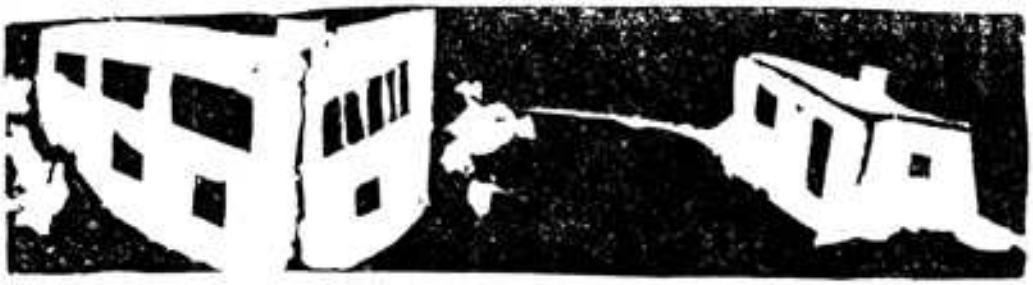
Perhaps the idea is that one can quite happily add a sophisticated detail to an older structure, but not a primitive element to one of a later time.

THE FIRST THING to do when remodelling an old place is to put on a waterproof roof. Of course none of the old houses were covered with any material beside graded dirt, which carries the water off in ordinary weather, snow being removed before it has a chance to soak in; slow, soft rains are the very worst sort for an adobe roof, as they saturate the surface thoroughly, but fortunately they are fairly rare in this region, and the short, heavy rains run off before much damage is done.

We sometimes hear people say that their roofs leaked around the edge, so that it was necessary to put on a brick or cement coping. Leaks of this sort are almost always the result of skimped flashing. The "built up" felt and asphalt should reach right to the outer edge of the firewall, then a single line of adobe bricks should be laid upon this, topped by a "cavallete" or rounded crown of mud. This crown can be saturated with water, can be almost washed off till there is only enough left to keep the roof-edges from blowing away in the wind, and still not leak. BUT, if the flashing has been just tucked in an inch or two, only an inch or two can wear away without disaster.

Often when geography required draining an old house to the north, the roof was made to overhang along that side. Old timers explain that the mass of ice on the shaded end of the canal forms a dam which backs up the water to the very portion of the roof which is least protected. By using vigas a few feet longer, and laying the roof on them so that it projects several feet beyond the outer edge of the wall, the lowest area, with its almost inevitable leak, hangs harmlessly over empty space.

Of the purely fake Santa Fe house, the slightly disguised bungalow on a suburban grass plat, set off by cement walks, there is no need to speak in this book. Those who like one sort don't like the other. But we are irresistibly impelled to refer to one other, perhaps even more irritating type—the HIGH HOUSE.



The HIGH HOUSE stands about eight feet higher than a proper adobe should, because its builder has missed the whole spirit and flavour of the Architecture of this region. An adobe house should be low and long and close to the earth.

The HIGH HOUSE has a firewall that towers above the vigas, structurally needless, but probably intended to be imposing. Its front door is approached by a flight of steps instead of by a gentle grade, because the house floors are several feet above the ground level.

At the rear, where sloping ground has made excavation economical, there is a cellar (though who would choose to run up and down cellar steps

at this altitude?) and an insistently noticeable row of ugly cellar windows. We are not supposed to see these, though nothing has been done to conceal them. They are behind the house, therefore, to the polite, invisible. But we are not polite. We view them with regretful emotion, perhaps even a slight shyness, a bit reminiscent of the admixture of pain and amusement with which we viewed the Hamburg ruffles showing beneath the white skirts of the little girl who joined the May Procession a trifle late, frantically clutching her hip, and muttering:

"Por Dios, I knew I'd forget something!"

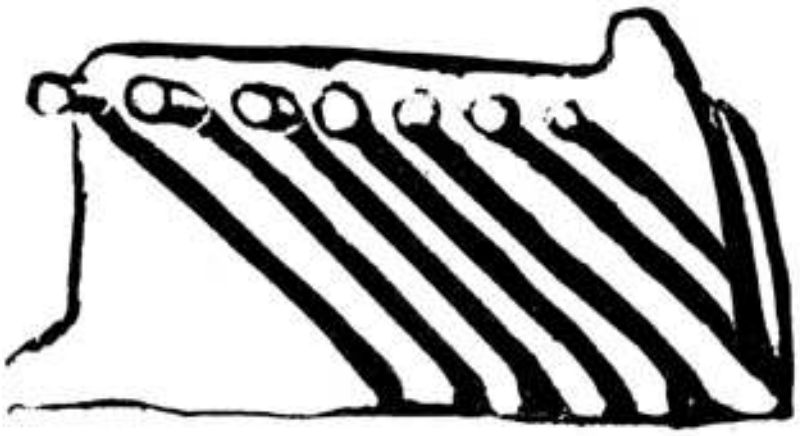
Because the housewife who has a dirt floor, literally does "sweep out" her house every day, and because the outside ground level is constantly being built up by the wash from roof and wall, an old house usually has a low floor level, frequently eight inches deeper than the doorsill, as have the houses in Palestine and presumably in all other places where dirt floors are the rule. People who have allowed this quaint feature to remain in their "done over" houses, by laying floors at the low level, have found their rooms free from floor-draft and therefore easy to heat. Floors are never damp in this dry climate — provided, of course, that roof water and acequias are properly handled. In several old houses we have found heavy joists that have lain directly on the dirt for forty years, as fresh and unrotted as if they had been put in last month.

The windows of the oldest houses are few and quite small, and the doors low, so that heat is kept in during Winter, and out in Summer. All the light that enters is used by reflection from the white walls, and none lost by absorption. In a room with long, unbroken wall space, the absence of glare is a rest and relief from the power and brightness of our much boasted sun. The huge areas of glass of the American manner, which originated in cloudy climates, necessitate colouring the inside walls to absorb light and prevent eyestrain, a double departure from the true type.

Old timers never made an opening in a wall very close to a corner, a safe rule being that the space between an opening and the outside corner is always wider than the opening itself. The solidity of the corner is thus assured, and our old standby, Inertia, does the rest.

The great old Hacienda had no "rear," for the service part of the establishment was close to the chicken yard and goat corral, where left overs were so readily consumed as to do away with the need of garbage collection. The smaller house was equally rearless, the chickens roaming at will, the goats near at hand, each of the numerous doors tidy and inviting, with the "Big Front Door" distinguishable only by its superior gaiety of color. The average American copy of a Santa Fe house, even when perfect in other respects, is almost certain to proclaim itself by a regrettable back porch of wood and screening, standing high on stilts, and flanked by wood piles and coal boxes and refuse tins.

This paragraph, we hope, will be taken as a plea for the service court, much used in other places, but here, all too rare. We consider it one of Modernity's most admirable contributions to domestic Architecture.



In the old, far-off days before the Spanish people came, Indians cut their vigas with stone axes, and, having no beasts of burden, brought them from the forest by lashing each viga across three or four carrying-poles, each of these held by two men. There is a tradition that the immense timbers for the Acoma church were first blessed as living trees where they stood, then brought in this manner, without ever touching the ground, from the slopes of San Mateo, twenty-five miles away.

The Spanish builders cut their vigas with steel axes, and made a hole in the thicker end, through which the thongs of an ox yoke were passed, the smaller end dragging on the ground and wearing itself to a point. Vigas of this sort are still to be seen in many houses in Santa Fe.

Spanish and Indian builder alike, on reaching the house-site, laid the vigas across the walls with the excess length left to take care fo itself by protruding from the outer wall. There was no reason for this except the very simple and utilitarian one of letting well enough alone: for who would bother to spend hours and hours cutting off the ends

with a stone hatchet; or who, later, would dull the edge of a precious tool, when nothing was to be gained by it? Thus developed a fortuitous feature that sets apart the New Mexican house in the eyes of the visitor: for what is lovelier than viga shadows slanting along the weathered surface of an adobe wall?

Skeuomorph

An enthusiastic admirer of the Santa Fe Style once called projecting viga ends "intriguing in their honesty," then trotted off to introduce the style to her home town. As this town lies in the midst of a completely treeless region, beams strong enough to support a roof are prohibitive in cost, so two-foot stubs, touchingly "intriguing" in their *dis*honesty, were shipped in and tacked in rows along the outside, for effect. In time the builders, a bit over-inventive, began to arrange them one above another, then in necklace patterns, then in diamond shapes; as significant, structurally, as raisins on a cake.

So the viga fashion spread, till a builder in our own town, bent on producing a building of the heaped up, pressed down, running over, extra special Santa Fe variety, has brought the pathetic viga-stubs home to roost in a neat, level band, not on just two, but on all four sides of his tower—perhaps "intriguing," perhaps not—but at all events unhampered by honesty.

MUST we say anything about bell-less belfries? Or humps along the sky-line? Let's **not!**

The outstanding quality of the Architecture of this region is simplicity. The earth, poor or rich, makes the walls, the forest trees the ceilings; so that the house of the Pueblo and the house of the Millionaire are not so very different. It is the only place in the world where this is so. Many people who could easily afford the exoticism of red tiles and plaster, lovely in other adobe countries, have with commendable restraint decided against them in favor of the homely "mud" of the land. In this lies Santa Fe's distinction. There is a feeling almost of apology for any appearance of prosperity too great to be in harmony with the surrounding bad lands, never far away, encircling each little fertile valley where the "gente", close to the earth and unhampered by many possessions, still wrest a living from great space and little water. There life goes on enriched by a sense of beauty and an inate dignity that are left over from an older time, when hard work and infinite care, not money, were spent to beautify a house and its furnishings.

"Kate", Mrs. Kenneth M. Chapman, the former Miss Katherine Mueller of Philadelphia, arrived in Santa Fe about the time New Mexico became a state, and married Dr. Chapman, authority on Pueblo pottery. Her appreciation of the local Spanish and Indian architecture led her to undertake the authentic restoration of a number of old adobe houses for which she received prize awards.

"D.N.S.", Miss Dorothy N. Stewart, also a Philadelphian, was a graduate of the Pennsylvania Academy of Fine Arts. A distinguished painter, illustrator, writer and printer, Miss Stewart produced several books and pamphlets on regional subjects during her years of living in the Southwest.

"Spud", Willard Johnson of Taos is a veteran reporter, writer and printer. On his antique handpress, he printed many issues of his magazine, "Laughing Horse," a periodical which was originally published in Berkeley when he was a student at the University of California and which made national headlines when he and his co-editors were censored, even jailed, for publishing an article by D. H. Lawrence which was branded as obscene. In his two columns, "The Horse Fly" and "The Gadfly," he has written of many artists and writers who made Taos a famous art colony.

SUGGESTED READING

Bunting, Bainbridge, "Early Architecture in New Mexico," University of New Mexico Press, 1976.

Bunting, Bainbridge, "Taos Adobes," Santa Fe, 1964.

Kubler, George, "The Religious Architecture of New Mexico," University of New Mexico Press, 1976.