

369 Forest Avenue, Jackson, Mississippi -- Facts about the House.

--Jim Loewen, 4/76.

The house was designed and built by me (with help) for my family; owing to occupational and familial disruption we'll never live in it. For its owners-to-be and for my own memory, I would like to set out some of the conceptions and details of the house that might otherwise not be readily apparent.

The Setting: was chosen to be urban (near kids, shopping, city arteries), yet secluded. The lot is about 2/3 acre and has more than 100 trees -- mostly cherry, sycamore, sweetgum, and pine. It has been left natural and if cleared of small brush and then mowed twice/year it will require no other maintenance. As one turns off Hanging Moss onto Forest Avenue in the summer, one can feel a noticeable temperature drop because of the heavily wooded area. Flooding of the lot is impossible, although dirt should be dumped to the center of the back yard to divert runoff down each edge of the lot. I have planted dogwood, azalea, holly, fig, and other fruit trees, some of which may mature.

The trees placed close to the house do not touch it even in heavy winds, because they are part of a surrounding forest, and because their movement is confined to the upper parts of their trunks. The living room opens on a grassy sunny area that can easily be developed into a lawn. This provides a link to the more natural areas beyond. The lot is contiguous to the natural lot of the McDavid's house to the east and our house styles are related, so the naturalness of house and lot are in a context; the house to the west is somewhat similar in color and the lot is also heavily wooded.

The Design: was influenced by ideas from Roberts' Your Engineered House, The Owner-Built Home (Ken Kern), and The Natural House (Frank Lloyd Wright). Architectural consultation was with Robert Canizaro of Jackson and Ken Kern. Plans were drafted by Ken Kern and Associates of California. Lee Coker of Jackson provided some engineering consultation regarding the foundation and construction details.

The design was intended to realize the following major principles:

- good interrelation of interior spaces and the exterior setting.
- interior planning to provide both openness and privacy.
- low maintenance and extremely long life.
- energy conservation.
- provision of interesting spaces for children and interests or hobbies.

A section will be devoted to each of these principles.

Interior and Exterior Spaces: are related in several ways. First, a large amount of roofed area stands halfway between "indoors" and "outdoors." Overall roof area is 3200 square feet -- very large. Semi-outdoor spaces, useable even in rain, are the back porch, front and rear decks, and carport. Second, the breezeway is screened but not wholly roofed, providing a natural area almost free of insects. Third, windows have no screens, providing greater visual communication with the outside. Several vents have no screens either, since they open onto screened areas. All doors except one open onto screened areas and can be left open when desired for view and ventilation. (Doors are much better than windows in this regard, because they are easier for children or busy people to deal with and provide a much larger open space when open.)

The outdoor areas near the front and rear doors are more "civilized" (drive-

way, rear lawn), providing a bridge to the more natural parts of the lot. Windows generally open toward trees (especially in the dining room, rear bedroom, and across the northern clerestory); this means that there is not the "void" effect of entirely black, featureless vista provided by night-time open windows when lights are on within; hence they will not need to be curtained. For that matter, sight lines have been arranged so that almost no window, including bathroom windows, needs to be curtained and yet privacy obtains.

Interior openness and privacy: is achieved by making the "public" part of the house dominant in size and position, closing the bedrooms, and providing one closed "public" room, the den.

The living room and dining room are generous in size and striking in layout, with clerestory windows in both directions, large dramatic doors, and placement with some view to each of four points of the compass. They flow together in space, but are divided into two definite areas. A wood stove provides a focal point while also helping separate the two. The "hifi wall" is built so as to be rather impervious to vibration and to serve both rooms with sound, the dining room less loudly, so that conversation, dining, or study can compete with music. The study is built so that the person using it is in full communication with the rest of the house, in case s/he needs to listen to music, watch kids, answer the phone, etc. However, if the door is drawn, privacy is assured and there is no need to keep the desk neat!

Seven-foot-high partitions and lofts provide a flow of air and light through the public parts of the house while providing privacy for the bathrooms, closets, and bedrooms. You can see through the house at the seven-foot level. From almost any point within the public part of the house, you can see trees and sky through the clerestory windows in two directions. Even the master bath is arranged so that if the door is left open, you can see trees, etc., through the leaded glass window as you enter the front door of the house, yet any clutter within the bathroom is screened from view.

Private parts of the house (bedrooms and master bath) are insulated from the public section (living/dining) by semi-public areas (hall, den, kitchen, closet), to reduce noise. It should be possible to be loud in the living room, yet quiet in the bedrooms. Also, you cannot see into any bedroom from the public part of the house.

A criticism of modern "open-space" homes has been that they provide exciting vistas but do not provide spaces for individual activities, particularly because of aural flow, which accompanies visual flow. Therefore the small den, to the right of the entrance to the house, can be blocked off from the rest of the public space in case kids want to watch TV in it, or in case a private business-related conference or conversation is needed while kids/others use the rest of the house.

Because the kitchen is often the focal point of actual activities in the home, and because the person working in the kitchen needs to be aware of activities of small children and others throughout and around the home, the kitchen is located in the physical center of the home-plus-porch. It has sight lines through the front door or front door window out into the front deck, carport, and driveway; through the kitchen door to the porch and rear lawn; and with a little movement, through the dining-room opening to the living room and rear deck and rear yard. It is in aural touch with the public parts of the house and is close to the play loft and guest loft; at the same time, the 7' partitions should cut off most treble noise generated in the kitchen from reaching the living room too insistently.

Low maintenance construction: results from all-wood construction (as opposed to sheetrock, plaster, or even brick) and from choice of woods. The foundation holes, to begin from the bottom, were termite-treated during construction; poles were pressure-treated with creosote; the foundation meets standards for "pole-platform" construction and is probably the best way to deal with shifty Mississippi soils because it distributes the load onto 96 different points, sinks them rather deep, and is accessible and easily repaired if needed.

Floor joists are of cedar and were further penta-treated, as was the lower surface and edges of the plywood sheathing beneath the flooring. All wood in the house, except the plywood sheathing, the fir roof beams, and the flooring itself, is cedar or is cypress plywood. (Cedar, redwood, and cypress are the most rot-resistant woods in America.)

After an optional thin coat of light-gray stain on the exterior, neither the exterior nor the interior will ever need staining, painting, or wall-papering. Interior walls, like exterior, are of 5/8" exterior plywood. Twenty years from now, unlike sheetrock walls, they will not look "shopworn" from dents or nail-holes. Vents are brushed aluminum and never need painting. There are no baseboards to dust or wash -- floors meet walls. Plumbing and heating lines are easily accessible. All walls (but not all posts) can be removed without compromising the structural integrity of the house. There are, then, no load-bearing walls in the entire house! Many posts can be removed too, for that matter. Windows or doors can thus be added without the need for "headers" to support the load. Most exterior nails are of stainless steel, so there will never be rust streaks down the walls.

Energy conservation: relates to heating, cooling, electricity, and hot water. It depends, first, on insulation. The house is extremely well insulated, to the standards required for electrical heating installations. The ceiling is built of nominal 2" cedar planks (the best-insulating wood available), covered with three layers of insulation board, then roofing. Walls are of two thicknesses of 5/8" cypress plywood (good insulation), stuffed with nominal 3" insulation (foil/fibreglas). The floor is of nominal 2" wood, with 1/2" insulation board and 1/2" plywood below, for tightness.

Almost all windows are double-glazed, with more than 1" of dead air space. Doors are extra thick, as are air vents, and are filled with fibreglas/foil insulation. Doors and vents self-baffle, reducing need for weatherstripping. Many of them open outward, so that strong winds from the outside blow them more closed, rather than pushing them somewhat open against the latch, which would be the case if they opened inward.

Vents are located high and low in rooms, to promote natural air flow. This will cut the number of days when air conditioning is needed. The breezeway helps generate airflow, too, and the large opening doors provide air from several directions in the public part of the house. Finally, an exhaust fan is to be located in the peak of the house, where hot air from the kitchen and other areas will be found. The reliance on florescent lighting also removes a major source of heat.

When the furnace/a.c. is used, note that there are two return air grills,

located high and low. In the summer, both should be used, so that hot air from the peak of the house is returned to the air conditioner along with air circulating from the most public part of the house, maximizing air currents. In the winter, a piece of cardboard can be placed inside the upper vent, so that hot air is left undisturbed and cooler lower air is returned to the furnace. Not much airflow is desired in the winter anyway, and the furnace fan works slower than the fan when used for air conditioning, because air movement cools people, and the purpose of a furnace is to heat them!

Most lighting in areas of continued use is florescent, which saves electricity and has much longer tube life than incandescent bulbs. The florescents are "warm" so they don't have much blue component, which irritates some people about older florescents, and they are to be recessed between the roof beams. Areas lit for brief periods (which costs money in terms of tube life when tubes are turned on and off often) are lit by incandescents.

The central stove/fireplace is placed and is of a type so that it can warm the entire house. It's functional, not just decorative.

The three major heat appliances (stove, water heater, furnace) use gas, much cheaper than electricity. The lines from the hot water heater to the hot water faucets are extremely short, so there should be little waiting and waste of water. All water lines are to be fiberglass-wrapped.

The location of the house and its shading will save air conditioning money. Because of this location and the heavy use of insulation, the a.c. unit is only 2½ tons; this is cheaper to operate and does a better job of humidity control than does a larger unit, used intermittently.

Spaces for children and hobbies: includes, besides bedrooms, a guest loft, a play loft (which can be used for a hobby, like sewing or a model train layout or whatever), a shop, and two storage areas, either of which can be a workroom. The den, study, built-in shelves, and kitchen also play a role here. The house was intended to house several different ongoing interests and activities at once, and to be interesting and unusual for children and their friends as well as for adults.

Conclusion: It is a well-built house, because I built it for me (us). It is interesting, containing ideas most builders never think about, it is unusual, and it is attractive. Most people like its combination of modernity and rusticness. It will last a long time. Yet it is easy to modify. I hope you enjoy it.