DOE/R4/10089--T1

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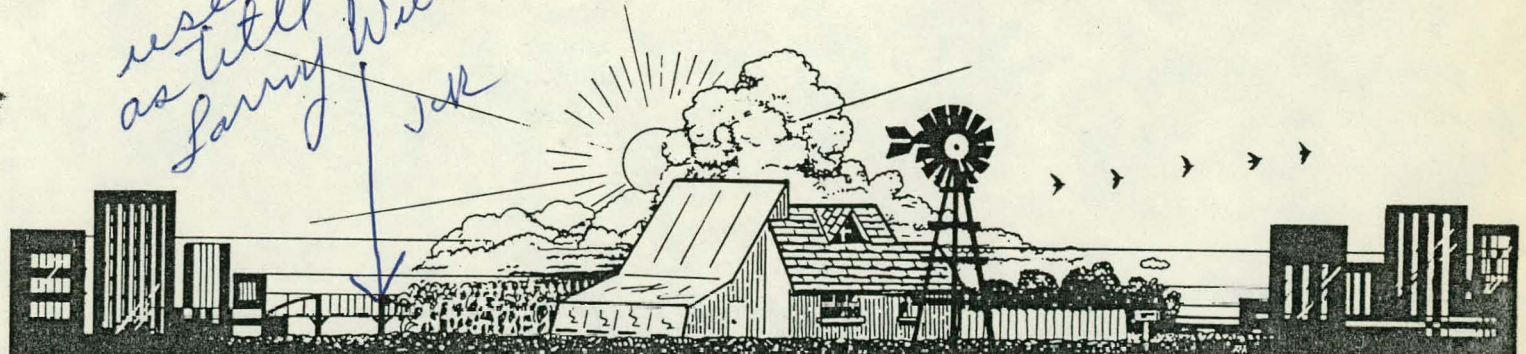
DE84 000374

SUMMARY

Appropriate Technology Grant No. DE FG44-80R410089 was designed and used to finish off the Urban Alternative Homestead, the energy-efficient model home for Environmental Alternatives, Inc. Work was done on the inside of the house to insulate and finish the walls, build displays on insulation, fireplaces and wood heat, and educational signs depicting the workings of a building designed with active and passive solar heating and cooling. The grant made possible the installation of a Clivus Multrum composting toilet with food trap, also, and educational materials on the workings of the clivus. It made possible displays on window treatments, storm windows and doors, and installation of donated kitchen cabinets and appliances, as well as a donated furnace and ductwork.

These items have made it possible to have the demonstration house open five days per week for over two years, with literally thousands of school classes, as well as adult classes taking tours at least three days per week. Literally thousands of persons have taken tours of the house where reams of educational handouts are available, and over fifty conservation workshops have been held in two years. Without the finishing touches on conservation provided by this grant, these thousands of persons would have missed this opportunity to learn about energy conservation.

use this as title per Larry Williams 8/8 JAK



THE·URBAN·ALTERNATIVE
HOMESTEAD®

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BODY OF REPORT

When this grant was applied for, work had been completed on the basic structure of the house (the Urban Alternative Homestead), which was to be used as a teaching house for Environmental Alternatives to use to teach energy conservation, since that conservation would have a great impact on the environment. The original structure was a shotgun house with a southern exposure at the back of the house. A solar greenhouse was added to the existing structure, designed at a (roughly) 45^0 angle to take advantage of the position of the winter sun, so that the active solar heating panels could be used to the best advantage.

The inside of the house needed considerable work, so a contractor was hired to finish off the inside of the structure, along with help from many volunteers. The grant made possible the installation of a Clivus Multrum, a composting toilet, as well as several displays, including a display on the various kinds of insulation, on proper use of a fireplace and wood stove, on storm windows and doors, as well as ductwork designed to take excess heat out of the house through a vent system in the office. There were several signs made, depicting the workings of active and passive solar heat, ventilation, conservation of water, and insulating window treatments such as a thermal shutter.

The displays were essential for showing the various kinds of energy conservation, and have been seen by literally thousands of schoolchildren as well as adult tour groups and individuals. Several dozen composting toilets have been installed in the area, after visitors saw this model of a composting toilet.

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The kitchen was also completed, and is being used to teach conservation in the kitchen, as well as food preservation (using the food from our organic garden), as well as subjects such as homemade cleaning products and natural foods classes. It also enables the organization to host many meetings and all-day events.

At this writing the project has completed many more steps, but this basic finishing off of educational displays, signs, and etc. has been the most productive.

CONCLUSIONS AND RECOMMENDATIONS

This project was very successful in terms of helping to build an intelligent, viable educational energy lab. It sould have been better if more insulation had been done at this stage, but in the rush to complete the project by Earth Day, 1980, some of the underneath work was not done as well as one might have hoped. However, the project has been a tremendous success, in that it has been a living demonstration on energy conservation, as well as a place to house energy workshops and a place to get information on energy matters on a long term basis.

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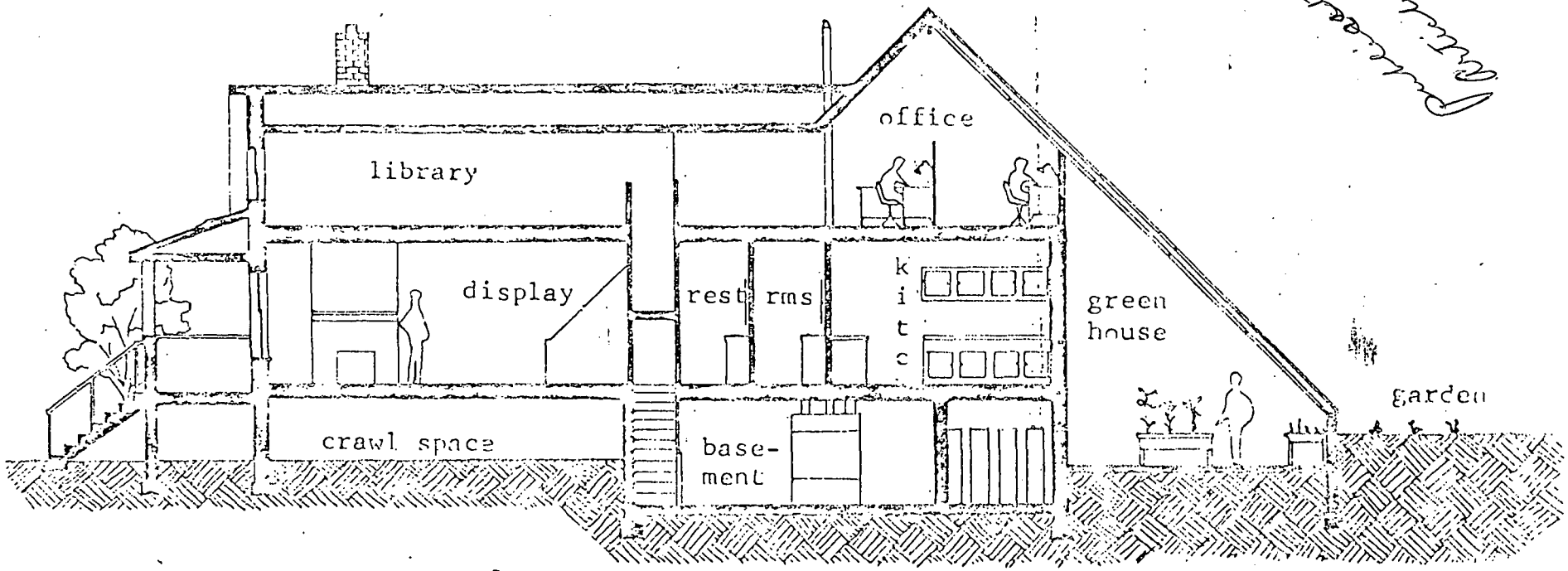
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ENVIRONMENTAL ALTERNATIVES, INC.

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ENVIRONMENTAL ALTERNATIVES urban alternative HOMESTEAD

ACCOMPLISHMENTS

Prior to Fall 1979 - House donated by Ray Schumann
Solar heating system and remodeling planned and replanned.
Greenhouse foundation dug, floor built, walls put up. Solar glass wall built. ALL VOLUNTEER LABOR.

Fall 1979 - House in chaos. Retired contractor hired. Remodeling, insulation, electric work, plumbing, duct work, solar panels installed.

Winter '79 - '80 - Solar panels installed, upstairs office finished, solar storage tanks installed, drywall put in place.

Spring 1980 - Back-up gas furnace and hot water heater installed, solar system tied in and put in trial operation, kitchen finished (equipment and cabinets installed), painting done, floors refinished, carpet laid, clivus multrum composting toilet installed, stair rails, exhibits installed.

April 22 Earth Day - GRAND OPENING BENEFIT. Tree planting, public officials, speaches, wine, cheese, beer, popcorn.

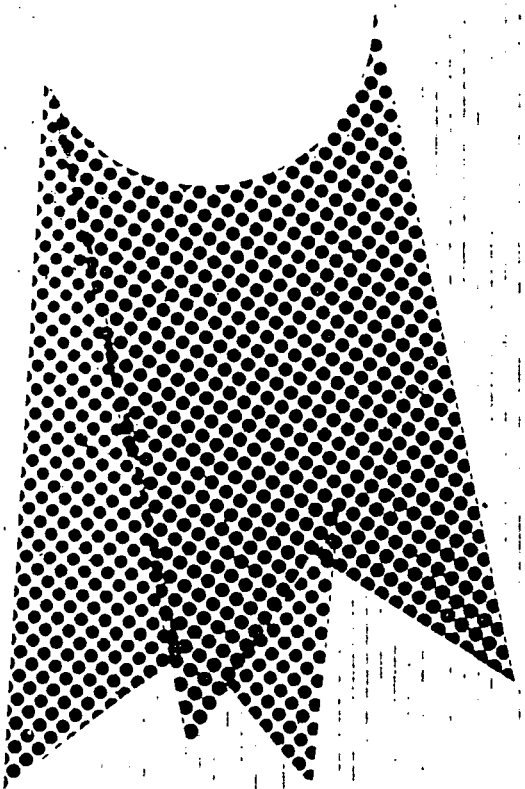
Summer 1980 - Development and planting of bio-intensive garden, compost bin built in a Saturday workshop, ALL VOLUNTEER. Two food preservation workshops held.

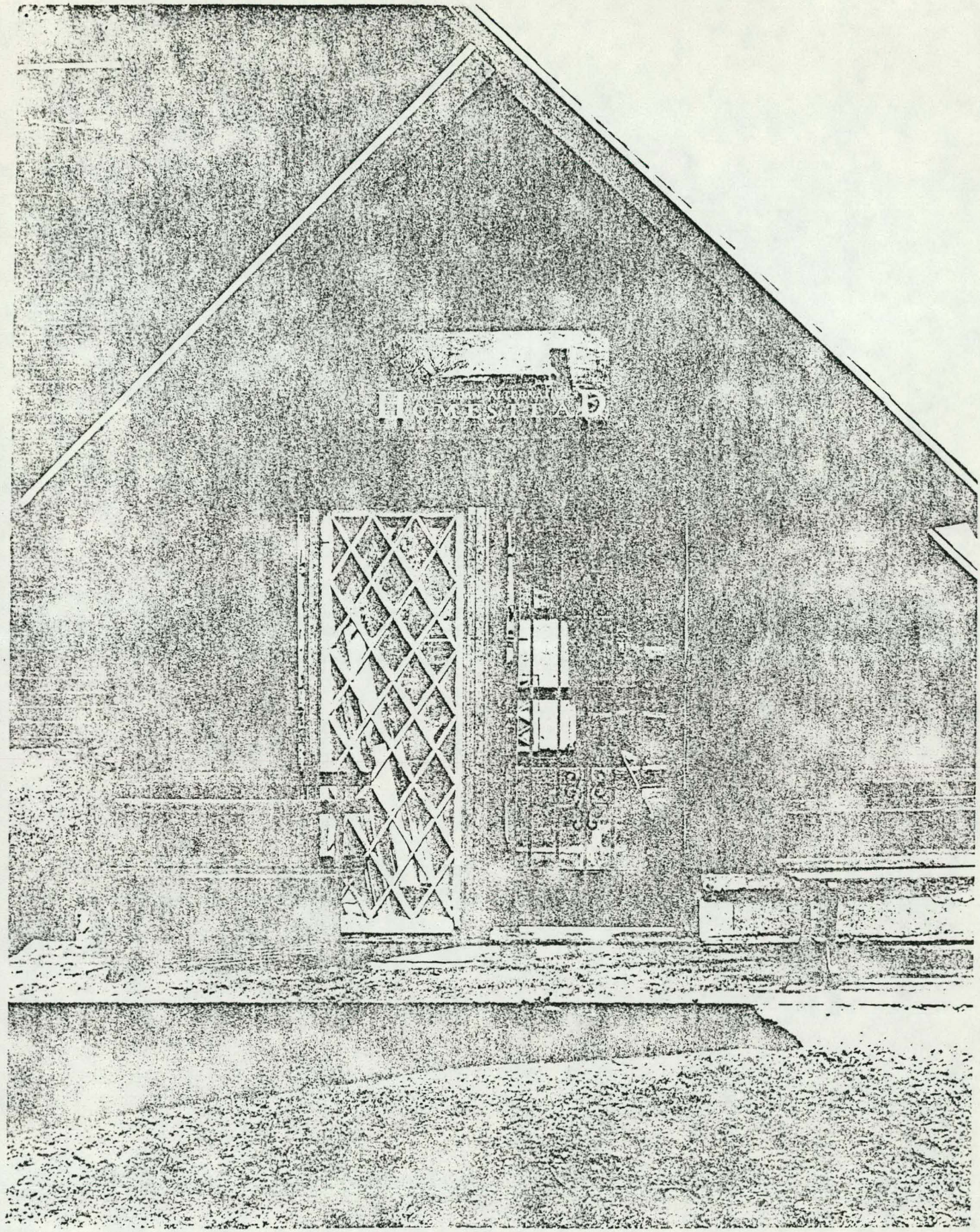
Fall 1980 - More exhibits set up (thermal curtain, water saving shower head, storm windows, wood burning stove), "live-in" caretaker-architect moves in, Halloween fund raising benefit, notification of Dept. of Energy Grant to complete Greenhouse. Workshops: Tax Savings Through Energy Credits (coop. Citizens Energy Council); Wood Burning Stoves.

Winter '80 - '81 - Collection of data on operation of solar system.
Completion of greenhouse as passive solar collector from which heat is transferred to the north side of the house; and conditions are such that vegetables can be propogated for transplanting to the garden.
Daily tours for groups and individuals.
Center for information and referrals on solar energy.
Monthly workshops on energy conservation issues.

The Homestead is open to the public daily 9:00 A.M. - 5:00P.M.
is open week-ends by appointment. (or on a "stop-by" basis, our competent caretaker-architect is often available)

In
Recognition
Of Your Outstanding
Energy Conservation Efforts
On Behalf of
The People Of Louisville
And Jefferson County

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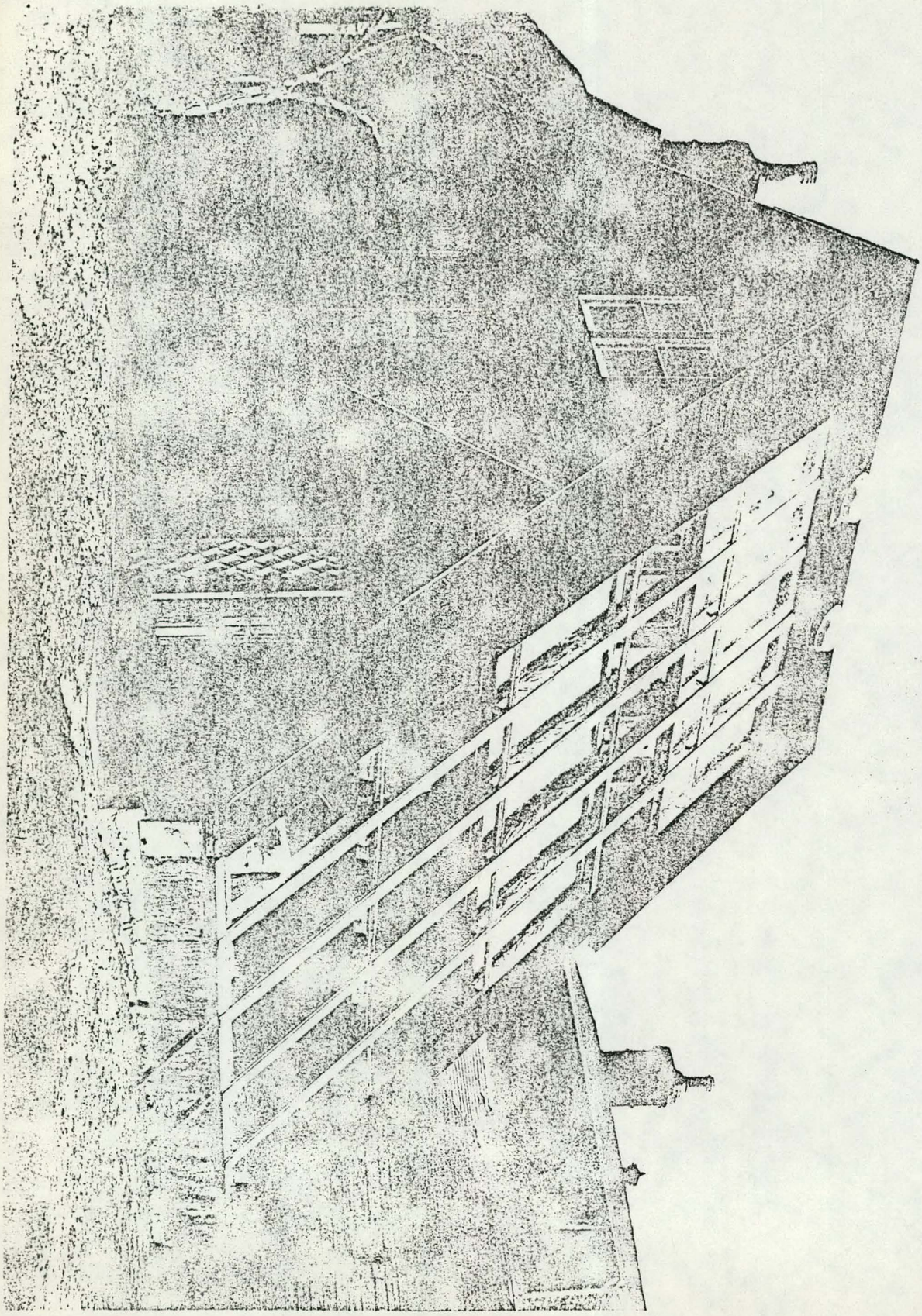

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