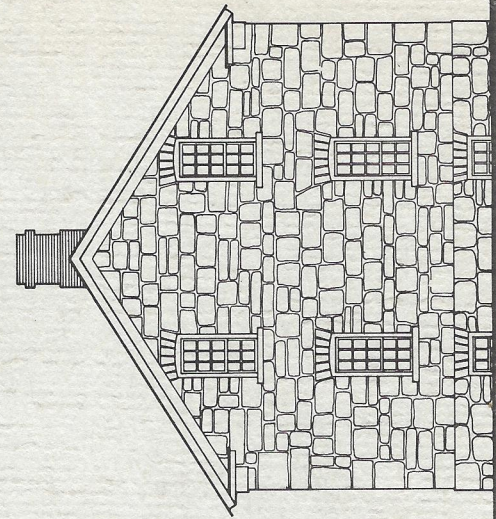
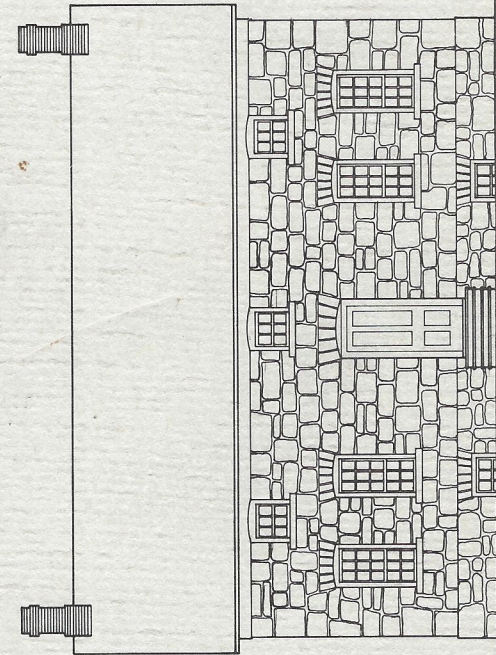
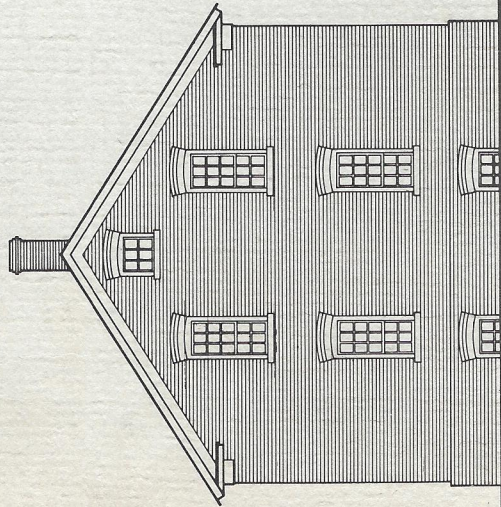
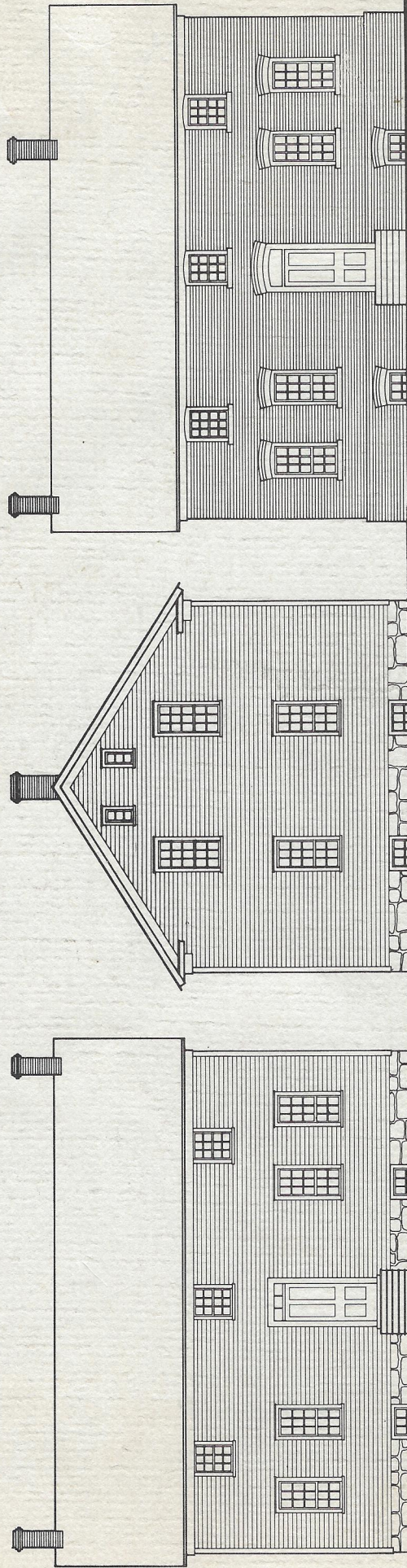


A Conservation Handbook For Amana Villages



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A Conservation Handbook For Amana Villages

Prepared for
Iowa Division of Historic Preservation
In Cooperation with
The Amana Historic Landmark Committee



Prepared by
Land and Community Associates
Charlottesville, Virginia
November 1977

Amana Heritage Museum
Amana, Iowa 52003

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Iowa Division of Historic Preservation
Land and Community Associates

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Introduction

Amana architecture before 1932 was remarkably uniform. Little variation occurred and personal architectural choice was almost nonexistent. One block of stone, brick, and frame houses varied little from another. During the communal era, the Amana Society recognized only one simple architectural style as spiritually acceptable. Personal choice in the exterior treatment of dwelling houses was virtually unknown. Restrictions against exterior house paint, for example, seem to have been one of the most visible restrictions of the original Amana Society.

The official policy regarding paint was that painting was both worldly and wasteful. An Elder of the Church wrote in 1931 that "paint is a waste and belongs to the pomp and vanities of the world. We have figured out that it will cost about as much to keep a house painted for 50 to 100 years as it would to build a new one after it has fallen into decay." This policy was not accepted by all of the members of the Society as is evidenced by the retort of one Amana resident:

It's rotten policy not to paint our houses. The state built a cross-state highway of concrete right through the community and thousands of cars pass daily. They see our villages, all unpainted and a barren gray from the weather, and they naturally conclude . . . that we are too poverty-stricken to paint them. They turn up their noses at us and drive straight through. An unpainted town is a bad advertisement. We want a new deal so we can paint our houses white, as other towns are painted.

The Change gave the Amana people a "new deal" and they began not only to paint their houses white but also to cover them with asphalt siding. Over the years since 1932 they have added asbestos, vinyl, and aluminum siding; new paint colors; picture and casement windows; wide exterior chimneys, columned and enclosed porches, lawn ornaments, dormer windows; new additions for playrooms, bathrooms, and kitchens; and sometimes have even changed the pitch of the roof. Under the communal system woodsheds and washhouses were an integral part of each communal dwelling. Many of these structures, either attached to the residence or located nearby, began to be demolished, converted into garages, or just neglected as modern heating and appliances made them

unnecessary. Chicken houses and garden houses were once important features of kitchen and garden complexes; few of these structures remain today. Most community washhouses and drying houses--unnecessary in a non-communal society--have also been lost. The trades and industries buildings and shops, as well, have undergone changes; some such as the woolen mill, have been altered but continue in their original functions; many have been lost; some are vacant and poorly maintained; while others have been converted to residential uses and have adopted a different visual character. Agricultural buildings have been lost at an alarming rate as the demands of the Amana Society Farm Department have changed. Dairy barns, horsebarns, and ox barns are no longer needed for their old uses and have either been used for new farming purposes, demolished, or underutilized. Other farm buildings such as wagon sheds, are no longer useful because of the increase in the size of modern farm equipment. Like houses, barns were never painted in communal Amana; most barns visible from the highways have been kept painted in the years since the Change. These modifications have occurred to such a point that there is no village where architectural alterations have been only minor changes.

Landscape changes have been significant, if more subtle, in altering the visual character of the Amanas. During the communal years almost every available piece of ground within the village was planted in kitchen gardens, potato crops, onion plots, arbors, or orchards. Lawns of grass and shade trees were practically non-existent. Only flower beds existed purely for aesthetic pleasure. As the community kitchens disappeared with the end of communalism, the gardens began to diminish in size. Small individual vegetable gardens to the side of a grassy lawn became the rule for most families. Large scale use of herbicides killed off, for several years, almost all of the grapes growing on the trellises attached to the homes. For many years the villages maintained central plots for the villagers to grow potatoes but these plots disappeared as the demands of corporate farming necessitated the use of most tillable land. Flower beds remain a colorful part of the Amana landscape but the changing role of women in the Amanas has meant that tending flowers has decreased in popularity over the years with a substantial decline in the number of flower gardens remaining today. The old interior walkways, as well, remain in existence, and in use, in much of the Amanas and neglected and discarded in other places. Many of the fences--no longer necessary to keep livestock out of the gardens--have been lost. Most of the old pumps from

the kitchen houses, the windmills for power, the metal boot scrapers at the door, and the lamp posts have disappeared. Some of these elements remain to give a sense of continuity with the past. The construction of new buildings in Lakeside, Boystown and Girlstown in Amana, in Homestead and in High Amana, growing commercialization with its accompanying signs and parkings lots, and modern utilities and road development have also altered the Amana visual character.

These modifications and losses taken individually may seem insignificant; considered as a group, they constitute a major alteration and destruction within the historic and visual environment of the Amana Colonies. Uncorrected and allowed to continue at their present or an increasing rate, little of the Amana character would remain for local people to cherish as part of their unique heritage, for historians and other scholars to use in studying the Amana past, for visitors to experience and enjoy for recreational and educational purposes, or for business concerns to exploit positively for financial gain. For these reasons, conservation--and in some cases--restoration of the Amanas of 1932 must occur. To take place effectively conservation must be planned, gradual, and authentic. This handbook is designed to help property owners in making sensitive decisions on how to renovate or restore buildings and landscapes in the Amanas without destroying essential details and the original character of Amana's environment. It includes discussions of the benefits the Amanas receive as a National Historic Landmark, of local historic districts, as well as architectural and landscape guidelines for property owners and residents.

Townscape Quality

Although the entire Amana Colony tract of 26,000 acres is a National Historic Landmark, there are no "landmark" buildings in the Amanas. The architectural uniformity of the seven villages makes it impossible to separate buildings into hierarchies of lesser and more important buildings.

This same architectural uniformity, however, gives each of the Amana villages a townscape of undisputable quality. The blocks of Amana buildings--all built in the same simple style but in a variety of scales and materials--create the art of townscape. Groups of Amana buildings take on a significance one solitary Amana building would never possess as a single unit. These buildings in their relationships to other buildings create a pleasing blend of the textures and material qualities of brick, stone, and wood, of the variety of scales as one, one-and-a-half, and two-story buildings adjoin each other, and of the different rhythm of spaces between buildings. These qualities give the Amanas an identifiable character.

Buildings, however, are not the only important elements in townscape. Landscape elements such as gardens, vines, trellises, fruit trees, sidewalks, and lamps contribute to townscape excellence and the uniqueness of the Amanas. It is important that Amana residents appreciate that it is the total village fabric--and not just buildings such as churches, stores, and dwellings--which gives the Amana villages a distinct visual character.

Many elements make up this distinct visual character. Tight rows of dwellings on the perimeter of a block create an enclosed and peaceful interior space set apart from the bustle of traffic and business. The buildings, in this case, clearly define the space just as the few remaining wooden fences visually define and physically separate public from private space. The density of the seven villages maximizes the possibility of focused vistas. It is rare to look down an Amana street without arriving at a superbly framed vista. Sometimes a building, such as a barn, creates a closed vista; other times the vista is toward the farmland or toward the timber. Pedestrian walks link together different parts of an Amana village in a discernible pattern. Although Amana architecture is noted for its severe lack of ornamentation, it is not lacking in detail. The textures of brick, wood, and stone, the arrangement of masonry parts,

the patterns of windows, sundials, and trellis covered walls enliven the simple buildings.

Common-sense, divine inspiration, a desire for community interaction and personal privacy, and a sense of simplicity have created the intermingling of landscape and architectural elements which characterize the townscape of an Amana village. Since no one element is responsible for the quality of the environmental arts of architecture and landscape architecture in the Amanas, each element must be treated sensitively, carefully, and authentically. The sections which follow outline specific procedures which can protect the total fabric--the townscape--of the seven Amana villages.

National Historic Landmark

In 1965 the Department of Interior designated the entire 26,000 acre tract of the Amana Colonies as a National Historic Landmark district. This designation entitles the Amana Colonies to a listing among other properties of national significance in the history of the United States, recognized under the provisions of the 1935 Historic Sites Act. This listing affords the Amanas the protection and benefits available to any property listed on the National Register of Historic Places or as a National Historic Landmark. Under the provisions of the National Historic Preservation Act of 1966 and Executive Order 11593 any federally executed, licensed, or financially assisted project undertaken within the landmark district boundaries can be contested and a review process instituted by any federal department or by any individual making a review request within ten days of publication of intent to undertake the project. Notification of each federally executed, licensed, or financially assisted project must be published in an appropriate newspaper. Amana residents should become fully acquainted with any proposed actions and review plans for historic and architectural compatibility of such projects as highways, bridges, and other construction.

The 1966 Historic Preservation Act also authorized a program of matching grants-in-aid to the states through the office of each State Historic Preservation Officer; in Iowa this office is the Division of Historic Preservation in Iowa City. The State Historic Preservation Officer allocates these grants in accordance with an approved State Historic Preservation Plan to local governments, private organizations, and individuals for the acquisition and development of National Register properties and to assist in financing local surveys and plans. To qualify for this type of assistance, the applicant must strictly follow the program of work certified by the State Historic Preservation Officer. The same is true of a new income tax credit for properly restoring commercial properties of historic significance. The Iowa Division of Historic Preservation can provide the proper forms and other assistance to property owners wishing to take advantage of these benefits.

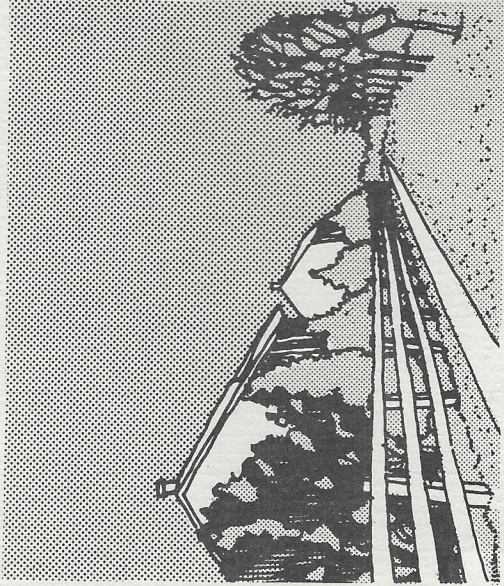
Local Historic Districts

A listing as a National Historic Landmark, however, does not restrict individual property rights. Owners may continue to alter or even demolish such buildings. Only local controls can protect historic character by regulating private action through historic districts. Iowa state law allows historic districts through enabling legislation passed by the legislature in July of 1976. Iowa Law H. F. 1498--the statute providing for historic districts--defines "areas of historical significance: as

contiguous pieces of property of no greater area than one-hundred sixty acres under diverse ownership: which

- a. Are significant in American history, architecture, archaeology and culture, and
- b. Possess integrity of location, design, setting, materials, workmanship, feeling and association, and
- c. Are associated with events that have contributed significantly to the broad patterns of our history, or
- d. Are associated with the lives of persons significant in our past, or
- e. Embody the distinctive characteristics of a type; period; method of construction; represent the work of a master; possess high artistic values; represent a significant and distinguishable entity whose components may lack individual distinction.
- f. Have yielded, or may be likely to yield, information important in prehistory or history.

Since the entire Amana Colonies site of 26,000 acres is listed as a National Landmark by the Department of the Interior which defines a historic district in similar language, individual portions of the Amanas definitely qualify as historic districts under Iowa law.



The Amana Colonies possess integrity of location, design, setting, materials, workmanship, feeling, and association.

To start the process of establishing a historic district, at least ten per cent of the eligible voters in an area of "asserted historical significance" must petition the Division of Historic Preservation in Iowa City to call a referendum for the establishment of a historic district. After receiving such a petition the Division of Historic Preservation will conduct hearings where interested parties may speak or present written presentations in favor or in protest of a historic designation. Following the hearings, it is the responsibility of the division to determine whether the suggested district is an area of historical significance and to approve and define appropriate boundaries. If the division determines that a historic district is appropriate in that area, the county commissioner of elections will conduct a referendum of the qualified voters who reside within the proposed district on the subject of establishing the district as a historic district. If a majority of the persons voting in the referendum votes in favor of the proposal, the area becomes a historic district as allowed by Iowa Law H. F. 1498. The area remains a historic district for at least two years, at which time and any time thereafter, ten per cent of the eligible voters may petition for a referendum for the termination of the district.

Administration

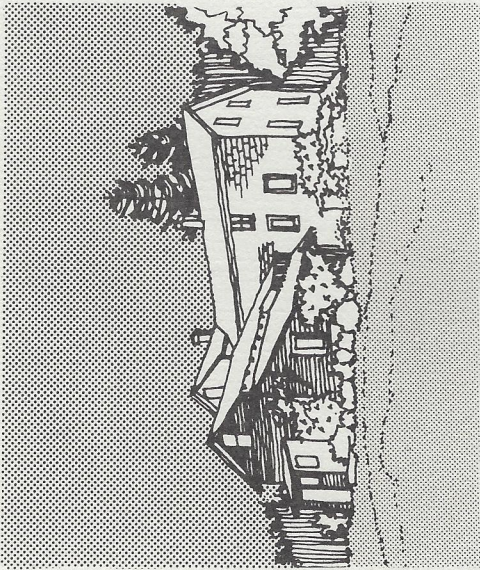
Under Iowa Law H. F. 1498, a five-member body known as a historic district commission is responsible for administering the district. This commission consists of five persons resident in the district and also eligible to vote in the district. Each district approved in the Amanas must have its own five-member commission. The five commissioners are elected at the same time at which the initial referendum is held. The five persons receiving the highest number of votes become commissioners. The Iowa statute has also established the terms of these five commissioners: the commissioner receiving the highest number of votes has a term of five years; the next highest vote-getter receives a four-year term; and so on, with the commissioner with the least number of votes serving a one-year term. With such an arrangement, at least one commissioner comes up for reelection each year. Vacancies can be filled by vote of the majority of the commissioners.

Powers and Responsibilities of the Historic District Commission

The most basic power of the Historic District Commission is the power to deal with the external appearance of the district. Any property owner within the district must submit any proposed exterior changes to the commission for approval. Before the owner can proceed in any construction, alteration, restoration, movement, or demolition of an exterior portion of any building, exterior fixture, or other exterior structure or any above-ground utility, or any type of outdoor advertising sign, or important landscape elements, he must receive a certificate of appropriateness from the commission. Examples of the types of the activities which would require such a certificate include construction of a residence within the district, an addition to an existing dwelling, installing different sized windows, putting up a fence, building a garage, changing an exterior sign, and demolishing a barn. A certificate of appropriateness is not needed for regular maintenance in which no exterior changes are to be made. For example, no certificate would be needed to replace a rotten window frame with an exact copy of the one being removed. Any alteration, however, which involves a change in "design, material, or outer appearance" is subject to the control of the commission. Property owners are also free to change the interior of any building without consulting the historic district commission.

The statute also excludes from requiring a certificate of appropriateness any "construction, reconstruction, alteration, restoration or demolition of any such feature which is required by public safety because of an unsafe or dangerous condition." Any owner who alters or destroys an exterior physical element within the district must determine that a dangerous condition exists. Temporarily boarding up a vacant building, for example, could be seen as relieving an unsafe condition.

The commission must also approve a change of usage of any structure or property within the district. Such a power enables the commission to protect the district from uses incompatible or obnoxious in a historic district. By majority vote, the commission can approve or reject such changes within the district as converting a vacant piece of land into a campground, renovating an old house into a motel, building a gas station, or introducing a bowling alley.



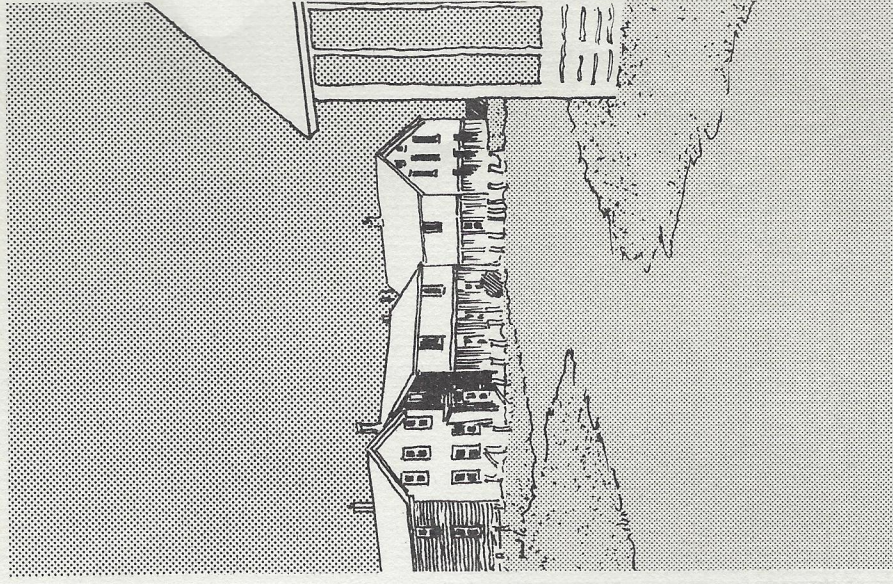
In a historic district, an owner must receive a certificate of appropriateness to alter, restore, or demolish any exterior portion of a building.

Without a certificate of appropriateness no individual--whether it be a private individual, a small business or, the Amana Society--may undertake any action to alter the external historic character of the district. The Iowa statute, however, does not specify whether the original proposal must be presented verbally or in writing. We suggest that each historic district commission in the Amanas require that the proposal be submitted in writing and that, as a minimum, a set of plans for any desired alterations and an elevation drawing showing the appearance of the proposed changes accompany the application. Whenever the applicant possesses such items as specifications and paint samples, he should also make these materials available to the commission for review. If an applicant fails to comply with any requests for information which the commission needs to make a decision, the commission may deny the application.

It is the responsibility of the commission to "inform persons likely to be materially affected" by the proposed changes. In order to meet this responsibility the commission should publish each request in the local newspaper. Any persons likely to be affected by the proposed change have the right to present their views either in person or in writing to the commission. For any proposal of such a large magnitude as to affect an entire village or other villages--such as an application to construct a multi-unit shopping center--the commission may hold public meetings on the matter.

The statute stipulates that a historic district commission must "vote upon any application for a certificate of appropriateness within sixty days after its submission to the commission." The commission may also relax its standards in cases "where a person would suffer extreme hardship" if the commission did not issue a certificate. Any denial will probably constitute some hardship; but to qualify as an exception the hardship must be extreme. Loss of profits does not constitute extreme hardship. Extreme hardship would exist, however, in denying an aged person of low income to replace a deteriorated wood-shingled roof with an asphalt shingle roof.

The commission, in and of itself, has no enforcement powers. If any person under its jurisdiction ignores the commission's authority or disregards its denial of a certificate, the commission must rely upon taking its case to a court of equity. Should the court enjoin the violation, the violator would suffer the court's contempt powers.



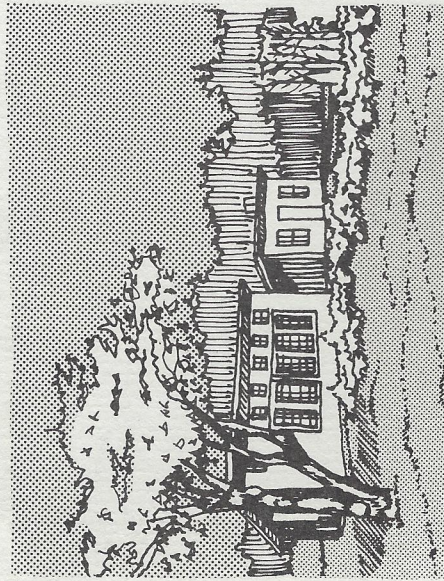
The historic district commission must inform persons likely to be affected by any proposed exterior changes in the district.

An owner denied a permit can similarly appeal the decision to the district court of appeals.

At present there are no historic districts as authorized under Iowa H. F. 1498. It is entirely appropriate that the first historic districts in the State of Iowa be enacted in the Amanas--a registered National Landmark--and one of the most widely known historic areas in the state. The enactment of historic districts would help to protect the historic character and visual quality of the Amana villages. Such districting with its land-use implications would also serve as either a check or reenforcement of land use decisions made by the Amana Society Board of Directors. In the event that the land use restrictions of the Amana Society are declared invalid in the current litigation concerning the deed restrictions held by the Amana Society, the historic district commission would be the only type of land use control in effect in the Amanas since Iowa County has no zoning. The establishment of historic districts in the Amanas would also give local residents a large degree of control over their environment.

Since the current Iowa legislation limits the size of a district to one hundred sixty acres, several historic districts are necessary to adequately protect the historic character of the Amanas. The establishment of historic districts is most appropriate in the seven Amana villages. The Amana Society owns most of the land outside the villages and uses most of this land for farming and forestry purposes. Since the Amana Society has made few changes in the land it owns outside the villages, it is safe to assume that the Society will continue to respect the visual and historic quality of its acreage and that it will give highest priority to enhancing the areas identified in this report as areas of low visual quality.

The most respected theories in delineating historic districts today rely on using visual criteria and traditional boundaries. Each Amana village--laid out as it is with tight, definable boundaries--makes a good historic district. There should be seven historic districts in the Amanas: one district each for Amana, East Amana, High Amana, Homestead, Middle Amana, South Amana, and West Amana. The eventual establishment of these districts--if approved by the voters in each of these proposed villages--will require the election of thirty-five commission members throughout the Amanas--with five members for each commission.



The few remaining chicken houses are an integral part of the Amana environment.

Since commissioners must reside in the district, the historic district commission will have to be composed of lay people with little experience in planning and design. They will be required to voice their opinions and to evaluate their environment without any past training to help them make informed judgments. The newly elected commissioners should request assistance from the Iowa Division of Historic Preservation in developing an orientation program.

As important as training and orientation can be, one major strength of such a commission, however, is in its subjectivity. Local sentiments and attachments, as well as architectural and preservation theories, should be valid criteria in evaluating impact on the historic environment. This subjectivity is only dangerous when it is not coupled with an awareness of basic design issues and the philosophies and methods of historic preservation.

If historic districts are approved in the Amana villages, the historic district commissioners will have the responsibility of safeguarding the historic and architectural resources of the Amana Colonies. The members--individually and as a group--need to develop an awareness of the special architectural character of the Amanas and to develop an advocacy role as promoters of historic conservation and proper restoration techniques. The commissioners must realize that, when they approve the demolition of a building or the restoration or movement of another, they are as much involved in the process of design as an architect designing a new building for the district. To fully appreciate their roles as advocates for the historic environment and stewards of the Amana heritage, these commissioners need an intensive orientation and awareness program which will acquaint them with the field of historic preservation and current programs and philosophies concerning historic environments. It is important that the commissioners realize the extent of the preservation movement in this country and that they become familiar with successful practices and techniques used in other localities. Many helpful conferences, workshops, and short courses exist; commissioners should be encouraged to attend such sessions. Above all, the commissioners must think of themselves as acting in concert. Although several districts may be created in the Amanas, it is essential that the commissioners work together in establishing appropriate criteria for preservation, restoration, and adaptive use.

Amana Heritage Museum
Amana, Iowa 52203

Background of Historic Districts

A historic district is that specific portion of a city, town, county or any larger entity which has a recognizable body of historically and architecturally significant buildings or properties and which is legally designated a historic district. Historic districts exist in every region of this country and range in size from small sections such as one street within a city or town to entire villages. Historic districts are a recognized and effective means of conserving the historic built environment. About half of the states have passed enabling legislation authorizing local governments or other groups to create historic districts and to enact historic preservation ordinances. There are a variety of ordinances; most provide authority for a historic district commission or architectural review board to approve or reject exterior alterations to buildings within the district and to ban or delay the demolition of historic or architecturally significant district buildings. As such, historic districts are a viable means of preserving or restoring the desirable aesthetic qualities of an area. The primary purpose of historic districts is to maintain and ensure physical amenities, an important sense of past and present time and place, and culturally-important, living parts of communities.

German Village in Columbus, Ohio is a good example of the benefits of historic districting. Consisting of 233 acres located just south of the central business district, the predominantly residential neighborhood was an area of early nineteenth-century German settlement. In 1963 the city council of Columbus designated German Village as a local historic district administered by the German Village Commission. Building permit applications for construction, alterations and demolitions within the district must be submitted to this commission which also acts as an advisory service to property owners needing recommendations on restoration. The establishment of a historic district has been positive; both property values and a sense of community have increased as many buildings in the district have been restored.

Other historic districts have been designed primarily to protect visual character by excluding inappropriate development. A historic district in Wethersfield, Connecticut, in which the forty-five acres comprising the original town limits, includes areas of little architectural or historic interest, is a good example. The Wethersfield district is administered by a five member Historic District Commission and has been successful in preserving the environ-

ment of Old Wethersfield, in avoiding incompatible land uses, and protecting property values. Many other famous examples such as Pioneer Square in Seattle, the Vieux Carre in New Orleans, and Old Town in Alexandria, Virginia have been successful in preserving historic buildings, protecting visual character, and stimulating community pride.

Architectural Guidelines

Each building within the Amana National Landmark District contributes to the physical character of the entire unit. For this reason it is essential that any individual or group be aware of appropriate guidelines to follow in restoring or renovating any building in the district. The following general guidelines are applicable in most instances.

1. Adaptive uses and re-uses of historic buildings should require minimal modifications to the exterior of the historic building and to its surrounding environment.
2. Deteriorated features, such as cornices, doors, and windows, should be repaired rather than replaced whenever possible. When replacement is necessary, the new item should match the old in material, color, texture, design, and other visual characteristics. Since most elements of Amana were standard, these items can be found in storage and used as replacements. Additionally, these elements were simple in design and should not be difficult or expensive to fabricate anew in the Amana Society Building Department.
3. When replacement parts must be made or ordered, the design should be based on an accurate duplication of the original parts. There are numerous photographs showing Amana buildings prior to the Change of 1932. Any property owner attempting rehabilitation or adaptive use should gather basic documentation on the historic uses and appearance of the building in question.
4. Some changes which have been made in Amana buildings are pleasing and compatible. Some, such as the many hoods over the front stoops have acquired, over time, a significance of their own. Such items should be preserved.
5. Contemporary design for new buildings should not be discouraged if the design is compatible in scale, color, texture, material, massing, and form.

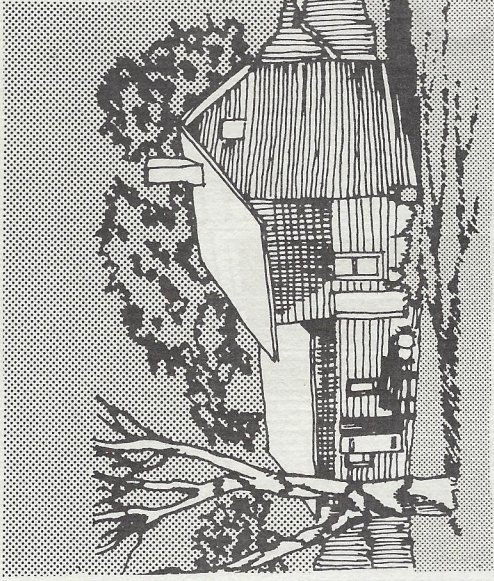
The hundreds of surviving buildings from Amana's communal era are a finite resource which must be treasured and used wisely. The following guidelines apply to these structures which were built between 1855 and 1932. In order of preference and acceptability the general rules are:

1. to restore each building to its original or 1932 exterior appearance
2. to preserve each building with its existing exterior appearance
3. to make compatible additions which are necessary for the continued life of the building

The following actions are inappropriate in dealing with the pre-1932 buildings.

1. moving them except to their original locations;
2. altering the exteriors from their original or 1932 appearance;
3. demolishing them.

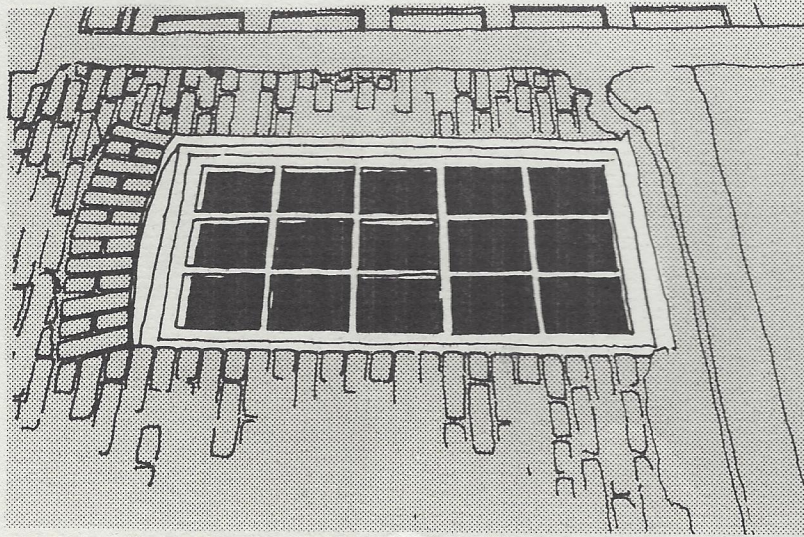
More specific guidelines for treatment of individual elements follow. Any future historic district commissioners elected in the Amanas should follow these guidelines in making decisions about proposed construction, restoration, or renovation.



The woodshed/washhouse is also an important, but endangered, element in the Amanas.

Windows

Window openings are some of the most abused elements of the exterior facades of historic buildings. Homeowners who make major changes in windows almost always damage the architectural integrity of the building. Altering the size, shape and spacing of window openings; the type of sash, the number of panes or lights in the sash; and any detailing surrounding the sash are serious mistakes in renovating an old Amana home. The most basic element is the size of the "light" or individual pane of glass. Responding to early American glass technology, the early Amana builders used only small panes of glass--requiring the use of several lights--usually in an arrangement of nine panes over six panes in the majority of residential buildings. Amana builders used larger panes and window openings in several church and store buildings while they employed smaller openings with fewer panes in such places as small residences, and attic and cellar windows. Where they are in reasonably good repair, it is appropriate to retain the original muntins--the wooden strips which separate the panes of glass in the window sash, the sill beneath the window opening, and the lintel or arch above the window. When these elements have been removed in a previous alteration or where they are beyond repair, they should be replaced with windows or window parts salvaged from other Amana homes or should be reproduced. Since restoration will most probably increase in the Amanas, the Building Department of the Amana Society should begin to produce such elements so that they will be readily available and not an expensive, custom item unavailable in the area.



Characteristic "9 over 6"
Amana window

With the exception of some attic and cellar windows, all Amana windows are in a vertical format. Installing horizontal windows in any place where there was previously a vertical window opening is an architectural aberration. Where such alterations have occurred in the Amana villages the results have been disastrous. Picture windows on one side of a symmetrical Amana house that retains its other original windows destroys the balanced architectural composition of the building. Projecting bay windows and casement windows have the same effect. Replacing and altering all windows shows blatant disregard for the architectural quality of the Amana building.

The ultimate desecration of historic buildings comes from reducing window openings to use a smaller, modern sash to replace an older deteriorated one. Such a replacement is usually done as a mis-

guided economy move; yet the money saved by using a standard sash is often spent on labor and materials to change the opening. Several Amana buildings bear the scars of such remodeling. Changing window sash is never an aesthetic bargain; it is rarely an economic one when all the factors--materials and labor--are considered.

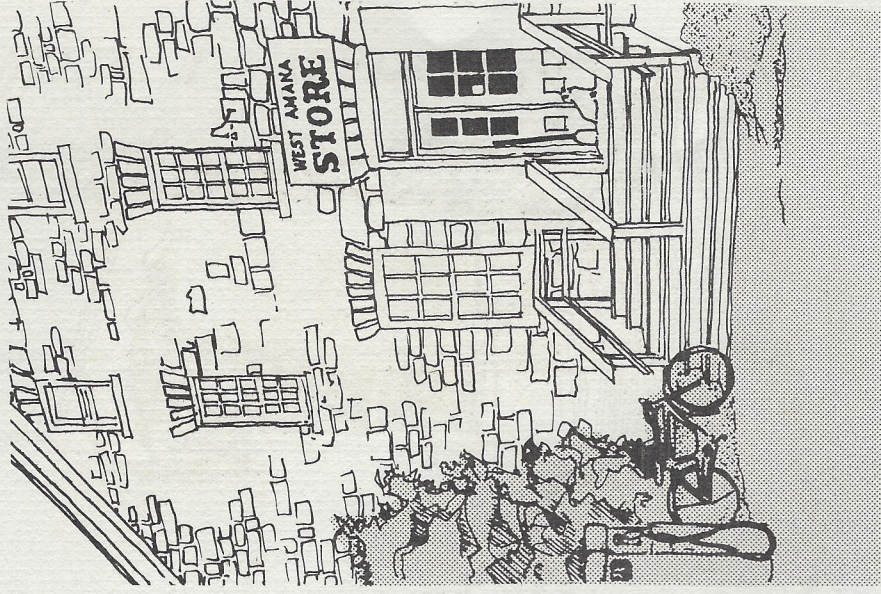
In short--when dealing with windows in an old Amana building, follow these simple and conservative guidelines. Do not change the original sash. Wooden sash can be preserved indefinitely with caulk, wood preservatives, putty, and paint. If the original sash has rotted away, replace it with sash that is consistent with the original design. Before replacing a sash with a new one, try to find an old Amana sash which might be stored in a woodshed or garage somewhere in the colonies. Never remove the stile--the verticle strip at the sides of the window frame--or the sill beneath the window.

Shutters and Blinds

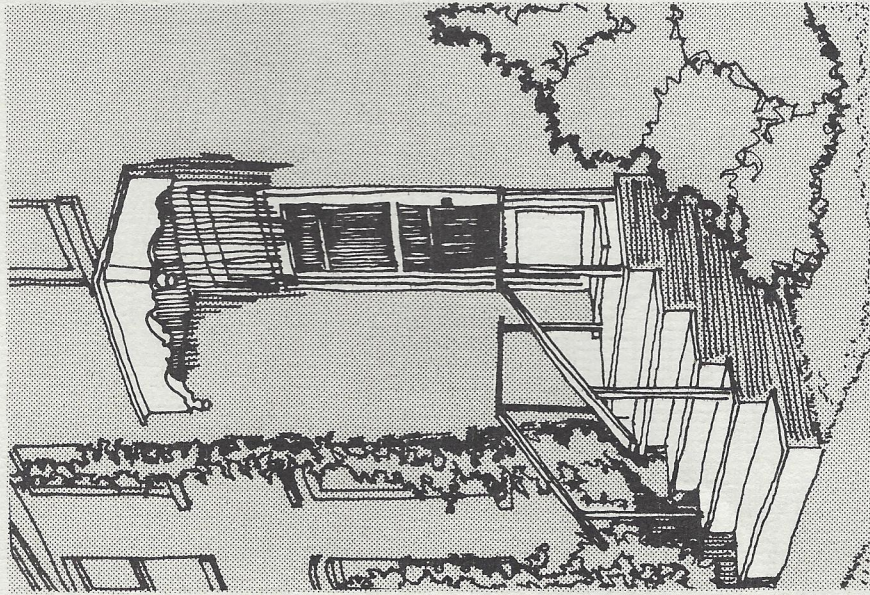
The only Amana buildings which originally had shutters were store buildings. These buildings, obviously, needed the extra security shutters provided. In the forty-five years since the Change, shutters and exterior blinds have become purely decorative. Homeowners tack tiny shutters on the ends of large windows they could never cover, as well as using vinyl shutters which cannot move even if they could cover the window in question. Such ludicrous ornaments should be avoided in the Amanas as inappropriate on residential buildings.

Storm Windows

The ideal storm window for an Amana home is a wooden one which is unobtrusive and attracts little or no notice. Amana residents and the Amana Society should encourage its building department to produce such an item so that it will be readily available for installation in Amana homes. If a homeowner feels that aluminum storm windows are a necessity, the best choice for a historic Amana house is the top-grade aluminum storm window which is available in a range of permanent, baked-on colors. The top grade storm window, in addition to offering superior insulation and efficiency, hides the detracting, bright look of aluminum. Since many Amana homes had trim painted white by the time of the Change in 1932, white is the most appropriate color. Painted storm windows have the de-



The only Amana buildings which originally had shutters were store buildings.



A unique hooded entry.

sirable visual effect of allowing the storm windows to blend into the larger wooden window frames painted the same color. It is sometimes possible to paint existing aluminum storm windows. A letter to the editor of the Old House Journal recommends that a homeowner wishing to try to conceal existing storm windows should follow this process: 1) remove the glass and screen portions of the windows; 2) then, wipe all aluminum parts with vinegar; 3) apply one coat of metal primer; 4) then, apply two coats of finish paint.

Amana homeowners should consider a simple alternative to detracting exterior storm windows: interior storm windows. With the use of curtains, draperies, and window shades such windows are barely visible on the interior and offer the added advantage of being easily cleaned from the inside. There is a plastic storm window available for the inside. An advantage of this kind of window treatment is that the clear plastic sheet does not interfere with the window style and allows complete visibility of the distinctive nine over six lights of Amana houses.

Doors

Doors are just as important to the architectural character of the Amanas as windows. Like windows, doors should retain their original size and in their original locations. Amana doorways were originally very simple and unadorned. Such items as classical porticoes with columns and Federal style door surrounds are inappropriate and should be avoided. Many Amana doors were built with small glass transoms above the door; these transoms should be preserved. The characteristic and original panelled doors with their distinctive hardware should be retained or duplicated.

Hoods

The variety of hoods over the front stoops of Amana houses add a whimsical, if practical, touch to the otherwise plain facades of many Amana homes. Research indicates that few homes were built originally with hooded stoops but that these hoods were added as a protection against the elements when leaving or entering the house. These hoods take several forms: most have a gabled roof; some are supported by diagonal braces; others are supported by plain or turned

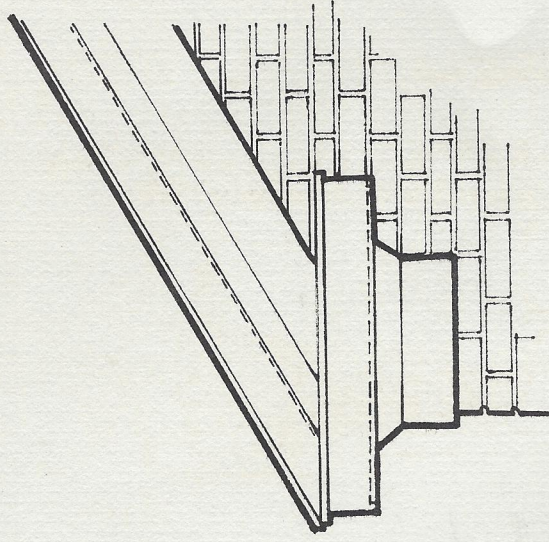
posts; a few are flat roofed or employ a rare external display of sawn work or other fancy work. These hoods, while not original, are a pleasing addition which historic photographs indicate were well accepted by the time of the Change in 1932. Aluminum, canvas, plastic coated, or any synthetic clad awnings are never appropriate on Amana buildings. Some stores and churches also used protective hoods over their entrance doors.

Painting Doors, Windows, and Hoods

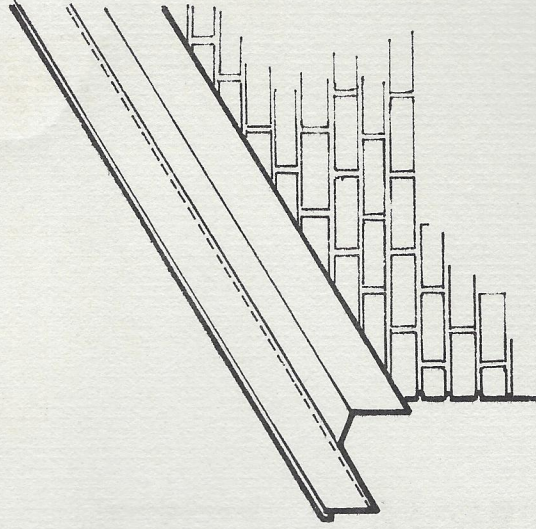
There are four acceptable treatments for treating external trim such as doors, windows, and hoods. The most traditional is to do nothing to these features and to allow them to age and weather--repairing and replacing them with new wood as they deteriorate. Another solution is to treat the wood with a preservative and/or wooden stain and allow for aging of the material. A third approach which is acceptable is to paint such trim with a color which approximates the color of aged and weathered wood. Several individuals and the Amana Society have been conducting experiments to find a close paint match to aged wood. None have been entirely successful but most results have been acceptable when viewed from a distance. Paint combinations include such mixtures as a specially developed grayish paint and treating wood with creosote before painting to allow the creosote to soak through the paint to create the streaky appearance of aged wood. The Amana Society should continue research and experiments in developing a paint. It is highly unlikely, however, that any paint will be entirely satisfactory in approximating the appearance of aged wood. The fourth and simplest solution is to paint all exterior trim white. By the time of the Change of 1932, the Amana Society had begun to paint wooden trim white in an effort to prevent rotting and deterioration; for this reason white exterior trim is an entirely acceptable and appropriate part of the program to return the physical appearance of the Amanas to the communal ideal of simplicity and unadornment.

Roofs

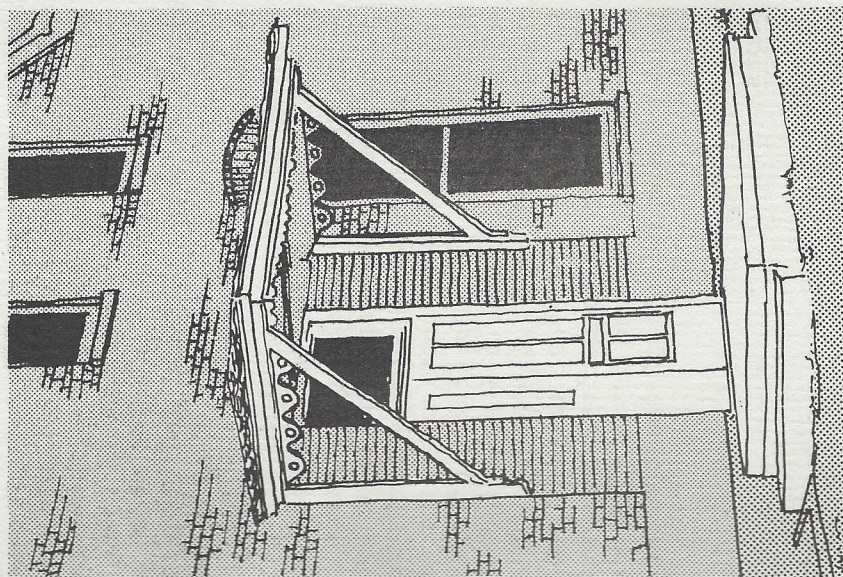
In all instances Amana homeowners should preserve the original roof shapes. Changing the original roof shape or adding such features as oversized dormers is inappropriate. Few original roofing materials--wooden shingles--remain in the Amanas. These wooden shingled roofs



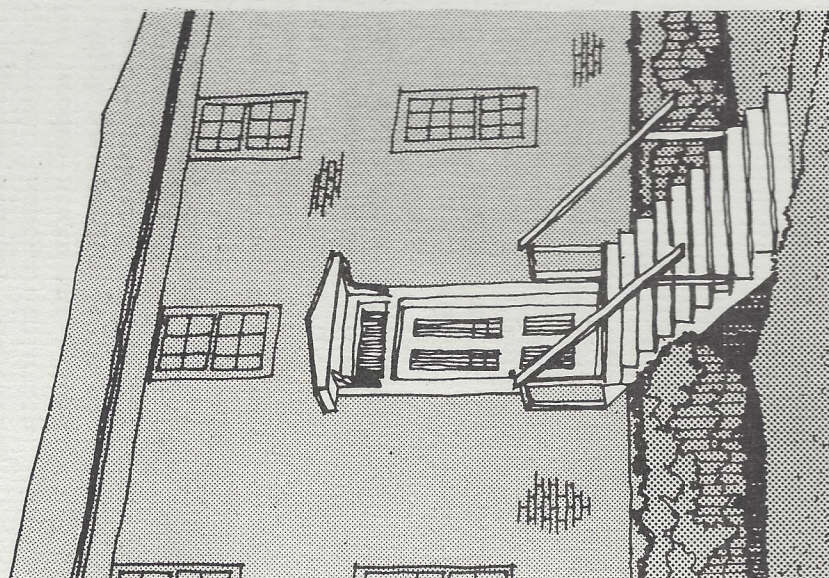
Cornice with a returned gable.



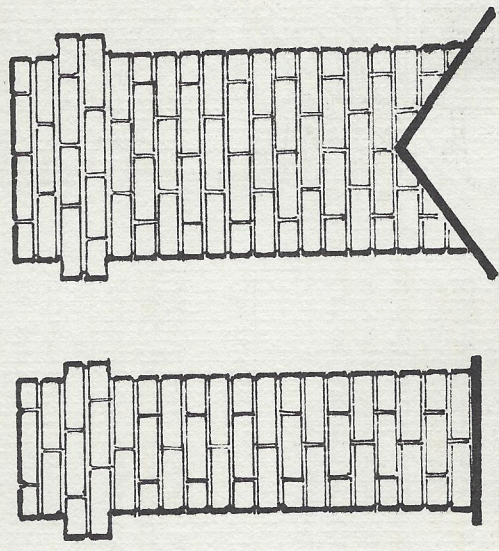
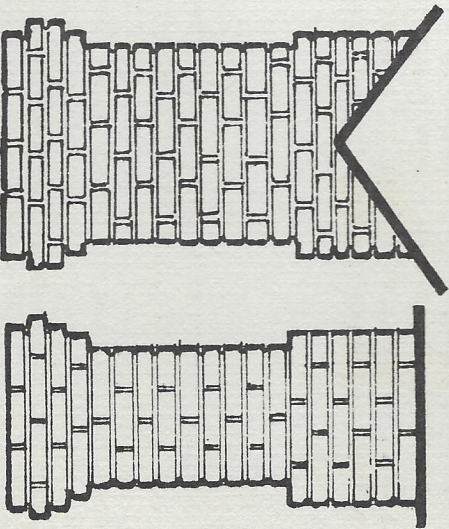
Cornice without a returned gable.



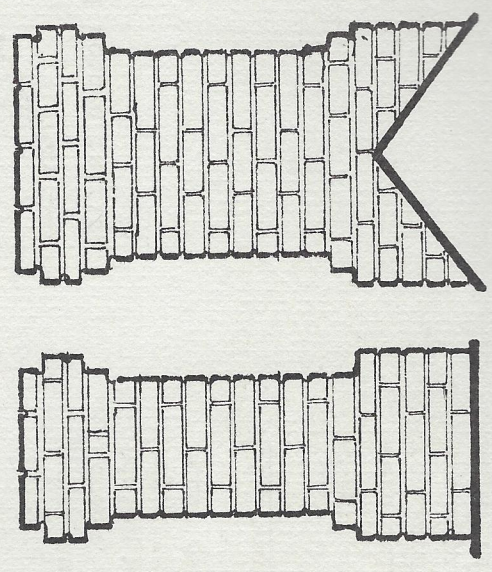
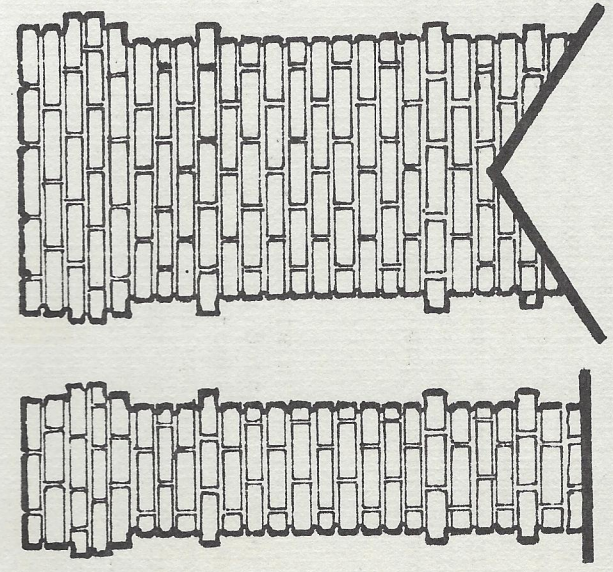
A hooded entry for a store.

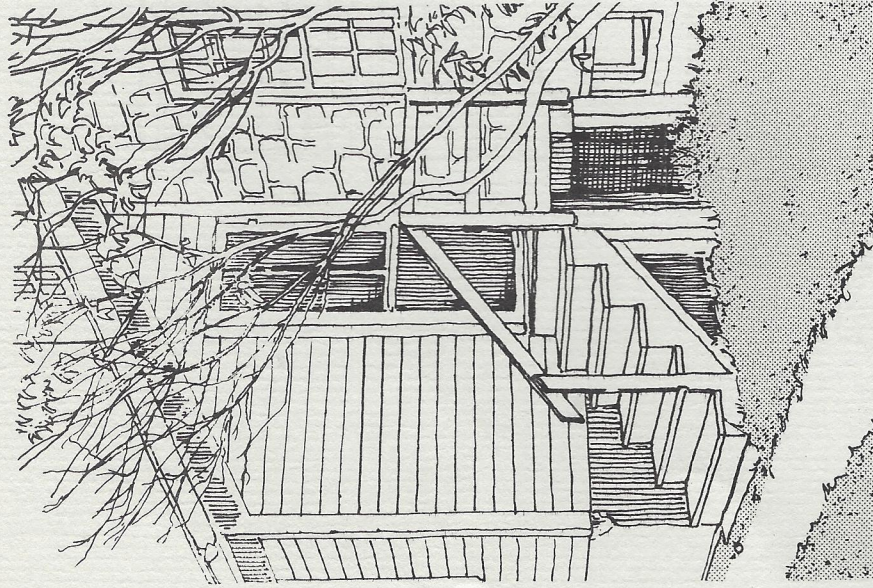


Characteristic hooded entry.



Any of these four chimney types is appropriate for an Amana dwelling.





Traditional wooden railing.

should be retained when possible. When replacing deteriorated roofing, try to find a material which approximates as closely as possible the appearance of wooden shingles in size, shape, color, and texture. Wooden shingles, of course, are always the best choice. Essential details such as cornices and chimneys should be retained. Television antennae and other mechanical equipment should be placed in an inconspicuous location which is not visible from the street. Original cornices should be preserved or duplicated. Owners should consult old photographs of the building for a correct cornice. Some Amana homes have a returned gable while others do not.

Chimneys

All pre-1932 Amana houses were built without exterior chimneys. Large exterior chimneys are inappropriate if they are visible from the street in front of or to the side of the house. Exterior chimneys which accompany the construction of a fireplace in an Amana interior should be placed so that they are visible only from the interior of blocks and not from public streets and walks. Owners replacing flues should also take care in installing new ones. The beauty of many Amana homes has been marred by replacing sections of the gabled-end wall with non matching bricks. Brick is the best material to use in rebuilding chimneys.

Porches

Side porches on kitchen houses were the only porches in communal Amana. These porches should be preserved. Enclosing them with screen, glass or other materials is a less than sensitive treatment. Adding porches to buildings which never had porches usually harms the buildings' design integrity. Any additions of porches or decks should occur only where not visible from public streets or walks.

Stairways and Railings

Traditional Amana dwellings, churches, and schools usually had a short stairway leading to the main entry. The earliest stairways were built of wood; in the twentieth century some wooden stairs were replaced with concrete stairs. Today either wood or concrete stairs are appropriate; brick, slate, or other materials are not. Some stairways traditionally had railings while others did not. Railings were always simple and constructed of wood. Property owners should try to

locate historic photographs of the building they plan to restore or renovate and copy a style used on the building prior to 1932. Wrought iron railings, balusters, and balustrades are not appropriate for historic Amana buildings.

Nails

The rusting of the iron nails used on historic Amana buildings has had a major effect on the coloring of the wooden finishes. The nails used on Amana buildings should continue to be iron to retain the distinctive rust colored areas which are characteristic of Amana building.

New Construction

Owners should use great sensitivity when making additions to historic Amana buildings. Additions should be compatible in scale, building material, and texture. New additions should be built of traditional Amana materials: wood, brick, or stone. Additions should not hide or obscure the architectural details of a historic building. Height changes can damage the appearance of the original building; additions which change the height of the structure should not be visible when viewing the principal facades. Adding new floors or removing existing floors also causes a disastrous change in scale and damages the architectural character of the Amanas. New additions should be made in such a way that if the additions were to be removed in the future, the original form and integrity of the structure would remain.

New additions to old Amana buildings should be a last resort--made only when unavoidable. All additions should be kept to a minimum and made compatible in scale, building material, and texture. A contemporary design compatible with the character and forms of the old Amana style is preferable to an exact copy of an old Amana building.

Moving Historic Amana Buildings

Historic Amana buildings should never be moved. Their original locations are as essential to their integrity as any of the above features. Buildings which have been moved are given low priority in receiving the benefits National Landmark status usually bestows.

In general, new construction of residential and commercial structures should not occur in the existing Amana villages. The

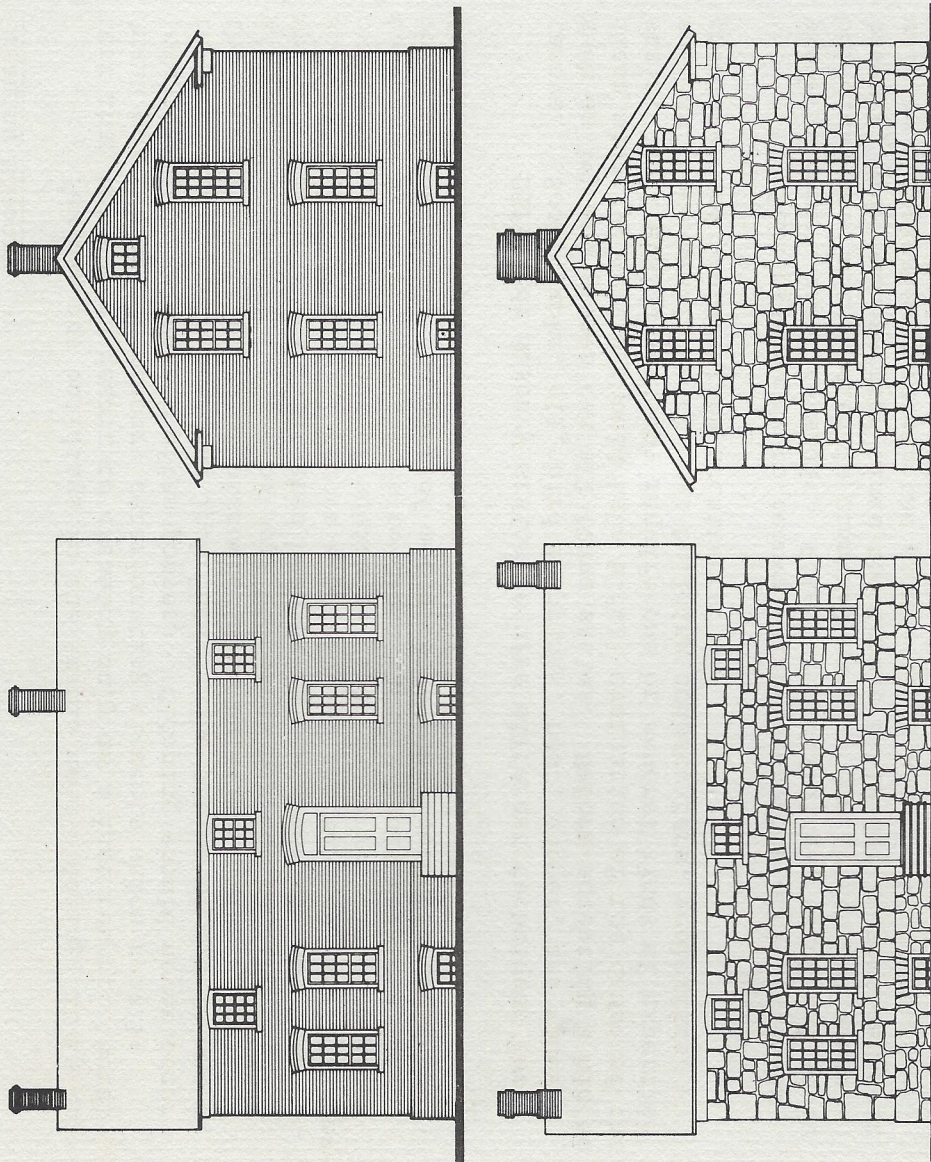
adaptive use of existing buildings should take care of most residential and commercial growth. Further residential growth should occur in a new village away from the seven traditional villages. New buildings should only be built to replace existing buildings, which are destroyed by a disaster such as fire. In such a case the new structure should employ a contemporary design, which is compatible with traditional Amana buildings in size, scale, color, and material. Mobile homes are never appropriate in the historic environment of the Amanas.

Remodeling Buildings Which Are Not Historic

A number of post-1932 structures exist in the Amanas. Most of the buildings are useful and will continue to be used in the future. Many of these buildings are not compatible with traditional Amana buildings. Keeping them in a good state of repair and maintenance, and using traditional landscape materials around these buildings will enhance their appearance and help to incorporate these incompatible post-1932 buildings into the Amana environment. There are several guidelines to follow in renovating post-1932 structures in the Amanas. These buildings should not be altered to copy or parody traditional Amana buildings. Owners should never remodel these buildings in a pseudo-Bavarian style or any other ethnic style. Like historic buildings, these structures should retain their original forms.

Agricultural Buildings

The agricultural complexes on the edges of each Amana village are integral parts of the Amana environment. In general, agricultural buildings should be treated in a similar manner to any other Amana building. No pre-1932 building should be substantially altered, moved, or demolished. Ideally, the exterior appearance of any agricultural building should be restored to its original or 1932 appearance. Unpainted, weathered exteriors are most appropriate and authentic for agricultural buildings. The environs of an agricultural complex should reflect the historic character of the Amanas. Wooden fencing and traditional Amana plantings add visual quality and authenticity.



Masonry

The many stone and brick buildings in the Amanas contribute much to the visual environment in terms of color, texture, and variety of materials. They are also a tribute to the early Amana builders who made use of native materials to provide homes for their community. These very important brick and stone buildings, however, suffer from varying degrees of deterioration. The inappropriate cleaning, water-proofing, and repointing of historic masonry buildings are usually the major causes of deterioration.

Cleaning Masonry

Few masonry buildings in the Amanas need cleaning; it is important that homeowners resort to cleaning only as a last resort. Rural Amanas has few of the masonry deteriorating elements which heavily industrial, urban centers often possess. Cleaning should never occur to make an old Amanas building look "new." The patina of age is one of the appealing attributes of historic Amanas buildings. The so-called dirt of the masonry surface of some buildings may not be dirt but weathered masonry. If weathered masonry is the cause of the "dirty" appearance, cleaning will remove a portion of the masonry itself. Homeowners should also beware of advice to clean masonry: cleaning is an expensive process; suggestions to clean masonry could reveal a "make work" philosophy on the part of a contractor unsympathetic to or unfamiliar with proper conservation techniques.

Different masonry stains require different techniques for removal. Soot, smoke, oil, bird droppings, rust, copper, and vines such as ivy and grapes can all leave stains. Before accepting a bid to clean masonry, owners should have a full evaluation of the cause of the stain. Full evaluations may require one or several kinds of expertise such as those available through building conservators, geologists, chemists, and preservation architects.

Cleaning masonry to remove paint is another activity Amanas property owners might consider. Like frame buildings, brick and stone buildings were not painted in communal Amanas. Some brick buildings, however, have been painted since the Change of 1932. In some cases it will be preferable to retain the paint--as an unauthentic feature---rather than to damage the old soft brick beneath the paint.

Chemicals used in cleaning masonry may have a harmful effect on other materials used in the building. Acid used in cleaning brick, for example, will usually have a deteriorating effect on a limestone foundation. Many chemicals also have a corrosive effect on paint and glass. The most vulnerable portions of a building might not even be visible: embedded ends of such items as tie rods, window bars, and iron clamps holding masonry to the structural frame may suffer corrosion from the use of chemicals of even plain water. Any owner considering cleaning should also invest in a structural examination of the building's construction to evaluate the possible effect of cleaning on structural elements.

Other factors may also make cleaning difficult. Earlier water proofing applications, for example, may interfere with chemical cleaning. Earlier replacement mortars or other materials may have been stained to match the original materials; cleaning will make such re-placements obvious and differences in materials apparent.

Professionals generally divide cleaning methods into three major groups: 1) water cleaning, 2) chemical cleaning, and 3) mechanical or abrasive cleaning. Water methods soften the dirt and rinse existing deposits from the surface. Chemical cleaners react with dirt and/or the masonry material to hasten the removal process in which deposits, reaction products, and chemicals rinse away with an application of water. Mechanical methods include grit blasting (usually sand blasting), grinders, and sanding discs; these methods remove dirt by abrasion, followed by a water rinse. The mechanical method is the most destructive of the three processes. Mechanical cleaning of soft Amana brick and stone will result in serious erosion of the building material as well as leaving unsightly abrasive scars on the material's surface.

If the owners decide on cleaning their masonry buildings, they should consider the simplest methods such as a low pressure wash with plain water since such methods are frequently effective, safe for the building and environment, and less expensive than chemical and mechanical cleaning. The following undesirable effects may be the result of cleaning masonry buildings:

If all joints including mortar and sealants are not sound, water may penetrate to the interior.

Porous masonry may absorb excess amounts of water during cleaning and cause damage within the wall or on interior surfaces.

Excess water in water and chemical methods also brings soluble salts from within the masonry to the surface; these salts form efflorescence--an encrustation of salt.

Iron and copper chemicals in water used in cleaning can cause stains.

Using water methods in cold weather can cause spalling (flaking) and cracking of the brick or stone surface. (Since it sometimes takes as much as a week for a wall to dry, no water

cleaning should occur for several days prior to the first average frost date, or even earlier if local forecasts predict cold weather.)

Chemical methods may cause color changes in brick and stone buildings; they may also leave a hazy residue.

Hydrochloric (muriatic) acid is particularly destructive when used on historic masonry buildings such as those in the Amanas.

Erosion of the masonry surface will always occur in cleaning by mechanical methods. (Brick, a fired product, is hardest on the outside where temperatures were highest; mechanical cleaning should never be tried on brick buildings.)

Grit blasting, such as sand blasting, leaves pits on the masonry surface; thus, increasing the surface area on which new dirt and pollutants can collect.

Waterproofing

When one considers that many masonry buildings have survived without waterproofing for centuries, waterproofing, in most instances, seems superfluous and costly. Like cleaning, waterproofing is probably unessential. Water penetration to the masonry interior is usually a result, not of porous masonry, but of deteriorated gutters and downspouts, deteriorated mortar, capillary moisture from the ground (rising damp), and poorly engineered grading which causes ground water to flow toward the building foundation. Money spent on waterproofing can probably be better spent on correcting the problems listed above. In the case of rising damp, a common problem in the Amanas, a waterproof coating will allow water to rise even higher in the wall as the rate of evaporation is retarded by the presence of a sealer. Waterproof coatings often collect dirt on their surfaces and can sometimes cause masonry deterioration.

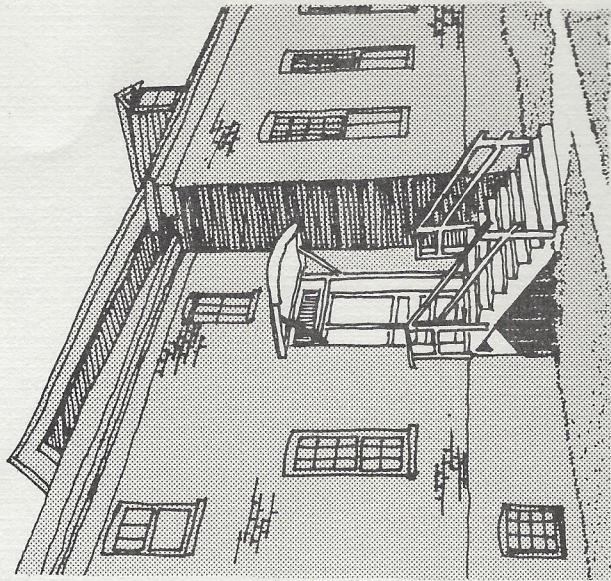
Actually, two types of coatings are available: waterproof coatings and waterproof repellent coatings. Waterproof coatings seal the masonry surface from liquid water and water vapor; they are usually opaque bituminous coatings; some paints also act as waterproof coatings. Water-repellent coatings prevent water from penetrating the surface but allow water vapor to enter and leave through porous masonry. A transparent silicone coating is a popular method in applying water

repellent coatings. Since water repellents do not seal the masonry surface, water vapor which enters the wall can condense at cold spots, producing liquid water. In such a case the application of a water repellent has proved unsuccessful in eliminating problems caused by water in the walls. A water repellent also prevents water and dissolved salts (salts are frequently present in masonry) from coming to the surface. Instead, salts will remain behind the masonry surface. Over time, salt crystals will grow, developing substantial pressures which will spall the masonry. Although this build-up may take several years to cause problems, it is a serious threat to masonry buildings. There is, however, sometimes a need for water repellent coatings: sand-blasted brick, for example, may be so porous that paint or some type of coating is essential. In heavily industrial areas damage from local pollution may be greater than the potential damage of treatment. Such is not the case in the Amanas; in Amana, expenditures for water repellent treatments could be used more wisely for other restoration and maintenance procedures.

Repointing Mortar Joints

The repointing of mortar joints occurs frequently in masonry buildings in Amana. Repointing or "tuck pointing," as it is also known, is the process of removing deteriorated mortar from the joints of the masonry wall and replacing the old mortar with new. Improper repointing can not only alter the visual character of a historic Amana building but can also lead to further deterioration of the masonry. Falling mortar, loose bricks, and damp walls are common clues used by homeowners in determining that it is time to repoint. A decision to repoint, however, should not be made solely on these factors. It is a good idea to consult in each individual case with an architect or other trained person who is knowledgeable in restoration techniques. The Division of Historic Preservation in Iowa City can often advise owners of proper techniques or recommend a qualified consultant.

Although there is a great deal of uniformity and consistency in masonry buildings in the Amanas, each building is different. When repointing, the contractor should follow the original methods as closely as possible. For example, he should determine whether the horizontal or vertical joints were struck first and use the same order in his repointing. If replacement bricks are to be used, they should be the same size and color as the original. Since original bricks in the same wall can vary in size, texture, and color, replacement bricks



Soft mortar is the only correct material to use in repointing masonry buildings.

should be in the appropriate range and not identical if the original bricks vary in their identifying characteristics.

Mortar

Mortar performs several essential functions: as a plastic material it is able to fill voids between masonry units which do not join together exactly. Mortar assists in making walls watertight. Its form and color are important properties which contribute to the appearance of a masonry wall.

Limestone mortar predominated during the communal period in Amana. Limestone mortar is a softer mortar than the hard mortars commonly used in current building. As a soft mortar, limestone allows bricks or stones to move slightly within the wall. Normal stresses within a wall caused by expansion, contraction, and/or settlement are relieved by mortar when the mortar is soft. A mortar which is stronger or harder than the masonry units--soft Amana brick or stone--will not "give" thus causing stresses to be relieved by the masonry through cracking and spalling. Most modern mortars with a high percentage of portland cement will have the harmful effects described. A porous mortar such as one with a high lime concentration will permit water within the wall to migrate out and escape; mortar with a high cement content does not permit such movement and the water trapped within the wall may be subjected to expansion and contraction in the normal "freeze and thaw" cycle.

Using a maximum amount of sand helps reduce shrinkage of mortar while drying. The mortar must not be sticky or gummy and should handle well on the pointing tool. A newly applied mortar, as well, must have good water retention to resist rapid loss of water through absorption by the brick or old mortar while setting.

A high lime mortar which is soft, porous, and has the lowest volume change due to climatic conditions is the best mortar for use in repointing historic Amana masonry buildings and foundations. Lime mortar is also slightly soluble in water and able to self-seal small cracks or voids which develop. As long as a wall is protected from water penetration by good roofing, gutters, and flashing, even a straight lime mortar is durable for many years. High lime mortars also reduce potential stresses at the edges of the masonry and minimize shrinkage which leads to hairline cracks.

In most instances, the following mortar formula will be appropriate in the Amanas:

1/4 bag white portland cement
3 cubic feet of sand (local sand may be used)
1 bag hydrated lime

This formula only suggests the basic range of lime-to-cement ratios. Each individual case of repointing may require minimal modifications to produce a mortar which matches the visual and physical character of the original. The choice of a sand will have a major effect on the color of the mortar. Modifications in amounts or choice of the material may be necessary to match existing mortar.

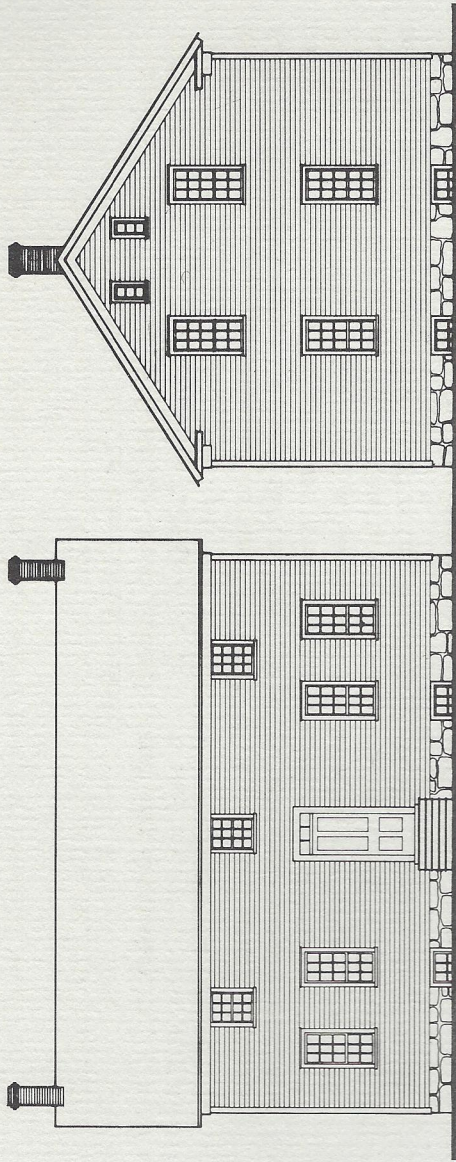
Materials Specifications

Owners should review the material specifications for any repointing contract in the Amanas. In general, materials should conform to the specifications of the American Society for Testing and Materials (ASTM) or comparable Federal specifications. Lime should conform to ASTM C 207, Type S, Hydrated Lime for Masonry Purposes or Federal Spec SS-L-351B. This lime is designed for high plasticity and water retention with a safe degree of strength. The use of quick lime with the necessity of slaking and soaking does not provide superior results.

Cement should conform to ASTM C 150, Type I or II or Federal Spec SS-C-192G(3). It should have not more than 0.60% alkali (expressed as sodium oxide) or not more than 0.15% water soluble alkali by weight (in the combination of lime and cement). This low alkali content is necessary to help avoid efflorescence. Non-staining white cement is expensive but will produce a better color match than the usual grey cement.

Sand should conform to ASTM C 144 or Federal Spec SS-A-281B(1) para. 3.1 to assure proper gradation and freedom from impurities.

Water should be clean and free from harmful amounts of acids, alkalis, or organic materials.



Wood Finishes

The use of naturally weathered wood is one of the major architectural characteristics of the Amana Colonies. Prior to the Change of 1932, the Amana people usually used paint only on door and window frames. An examination of the 1932 appraisal sheets identified only one painted residence at the time of the Change. Most frame homes have been painted or covered with new siding since 1932. Synthetic siding or any siding--such as aluminum, vinyl clad, asbestos, or asphalt--is inappropriate. Maintenance of existing clad structures must continue but homeowners should be aware of the inappropriateness of the covering and consider removal of such siding a high priority. Individual economics and finances are, of course, the determining factor in such renovations. At any rate, no more homes should be covered with any siding other than wooden siding the same size and character as the original siding. Homeowners with synthetic siding should restore wooden siding rather than replace deteriorated applied siding with another synthetic version.

Replacing Wooden Finishes

Whenever new wood is used in an old Amana home, an addition to it, or in the historic Amana environment, special care should be taken to give it an authentic Amana appearance. The weathering of wood allows a change in color, roughening and checking of the surfaces, loss of surface fibers, and warping. Wood, exposed to the elements, changes in appearance after several months of exposure. After the initial change, the appearance remains almost unaltered for many years. Weathering is not the only force affecting untreated wood; several micro-organisms also contribute to a change in appearance or color. The color of wood begins to change soon after exposure: generally, dark colored woods become lighter and light colored woods darken. As weathering and aging continue, all woods become a gray color.

Only the wood closest to the surface is affected by weathering. The weathered layer is composed chiefly of the most leach-resistant cellulose parts of loose wooden fibers. Lignin--the cementing material of wood cells--deteriorates through exposure to sunlight; moisture, as well, removes almost all lignin fragments, sugars, and natural extractives. This defiberation, or loss of surface cells, occurs most rapidly in the thin-walled fibers of spring wood and at a much lower rate in summer wood. As surface fibers deteriorate, the brown and gray layers move more deeply into the wood. The process, however, is so slow, that one must credit the Amana leaders, who forbade the use of paint, with a large measure of practicality. They were probably correct that rebuilding and replacing rotten wood was as cheap as painting since the deterioration process is so slow that only 1/4 inch of thickness is usually lost in a century.

Weathering has other effects, too. Untreated wooden boards tend to warp and pull at their fastenings. The warping tendency varies with the density, width, and thickness of the board; the greater the density, and the greater the width in proportion to the thickness--the greater the danger of warpage. For best results, the board width should not exceed eight times the thickness of the board. Warping is more pronounced in flat-grained boards than in vertical-grained boards.

Dark colored spores and the mycelia of fungi also affect the color and appearance of wood. When these organisms grow on a wood surface, they cause a dark gray, blotchy appearance. (The silvery gray appearance of weathered wood usually occurs only in very dry climates or in coastal regions where salt atmosphere inhibit the growth of micro-organisms on wood.)

Paint

Many Amana frame buildings have been painted; it is not practical to advise removal of paint from these historic buildings. Opaque finishes (of paint or other material) which imitate the appearance of weathered wood are preferable to most standard colors of paint. Experimentation in developing a paint approximation of weathered wood should continue. If standard colors are to be used, grays and browns--earth colors--are preferable to other colors. Pastel colors such as pink, blue, yellow, or green should never be used on a historic Amana home or in the historic Amana environment. White is an acceptable color which neither enhances nor detracts from the historic feeling of the Amanas.

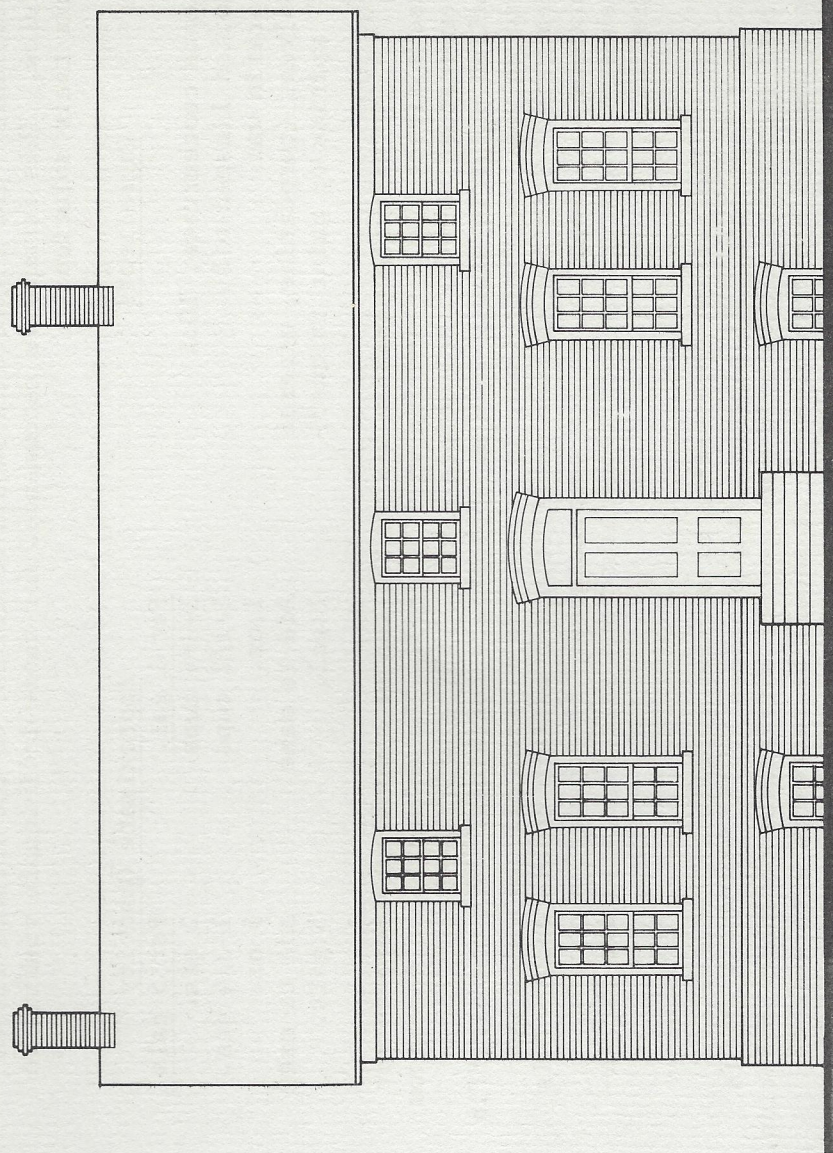
Water-Repellent Preservatives for Wood

New, unpainted wood can be treated with a water-repellent preservative to minimize the effects of weathering. A preservative will also serve as an effective, natural-resembling, exterior finish for wood. Most paint, lumber, and hardware stores have such solutions available. The ingredients should be similar to the formula listed below. This formula is recommended for those individuals wishing to mix their solution:

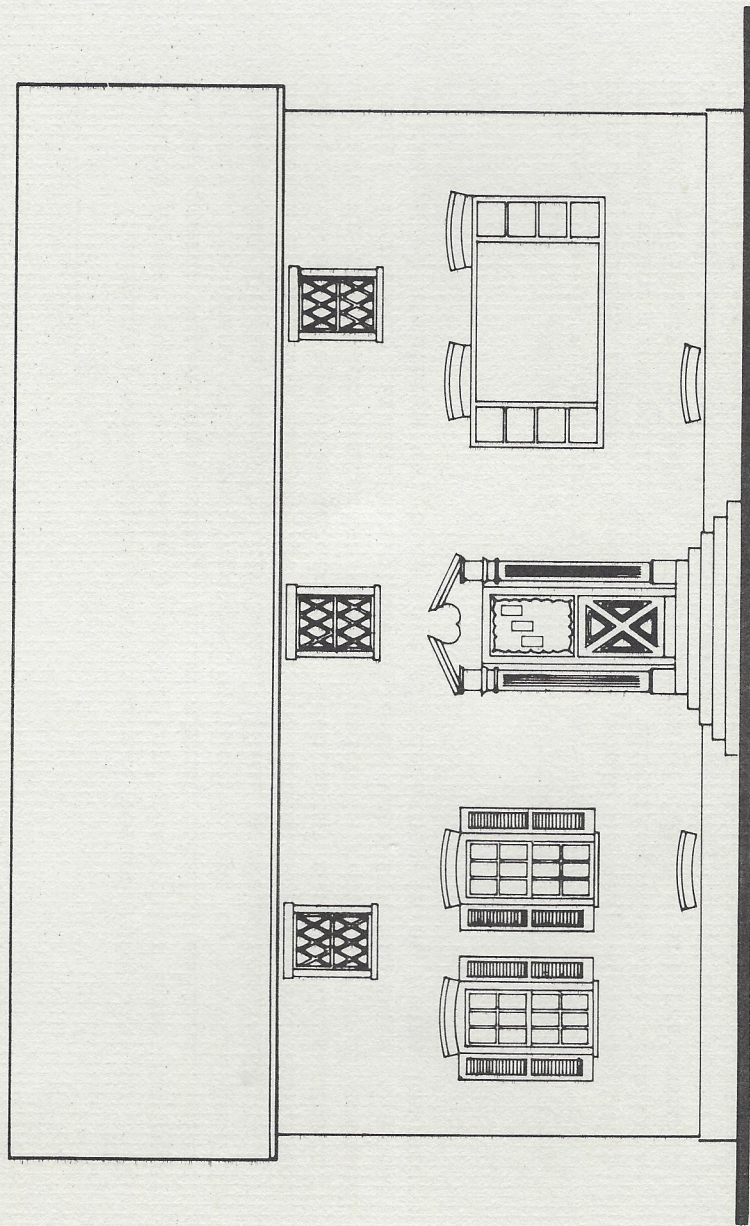
Ingredients	Approximate Quantity	
	For 1 gal.	For 5 gals.
Penta concentrate, 10:1	1-3/4 cups	2 qts.
Boiled linseed oil	1-1/2 cups	1-3/4 qts.
Paraffin wax	1 oz.	5 oz.
Solvent (turpentine, mineral spirits or paint thinner)	Add to make 1 gal.	Add to make 5 gals.

Melt the paraffin wax in the top of a double boiler; do not use a direct flame (Paraffin will ignite). The solvent should be room temperature (60°-80° F.) before mixing. While stirring, pour the melted paraffin slowly into an appropriate container. Mix the paraffin and solvent together; then, in order, add linseed oil and penta concentrate. Stir the mixture until it has a uniform consistency. This mixture will separate at low temperatures. If separation occurs, reheat the mixture to room temperature and stir to redissolve the ingredients.

The initial application of a water repellent preservative may not last long. If blotchy discolorations begin, the owner should clean such areas with a mild detergent or a trisodium-phosphate solution. Once the wood has been cleaned, it should be retreated with another liberal brush application of water repellent solution. After the initial aging period, this treatment has a long life.



Elements to preserve when restoring an Amana dwelling.



Elements to avoid in renovating an Amana dwelling.

Landscape Guidelines

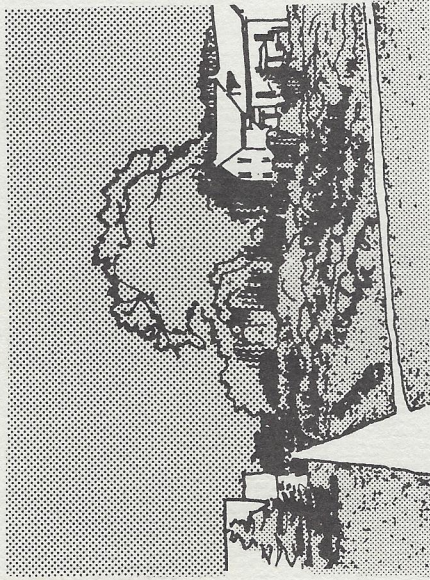
Several general guidelines also apply to Amana's historic landscape. Property owners should strive for a physical appearance closely approximating the appearance of the Amanas prior to 1932. Some concessions, such as retaining paved roads rather than restoring dirt roads, must be made. Restoration of other landscape elements, such as traditional plant materials, will enhance visual quality in the Amanas. The most important general rule which applies in almost every situation is to respect the original landform.

Vegetable Gardens

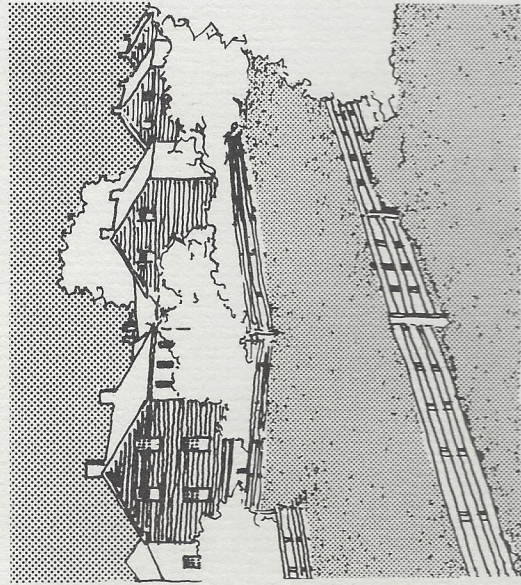
The Amana people during the communal period from 1854 to 1932 planted almost every available piece of land near their homes as vegetable gardens out of necessity. As an almost totally self sufficient society, the Amana villages depended on their crops to provide food for preparation in the community kitchens. These gardens remained important even after the Change since the frugal Amana women continued the practice of vegetable gardening. Even today many gardens remain and are an important landscape element which is reminiscent of communal Amana. Vegetable gardens are preferable to unbroken expanses of grass or clumps of shrubbery which are out of character in an Amana landscape

Fences

In old Amana, fences were never painted and were used to keep livestock herds from straying into the gardens and wild animals away from the kitchen gardens. Today, fences would be helpful in defining personal space from public space and in deterring visitors from trespassing on private property. Three types of fencing are recommended as authentic Amana fences of the Communal period; post and board fences, post and chain fences, and picket fences. Gates were often a small section of picket fencing. Reconstruction of fences along the streets would enhance the Amana landscape and accent its historic character. The post and board fences usually had three boards; kitchen houses sometimes had a four-board fence. A few historic photographs show tall picket fences and picket gates. Post and chain fences also were used in front of some commercial buildings such as stores to delineate parking space for buggies, wagons and automobiles.



Vegetable gardens.



Post and board fences in the Amanas.

These three fence types are appropriate today: unpainted post and board and picket fences for residences; and post and chain fences for businesses.

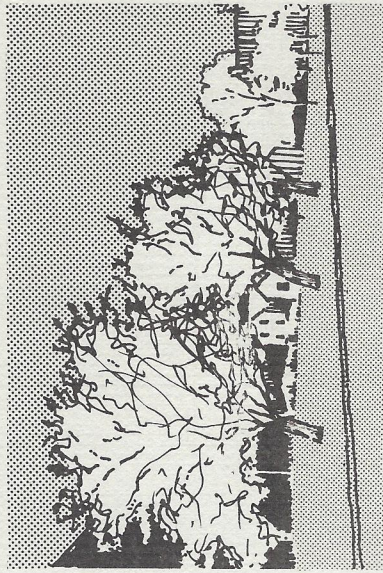
Trees and Shrubbery

Under the communal system the Amana people planted few trees which were not functional or which did not produce fruit. Pine groves were used as natural windbreaks. Pine groves around cemeteries and in a few other places throughout the colonies were almost the only instances of non-functional plantings. Since planting ornamental or shade trees or non-productive shrubbery was forbidden by the testimony of prophet Barbara Heinemann Landmann, Amana people generally planted fruit-bearing trees such as apple, (*Malus pumila*) and cherry, plum, and peach trees (*Prunus*).

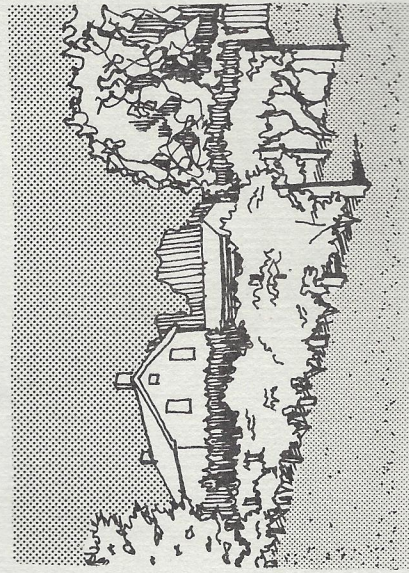
Given the Amana traditions, large deciduous shade trees or conifers in individual yards are inappropriate today and contrary to any restoration effort. The same is true of foundation plantings of shrubbery. Instead, homeowners desirous of planting their yards should plant fruit trees or a hybrid-non-producing fruit tree which gives the same visual effect but does not require the same care as a fruit producing tree. In any event, property owners should consult any available photographs of their lot and try for the most authentic plantings. Lastly, large trees and shrubs, as well as being unauthentic, often hide the characteristic and simple beauty of the Amana architecture.

Vines and Trellises

Grapevines and raspberry bushes are distinctive Amana landscape elements. Since almost every available space of old Amana was planted, these vestiges of the past are an important part of the total visual environment. Grapevines on trellises along house walls or in rows nearby add a pleasing textural quality and are a visible link adding continuity in Amana culture since wine-making and grape industry have been and remain important in Amana. Trellises should be repaired regularly and treated as other trim. Owners should consult old photographs for authentic Amana trellises when replacing or adding trellises. Grapes (*Vitis*), Raspberries (*Rubus*), Currants (*Ribes aureum*), and gooseberries (*Ribes cyrosbati* L.) are other appropriate fruits which were grown in the communal period.



Fruit trees.



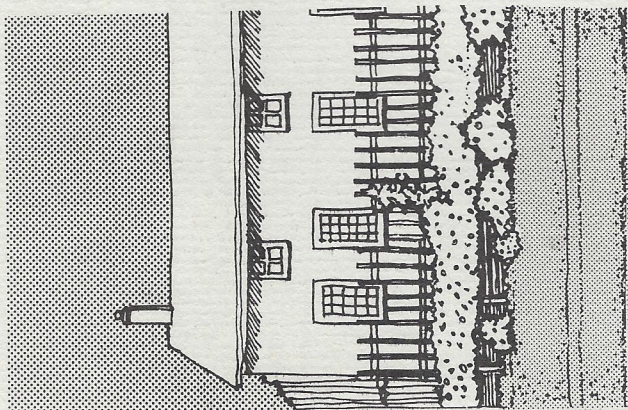
Grape arbors.

Flowers

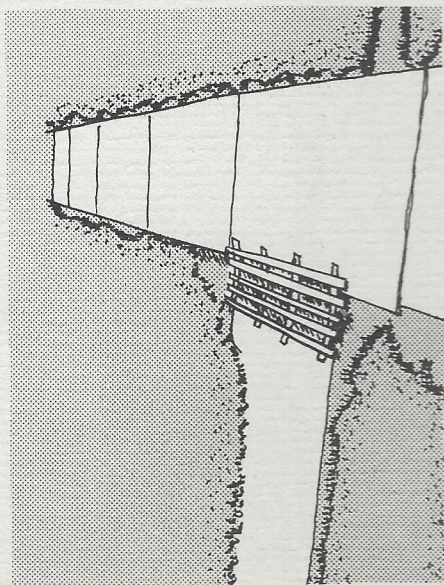
In Communal Amana flowers bloomed in great profusion everywhere --around each dwelling, in front of the church, and even in the school yards. Four o'clocks (Nyctaginaceae), lady slippers (Orchidaceae), candy-tuft (Cruciferae), marigolds and zinnias (Compositae), pansies (Violaceae), and rows of delphinium (Ranunculaceae) were among the flowers which Amana women carefully tended. Flowers were most often planted in a short wooden or cement walled planting bed known as a "Rabatt" which was built along the foundation of the house. Some completely surrounded the house while others extended only along one wall. Preservation, restoration, and reconstruction of a "Rabatt" can help give an Amana dwelling a more authentic appearance. The "Rabatt" may be built of either wood or cement.

Walks

A system of interior walks and sidewalks were, historically, and remain today, an integral part of Amana life. Although they are visually pleasing and historically significant, these walks are more important as a present-day circulation system and symbol of the cultural community which still exists in Amana. Some walks were parallel to existing streets and closely followed the fence lines of the yards adjacent to the streets. Another more complex system of walks existed on the interiors of blocks; these walks caused the interior areas of the blocks to be active pedestrian spaces. These walks began as rough plank walks; later the colonists laid brick walks; and when cement became more available in the early 1900's, cement walks replaced the early wooden walkways. These walks were once important for Amana people making their way to the numerous church services, to the community kitchens, and to the village school, kinderschule, shops, and farms. Today villagers use the interior walks to visit with one another or to walk to church on Sunday; the interior walks also provide a private circulation space where village residents can usually avoid contact with the frequent visitors. Although most of these walks are now privately owned, it is important both visually and culturally that owners maintain them so that they remain accessible to village residents. The sidewalks along the streets and roads are used by both Amana residents and visitors. The walks provide a place for pedestrians to use apart from the automobile dominated streets. Where these walks



An Amana dwelling with a "Rabatt" for flowers and a trellis for grape vines.



Amana walkway with drainage grate.

have deteriorated or disappeared they should be replaced. Iron drainage grates which connect intersecting walks should also be preserved.

Streets and Roads

It is no longer practical for the Amanas to have dirt streets and roads. When roads are repaved, however, they should not be allowed to be built above their original grade. Some streets and roads have been built up as much as a foot above their original grade.

Lighting

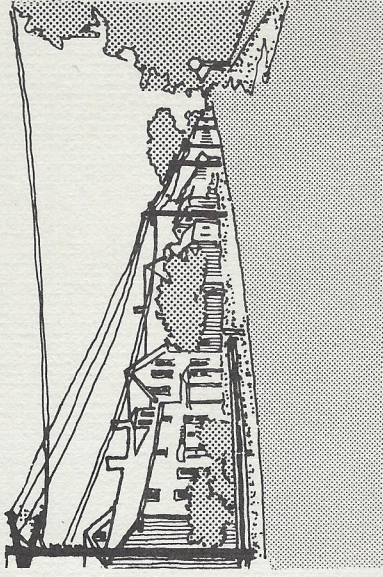
Lighting is an especially sensitive element in the Amana street-
scape. Any harsh lighting such as mercury or sodium vapor lighting is inappropriate; as are tall metal poles. Reproductions of the historic Amana lamps and lampposts which once lit the walks to churches and kitchen houses would be the most desirable form of lighting. Four-sided kerosene lanterns supported on a wooden post provided minimal lighting along the footpaths leading from the dwelling to the church and kitchen houses. Sometimes the supporting posts were incorporated into a fence post or attached to a building.

Other Elements

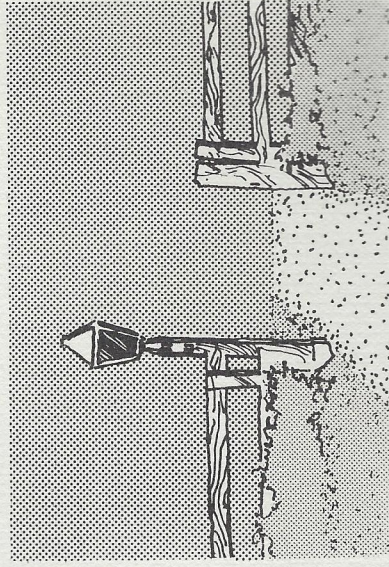
Handmade wooden birdhouses were popular in communal Amana. These houses enlivened the Amana landscape by adding detail to the severe, unornamented architecture. Preservation of these birdhouses is an important aspect of landscape preservation. Other details such as iron pumps are also authentic landscape details which should be preserved. Many elements such as windmills have completely disappeared. Their restoration would enhance the authentic and historic character of the Amanas.

Utilities

Any mechanical services or utilities should be installed where they require the least amount of alteration to the site. New or replacement utility lines such as electrical and telephone cables should be replaced underground to enhance the historical environment of the Amanas. Utility lines should, likewise, never be attached to the principal elevation of the building. Important architectural features



Existing utility lines intrude into the historic environment.



An Amana lamp.

such as cornices are not appropriate places to bore holes for utility lines.

Street Furniture

Street furniture in the Amanas should be unobtrusive and kept to a minimum since such items as benches and trash receptacles were hardly part of the historic Amana streetscape. Wooden benches which are presently made by at least two Amana residents are probably the best and most compatible street furniture available. Trash receptacles as well should also be made of wood and left unpainted and allowed to age. Wooden barrels are currently used in many places. Without their blue lids, these barrels would be the most appropriate type of trash receptacle.

Signs

Signs will probably be one of the most important elements which any historic district commission in the Amanas will have to consider. Although the plan prepared for the Amanas recommends that a signage system be designed, it is appropriate to include in this handbook a few general guidelines for signs. Businesses constructing new signs should use the following criteria:

1. Limit the sign to as few words and graphics as possible.
2. Use a consistent lettering style.
3. Use words which are part of the traditional Amana vocabulary; do not use faddish or slang words which cheapen the authenticity of Amana.
4. Do not borrow words or phrases from other ethnic groups.
5. Use natural materials such as wood and avoid plastic and illuminated signs.
6. Avoid standard, mass-produced signs which are provided by manufacturers of soft drinks and other products.
7. Limit signing to one well-designed sign. A multitude of signs is distracting and gives Amana a cluttered appearance.

Bibliography

The following bibliography is suggested as a core library for Historic District Commissioners and interested Amana residents.

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