

University of Delaware  
Newark, DE 19711

Interpretive Prospectus

for the

Gardens and Landscape

at Old Salem

Submitted by

Robert Hyland

June 25, 1982

## Introduction

The buildings and gardens of Old Salem represent a unique resource for the education and enjoyment of visitors. Following the classification proposed by Alderson and Low (1) in their book, Interpretation of Historic Sites, Old Salem is a representative historic site. Its primary objective is not to help the visitor understand one specific person or historic event, but to focus attention on a unique religious group, the Moravians, and the period in the past in which they lived. The restoration of Old Salem spans the years, 1766-1850, a century which has been well researched and documented. The wealth of accumulated information is interpreted to visitors through both the preserved and re-created buildings and landscapes.

Gardens surrounding the houses, shops, and outbuildings of Salem are vital components of the historic site. They aid twentieth century visitors in understanding the Moravian culture, and appreciating the values that underlay the creation and management of the landscape in the Moravian's pioneer settlement called Bethabara and the later congregation town of Salem. Visitors leave Old Salem better able to relate 18th and 19th century Moravian values to current environmental and social conditions.

Gardens in Salem highlight a people who were true stewards of the land. Even though the town was primarily a center of trade and of skilled craftsmen, rather than an agricultural community, Moravians relied on their gardening skills for food and survival. They put high priority on the management of backyard gardens as well as the surrounding agricultural land and native forests. They even had the foresight to appoint a forester in the 1800's to supervise the selective cutting of timber and the planting of street trees to beautify the town.

Influenced by medieval European and German Renaissance styles of landscaping, the Moravians created utilitarian household gardens primarily for food and secondarily for ornamentation

and pleasure. Gardens were distinguished by their simple, but structured geometric design in the midst of a tamed wilderness in piedmont North Carolina.

Despite the apparent order and simplicity of the gardens and their plantings, a more complicated program of interpretation is required for the Salem landscape. The houses and gardens can and do serve many functions which might include service as a historic site, botanic garden, arboretum, and outdoor education center. However, the success of any effort for the development of a garden and landscape interpretive program depends on the selection of aspects that make Salem gardens unique. Rather than duplicate programs and services already offered by other gardens in the area, Old Salem can become a regional authority on the interpretation of 18th and 19th century plants, gardens, and landscapes.

#### Interpretive Plan

Any interpretive programs for Old Salem gardens and landscapes should be based upon and supported by a written plan or prospectus. Such a plan is aimed at the site's audience and centered around predetermined objectives concerning what facts visitors should learn and what ideas and concepts they should understand as a result of their visit to the buildings and gardens.

Interpretive programs might include exhibits on the history of Moravian horticulture between 1753 and 1850, German garden design during the 17th and 18th centuries, garden ornamentation in American gardens, or the artistic, cultural, economic, and historical influence of plants in the upper southern states. Specific suggestions for Old Salem to consider appear in the following sections of this plan.

#### Visitor Survey

The task of developing an interpretive landscape and garden plan follows a logical sequence of steps. Initially, a visitor survey will determine the salient characteristics of visitors to

Old Salem.

The audience might typically include the following groups:

School children (through high school)

College groups:

- Architecture
- Botany
- Material Culture
- Decorative Arts
- History
- Horticulture
- Landscape Architecture

Practicing Historians

Home Gardeners

Professional Botanists and Horticulturists

Senior Citizens

"Casual Visitors"

In addition to a general program of orientation and interpretation for all visitors to the gardens, special programs should be continually designed to fit the individual needs and interests of each of the above groups.

Demographic information on the Old Salem visitor would be helpful in matching programs to the audience. Age, interests and hobbies, income level, education, length of visit, frequency of visits, distance traveled, visitor expectations and preferences are all factors that need to be considered in the effort to match programs with the audience.

### Goals and Objectives

The next step in the generation of a garden interpretive plan is to develop a set of goals and objectives. To quote William Alderson, "the advantages are clearly on the side of developing a standard of interpretation aimed at a site's audience and centered around predetermined objectives concerning what facts visitors should learn and what ideas and concepts they should understand as a result of their visit to the site." These objectives are usually a combination of historical facts it is hoped visitors will learn and historical concepts promoted during their visit.

To foster an understanding of the Moravians and their in-

fluence on agriculture, horticulture, and botany in piedmont North Carolina as reflected in their gardens and orchards, the following objectives are proposed:

1. To explain the European, specifically German influence on garden design and on horticultural and agricultural practices in Bethabara and Salem
2. To explain the communal system of gardening and house-keeping established in the pioneer settlement of Bethabara
3. To interpret the change from a communal to self-sufficient garden system in which individual backyard gardens were tended by Moravians in Salem
4. To emphasize the Moravian's love and dependence on the natural world, their desire to better understand its seeming mysteries, and their appreciation of its utility and beauty.

Each of these objectives is fully detailed in the companion piece to this plan, A Manual for Garden and Landscape Interpretation. The realization of these objectives provides a wealth of interpretive material for Old Salem gardens and landscapes.

#### Interpretive Methods and Media

The third step in the overall progression of garden interpretive planning at Old Salem involves the transition from the conceptual level to the physical implementation of a program of visitor orientation and interpretation. It is at this stage that specific interpretive media and methods are chosen from the wide realm of possibilities.

Orientation is essential for all visitors to historic Old Salem buildings and gardens. In public gardens, orientation gives casual visitors directional information for finding their way around the gardens and locating what they wish to see. In Old Salem visitor orientation creates an awareness of the re-created gardens and sparks an interest in actually seeing them.

Although each audience segment has specific needs, it is for the benefit of casual visitors that the ideas expressed in this prospectus are directed. With this in mind, the cost-

effectiveness of any orientation techniques should be considered. Garden orientation begins as soon as visitors encounter the Old Salem Reception Center, and might include one or more of the following:

1. Seasonally-adjusted garden informational brochures or inserts for the guide map
2. Use of seasonally-adjusted garden and landscape color photographs or back-lighted color transparencies in the Reception Center
3. An improved and simplified wall map of the Old Salem historic district, highlighting museum buildings and gardens open to the public. Graphic symbols and color codes could be used to quickly and easily identify garden areas.
4. Garden information disseminated by ticketsellers, guides, garden interpreters, or volunteers
5. Use of a bulletin or "Events" board for announcements of weekly and daily garden highlights and demonstrations:

Examples = "Fruit Trees in Bloom"

"Flax Harvesting Demonstration in Folts  
Field, 1 - 4 p.m."

6. Use of decorative floral, fruit, and vegetable displays, such as:
  - arrangements featuring a flower of the week or flowers with particular historical significance
  - artistically arranged baskets of fresh fruits, vegetables, and herbs harvested from the gardens
7. Incorporation of Salem landscape and garden history in the orientation film currently used in the Reception Center; this is easily accomplished when the existing film is rewritten and the format changed to slides, multi-image, or videotape

Regardless of the technique used, information should be readily available regarding hours gardens are open to the public, admission charges, time required for touring gardens, restrictions while on the site, special scheduled events, and self-guiding garden tours.

## Garden Interpretation

Orientation is not a substitute for experiencing a garden; it serves as a prelude to a visit. The next step in a program of visitor and information services at Old Salem is the interpretation of the garden from the time visitors leave the Reception Center until they finish their tours. To quote the American Association of Museums (AAM) in its recent accreditation program for historic sites, interpretation is a "planned effort to create for the visitor an understanding of the history and significance of events, people, and objects with which the site is associated."

Currently, a one-on-one relationship is heavily relied upon for interpretation of Salem yards and garden through guided group tours (approximately 40,000 children on school tours) as well as through stationed, seasonal garden interpreters. However mass communication techniques might be improved and strengthened to meet the needs of the approximately 100,000 visitors who tour Old Salem at their leisure. Grant Sharpe (2) divides such techniques into non-personal/unattended and personal/attended categories in his book, Interpreting the Environment.

Non-personal interpretive services in Old Salem gardens can include:

1. Signs: descriptive story labels, plant identification labels
2. Publications: descriptive brochures, garden guides, maps, booklets
3. Self-guiding activities: walking tours of the historic district and gardens, discovery rooms
4. Exhibits: temporary, permanent, "Hands-On"
5. Audio-Visual services: slides, film, videotape, multi-image shows

## Signs

Garden administrators and horticulturists face the conflict between the aesthetic experience and educational need for signs and labels. Signs in most historic garden settings have no historical precedence and become anachronisms in the re-created

landscape. However, a limited number of high-quality signs designed to complement Salem plants and gardens are helpful to casual visitors touring on their own. Temporary labels that are removed as soon as the interest shifts from one garden area to another are recommended. For instance, when a tulip finishes blooming or lettuce is harvested, their labels may be lifted and new ones placed on the plants which succeed them or others of interest in the garden. Labels on perennial woody plants with several showy periods might remain year round.

Labels made of wood splits, tree rounds, or manufactured stakes with plant nomenclature written in old script might be more appropriate to the historic setting than state-of-the-art metal-photo or engraved plastic labels. Regardless of the design and construction, any label should give the common and botanical plant names, including varietal and cultivar information. The sowing, transplanting, and harvesting dates of the plant identified as well as the crops preceding and following it might occasionally be included if there is room on the label.

An alternative to the proliferation of individual plant labels is to install small stationary, silk-screened or metal-photo signs with plan views of garden squares that are well-maintained and intensively cultivated in significant Salem lots. Such maps should quickly identify key plants of historical interest and their respective locations in the garden.

Side-by-side, comparative sketches of a typical spring, summer, and fall Salem garden square would illustrate seasonal crop changes. This type of sign could help visitors appreciate the vigor with which Moravians cultivated their gardens to guarantee abundant harvest March through November. The concept also benefits the infrequent visitor who can't return during the growing season to witness garden changes.

Signs which provide more than a simple identification of a plant or landscape feature are also useful for effective garden interpretation. Several on-site interpretive signs are currently used in Salem gardens at eye level on frequently traveled paths.



1. A description of the lot concept with particular emphasis on the division of yards and gardens behind the homes on the west side of Main Street, between Bank and Academy Streets
2. A description of the hops plant (Humulus lupulus) and its culinary and medicinal uses
3. An explanation of the past ownership and use of the Folts field and a listing of the crops currently cultivated
4. A discussion of tree plantings in Salem Arboretum and the importance of the surrounding forests and native plant communities to 18th century Moravians

These four signs form the nucleus for the continued development of on-site interpretation. However, the same written copy has been used on each for the last 3-4 years without evaluation or revision. All of the signs are too long to hold visitor interest and definitely warrant rewriting. The type face on all signs should be bolder and larger, and drawings and illustrations should be included where applicable.

Several additional garden features and areas (listed in order of priority) that merit story labels in Salem are:

1. the medical garden re-created in the Miksch yard
2. the cherry orchard between the Miksch and Schroeter lots, illustrating the use of vacant lots in Salem
3. Salem Square to highlight its past communal uses and frequent landscape changes since the 18th century
4. the tavern yard to describe the extensive food gardens it once supported
5. the tavern meadow once used to graze horses of guests
6. the foundation of the smokehouse in the tavern yard, used to cure meats
7. the wash-bake house in the Vierling yard used for domestic chores
8. the foundation of the wash house behind the Single Brothers Workshop
9. the meadow to the south of the Mayberry Restaurant and Post Office which contains trees and shrubs of economic importance to the Moravians
10. the allée of Darlington oaks (Quercus laurifolia) which line Cedar Lane in God's Acre

The standard rule is to keep the text of story labels to 75-80 words for the most effective communication. Liberal use

of graphics and visuals (photographs, drawings, symbols, etc.) is recommended to relay messages quickly. As trite as the saying is, a picture is worth a thousand words. Incorporating excerpts from the Moravian records, entries from account books and diaries, and observations and quotes of Moravian botanists and plantsmen recorded in the floras of the Wachovia tract might enliven story labels.

For uniformity, the design and construction of any new signs should be similar to those currently used in the gardens. The protective, wooden boxes covered with clear glass on one side appear to be effective because typed copy is easily changed and there is enough room inside for the display of three-dimensional objects. The boxes are also designed to mimic architectural lines and shapes of surrounding Salem buildings. Their dark, forest-green color blends nicely in outdoor settings.

The only drawback to these window boxes is that they are small in size, and visitors must stand right next to them to read their contents. A larger format might attract more interest and more effectively communicate messages, but at the same time be a visual intrusion in the landscape. Experimentation and partial conversion to metal signage (using a photographic process) might be a viable alternative in the future. It is definitely more expensive, limiting the frequency with which the copy on signs can be changed. However, metal signs are durable and resistant to vandalism, so they might be more cost-effective in the long run.

#### Portable Interpretive Materials

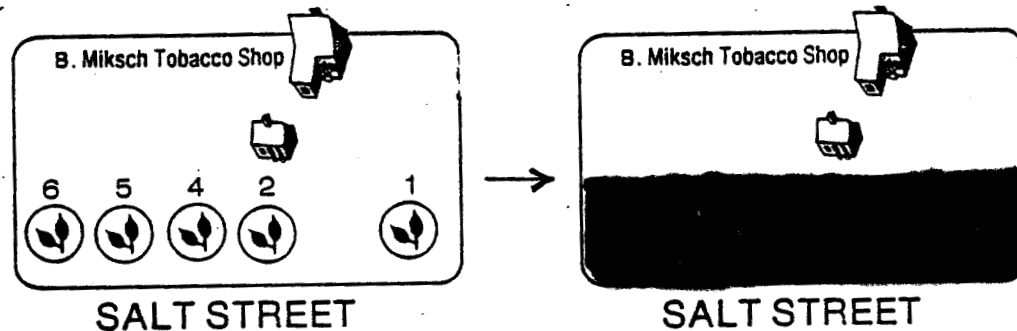
The need to keep the garden free from a mass of interpretive devices which intrudes on the natural beauty or interferes with the enjoyment of visitors suggests the use of interpretive materials carried by the visitor. These might include:

1. Garden brochures or pamphlets

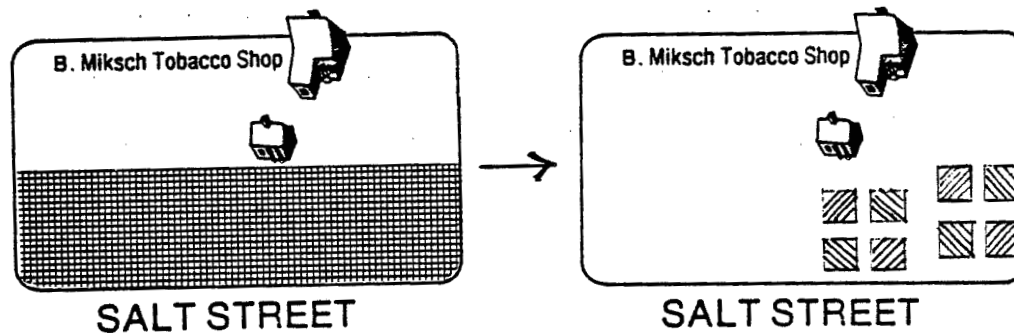
The Visitor Guide which currently accompanies the Old Salem restoration has been the most successful to date for identifying gardens and orienting visitors to their location.

The 1981 summer insert for the Visitor Guide suggesting a short, self-guided tour of the Salt St. gardens is a good publicity technique. It quickly brings the gardens to visitors' attention at a time when vegetables, herbs, flowering annuals, fruit trees, and roses are at their peak. The continued use of such a piece is recommended.

The circumscribed leaf symbol identifying garden areas on the current map is distinct and recognizable. Another graphic approach to consider when reprinting the guide is to shade or color code gardens. This might be an effective technique for quickly indicating to visitors the large acreage devoted to gardens and green space by the Moravians.



Another suggestion is to graphically indicate rectangular garden plots on the map in the yards along Salt St. and other lots where family vegetable gardens are tended in the town.



To carry the graphic alternatives one step further, distinct symbols might be developed for different types of garden areas, such as:

- |                             |                       |
|-----------------------------|-----------------------|
| 1. Vegetable gardens        | = carrot              |
| 2. Flower/pleasure gardens  | = daisy or marigold   |
| 3. Tree and shrub plantings | = oak leaf with acorn |
| 4. Field crop areas         | = wheat or flax       |

## 2. Garden Guides

The Old Salem Garden Guide is one of the best written for a historic site. It is more than a simple identifi-

cation key to plants in Salem, but skillfully interweaves 18th and 19th century garden history (paintings, maps, photographs, and quotes from Moravian records) with contemporary descriptions of Old Salem gardens. It clearly explains why gardens in certain yards have been re-created to varying time periods and appearances.

For future reprints, the scope of the Guide might be broadened to include architectural styles in Salem. House, yard, and garden formed life-supporting environments for the Moravians and warrant interpretation as a unit.

### Separate Facilities

Some institutions believe that interpretive facilities and devices should not interfere with a visitor's experience in the garden. Instead, they feel that separate interpretive centers or "variable response areas" are the logical sites for interpretive activities. Several possible locations at Old Salem for off-site garden interpretation include:

1. Single Brothers workshop
2. tavern woodshed
3. tavern barn
4. Vierling wash-bake house
5. Miksch manufactory
6. Steiner barn (future reconstruction)
7. salt-flax house (future restoration)

Such facilities offer a number of interpretive advantages and possibilities.

1. Indoor exhibits are not dependent on the weather; they would not be affected by sunlight, wind, precipitation, or severe changes in temperature.
2. Indoor exhibits and special programs could encourage visitation during times of the year when interest in the garden wanes in fall and winter.
3. Garden exhibits expand the programming possible at the institution and allow more specialized topics to be examined in detail.
4. The use of audio-visual presentations, especially videotape, on garden topics enhances the experience of a garden visit. The camera is able to capture moods and

details that would be missed by the average visitor. Horticultural information, historical background, and the aesthetic interpretation and ambience of gardens are all easily transmitted through multi-media techniques.

Old Salem gardens and landscapes offer unique possibilities for a broad range of specialized garden exhibits and audio-visual presentations. Listed below are potential exhibit themes grouped into three categories:

A. Horticulture and Botany

1. The culture and training of fruit trees in Salem, including peaches, apples, cherries, apricots, pears, and quinces
2. 18th and 19th century agricultural/horticultural implements likely used by the Moravians
3. Native plants of Forsyth County, North Carolina, seen through botanical illustrations and herbarium specimens
4. Early botanizing in the Wachovia Kramsch-von Schweinitz connection"

B. History and Landscape Architecture

1. History of Salem gardens and landscapes, 1766-1848
2. 18th and 19th century garden books, with a focus on garden calendars which might have been used by the Moravians
3. 19th century garden catalogs and seed sources available to the Moravians such as seed from Germany and Europe; Bethlehem, Pennsylvania; Charleston, South Carolina; the Shakers in Ohio
4. Development of cold frames and glasshouses in Salem, with emphasis on the Belo yard

C. Arts and Aesthetics

1. Plant and garden photography in Salem gardens
2. 19th century flower arranging
3. Uses of plants and their derivatives in the manufacture of decorative arts and industrial commodities, such as flax in linen, rye in straw baskets, tobacco twists, lavender and rosemary in potpourri, and gourds as household utensils
4. 19th century seasonal decorations (Christmas, Easter, Harvest, etc.) from plants

Personal Interpretive Services

Here visitors come into direct contact with interpreters through the medium of 1)conducted services, 2)talks to groups, and 3)living interpretation and cultural demonstrations.

Personal services are considered ideal interpretive media for reasons of their warmth and flexibility. The person on duty can make visitors feel welcomed by encouraging two-way communication. At the same time that person can handle situations beyond the scope of interpretation such as police action and first aid. Though there are advantages to personal interpretive services, there are also disadvantages, such as the cost and time to orient, train, and supervise guides, hostesses, and other information people.

### 1. Conducted Services

Conducted services in Old Salem currently include guided tours of the museum and exhibit buildings with little emphasis on yards and gardens. These tours highlight buildings, architectural styles, home furnishings, and decorative arts prevalent in 18th and 19th century Moravian culture and society. Gardens and plants may or may not be mentioned at the beginning or end of a house tour as hostesses send visitors on their way or as guides lead them to the next site. There has been little formal training of guides and hostesses on the topic of garden history, horticulture, and plant identification and nomenclature. As a result, the interpretive staff is reluctant to tell the story of the re-created family gardens in Salem.

This is an unfortunate predicament especially with the wealth of garden subjects and features in Old Salem worthy of interpretation. Guides may discuss food gardening in the backyards of Moravian homes, the construction and use of cold frames, arbors, fences, and compost bins, the planting of street trees and native plants to beautify the town, and the cultivation of field crops. At any point of interest, interpreters should pose questions and encourage visitors to enter into the discussion. Garden tours might also have interpreters experiment with short monologues, selected readings from primary sources, and role-playing some of the people instrumental in garden development in

Salem, such as Matthew Miksch, Christian Gottlieb Reuter, Samuel Kramsch, Louis David von Schweinitz, and Jacob Lung.

The key to developing a successful guided garden walk is to provide a program of orientation, training, and evaluation for garden interpreters. A communication network must be established among the departments of Interpretation and Education, Restoration, and Horticulture at Old Salem. Staff members in these three areas should coordinate an in-service training program and develop a training manual for garden interpretation which would include information on the following topics:

1. Introduction: Old Salem's philosophy on garden interpretation and the state-of-the-art concerning garden interpretation at historic sites
2. Gardening traditions in Germany and Europe and their influences on Moravians prior to and after their emigration to America
3. Communal gardening at Bethabara, the pioneer Moravian settlement in North Carolina in 1753
4. Family food gardens in Salem between 1766-1848
5. Brief history of Old Salem's garden restoration program discussing its administration and goals
6. Suggested interpretive outlines for gardens surrounding Old Salem exhibit buildings for use by guides, hostesses, and summer garden interpreters
7. Landscape questions frequently asked by Old Salem visitors
8. Annotated bibliography of books and articles specific to Old Salem garden interpretation
9. Suggested interpretive schedules for summer gardeners

During the period of active interpretation in the gardens, April through September, updates on recent garden research, specific information on plants in bloom, and other items of interest should become a regular part of monthly interpretive staff meetings. Gardeners should be encouraged to participate in these sessions whenever possible. They are key people to assemble and disseminate horticultural and agricultural information specific to Salem gardens. They might prepare a planting

scheme for several lots, such as the Miksch, Triebel, and Leinbach, noting the location of plants, their approximate planting dates, length of time to maturity and harvest, and the crops which will succeed them during the entire growing season. The best presentation of this kind of information might be a plan view of several squares in these yards with individual rows highlighted. A series of overlays would show the progression of vegetables, herbs, and garden flowers from spring through summer and fall.

Garden plans could also be drawn for the Salem Arboretum and the various vacant-lot orchards around the town at a later point in time. In these areas plans would not have to be revised as frequently because plants are long-lived and persistent in contrast to the ephemeral nature of herbaceous plants in the family food gardens.

Another technique for educating guides at monthly meetings between April and September is a 20-30 minute walk through family gardens with the horticulturist to note and discuss plants and garden features of seasonal interest. A short, mimeographed or zeroxed one-page monthly newsletter, with a title such as "Salem Seeds", or "Plants on Stage", or "Flora Salemitana", might reinforce or even substitute for walks. Such a publication might regularly feature plants in bloom for the month, horticultural tips and advice, and research updates on specific Salem yards and gardens.

Colonial Williamsburg has experimented with both garden information sheets, aptly titled "The Gardens of Williamsburg", and a monthly newsletter. One-page information sheets summarize the history of a particular building and lot, describe the existing landscape features, and list specific plants grown in that garden.

The newsletter speaks in more general terms about plants in bloom on a monthly basis. It is the result of the enthusiasm of 1-2 garden guides from the interpretive staff who foresaw the need for this type of information. Publication of the newsletter will continue as long as there is interest among Williamsburg interpreters and support from the administration of the



Education and Interpretation department.

## 2. Talks to Groups

In addition to conducted garden tours, other types of presentations include lectures and symposia. The restored and reconstructed buildings and gardens and landscapes offer a broad range of specialized talks, which can be held in the Single Brothers Workshop, the Reception Center, Museum of Early Southern Decorative Arts (MESDA), and other appropriate locations in Salem. Below is a list of potential topics for garden talks which are divided into the same three categories used previously in this prospectus.

### A. Horticulture and Botany

1. Antique cultivars of garden bulbs, their cultural requirements and current commercial nursery sources
2. Antique vegetable cultivars and information about them
3. Antique fruit cultivars and information about them
4. Herbs and their medicinal and culinary uses in Salem
5. Indigenous plants of the Wachovia tract and piedmont North Carolina - trees, shrubs, and wildflowers
6. Gardening practices between 1753 and 1847
7. Antique methods of preserving fruits, herbs, vegetables, and flowers
8. European plant introductions in Salem gardens
9. Plant exploration and collection by the Moravians in Wachovia and nearby areas
10. Economic importance of native and introduced trees and shrubs to the Moravians

### B. History and Landscape Architecture

1. The influence and expression of medieval and German Renaissance gardens in Old Salem
2. Moravian botanists: Louis David von Schweinitz, Samuel Kramsch, Christian Gottlieb Reuter
3. Development of the glasshouse and indoor gardening in America contrasted with the use of greenhouses and cold frames in Salem

### C. Arts and Aesthetics

1. The use of color, form, and texture in Salem gardens
2. Winter interest in Salem landscapes
3. A study of paintings, sketches, and lithographs depicting early Salem landscapes and gardens contrasted

with contemporary views

### 3. Living Interpretation and Cultural Demonstrations

Living interpretation and demonstrations introduce visitors to the horticultural heritage of Old Salem. Gardens are maintained according to 18th and 19th century standards wherever and whenever possible. They are exceptional outdoor classrooms for garden demonstrations which when well done involve the totality of physical senses, as well as inducing emotional involvement. Part of the visitor reward is the opportunity to become part of the scene. Visitor participation offers a touch of humanity and fun to learning about Moravian garden skills.

Potential horticultural demonstrations at Old Salem could include the following:

#### A. Pruning Techniques

1. Fruit tree training for maximum production
2. Street tree pruning

#### B. Planting Methods

1. Division of yard into rectangular planting areas
2. Arrangement of rows within garden plots in east-west, north-south, or diagonal patterns
3. Planting in beds or wide rows
4. Soil preparation - adding manure, compost, leaves, and other organic matter
5. Companion planting by integrating vegetables, herbs, flowers, and berries
6. Interplanting crops to increase food production and utilize garden space most efficiently

#### C. Plant Culture

1. Fertilizing plants with compost, manure, woodash, etc.
2. Conserving water by mulching and collecting rain water in gutter barrels
3. Staking plants with pea brush, bamboo, tree branches, etc.
4. Controlling garden pests such as insects, wildlife (deer, rodent, squirrels, etc.), humans
5. Controlling plant diseases such as fire blight, fruit scab, rusts, etc.
6. Propagating new plants through seed germination, grafting, budding, root and crown division, cuttings, layering, etc.

#### D. Harvest Techniques

1. Tree fruits and berries
2. Vegetables
3. Herbs for their culinary, medicinal, and aromatic qualities
4. Field crops such as winter rye, field corn, broom-corn, flax, tobacco, etc.

#### E. Methods of Food Storage and Preservation

1. Extending the growing season with cold frames and greenhouses
2. Winter storage of food crops in garden trenches or under mulches of straw, leaves, or sand
3. Winter storage of food crops in off-site facilities, such as root cellars, pits, woodsheds, barns, etc.

Research has not yet and may never document specific horticultural and gardening methods attributable to the Moravians. Regional gardening calendars and almanacs popular during the 18th and 19th centuries shed some light on common garden practices in the United States at this time. However, this does not negate the need for on-going garden research programs. Demonstrations must be based on continual research, and interpreters must strive to perfect the gardening activity with which they are involved.

These demonstrations may be presented as a life scene, incorporating Moravian costumes, historical and reproduction artifacts, and buildings, or they may be staged in contemporary clothing utilizing 20th century implements. Both approaches have application in Old Salem.

A small corps of garden interpreters, chosen from the ranks of Old Salem guides and hostesses, and possibly volunteers from the local community, could be trained for gardening demonstrations. These might be scheduled weekly or bi-weekly between June and August at a standard time, such as 1:30 - 4:00 p.m. Announcements of demonstrations should be posted in the Old Salem Reception Center and highlighted along with other weekly events.

#### Post Visit Enhancement and Interpretation

The last step in the visitor's experience of Old Salem gardens is the possibility for further enhancement of the visit and expanded interpretation through the availability of additional information at a sales area or point of departure from the historic site. The visitor should leave any exhibit or program with the desire for more information rather than wishing for less.

In the Reception Center, Old Salem should continue to sell publications on garden history, landscape preservation and restoration, and 19th century plant materials.

A selection of choice, hard-to-find plants presently grown in Salem gardens might be marketed in either of the two stores operated by Old Salem. Baskets and ceramic ware filled with seasonal flowers or foliage plants provide a ready source of greenery suitable for historic garden settings.

Selling culinary and aromatic herbs and antique cultivars of annual and perennial flowers has proven successful at Market Day over the last three years and should be continued. The Horticulture Department should grow specialty crops which are appropriate for Salem gardens and which are not readily available from local commercial sources. Instead of competing with local garden centers, food stores, and discount stores, Old Salem can develop its own market in the community.

One potential group of plants worth promoting is geophytes - plants which grow annually from underground storage organs, such as bulbs, corms, and rhizomes. Horticulturists might work with a wholesale dealer to offer a selection of antique bulb cultivars (tulips, narcissi, crocuses, snowdrops, scillas, etc.) to the Old Salem community. Bulbs could be preordered in early summer with expected shipment in time for fall planting.

#### Priorities

Up to this point, no indication has been given of the relative importance of the various program areas and interpretive methods presented in this prospectus. Obviously, some projects are more pressing than others.

Of immediate concern is the development of in-service training programs for guides, hostesses, and garden interpreters. To launch the program, a manual for garden and landscape interpretation should be written, and a communication network established for keeping interpreters informed of horticultural news. Upon the completion of these two projects, the following tasks can be phased in over the next 5-10 years.

### Phase 1

#### A. Miksch and Triebel Lots

1. Develop a new brochure explaining the influence of medieval Europe, the French and German Renaissance, and Bethabara on the garden designs in these two Salem lots. The brochure might include a garden map and a blooming calendar for plants in these two lots.
2. Install and evaluate a permanent labeling system in the Miksch garden. Options include metal-photo, engraved plastic, or routed wooden labels. A stationary, on-site map of the garden accompanied by a changing list of plant materials might be better suited to this garden than scores of individual labels. Metal-photo or silkscreening processes are appropriate for this type of sign.
3. Develop a list of commercial nursery and seed house sources for plants grown in the medical and family vegetable gardens. Companies stocking old cultivars or analagous plants suitable for historic sites should be recommended. Such lists could be available for free distribution upon request or sold at nominal cost in the Reception Center.
4. Expand the summer program of crafts and garden demonstrations. Experiment with new interpretive presentations such as role-playing, interpreters working as family units, readings from selected sources, etc.

#### B. Salem Family Gardens (Eberhardt, Cherry Orchard, Leinbach, and Cape Fear Lots)

1. Write brief interpretive labels for each family garden along Salt Street. Include a short history of each lot with a description of its unique garden features.
2. Develop outlines and instructional sheets to guide seasonal garden demonstrations.

3. Experiment with role-playing, short dramactical presentations, and other innovative approaches for personal/attended garden interpretation.
4. Evaluate and update the herb workshop of the Food Experience Tour. Include more specific information on both culinary and medicinal herbs. Gear the tours to three levels - elementary, intermediate, and advanced.
5. Develop specialty sale items for the weekly Market Day held between May and August. Determine the sales potential of geophytes, medicinal and culinary herbs, scented geraniums, and antique vegetable seed and plants.
6. Use Salt Street family gardens as outdoor classrooms for the fall and spring Museum Workshop Series. Possible classes include:
  - a. Designing and cultivating an herb garden
  - b. Intensive food gardening
  - c. Landscaping with edible plants
  - d. Pruning and grafting clinics for antique roses and fruits
  - e. Organic gardening methods such as mulching, composting, organic spraying

## Phase 2

During the second phase, garden interpretation should be strengthened at the Vierling House and Tavern yard and meadow.

### A. Vierling House

1. Prepare curriculum materials relating to the garden history and features at the Vierling lot. This will be inserted into the Manual for Garden and Landscape Interpretation.
2. Collaborate with the chosen consultant design firm in developing an outdoor garden exhibit relating to medical herbs and their importance to 18th and 19th century medicine. The exhibit might also emphasize Moravian botanists and their contributions to botanical and medical science.
3. Prepare interpretive outlines to guide summer garden demonstrations in the Vierling yard and the Wash-Bake House. Potential activities are: food storage, the harvest and drying of medicinal herbs, the preparation

of simple medicinal remedies using fresh or dried herbs. Train and schedule costumed interpreters to stage these demonstrations.

B. Tavern Yard and Meadow

1. Refine garden demonstrations for the Tavern yard and garden, such as scything meadow grasses, managing food gardens to supply a business such as the Tavern, managing wood for home heating, pressing cider, and cultivating tobacco.
2. Enclose the Tavern meadow on all sides with fencing to contain small livestock like goats and sheep.
3. Write and install story labels describing the 19th century food gardens which supported the Tavern and fed its guests.
4. Introduce additional agricultural and farming implements (authentic or reproduction) to the Tavern barn. Accompany these with brief interpretive labels.

C. Salt Street Family Gardens

1. Develop specialized 45-minute garden walks on such topics as:
  - a. herbs
  - b. garden shrub roses
  - c. tree fruits and berries
  - d. vegetables
  - e. annual and perennial flowers
  - f. trees of economic importance

D. Folts Field

1. Plan a rotating 2-year schedule of field crops and their approximate harvest dates. This plan should be included in the training manual and on the interpretive sign in front of the field.
2. Prepare instructional sheets and training sessions on the authentic use of agricultural tools in the sowing, cultivating, and harvesting of rye, flax, broomcorn, sorghum, field corn, and pumpkins.
3. Research and create authentic costumes for both men

women involved in crop harvests.

### Phase 3

In this stage, garden interpretation can encompass the Salem Arboretum and some of the more important peripheral native tree plantings. Educational programs utilizing the Salt Street gardens can be improved and refined.

#### A. Salem Arboretum

1. Create and install a permanent labeling system for native tree collections on both the west side of Main Street (past site of the Zinzendorf Laundry) and the east side (past site of Central School).
2. Evaluate and rewrite on-site interpretive story labels incorporating a map of the area to easily identify trees.
3. Write the copy for several trail guides identifying trees important to the Moravians. Trees were a vital source of lumber for home construction and furniture and fuel for winter heating in Salem. A series of guides might cover:
  - a. deciduous trees
  - b. needled evergreens
  - c. fruit and nut trees
  - d. small flowering trees and shrubs

#### B. Salt Street Gardens

1. Equip one of the family gardens, preferably 2-4 plots in the Leinbach yard, for a school children's experience tour. A working garden would be invaluable for teaching the basics of plant growth and food production.
2. Develop curriculum materials for the experience tour mentioned above for distribution to schools prior to their visit to Old Salem.
3. Work on "canned" slide sets and programs relating to the specialized garden tours developed in C. 1 under Phase 2.



C. Reception Center

1. Reprint the Old Salem Garden Guide.
2. Prepare an exhibit on the history of horticulture and agriculture in Wachovia and Salem. This temporary exhibit could be housed in the Boys School or the Reception Center.

D. Vierling Yard

1. Produce a brochure or small booklet on the Moravian's use of medicinal herbs and their importance to 18th and 19th century physicians.

Literature Cited:

1. Alderson, W.T. and Shirley P. Low. Interpretation of Historic Sites. American Association for State and Local History, Nashville, Tennessee, 1976.
2. Sharpe, Grant. Interpreting the Environment. John Wiley and Sons, Inc., New York, 1976.

**Matrix -- Suggested Interpretive Objectives**

	RECEPTION CENTER		MIKSCH/TRIEBEL LOTS		SALT ST. GARDENS	
	Personal	Non-Personal	Personal	Non-Personal	Personal	Non-Personal
PHASE 1	1. Verbal garden orientation by Reception Center personnel	1. Bulletin board for garden announcements 2. Decorative floral, fruit, and vegetable displays	1. Innovative approaches for summer garden interpretation -- demonstrations, role-playing, dramatic readings, etc.	1. Brochure for Miksch garden 2. Permanent labels for Miksch garden 3. Published list of seed and plant sources	1. Revised herb section of Food experience tour 2. Innovative approaches for summer garden programs 3. "Hands-on" classes for Museum Workshop series	1. Story labels for each family garden 2. Written training materials for garden demonstrations 3. Specialty plants for Market Day
PHASE 2		1. Guide map revision with increased emphasis on gardens 2. New orientation wall map highlighting gardens and buildings			1. Special-interest garden walks	
PHASE 3		1. Film, multi-image, or video garden orientation show 2. Reprint of <u>Old Salem Garden Guide</u> 3. Moravian horticulture exhibit			1. School children's working garden (Leinbach)	1. Curriculum materials for pre-visit school instruction 2. "Canned" slide programs for distribution

Matrix -- Suggested Interpretive Objectives

	VIERLING LOT		TAVERN		FOLTS FIELD		SALEM ARBORETUM
	Personal	Non-Personal	Personal	Non-Personal	Personal	Non-Personal	
PHASE 1							Non-Personal
PHASE 2	<p>1. Training sessions for on-site garden demonstrations</p>	<p>1. Written training materials for guides and hostesses</p> <p>2. Outdoor garden exhibit on medicinal plants and Moravian botanists</p>	<p>1. On-site garden demonstrations</p>	<p>1. Completion of Tavern meadow fence</p> <p>2. Interpretation of domestic animal life in Salem</p> <p>3. Story label on Tavern food gardens</p> <p>4. Expanded collection of farm tools and implements</p>	<p>1. Training sessions and written materials for farming demonstrations</p> <p>2. Authentic costumes for farming demonstrations</p>	<p>1. 2-year, rotating schedule of field crops</p>	
PHASE 3		<p>1. Brochure or booklet on medicinal plants</p>					<p>1. Permanent labels for trees and shrubs</p> <p>2. Revised story label and orientation sign</p> <p>3. Trail guides for trees and shrubs of historical significance</p>

# A Manual For Garden And Landscape Interpretation



Old Salem, Inc.

Winston-Salem, North Carolina

June, 1982

## TABLE OF CONTENTS

Foreword . . . . .	iii
I. Introduction . . . . .	1
II. History of Landscape Restoration in Old Salem . . . . .	3
III. Old Salem's Horticultural History . . . . .	7
A. Introduction to Garden History . . . . .	8
B. Medieval Gardening . . . . .	8
C. Renaissance Gardening . . . . .	9
D. Bethabara (1753-66) . . . . .	10
1. Site Selection . . . . .	11
2. Communal Gardening . . . . .	12
E. Salem (1766-1840's) . . . . .	15
1. Site Selection . . . . .	15
2. Salem's Purpose . . . . .	16
3. Garden Design . . . . .	16
IV. Tour Interpretation for Guides and Hostesses . . . . .	22
A. Miksch Lot . . . . .	23
B. Triebel Lot . . . . .	25
C. Cherry Orchard . . . . .	25
D. Salem Family Gardens . . . . .	26
1. Eberhardt Garden . . . . .	26
2. Leinbach Garden . . . . .	26
3. Cape Fear Bank Garden . . . . .	27
E. Vierling Garden . . . . .	28
F. John Vogler Garden . . . . .	28
G. Salem Tavern . . . . .	29
V. Additional Garden and Landscape Information for Summer Interpreters and Guides with School Groups . . . . .	31
A. Orchards . . . . .	32
B. Cold Frames . . . . .	32
C. Building Foundations . . . . .	32
D. Fences . . . . .	33
E. Street Trees . . . . .	33
F. Salem Arboretum . . . . .	34
G. American Elms . . . . .	35
H. Salem Square . . . . .	36
I. Tavern Meadow . . . . .	39
J. Folts Field . . . . .	39
K. Animals . . . . .	39
L. Garden Ornaments . . . . .	40
M. Flowerpots . . . . .	40
N. Streets and Lanes . . . . .	42

VI. Landscape Questions Frequently Asked . . . . .	43
VII. Annotated Bibliography . . . . .	47
A. Interpretation . . . . .	48
1. General . . . . .	48
2. Garden and Landscape . . . . .	49
B. Garden History . . . . .	50
1. Medieval and German Gardens . . . . .	50
2. American Gardens . . . . .	50
C. Gardening Calendars . . . . .	50
D. Agricultural Implements . . . . .	51
E. Vegetables and Fruits . . . . .	52
F. Herbs . . . . .	53
G. Food Storage . . . . .	54
VIII. Summer Garden Interpretation . . . . .	56
A. Garden Interpretation - A Team Approach . . . . .	57
B. "On Being an Old Salem Interpreter" . . . . .	57
C. Suggested Weekly Summer Schedules for Garden Interpreters . . . . .	58
D. Example Interpretive Schedules . . . . .	61
Appendix A . . . . .	69
Appendix B . . . . .	70

## Foreword

This notebook has been compiled for your use in interpreting the re-created gardens and landscapes of Old Salem. It was prepared by Robert Hyland, former Horticulturist (1978-80), for his master's degree requirements in the Longwood Program in Ornamental Horticulture at the University of Delaware, Newark, DE, between September, 1980 and May, 1982.

Since the creation of the landscape restoration program at Old Salem in 1974, the horticulture department has been active in garden research and the subsequent design and installation of gardens around exhibit buildings. Today, the horticulture staff devotes much of its time to maintaining the gardens it has re-created, but, nonetheless, continues to increase its emphasis on garden interpretation and education.

To give interpretation a positive direction during the coming decade, Mr. Hyland initially developed a long-range interpretive prospectus for Old Salem, Inc. (available in Old Salem Library, Single Brothers House). The plan strongly advocates the continued use of personal guides and hostesses to interpret the gardens for visitors. Salem guides and hostesses are essential to garden interpretation because they come into direct contact with the public, promote active participation, and encourage visitor feedback.

To stimulate and motivate visitors, interpreters need to communicate messages that are easily understood and linked with visitors' personalities. Guests are unlikely to respond to 18th and 19th century plants and landscape features unless

interpreter's words touch their personal experiences, thoughts, hopes, ways of life, and social position. Garden interpretation relates the unfamiliar to the familiar. For example, interpretation of backyard Moravian vegetable gardens should respond and directly relate to the renewed national interest in home food gardening.

Garden and landscape interpretation needs to be accurate, specific, and standardized among all interpreters. It is hoped that this manual will help in this regard, that its contents will be continually evaluated and updated, that periodic training sessions will be organized, and that a strong communications network can be established among the Departments of Education/ Interpretation, Horticulture, and Restoration.



## I. Introduction

"Interpretation is a planned effort to create for the visitor an understanding of the history and significance of events, people and objects with which the site is associated."

American Association of Museums  
1981 Accreditation Program for Historic Sites

Interpretation plays a vital role in the field of garden and landscape restoration. It provides a communication link between the people of the past and the 20th century visitor.

Old Salem is a living museum of the past. Just as the restored and reconstructed buildings house artifacts of the 18th and 19th centuries, the re-created grounds and gardens hold plants and landscape features reminiscent of past times. Occasionally plants and gardens are obvious to the casual visitor; sometimes they need to be interpreted.

Garden and landscape interpretation should be more than a mere presentation of factual information. Interpretive techniques should incorporate original and reproduction objects, demonstrations, audio-visual programs, dramatical presentations, and role playing. Visitors are generally not permitted to handle objects inside Salem exhibit buildings, but under the supervision of a skilled interpreter can touch, smell, taste, and get a "hands-on" experience in the gardens. Whatever interpretive methods are utilized, they should challenge visitors and encourage active involvement.

Garden interpretation is certainly progressing in this direction at Old Salem. The repertoire of interpretive techniques

continues to expand from the identification of plants with labels to guided garden tours and demonstrations. Guides and hostesses must continually strive to explain to visitors the importance of gardening and horticulture to the Moravian community from 1753 through the 1840's. Most importantly, they should relate and demonstrate how plants were cultivated and manipulated by the Moravians, how they were utilized in various crafts and industry, and how essential they were in the Moravian home as food sources and medicines. Vegetables, herbs, flowers, trees, and shrubs were vital to the survival of the Moravians in Salem and the North Carolina wilderness.

## II. History of Landscape Restoration in Old Salem

## History

The restoration of historic structures in Salem began in 1950 under the guidance of the non-profit organization, Old Salem, Inc. However, it was not until December of 1972, twenty-two years later, that a lack of authentic gardens and landscapes around exhibit buildings prompted the formation of a Landscape Restoration Committee. Prior to this time gardening in Old Salem consisted of planting and mowing grass and installing several inaccurate gardens.

The Landscape Restoration Committee immediately assumed the tasks of developing an active program of garden construction in the town, planting native flora, removing non-conforming landscape features, and interpreting the newly re-created landscape. As then, the committee today is composed of Salem residents and trustees and staff members of Old Salem, Inc. Mrs. Flora Ann Bynum, a long-time resident of Salem and garden researcher and lecturer, was the first chairperson of the committee. She led the group in developing landscape restoration policies and yearly programs of work for the Horticulture Department.

With little monetary support or professional help in 1973, the Landscape Restoration Committee concentrated on a program of research and tree planting. In June, 1974, funds were appropriated to employ the first professional horticulturist, Peter Hatch. He designed and installed many family gardens and orchards throughout the historic district. Mr. Hatch also assisted Salem residents with appropriate designs and plants for their yards and

gardens.

Robert Hyland succeeded Mr. Hatch as horticulturist in December of 1977. The pace with which new garden areas were created had slowed by this time, but refined programs of garden maintenance and interpretation were initiated. Through activities such as weekly vegetable and plant markets, museum classes, garden club tours, outside speaking engagements, and a volunteer program, the horticultural program was actively promoted in local communities.

Philip Page assumed control of the Horticulture Department in 1980 before Mr. Hyland had formulated an integrated program of garden interpretation and education. Nevertheless, Mr. Page worked with Mr. Hyland and Gene Capps, Director of Education and Interpretation, to develop and test such a program. In addition, Mr. Page professionally maintained the Salem gardens and supervised all major landscape changes.

The Landscape Restoration Committee realizes that it cannot re-create or restore the 18th century landscape appearance of Salem. Gardens and landscapes are living, composed of plants that change daily and created by people who change. Thus, the goal of the committee cannot be exact reproduction, but rather to provide natural settings for museum buildings and private residences which are illustrative of earlier times.

Visitors will still be surrounded with reminders of the 20th century - automobiles, paved streets, recreational equipment, and lawn furniture. However, under the continued guidance of professional horticulturists and with the financial and moral

support of Old Salem, Inc. and the local community, all of the exhibit building yards will eventually be as realistic as possible.

III.	Old Salem's Horticultural History (Background Information for Garden Interpreters, Guides, and Building Hostesses)	
A.	Introduction to Garden History . . . . .	8
B.	Medieval Gardening . . . . .	8
C.	Renaissance Gardening . . . . .	9
D.	Bethabara (1753-66) . . . . .	10
	1. Site Selection. . . . .	11
	2. Communal Gardening. . . . .	11
E.	Salem (1766-1840's) . . . . .	15
	1. Site Selection. . . . .	15
	2. Salem's Purpose . . . . .	16
	3. Garden Design . . . . .	16

#### A. Introduction to Garden History

Horticulture is both a science and an art. The inventors of horticulture were people who lived in the New Stone Age nearly 7,000 years ago. To these Neolithic people we owe the fundamental tools and techniques of the craft. Throughout history, horticulture has evolved to become the varied and complex field that it is today.

The word, horticulture, is derived from the Latin word, hortus, meaning garden, and colere, to cultivate. Thus, the term horticulture refers to the culture of a garden and crops, whether the crops be vegetables or ornamentals. Horticulture is a part of agriculture (the culture, colere, of fields, ager) which today refers broadly to the production of plants and animals.

#### B. Medieval Gardening

After the fall of the Roman Empire, gardening during the so-called Dark Ages (1200-1400) became an integral part of monastic life providing food, decoration, and medicines within enclosed "cloister" gardens. The hortus (garden) was a rectangular enclosure with a central path leading from the gardener's house and many long and narrow beds of equal size on each side. The physic or medical garden, herbularis, was smaller with four beds on both sides of a central wall. Small individual beds bordered with low hedges were first used to separate medicinal herbs, each labelled with its name and virtue. Since these walled gardens offered limited space, fruit trees were commonly espaliered or trained upon the walls.



In laying out their gardens in Salem, Moravians adhered closely to the medieval patterns of gardening they had known in Europe. They cultivated rectangular vegetable plots of equal size separated by narrow workpaths. The medieval custom of raising the garden bed well above ground level was also imitated frequently by the Moravians.

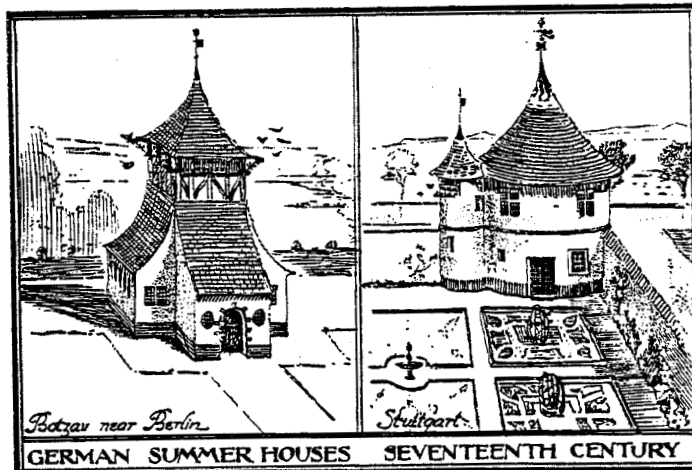
Rectilinear planting beds were not peculiar to the Moravians but were common in most of colonial America. Beds were commonly planted with mixtures of herbs, vegetables, and flowers.

### C. Renaissance Gardening

Garden beds in Salem were also possibly adaptations of parterres characteristic of Italian, French, and German gardens during the European Renaissance. Parterres, by definition, were planting beds "on" or "along" the ground which were frequently edged with a low-growing plant such as boxwood. Renaissance parterres were simply more elaborate versions of rectangular medieval planting beds.

German Renaissance gardens, like those of medieval times, exhibited a high degree of order and precision, usually with rectilinear parterres on either side of a central axis. Germany, the country from which the Moravians emigrated to the New World, had always been a follower rather than a leader in garden craft and architecture during the 17th and 18th centuries. Yet, a strong German influence on Moravian gardens in Salem can be felt. German gardens were simple, but ordered and precise. Rectilinear beds formed interesting geometric patterns on the ground. They

were dissected by workpaths over which arbors of hops or grapes often arched. Frequently, a summerhouse or gazebo (similar to the one re-created in the Miksch garden) was positioned in the center of the garden (see illustration below and on page 11).

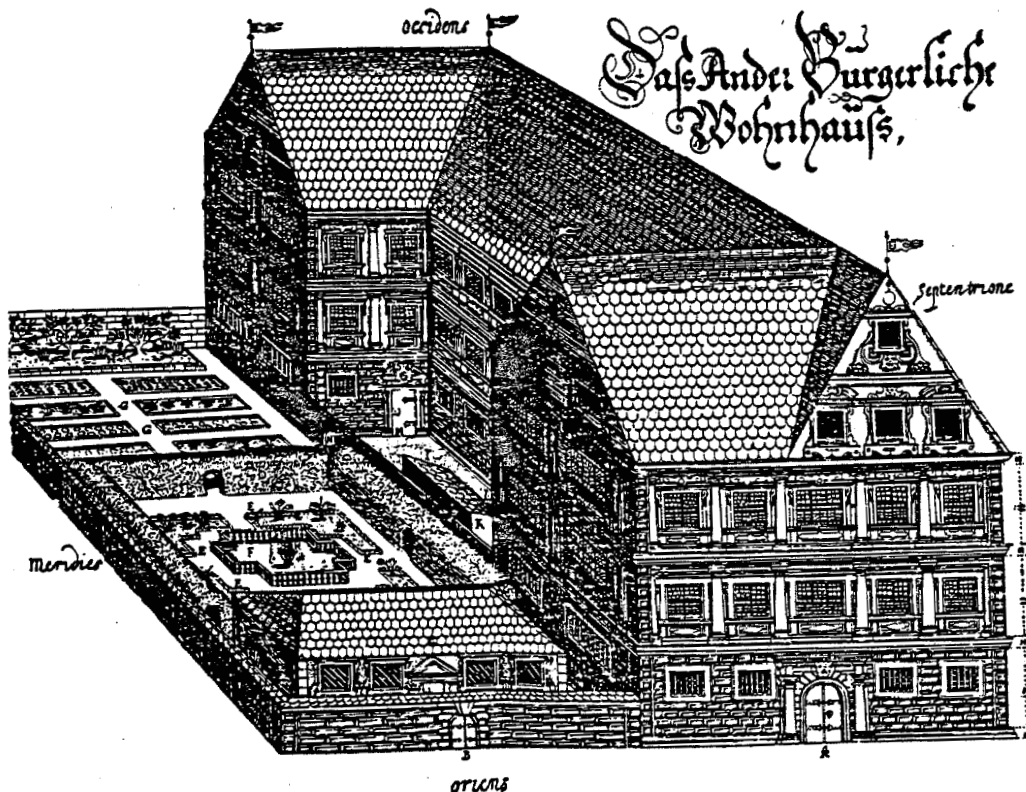


Triggs, H. Inigo. Garden Craft in Europe, p. 242.

Orchards and small fruit gardens were usually set apart from the main garden and were often protected by stout palisades (fences) or moats. The Moravian gardens at Bethabara were protected in much the same way behind a tall stockade. The Bethabara landscape also contained many of the same features noted in German Renaissance gardens - a summerhouse, hops garden, grape arbor, orchards, and a highly structured medical garden.

#### D. Bethabara - (1753-1766)

It is impossible to cover all of the horticultural history associated with the Moravians and their purchase of the 10,000 acre tract of land in North Carolina called Wachovia. But the following concepts should be highlighted in any interpretation of this horticultural period.



DESIGN FOR A SMALL HOUSE AND GARDEN BY FURTENBACH, 1641.

Triggs, H. Inigo. Garden Craft in Europe, p.237.

### 1. Site Selection

The hilly tract of land the Moravians purchased in Piedmont, North Carolina was covered with virgin hardwood forest in 1753. Chestnuts (Castanea dentata), oaks (Quercus sp.), and hickorys (Carya sp.) dominated the ridges. Huge beeches (Fagus grandifolia), sycamore (Platanus occidentalis), walnuts (Juglans nigra), tulip trees (Liriodendron tulipifera), sweet gums (Liquidambar styraciflua), and black gums (Nyssa sylvatica) often heavily covered with grapevines, soared from the valleys and bottomlands. It was a land of gentle ridges and valleys through which creeks quietly meandered.

The Moravians were the first settlers to cultivate the soil

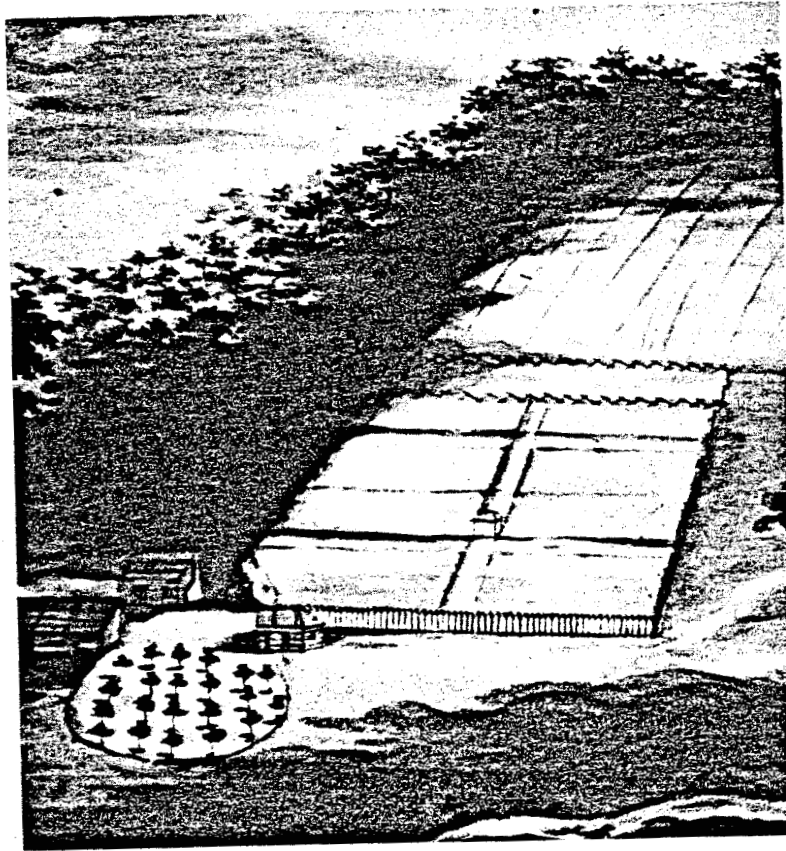
in this part of North Carolina and reported that it was good, "growing everything which has been planted." They were careful custodians of the land and appointed a forester to superintend the cutting of timber in the forests. They also surveyed the native trees and plants to see which were useful for fuel, construction, furniture, medicine, or food. (See Volume I, Records of the Moravians, pp. 557-587.)

## 2. Communal Gardening

Among the 15 Moravians from Bethlehem, Pennsylvania who settled in Bethabara in 1753 were Jacob Lung, a gardener, and 4 other men with farming backgrounds. Within three weeks they had prepared land and sown wheat, and by the following spring they had cleared and fenced enough additional acreage to plant turnips, corn, pumpkins, beans, and other vegetables. A sizeable orchard of 150 peach and 40 apple trees was also planted.

In order to survive in the North Carolina wilderness, Bethabara settlers adopted a system of church ownership of property and common housekeeping - Oeconomie. A map of Bethabara, dated July 1754, indicates a large community garden laid out in two series of rectangular beds, all the same size, with small work paths between the beds and a large central path ending at a summerhouse. The garden was surrounded by a rail fence.

The community garden increased in size as Bethabara grew in population, and included a Vegetable Garden (sometimes called the Kitchen Garden) and the Medical Garden (Hortus Medicus). There were also a vineyard, orchards, and fields of wheat and corn.



Taken from a "A View of Bethabara," dating perhaps 1761-63. This portion of the drawing shows the picket-enclosed Community Garden with the Upland Garden (Vegetable Garden) in front and the Medical Garden behind it. A small orchard is enclosed with a fence.

During their first 10 years in North Carolina, the Moravians grew primarily European vegetables, herbs, flowers, and field crops. These plants had been cultivated in the Old World by Moravians for years and often centuries. They also grew some New World crops such as Irish potatoes, corn, pumpkins, tobacco, beans, Spanish peppers, sunflowers, and nasturtiums. Seeds and plants were obtained from many sources, including Germany, Pennsylvania, Charleston, South Carolina, and North Carolina.

### Interpretive Highlights

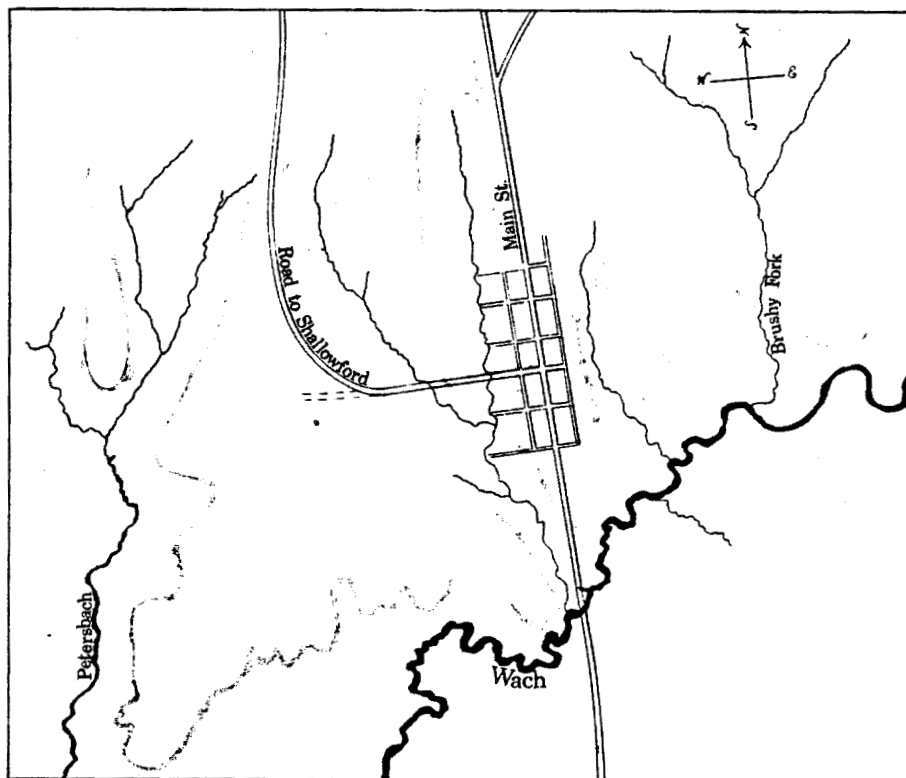
- In Bethabara, large gardens were shared, including the work of planting, cultivating, and harvesting.
- Moravians depended not only their individual gardening talents but also on the energy and skill of the entire community to provide food.
- Bethabara's gardens show a strong relationship to European medieval and German Renaissance gardens.

## E. Salem - (1766-1840's)

### 1. Site Selection

After 13 years at Bethabara and growing dissatisfaction with the system of common housekeeping, a site was selected for the central town of Salem. The site is still today on the south slope of a ridge once covered with virgin hardwood forest. A large stream, the Wach (Salem Creek) flows at the foot of the ridge and forms the southern boundary of the town.

Main Street was laid out on the center of the ridge, with a street paralleling it to the east (Church Street) and a parallel street to the west (Salt Street). On the east, the ridge drops



*Topographical map of the Salem area adapted from a 1766 map.*

(Gene Capps)

abruptly to a small creek and a wide meadow. On the west, the ridge slopes gradually to a valley through which the Tar Branch flows. Sections of this creek have been paved over and diverted by the Old Salem bypass.

## 2. Salem's Purpose

It is important to stress that Salem was not planned as an agricultural community, but as a center of trade and skilled craftsmen. However, this does not diminish the importance of interpreting agriculture and horticulture in Salem.

The Moravians did have to eat to survive in the sparsely populated wilderness in North Carolina. To provide food for their families, Moravians cultivated small vegetable gardens behind their homes in Salem, and possibly tended an outlot (field or meadow) where they could raise field crops and perhaps livestock. Several farms and "plantations" surrounded the community, but these were not extremely successful operations.

### Interpretative Highlights

- Moravians tended individual household gardens in Salem; they relied more on their own abilities as gardeners to feed their families.
- The communal gardening system at Bethabara shifted to a self-sufficient system in Salem.

## 3. Garden Design

The layout of house, yard, outbuilding, and gardens in Salem reflected Medieval European and German gardens, as previously discussed.



a. House

The house in Salem was built directly on the street with yards and gardens to the back of the lot. This provided convenient access to homes and shops from the street, but did not permit the creation of a front yard with lawn and ornamental plantings. This landscape style is typically an American suburban phenomenon and did not develop until the 20th century. Salem houses were also set close together in the European village pattern for protection and to facilitate social interaction.

b. Yard

The yard laid directly behind and occasionally to the sides of the house. It provided a service and work area, becoming an extension of the house for baking, washing, splitting wood, and recreation. It was not uncommon to find a bake oven, woodsheds, small outbuildings, ladders, and other household implements in the yard. Chickens, guinea hens, and other small fowl might also have roamed in this area.

Because of the constant use, it was not easy to grow grass in a Salem yard. There were few grasses in use at this time which would not burn at the first blast of summer heat. Only the well-to-do attempted to grow grass about their homes - most were surrounded by wind-swept clays or sands. Soils were compacted by daily use into a hard surface which was kept clean by sweeping. Yards of this type were often dubbed "swept yards." To re-create a fascimile of earlier swept yards in Salem, the

Horticulture Department has killed the grass behind several museum buildings.

c. Garden

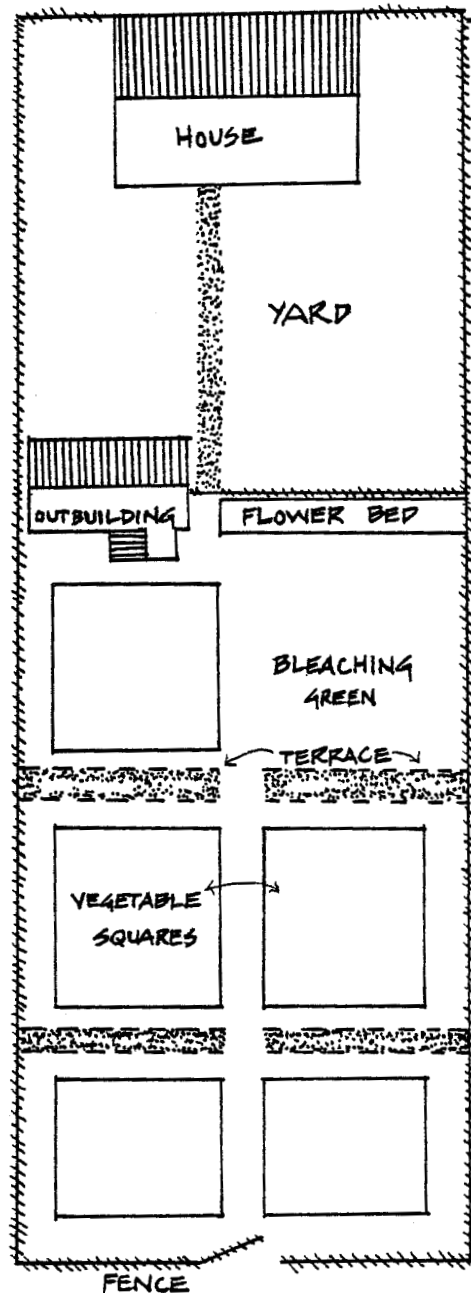
Gardens were spatially separated from yards and outbuildings by fences of various styles - split picket, hewn picket, and solid board. Even though some re-created family gardens in Salem today are enclosed by split rail fencing, this was not a common practice of the Moravians. Picket and board fences provided effective barriers to wildlife, neighbors, and children which rail fences could not.

Family gardens in Salem were utilitarian and provided householders with vegetables, fruits, herbs, and flowers. The garden area was divided into 4-6 rectilinear beds separated by walkways of sod, tanbark, packed dirt, or fine gravel. All garden beds were cultivated with the frequent exception of one which was often left in grass for use as a green to bleach linens.

Reflecting the medieval influence again, the garden plots were often raised above the existing ground level for better drainage and fertility. They were sometimes bordered with saplings or branches to contain the soil. The milled boards used to edge many of the re-created gardens in Salem today would not have been available to the Moravians until later in the 19th century, but they are concessions made by the Horticulture Department to save on maintenance. The continued use of board edging is recommended.

Because Salem was built on a ridge line, the land gently

sloped to the west of Main Street and dropped sharply to a creek on the east. Gardens, therefore, were often terraced, with 2 garden beds to a terrace. Stones or sod frequently reinforced terrace banks, and are visible in the re-created family gardens along Salt Street.



Typical Salem lot depicting house, yard, and gardens; drawn at 1" = 30 feet

Garden beds were interplanted with herbaceous plants (vegetables, herbs, flowers) while grapevines and gourds covered fence-lines. Apple, peach, cherry, apricot, and pear trees lined fences or were grouped in small orchards to the rear of the lot. Gooseberries or currants often marked the corners of the garden beds, such as in the Triebel and Eberhardt lots.

The intent in planting family gardens was not so much to provide aesthetically pleasing plant displays as it was to sustain Moravian households with a diversity of plants for culinary, medicinal, and industrial use. Even so, Moravians often sprinkled some ornamental flowers (hollyhocks, hyacinths, daffodils, amaranthus, cockscomb, roses, and lilacs) among the vegetables. Gardens solely for the cultivation of flowering plants were not prevalent until the mid-19th century.

#### d. Outlots

The Moravians clung to the practice of cultivating a field or meadow outside of Salem. They grew crops, such as wheat, potatoes, corn, and pumpkins, or grazed a dairy cow or horse in this open space.

Three farms, called plantations, were established as part of the congregation community with the mission of supplying supplemental food for the town. However, the farm operations were never successful and only provided the basic grains and milk. Family gardens were still expected to yield enough vegetables and fruits for their owners.

The first boundaries of fields were zig-zag rail fences,

split from walnut, chestnut, or oak. The rail fence is distinctly American, and when planted with bittersweet, honeysuckle, trumpet-vine, or wild grapes was an important feature in the Salem landscape.

#### Interpretive Highlights

- Lots in Salem were divided into zones for house, yard, and garden.
- Houses were built with direct access to the street - front yards were uncommon.
- Functional yards were fenced off to the sides and behind the house - used for household activities and recreation.
- Garden space was divided into rectangular/square plots for vegetables, herbs, flowers, and small fruits; gardens were always fences and frequently bordered by fruit trees.

IV. Tour Interpretation for Guides and  
Hostesses

A. Miksch Lot . . . . .	23
B. Triebel Lot . . . . .	25
C. Cherry Orchard . . . . .	25
D. Salem Family Gardens . . . . .	26
1. Eberhardt Garden . . . . .	26
2. Leinbach Garden . . . . .	26
3. Cape Fear Bank Garden . . . . .	27
E. Vierling Garden . . . . .	28
F. John Vogler Garden . . . . .	28
G. Salem Tavern . . . . .	29

Tour Interpretation (For use by guides and hostesses interpreting exhibit buildings to visitors)

Primary Objectives:

- To acquaint visitors with 18th and 19th century Salem yards and gardens.
- To highlight key landscape features around museum buildings in Old Salem.

(Interpretive highlights and primary landscape features for each historic building operated by Old Salem, Inc. are outlined in the following pages. Key words are underlined. Refer to Appendices for more specific information on specific plants.)

A. Miksch Lot

Interpretive Highlight: Horticulture at its earliest period in the Wachovia tract, 1753-1766.

1. Describe the characteristic layout of the Miksch Tobacco Shop, yard, and gardens.
  - a. Tobacco Shop and residence built directly on the street without a front yard
  - b. Service yard of swept dirt enclosed behind the house - includes the Miksch Manufactory
  - c. Gardens and orchards cultivated to the rear of the service yard
2. Explain that gardens in the Miksch and Triebel lots are inspired by descriptions, drawings, and inventories of early Bethabara gardens.
  - a. Garden
    - 1) Design of the re-created Miksch garden is based on the 1761 plan of the Medical Garden (Hortus Medicus) at Bethabara
    - 2) Garden is reflection of medieval botanical and physic gardens; it is not solely an herb garden
    - 3) One medicinal plant grown in each rectangular, triangular, or circular bed in garden





- 4) Summerhouse in center of garden is representation of one drawn on the 1761 Hortus Medicus plan
  - 5) All plants in garden (roots, stems, leaves, and flowers) have some medicinal use
- a. Hops Arbor
- 1) Symbolic of the extensive hops and bean and hops and potato gardens cultivated at Bethabara
  - 2) Hops (Humulus lupulus) used to:
    - a) Flavor beer
    - b) Give water yeast-like properties
    - c) Cure insomnia and headaches when stuffed in pillows
  - 1) Hops inflorescences (flower clusters) harvested from late August through September; dried for several weeks; and then put to one of the above uses
  - 2) Hops vines were staked upright on poles for ease of harvest and most efficient use of space. The poles were placed far enough apart to accommodate a companion crop of potatoes or bush beans beneath. Growing two crops in the space often required for one (interplanting) increased Moravian food production per unit of land.
1. Discuss the importance of fruit trees and berries in the Salem landscape.
    - a. Most Moravian gardens included small collections of fruit trees (cherry, apple, pear, peach) along fencelines; grafted Montmorency cherry trees and several old unidentified apple cultivars/varieties grow to the rear of Miksch garden.
    - b. Vine fruits (grapes, gourds) grow on fences for support.
  2. Point out compost bins.
    - a. Compost piles were standard features in most family gardens.
    - b. Provided decomposed organic matter like leaves, grass clippings, and kitchen scraps, to improve the fertility, tilth, and drainage of heavy clay soils prevalent in Piedmont North Carolina
  3. Highlight fences.
    - a. Miksch Tobacco Shop and yard enclosed by white picket fence

- b. Garden surrounded by split rail fence - should be some type of solid board fencing for authenticity

#### B. Triebel Lot

Interpretive Highlights: The influence of Bethabara on vegetable gardening in Salem after 1766.

1. Highlight the 4 rectilinear garden beds with diagonal rows, which resemble the 1759 plan of the Upland Garden (Upland Garten) at Bethabara.
  - a. Diagonal row pattern may be unique to the Moravians.
  - b. Diagonal rows possibly employed to:
    - 1) Use space and sunlight efficiently
    - 2) Improve soil drainage
    - 3) Create an aesthetically pleasing garden
1. Emphasize that a house no longer stands near Main Street on this lot, but when standing in 1775 it had a fenced service yard and garden to the rear.
2. Discuss several of the interesting herbs, vegetables, and fruits grown in the garden.
  - a. 1759 listing of plants grown in the Upland Garden (from which current planting plans are developed) included in Appendix A.
  - b. Point out the gooseberries (Ribes uva-crispa) planted at the corners of garden beds.

#### C. Cherry Orchard

Interpretive Highlight: Use of vacant lots in Salem

1. Emphasize that vacant lots in Salem were frequently fenced and used for orchards and field crops in the early years to supply the entire community with fruit, grains, and vegetables.
2. Mention that peaches and apples were the most frequent types of fruit planted in Salem; the sour Montmorency cherries grown on this lot were also mentioned in the Moravian records.

Peaches and apples were eaten fresh or sun-dried for storage. Peaches and cherries were occasionally fermented for brandy; apples were squeezed for cider. The tart Montmorency cherries were excellent for cooking and preserving in pies and jams.

#### D. Salem Family Gardens

Interpretive Highlight: The cultivation of food gardens which provided a major part of the Moravian family's food needs

(Although all of the family gardens along Salt Street, between Academy and Bank Streets, have been re-created for public enjoyment, only the Eberhardt, Leinbach, and Cape Fear Bank lots are highlighted in this manual.)

##### 1. Eberhardt Garden

- a. Emphasize that the garden exists on the lot of a house now missing. The original gardens would have been located further back on the lot in the vicinity of the white pine trees planted within the last 15 years to screen the Old Salem bypass.
- b. Point out the diagonal planting pattern in the 4 garden beds.
- c. Show the red currant bushes (Ribes rubrum) dominating the corners of the garden beds.
- d. Mention the peach trees lining the fenceline of the adjacent lot.
- e. Highlight the following landscape features:
  - 1) Beehives made of sawn lumber
  - 2) Primitive compost bin
  - 3) Garden benches

##### 2. Leinbach Garden

- a. Use the Leinbach Garden to illustrate the characteristic layout of Salem houses, yards, and gardens.
- b. Explain the need for terracing Salem yards to provide level areas on which to garden. Specifically mention:
  - 1) 3 garden terraces which were carefully re-created following Leinbach family records and recollections
  - 2) Rock walls which reinforce terrace banks
  - 3) Bleaching green on the uppermost terrace
- c. Point out the interplanting of vegetables, herbs, and flowers in garden beds, stressing the efficient use of space through:

- 1) Interplanting = growing 2 or more plants together in the same space so that they produce more fruits and vegetables of high quality; Example = broccoli interplanted with lettuce; radishes with tomatoes
- 2) Companion planting = growing plants together which have similar cultural needs to aid in plant health and insect control; Example = marigolds with bush beans; basil with tomatoes
- 3) Succession planting = planting new crops in space vacated by harvested crops to get several crops from the same space in one growing season; Example = spring lettuce followed by summer squash succeeded by fall spinach

\*\* (There is no documentation that any of these planting methods were practiced by the Moravians. However, such gardening practices were fairly common in the 18th and 19th centuries to increase food production. They were likely favored by the Moravians.)

a. Mention the following 19th century horticultural methods when demonstrated in the garden.

- 1) Staking of plants using natural materials (branches, pea brush, poles arranged in tee pee formation, plants supporting each other)
- 2) Preparing the soil for planting - turning the soil with spades and occasionally double-digging and trenching of garden beds with extremely poor soils
- 3) Conserving water using mulches of straw, composted leaves, pine needles, and grass clippings
- 4) Improving soil fertility with organic amendments such as compost, wood ashes, animal manure and bone and blood meal

b. Mention the following landscape features:

- 1) Compost bins
- 2) 2 types of beehive
  - a) Skeps = hollow cone made from coiled straw
  - b) Bee gums = hollowed-out logs

### 3. Cape Fear Bank Garden

a. Explain that by the 1840's Moravians had external sources for food and did not need to be totally self-sufficient in their gardens.

- b. Point out that more space is freed from vegetable production in this yard for larger orchards and ornamental plantings. Show the collection of shrub roses planted against the fence enclosing the garden. Many of these roses, such as the apothecary rose, Rosa gallica officinalis, bloom only once a season between May and June; others are perpetual bloomers which provide color and fragrance from spring until the first fall frost, such as Rosa 'Stanwell Perpetual'. Moravians grew roses for the ornamental value and intense fragrance of their flowers and the nutritional and medicinal value of their fruits (rose hips).
- c. Mention the use of sod (grass) to reinforce the terraces in this yard.
- d. Contrast the stylish, white picket fence surrounding the house and service yard with the primitive board fence dividing the Leinbach garden.

#### E. Vierling Garden

Interpretive Highlight: The importance of medicinal plants to the Moravians

1. Explain that plants and their derivatives were basic ingredients of many 19th century medicines.
  - a. A listing of some plants and their medicinal uses included in Appendix B
  - b. Records indicate that Dr. Samuel Benjamin Vierling cultivated an extensive grape vineyard on the terraces behind his house.
  - c. A medical garden and outdoor exhibit on horticulture are planned for the yard.
  - d. Mention the following landscape features:
    - 1) 3 terraces on the steep slope behind the house
    - 2) Swept yard for various household activities
    - 3) Wash-Bake house
    - 4) Cellar of the Vierling house which might have been used to store root crops, fruits, and nuts.

#### F. John Vogler Garden

Interpretive Highlights: Garden design in Salem and commonly grown 19th century plants

1. Highlight the division of the Vogler lot into house, yard, and garden.

- a. Mention the swept yard and the landscape accessories it holds:

- 1) Wood piles for heating and cooking

- 2) Clothes line

- 3) Ladder hung on fence

2. Explain that the small Anna Catharina House, built by the surveyor, Reuter, for his wife, was originally located on Main Street where the Vogler House now stands. It was moved by John Vogler to its present location and used as an outbuilding when he built his home.

#### G. Salem Tavern

Interpretive Highlight: Large-scale, productive food gardens

1. Explain that the Tavern gardens were once quite large, extending from the terrace behind the woodshed across Salt Street to the Old Salem bypass.

- a. Gardens provided food for tavern guests.

- b. Existing large garden plot below the terraced rock wall behind the woodshed is representative of the extensive food gardens which once supplied the Tavern kitchen.

2. Discuss how the Tavern yard was often a hub of activity.

- a. Woodshed protected fuel for cooking and heating as well as poultry and small game.

- b. Barn provided storage for agricultural tools and livestock.

Lot 68

LIVE STOCK

7	Cows @ 5 Doll.	\$ 35.00
2	Heifers	5.00
1	Bull	5.00
1	Bull calf	2.00
1	Horse	65.00
3	Geese @ 37 1/2	1.12 1/2
3	Guinia fowls	.37 1/2
7	Ducks @ 10	.70
13	Turkeys @ 37 1/2	4.87 1/2
100	Fowls @ 6 1/4	6.25
5	Hogs @ 2 Doll.	10.00
5	Ditto @ 1.25	6.25
5	Do @ 2 Doll.	10.00
6	Hogs @ 1.25	7.50
6	Ditto @ 100	6.00
6	Ditto @ 300	18.00

Fig. 6: Copied from 1822 Tavern inventory

V. Additional Garden and Landscape Information for  
Summer Interpreters and Guides With School Groups

A. Orchards . . . . .	32
B. Cold frames. . . . .	32
C. Building Foundations . . . . .	32
D. Fences . . . . .	33
E. Street Trees . . . . .	33
F. Salem Arboretum. . . . .	34
G. American Elms. . . . .	35
H. Salem Square . . . . .	37
I. Tavern Meadow. . . . .	39
J. Foltz Field. . . . .	39
K. Animals. . . . .	39
L. Garden Ornaments . . . . .	40
M. Flowerpots . . . . .	41
N. Streets and Lanes. . . . .	42



## Interpretation of Important Landscape Features

### A. Orchards

Fruit trees were planted everywhere in Salem - on the square, streets, and yards of homes. Every available vacant lot apparently was used for an orchard. Peaches and apples were the most popular type of fruit planted, but cherries, apricots, pear, and quince were also grown. Orchards are currently growing on the following vacant lots in Old Salem.

Reception Center	= Apple and crab apple trees of unknown variety
Lot #58	= Montmorency cherries (sour cherry)
Mock Lot (Church St. adjacent to Frank Horton's)	= Black Gilliflower and Newtown Pippin apples; Seckel and Bartlett pears; George IV peaches
Central School Meadow	= Black Tartarian and Montmorency cherries; Late Crawford Peaches

### B. Cold Frames

Cold frames, such as the one reconstructed against the south end of the Single Brothers House, were often used by Moravians and early settlers to:

1. Start seedlings for early transplant to gardens
2. Provide fresh greens during winter months

Frames were constructed of stone and wood, faced south and usually built close to gardens.

### C. Building Foundations

Houses are no longer standing on some lots in Salem. The foundations of a few of these buildings are marked with primitive stone walls or an aggregate concrete surface poured flush with the ground. Gardens and orchards have been planted behind some foundations to give a feeling of cultivation and inhabitation.

1. Wash-house foundation behind Single Brothers House and Workshop
2. 2nd house foundation on Lot #53 (corner of Main and Bank Streets)

#### D. Fences

Lots in Salem were always fenced. Picket and solid board fences surrounded yards and gardens for protection and privacy. Split rail and snake fences often bordered fields, meadows, and orchards. Various styles of picket fences are depicted below and re-created in various locations in Salem.

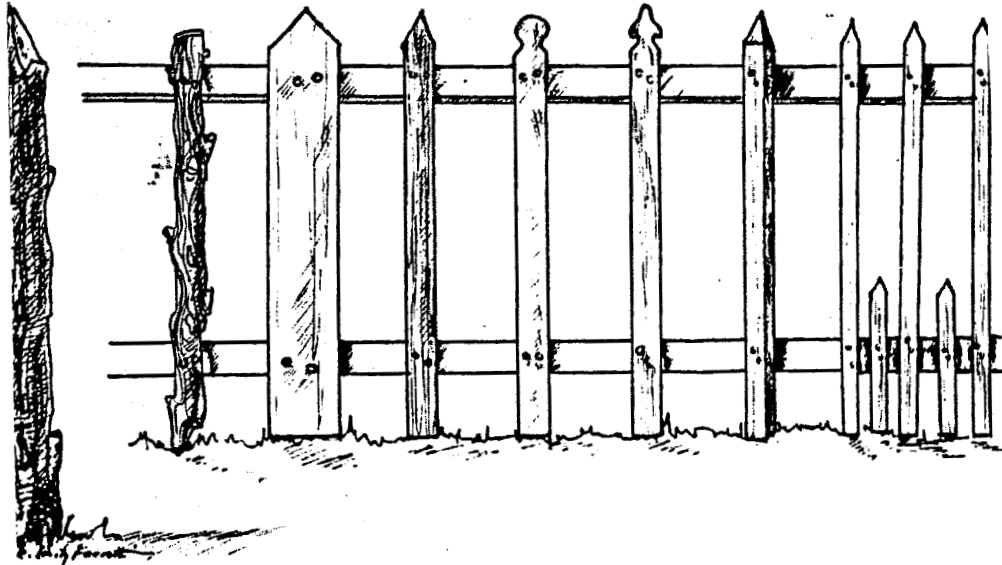


Figure 6. Picket fences have been built for centuries in endless variation. On the left is shown the earliest type, merely a pointed sapling set into the ground.

Favretti, Rudy and Joy. For Every House A Garden.  
Pequot Press, Chester, Connecticut, 1977.

#### E. Street Trees

In the late 1770's Moravians paid particular attention to tree planting in Salem. Trees, especially fruit, lined streets and lanes, and helped to outline and decorate Salem Square. Pears and peaches were the most popular type of fruit for street planting because of their upright branching habit. Historical urban tree plantings in early Salem included:

1. An allée of sycamores (Platanus occidentalis) planted in 1792 from the Tavern to Salem Creek
2. An allée of catalpas (Catalpa speciosa) on Church St. in the early 1800's

3. Cross allées of lombardy poplars (Populus nigra 'Italica') in the Square; sugar maples (Acer saccharum) now line the intersecting paths in the Square
4. An allée of red cedars (Juniperus virginiana) lining Cedar Avenue in the Moravian graveyard in 1810

Street trees currently planted in 20th century Salem are:

1. An allée of Seckel pears (Pyrus communis) along both sides of Bank Street, between Salt and Main Sts.
2. Sycamore trees (Platanus occidentalis) planted along the lower end of Main Street (fronting Old Central School site)
3. A clipped allée of Laurel oaks (Quercus laurifolia) lining Cedar Ave. in the Moravian graveyard
4. Red maples (Acer rubrum) planted up and down both sides of Main Street
5. Ash trees (Fraxinus americana) in the median strip dividing the Reception Center parking lot from Old Salem bypass
6. Golden chain trees (Laburnum Vossii) planted among the Japanese holly in front of the Reception Center and Post Office building

#### F. Salem Arboretum

This land at the southern end of Main Street is a vestige of the meadows and fields which once surrounded the town. It was the commercial site of the Zinzendorf Laundry until 1976. The land is now planted with a collection of trees which are representative of the forests once growing in this region of North Carolina.

1. White Oak (Quercus alba)  
A splendid, large tree (100-150') with a broad crown and light grey to white bark. The large acorn was a staple food for the Indians and also eaten by Moravians. The tree was also used in tanning leather, shipbuilding, and pipemaking. A "Pipe" is a cask for wine and other liquids. White oak is still one of the best all-around firewoods.
2. Willow Oak (Quercus phellos)  
One of the most widely planted deciduous trees in Forsyth County. It reaches 80 feet and has long, narrow light-green, willow-like leaves.

3. Black Walnut (Juglans nigra)

One of the familiar trees of the countryside growing to a height of 150' with widely spreading branches. It still provides one of the finest cabinet woods and was used by Moravian craftsmen for gunstocks and furniture.

4. Beech (Fagus grandifolia)

A forest tree that grows to a height of 100-120'. It has smooth grey bark, brown pointed buds, and leaves that turn clear yellow-bronze in the fall. Beech was used by the Moravians for furniture and small household products.

5. Sugar Maple (Acer saccharum)

Sugar maple leaves are 5-lobed, and turn brilliant shades of color in the fall. The tree's wood is useful in furniture making, flooring, and its sap is prized for making sugars and syrups.

6. Sycamore (Platanus occidentalis)

A towering tree which branches high above the ground into a massive, spreading, open-headed canopy. Its bark is light grey, green, or chalky white, and peels off in patches to give the tree a mottled, mosaic appearance. Sycamores were often planted around the house and garden and along streets.

7. Black Willow (Salix nigra)

This tree inhabits moist areas along creeks and streams. Its brittle wood breaks easily and is short-lived. In colonial days the wood was used for making a fine charcoal for black gunpowder.

8. White Pine (Pinus strobus)

Long, blue-green needles and narrow, 4-8 inch cones cover this tree. Growing up to 150', its bark is divided into rectangular blocks by deep, narrow fissures. White pine is an extremely important forest tree used for framing houses, doors, windows, and making shingles.

G. American Elms (Ulmus americana)

These natives of North America have been widely used to line streets for shade and beauty. The tree has an upright, vase-like form with graceful, arching branches.

Unfortunately, Dutch Elm disease, introduced in the United States in 1930, quickly spread throughout the country destroying over half the elm trees in the northern United States.

Several majestic elms still grace the yards and gardens.

#### 67 H. Salem Square

The Moravians were significantly influenced by the European concepts of town planning. They set aside a central common ground (town square) when masterplanning Salem. Salem Square provided a location for social interaction and marketing meat and produce.

A small building on the west side of the square facing Main St. served as the marketplace and also sheltered the town's fire engine. Because the market-firehouse was centrally located, it could provide protection for more Moravian households than if it were on the town's edge.

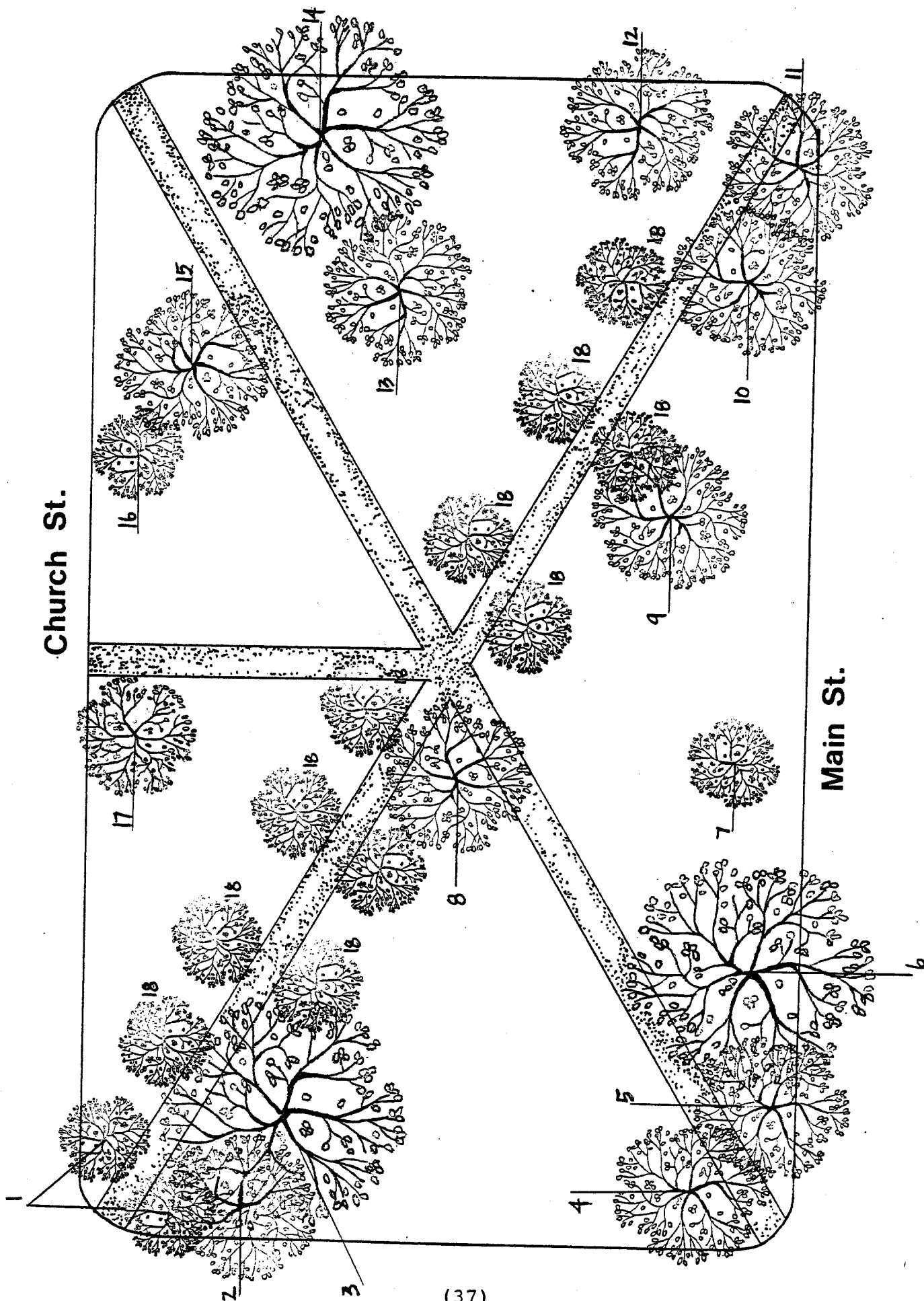
The square has been fenced and beautified with changing ornamental plantings many times since its creation. A plan view (looking down from above) showing existing trees in the square follows.

Church St.

Main St.

SALEM SQUARE -- Plot Plan

N



Key to Planting Plan of Salem Square

1. Chinese Parasol Tree	<u>Firmiana simplex</u>
2. White Oak	<u>Quercus alba</u>
3. Willow Oak	<u>Quercus phellos</u>
4. American Elm	<u>Ulmus americana</u>
5. Willow Oak	<u>Quercus phellos</u>
6. Tulip poplar	<u>Liriodendron tulipifera</u>
7. Red Maple	<u>Acer rubrum</u>
8. Tulip Poplar	<u>Liriodendron tulipifera</u>
9. Sugar Maple	<u>Acer floridanum</u>
10. Silver Maple	<u>Acer saccharinum</u>
11. American Elm	<u>Ulmus americana</u>
12. Red Maple	<u>Acer rubrum</u>
13. Willow Oak	<u>Quercus phellos</u>
14. Red Oak	<u>Quercus rubra</u> (or) <u>Quercus borealis maxima</u>
15. Willow Oak	<u>Quercus phellos</u>
16. Flowering Dogwood	<u>Cornus florida</u>
17. Ornamental Cherry	<u>Prunus</u> sp.
18. Red Maple	<u>Acer rubrum</u>

## I. Tavern Meadow

The meadow was used only for the horses of tavern guests. Grazing animals controlled the height of meadow grasses and eliminated the need for hand mowing with scythes or sickles. A fence completely enclosed the meadow to prevent horses from wandering off. Meadow grasses are currently maintained in a rough state by the Horticulture Department to re-create the early landscape.

## J. Folts Field (lot #96)

This cultivated area represents the fields and outlots on which crops such as tobacco, corn, pumpkins, rye, broomcorn, and clover were grown. There was often little room in the smaller family gardens to cultivate these larger agricultural crops. The following is a seasonal schedule of crops grown in the Foltz field:

- |                  |   |
|------------------|---|
| 1. October-April | = Winter rye or Red Clover                        |
| 2. May-September | = Corn and/or pumpkins, tobacco, broomcorn, beans |

Companion plantings of corn and pumpkins or corn and beans often covered fields in summer. Corn stalks provided support for the vines of runner beans. The upright growth habit of corn also allowed pumpkin vines to sprawl along the ground. The vines formed a dense groundcover which controlled the evaporation of soil moisture and the growth of weeds.

## K. Animals

Domesticated animals were commonplace in early Salem and included chickens, guinea fowl, horses, cows, and swine. Because the restored town of Salem lies adjacent to urban Winston-Salem and is home to many residents and a college, it is difficult to tend many animals today. However, to create a sense of the animal life once existent in Salem, chickens and guinea fowl inhabit several of the current museum lots.

### 1. Guineas

These unusual, two-legged creatures are native to Africa, but were first brought to the U.S. during colonial times as domesticated fowl.

Guineas do not like close confinement, but prefer to roam and graze as they please. Basically carnivores, they eat all types of insects as well as slugs, and are useful additions to any farm or backyard garden.



These birds make excellent "watchdogs" and are fascinating to watch because of their socialized behavior. They have an uncommon ability to communicate through sound. If a member of the flock is troubled by a predator, it may signal the entire flock to attack by making a series of subtle sounds.

#### L. Garden Ornaments

Early Salem gardens were strictly utilitarian and relatively free of decorative garden ornaments, such as urns, fountains, gazebos, bird baths, etc. However, several garden features which might be considered ornamental are:

##### 1. Arbors

Wooden structures were often built to support the vines of grapes or gourds. Ornamental flowering plants, such as the wisteria covering the arbor behind Salem Tavern, were not grown in early Salem. An accurate re-creation of an arbor covered with grapes exists in the Levering family garden on Salt St.

##### 2. Summerhouses

These small outdoor shelters were generally not prevalent in 18th century Salem. The structure in the Miksch garden is a facsimile of a summerhouse noted on an early Bethabara garden plan. Historically a summerhouse never existed behind the Tobacco Shop.

##### 3. Benches

Primitive benches were common in Salem yards, gardens, and possibly Salem Square. They were commonly constructed of split tree trunks set on 4 smaller logs. Most were backless. The benches in the Miksch garden are more decorative than those commonly used by Moravians in the 18th century.

#### M. Flowerpots

Flowerpots became a popular earthenware item in the early 19th century and were made in the Salem pottery until its closing at the beginning of the 20th century. A few potted flowering plants, such as geraniums or lantanas, may have been set on the porches and steps of Salem homes during warm weather. Reproduction flower pots, based on an old design, are currently sold by Old Salem in a variety of sizes.



**FIGURE 28.**  
*1801 painting of Rubens Peale by his brother Rembrandt, allegedly showing the first geranium brought to America. (Courtesy, Mrs. Norman B. Woolworth)*



**FIGURE 29.**  
*Flowerpot and tray standing in the hall of the Eastern State Hospital in Williamsburg when it burned in June 1885.*

Hume, Audrey Noel. Archaeology and the Colonial Gardener.  
 Colonial Williamsburg Foundation, Williamsburg, VA, 1975,  
 p. 48.

#### N. Streets and Lanes

Streets are an important component of any landscape including that of early Salem. Existing thoroughfares (Main, Salt, Church Streets, etc.) were once unpaved, being surfaced with packed dirt, tanbark or possibly gravel. Road surfaces were not uniform throughout the town, but graded into each other to form an interlocking network of textures. Roads in Salem are paved today with an aggregate paving surface to help re-create a 19th century appearance.

VI. Landscape Questions Frequently Asked by  
Visitors to Old Salem

1. What's growing on the arbor at the rear of the Miksch lot?

ANSWER: Hops (Humulus lupulus)

- perennial vine frequently planted by families in Salem
- used in brewing beer and making bread
- vines die back each fall and begin growth in spring from underground rhizomes
- vines grow quickly during spring and summer to completely cover arbor
- flowering begins in mid-summer
- fruits ripen and ready for harvest in September

2. What was the function of the summerhouse in the Miksch garden?

- ANSWER:
- provided gardeners protection from sun and rain
  - spot to rest and relax from labor
  - pitched roof provided good ventilation to dry herbs and flowers
  - a summerhouse is noted on 1761 Hortus Medicus plan at Bethabara, but no pictures or plans exist
  - architectural detailing of the current re-created summerhouse is purely conjectural

3. What is the bush growing on the south end of the Miksch manufactory?

ANSWER: - Fig (Ficus carica)

- ancient fruit associated with early civilizations and gardens
- never mentioned in any of the gardening accounts and records of Bethabara or Salem, but a fruit widely planted by the colonists in the temperate regions of the Middle Atlantic and upper south
- small pear-shaped fruit ripens in late summer; eaten fresh or dried

4. What type of grapes are growing on fencelines in Salem?

ANSWER: 1) Catawba grapes on the rail fence at the back end of the Miksch lot

- originated in the Catawba River area of Buncombe County, NC, around 1820
- grapes develop in clusters
- good wine grape

2) Cultivars/varieties of Muscadine grape (Vitis rotundifolia)

- grapes borne singly or in bunches of 3-5 grapes
- fruit is dull purple, tough-skinned
- grape has musky taste

5. What are herbs? What are spices? Is there a difference?

ANSWER: Herb = plant or part of a plant valued for its medicinal, culinary, or fragrant/aromatic qualities; grown by Moravians in Salem

Spice = plants or parts of plants used primarily to flavor foods or for their fragrant qualities.  
- only cultivated in moist, tropical regions of the world, such as the West Indies, Central and South America.  
- Cannot be grown in Salem

6. What are the straw cones along the fences in the Miksch and Leinbach lots?

ANSWER: Skeps

- coils of straw roping used for beehives
- reproduction hives in family gardens are based on "skeps" in the Old Salem collections
- none of the hives are populated with bees

7. Why the diagonal arrangement of rows in the Triebel garden?

ANSWER: - pattern unique to Salem  
- documented on 1759 Upland Garden plan for Bethabara  
- possible explanations include:

- a. drainage and irrigation
- b. erosion control
- c. aesthetics
- d. provide varying lengths of row for planting (short rows vs. long rows)
- e. most efficient use of sunlight

8. Why is there no house on the Triebel lot?

ANSWER: - original structure torn down and no attempt will be made to reconstruct it until additional evidence of its appearance is discovered  
- Christian Triebel lived in main part of house from 1775-83; lived in small house to the rear of main house and section of main house from 1783-90; lived solely in small house to rear from 1790-99.  
- Boys School housed in main house from 1780-94.

9. What are the bushes in the corners of the 4 garden squares on the Triebel lot?

ANSWER: Gooseberries (Ribes grossularia)

- produce small, round berries with prominent veining on their skins
- ripen to a brownish-purple color in late June to early July
- eaten fresh or preserved in jams and pies

10. What is the shrub planting behind the Boys School?

- ANSWER:
- overgrown planting of boxwood (Buxus sempervirens)
  - planted in 1941-42 as project of Garden Club Council of Winston-Salem and Forsyth County
  - originally planted with mixtures of herbs and flowers and edged with low-growing boxwood
  - created during the Colonial Revival movement in this country when people found it fashionable to try to re-create colonial architecture and landscapes in 20th century towns
  - without maintenance, boxwood continued growth to its present state
  - boxwood covered former planting areas and formed what some people erroneously refer to as a "maze"

11. What is the purpose of the small garden on Main Street between the Moravian Bookstore and Salem Community Store?

- ANSWER:
- originally planted as a garden club project in 1955
  - contained 4 tree wisterias (Wisteria sinensis) and a groundcover of periwinkle (Vinca minor)
  - sundial once sat in the center of garden between four planting beds
  - replanted in 1979 as small pleasure garden with herbs, summer annuals, and spring bulbs
  - provides cool, colorful space in which to rest and enjoy Salem landscape
  - seasonal plantings include:
    - a. scented geraniums (Geranium sp.)
    - b. rosemary (Rosmarinus officinalis)
    - c. lavender (Lavandula spica, Lavandula angustifolia)
    - d. tulips, Lady (Tulipa clusiana)
    - e. garden balsam (Impatiens balsamina)

## VII. Annotated Bibliography

A. Interpretation. . . . .	48
1. General. . . . .	48
2. Garden and Landscape . . . . .	49
B. Garden History. . . . .	50
1. Medieval and German Gardens. . . . .	50
2. American Gardens . . . . .	50
C. Gardening Calendars . . . . .	50
D. Agricultural Implements . . . . .	51
E. Vegetables and Fruits . . . . .	52
F. Herbs . . . . .	53
G. Food Storage. . . . .	54



## VII. Annotated Bibliography

Most of the following books and articles are available in the Old Salem Library or compiled in the reference notebook prepared for the 1981 summer interpreters in the Miksch yard and garden.

Entries are grouped under the following subject headings for easy reference; those marked with an (\*) can be located in other library collections.

### A. Interpretation

#### 1. General Interpretation

- a. Alderson, W. T. and Shirley P. Low. Interpretation of Historic Sites. American Association for State and Local History, Nashville, Tennessee, 1976.

The first book of its kind to discuss interpretation at historic sites, such as Old Salem. There is nothing specific to garden and landscape interpretation, but the book gives sound advice on how to develop and staff a general program of interpretation at any site.

Required reading!

- b. Bynum, Flora Ann. Old Salem Garden Guide. Old Salem, Inc., Winston-Salem, North Carolina, 1979.

A model guide for interpretation of re-created gardens and landscapes. The publication skillfully interweaves historical information on plants and gardens in Salem with that of its architecture, art, and community to give the reader a unified picture of life in the 19th century.

- \* c. Schlereth, Thomas. Artifacts and the American Past. American Association for State and Local History, Nashville, Tennessee, 1980.

The author explains how to use the landscape (gardens, plants, buildings) as artifacts to understand the past history of a place. Twentieth century landscapes, though constantly changing, provide many clues to what life was like in earlier times, but only if we sharpen our senses. The author tells us how!

- d. Sharpe, Grant. Interpreting the Environment.  
John Wiley and Sons, Inc., New York, 1976.

A comprehensive textbook describing how to effectively interpret the outdoor environment (parks, forests, urban open space). The most valuable chapters of the book deal with the wide array of techniques (signs, publications, audio devices, etc.) available to interpreters. Some techniques are beneficial to beginners, wondering what its all about; others to "old hands" looking for new ideas.

## 2. Garden and Landscape Interpretation

- a. Favretti, Rudy and Joy. For Every House a Garden. A Guide for Reproducing Period Gardens. Pequot Press, Chester, Connecticut, 1977.

An introductory guide to period gardens - how to research them and how to re-create them in all their forms. A complete list of plants for each of the major gardening periods of the United States is included.

- b. Favretti, Rudy J. and Joy. Landscapes and Gardens for Historic Buildings. American Association for State and Local History, Nashville, Tennessee, 1979.

The Favretti's improve on their first book with excellent illustrations and an expanded plant list. It is unfortunate that individual dates of introduction are not given for each plant listed. Chapter 17, "Maintaining the Restored Landscape" should be read by every garden interpreter at Old Salem.

- \* c. Foulger, Nancy. Interpretation for Public Gardens: A Communications Perspective. Master's Thesis, Longwood Program in Ornamental Horticulture, Newark, Delaware, 1979.

Proposes a systems model for producing effective interpretive programs in a garden setting. The system is based on communication theory in which interpretive themes/messages are communicated through appropriate media.

- \* d. Wise, George U. "Do Plants Speak for Themselves? An Interpretive Plan for the Garden." Longwood Program Seminar Publication, Volume 9, pp. 45-50.

Author contends that labeling is only one aspect of interpretation. Adjuncts and alternatives to plant

labels should be incorporated into a master plan for interpreting the historic garden.

## B. Garden History

### 1. Medieval and German Gardens

- \* a. Gothein, Marie Luise. A History of Garden Art. From the Earliest Times to the Present. E. P. Dutton and Co., Ltd., New York, pp. 3-47.

The most complete and revealing discussion of Renaissance gardens in Germany and the Netherlands. Loaded with illustrations, this chapter is essential reading for understanding the German influence on Moravian gardens in Salem. A rare book, but well worth the library search!

- \* b. Hyams, Edward. A History of Gardens and Gardening. Praeger Publishers, New York, 1971.

Useful information on the Italian and French influence on German gardens. In garden craft, as in architecture, Germany was a follower rather than a leader. German garden style seems to have been strong enough to influence the Moravians (during their stay in Herrnhut) in their garden designs in Salem.

- \* c. Triggs, H. Inigo. Garden Craft in Europe. B. T. Batsford, London, England, 1913.

A good description of medieval botanic and physic gardens, characteristics of which are reflected in the Medical Garden (Hortus Medicus) at Bethabara. A chapter on German gardens in the Middle Ages and the Renaissance period continues to build a case for the German influence on Salem gardens.

### 2. American Gardens

- a. Hedrick, U. P. A History of Horticulture in America to 1860.

The bible on garden and horticultural history in an emerging nation!

## C. Gardening Calendars

- \* 1. Cobbett, William. The American Gardener: Or a Treatise on the Situation, Soil, Fencing, Laying-out of Gardens, 1821.

A garden calendar popular in the first half of the nineteenth century containing specific instructions on preparing soil, propagating and cultivating plants, saving and storing seed, sowing and planting, and watering the garden. Step-by-step directions for trenching and double-digging garden beds are valuable for summer garden interpreters.

- \* 2. Logan, Martha. The South Carolina Almanack, 1756.  
Logan, Martha. Palladium of Knowledge: Or the Carolina and Georgia Almanac, 1798.

An account by the first woman horticulturist in America to publish on the subject of gardening. Hailing from Charleston, South Carolina, she writes of all the work necessary to maintain kitchen and fruit gardens throughout the year (month by month).

- \* 3. Mc'Mahon, Bernard. The American Gardener's Calendar. Adopted to the Climates and Seasons of the United States. J. B. Lippincott and Co., Philadelphia, Pennsylvania, 1806.

One of the most popular gardening publications in the nineteenth century. Monthly advice for the farmer and a smattering of what then passed as agricultural science.

- \* 4. Squibb, Robert. A Gardener's Kalendar for South Carolina, Georgia, and North Carolina, 1827.

One of the few calendars covering North Carolina, possibly used as a reference by the Moravians in Salem. Monthly tips and horticultural information on the common garden fruits and vegetables are easily adapted to Salem, North Carolina.

- \* 5. White, William. Gardening for the South. A. O. Moore, Agricultural Book Publishers, New York, N.Y., 1858.

Another standard reference for the southern states, but falls beyond the period of interpretation at Old Salem.

#### D. Agricultural Implements

1. Hume, Audrey Noel. Archaeology and the Colonial Gardener. The Colonial Williamsburg Foundation, Williamsburg, Virginia, 1975.

Archaeology has documented tools used by the colonial gardener in Williamsburg. Spades, hoes, watering cans, rakes, and sickles unearthed in Williamsburg are no doubt similar to those used by the Moravians, but point to the need for more archaeological exploration in Salem.

2. Partridge, Michael. Farm Tools Through the Ages.  
Promontory Press, Boston, Massachusetts, 1973,  
pp. 108-121, 134-43.

Good illustrations and narrative on the history of hand tools connected with farming and agriculture. Information is more applicable to Salem family gardens than other references cited in this section.

3. Schlebecker, John T. Whereby We Thrive: History of American Farming, 1607-1972. Iowa State University Press, Ames, Iowa, 1975, pp. 25-35, 97-123.

A comparison of farming methods and tools prevalent in western Europe between 1607-1783 with those of the American Indian. The author traces the development of the plow and other agricultural implements used to cultivate the land. He points out that the hoe prevailed as the prime cultivating tool in the United States for a long time.

4. Sloane, Eric. A Museum of Early American Tools.  
Funk and Wagnalls, New York, 1964, pp. 100-05.

Discussion centers on harvesting hay and grass with helpful illustrations of knives and sickles. Hay forks and mowing scythes are also described and pictured.

#### E. Vegetables and Fruits

1. Becker, Robert F. Unpublished Manuscript on Antique Vegetable Cultivars in the United States, 1981.

Excellent synopsis of cultivar/variety breeding of 19th century garden vegetables. The shapes of different cultivars (carrots, tomatoes, etc.) are well illustrated. Invaluable!

2. Kelsey, Darwin P., editor. Farming in the New Nation. Interpreting American Agriculture, 1790-1840.  
Agricultural History Society, Washington, D.C., 1972,  
pp. 71-79.

Excellent synthesis of information on common agricultural plants of the 19th century, including corn and other native American crops, such as squash and pumpkins.

3. Lape, Fred. "Apple Varieties." The Garden. New York Botanical Garden, New York, September-October, 1980.

Brief history of apple cultivation in America. Old-fashioned apples still found in nurseries and home orchards are sometimes superior to modern cultivars/varieties and should be grown and popularized at historic sites.

## F. Herbs

1. Boerner Botanical Garden. Boerner Botanical Gardens Bulletin of Popular Herb Information. Hales Corner, Wisconsin.

Concise information on most of the herbs (culinary, medicinal, and industrial) grown in 18th and 19th century gardens. Plants are listed alphabetically in table format for easy reference.

2. Brooklyn Botanic Garden. Handbook on Herbs. Plants and Gardens, Volume 28, Number 1, 1972.

Excellent introductory articles in handbook format for the novice herb gardener.

- \* 3. Culpepper, Nicholas. Culpepper's Complete Herbal. F. Foulsham, London, England.

An 18th century herbal which presents extremely detailed information on the multiple uses of herbs, their culture, harvest, and processing. The best volume for herbal folklore and obscure culinary and medicinal herb uses.

- \* 4. Douts, John William. Early American Culinary Herbs and Kitchen Gardens. A Master's Thesis, Longwood Program in Ornamental Horticulture, Newark, Delaware, 1975.

A dissertation on 17 culinary herbs and their culture. Introductory chapters trace the development of kitchen gardens in early America, which are not documented as existing in Salem. Later sections synthesize useful cultural information from a variety of early garden calendars published in this country.

5. Hylton, William H., (Ed.). The Rodale Herb Book. Rodale Press Book Division, Emmaus, Pennsylvania, 1974.

A comprehensive book on herbs compiled by the authors of Organic Gardening magazine. It includes general chapters on herb history, cultivation and harvesting. Propagation hints and common 20th century herb uses are offered.

6. Other general books on herbs:

Clarkson, Rosetta E. Herbs: Their Culture and Uses. Macmillan and Co., New York, 1979.

- \* Foster, Gertrude B. Herbs for Every Garden. E. P. Dutton, New York, N.Y., 1966.

\* Muenscher, Walter C. and Myron A. Rice. Garden Spices and Wild Pot Herbs: An American Herbal. Cornell University Press, Ithaca, New York, 1955.

\* Simmons, Adelma Grenier. Herb Gardening in Five Seasons. D. Van Nostrand Co., Inc., 1964.

#### G. Food Storage

1. Bubel, Michael and Nancy. Root Cellaring. Rodale Press, Emmaus, Pennsylvania, 1979.

A definitive work on storing fruits and vegetables on site in the garden or in root cellars, basements, and other hideaways. The authors focus on the common vegetables which were grown in early Salem gardens and their particular storage requirements. Diagrams of storage systems are extremely helpful for future interpretation in Salem.

2. Carter, Suzannah. The Frugal Colonial Housewife. Dolphin Books, Doubleday and Co., Inc., Garden City, New York, 1976.

Chapter 17 provides simple recipes for preserving, drying, and candying garden-fresh vegetables and fruits. The following chapter discusses the art of pickling, a common practice in Salem.

3. Donovan, Mary and Amy Hatrack. The Thirteen Colonies Cookbook. Praeger Publishers, New York, 1975.

Pages 197-209 contains recipes for preserving vegetables and fruits - pickles, figs, cabbage, and apples. Excellent for summer cooking demonstrations.

4. Hume, Audrey Noel. Food. Colonial Williamsburg Series #9. Colonial Williamsburg Foundation, Williamsburg, Virginia.

Excellent information on preserving and pickling in suitable containers. Photographs of actual jars and bottles from archaeological digs at Williamsburg abound.

5. Simmons, Amelia. The First American Cookbook, 1976. A Reprint. Buck Hill Associates, Johnsburg, New York, 1966.

Easy-to-follow recipes for summer garden demonstrations on preserving and storing fruits - strawberries, gooseberries, peaches, apricots, cherries, currants, apples.

6. Sparks, Elizabeth Hedgecock. North Carolina and Old Salem Cookery. Dowd Press, Inc., Charlotte, North Carolina, 1964.

The focus is on the popular 18th century food preservation method of drying. Instruction are given to dry apples, peaches, corn, sweet potatoes, beans, peas, and pumpkins.



#### VIII. Summer Garden Interpretation

A. Garden Interpretation - A Team Approach. . . . .	57
B. "On Being an Old Salem Interpreter" . .	57
C. Suggested Weekly Summer Schedules for Garden Interpreters . . . . .	58
D. Example Interpretive Schedules. . . . .	61

## A. Garden Interpretation - A Team Approach

During the summer of 1981 five summer interpreters planned and demonstrated for visitors a variety of chores and skills relevant to family life in Salem during the general period represented by the Miksch house, 1771-85. An important aspect of the program was the demonstration of gardening activities and techniques.

Demonstrations changed daily to illustrate the variety of work necessary to support a Moravian household and the changing nature of such work. When apples are ripe, for example, they are picked and dried. When a fence breaks, it must be repaired; when berries are available for dying, yarn is dyed.

### Goals

The objectives of this team interpretive approach included:

1. To give the visitor a more complete view of Salem by illustrating people working together to meet basic needs and to create a relatively comfortable lifestyle.
2. To give the Miksch yard and Salt Street gardens the appearance of life-supporting spaces and, therefore, increase the visitor's understanding of the building lot concept and the relationship of the house and its dependencies to the yard and garden.

### Interpretive Outlines

The following brief outlines were developed to help garden interpreters plan and execute their daily and weekly demonstrations. Some of the activities listed were immediate needs of the Miksch property and other family gardens along Salt St. during the summer of 1981.

They are included in this training manual to serve as models to spark ideas for future garden interpretation.

## B. On Being an Old Salem Interpreter

Do not burden your guests with too many details unless you feel that they want details. It is better for the visitor to leave the garden with a few clear understandings than with a sense of confusion.

Discuss broad ideas with your guests.

Unless you feel that your visitors can handle it, do not get too technical. Use the common names for plants instead of the Latin genus and species. Do not bring up a specific plant unless you can tell something significant about its use - medicinal, culinary, industrial, etc.

INVOLVE THE VISITOR. Encourage guests to ask questions, and do not hesitate to ask them questions about what they might have learned already. Strive to create a relationship in which you are talking with your visitors, not to them.

Your own attitude does much to set the tone of the garden experience for your visitors. Express your enthusiasm for Old Salem and your love for the buildings, collections, and gardens and landscapes.

Personalize your tour by relating the interpretive material to the interests of the guests when this is known. You might ask if the visitor is interested in any particular area associated with the gardens, such as herbs, vegetables, gardening techniques and tools, etc.

Know your material. Do Not guess. If you do not know the answer to a question, simply say, "I don't know, but if you wish, I will find the answer and have the information mailed to your home."

Look at your job as an interpreter as a challenging experience. You are an educator, and because you are educating visitors, it is your responsibility to continue to learn. The quality of work you do as an interpreter is proportional to the knowledge you have of the Moravians and Salem. A good teacher does not try to teach all that he or she knows, of course, but can tap that reservoir of knowledge when the need arises and feel confident about his or her work in the process.

Your knowledge can be expanded by reading. Old Salem and MESDA (Museum of Early Southern Decorative Arts) have good collections which are at your disposal. Books also can be checked out from the public and university libraries.

### C. Suggested Weekly Summer Schedule for Garden Interpreters

This is a flexible schedule for summer garden interpretation. It concentrates on one horticultural topic and related gardening demonstrations for each day of the week. The schedule is not set in concrete, but subject to change depending on weather and availability of plants, supplies, and labor. For example, if a large tree loses limbs in a

wind storm, they should be cleaned up immediately - you don't have to necessarily wait until Monday because the interpretive schedule suggests that day for "horticultural activities."

While engaged in any garden demonstration, interpreters are expected to initiate dialogue with visitors to impart information concerning their gardening chores. Interpreters might stop their work, wipe their brows, and say "It's certainly a warm day, isn't it? This leaf mulch that I'm spreading should help keep the roots of these melons cool and moist . . ."

## I. Monday

HERBS: Their culture, harvest and use

### A. Proposed Activities

1. Harvesting specific herbs
2. Cultivating herbs (weeding, fertilizing, etc.)
3. Drying herbs
4. Brewing herbal teas
5. Making potpourris and sachets
6. Strewing herbs
7. Collecting herb seeds for culinary use and propagation
8. Collecting and drying roses and other garden flowers for fragrance

## II. Tuesday

HORTICULTURAL/AGRICULTURAL TECHNIQUES

### A. Proposed Activities

1. Preparing soil
2. Fertilizing organically with compost, manure, and ashes
3. Mulching
4. Irrigating
5. Pruning
6. Supporting plants with stakes, branches, neighboring plants
7. Controlling insects and other pests
8. Harvesting specific crops such as flax, dye plants, corn, tobacco, broomcorn, hops.

### III. Wednesday

#### FOOD PRESERVATION AND COOKING

##### A. Proposed Activities

1. Drying fruits and vegetables
2. Storing food in cellars, outbuildings, etc.
3. Preparing preserves, jellies, brandies, etc.
4. Pickling cucumbers, cabbage, etc.

### IV. Thursday

#### VEGETABLES: Their culture, propagation, and harvest

##### A. Proposed Activities

1. Harvesting vegetables, flowers, and herbs for sale at Market Day
2. Selling produce at Market-Firehouse on Salem Square
3. Collecting ripe vegetable seed for future propagation or sale

### V. Friday

#### TOOLS AND LANDSCAPE ACCESSORIES: Their construction and maintenance

##### A. Proposed Activities

1. Mending fences
2. Constructing benches
3. Chopping and storing wood
4. Building landscape accessories: clotheslines, compost bins, firepits, etc.
5. Crafting agricultural tools

\*\*\* Alternatives - to be used or substituted during inclement weather or when garden chores are completed

#### BOTANICAL STUDY

##### A. Proposed Activities

1. Collecting native plants
2. Pressing unusual botanical specimens
3. Illustrating native plants

#### D. Example Interpretive Schedules

The following lists of interpretive gardening activities were prepared for the 1981 summer season. They serve as useful models for continual garden interpretation at Old Salem.

##### I. HERBS: Their culture, harvest, and use

###### A. Miksch Garden

1. Dress herbs weekly; dressing refers to the process of cleaning dead leaves and stems from the plants and weeding.

###### a. Dead head (clean faded flowers):

- 1) blessed thistles
- 2) musk and apothecary roses
- 3) thyme

2. Irrigate (water) individual herb beds with watering cans as needed, especially those beds which quickly drain at the upper end of the garden.

3. Continue to sow thin plantings of parsley, dill, carraway, and fennel through the end of June into the first two weeks in July; sow in situ (where they are to grow).

4. Continue propagation of medicinal and culinary herbs from either stem cuttings or division of established plants.

###### a. Propagate from cuttings:

- 1) southernwood
- 2) rosemary
- 3) lavender

5. Make successive harvests of culinary and medicinal herbs through July, August, and September.

###### a. Harvest and air dry:

- 1) thyme leaves during flowering
- 2) horehound leaves
- 3) lavender flower spikes when in bloom
- 4) rosemary leaves anytime
- 5) lemon balm leaves
- 6) chamomile flowers
- 7) basil leaves just prior to flowering
- 8) dill leaves and ripe seed heads
- 9) sage leaves anytime

- 10) comfrey leaves when young and succulent
  - 11) lettuce seed when ripe
  - 12) columbine seed
  - 13) sweet marjoram
  - 14) musk rose petals
6. Harvest herbs just before and during flowering and in the morning after the dew has dried, but before the sun becomes too intense.
  7. Dry herbs by hanging in bundles in a dark, well-ventilated location, or by placing on screens.
  8. Secure/support gourds and other vines/brambles along fencelines with twine or dried hops vines.

B. Triebel Garden

1. Collect ripe seed from parsley
2. Harvest and dry:
  - a. Cayenne peppers
  - b. string beans
  - c. onions, leeks, garlic
  - d. rosemary

C. Eberhardt Garden

1. Harvest and dry:
  - a. wormwood
  - b. dill leaves and ripe seed heads
  - c. endive seed
  - d. lovage seed and sections of hollow stem
2. Prune rosemary to a uniform height of 24" to form hedge around vegetable plot in middle terrace.
3. Dig lovage and elecampane roots for demonstrations of medicinal preparations; summer is the wrong season (the best season is late autumn) to harvest roots, but the process involved can still be demonstrated.
  - a. Discard old, woody roots
  - b. Scrub tender roots with stiff brush and cold water

- c. Cut each root crosswise into 2-inch lengths; then slice each piece lengthwise into 4-8 segments.
- d. Add 2 cups of elecampane root pieces to 2 cups water and 2 cups sugar
- e. Bring to a boil; reduce heat and simmer until elecampane is tender
- f. Drain the elecampane and bottle syrup
- g. Syrup is an excellent cough remedy

## II. Horticultural/Agricultural Techniques

### A. Miksch Garden

#### 1. Soil preparation

##### a. Double-dig:

- 1) bed containing yarrow; lift existing plants, dig bed, reset plants adding yarrow transplants from greenhouse.
- 2) hyssop bed at site of former redbud (Cercis canadensis) tree
- 3) southernwood bed; lift existing plants, dig bed, fill with additional stock from greenhouse.
- 4) sorrel bed (following same procedure as outlined above)

#### 2. Fertilizing

- a. Apply ashes from dye pot fires to garden vegetables with high potash requirements, such as potatoes, beets, and onions. Potash helps strengthen stem and leaf growth and improves root crops.
- b. Add manure, compost, bone and blood meal, (from the Moravian slaughterhouse in past times) or other organic fertilizers when preparing garden beds and during plant growth.

#### 3. Mulching

- a. Appropriate herbs and vegetables



#### 4. Pruning

- a. Lightly prune bunch grapes (Catawba) at back of garden on split rail fence; tie up fruit-laden branches.
- b. Prune low hanging branches and sucker growth on fruit trees

#### 5. Irrigating

- a. Hand water individual herb beds in Miksch garden.

### B. Triebel Garden

#### 1. Fertilizing

- a. Apply wood ashes from dye pot fires on gardens.
- b. Add manure, compost, and other organic mulches to garden.

#### 2. Mulching

- a. Mulch between rows and around vegetables, flowers, and herbs to control weeds; use straw, leaf mold, or other suitable organic material.
- b. Mulch melons with a thick blanket of straw or leaves.

#### 3. Staking

- a. Stake peppers where required with pea brush, bamboo cuttings, or tree twigs.

#### 4. Irrigating

- a. Water large vegetable plots with sprinklers early in the morning before visitors arrive or in the afternoon when Old Salem closes for the day. Make sure all hoses and sprinklers are rolled up and well hidden from sight during the day.

### C. Eberhardt Garden

#### 1. Mulching

- a. Mulch between rows and around the base of plants.
- b. Stake vegetables and flowers where needed.

D. Folts Field and Tavern Garden

1. Harvesting
  - a. tobacco
  - b. broomcorn
  - c. corn
  - d. bush or pole beans

E. Leinbach Garden

1. Harvesting
  - a. flax (see specific information on flax harvesting in Single Brothers Workshop training manual)

III. Food Preservation and Cooking

Vegetables and fruits appropriate for demonstrations of various types of food preservation are listed below with their approximate time of harvest.

A. Gooseberries - (last week in June through first week in July)

1. Preserve in bottles.
2. Preserve as jam.
3. Cook a gooseberry pie.

B. Apricots - (end of June through first weeks in July)

1. Use them in jam/jelly.
2. Preserve fruits while still green.
3. Dry them in the sun.
4. Ferment them for brandy.

C. Peaches (middle of July through last of August)

1. Dry them in the sun.
2. Preserve as jam/jelly.
3. Ferment for brandy.

D. Apples (end of June through September, depending on cultivar/variety)

1. Sun dry them.
2. Make applesauce.
3. Press appropriate types for cider.

E. Grapes (end of July through August)

1. Pack them in casks or barrels with alternating layers of bran for cellar storage (store in Vierling cellar).
2. Ferment them for wine.
3. Dry them for raisins.

F. Cabbage

1. Pickle several heads for sauerkraut.

G. Cucumbers

1. Pickle them whole or in slices.

H. Nasturtium seeds and flower buds

1. Pickle them in vinegar.

I. Onions (June through July)

1. Pickle them.
2. Sun dry and hang for storage.

J. Figs (middle of July through September)

1. Make fig conserve.
2. Sun dry them.

K. Corn (July through September, depending on cultivar and planting date)

1. Dry kernels in the sun after removing from the cob.

L. Sweet Potatoes

1. Sun dry them in their skins.
2. Dry them after boiling, peeling, and slicing.
3. Pack and store in root cellar.

M. Peas and Beans (July through September)

1. Dry them in pods or shelled.
2. String them and hang to dry (leather britches).

N. Pumpkins (August through September)

1. Peel skin, core, and cut into rings; hang pieces to dry on a stick in front of a fire.

O. Potatoes

1. Pack them in casks, barrels, or bins for cellar storage.

P. Cayenne Peppers

1. String them and hang to dry.

IV. Vegetables: Their culture, propagation, and harvest

Summer garden interpreters should take an active role in the harvest and sale of vegetables, herbs, and flowers on Thursdays throughout the summer.

Harvest produce in costume in several of the more accessible family gardens using reproduction tools and baskets. Pick fruits and vegetables in the early morning hours and wash, clean, and sort. Sell ("barter") the day's harvest with residents and tourists in the afternoons at the Market-Firehouse on Salem Square.

V. Tools and Landscape Accessories: Their construction and maintenance

- A. Mend worn fences (rails, pickets, boards, and posts), arbors, and trellises
- B. Construct additional compost bins. Most gardens should have a compost area; some yards might use a 3-bin storage system. One bin is for shredded organic materials (grass clippings, weeds, leaves, kitchen scraps); another is for decomposing organic matter mixed with soil and fertilizer; and the last section stores finished compost ready for garden use.
- C. Mend rock terraces and walls
- D. Construct additional garden benches
- E. Build additional ladders for window washing and tree pruning, etc.
- F. Repair or rebuild garden wheelbarrow; build additional garden carts.
- G. Repair handles and sharpen all cutting edges on garden tools. Make new tools when needed.
  1. Existing reproduction garden tools and supplies owned by Old Salem, Inc. include:

(Tools continued)

- a. wooden rakes
- b. spades
- c. hand trowels
- d. hoes
- e. wheelbarrow
- f. dibble
- g. plant stakes
- h. clippers (sheep shears)
- i. sickles
- j. axes
- k. scythe
- l. cradle scythe
- m. pitch fork
- n. hay fork
- o. oak-split harvest baskets
- p. watering cans
- q. pocket knives
- r. straw broom
- s. besom
- t. fence rail and post replacements
- u. jute string
- v. mallets
- w. saws

APPENDIX A:

APPENDIX B: INDEX TO CULINARY AND MEDICINAL PLANTS IN MIKSCH GARDEN (1981)  
(keyed to attached map)

<u>Common Name</u>	<u>Botanical Name</u>	<u>Code Number</u>	<u>Medicinal or Other Use</u>
English Daisy	<u>Bellis perennis</u>	1	stops the flow of bleeding from wounds; ornamentally used as an edging plant.
Lavender	<u>Lavandula officinalis</u> <u>Lavandula spica</u>	2	stimulant; tonic for headaches, fainting, nervousness; oil used for fragrance in perfumes, cosmetics
Rosemary	<u>Rosmarinus officinalis</u>	3	stimulant, antispasmodic; tea for nervousness, forgetfulness, senility; culinary herb
Angelica	<u>Angelica archangelica</u>	4	tonic and antispasmodic; cure for indigestion; flavor for gin; dispelled lust in youth; stems and roots candied
Sweet Marjoram	<u>Marjorana hortensis</u>	5	used for fragrance in nosegays; seasoning in cooking
Thyme	<u>Thymus vulgaris</u>	6	oil is used as base for cough remedy; antiteria; infusion of leaves used as stimulant; culinary herb
Musk Rose	<u>Rosa Moschata 'Nastarana'</u>	6	buds and petals used for fragrance; rose hips high in Vitamin C.

Chives	<u>Allium schoenoprasum</u>	7	culinary, mild onion flavor
Love-in-the-mist.	<u>Nigella damascena</u>	8	ornamental flower
Cucumbers	<u>Cucumis sativus vulgaris</u>	9	culinary; "for picklin"
Sweet Basil	<u>Ocimum basilicum</u>	10	antiseptic and stimulant; sedative; aids digestion; dried leaves used in snuff; deters flies; culinary use
Dill	<u>Anethum graveolens</u>	11	prevents stomach gas; calms nerves; cure for insomnia and obesity; seasoning for pickles and other foods
Scorzonera/ Black Salsify	<u>Scorzonera hispanica</u>	12	culinary
Mugwort	<u>Artemisia vulgaris</u>	13	substitute for flavoring beer; expels intestinal worms; stomach tonic;
Hyssop	<u>Hyssopus officinalis</u>	13	laxative and worm medicine; tea for respiratory ailments; relieves bruises and wounds
Garden Sage	<u>Salvia officinalis</u>	14	tea for coughs, colds, and fever; "cure-all" medicine; ensures longevity; tooth powders
Marshmallow	<u>Althaea officinalis</u>	15	cough syrup ingredient; closely related to Hollyhock
Southernwood	<u>Artemisia abrotanum</u>	16	insect and moth repellent; called "Iad's Love" because dried ashes promoted beard growth



Comfrey	<u>Symphytum officinalis</u>	17	tea used to help heal broken bones; high in calcium, vitamin B12; large leaves used as poultices, giving it the common name, "Knit-Bone"
Columbine	<u>Aquilegia vulgaris</u>	18	roots eaten; an astringent; leaves used in lotions for sore mouths and throats
Elecampane	<u>Inula helenium</u>	19	used in veterinary medicine, giving it the common name, "horseheal"; roots eaten for respiratory ailments; roots made into a wine
Chamomile	<u>Anthemis nobilis</u>	20	relieves head pains and nervousness when brewed in teas
Lemon Balm	<u>Melissa officinalis</u>	21	tonic for asthma, headaches, and fever; added to flavor teas and other drinks
Oriental Poppy	<u>Papaver orientalis</u>	22	seeds a source of oil; often used as a substitute for expensive olive oil.
Yarrow	<u>Achillea millefolium</u>	23	heals cuts and bruises; used as poultices; cure for headaches, toothaches; tea brewed for fevers and colds
Thyme	<u>Thymus vulgaris</u>	24	refer to #6
Crepe Myrtle	<u>Lagerstroemia indica</u>	24	ornamental; should not be in garden

Apothecary Rose	<u>Rosa gallica 'officinalis'</u>	25	buds and petals used for fragrance in potpourri mixes; rose hips high in Vitamin C; made into a tea
Sorrel	<u>Rumex acetosa</u>	26	Source of oxalic acid; greens eaten fresh or made into soup
Daffodils Jonquils	<u>Narcissus pseudonarcissus</u> <u>Narcissus jonquilla</u> (spring bloom)	27	ornamental
Nasturtium	<u>Tropaeolum majus</u>	27	flowers and seeds eaten fresh in salads; high in mineral and vitamin content
Lettuce	<u>Lactuca sp.</u>	28	culinary value; eaten fresh
Tansy	<u>Tanacetum vulgare</u>	29	insect repellent; kept meat safe from flies and insects; strewing herb; embalming herb -leaves placed around corpse to preserve it
Betony	<u>Stachys officinalis</u>	30	facilitates healing of cuts and external ulcers
Larkspur	<u>Delphinium consolida</u>	31	ornamental
Horehound	<u>Marrubium vulgare</u>	32	brewed as tea for coughs; oils used in candy (cough drops); promotes the flow of urine and perspiration

Blessed Thistle	<u>Cnicus benedictus</u>	33	unknown medicinal use; ornamental
Roman Chamomile	<u>Anthemis nobilis</u>	34	bitter tea for mild stomachaches, teething pains, indigestion; used to improve complexion and soften hair; sometimes used as substitute for hops in flavoring beer
Virginsbower/ Native Clematis	<u>Clematis virginiana</u>	35	native plant introduced as an ornamental

# Miksch Medical Garden -- Plot Plan

