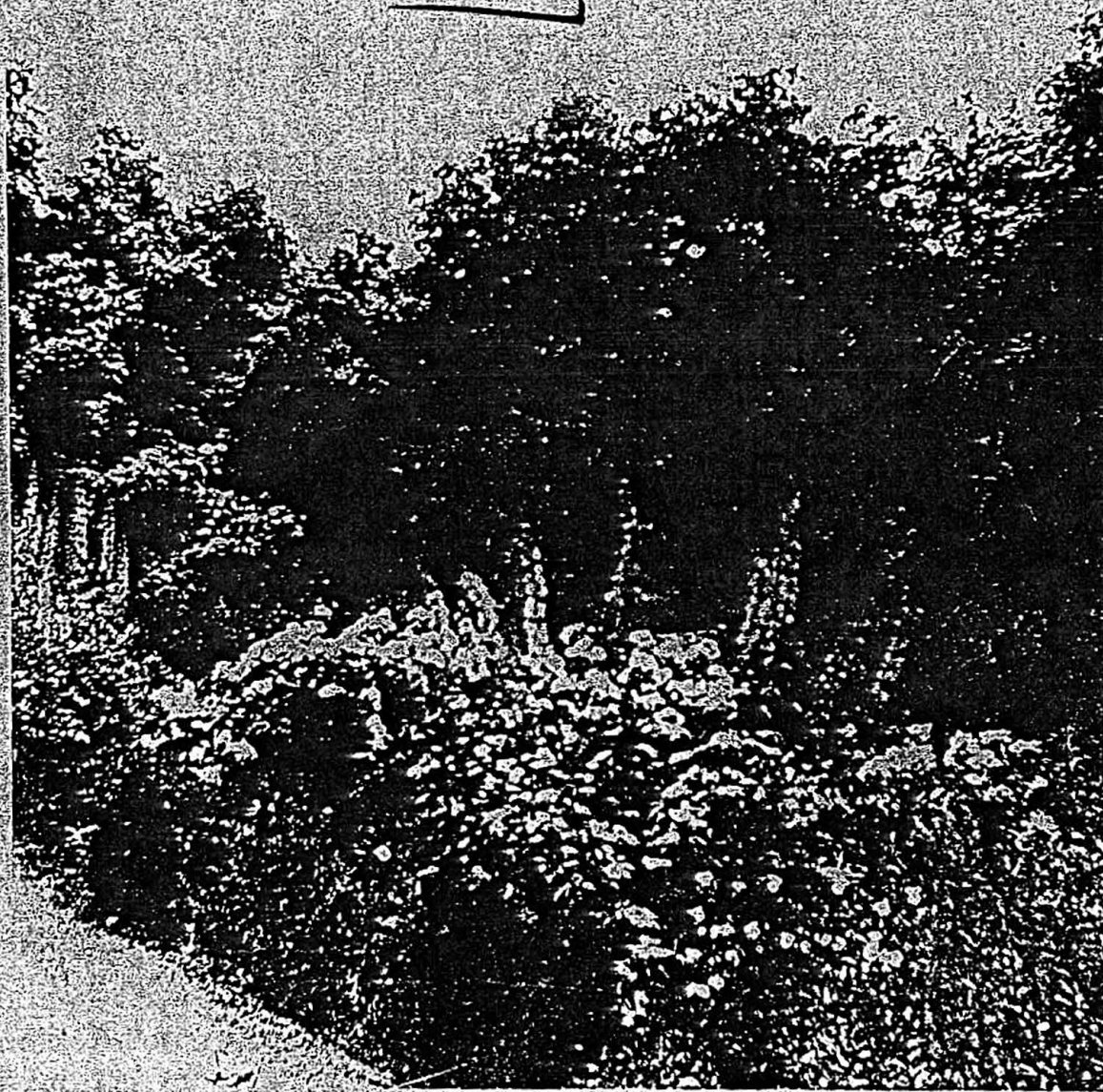


Draft: 11/28/2001

# Olana's Flower Garden: A Restoration Report



The garden in full bloom, c. 1890-1900

Gardener: Bob Riordon  
Consultant: Ellen McClelland Lesser  
Committee: Linda McLean (Site Manager), Alice Platt and Robert Toole

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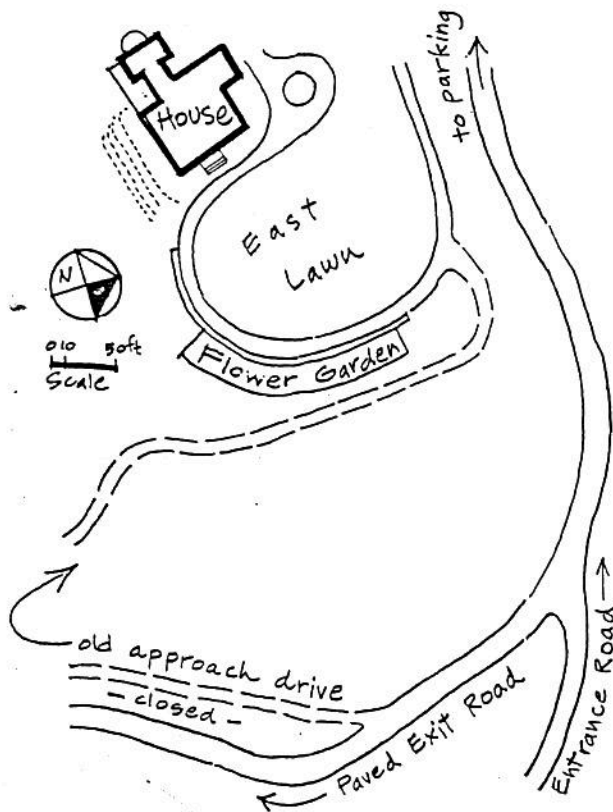


Figure 1: Location Plan

The Olana Flower Garden is located east of the main house, below the retaining wall and driveway that circles the east lawn. The garden was laid out by Frederic Church in the late 1880s to be seen from the new entry drive (no longer used) that passes east of, and below, the garden. It was also easily accessible from the house, while remaining unobtrusive and sheltered from the exposed winds. Sometime after Church's death in 1900, the garden was abandoned. It was restored in the 1970s.

4th Edition: 11/28/2001

## Olana's Flower Garden: A Restoration Report

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### A. The Garden's History

Historical research has shown that after Frederic Church constructed a "new approach to the House" in the period 1886 to 1888, a flower garden was installed, apparently to serve as a feature for those in carriages moving along the new entrance road.<sup>1</sup> The garden could also be conveniently visited from the house.

The garden was a long border (approx. 160 ft. x 19 ft.), with about 2,600 sq. ft. of cultivated beds and a center path (shale surfaced), set against a curving stone retaining wall (see Figure 1). A chicken-wire fence (about 3-1/2 ft. high) enclosed the garden on its open sides. There were low, wooden garden gates at each end of the path. The chicken-wire fence was probably designed to keep out small animals like rabbits and ground hogs (it was not designed to protect against deer browsing).

#### • Historic Plant Orders

Beginning in October 1887, there were three orders of plants purchased from a nurseryman in Hudson that appear, at least partially, to have helped supply the new garden. Some of these plants were small exotics and they may have been intended for elsewhere, perhaps as potted plants for indoor display.<sup>2</sup> Still, many of the plants listed would have been suitable for the mingled garden and their sheer numbers preclude use of all as house plants. The autumn 1887 order was small, about 30 plants,<sup>3</sup> but in April/May 1888, an extensive order for about 200 plants was billed.<sup>4</sup> This invoice included 17 different plant types (identified by genus or common names only, e.g., "Pansies," "Asters," "Verbenas," etc. - see Plant List, below). The invoice included several vines suitable for growing on a wire fence and/or on trellis fitted to a wall, as was the situation in the new garden. Again, only genus names are used, no species or cultivars are identified. While the 1887-88 orders alone would not have filled the garden,<sup>5</sup> the numbers and type of plants would be a substantial initial installation. A year later, another large order of perennials was made.<sup>6</sup> Again, at least some of the 100 or so plants were probably used in this new flower garden.



Finally, in the spring of 1890, two orders for seeds were made. These include 13 annuals, some of which were probably intended for the new garden.<sup>7</sup>

The plants that may have been used in the initial planting of the garden are identified by genus or common names only. Many of these plant types have numerous varieties, but since these are not identified, it is not possible in all instances to identify the exact plants used, or their flower color -- both important considerations in attempting to reconstruct the design layout as it might have been in Church's lifetime (or at least as it was when this garden was first installed). Also as noted above, there is no guarantee that all the plants listed were used in the garden and in fact there is suspicion that some were not. As such, the plant lists that remain have limited value, and any modern replanting would require using some plants not on the historic invoices. This said, the fact that certain plants were procured is reason enough for our modern interest in better understanding and using these plants as components of the historic garden restoration. The following plant names are included on the 1887-90 bill receipts. Names appear as listed on the original invoices, with quantity of plants or seed packets noted in parenthesis; multiple orders are noted with the totals provided. These plant names are used in the Plant List, below.

Plants: Pansies (36), Chrysanthemum (12), Sweet Alyssum (4), Calceolaria (2), Centaurea (3), Calendula (6), Heliotrope (18+8=26), Vinca (2), Coleus (10), Echeveria (3), Salvia (6), Aster (12), Anthemis (6), Lemon Verbena (6), Lobelia (6), Begonia (6), Geranium (6), Rose Geranium (6), Verbena (100+50+38=188), Yellow Lantana (1).

Vine plants, suitable for growing on support trellises attached to the stone retaining wall and/or on the chicken wire fence that enclosed the garden, included: Cobea (6+6+2=14), Maurandia (6), Nasturtium (3+20=23), Clematis (4).

The seed orders included the following: Mignonette (2 packets), Nasturtium (2), Zinnia (2), Columbine (1), Sweet Alyssum (2), Blue Ageratum (2), Tassel Flower (1), Marigold (1), Japanese Poppy (2), Pale Yellow Columbine (1), Salpiglossis (1), Japanese Corona (1), Single Dahlias (1).

In total, about 34 separate plants are identified from the period 1887 to 1890. Over a ten-year period at the end of Frederic Church's lifetime, as in any garden, it can be presumed that some plants did well and others poorly, and while some died or were unsuccessful (or unimpressive) others were added. There is no evidence that a conscious or consistent color scheme was worked out or maintained in the mingled garden, but it can be presumed, as with other aspects of the Olana landscape, that the visual results were given close scrutiny and ongoing evaluation, and that modifications from the first arrangement were made over time.



### • Historic Photographs

From historic photographs, the flower garden appears to have been maintained as a variable, blowsy riot of color that changed through the season and over the years in a way that is not documented in its specifics.<sup>8</sup> From the original plant lists, it is difficult to speculate as to the intended design of the garden beds, but the surviving photographic evidence does give a good indication of the garden's overall massing and appearance (see discussion of historic photographs, below).

The garden was a mixed and informal planting using a changing combination of flowering perennials, annuals and probably some rose shrubs in a mingled or scattered arrangement that changed to some extent year to year in the last decade of Frederic Church's life. Given the garden's purpose as a feature seen by those travelling the adjacent carriage drive, the beds do not seem to have included many small-scaled plants (although some were present), but rather relied on a blousy, massed effect, with many tall, spiked flowers such as delphiniums (see cover illustration) and flowers spilling over the wire fence, layering up the slope to the stone retaining wall where vines were prevalent. The mixed and billowy plantings that are illustrated on the historic photographs inspired a modern name -- the mingled garden. For the Churches it was probably referred to simply as the garden, or the flower garden. Except for roses, there does not seem to have been any woody shrubs included, and no spring bulbs are documented, although these may have been present over time.

Eight historic photographs show the Olana flower garden and provide further information on its composition. Four of the photographs (OL.1987.188, 189, 190 and 191) have been tentatively dated to the restoration period of 1890 to 1900, and two others (OL.1987.186 and 187) seem to be of similar character and date. The last two photographs (OL.1980.175 and 176) have been attributed to John Eberle, who took them on October 5, 1906. This is six years after Frederic Church's death and there are reasons to believe the garden had changed somewhat in that period.

In six of the eight photographs, some plants can be identified, several not otherwise documented as in use in the garden. These include peonies, garden phlox, Canterbury bells, perennial heliotrope, marigolds and delphiniums. Perhaps most importantly, the photographs confirm the large-scaled, blousy, mingled arrangement that seems to have characterized the beds. This would be an appropriate effect given the garden's purpose as a landscape feature. Although showing luxuriant summer growth, and documenting the garden's general form and massing, no plants can be identified in two photographs (OL.1987.186 and 187).

## B. Recent Restoration Work

After Frederic Church's death, his son, Louis Church, and his wife, Sally Church, developed gardens elsewhere at Olana, no doubt moving some plants out of the older garden. The garden was eventually abandoned, probably in the 1920s.

In the early 1970s, some fifty years after the flower garden was let go by Louis and Sally Church, Richard Slavin (Olana Site Manager) requested monies for annual flowers for the restoration of what he called the "Victorian Garden."<sup>9</sup> This project was first reported in several newspaper articles in 1970.<sup>10</sup> The restoration of the garden was a focus of substantial activities through the mid-1970s.<sup>11</sup> The earliest list of plants intended for use in the garden restoration was dated 1973. It included 40 separate plants and a sketch plan showing their planned location in the garden. Actual replanting was most active in the 1973-74 season when a "Report on the Restoration of the Victorian Garden of Olana" was prepared. This report included a modified list of 26 perennials and 27 annuals. Again a sketch plan was included showing the plant locations. The 1974 list was a variation of the original. The 1974 list seems to have remained viable through the 1970s but a much-altered list was prepared in 1982 under unknown circumstances. This list contained mostly annuals with a total of 84 separate plants. Without explanation, about 20 of the 34 plants mentioned in the historic invoices are included on their lists.

Since the 1970s, the garden has been maintained and has provided a blowzy profusion of varied leaf patterns and flower colors. As intended, the garden is especially attractive seen from Church's new approach road, although today it is more commonly appreciated from above the retaining wall, or from within the garden, where visitors walk along the central path. Views from the new approach road are seldom experienced and the garden is substantially screened from that location by a nearby, large smokebush (Cotinus coggygria), which should be cut back accordingly.

In the 1998 season, seeds for about 70 of the 84 plants from the 1982 list were ordered. As has been the practice in recent years, the seeds were germinated and grown to transplant size by site staff, although the retirement of one staff member who worked exclusively on the garden made things especially difficult that year. While the historic gates have been recreated and reinstalled, their height and that of the chicken-wire fencing, still used around the perimeter of the garden, did not preclude deer from penetrating into the garden and doing damage prior to 1999. A lack of horticultural skills, infrastructure limitations (there are no cold frames available), and other factors, resulted in mediocre

production of seedlings and a resulting dilution of the effectiveness of the flower garden that year.

### C. Current Restoration Plans

In 1999, the Friends of Olana (now The Olana Partnership - TOP), under the volunteer leadership of Alice Platt, began an effort to restore the Olana flower garden. Several initial goals were identified. First was the need to provide annual seeds for plants not readily available commercially. Then, the germination and nurturing of these seeds, and purchase of other plants needed to stock the garden. The supply of plants would be followed by the expert installation of the garden in May, including soil enhancement. Finally, was the need for expert and consistent care of the garden during the growing season, including infill planting as needed and ongoing watering (on time and in the correct manner), fertilizing, weeding, dead-heading, staking, training vines, cutting back, pruning, dividing older plants, and clean-up.

The 1999 season offered a start on these objectives. In 2000, a full-time gardener, Bob Riordon, was hired by TOP. His involvement continued in 2001, with marked improvements in the garden's good cultivation and tidyness over efforts in recent years. An outline of Bob Riordon's work schedule follows.

Also in 2000, a historic garden consultant, Ellen McClelland Lesser, was commissioned to undertake an expert analysis of the flowering plant materials mentioned in the historic documentation. This analysis involved study in botanical archives, in some cases using the actual plant and seed catalogues used by Frederic Church and his family. In this way, plants that were invoiced using only their genus names could be scrutinized to better determine likely species and even cultivars within the broader genus or common names used on the historic invoices. In addition to the in depth analysis of the historic invoices, the Consultant also analyzed the historic photographs (see analysis, above). Together the current research is compiled in the official Plant Lists of recommended and not recommended plants. These lists is at the end of this report.

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<sup>1</sup> Letter: Frederic E. Church to Erastus Dow Palmer, June, 20, 1886. For documentation regarding the initial development of Olana's Flower Garden, see: Olana Historic Landscape Report (1996), pp. 65-69.

<sup>2</sup> Ellen McClelland Lesser has reviewed the plant lists and notes that several of those listed were likely to be indoor plants and not for seasonal use in the outdoor garden. These are now listed as "Not Recommended" on the Plant List, for the reason's noted under each plant.



3 Bill: R.W. Allen to Mrs. Church, 1/1/1888 (for purchases on October 13, 1887). No plant names were included on this list.

4 Ibid., 7/18/1888. Plants were listed.

5 230 plants might be expected to occupy about 850 sq. ft., or about a third of the total cultivated area available in the Olana Flower Garden.

6 Bill: R.W. Allen to Frederic Church, 7/11/1889. Plants were listed.

7 Bills: Price and Reed to Frederic Church, 3/31/1890; and Peter Henderson & Co. to Frederic Church, 5/16/1890.

8 Recollections of this garden as it may have existed in the period after Church's death indicate that there had been many changes from the plants documented as initially ordered for this garden 30 years earlier - interview notes: Mrs. Vera Dietz by ?, 9/10/1971 [OSHS].

9 The name, "Victorian Garden," was initially used to describe this garden when it was restored in the mid-1970s. The name continued to be used up to 1977 when it appeared in a booklet prepared to interpret the property. Later, the name, "mingled garden" -- a term used by A.J. Downing (Landscape Gardening, 7th ed., 1865, p. 379) -- was coined by Richard Slavin (Olana Site Manager). Slavin felt the name better described this flower garden, distinguishing it from others dated to the Victorian period - Slavin, "Editorial Comments . . .," 11/25/1996. Until recently, "Mingled Garden" was used to describe this garden, but today it is thought to be too formal a title as there is no evidence that Church family members ever used that name. The simple term "Flower Garden" is now thought to be more historically accurate.

10 See: unidentified newspaper clippings, 7/31/1970; and unidentified newspaper clipping entitled: "Olana Garden Being Restored," 3/30/1972.

11 Articles: James Elliot Lindley "The Garden at Olana," The Crayon, Vol. 1, No. 1, December 1971; and "Garden Restoration," The Crayon, Vol. III, No. 1, June 1973.

• **Plant List**

Recommended Plants

I Annuals

- A. Plants That Have Been Positively Identified
- B. Plants That Have Been Tentatively Identified

II Perennials

- A. Plants That Have Been Positively Identified
- B. Plants That Have Been Tentatively Identified

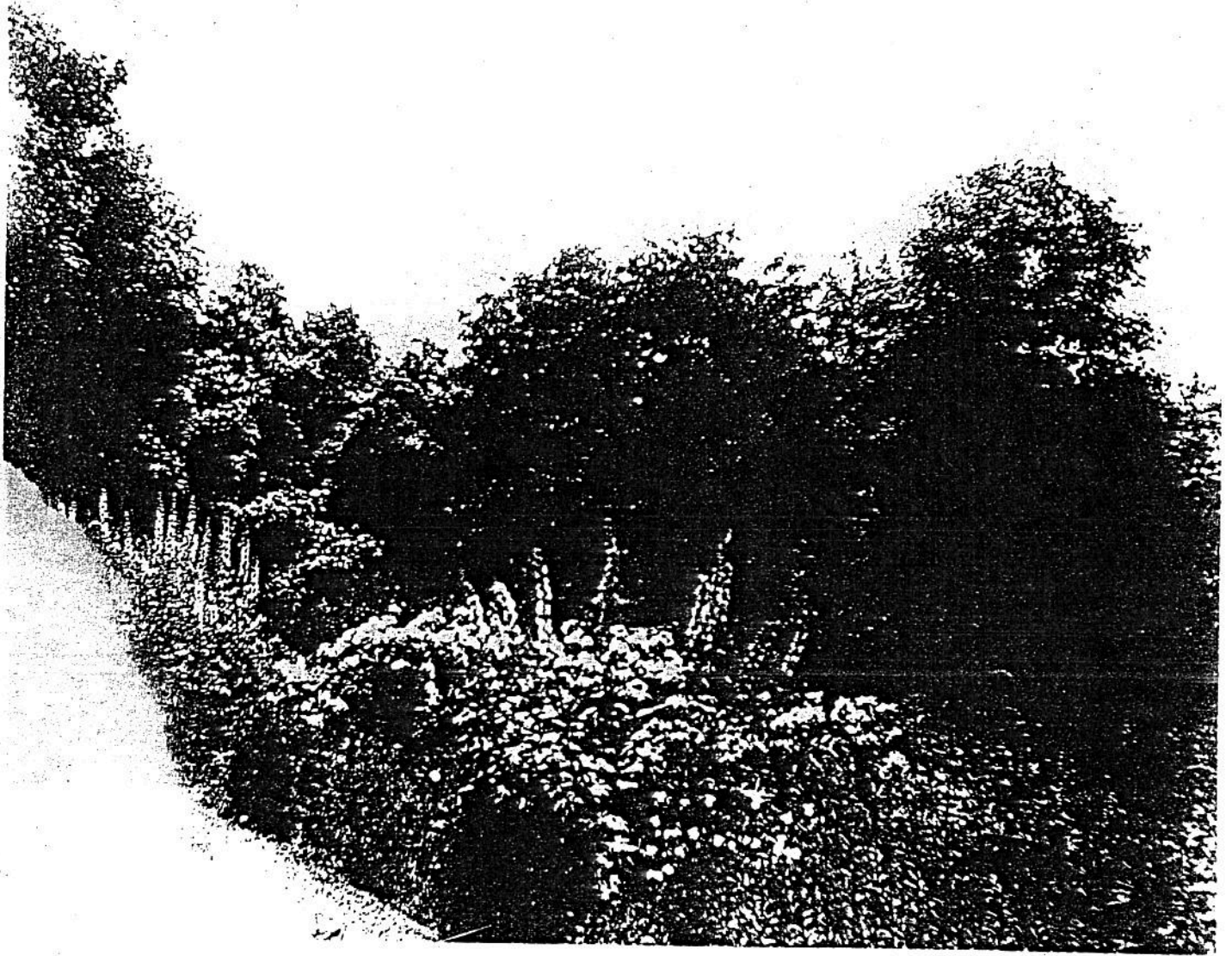
Not Recommended

I Annuals

II Perennials

- A. Plants Identification Uncertain
- B. Definitely Not In Any Photographs
- C. Complete Mysteries

Note: Plant names are identified as they appear on the historic invoices. Plants identified on the historic photographs are so identified on the lists.



OL.1987.190 "Olana - Mingled Garden looking east from Centre Path c.1890-1900, (3 3/4" x 4 3/4")"

It was early summer, June or early July, when this photo was taken. The photographer seems to be standing on the garden path facing east. Two large clumps of delphinium or hardy larkspur, as it was known, are in full bloom, one in the center and one further east, on the left side of the picture. They are tall, their slender, bottlebrush flowers towering over the surrounding plants. Most likely, they are cultivars of Delphinium belladonna or D. elatum, the tall delphinium in commerce at the end of the 19th century. Between the delphinium clumps is medium tall plant with a light-colored, rounded flower head. At this time of year, it is very likely that what we are seeing is the white or light pink blossom of the early-flowering Garden Phlox, Phlox suffruticosa. In the center of the photograph at the bottom edge, in front of the delphinium are the distinctive bell-shaped flowers of biennial Canterbury Bells, Campanula medium.

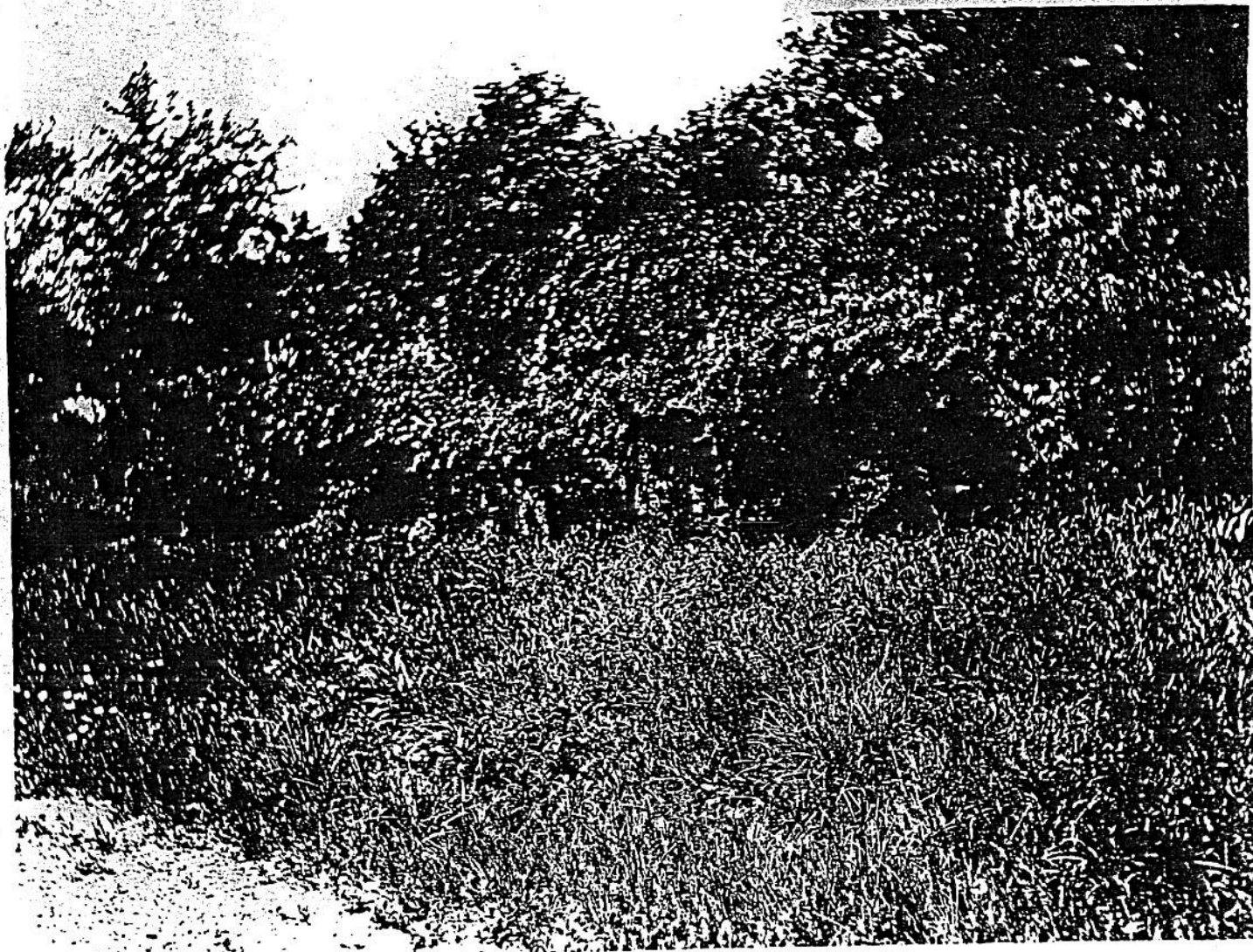
To the right of center, on the west side of the delphinium is another light colored flower that cannot be positively identified.





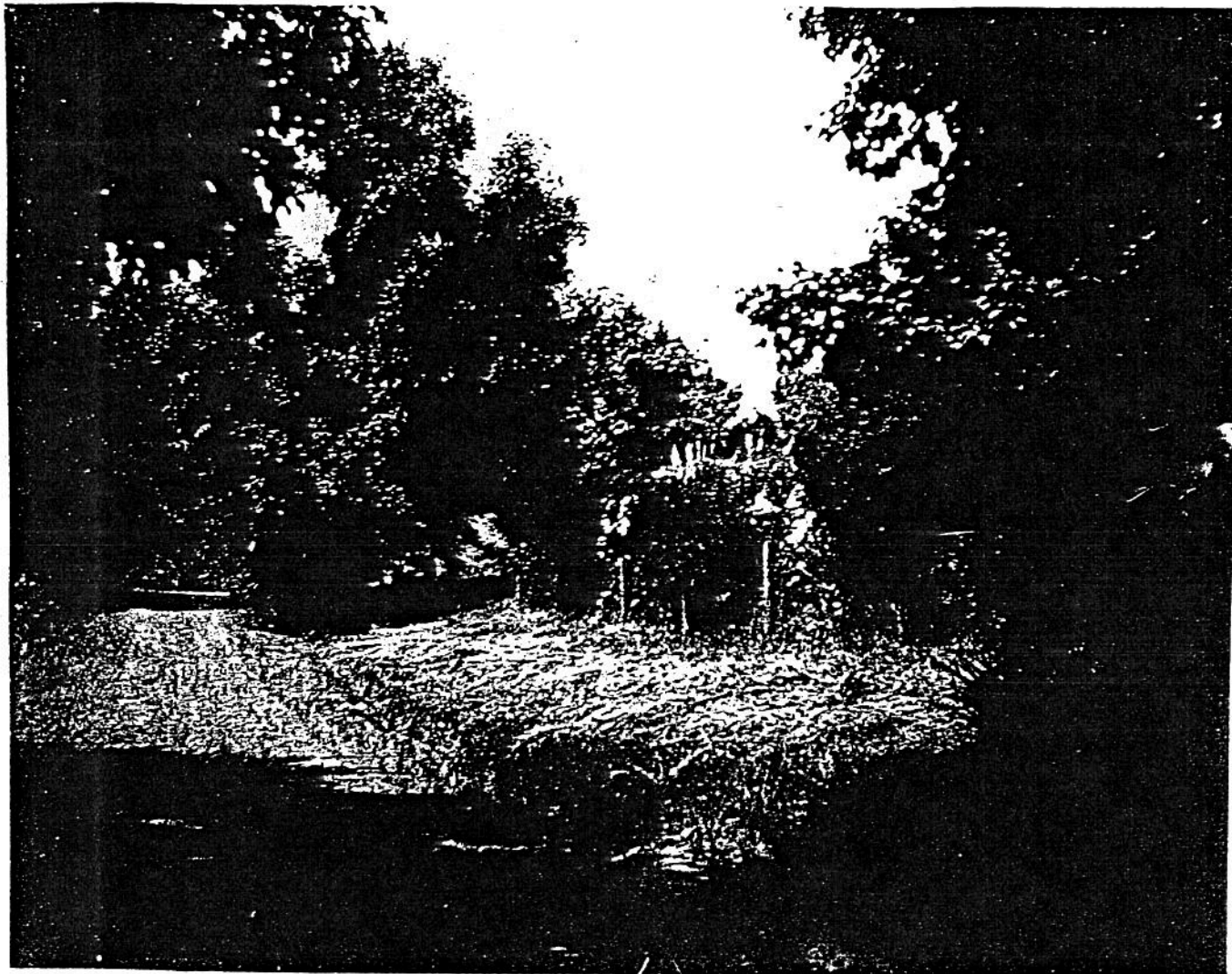
OL.1987.187 "Mingled Garden from the Carriage Drive looking West 19th century? 2 1/2" x 4 1/4"

This photo is similar to the one above (OL.1987.186) and may have been taken on the same day. No individual plants can be identified.



OL.1987.186 "Olana - Mingled Garden from Outside Chicken Mesh, undated, 4" x 5 1/8"

This is a picture of the midsection of the Flower Garden from outside the chicken mesh fencing. Luxuriant growth covers the retaining wall and the mesh fence. No individual plants can be identified. This photo and the next one (OL.1987.187), may have been taken on the same day.



OL.1987.188 "Olana Carriage Drive with Mingled Garden on Right c. 1890-1900, (3 3/4" x 4 3/4")"

This photo appears to have been taken the same day as the previous photo, OL.1987.190. The photographer was on the carriage drive south of the garden facing west about 20 feet from the east gate. The only flower that can be identified are the spikes of delphinium blossoms rising above the mass of foliage in the center of the photograph.





OL.1987.191 "Mingled Garden from outside chicken mesh enclosure, c. 1890-1900, (3 3/4" x 4 3/4")"

This photo appears to have been taken on the same day as OL.1987.190 and 188. The photographer was standing on the carriage drive facing west. In the center of the photo one can see a bit of the garden path as well as the flower beds on either side. In the center of the photograph is a large peony plant in full bloom. It is on the north side of the path about 60 or 70 feet from the east gate. The flowers are light colored and of either the semi-double or rose type. To the left of the peony is a clump of delphinium. It is on the south side of the path a little to the west of the peony which would put it 70 feet or so from the east gate. At the right edge of the photo, growing against the fence is a clump of perennial heliotrope, Valeriana officinalis.

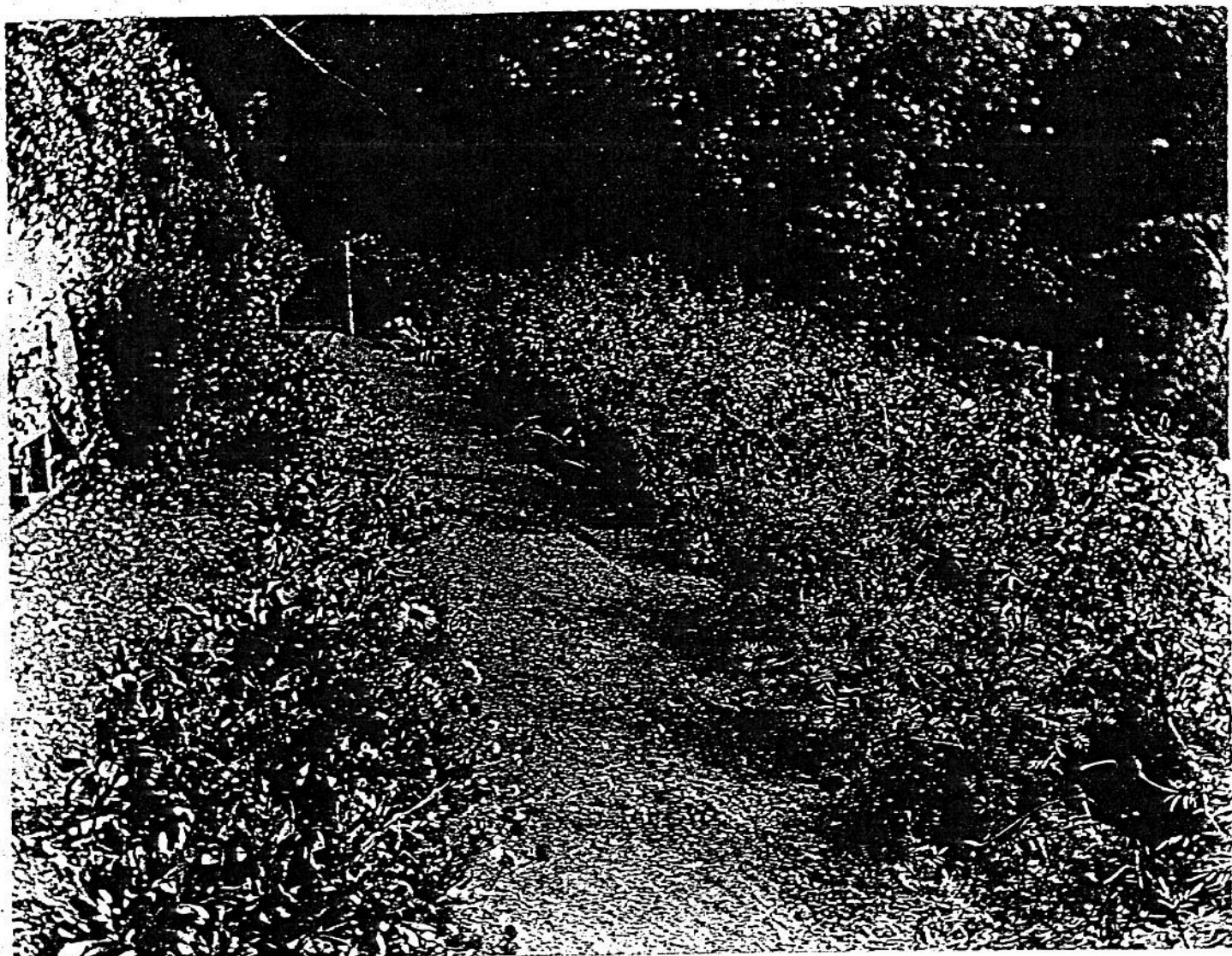




OL.1987.189 "Olana - Mingled Garden from Outside Chicken Mesh, c. 1890-1900, (3 5/8 x 4 5/8)"

This photo presents a very different image of the garden than the previous three. Although dated 1890-1900 it has more in common with the garden portrayed in the photos taken by John Eberle in 1906. However, it is not an Eberle photo.

The picture was taken in late summer or early autumn, probably August or September. The photographer is facing east at about the middle of the garden just outside the chicken mesh fence. A few dark-flowered, probably orange, African Marigolds are in bloom in the center of the photograph just to the left of the gate. That would put them on the south side of the garden path about 40 feet from the east gate.



OL.1980.1075 (Dietz Gift) (4 3/4" x 3 3/4") and OL.1987.131.18.A (album) (4 1/2" x 3 1/2") "From Eberle photos in album at Olana, Taken Sept 29-Oct 8, 1906."

The Eberle ledger dates this photo of the "Flower Path east" October 5, 1906. The photographer is standing on the path with the camera facing east about 60 feet from the gate. On the right, African Marigolds (Tagetes erecta) fill the entire width of the garden bed for a distance of 30 feet or more with the exception of two small tufts of sword-shaped foliage at the edge of the path. On the opposite side flanking the path is a row 30 feet or more in length of Blanketflower (Gaillardia artista or G. grandiflora). The Blanketflower occupies about half the width of the bed, the remainder is bare earth most of the distance to the gate. The only other plants in this portion of the garden are two clumps of autumn aster or boltonia foliage against the retaining wall.





OL.1980.176 (Dietz Gift) 4 3/4" x 3 3/4" and OL.1987.131.19.A (album) 4 1/2" x 3 1/2" "From Eberle photos in Album at Olana Taken, Sept 29-Oct 8, 1906."

The Eberle ledger dates this photo of the "Flower path west Mr. Frier standing" October 5, 1906. The photographer is on the garden path about 90 feet from the east (north?) gate with the camera facing west. Mr. Frier is standing 20 to 25 feet further west. On the north side of the path, there are only three plants and a lot of bare earth. By Mr. Frier's left foot is a big clump of petunias. Next to the petunias, between the photographer and Mr. Frier (right side of the picture) are two clumps of peony foliage. On the south side of the path close to the photographer are delphinium. Further up the path toward Mr. Frier is a little clump of bellflower, probably Campanula lactiflora or peach-leaved bellflower, Campanula persicifolia. There is a large clump of autumn aster of boltonia along the fence.

# Plant Lists

## RECOMMENDED PLANTS

### I. Annuals

#### A. Plants That Have Been Positively Identified

NAME: Ageratum houstonianum [syn. A. mexicanum] (Ageratum or Flossflower)

SOURCE: 3.31.90 invoice Price & Reed, Blue Ageratum seeds

DISCUSSION: In 1889, Price & Reed offers seeds of two blue varieties of Ageratum Mexicanum; a dwarf, six-inch tall plant with blue flowers and a tall variety with lavender blue flowers growing to a height of eighteen inches.

The dwarf blue ageratum was probably used in the flower garden as an edging plant.

NAME: Cobaea scandens (Cup and Saucer Vine)

SOURCE: 7.18.88 invoice R. W. Allen, 6 + 2 Cobea plants  
3.27.93 letter FEC to Louis "The Cobea Scandens and other vines may be started in the Hot House and afterward transplanted in the open air."  
11.26.00 letter Louis to Sallie "The Cobia [sic] scandens seeds have nearly all come up."

DISCUSSION: Cobaea scandens is a tropical American vine which is treated as an annual in the north. It grows rapidly; vines can attain a height of 30 feet. Price & Reed offer a white flowered form in addition to the more common purple lilac-flowered form. Since there is only one species of Cobaea in commerce, this is one of the few plants purchased from the R. W. Allen Nursery that can be positively identified.

NAME: Emilia sagittata and E. s. var. jutea (Tassel Flower)

SOURCE: 3.31.90 invoice Price & Reed, Tassel Flower seeds

DISCUSSION: Listed in the 1889 Price & Reed catalog under their old name, Cacalia coccinea and C. aurea, they are described as "[a]

profuse flowering plant, with tassel-shaped flowers, growing in clusters, also called Flora's Paint Brush." Love-lies-bleeding (Amaranthus caudatus), which is also known by the common name Tassel Flower, is not listed in the Price & Reed catalog.

When buying seeds today, choose those of the species rather than a named variety.

NAME: Heliotrope arborescens [syn. H. peruvianum] (Common Heliotrope)

SOURCE: 7.18.88 invoice R. W. Allen, 8 Heliotrope plants  
7.11.89 invoice R. W. Allen, 18 Heliotrope plants

DISCUSSION: This could be either an annual or a perennial. Without an R. W. Allen catalog to consult, it can not be determined definitively which was purchased. The perennial Garden Heliotrope, (Valeriana officinalis) can be seen in a photograph of the garden taken during the historic period 1890-1900 (OL.1987.191). The fact that plants were purchased on two successive years, however, indicates that at least some of these plants were probably the annual, Common Heliotrope. Furthermore, the perennial Garden Heliotrope is a vigorous plant that borders on invasive. Twenty-six or even eighteen of the perennial sort would over run the garden. There is a very high probability that at least some of these plants purchased from R. W. Allen were the annual, Common Heliotrope.

The entry in Hortus for Common Heliotrope (annual) says "common under glass and sometimes planted out (p. 301)." William Henry Maule recommends them for the garden and suggests that they are "[e]qually valuable for boxes in the house in winter."

Price & Reed (1889) describe Heliotrope as "[a] deliciously fragrant plant, fine for pot culture or bedding purposes;...." They offer mixed seeds and potted plants of the "best light and dark kinds."

Maule's Seed Catalogue, 1899 lists the following:

Lemoine's Giant Hybrids (flowers: violet, blue, deep indigo, almost white)

Midnight (black stems, bronze foliage, flowers bluish purple)

Seeds of the old varieties should be sought.

NAME: Lobularia maritima (Sweet Alyssum)

SOURCE: 7.18.88 invoice R. W. Allen, 4 Sweet Alyssum plants  
3.31.90 invoice Price & Reed, Sweet Alyssum seeds

DISCUSSION: A native to Southern Europe, it has been in this country since colonial times. The 19th century sweet alyssum was somewhat taller than the cultivars available today. The 1889 Price & Reed catalog lists it by its old name, Alyssum maritimum, white-flowered

and growing to 1 1/2 feet. But, they also list Benthami compactum, a "New Dwarf Sweet Alyssum," which is only 6 inches high, white flowered, and very fragrant. Benthami is now considered the same as Lobularia maritima.

The 1888 Henderson catalog lists Alyssum Tom Thumb which "never grows over 3" high."

Seeds for the taller 19th century variety should be sought. In the meanwhile, the compact form is acceptable.

NAME: Reseda odorata (Mignonette)

SOURCE: 3.31.90 invoice Price & Reed, Mignonette seeds

DISCUSSION: Price & Reed (1889) describe mignonette as "[a] well-known fragrant plant. Should be sown about shruberry [sic] and mixed borders, where it grows rapidly;..." They offer the following list of cultivars:

- 'Parson's White'
- 'Miles' hybrid spiral'
- 'Victoria grandiflora'
- 'Golden Queen'
- 'New Giant'

"Flowers for Springtime, 1897" lists the following:  
Pyramidal - "the best out-door variety..."

- Giant White
- Golden Queen

Machet - "The best of all Mignonettes."

Maule's Seed Catalogue (1899) lists the following:

- Defiance
- New Golden Gem
- Grandiflora Red Giant
- New Golden Machet
- Giant White Spiral

Mignonette should be included in the Flower Garden. Varieties offered by Price & Reed should be sought out. If seeds of the appropriate varieties are not available at this time, then some of the other old varieties listed in period catalogs could be substituted as long as necessary.

NAME: Tagetes sp. (Marigold)  
T. erecta (African, Aztec, or Big Marigold)  
T. patula (French Marigold)  
T. signata [syn. T. tenuifolia] (Striped, Signet, or Mexican Marigold)

SOURCE: 3.31.90 invoice Price & Reed, Marigold seeds

DISCUSSION: In 1889 Price & Reed offer the following selections:  
African Lemon, double, 2 ft



African Orange, double, 2 ft  
El Dorado  
Butterfly  
French, brown, double 1 1/2 ft  
ranunculus, striped, dbl 1 1/2 ft (T. signata/T. tenuifolia?)

In 1887, Henderson offers an African Marigold called El Dorado. It is safe to assume that the El Dorado on the Price & Reed list is also an African Marigold.

Marigolds were used for beds, border, and cut flowers (Hottes, Annuals, p. 139). The early French marigolds failed to blossom well unless it was reliably hot and sunny. The Striped Marigold has bright yellow single flowers and lemon-scented lacy foliage.

African Marigolds are prominent in one of the pictures of the Flower Garden taken by John Eberle in 1906 (OL.1980.1975 [Dietz Gift] and OL.1987.131.18.A [album]). It is very likely that they were planted in the garden in previous years as well.

African and Mexican (Striped) should be grown and older varieties sought.

NAME: Tropaeolum sp. (Nasturtium)

SOURCE: 6.2.84 invoice Rice Brothers, 1 qt Dwarf Nasturtium seeds  
7.18.88 invoice R. W. Allen, 3 + 20 Nasturtium plants  
3.31.90 invoice Price & Reed, Nasturtium seeds

DISCUSSION: Price & Reed offers Tropaeolum nanum seed mixed and six named varieties:

'Carter's' (scarlet),  
T. n. coeruleum roseum (rose-tinted maroon),  
spotted yellow and crimson,  
'King Theodore' (flowers almost black),  
black,  
White Pearl (white flowers)

and Canary Bird Flower, (T. peregrinum) "[a] beautiful climber, with handsome foliage and curiously-shaped flowers, easily cultivated, profuse flowering and highly ornamental."

Tropaeolum nanum is not recognized as a separate species by Hortus. It is listed as a dwarf strain of T. majus, the climbing or trailing, Garden Nasturtium. The proper name today is Tropaeolum majus var. nanum. A dwarf strain, called the Tom Thumb Nasturtium, was developed from T. m. nanum in the later 19th century. Maule's lists several.

T. peregrinum (T. canariense) Canary-bird vine is a rapid growing climber with canary-yellow blossoms. "...poorly adapted to hot regions but is splendid for cool greenhouses (Hottes, Annuals, p. 161)." It is unlikely that the Churches were growing this plant in the Flower Garden.

Maule's Seed Catalogue, 1899, lists the following T. majus var. nanum - Tom Thumb cultivars:

Empress of India

Prince Henry  
King Theodore  
Spotted (king?)  
Golden King  
Chameleon  
Liliput  
Pearl  
Lady Bird  
Ruby King

'Empress of India' is the only 19th century hybrid readily available from modern seed houses. Until one of the varieties offered by Price & Reed can be found, any selection from the Maule's catalog list, such as 'Empress of India,' would be acceptable.

NAME: Zinnia elegans (Zinnia)

SOURCE: 3.31.90 invoice Price & Reed, zinnia seeds

DISCUSSION: The 1889 Price & Reed catalog list four double-flowered Zinnia elegans cultivars: alba (white), purpurea (dark purple), aurea (golden) and coccinea (dark scarlet). They describe them as being "[a]nnuals of great beauty and brilliancy, branching habits and superb colors; the double flower much resembles a Dahlia...1 1/2 feet."

It may be difficult to find any of the old cultivars mentioned in the Reed & Price catalog. Until the appropriate plants are found, following is a list of suitable substitutes from Maule's Seed Catalogue (1899)

Zebra - striped & mottled, dbl flowers  
Curled & Crested - petals twisted, curled & crested  
New Pomponé  
Double Mixed - tall and dwarf double  
Tom Thumb Scarlet - 12" high, scarlet flowers

In 1887, Henderson also offers 'Zebra'

B. Plants That Have Been Tentatively Identified

NAME:            Calendula sp.  
                  Calendula officinalis      (Pot Marigold)  
                  Calendula hybrida            (Cape Marigold)

SOURCE:        7.18.88 invoice R. W. Allen, 6 Calendula plants

DISCUSSION: We do not know what calendula Mr. Church actually bought from R. W. Allen. Hortus, 1930 (p. 111) describes pot marigold as "[a] favorite flower-garden plant and grown for cut-flowers in winter." Price & Reed (1889) lists seeds for "Marigold, pot (Calendula), mixed, 1 ft." "Flowers for Springtime, 1897," lists 'Oriole,' a double, brilliant yellow Pot-marigold.

Maule's Seed Catalogue lists under the heading Calendula - Cape Marigold, a light golden yellow-flowered variety 'Meteor.' The Cape Marigold, Calendula hybrida, is now classified Dimorphotheca hybrida.

Henderson's 1897 catalog lists the following varieties:

Double Sulphur  
Queen of Trianon  
Pure Gold  
Pluvialis  
Pongei fl pl  
Prince of Orange

NAME:            Callistephus chinense (China aster)

SOURCE:        7.18.88 invoice R. W. Allen, 12 Asters plants

DISCUSSION: This could be either the annual China-aster or one of the perennial asters.

If an annual, Price & Reed (1889) describe asters as "[a] splendid class of annuals, and one of the most effective of our garden favorites. The finest of the tall kinds is the Peony-flowered Perfection; and of the dwarf varieties, Chrysanthemum-flowered." They also list:

'Dwarf German,'  
'Double White Dwarf,'  
'Trauffaut's Peony-flowered Perfection,'  
'Peony-flowered Globe,'  
'New Dwarf Peony-flowered Perfection,'  
'Dwarf Chrysanthemum-flowered,'  
'Pyramid-flowered,'  
'Washington White,' and  
'Washington Mixed.'

Ten years later Maule's Seed Catalogue (1899) has quite an extensive list:

Improved Giant Emperor

New Giant Comet Asters - pure white, white changing to rose, dark violet, azure blue bordered with white, sulphur yellow, reddish lilac, clear carmine bordered with white, bright crimson, white changing to light blue, clear rose bordered with white, azure blue, peach blossom, lilac bordered with white, pure rose.

New Japanese Aster - cut flower

New Branching Asters 'Daybreak'

Queen Margaret

Dwarf White Queen

New Victoria

Peony Perfection Dwarf

Dwarf Chrysanthemum Flowered

Cocardeau or Crown

Shakespeare or Dwarf Pompon

New Washington

Large Rose Flowered

New Diamond

Improved Quilled German

Harlequin

Giant Emperor (24")

Jewel or Ball Shaped (20")

New Dwarf Triumph (7"-8")

Miss Mary E. Martin's 1897 catalog "Flowers for Springtime" lists the following China-asters:

Giant Comet White

New Comet

Victoria

New Diamond

Perfection

Fire Ball

Snow Ball

Triumph

Crown Aster

Bijou

Boltze's Dwarf Bouquet

Semple

New Japanese Aster

New Branching

Yellow Aster

In 1933, Alfred C. Hottes writes in The Book of Annuals, that "[p]revious to 1890, the China-aster was not considered a cut flower, but was grown only for garden decoration (p. 64)." He divides the China-asters into six types: ball or quilled, crown or cockade, perfection or peony-flowered, comet or crego, branching and victoria, and ray or king.

It is likely that Mr. Church was growing the annual China Aster in the flower Garden but without seeing the r. W. Allen catalog one cannot be certain.



NAME: Centaurea sp. (various common names, see below)

SOURCE: 7.18.88 invoice R. W. Allen, 3 Centauria [sic] plants

DISCUSSION: If an annual, this could be one of several plants

C. cyanus, Bachelor-button

C. americana, Basketflower

C. moschata (syn. C. odorata, C. suaveolens, C. imperialis), Sweet-sultan

C. cineraria or C. gymnocarpa, Dusty-millers

The Price & Reed catalog describes Centaurea, in the seed section, as "[v]aluable silver-leaved ornamental bedding plants; fine for conservatory and parlor; succeeds well when potted and kept through the Winter. Greenhouse perennial." And, goes on to say under plants, "largely used in massing and lines, white leaved." They list three dusty millers, C. candidissima, C. clementei, C. gymnocarpa and the flowering annual, C. cyanus, the corn bottle or Bachelor's Button. What is offered as C. candidissima in the horticultural trade is Senecio leucostachys; a good plant for porch boxes according to Hortus.

Henderson's 1887 catalog describes centureas as silver-leaved plants.

Sweet Sultan is listed under its own heading in Price & Reed's catalog of 1889.

Vick's Magazine, 1890 (p. 373) Bachelor's Buttons "...delightful to have a handful to wear. ...no flower with a long slender stem is more graceful than these for a breast-knot or will last longer out of water... They are of a variety of colors of which different shades of blue and pink are the most common, with sometimes a clear pure white among them. ...For a tall delicate-lipped vase they are peculiarly beautiful as cut flowers..."

The 1899 Maule's Seed Catalogue described C. cyanus, cornflower or Ragged Sailor as "[o]rnamental plants for shrubberies and mixed borders, and exceedingly useful when cut flowers are in demand."

In the 1890s the name centaurea seems to apply primarily to the silver-leaved dusty miller rather than any of the flowering members of the genus. Seeds of C. candidissima, C. clementei, and C. gymnocarpa should be sought.

NAME: Dahlia sp. (Dahlia)

SOURCE: 5.16.90 invoice Henderson, Single Dahlia seeds

DISCUSSION: The 1897 volume of Henderson's catalog in the collection of the New York Botanical Garden lists the following varieties of "large-flowered Single Dahlias":

Bollet  
Contrasle  
Corsage  
Cynthia  
Old Gold

Mandolina  
Vicarage  
White Queen

These or other old varieties should be sought.

NAME: Ipomea x imperialis (Imperial Japanese Morning Glory)

SOURCE: 3.12.96 invoice Pitcher & Manda, Ipomea Imp. Callata  
seeds

DISCUSSION: I. imperialis, the Imperial Japanese morning-glories of horticulture are hybrids of Ipomea nil.

Mr. Church had been trying to grow morning glory since he collected seed in Mexico in 1885. In May of that year, he sent some seed in a letter to his friend Erastus Dow Palmer in Albany (5.30.85 letter FEC to Palmer). In September he sent some seed to Martin Johnson Heade in New Jersey saying, "[i]n the small packet the black seeds are of a superb blue morning glory which I found in Mexico - the seasons are not long enough here to develop [sic] them (9:22.85 letter FEC to Heade)." These were probably seeds of blue-flowered morning glory Ipomoea purpurea (syn. Convolvulus major) or I. tricolor.

The morning glories in commerce in the 1880s bloomed only at dawn and closed shortly thereafter. It is possible that Mr. Church was referring to this trait. It is unknown if he abandoned his efforts to grow them after 1885 until he discovered the Japanese hybrids ten years later.

Morning glory is described as free flowering and growing rapidly to a height of 15 feet. This vine may be used on trellises, arbors, verandas or to cover an unsightly object (Hottes, Annuals, p. 159). Without seeing a Pitcher & Manda catalog it is impossible to know for which of the Imperial Japanese Morning Glory seeds were purchased.

NAME: Lobelia sp. (various common names, see below)

SOURCE: 7.11.89 invoice R. W. Allen, 6 Lobelia plants

DISCUSSION: Without access to an R. W. Allen catalog, it is impossible to know exactly what was purchased. It could have been either an annual or a perennial. If an annual, Price & Reed offers three selections in 1899:

Lobelia gracilis a light-blue trailer

Lobelia alba, white, 6 in

Lobelia rosea, delicate rose, 6 in

and suggests that the delicate, drooping habit and profusion of their flowers renders them ornamental for vases and hanging baskets, borders or ribbons. All three may be horticultural varieties of Lobelia erinus, Edging Lobelia.

Maule's Catalogue has a very general offering of "Fancy varieties, mixed."

Since it is an annual, it would be acceptable to grow the light-blue or white trailing lobelia until better information becomes available.

NAME: Maurandia sp. [syn. Asarina sp.] (Twining Snapdragon)

SOURCE: 7.11.89 invoice R. W. Allen, 6 Maurandia plants

DISCUSSION: There are several species of Maurandia that are grown as ornamentals. Hortus lists M. antirrhiniflora, M. Barclaiana, M. erubescens, and M. scandens. We don't know which R. W. Allen was selling. Price & Reed describes Maurandia (which they spell with a "y" since the plant was named after the Spanish botanist, Maurandy) as a "Summer climber, adapted to the conservatory and green-house or trellises, verandas, etc. Blooms the first season." In addition to M. barclayana, they offer M. alba and M. rosea which seem to be white and pink color variants of the purple-flowered species. Hortus lists M. alba as "probably a color form of M. Barclaiana (p. 389)."

Maurandias trail as well as climb and are useful both in the garden and greenhouse, being satisfactory for hanging baskets, porch boxes, rockwork and low trellises. Of Mexican origins, Hottes considers it be an annual vine although Price & Reed describe it as a "half-hardy perennial." (Hottes, A Little Book of Climbing Plants, 1924).

Since this is an annual, any of the varieties listed in Hortus would be appropriate for the garden until better information becomes available.

NAME: Salvia sp. (various common names, see below)

SOURCE: 7.18.88 invoice R. W. Allen, 6 Salvia plants

DISCUSSION: This could be any one of a number of annuals or perennials. Until an R. W. Allen catalog is located, it is unclear what plant was purchased.

Price & Reed (1889) offer seeds for the Salvia coccinea, S. patens, and S. splendens. They consider the first one to be an annual and the other two to be perennial. All three, native to the American tropics, are grown as annuals today. The flowers of S. patens, Gentian Sage are ultramarine blue. The other two plants have scarlet flowers.

Maule's Seed Catalogue, 1899, lists 'Bonfire' a new dwarf cultivar of Salvia splendens that is a compact 2 1/2 feet indicating that the species is quite a tall plant.

NAME: Veronica sp. (Speedwell)

SOURCE: 3.12.96 invoice Pitcher & Manda, Veronica seeds

DISCUSSION: An 1896 Pitcher & Manda catalog has not been located. In the Henderson catalogs of 1892 and 1895, the only Veronica seeds offered for sale were annual varieties: - "mixed annual varieties" and "Dwarf garden annuals, carpeting the ground with a profusion of blue and white flowers, 1/2 ft." is how they are described. No species name is given. There are only three annual Veronicas listed in the Royal Horticultural Society's Index of Garden Plants, of these only V. arvensis is short and blue-flowered.

Henderson offers plants rather than seeds of the perennial Veronicas: - V. amethystina (syn. V. spuria), V. subsessilis, V. spicata, and V. spicata alba. Without seeing a Pitcher & Manda catalog one cannot be certain that Mr. Church purchased seeds of the annual sort.

NAME: Vinca sp. (Periwinkle)

SOURCE: 7.18.88 invoice R. W. Allen, 2 vinca plants

DISCUSSION: This might very well be the annual Madagascar Periwinkle (Vinca rosea). Price & Reed (1889) offers seeds for Vinca alba and V. rosea which have white and rose-colored flowers respectively. They are described as "[a] genus of beautiful green-house plants, succeeding well out of doors in a warm, sheltered situation." They also offer a vinca plant with variegated leaves which is probably the perennial Trailing Vinca, Vinca minor. Without seeing the catalog from R. W. Allen, it is not possible to identify the plant Mr. Church purchased.

NAME: Viola tricolor (Pansy)

SOURCE: 2.24.88 invoice Henderson, 6 pa[ckets] of Pansies seeds  
7.18.88 invoice R. W. Allen, 6 pansies plants

DISCUSSION: Pansies were wildly popular in the late 1800s particularly as cut flowers for hand bouquets and vases. There isn't an 1888 Henderson catalog nor an R. W. Allen catalog in the Olana archives or the New York Botanical Garden Library.

Price & Reed offer the following advice on growing pansies in 1889:  
Picking off the buds as soon as they appear during the Summer will cause the plants to grow bushy and compact; they will bloom profusely during the late Autumn and early Spring months. Prefers a moist, shady situation; cover during the winter months.

They offer the following selections in addition to mixes:  
Trimardeau



Emperor William  
Odier or five blotched  
yellow  
white

Maule's Seed Catalogue, 1899

Meteor  
President Carnot  
Trimardeau - Golden Giant  
Trimardeau - Lord Beaconsfield  
Emperor Frederick  
Coquette de Poissy  
Peacock  
Fire King  
Victoria Red  
Bugnot's Superb  
Azure Blue  
Bronze Colored  
Emperor William  
Snowflake  
Belgian Striped  
Faust or King of the Blacks  
Pure White  
Violet  
Mahogany Colored  
Golden Yellow  
Gold Margined  
Black Blue  
Brown Red

It is not clear which variety or varieties of pansies Mr. Church was growing.

## II. Perennials

### A. Plants That Have Been Positively Identified

NAME: Aquilegia chrysantha (Golden Spurred Columbine)

SOURCE: 5.16.90 invoice Henderson, Pale Yellow Columbine seeds

DISCUSSION: It is a bit puzzling that the invoice from Henderson's list a "Pale Yellow Columbine" when the only yellow columbine listed in their catalog between 1877 and 1900 is Aquilegia chrysantha, the Golden Spurred Columbine. The flowers are a clear, canary-yellow rather than a pale yellow. Introduced into eastern gardens from the Rocky Mountains in 1873, in the 1877 Henderson catalog, it is described as follows: "This beautiful variety has only recently come to notice. It is strong-growing, forming plants about four feet in height, and bearing an abundance of flowers of a bright yellow color." In other catalogs it is simply described as "a pretty yellow-flowering columbine."

Aquilegia chrysantha is very likely what was ordered; it remains in commerce.

NAME: Aquilegia vulgaris var. flore-pleno (Double European Columbine)

SOURCE: 3.31.90 invoice Price & Reed, Columbine seeds

DISCUSSION: Under the entry "Aquilegia or Columbine," the Price & Reed (1889) catalog offers seeds for a double-flowered columbine in mixed colors, plants typically 1 1/2 ft. tall. Their columbine is described as "[a] well-known, highly-ornamental plant, with curiously formed flowers of strikingly beautiful colors." With its knobbed spurs and blue, purple, or white double flowers this is surely the description of the double-flowered form of European Columbine, Aquilegia vulgaris var. flore-pleno. Plants or seeds of Double European Columbine should be sought.

NAME: Campanula medium (Canterbury Bells)

SOURCE: c. 1890-1900 photo, OL.1987.190 "Olana - Mingled Garden looking east from Centre Path"

DISCUSSION: Canterbury Bells were very popular with gardeners in the late 19th and early 20th century. The 1889 Price and Reed catalog describes it as a "well-known plant." They are planted in front of the delphinium in this photo. Their popularity waned in the years

before World War II. There has been little interest in them and therefore little hybridization in recent years.  
Since this is a biennial, second year plants should be sought.

NAME: Iris kaempferi (Japanese Iris)

SOURCE: 3.12.96 Pitcher & Manda, Iris Kaempferi seed

DISCUSSION: I have not been able to locate an 1896 Pitcher & Manda catalog. However, Henderson's 1892 catalog lists Iris kaempferi in "white, maroon, deep blue, yellow, carmine and violet, beautifully veined and mottled." It would be best to locate a Pitcher & Manda catalog before making any purchases.

The American Iris Society may be able to assist in locating 19th century varieties.

NAME: Statice latifolia [syn. Armeria pseudoarmeria, A. cephalotes] (Thrift)

SOURCE: 3.12.96 invoice Pitcher & Manda Statice latifolia seeds

DISCUSSION: Described in Hortus as: "To 1 1/2 ft, glaucous; lvs oblong-lanceolate; fls., bright pink, in heads to 2 in. across. Used in flower border, pots or in rock garden."

Vick's Illustrated Magazine, 1889 (p. 276) recommends Thrift in a piece titled "A Good Border Plant" for edging a flower border.

Although an 1896 Pitcher & Manda catalog has not been examined, the identity of this plant seems unambiguous.

NAME: Valeriana officinalis (Common Valerian or Garden Heliotrope)

SOURCE: 7.18.88 invoice R. W. Allen, 8 Heliotrope plants  
c. 1890-1900 photo (OL.1987.191)

DISCUSSION: The heliotrope plants purchased by Mr. Church in 1888 could be either annuals or perennials. Without an R. W. Allen catalog to consult, it can not be determined definitively which was purchased. However, the perennial Garden Heliotrope, (Valeriana officinalis) has been positively identified in a photograph of the garden taken during the historic period.



B. Plants That Have Been Tentatively Identified

NAME: Clematis sp. (various common names, see below)

SOURCE: 7.18.88 invoice R. W. Allen, 4 Clematis plants

DISCUSSION: It is not known what Mr. Church purchased from R. W. Allen; this could be either a vine or shrubby herbaceous perennial.

Price & Reed list three clematis in the 1889 catalog, they offer seed for two (C. flammula and C. azura) that they consider to be annuals and a third which they consider to be "perfectly hardy" as a potted plant (C. coccinea). The Algerian Clematis mentioned in Louis Church's letters to his mother (12.27.9? and 3.27.95, letter Louis to Mrs. FEC: "Your Algerian clematis is doing finely.") is probably C. flammula. Although not listed under the name "Algerian Clematis" in either Hortus or Standardized Plant Names, (1923, 1942), it is the only one that is native to the Mediterranean region. C. azurea is now classified as C. patens, a blue, May to June-flowering clematis from Japan. Writing in 1924, Alfred C. Hottes considered them all to be hardy in New York and Massachusetts (A Little Book of Climbing Plants, 1924), although C. patens is listed as hardy to Zone 6 in the Royal Horticultural Society's Index.

The Henderson catalog of 1887 lists C. flammula, C. jackmanni, C. virginiana, and C. coccinea. By 1897 the blue-flowered, shrubby C. davidiana is added to the list.

Any of the above would be appropriate to the garden until we learn what was actually purchased.

NAME: Delphinium elatum or D. bellamosum (Delphinium, Hardy Larkspur)

SOURCE: c. 1890-1900 photo, OL.1987.190 "Olana - Mingled Garden looking east from Centre Path"  
c. 1890-1900 photo, OL.1987.188 "Olana Carriage Drive with Mingled Garden on Right"  
c. 1890-1900 photo, OL.1987.191 "Mingled Garden from outside chicken mesh enclosure"

DISCUSSION: The delphiniums seen in the photos are probably selections of D. elatum or D. bellamosum. Without a written record or more detailed photograph, it is not possible to identify the specific variety. The photo of the plant should be checked against illustrations and descriptions of delphinium in catalogs from the firms where Mr. Church is known to have made purchases; Jas M. Thornburn & Co., Henderson, Whitney & Noyes Seed Co., Pitcher & Manda, and Ellwanger & Barry.

NAME: Paeonia sp. (Garden Peony)

SOURCE: c. 1890-1900 photo, O.L. 1987.191 "Olana: Mingled Garden from outside chicken mesh enclosure."

DISCUSSION: Peony flowers, as well as the distinctive foliage, are seen in this period photo. Peony foliage, possibly of the same plants, can be seen in the right foreground of the 1906 Eberle photo showing Mr. Frier standing on the garden path (O.L.1987.131.19A). In the 19th century there were dozens of varieties to choose from. Without a written record, it isn't possible to know which varieties were planted. To help determine which varieties would be appropriate for the restored garden, catalogs from the firms where Mr. Church is known to have made purchases (Jas M. Thornburn & Co., Henderson, Whitney & Noyes Seed Co., Pitcher & Manda, and Ellwanger & Barry) should be examined.

NAME: Phlox suffruticosa (Early Perennial Phlox)

SOURCE: c. 1890-1900 photo OL.1987.190 "Olana - Mingled Garden looking east from Centre Path"

DISCUSSION: The rounded panicles of perennial phlox blossoms can be seen in this photograph just to the left of the central clump of delphinium. It is the Early Perennial Phlox that would be in bloom at the same as delphinium and peony. There is some disagreement among references as to the correct species name. P. suffruticosa is the preferred name in Hortus.

'Miss Lingard' is an early 20th century variety that could be used as a substitute until a 19th century variety can be located.

NAME: Vinca sp. (Periwinkle)

SOURCE: 7.18.88 invoice R. W. Allen, 2 vinca plants

DISCUSSION: Price & Reed in their 1889 catalog offer a vinca plant with variegated leaves which is probably the perennial Trailing Vinca, Vinca minor. Without seeing the catalog from R. W. Allen, it is not possible to identify the plant Mr. Church purchased.

NOT RECOMMENDED

I. Annuals

NAME: Begonia sp. (Begonia)

SOURCE: 7.11.89 invoice R. W. Allen, 6 Begonia plants  
3.23.? (after 1892) letter LPC to Mrs. FEC: "The greenhouse looks very well. ...Some of the begonias are superb, perfect fountains of delicate pink flowers in sprays."

DISCUSSION: There are dozens of species of Begonias and even more cultivars. Without access to an R. W. Allen catalog it is not possible to know what plants were actually purchased. In 1889, Price & Reed lists the following:

Begonia glaucophylla scandens (syn. B. radicans) Shrimp Begonia  
Begonia miniata (syn. B. fuchsioides) Fuschia Begonia  
Begonia rubra (syn. B. coccinea) Angel-Wing Begonia  
Begonia rex Painted-Leaf Begonia

all of which seem to be greenhouse or hanging basket subjects.

Ten years later, Maule's Seed Catalogue lists Tuberous-Rooted Begonias; double and single; crimson, pink, white, yellow, orange, and scarlet; and a named variety, 'Vernon,' of a different sort with brilliant orange carmine flowers.

Based on the information at hand, it is unlikely that Begonias were included in the Flower Garden.

NAME: Calceolaria sp. (Pocketbook Plant, Slipperwort)

SOURCE: 7.18.88 invoice R. W. Allen, 2 Calceolaria plants  
3.12.96 invoice Pitcher & Manda, Calceolaria hyb. grandi. seeds

DISCUSSION: Native to Central and South America, the general practice was to grow this plant in a greenhouse and bring it into the house when at the peak of bloom. Since an R. W. Allen catalog has not been located contemporary catalogs were consulted. The Price & Reed catalog of 1889 describes transplanting seedlings into pots rather than the garden. Miss Mary E. Martin's catalog, "Flowers for Springtime, 1897," suggests them for use in the house or conservatory. In William Henry Maule's Seed Catalogue of 1899, calceolaria are recommended for conservatory and garden. At Olana, it was most likely a potted plant.



NAME: Chrysanthemum sp. (various common names, see below)

SOURCE: 7.18.88 invoice R. W. Allen, 12 Chrysanthemum plants  
3.26.93 letter Louis to Mrs. FEC "William has about 150  
Christhanemums [sic]"  
4.2.93 letter Louis to Mrs. FEC "The daisies are not  
in full bloom yet but I think will be in  
about two months."

DISCUSSION: This could have been any number of annuals or perennials.  
If an annual:

C. indicum, an artemisia (Downing p. 113) now little known in  
cultivation

C. carinatum, (syn. C. tricolor) Tricolor Chrysanthemum

C. coronarium, Garland or Crown Daisy

C. segetum, Corn-Marigold

In these two letters, Louis could be referring to one of the annual  
varieties or to the greenhouse perennial, C. frutescens, Marguerite  
or Paris Daisy, a "florist's subject," usually grown under glass for  
cutting.

Price & Reed (1889) describe annual Chrysanthemums as "[o]ne of the  
most effective and showy of Summer flowering plants." They offer  
seeds for C. tricolor (syn. C. carinatum) in yellow and white, C.  
Dunnetti (now considered a C. carinatum) double white, C. frutescens  
grandiflorum, Marguerite or Paris Daisy, new annual varieties mixed,  
Double Chinese mixed, Double Japanese mixed, and Double Pomponé.  
This plant was probably grown for cutting flowers.

NAME: Coleus [C. blumei and the larger leaved form C. ornatus  
now Solenostemon scutellarioides] (Coleus)

SOURCE: 7.18.88 invoice R. W. Allen, 10 Coleus plants

DISCUSSION: Hortus - "...showy lvd. [leaved] herbs grown in the  
window-garden, greenhouse, porch boxes, and to some extent for  
bedding-out;... p. 165)." Native to the Old World tropics. Price &  
Reed (1889) offer seeds of this "showy, ornamental foliage plants"  
and suggest that "[t]he new hybrid colors produce a fine effect,  
either in groups or single."

At Olana, this was probably a potted plant.

NAME: Cosmos sulphureus (Yellow Cosmos)

SOURCE: 3.12.96 invoice Pitcher & Manda, Cosmos Sulphurius Yel.  
seeds

DISCUSSION: C. sulphureus, Yellow Cosmos - annual to 7 feet; fls 3  
in. across pale or golden-yellow ray petals, center disk yellow,  
Mexican

A Pitcher & Manda catalog could not be located either in the Olana archive or New York Botanical Garden Library. A description from a contemporary catalog is substituted here. In 1897, Henderson lists a Dwarf Yellow Cosmos which is 1 foot high, low spreading habit, flowers 1 1/2 inch diameter, star-shaped and of a rich golden yellow color. It is late blooming; the plant would be killed by frost before the flowers had a chance to open in this climate.

This was probably grown for cut flowers.

NAME: Cosmos sp. (Cosmos)

SOURCE: 6.28.97 letter Louis to Sallie "We are having ...some cosmos..."

DISCUSSION: Whether the Yellow Cosmos purchased as seed in 1896 or the more common pink-flowered type, these plants were probably grown in the greenhouse. Neither the ordinary Cosmos, C. bipinnatus and its varieties, nor the Yellow Cosmos, flower until October which is so late that in northern states, the frost kills the plants just when the first few flowers have opened. Extra Early Cosmos is shorter in stature and blooms in July and August became available in the 20th century. Sensation mix is from the 1930.

Cosmos is now a standard in the mid- to late-summer border but as you see in the entry in the Price & Reed catalog of 1889, it was an autumn flower and unlikely to be found growing in the open air in a northern garden:

Plants growing 4 ft. high, covered in the Fall with large flowers, resembling Single Dahlias, of all colors.

This was probably grown for cut flowers.

NAME: Echeveria sp. (Echeveria)

SOURCE: 7.18.88 invoice R. W. Allen, 3 Echeveria plants

DISCUSSION: Succulents. These are tender plants of Central and South American origin, not hardy in this area.

Since a catalog from R. W. Allen has not been located, contemporary catalog were substituted. Under Flowering Plants, Price & Reed (1889) list "Echeveria, in varieties [sic] (varieties)" at 25 cents each.

The 1887 Henderson catalog lists Echeveria secunda glauca, E. retusa, E. floribundum, E. rosea, E. lancifolia rosea and E. californica under the heading "Plants for Ribbon Lines, or for Massing in Colors." Those that I have been able to find listed in the Royal Horticultural Society's Index have colored foliage.

Until more is known about this plant, Echeveria should not be included in the Flower Garden.

NAME: Lantana camara flava(?) (Lantana, Shrub Verbena)

SOURCE: 7.11.89 invoice R. W. Allen, 1 Yellow Lantana plant

DISCUSSION: An R. W. Allen catalog has not been located. However, Price & Reed offer seeds for mixed varieties of Lantana in their 1889 catalog. It is recommended for pot culture and bedding by William Henry Maule in 1899. Unlikely to have been planted in the Flower Garden.

NAME: Lathyrus sp. (Sweet Pea)

SOURCE: 6.28.97 letter Louis to Sallie "We are having lots of  
sweet peas now..."

7.2.97 letter Louis to Sallie "We are flooded with sweet  
peas just now..."

DISCUSSION: Louis is probably writing about the annual sweet pea that was a very popular cut flower at the turn-of-the-century. Vick's Illustrated Magazine, 1889 issue mentions sweet pea as a cut flower (p. 246).

Miss Mary E. Martin lists the following in her catalog "Flowers for Springtime:"

Alba Magnifica  
Apple Blossom  
Blanche Ferry  
Butterfly  
Cardinal  
Countess Radnor  
Delight  
Emily Henderson  
Fairy Queen  
Indigo King  
Indigo Prince  
Isa Eckford  
Lottie Eckford  
Mrs. Sankey  
Primrose  
Princess of Wales  
Queen of the Isle  
Splendor

Sweet Peas are a "cool weather crop" and do not do well in the muggy heat of Hudson Valley summers. They do not tolerate root competition from nearby plants and their cultural requirements are such that it would be difficult to grow them in a mixed border. They tend to succumb to attacks of plant lice, red spider, and mildew in mid-summer. They were a popular cut flower. It is likely that the Churches were growing sweet pea in the Cutting Garden.



NAME: Lippia citriodora [syn. Aloysia citriodora] (Lemon  
Verbena)

SOURCE: 7.11.89 invoice R. W. Allen, 6 Lemon Verbena plants

DISCUSSION: Price & Reed also offered plants for sale in 1889. A decade later William Henry Maule described Lemon Verbena as "[a] green-house deciduous shrub with fine perfume and graceful habit. Is easily grown from seed, and there is nothing more desirable than its fragrant foliage for making up bouquets."

In Hortus, Lemon Verbena is described as a popular greenhouse subject. Its leaves are lemon scented. It is unlikely that this plant was grown in the flower garden.

NAME: Pelargonium sp. (Florist Geranium)

SOURCE: 7.11.89 invoice R. W. Allen, 6 Geranium plants

DISCUSSION: This could be any one of a number of plants. Without seeing the Allen catalog, one cannot be positive, however, it is very unlikely that the plants Mr. Church purchased were perennial geraniums. Although popular garden subjects today, perennial geraniums are not listed in the Price & Reed, Park's, Martin, or Maule catalogs. In 1889, Price & Reed offer Ivy-leaved, scented, and Lady Washington Geraniums in addition to an assortment Zonale Geranium with single and double flowers and fancy-leaved (bicolor and tricolor). Since Rose Geranium is called out separately on the R. W. Allen invoice, it is safe to say that this group of six were not another sort of scented geranium.

An aside, 'Happy Thought,' a gold bicolor (yellow center and green margins) geranium listed in the Price & Reed catalog is still available.

NAME: Pelargonium graveolens (Rose Geranium)

SOURCE: 7.11.89 invoice R. W. Allen, 6 Rose Geranium plants

DISCUSSION: Rose Geraniums were grown primarily for their scented leaves; they were used in hand bouquets and floated in the water in finger bowls.

Vick's Illustrated Magazine, 1889, suggests that, "[p]erhaps nothing is more beautiful for trimming bouquets than the leaves of scented Geraniums, which should be raised in quantity for that purpose (p. 276)."

It is very unlikely that Rose Geranium was grown in the Flower Garden.

NAME: Salpiglossis sp. (Painted-Tongue)

SOURCE: 5.16.90 invoice Peter Henderson, Salpiglossis seeds  
3.26.93 letter Louis to Mrs. FEC "The salpeglossis [sic]  
in the greenhouse is in beautiful bloom now."  
4.2.93 letter Louis to Mrs. FEC "The salpeglossis [sic]  
is the pride of the greenhouse."

DISCUSSION: Vick's Illustrated Magazine, 1889 and 1890 issues, mentions salpiglossis as a cut flower. The 1890 issue suggests the velvety blossoms of salpiglossis be used for cutting. The purchase of seeds from Henderson's precedes the construction of the greenhouse. Prior to the greenhouse, it is more likely that salpiglossis was grown in a coldframe than in the Flower Garden.

NAME: Verbena x hybrida (Garden Verbena)

SOURCE: 11.5.69 letter FEC to Osborn "...we have verbenas...in bloom in the green air..."  
11.21.70 letter FEC to Osborn "By clapping some hotbed sashes over my verbenas I am able to make a pretty show of blossoms now -- and a vast quantity of buds."  
6.8.83 Mrs. Carnes Diary "...Planted Fairy V. seeds..."  
7.18.88 invoice R. W. Allen, 50 + 38 verbena plants  
7.11.89 invoice R. W. Allen, 100 verbena plants

DISCUSSION: Downing, in Cottage Residences (p. 102), recommends twenty cultivars.

Huime and Hibbard (p. 91) explain that Verbena hybrida is name given the flower "formed from the inter-crossing of V. melindres, V. Tweediana, V. incisa and other species of South American origin, and this compound we call the verbena,..." (V. Tweediana is now known as V. phlogiflora.) The Royal Horticultural Society's Index includes V. teuroides in the mix. Flowers range in the shades of red and purple, passing to pure white in one direction and purple-blue in another. The parent species were introduced to cultivation from 1826 to 1837. Grown as a "[cold]frame plant" to cut and use for decorating the house as well as in bedding schemes. According to Stuart and Sutherland in Plants from the Past, "[t]he verbena became almost synonymous with bedding,..." (p. 231)" in the mid to late 19th century.

In 1889, Price & Reed offer seeds of the following varieties:

Defiance (scarlet)  
Finest Hybrid (mixed, from select colors)  
Hybrid Candidissima (large trusses pure white)  
Italian Striped  
blue  
white

Maule's Seed Catalogue, 1899 lists 'Briar-Crest Mammoth Fancy.' The accompanying illustration shows flowers with striped petals, solid with a white eye, large light central rings, and rings of two colors. At Olana Verbena were probably grown for cutting.

## II. Perennials

### A. Plant Identification Uncertain

NAME: Aster sp. (Michaelmas Daisy, Perennial Aster, Autumn Aster)

SOURCE: 7.18.88 invoice R. W. Allen, 12 Aster plants

DISCUSSION: The aster plants purchased from R. W. Allen were probably the annual China-aster (Callistephus chinense) rather than one of the perennial asters, but one cannot be sure without seeing the catalog. A contemporary seed catalog from Price & Reed does not list any perennial asters.

Hulme & Hibberd, Vol. 1, 1879 - perennial asters p. 125-128  
"Michaelmas daisies are not in high repute, for they are not well represented in gardens. A certain number of coarse, weedy sorts have obtained entrance, and have spread far and wide; and when by the artistic eye, they are weighed in the balances and found wanting,... (125)."

Although Hulme & Hibberd tout the virtues of some small European perennial asters, they are not offered by any of the catalogs that Mr. Church is known to have purchased from in the 1880s.

NAME: Chrysanthemum sp. (various common names, see below)

SOURCE: 7.18.88 invoice R. W. Allen, 12 Chrysanthemum plants

DISCUSSION: This could have been any number of annuals or perennials. In the 1897 catalog, Henderson lists what we now call Shasta Daisy (Chrysanthemum maximum or C. latifolium) as "the great white "Moon Penny Daisy" and describes it as "very effective for the garden."

The Henderson catalog of 1897 described C. frutescens as having white flowers, blooming "all summer in the garden" and "largely grown for cut flowers..." A "Florist's subject" according to Hortus.

Henderson's 1883 catalog lists C. inodorum plenissimum and describes it as "[a] dwarf variety, bearing double pure white flowers, much like the double white feverfew;" however nothing more can be learned about this plant.

Ellwanger & Barry list "Summer Chrysanthemum" as an alternate common name for a perennial Rudbeckia known today as "Golden Glow."

Price & Reed 1889, in the "Flowering Plants and Vines" section under the heading Chrysanthemum is the following entry: "hardy border plants, blooming late in Fall, all colors, golden yellow, white, blush, pink, shaded red, crimson,..." Henderson, in the 1887 catalog, writes "[a]lthough all of the chrysanthemums are early enough to perfect their flowers in the open ground south of Baltimore, yet, in the vicinity of New York and further north, many of the late kinds sometimes do not;..." The Japanese chrysanthemum "...posses the



valuable property of flowering during the winter months...;" that would put them in the greenhouse in this climate.

NAME: Lobelia sp. (various common names, see below)

SOURCE: 7.11.89 invoice R. W. Allen, 6 Lobelia plants

DISCUSSION: This could be either an annual or a perennial. If a perennial, Henderson lists Cardinal Flower, Lobelia cardinalis plants in 1892 and 1895. Seeds for mixed hybrids of L. cardinalis are added in 1895. In 1889, Price & Reed offer seeds of the annual, only. One cannot be sure what plant the Churches bought without seeing a copy of the R. W. Allen catalog.

NAME: Veronica sp. (Speedwell)

SOURCE: 3.12.96 Pitcher & Manda, Veronica seed

DISCUSSION: There isn't a copy of the 1896 Pitcher & Manda catalog in either the Olana archives nor the Collections of the New York Botanical Garden Library. In the Henderson catalogs of 1892 and 1895, the only Veronica seeds offered for sale were annual varieties:

Henderson offers plants rather than seeds of the perennial Veronicas: - V. amethystina (syn. V. spuria), V. subsessilis, V. spicata, and V. spicata alba. Modern catalogs list seed for several perennial Veronicas, so they must not be overly difficult to germinate.

The Price & Reed catalog of seven years earlier, lists neither annual nor perennial Veronicas.

Without seeing a Pitcher & Manda catalog one cannot be certain what seed was purchased.

B. Definitely Not In Any Photographs

NAME: Rosa sp. (Roses, various)

SOURCE: 4.10.96 invoice Mount Hope Nurseries, 87 roses

DISCUSSION: Many of the roses on the list are tender and would not survive the winter out-of-doors (M. Neil, Paul Neyron, Gloire de Dijon) others are quite large shrub roses (Persian Yellow) and surely would be in seen in either the 1890-1900 period photos or those taken by John Eberle in the autumn of 1906.

C. Complete Mysteries

NAME: Japanese Poppy

SOURCE: 5.16.90 invoice Peter Henderson, Japanese Poppy seed

DISCUSSION: Under annual poppies in 1890, Henderson lists "Japanese Pompone, mixed colors." To try to get a more fulsome description of this plant, I checked other Henderson catalogs. Under "Double Annual Varieties" of poppy, the 1883 catalog reads as follows: "Japanese pompone, mixed, beautiful small double flowers borne in profusion." In the 1897 catalog, it is described as a one foot tall plant with small, very double flowers in a great variety of colors. No scientific name is given. Henderson lists this plant in all the catalogs I checked between 1883 and 1901. Japanese Poppy is not listed in the Thorburn catalog of the same period nor in the earlier Price & Reed catalog.

I cannot identify this plant. Based on the description of this plant and the descriptions of other poppies we can eliminate some plants. It is an annual, so, the Oriental Poppy, Papaver orientale, Iceland Poppy, Papaver nudicaule or the Corn, Flanders or Shirley Poppy, Papaver rhoes which are all perennials can be eliminated. It is small-flowered, so the large, peony-flowered Papaver somniferum can be ruled out. The single, yellow-orange flowered California or Mexican Tulip Poppy (Hunnemannia fumariifolia) does not fit the description either.

The common name, Japanese Poppy, does not appear in any of the standard reference books. It could be one of the Asiatic Poppies now classified as Meconopsis. It is possible, but unlikely, to be a double form of Hylomecon japonicum, another Asiatic poppy. Or, it could be a poppy that is native to another part of the world but was hybridized in Japan and introduced to commerce as "Japanese Poppy."

This plant remains a mystery.

NAME: Japanese Corona

SOURCE: 5.16.90 invoice Peter Henderson, Japanese Corona seed

DISCUSSION: Incredibly, there is no listing under the name "Japanese Corona" in the Henderson catalog of 1890 - nor any other flower catalog that I have checked to date (other issues of the Henderson catalog between 1883 and 1900, as well as Thorburn, Vick's, and Price & Reed). The common name, Corona or Japanese Corona, does not appear in any of the standard horticultural/floricultural reference books. Could it be a vegetable? This plant remains a complete mystery.

NAME: Anthemis sp. (common name is unknown)

SOURCE: 7.11.89 invoice R. W. Allen, 6 Anthemis plants

DISCUSSION: Without an Allen catalog to consult, it is unclear what this plant might have been.

The Price & Reed 1889 catalog does not list Anthemis at all.

The only Anthemis listed in Henderson's 1887, 1888, or 1890 catalogs is A. coronaria fl.pl., Double Golden Marguerite. It is described as "...the most valuable new plant we have had in years, clear golden yellow, it blooms without cessation the entire season." The accompanying illustration shows a bushy plant with very double flowers similar to a pompon-flowered chrysanthemum. This plant is not listed in the Royal Horticultural Society's Index, Hortus, Standardized Plant Names, nor L. H. Bailey's Manual of Cultivated Plants.

There are 100 plants in the genus Anthemis of which about a dozen are considered to be of horticultural interest today, A. coronaria fl. pl. is not among them.

Anthemis tinctoria, the single-flowered, Golden Marguerite which is a popular garden plant today, seems to have been introduced in the early 20th century. Robinson (15th Edition, 1933) lists A. tinctoria as suitable for a mixed border and Hottes (1929) includes it in his list of "Noteworthy Perennials."

It is unclear what Anthemis Mr. Church purchased. It would not be appropriate to plant Anthemis tinctoria as a substitute.



**OLANA GARDEN PLAN**  
**April, 2000 – November, 2001**

- Mid-April –  
The flower garden should be raked of leaves and cleaned up.
- Early to mid-May –  
Garden should be tilled, cultivated and weeded.
- Late May –  
New plants should arrive for planting. Shortly after the plants should be set out in areas where they are to be planted. A day should be set aside soon after (perhaps the next day) for placing the plants in the ground with the help of volunteers. The plants dry up quickly if left in their little pots.

A commercial fertilizer (5-10-5) may be applied shortly before or after planting. About 60 to 80 lbs is about right.

- Mid-June –  
Around mid-June when plants are tall enough, 1-3 inches of mulch should be applied to garden as this helps to:
  - a. conserve moisture
  - b. cut down on weeds
  - c. improve soil
  - d. improve appearance.

A finely ground dark brown cedar/pine mulch has been purchased from Country Living in Hudson @ bucket load. Twelve buckets were purchased each of the past two years and delivered to the garden for \$35 a load. Possibly 10 buckets would be sufficient when large amounts of plants are planted.

- Mid-June – October –  
Watering, deadheading, trimming, staking, fertilizing, weeding of plants as needed. Hand watering of plants with hose and wand was found to be successful, though tedious.
- October – Mid-November –  
Continue to deadhead until flowering ends.  
Clean up garden for the winter and mulch perennials.

**APRIL TO NOVEMBER – PHOTOGRAPHS AND NOTES SHOULD BE TAKEN AS AN ONGOING RECORD OF THE GARDEN'S PROGRESS.**

THE OLANA FLOWER GARDEN  
2001

ANNUALS

PLANT NUMBER	PLANT NAME
1.	African daisy demorphotheca
2.	Ageratum Blue Horizon
3	Ageratum Blue Mink
4	Alyssum Lobularia Maritima
5	Armeria Pseudameria Joystick Red
6	Aster Matsumoto
7	Aster Mini Lady Mixed
8	Aster Peony
9	Bachelor Button Centaurea Blue
10	Calendula Officinalis
11	Chrysanthemum Coranarium Primrose Gem
12	Chrysanthemum German Flag Scarlet
13	Cineraria Dusty Miller Silver Dust
14	Cobaea Scandens Cup and Saucer Vine Purple
15	Cosmos Sulphureus
16	Dahlia Unwins Mixed
17	Heliotrope Aborescens
18	Marigold Tagetes Patula French Anemone
19	Marigold Tagetes Patula Harlequin
20	Marigold Tagetes Tenuifolia Signet
21	Migonette Reseda Odorata
22	Migonette Resada Odorada Machet
23	Morning Glory Ipomoea Nil Japanese Imperial
24	Nasturtium Empress of India
25	Nasturtium Tropaeolum Pereginum Canary Bird Vine
26	Salvia Coccinea Texas Scarlet
27	Salvia Patens
28	Salvia Splendens Bonfire
29	Tassel Flower Emilia Flammea Scarlet
30	Tassel Flower Javanica
31	Vinca Rose
32	Viola Four Seasons Mixed
33	Zinnia Angustifolia
34	Zinnia Elegans White Gem
35	Zinnia Haageana Old Mexico
36	Zinnia Peruviana
37	Zinnia Scarlet King
38	Zinnia Tenuiflora

THE OLANA FLOWER GARDEN  
2001

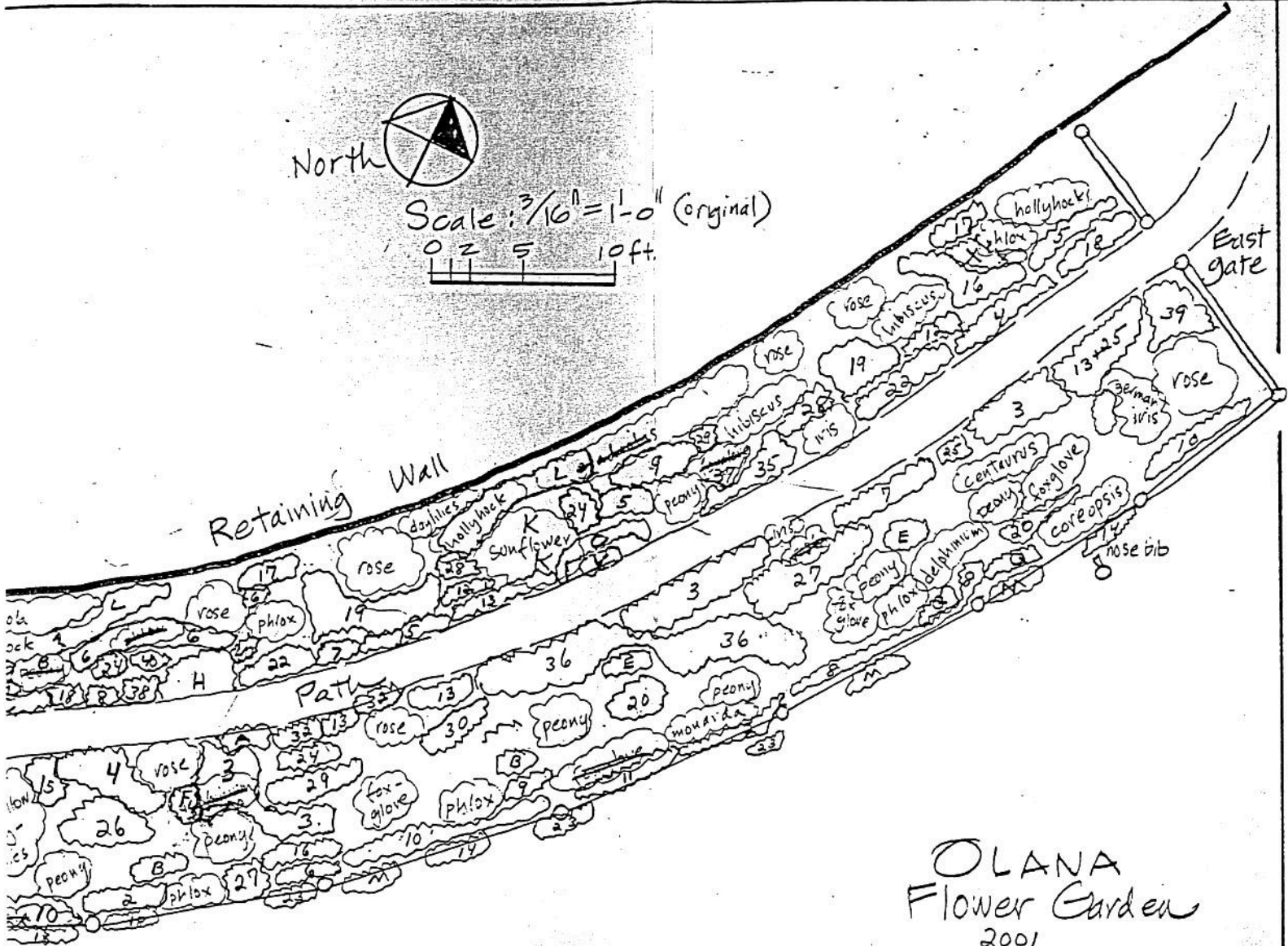
PERENNIALS

PLANT LETTER	PLANT NAME
A	Bouncing Bet Saponaria Officinalis
B	Centaurus
C	Columbine
D	Coreopsis
E	Day Lillies Yellow
F	Delphinium
G	Foxglove
H	Gailardia
I	Hibiscus
K	Heliopsis
L	Hollyhock
M	Honeysuckle Vine
N	Iris Bearded
O	Iris Siberian
P	Matrimony Vine
Q	Monarda Bee Balm
R	Peony
S	Phlox
T	Rose
U	Rose Rugosa
V	Rudebeckia
W	Thistle
X	Vinca Vine
Y	Cardinal Flower Labelia Cardinalis



North

Scale:  $\frac{3}{16}'' = 1'-0''$  (original)



# OLANA Flower Garden

2001

Bob Riordon 11/01/RM Toole 2/4/01



