

Because of a number of requests I have decided to offer other garden courses this winter; - this time to be divided into two groups, one for advanced gardeners, who want designed practical application; and the other for beginners, who feel the need of the fundamentals of horticulture.

Problems which most owners meet when they take new plantings, as well as old, with the principles that underlie successful planting.

A course of six lectures will be held for Beginners, Tuesdays, starting January 15th, ending February 19th; and for Advanced Gardeners, Wednesdays, starting January 16th, ending February 20th. Both classes will begin at 10:30 A.M.

If you would like to enroll for either of these courses, please enclosing in the blank on the back, enclosing check for \$20.00 for the course of six meetings.

Applications will be taken in the order of their receipt, as the size of the classes must be limited.

#### APPLICATION BLANK

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

TEL. NO. \_\_\_\_\_

ENCLOSED IS MY CHECK FOR:

BEGINNERS GROUP \_\_\_\_\_

ADVANCED GROUP \_\_\_\_\_

ADDRESS: GLENVIEW, KENTUCKY.

#### PLANTING DESIGN

&

#### PRACTICAL GARDENING

Anne Bruce Haldeman

A. S. L. A.

slides  
illustrated  
lectures  
with lantern

ANNE BRUCE HALDEMAN  
Landscape Architect  
A.S.L.A.

By

GARDEN LECTURES

LECTURE SUBJECTS

GARDEN DESIGN

CONSTRUCTING THE GARDEN

PLANTING THE GARDEN

(Sequence of Bloom, Color Schemes, Etc.)

DESIGNING THE PLACE AS A WHOLE

PLANTING DESIGN & COMPOSITION  
(Use of Plant Material)

-----

SMALL GARDENS OF ENGLAND

SOME GARDENS OF AMERICA

LECTURE FEES:

Garden Club Meeting: \$50.00  
(Plus Travelling Expenses)

Open Meeting: \$100.00  
(Plus Travelling Expenses)

P.O. Address:  
Haldeaman & Ireland  
Glenview, Ky

All Lectures Illustrated  
With Lantern Slides

ANNE BRUCE HALDEMAN  
Landscape Architect  
A. S. L. A

BY

GARDEN LECTURES

LECTURE SUBJECTS

GARDEN DESIGN

(Containing 74 Garden Plans)  
PLANTING THE GARDEN  
(Suggestions of Selection, Color, Season, etc.)

HORTICULTURE & MAINTENANCE

SMALL GARDENS OF ENGLAND

SOME GARDENS OF AMERICA

-----

DESIGNING THE PLACE AS A WHOLE

PLANTING DESIGN & COMPOSITION  
(Use of Plant Material)

LECTURE FEES:

Garden Club Meeting: \$50.00  
(Plus Travelling Expenses)

Open Meeting: \$100.00  
(Plus Travelling Expenses)

ANNE BRUCE HALDEMAN  
A.S.L.A.

GARDENS  
BY  
A SHORT COURSE

The first meeting will be held at 10:30 A.M. Tuesday, January 17th, at Glenview, Kentucky, when a weekly time will be arranged to suit the convenience of the class. If it seems advisable, the group will be divided into an advanced and a more elementary division.

Applications must be received by January 14th, on blank on back of this folder.

~~\*The course is open to anyone interested, though the class will be limited in size.~~

\*The course is open to anyone interested though the class will be limited in size.

TIME PREFERRED

Check for \$15.00 enclosed  
(Course of six meetings)

TEL. NO.

ADDRESS

NAME

Each meeting will cover some principle of planting design as well as some practical phase of gardening. Special emphasis will be given to combinations of plants for various uses, with cultural directions that are necessary for their success.

A short discussion period will be held at the end of each meeting so that individual problems of common interest may be taken up.

Advanced #5

Rose Garden  
Siberia & their culture  
Clematis  
Hydrangea & its culture

Advanced #6

Pat Garden

Feb. 13<sup>th</sup>

Feb. 20<sup>th</sup>

Berry - Peonies  
Valerian - Family  
Pump. & Squash

Feb. 13<sup>th</sup>, '52

Advanced Class

Siberia

Clematis

Shrub & Culture

Wald - selection of  
B.H. Gen. Norton Box -  
Garden, Granddy,  
Pine

MAILED - 12/23/52 - 12/23/52 - 12/23/52

Beginner - Feb. 12 '52

Soil Treatment

Silica

Clematis

? Propagation

Beginner

#4 - Feb. 5 1952

Box Garden Scapels  
✓ Hedges + Screen

✗ Shade

✓ Vines + Gr. Cover

✗ W. Combination

✗ Phila. Mass.

✓ Spraying

Beginner Course Culture: 1952  
Bulking - Hedges  
1. Jan 15 - Gen'l Planting  
Form, distance, shade  
+ color.  
Compost. Poles.  
2. " 22nd - Requirements of Plants  
Soil Prep.  
Drainage  
Subsides + Cover Crop  
Watering  
Mulching  
Pruning  
Br. Sh. Ect.  
Individual Plant Req.  
Sansa:  
- Vines  
- Boxwood  
- Silica  
- Hedges  
Terms: Dead  
Gr.  
perennial  
glory  
drain.  
Planting Design of House  
To Do. Jan + Feb.

Compost Bank  
+ Poles  
Hedging  
Easy Plant  
Combination

Beginner - Feb. 19 '52

Burlap Square

Salt shaker for  
fine seed

Propagation

(omitted P&L garden)

Roses

X Berry Berry Shrub & Tree  
+ Hawthorn Family  
Crab-apple " - small.  
Cotoneaster  
Viburnum  
Sappho Berry  
Calluna  
arbutus  
Shade Semi Shade

3. Jan. 29. Pruning + Tree Repair  
Slides 3 made lunning plants.  
Equipment -  
Vinyls for every use.
4. Feb. 5 3 spraying:  
Cash of Br. L. Co. +  
H. T. Co.
5. Feb. 12 { Construction  
Plans:  
Prep +  
Maint.
6. Feb. 19. { Rose Garden  
Prep. +  
Selection of Vars.  
Enclosures + Backgrou  
Bulls, animals, Pens,  
+ Birds.  
Ident. of Plants

1<sup>st</sup> Grading  
2<sup>nd</sup> Drainage  
3<sup>rd</sup> Surface & subways.

---

2<sup>nd</sup> Walls, Steps, Pools, etc.

a. Trust Protection.

A. width of walk—

c. 347 formula.

D. *Madonia* *capitata*

20th Aug

Shaw

Rich-  
Graham

Shimoda Co. 1872.  
Well preserved.  
Lycopodium, Oak, Redwood.

Monday February 1<sup>st</sup>, 1960 - "3 for Regras"

1<sup>st</sup> Roll call + answer questions written

2<sup>nd</sup> Winter gardens

3<sup>rd</sup> Shade

4<sup>th</sup> Pot Culture

Mr. Perrowe -

The Filson Historical Society



House + grounds so much - a part of the estate that it is essential to think of them together, for the art of doors should reflect the house. Let simplicity, easiness + privacy be your aim.

\* Try making a plan - scale, paper, pen + <sup>brush</sup> <sup>plenty of</sup> <sup>Boa</sup> <sup>brush</sup>  
Must get the backbone right before beginning to adorn + embellish with planting.  
Keep plan as simple + as functional as possible.

Just for you

What is most to be desired in all decorative gardening is that it should be fitting to its place. Every site + whether great or small is capable of being suitably treated.

Architecture of the house + the contours of the land will strongly influence the type of grounds you will wish to develop.

On every place there is something worth emphasizing + always something you want to screen, if not in your own property, in your neighbor's.

In recent years a great improvement in house plans - putting the screen on the short side + the dining room + living room on the rear, facing the garden.

(Whenever I speak of "garden" designation the enclosed private living area of your place not necessarily a flower garden.)

This gives complete privacy to the living part of the house + cuts off the noise of the road.

Design as closely as possible to the ex. grass

Keep one long unobstructed view to the boundary & screen, working in other areas, especially screening each part from the other, to give more interest & a greater sense of depth.

"Consider the place as an outdoor house. The grounds are divided up according to their uses, & each portion has its boundary."

① Place the house. (also see p. 24) + view  
all depends on site, veg. & orientation  
generally. Consider the position of the house in relation to the house shield, by placing so that you

after best  
not in middle  
more room  
as to give  
on living  
room  
so put a  
a part as close to rd.  
as possible  
as to the house  
wall.

do not cut in at them living area  
on one side.

There should be no passage on

Chimney & line of year to the house.

all about sun in winter  
hard sun in the south  
you shade in sun.

Place S.R.I.D. away from rd. &  
if poss. facing south on E.H.W.

Should appear to belong not be  
obtrusively set.

Entrance rd. & parking very important.  
Rd wide enough.  
Large enough garden.

Not by garage

Privacy - means of arch.  
Plant fence wall.  
Completely screen.

If you put a wall down 4 or 5' high  
for planting

Boundary plant enlarges rather than <sup>makes</sup> ~~small~~  
cut out objection like

Broughty doesn't beauty in new

\* A plan does not imply anything about, form  
or expensive but is a putting a simple  
line to arrange space & materials to  
create the effect desired. It may be a  
very simple one or an extremely elaborate  
— a systematic method of forming results  
ult. success or failure of a place depends  
of reg's depends upon the suitability  
soundness & beauty of the design

When making a design every single thing  
must be correct if it is to fulfill the  
req'm'ts to be a thing of beauty.

The relation & combining of parts to make  
any whole, whether a garden, a city  
or a dinner is a continuous designing

Use & beauty go hand in hand.

The simplest most direct design that  
meets the need is always best

I want to defend

Summer  
Bummer  
children turn  
wood fast  
complaint  
gave con

### INTERESTED IN LANDSCAPE GARDENING?

Here is a marvelous opportunity for anyone who is interested in planting and would like professional advice in planning her garden.

Historic Homes, Inc. (Farmington), is initiating a program which they hope to pattern after Williamsburg; a center of beautiful gardens and antiques.

To begin their program Anne Bruce Haldeman, a landscape architect and president of Farmington, will preside over a lecture discussion course called "Landscape Design and Planting." Two courses will be offered, each for a six week period, beginning the third week in January. One for beginners, Monday 10:30 to 12; the other, more advanced group, Thursday 10:30 to 12.

The course will include slides, lectures, open discussion of problems, and one individual consultation on your particular interest or problem. The cost is \$25 (proceeds go to Farmington) and there will be a limit of 25 people. Anyone interested call Alberta Allen, TW 6-6225.

10

*Jr. League Newsheet—*

*This is a re-write of my copy. I see no merit in  
sticking to this — Ene Alberta —*

The Filson Historical Society

FOR THE BENEFIT OF FARMINGTON

ANNE BRUCE HALDEMAN  
A. S. L. A.

LANDSCAPE ARCHITECTURE  
AN ELEMENTARY AND AN ADVANCED COURSE  
WILL BE GIVEN BY

If you would like to have any  
particular subject covered,  
please note here.

TEL. NO. \_\_\_\_\_

ADDRESS \_\_\_\_\_

NAME \_\_\_\_\_

Each class will meet once a week for six weeks, at Farmington, from 10:30 A.M. till 12 M., the Elementary Class on Mondays, beginning January 18th; and the Advanced Class on Thursdays, beginning January 21st.

As the classes must be limited in size, applications will be accepted in the order they are received.

If you care to attend, please fill in blank on back of this folder; and send it with your check for \$25.00 made out to Historic Homes Foundation to

Mrs. Charles W. Allen  
Glenview, Kentucky

A principle of design and its practical application will be covered at each meeting. Special emphasis will be given to harmonious combinations of plant material for various uses, with cultural directions that are necessary for their success.

A short discussion period will be held at the end of each meeting so that individual problems of common interest may be taken up.

Prepared at El. Blahem's  
Request for Hearing on Zoning  
Law property in City & County

6/9/62

OUTLINE OF BEGINNERS' LANDSCAPE COURSE GIVEN  
AT  
FARMINGTON, JANUARY-FEBRUARY, 1960

- #1 - Monday, January 18th  
The Design Plan
- #2 - Monday, January 25th  
Construction - Slides to Illustrate
- #3 - Planting Composition  
Monday February 1st
- #4 - Monday, February 8th  
Plant Material - Slides to Illustrate  
Trees, for Various Purposes  
Flowering Trees & Shrubs  
Evergreens- Broad leaved & Coniferous  
Vines & Ground Covers
- #5 - Monday, February 15th  
Plants for Special Uses
- #6 - February 22nd  
Maintenance  
Soils, Fertilizers, Compost  
Diseases & Pests  
Cultivating, Watering & Feeding  
Pruning  
Winter Protection

OUTLINE OF ADVANCE LANDSCAPE COURSE GIVEN  
AT  
FARMINGTON, JANUARY-FEBRUARY, 1960

- #1 - Thurs. Jan. 21  
Landscape Design's Fundamental Principles  
Placing the House  
Arrangement of entrance, service and pleasure areas to make a unified, harmonious whole, fitted to its site & purpose.
- #2 - Thurs. Jan. 28  
Construction  
Grading, Drainage, Terraces & Walks, Steps, Walls & Fences, Pools & Fountains.
- #3 - Thurs. Feb. 4  
Theory of Planting Design  
Form, Texture & Color  
Way to combine trees and shrubs for harmonious effect.  
Use of plant material for specific purposes:  
"Foundation Planting", Boundaries, Trees for shade, Flowering Trees & Shrubs, Evergreens.
- #4 - Thurs. Feb. 11  
Design of the Garden  
Connection with house  
Enframement, privacy, proportion, shadows, a place to sit.  
Charm  
Architectural Features  
Different Types of Gardens - Green Gardens, Flower Gardens, Vegetable & Cutting Gardens, Rose Gardens, Herb Gardens, Wild Gardens, etc.
- #5 - Thurs. Feb. 18th  
Plants for Special Purposes & Conditions  
Shade, sunny dry banks.  
Hedges, Standards, Espaliering.  
Different Classes of Plant Material:  
Bulbs, Tubers, Perennials, Annuals, Biennials, Roses & Lilies
- #6 - Thurs. Feb. 25  
Maintenance, Labor Saving Practices & Propagation



Outline of Landscape Course given at  
Farmington (to raise money for garden)  
Jan, Feb. 1960 Advanced

(1) Thurs. Jan. 21st

## Landscape Design - Fundamental Principles.

Placing the house -

Arrangement of Entrance, service & pleasure areas to make a unified harmonious whole, fitted to its site & purpose.

Th. Jan. 28

(2) Construction

Grading, Drainage, Terraces, <sup>Walls</sup> Walls, Steps, Fences & Fences.

Feb. 4

(3) Theory of <sup>Planting</sup> Landscape Design  
Form, Texture & Color:

Way to combine trees & shrubs for harmonious effect  
Use of plant mat. for specific purposes:

(1) Boundary, Foundation Planting,  
(2) Trees for shade, Fl. trees & shrubs,  
Use of Evergreens

Feb. 11

(4) Design of the Garden

Connection with House:

Improvement, proportion, shadows, <sup>Charm</sup> Architectural features

Different Types of garden



1960  
Feb. 18

5.

Special Plant Forms - Herbs, 3 lbs, Espalier.  
Different <sup>types</sup> of Plant Material.

Bulbs, Perennials, Biennials, Annuals.

7

Seeds, Etc.

Feb. 25

6

Maintenance.

The Filson Historical Society

Jan 14, 1960

## Plan of Course - Requirements

1. Talk design principles
2. Give specific fl. effects.
3. What to do each month.
4. Discuss class question

(1) Jan. 18 A. The Design Plan  
B. Marketing Plan  
C. Sp. 21. Effects  
D. What to do for 7m fl.  
E. Class Problem

(2) Feb 8

Vines & Ground covers  
Fl. Trees & Shrubs.

Slides & photos

(2) Jan 25 A. Construction  
grading.  
fences  
steps  
walls  
etc.  
→ Slides

(3) Feb 15

Plants for Special Situations  
Shade  
Hill, etc.  
Under trees, etc.

(3) Feb. 1. Planting Design  
→ Tree  
Shrub  
Fl. for trees  
(7-10 samples).  
Vines  
Ground covers

(4) Feb 22

Maintenance  
Slides

Plan of Course - Advanced  
Starting Th Jan 21 '60

#1 Jan. 21st

# 6 Feb. 25<sup>th</sup>

# Planting Design - Theory of Ext. & Foundation Planting

Shade Trees.

1<sup>st</sup> Period of Olson — Combination  
(go over list & describe)  
40 Do 2m January

## Different Classes of Plant Material Bull.

Shelia 9 nix  
Pammi  
Hen.  
Selie's  
Rosa

#2  
Jan. 28<sup>th</sup>

3. Coconstruction mol: *Grading*  
*Vinea (Clematis)*  
*Ground cover*

Slides

2<sup>nd</sup> Period of Bloom & Contraction  
70 Do 2<sup>nd</sup> Feb.

#3  
Feb. 4<sup>th</sup>

## Screen + Boundary Planting

Evergreen - BT, Lr. & Con!

Hedden

Fl. Trees & Shrubs.

### 3<sup>rd</sup> Period of Bloom & Combs

7<sup>th</sup> Dec 7<sup>th</sup> March

# 4  
Feb. 11<sup>th</sup>

# The Garden

## Design, Construction & Planting

Shows Different Types of Gardens —

4<sup>th</sup> - Period of Blood & Conjunction

7<sup>th</sup> Dec 1941

Pran G. Jindan

Flower - 1 "

Rosi - " -

hold "

Il. Pat

Anthony & Kay

#5  
Feb. 18<sup>th</sup>

## Plants for Special Conditions

Shade, along dry banks, etc.

It was L. Smith that Co. B. Trained in walls &  
How to do it.

" " " " " " Made into Shards

## BIBLIOGRAPHY

- LANDSCAPE DESIGN - Hubbard & Kimball. Introduction To The Study  
of Landscape Design. Macmillan.
- GENERAL MANUAL - - Bush-Brown, L. & J. America's Garden Book. Scribner.
- Cyclopaedia of Horticulture - Liberty Hyde Bailey
- STANDARDIZED PLANT NAMES
- MANUAL OF CULTIVATED PLANTS - L. H. Bailey. Macmillan.
- TREES & SHRUBS FOR LANDSCAPE EFFECTS - Marion Coffin. Scribner
- TREES FOR AMERICAN GARDENS - Donald Wyman. Macmillan
- SHRUBS & VINES FOR AMERICAN GARDENS - Donald Wyman "
- HEDGES, SCREENS & WINDBREAKS - Donald Wyman. Whittlesey House
- GARDENING IN THE SHADE - H. K. Morse
- PERENNIALS IN THE GARDEN FOR LASTING BEAUTY - Potter. Criterion Books
- ANYONE CAN GROW ROSES- Cynthia Westcott 1954 Ed. Van Nostrand
- BURRAGE ON VEGETABLES - A. C. Burrage 1954. Van Nostrand
- HERBS, HOW TO GROW THEM & HOW TO USE THEM - Webster. Branford Press,  
Newton, Mass.
- FRUITS FOR THE HOME GARDEN - Brooklyn Botanic Garden
- (THE NEW BOOK OF LILIES - Jan de Graaff. Barrows
- (GARDEN LILIES - Isabella Preston. Orange Judd Publishing Co.
- COLOR IN MY GARDEN - Louise Beebe Wilder. Doubleday.
- COLOUR SCHEMES FOR THE FLOWER GARDEN - Gertrude Jekyll. Scribner
- GARDEN MAKING - Elsa Rehmann. Houghton Mifflin
- CLEMATIS - Ernest Markham. Country Life
- FIELD BOOK OF AMERICAN WILD FLOWERS. F. Schuyler Mathews. G.P. Putnam's
- THE PLANT DOCTOR - Cynthia Westcott. Lippincott
- ARISTOCRATS OF THE GARDEN - E. H. Wilson. Stratford Press
- GARDEN LIGHTING - Nightingale. Knight Publishing Co., Altadena, California
- PLANT PROPAGATION IN PICTURES - Montague Free. Doubleday
- WINTER FLOWERS IN THE SUN HEATED PIT - Kathryn Taylor & E. W. Gregg. Ronald Press.
- PRUNING - Brooklyn Botanic Garden 1952
- HOW TO KNOW THE FERNS \* Frances T. Parsons. Scribner's
- HANDBOOK OF GARDEN IRISES - W. R. Dykes. Martin Hopkinson, London

How I have enjoyed this 21 magazine  
and so much of you!

14 FEATURES THE COURIER-JOURNAL, LOUISVILLE, KY.,

# Landscapes Bud In Class, Await Spring

By Lynn Fentress

**A**ND how does your garden grow? If you're one of the 60 students of Anne Bruce Haldeman, it should be growing much better by now.

The last of her six-session classes on gardening problems and design will be held today from 10:30 a.m. to noon at Farmington. The beginners classes ended Monday.

Miss Haldeman, soft-spoken Louisville landscape architect, says that this is the fourth time she has taught the class, "all for the love of Farmington—that's where the money (\$25 is charged for the six-session course held there) goes—towards a garden at Farmington."

The purpose of the class, held informally at the national shrine, is "to teach a theory of gardening and then how to execute this theory."

"The student first learns how to design a garden, terrace, or what-have-you, and then draws a plan of his property."

"This way all the mistakes are made on paper—much less expensive. Lastly we go into the actual planting."

## Start Out Right

Miss Haldeman, a true lover of flowers, says that if you are going to have a garden, you should start out right and have a good one. "For instance, the word horticulture comes from hortus—garden. The definition says: an enclosed space, distinguished from agriculture. A garden should always be enclosed, whether by hedges, shrubs, or walls."

"A garden should be a pleasant place to sit, so there must be trees—they are the background of your design. A garden should fit in with your house, so you will have to decide about beds or open garden."

One of the members of the class is interested in pruning, because "everything is just going wild," she said. "All my plants are going off in all directions."

Miss Haldeman announced that pruning



A planting pocket at the Woodhill Valley Road home of Mr., Mrs. Frank Thompson, Jr., was discussed at the Farmington landscaping class in which Mrs. Thompson, Jr., left, is a beginner; Mrs. Frank Thompson, Sr., advanced.

should be done right after the blooming period.

"It's dreadful to prune from the top," she said. "Always rejuvenate from the bottom."

Another member of the class asked about boxwood. Miss Haldeman immediately said, "Never cultivate boxwood. March is the best time to trim it, but don't clip it. Clipping ruins the shape for a year."

"There's only one trouble with boxwood—the box-leaf minor, a kind of worm."

A common problem among the 34 members of the beginning class is how to plan a rose garden.

"A rose garden takes a lot of planning," Miss Haldeman said. The color scheme needs thinking out carefully be-

cause roses can be monotonous without accents.

"With a rose garden use either grass pads or some kind of green edging—maybe boxwood, since it's good around Louisville. Shrub roses are nice as a background."

One member in particular has an interest in roses. Her next-door neighbor has bought roses for the joint property between the two houses.

And it is up to the landscaping student to take care of them. "I'll be so worried that I'll be out every minute watching them."

"One important thing to remember is that flowers do not bloom overnight. You must be patient. In two or three years a garden will be pretty and in bloom, but not right away."

## MINISH & POTTS

### Florists

Greenhouse Fresh Flowers

— STORES —

1565 Bardstown Rd. 110 Fairmeade Rd.  
Glendale 1-8500

GREENHOUSES — Crestwood, Kentucky

Telephone CH 1-4626

JEWELRY

BAGS

IMPORTER  
*Weinbergers*  
Gowns

HATS BY CLARA

JUNIOR DRESSES - COATS - SUITS

### Finest in Music

Pianos — Records — TV — Hi-Fi  
Hammond Organs — Sheet Music  
Band Instruments

*Shackleton Piano Co.*

LOUISVILLE

## Landscape Architecture Courses To Be Held

Miss Ann Bruce Haldeman will conduct two courses in landscape architecture, one a beginner's and the other an advanced course, all the proceeds of which will be her gift to Farmington. These courses will start the second week in January, running six consecutive weeks, each lesson an hour and a half long.

Every member of the class will have a private consultation at the end of the course concerning any one particular part of her garden or grounds, which she will learn to draw to scale. The fee for each course is \$25.00. For further information please call Alberta Allen—Mrs. Charles Allen, Jr., TW 6-6225, and since the classes are limited in number, please call her as soon as possible.

MARGARET HILL PFEIFFER  
Gardens Chairman

## REMEMBER

Duplicate Bridge is played every first Thursday at Committee House.

The Winners in November were—

NORTH & SOUTH—(1) Miss Rosalia Kurz, Mrs. George Broadus. (2) Mrs. J. W. Wyman, Mrs. John Gruber.

EAST & WEST—(1) Mrs. Wilbur S. Ball, Mrs. Thomas E. Lipscomb. (2) Mrs. Lauren Anderson, Mrs. C. Marshal Beard.

The Winners in December were—

NORTH & SOUTH—(1) Mrs. Louis R. Stutz, Mrs. David Musselman. (2) (tie)—Mrs. George Evans, Mrs. George Maier and Mrs. Henry Breed, Mrs. Arthur King.

EAST & WEST—(1) Mrs. Wilbur S. Ball, Mrs. Thomas E. Lipscomb. (2) Mrs. Victor B. Gerard, Mrs. Markham Snyder.

Growers of DAFFODILS • LILIES

**OREGON BULB FARMS**  
An Oregon Corporation



GRESHAM, OREGON

Mail: BOX 512, GRESHAM, OREGON  
Telephone: GRESHAM, MOHAWK 5-4498  
Telegrams: PORTLAND, OREGON

*Jan de Graaff*  
President

Miss Anne Bruce Haldeman  
Glenview  
Kentucky

Dear Miss Haldeman:

Under separate cover, we are sending you the collection of Lily slides that you requested for your February 22nd meeting.

Enclosed herewith you will find a mimeographed list, which identifies the slides, as well as some notes for a lecture on Lilies.

Please return the slides promptly after your meeting. There is no need to return the mimeographed material.

Sincerely yours,

*(Mrs.) Rayna Kline*  
Secretary to Mr. de Graaff

February 12, 1960.

The Filson Historical Society

We give no warranty, express or implied, as to the truth, accuracy, quality, production, or any other matter of all goods we send you, and will not be responsible for the loss of or damage to goods in transit.



## Outline for a Lecture on Lilies

by Jan de Graaff, Gresham, Oregon

What is a lily? - This is the first question that confronts all of us who are interested in these beautiful flowers. Liberty Hyde Bailey, the dean of our American botanists, gives us the following definition:

✓ "A lily is a perennial, erect, leafy-stemmed herb, with an underground scaly bulb. The flowers are pendulous, inclined, horizontal or erect, solitary or clustered, with six separate segments which are scarcely differentiated as between petal-like and sepal-like organs, each bearing a nectar-groove at the base; there are six stamens."

✓ Lilies are then a well-defined genus of the plant family and one that is unusually diverse in form, color, habit and season of flowering. They are also one of our most beloved flowers. It is no wonder that a great number of our more spectacular flowering plants are often wrongly identified as lilies. A list of these "lilies that are not lilies" includes more than a hundred names, such as the Calla Lily, the Sword Lily or Gladiolus, the Lily-of-the-Valley and the Water Lily.

✓ There are eighty-seven known species of lilies. Some of them will again, we can be sure, be relegated to the role of sub-species or even to that of regional variations of other, better-known wild lilies. It may also be possible that true species are yet to be discovered. Recent scientific investigations point to the existence of at least one trumpet lily which has not yet been found.

In the beginning there were nothing but wild lilies. Europe, Asia, India and American all contributed their share. In fact, lilies were found in all parts of the Northern Hemisphere. They seem to have become cherished garden plants just as soon as man settled down and built himself a home. Some lilies, notably the pure white Madonna lily, were supposed to have medicinal qualities and were, undoubtedly, cultivated for this reason. At the same time, these lilies must have had a strong appeal for purely aesthetic reasons for we see them depicted on the earliest pottery from Crete, made as long ago as two thousand years before the birth of Christ. An early Egyptian relief, now preserved in Paris, France, shows women gathering lilies and others pressing them to obtain the ethereal oil.

Later on, during the first centuries of our Christian civilization, the lily became a symbol of purity and as such it plays a part in our religion. It is mentioned in the Bible, although the "lilies of the field" may actually have been members of the onocycclus iris family rather than true lilies. Primitive paintings of the Annunciation usually show the Angel Gabriel handing a white lily to the Virgin Mary. Leonardo da Vinci drew a detailed pencil sketch of the Madonna lily, a flower stalk identical in every respect with the old-fashioned type still grown in our gardens.

✓ Ever since the Middle Ages, lilies have played an important part in the gardens of the Northern Hemisphere. As new worlds were discovered, they too contributed lilies, plants eagerly sought by the keen amateur gardeners of those days. Thus soon after the discovery of Canada by Jacques Cartier, L. canadense was brought to Paris and to London. When trade with Japan and China became possible, lilies were among the first plants brought from those countries. With the discovery and the development of the West Coast of North America, the fine lilies growing there were soon collected, named and distributed to growers in other parts of the world.

✓ L. candidum, the Madonna Lily, and several European species were grown in English gardens as early as the year 1600. L. canadense is already described in John Parkinson's "The Garden of Pleasant Flowers" which appeared in 1629. Other lilies grown at that time were L. aurantiacum and L. chalcedonicum, the "Red Martagon of Constantinople." Two hundred years later, in 1832 to be exact, L. speciosum rubrum arrived from Japan and another thirty years later L. auratum, the famous "gold-band" lily. L. Henryi, which was to exert such a great influence on our modern garden lilies, did not arrive until 1889 and L. regale was not found until 1903. Even as late as the year 1948 some lilies were discovered in China that may well prove to be an entirely new species.



The history and timing of these lily introductions are of great importance to us gardeners. On these wild lilies, each one perfectly at home and thriving in its peculiar climate and soil, rests the foundation of our garden lilies. Like most wild plants they are particular in their requirements. Transplant them to your garden where they will meet with different conditions and the results are, as a rule, not good. Why is this so? Why is it that Parkinson could say of L. chalcedonicum, a species so difficult to grow in American gardens, that "it is become so common everywhere, and so well known to all lovers of these delights, that I shall seem unto them to lose time, to bestow many lines upon it; yet because it is so fair a flower and was at the first so highly esteemed, it deserveth his place and commendations, howsoever encreasing the plenty has not made it dainty."

There are several reasons for our difficulties with such wild lilies in our garden. One is that with our increasing population and the resulting intensive land use, the incidence of pests and disease, both under and above-ground, has increased at an even faster rate. Our gardens, all too often filled with the debris of plants that succumbed to rots and diseases, offer quite a different medium of growth to our lilies than what they are used to in their wild surroundings. The air we breathe is different, the chemical content of the soil is different, yes, even the texture of our soils is by no means like that of virgin soil. The wild lily meets with conditions for which it is not prepared.

In the case of the L. chalcedonicum or of L. candidum, both grown in garden for thousands of years, we can assume that through a natural process of survival of the fittest only those individual plants persisted that proved to have an adaptability to changed conditions. Gardeners worthy of the name have a quick eye for outstanding plants. Undoubtedly they propagated and multiplied only their finest lilies. In the case of other species, especially those of recent introduction, no such long and large-scale process of selection, natural or otherwise, has taken place.

Apart from the selection of the fittest after the lilies reached civilization, we may well consider that it is reasonable to assume that the botanist or plant collector who found the lilies in their native habitat, took those that were most accessible to transportation. In the case of some fine species, L. japonicum for instance, we have already found that the cultivated strains we know today are by no means the best nature has produced.

It is different when the wild lilies are entirely homegrown. By having seed of wild lilies collected and by raising it in isolation, the grower can observe a large group of healthy specimens in one field - an opportunity but rarely, if ever given to a botanist or plant collector. If the grower raises a large quantity of plants the chances are very good that he will see the full range of possible variations. He can then select for further seed production, not only the prettiest, but also the most vigorous plants, those that seem to be well adapted to his local soil and climatic conditions.

Furthermore, by pollenizing the hundred or so finest plants with pollen from the two or three most outstanding, he can raise the average performance, uniformity and beauty of the strain with astonishing rapidity and startling results. Improved strains of L. martagon album, L. amabile luteum and of lilies like L. concolor and L. cernuum - none of them easy to grow - have been raised in this manner. In three generations the colors of these lilies have been clarified and intensified, the vigor and the balance of the plant improved and even the spacing of the flowers and their size brought in proportion to the length of the stem. This work is now being accomplished on a large scale by many growers. Our wild lilies are being tamed without diminishing their beauty or detracting from their charm.

By crossing different strains within one species we have found that the vigor, the resistance to disease and the adaptability of the plants to changed conditions can be increased to a very great degree. To mention but one instance, crosses between the wild Madonna lilies still found in Greece and the centuries-old strains grown in France produced new, vigorously growing forms of Madonna lilies with an astonishing

resistance, almost an immunity, to the attacks of the botrytis fungus that causes the ugly spotting of the green foliage and makes it turn brown just when the lily is in full flower.

While among such seedlings, raised within a species, a great deal of variation can be found, it is obvious that we should limit ourselves if we did not also take recourse to crosses between different species. We know from our experience with other plants that inter-specific hybrids have additional vigor and that new forms, new colors and new habits can be obtained in this manner. The "Bellingham" hybrid lilies, the result of cross-pollinations between various species of Pacific Coast lilies, show many new forms and colors. They also have a far greater range - they will grow over a wider geographic area and in far severer climates - than any of the wild lilies used to raise this strain, first by Luther Burbank, then by Dr. David Griffith and more recently by the author on his Oregon Bulb Farms.

We may, therefore, well ask ourselves why this work of improving the lilies for our gardens was not done at an earlier date. Contrast this with other popular garden flowers, hybridized and improved for hundreds of years. Why did the lily lag behind? It cannot have been due to lack of interest, for all contemporary reports on even the oldest gardens mention the lily as a plant beloved and praised, second to none. If we look over the history of ornamental gardening, we find that the tulip, the iris, the rose and almost all other garden plants made astonishing progress during the past three hundred years. Yet, the lilies in our gardens today are virtually identical with the wild species still growing in their native habitat.

The explanation of this unusual condition is complex. To examine it is to delve not only into the history of the lily, but also to review the advances of science. Without them the new lilies could not have been born. Nor could new lilies have been raised much earlier because of the geographic distribution of the species. The hinterland of China, the remote mountain meadows of Nepal were not accessible to botanists until quite recently. Lilies from those regions, plants that were destined to play an important role in the development of the hybrid lily, did not arrive in the lily breeder's hands until the turn of the century.

If distance was an obstacle, so was the time of flowering. Some lilies flower in May and others in November. To cross two species with different flowering dates meant advancing the one and retarding the other, so that they would bloom at the same time. This process, in itself quite feasible, invariably impaired good seed production. It was not until some fifteen years ago that ways and means were found to preserve pollen from early flowers so that it could be used on later blooming species. The significant work done at the Boyce-Thompson Institute of Yonkers, New York, showed that pollen could be kept in viable condition for many months at approximately fifty degrees Fahrenheit and fifty degrees humidity. This discovery proved to be of the greatest importance to lily breeders. From 1926 on, when this work was published, widely spaced flowering dates of our lilies were no longer a barrier to hybridization.

Other problems yet remained. Seed could be raised from certain hybrid crosses, but its mortality in the nursery or in the greenhouse was abnormally high. This was due to several factors. One was that different lily species show a great deal of variation in the time of germination. Some seed prefers to stay dormant for a long time, some needs a cold period and other seed needs constant heat to start its growth. When not treated correctly, the result is weak growth and heavy losses due to "damping off" and other fungus diseases. It was, in fact, not until new fungicides were put on the market and also the growth habits of our lilies were better understood that this high mortality could be overcome. The new material "Vermiculite," used as a sterile surface mulch, has also helped to keep lily seedlings healthy.

It was actually not until the Regal lily became available in quantity and at low prices that the growers had plenty of seed with which to experiment. From that date on the mass production of lilies from seed was started. Large-scale production was essential, as we have seen, to bring out the variation possible in lilies so that the best, most adaptable types could be selected for further propagation. This is, of course, as true within the species as it is for inter-specific hybrids.

At approximately the same time that the Regal lily was discovered, our plant scientists cast a good look backwards and found that in the writings of an Austrian monk, Gregor Mendel, they had a key to the intricate processes of plant hybridization. Mendel published his observations about 1850. His work was largely overlooked until the year 1900, when after a world conference of plant geneticists, several of them went home and searched through their libraries for historical material, only to discover this revolutionary tract. These rediscovered laws of inheritance, whose truth was soon established, were made available in popular form and several practical growers used the information. Before Mendel's theories were known, ugly first-generation hybrids were invariably destroyed. After Mendel's work was interpreted for them, the growers realized that even if such first-generation crosses had no beauty, they might have other worthwhile characteristics that could be utilized in further breeding experiments.

Still other barriers existed, however, for certain species proved to be entirely incompatible with one another. Our scientists, to whom nothing is sacred, came up with an answer to that problem too. Applied to the base of the flower that is to set seed, a hormone, naphthalene acetamide in lanolin paste, seems to have a stimulating effect on the lily's fertility. Actually it made possible crosses that could not have been achieved heretofore.

Practical growers also contributed valuable help in making it possible, by means of intermediate hybrids, to cross incompatible species. Thus, when we cannot cross species A with species B, it may very well be possible to raise a hybrid between A and D and one between B and C and then have a successful union between the two hybrids. Once the sterility barriers are broken in this or any other manner, there seem to be few further barriers and, in most cases, hybrid seedlings can be produced at will.

Whether they be of hybrid origin or raised from invigorated, selected strains of true species origin, the new lilies are much more adaptable to garden use than those we have known in the past. Because they are new and their requirements are still unknown to many gardeners, they are, however, still not as easy to handle as the daffodil, the tulip or the iris. Of those plant families, the varieties that have come forward as dependable performers in the gardens of our country are the result of many, often hundreds of years of breeding and selection. With lilies, especially the exciting new kinds now being offered, we have had not more than ten years' experience.

Much has been said about the incidence of disease in lilies. When we see how the bulbs are handled in the dime stores, when we see how even many of our dealers fail to display any understanding of the lily's basic needs, it is a miracle indeed that lilies have survived at all in our gardens. Far from being weak and frail, subject to every ill that can befall a plant, the lily has proven by its persistence that it is a robust plant. In order to understand how to treat lilies, we must erase from our minds many preconceived notions. In their place we must put the new concept of the lily as a hardy, dependable and vigorous garden plant. Failures with lilies can generally be ascribed to poor methods of handling, either by the grower, the dealer or the gardener himself.

In the first place, we must reconsider the lily's habits, how it lives and grows; what it needs in the way of food, of light and of climate. In the second place, we must re-appraise the dangers, the pests and diseases that threaten it. Some of the answers apply to all lilies, wild or cultivated. The more tamed they are, the more hybrid blood is fused in them, the more resistant they become to diseases.

A lily is a plant. From the gardener's and the dealer's point of view, it should be considered as such rather than as a bulb. As a plant, it needs to be kept growing, moist and cool even in transit or in storage. It must never be compared to the tulip, the daffodil, the crocus or to any other so-called "dormant" fall bulb. As a plant its root system is part of its very life. It is part of the lily's food storage and literally "an anchor to windward." With its strong roots left intact and growing, the newly planted bulb grips the soil. If planted too shallow, the roots can pull it down; if planted in a windy spot, the roots will sprout and try to hold the stem steady. Here is one answer to the question why so many

infection can occur and spread at an astonishing speed.

The new insecticides, so lethal to all insect vectors, have proven to be a most efficient curb to the spread of virus. This fact, coupled with the advent of resistant and immune hybrids and strains, has lessened both the danger and the incidence of virus diseases in lilies. It should not be overlooked in this connection that a similar problem existed in tulips, one that was overcome without these new aids that our chemists, our plant pathologists and entomologists have given us.

The well-known tulip craze of Holland was based on "broken" tulips, plants that because of virus infection had become striped and "feathered" both in the flowers and in the foliage. The plain-colored tulips, were called "breeders" because they produced the broken ones. While the disease was not recognized as such and healthy as well as virus-infected plants were grown side-by-side, it is curious to note that both healthy breeder tulips and "broken," that is, diseased, bulbs of those days persist to the present. The resistance to virus in the newer breeder and Darwin tulips is such that hundreds of acres of them can now be grown in contiguous fields without any danger of virus conditions getting out of hand. This will soon be true of lilies.

Exactly the same can be said for other diseases that are often cited as so prevalent in lilies that very special precautions must be taken against them. Basal rot, for instance, is a condition that occurs in certain strains. It need not appear, however, if the grower takes ordinary precautions and operates his nursery and packing sheds under modern, sanitary conditions. Scale rot and other fungus attacks can be either cured or checked by several modern chemicals such as a dip in a mild solution of formaldehyde in water. Gophers and mice are problems not peculiar to lilies.

Summing up, we can say that we stand on the threshold of a fascinating new world of lilies. The concept we had of the garden lily, that of a frail plant that needs special care and attention to live, must be revised. The thrill our grandparents must have had when they saw the first strong-growing hybrid daffodils, the thrill our parents had when the new long-stemmed and robust tulips made their appearance, is now ours when we grow the new lilies in our gardens.

All of us, gardening at this time, at the half-way mark of the twentieth century, are greatly privileged to have this opportunity. We know a little more about the laws of genetics than did our parents. We better understand the complexity of the problems involved. If we now plant these new lilies, the hybrids and the strong-growing improved strains of the species, we are all taking part in an exciting adventure. Our experience with them, our successes and our failures too, if analyzed and shared with our fellow gardeners, will add to the common fund of knowledge and serve as a guide to the next gardener who plants them.

By virtue of their beauty, their vigor and their symbolic value, the new lilies are plants for everybody and for every garden. As loyal admirers, we should spread their fame and encourage their use.