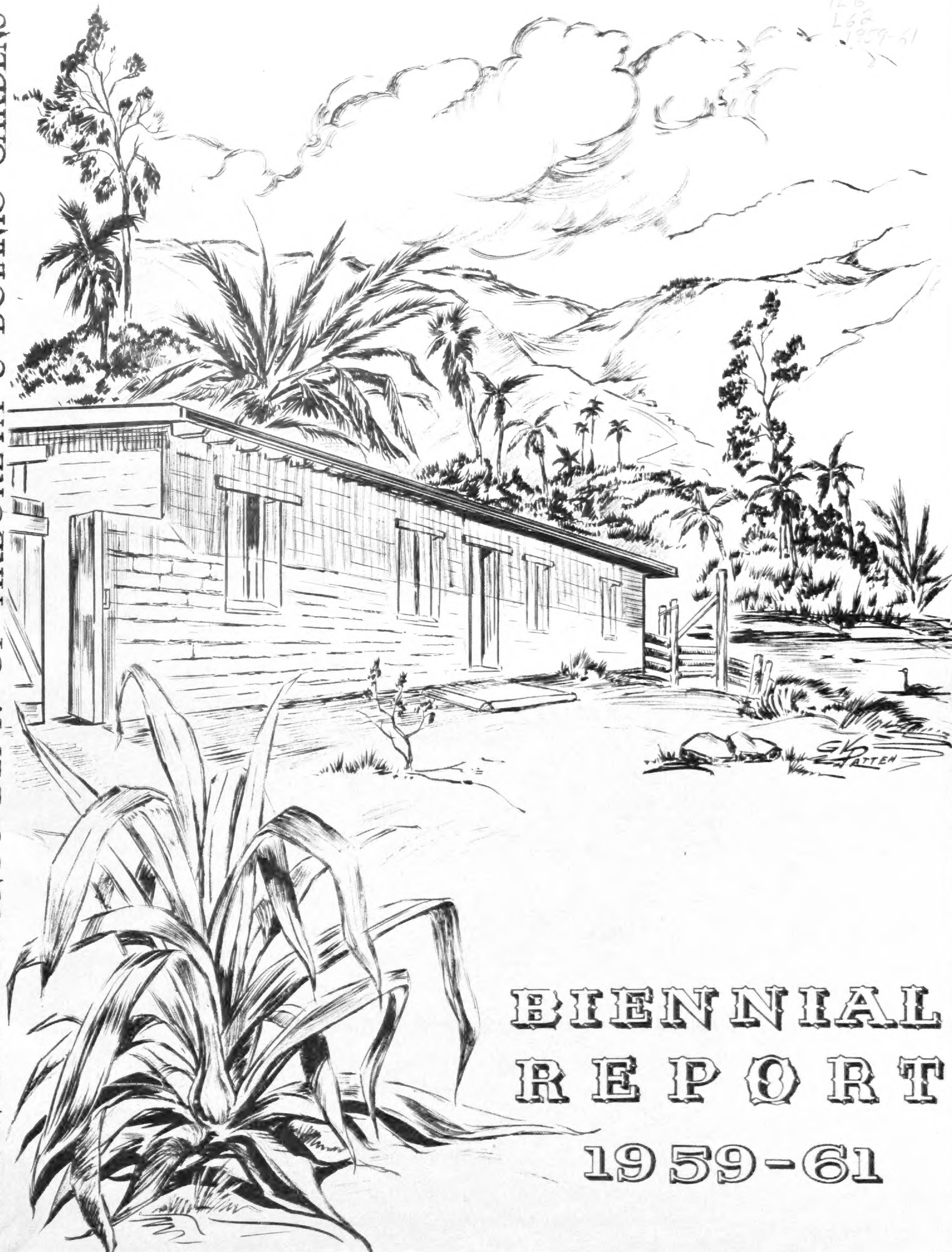


LOS ANGELES COUNTY DEPT. OF ARBORETA & BOTANIC GARDENS

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1959-61



**BIENNIAL  
REPORT  
1959-61**

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One Appointment Pending

WILLIAM S. STEWART Director	GEORGE H. SPALDING Secretary
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### About the Covers

Front - Sketch of Hugo Reid Adobe which was formally dedicated on Cinco de Mayo (May 5) 1961. The Adobe was originally built in 1839 as a residence for Hugo Reid and his Indian wife, Victoria.

Back - A picturesque view of the "Queen Anne Cottage" originally built in 1881 by E. J. "Lucky" Baldwin with a natural 5-acre spring-fed lagoon in the foreground.



COUNTY OF LOS ANGELES  
DEPARTMENT OF ARBORETA AND BOTANIC GARDENS  
LOS ANGELES STATE & COUNTY ARBORETUM  
301 NORTH BALDWIN AVENUE  
ARCADIA, CALIFORNIA  
HILLCREST 6-8251      MURRAY 1-5277

WILLIAM S. STEWART  
DIRECTOR

GEORGE H. SPALDING  
ARBORETUM SUPERINTENDENT

August 25, 1961

Board of Supervisors  
County of Los Angeles  
500 West Temple Street  
Los Angeles 12, California

Gentlemen:

The accompanying report for the period July 1959 to July 1961 presents information showing the wide range of educational and research services which this Department provided in the field of horticulture and botany.

It is significant to note that public attendance at both the Los Angeles State and County Arboretum and at Descanso Gardens for this past year has been 420,406 and 311,686 respectively, compared with an attendance in 1957-58 of 214,209 and 74,589. This increasing heavy usage of these facilities is indicative of their need by our increasing metropolitan population.

The education and research objectives of this Department offer each visitor some "take home" information. These objectives are in contrast to those found in parks where the emphasis, properly so, is on recreation. For the visitor with a purpose as well as the tourist the Home Demonstration Gardens, labelled plant collections, and demonstrations of correct plant care, provide a source of immediate information and self education. In the sense of formal education within the Department there are classes for adults and children and the Professional Gardening School. The demand for these classes far exceed our budget.

Under the research objectives mention is made of only one of a number of research projects. This is the "Fire Resistant Plant" study. As a result of this investigation, there are now three plant species that give promise of being much less inflammable than our foothill chaparral and yet are still able to survive without care under our erratic rainfall. These plants may be used as "fire-stop" barriers around homes, camp grounds, and along major highways through the fire danger zone of the foothills of Los Angeles County.

Please refer to the accompanying report for further details on these and other research and education projects in the Department.

In summary, the horticultural and botanical services of this Department provide you with a means of appreciation for plants which inescapably everywhere form the background for living for you and your children.

Respectfully submitted,

*William S. Stewart*

William S. Stewart  
Director

WSS:mvf

## PART I. Activities of the Department

During the past two year period, the Department has undergone substantial organizational changes. Effective July 1, 1961 these informal reorganizational changes will become official. There will then be five (5) major divisions -- Administrative Services, Education, Arboretum Development, Research, and Descanso Gardens. Therefore, all information in this report will be based on the new organization plan.

Descanso Gardens completed its three year probationary period and on February 28, 1961 the Board of Supervisors officially proclaimed the Gardens a part of the Department of Arboreta and Botanic Gardens. Additional information on this Division is described in Part II.

Initial grading for the Arboretum Entranceway Development began in February 1961. As of July 1, 1961 all grading had been completed and two pools constructed. Remaining work involves construction of the East-West walls and providing electricity. This project and other Arboretum development work is discussed in Part II under the Arboretum Development Division.

The Hugo Reid Adobe was completely restored and furnished and a formal dedication was held on May 5, 1961. The Old Fashioned Rose Garden was completed in the Spring of 1961 and additional plantings made in the Historical areas. This work is discussed in Part II under the Arboretum Development Division.

Attendance at both the Arboretum and Descanso Gardens has increased significantly over the preceding years. Total attendance for both installation for the 1960-61 fiscal years was 732,092, an increase of 20% over 1959-60. Attendance to educational courses has likewise experienced sharp increases. Additional information on these subjects can be found in Part II under the Education Division.

Research projects and activities including the Slow Burning Plant project are shown in Part II listed under the Research Division.

The Department activities and attendance have continued to increase markedly although the total budget and staff has had only a very nominal increase. See Part IV for Financial Report.

### South Coast Botanic Garden

In response to numerous requests from the citizens of Los Angeles County, the Board of Supervisors took the following action which resulted in formation of the South Coast Botanic Garden.

"At the meeting of the Board of Supervisors on March 1, 1960, on motion of Supervisor Burton W. Chace, an order was adopted approving a recommendation of the Regional Planning Commission, as set forth in letter dated January 21, 1960, copy of which is attached, designating County Landfill No. I parcel in the Rolling Hills area of the County Sanitation District for use as a Coastal Botanical and Marine Garden. The designation is being made at this time even though it will be approximately four years before the area can be used for this purpose."

Accordingly on April 20, 1960, a tree planting dedication took place on the 87 acre future site of the garden. This will be the first coastal botanic garden in Southern California devoted to introduced plants.

In April of 1961 the Sanitation District completed fill on 3 acres of slope and turned this embankment over to this Department for test planting of ground covers. These have been made under the supervision of the Chief Horticulturist and planting ceremonies were held on April 8, 1961.

On April 28 the South Coast Botanic Garden Foundation, Incorporated was formed by a group of public spirited citizens to assist the Department in the development of the gardens. This is a non-profit organization which already has provided much support and help in making the earliest plantings.

## PART II. Operating Divisions

### Administrative Services Division

This Division is headed by the Senior Administrative Assistant who is responsible for all Departmental Functions, such as: personnel, payroll, safety, records and files, procurement of supplies and equipment, accounting, budget, Annual Report, custodial services, PBX, reception, security, building and road maintenance, administrative studies and procedures and supervision of division staff.

A comparison of the 1958-59 and the 1960-61 budgets is shown below and demonstrates increasing work load and responsibility placed on this Division.

	Approved Budget 1958-59	Approved Budget 1960-61
Salary and Wages	\$420,348	\$556,509
Maintenance and Operation	\$ 63,025	\$ 68,399
Capital Outlay	\$ 7,845	\$ 11,811
Total	<u>\$491,218</u>	<u>\$636,719</u>
Budgeted Positions	96.6	106.6

#### Personnel Section

The Payroll Units are responsible for determining monthly payrolls, salary advances, and for keeping personnel files, performance evaluations, and Blood Bank transactions.

#### Business Management Section

The Accounting and Procurement Units are responsible for: maintaining all budgetary and accounting control; the preparation of requisitions for services and materials, supply and equipment; the preparation of work orders for construction and maintenance of buildings and grounds and interdepartmental service change invoices. The workload of this Section has continually increased over the past two years. Almost 1,400 requisitions were written and processed during the last year, representing an increase of over 300 from the previous year.

#### Services Section

The Communications Unit is responsible for processing over 60,000 calls a year and personally directing over 4,100 persons at the information counter. This Unit's duties also include typing, mailing, sorting and filing. The Custodian Unit is now responsible for the maintenance of 46,069 sq. ft. of building area; an increase of 4,607 sq. ft. from 1958-59. The security of buildings and grounds is maintained by three guards who protect the facilities against fire and vandalism from the time the grounds are closed until 7:30AM seven days a week.

#### Administration Research Section

The Senior Administrative Assistant was responsible for studying and analysing the Plant Records Unit and also is currently preparing departmental instructions and procedures as a guide to better department management.

## Arboretum Development Division

This Division is supervised by the Arboretum Superintendent who is responsible for planting and complete maintenance of all plants, trees, and shrubs on the Arboretum grounds.

The period from July 1, 1959 to June 30, 1961 has again been a period of progress in the physical development of the Arboretum grounds.

If any one accomplishment can be considered more important than any other, the completion of the historical restorations probably is the highlight of the year. The State of California provided funds for; the reconstruction of the Hugo Reid Adobe; the rebuilding of the old Baldwin Boat House on its original site on the shore of the lagoon; and, the construction of an Old Fashioned Rose Garden as a part of the Victorian era.

The Hugo Reid Adobe has been refurnished in the period of its original occupancy (1839-40) by the Los Angeles - Pasadena Committee of the National Society of the Colonial Dames of America in California with assistance from the Los Angeles County Museum. Many of the items --- to be handmade and the attention to detail is noteworthy. "Wickiups," dwellings of the Gabrielino Indians, were constructed next to the Adobe. The grounds surrounding the Adobe have been landscaped with native shrubs, a vineyard, and an orchard of the authentic early varieties of plants grown by Hugo Reid. The Adobe was officially dedicated on May 5, 1961 (Cinco de Mayo) with a formal ceremony.

The Old Fashioned Rose Garden just south of the Coach Barn was completed during 1961 and is an outstanding addition to the grounds. It has been planted with 300 rose bushes in 50 varieties and species. These are all of the selections available to present day gardeners from the Baldwin era. There are types of roses grown prior to 1840 in one section and roses grown between 1840-1900 in another. On the east and west ends, adjoining the Rose Garden are orchard plantings of specially selected varieties of oranges, lemons, and grapefruit. These will give the public an opportunity to see what the fast disappearing Southern California citrus orchards looked like.

At the western terminus of the Fragrance Garden path, a small waterfall and pool have been installed. This was made possible through a donation from the Santa Anita Highlands Garden Club.

A  
RECENTLY DONATED  
CARRETA AND  
INDIAN WICKIUP  
ADJOIN THE  
COURTYARD OF THE  
HUGO REID ADOBE



The Home Demonstration Gardens have been a highlight at the Arboretum ever since their opening three years ago. During the period covered by this report, the Plant Collectors Garden has been completely redesigned and major changes have been made in the Family Garden and the Low Maintenance Garden section as well. In addition, various fence panels and roofing materials have been changed to keep the display up to date as new materials are available. The public response to the Demonstration Home Gardens has far surpassed expectations.



NEWLY COMPLETED PATIO DECK IN LOW MAINTENANCE AREA ADDS  
CONTINUED INTEREST TO DEMONSTRATION HOME GARDENS



The Plant Introduction and Testing Program is continuing and the highlight of the past year was the growing and planting in the field of a thousand or more Crape Myrtles (Lagerstroemia indica). These seedlings of selected plants were treated as seedlings with colchicine and will be grown for a period of at least three years, during which time selections will be made. This research program is an effort to produce better plants for use in Los Angeles County. Particular emphasis is placed on new colors, resistance to mildew, and growth habit. Two extensive turfgrass test areas have been installed in addition to those reported in the Plant Physiology section. One area involves a 120' x 250' rectangle entirely planted to the new Tifgreen Bermuda. This plot will serve the dual purpose of presenting a large area covered with one type of grass and since it is also an area available for flower shows, in this function it will present an excellent opportunity to observe the effects of heavy pedestrian traffic. The second turf plot is composed of a series of hybrid Bermuda grass trials in the Display Garden area. This series of hybrid Bermuda grasses are not yet available to the public but are being tested for their suitability as lawn grasses.

The Display Garden area has been exceptionally well received during the 1960-61 fiscal year, and has attracted much favorable comment from the public because of its beauty.

At the present time, a major forecourt and entranceway development project is under way. Gifts totaling \$56,000 in private funds to the California Arboretum Foundation have made possible the drawing of plans for the final development of the public entrance at the Arboretum. The completed project will represent a total outlay of approximately one-half million dollars of which 80% will be contributed by private donors through the Arboretum Foundation. Mr. Millard Sheets generously donated his time and talents, and, working with the Arboretum's consulting landscape architect, Edward Huntsman-Trout, has developed the broad concept for this new entranceway. Two of the proposed four pools to be built in this area have been donated and are now under construction. They have progressed to the point where the Arboretum's staff can begin basic preparation for landscaping this area. At the Arboretum fence line, a 15 foot high travertine marble wall will be constructed. From Baldwin Avenue there will be an intriguing vista into the grounds. Planting plans already have been drawn and it is expected that actual planting will begin within the next 60 to 90 days.

The past two years have been very busy ones for the Development Division and in addition to the projects mentioned above a continual program of increasing and adding to the plantings in the various sections has gone ahead.

### Tropical Plant Unit

Formerly known as the Orchid Section in the Research Division, this Section is headed by an Orchid Specialist who is responsible for all of the Department's orchid houses and plants. In addition, this Unit is directly responsible for organizing and coordinating flower shows and special displays at the Arboretum. Also this Unit has been responsible for participating in outside activities, shows and events.

A donation of an orchid greenhouse was received from Mr. and Mrs. Archibald Young of Pasadena. The greenhouse is 18' x 40' and has automatically controlled air-conditioning. This greenhouse completes the orchid propagating unit and now provides four houses of the same size, each with a different temperature and light range to create the optimum environment for the various orchid species. A 20' x 40' work and storage room was constructed by County funds adjacent to the growing houses. This room currently serves also as an orchid display area until the display greenhouse becomes a reality.

The Orchid Specialist went on a plant collecting trip to Costa Rica in November 1960, and thus permitted the Arboretum to acquire more than 1,500 rare plants which appreciably add to the prestige and research value of our collection. The trip was financed by The California Arboretum Foundation, Inc.

One of the outstanding shows connected with this Unit is the Southland Orchid

Show which was held in April, 1961 and was sponsored by seven orchid societies in Southern California as well as the Arboretum. Normally most exhibits of this nature are shown in the Lecture Hall and/or the Demonstration Home Gardens, but due to the extreme interest in this event the Orchid Show Committee rented a 13,000 sq. ft. tent to house the entire show and erected it in a central "Tifgreen" lawn area on the Arboretum grounds.



OLD FASHIONED ROSE GARDEN COMPLETED

IN SPRING OF 1961

FEATURES ROSES OF HUGO REID AND "LUCKY" BALDWIN ERAS

## Arboriculture Section

This Section, under the supervision of the Arborist, is responsible for all tree maintenance including trimming, topping, spraying, treating and removing trees within the Arboretum grounds, Descanso Gardens, and Lux Arboretum. Also, this Section provides high level technical-professional tree care for specialized tree collections within the Department.

Participation in tree seminars and conferences has helped to bring all phases of Arboretum tree knowledge to many cities and counties as well as to the general public.

During 1959-61, there were approximately 1,500 telephone calls regarding information on the care of trees and on control of various garden insects and diseases.

The workload of this Section continues to increase as the trees mature. The following is a resume of this Section's 1959-61 workload:

### Arboretum

Trimmed approximately 598 trees and topped 125 trees for the health and welfare of the trees and safety of the public; removed 338 dead and dangerous trees from the grounds; chipped brush to prepare compost as well as avoid hauling charges to the County dump; inspected 1,622 oak trees for oak pests and diseases; sprayed 3,932 oak trees for the control of oak moth, oak twig girdler, scale and aphids. Materials used include 860 lbs. of 75% wettable D.D.T. and 344 lbs. of 25% wettable malathion. In May of 1961, use of a new insecticide, Malaphene, proved to be extremely effective in combating infestations of insect types mentioned above.

### Descanso Gardens

Sprayed approximately 8,000 oak trees for control of injurious insects. Topped 135 trees, removed 91 dead trees and trimmed 469 trees for the safety and welfare of the public. Inspected 613 trees throughout the gardens. Hauled 74 loads of brush to the dump.

### Lux Arboretum

Topped 8 trees; trimmed 28 trees and removed 82 trees and shrubs. Hauled 19 loads of brush to the dump.

## Maintenance Section

The Maintenance Section supervised by the Senior Park Maintenance Man has continued to do an excellent job of non-horticultural maintenance of the grounds within the limits of the available staff. In addition to maintaining the sprinkler system and other routine maintenance chores, work was begun on the prototype of a new flower show structure for use at various facilities within the Department.

## Propagation Section

The Propagating Section supervised by the Plant Propagator has continued to produce 90% of the plant materials planted on the Arboretum grounds. Many herbaceous bedding plants are necessary for the Display Garden area and potted materials are needed for use in the Demonstration Home Gardens.

## Test Station Section

### Lux Arboretum Unit

The past year saw completion of the Master Plan for development of Lux Arboretum. General maintenance continued at a satisfactory level and a considerable area of undesirable brush, poison oak, etc., was cleared in preparation for development of the Master Plan as soon as funds become available.

### Palmdale Unit

The annual visitors day at the Palmdale Station was again a very successful event. An evaluation report was printed in the California Arboretum Foundation publication "LASCA LEAVES". The installation of a new waterline has aided materially in irrigating the plantings at this station.

### Descanso Gardens Division

This Division is supervised by the Superintendent, Descanso Gardens who is responsible for all maintenance and operation functions of the Gardens.

Attendance from July 1, 1959 to June 30, 1961 was 554,274 with 242,588 persons reported during 1959-60 and 311,686 during 1960-61. This is an annual increase of approximately 29%. Attendance for the 1957-58 fiscal year was 74,589. During 1960-61 attendance showed an increase of 418% during the first three-year period of operation by this Department.

The salaries, wages, maintenance, and operation budget for 1959-60 was \$144,061. For 1960-61 it was \$161,281, an 8.9% increase principally due to regular salary increases. Hereafter, all budget amounts will be included in the Departmental summary since Descanso Gardens is now officially a part of the Department.

Interest in the educational program continued at high level. Attendance for this program is reported under the Education Division's summary.

Numerous conservation projects were conducted and several educational displays were erected at Descanso Gardens, 7,442 jeep train tours were conducted for approximately 200,000 persons. Approximately 700 persons attended lectures sponsored by the California Native Plant Committee.

Capital projects completed included a new restroom at \$21,169.03 and the Native Plant Garden at \$4,000.

The Mechanical Services Department of the County performed the following major tasks: remodeled restrooms in the Garden House and installed a leaching system; installed a surplus heater in Children's Education Building; installed 2 new electrical circuits in Hospitality House; installed glass windows in Children's Education Building porch; refinished hardwood floors in Hospitality House; erected a screened enclosure for the Gate House.

Outstanding directional road signs were obtained by the Descanso Gardens Guild, Inc. and installed in the vicinity of the Gardens by the State Division of Highways.

Donations of plants and materials received from the Descanso Gardens Guild, Inc. for the benefit of Descanso Gardens totaled approximately \$5,518.

Donations of plants, material and labor from the Descanso Gardens California Native Plant Committee totaled approximately \$3,044.

Donations from other sources of plants and seed totaled approximately \$6,015.

### Physical Installations

A 2" - 700 foot long city water line was installed from the parking lot area to the Hospitality House. A parking area was made for 10 cars at the Hospitality

House and a new rest area and drinking fountain were installed at the entrance gate.

### Native Plant Garden Developments

All donated materials as well as ten Sequoia sempervirens were planted and additional areas were cleared of poison oak. A garden house called "El Portal" was built and the roadway beside the Native Plant Garden was paved. Later, garden benches and a drinking fountain were installed in the area.

### Overall Maintenance, Operation and Development

Maintenance personnel planted the following: 287 new and rare camellias in a cleared camellia foliage area; over 28,000 annual and perennial bedding plants; 2,000 anemone bulbs; 500 tulip bulbs and all donated materials including 50 pine trees, 20 red maples, 30 Magnolia grandiflora and 6 Ginkgo trees. A new nature trail through the chaparral was constructed. Over 1,000 new plant labels were embossed and installed throughout the Gardens. Approximately one mile of additional garden trails were opened for public use. The office area was moved from the service building to the building formerly occupied as a residence by the Superintendent. A new bridge was installed in Hall-Beckley Canyon and a new stream water intake completed.

Flower show exhibits were installed at the Palmdale Lilac Show, the Pacific Rose Society Show, and the Camellia Show at Disneyland Hotel. Approximately 10<sup>4</sup> weekly press releases for the two-year period were made covering all phases of Descanso Gardens activities as well as special activity release to radio and television stations. The outdoor eating area was doubled to seat about 100 persons and has served approximately 100,000 persons during 1959-61. Informative, laminated, plastic signs were made and installed in the Rose History Garden.

A private citizens Steering Committee was formed to assist in development of a Home Demonstration Garden. Committee members include: Howard Troller, Landscape Architect; Steve Sander, Architect; John Richter, Portland Cement Assn.; John Motshagen, Sprinkler Contractors Assn.; Charles J. Detoy, Descanso Gardens Guild, Inc. and John Threlkeld and Mark Anthony of Descanso Gardens. The Home Demonstration Garden project was approved by the Board of Supervisors and work is expected to start shortly after July 1, 1961.

Funds were allotted to develop a Master Plan for Descanso Gardens and work is proceeding on this project.

An exhibition beehive and an ant farm were installed in the Garden House as an educational display.

### Hospitality House Activities

This facility experienced its greatest period of use with 185 organized groups, totaling 11,010 persons reserving rooms for meetings. Such annual special events were presented in this building as Camellia Flower Arrangement Shows, 30,000 persons; Daffodil Flower Arrangement Shows, 20,000 persons; Christmas Decoration Shows, 21,811; 24 art exhibits viewed constantly by visitors and 88 educational movies were shown to approximately 5,000 persons. Many visitors were turned away from the moving picture shows due to a lack of adequate seating for the number attending.

### Special Annual Activities Include

Festival of Garden Lights, Christmas Decoration Show, Rose Pruning Demonstration Day, Camellia Show, Daffodil Show, 12 art exhibits and demonstrations, annual reception by Descanso Gardens Guild, Inc. for outstanding horticulturist, Arbor Day, and week-end educational motion pictures.

## Research and Test Projects

The All America Section of the Rose Garden was changed to overhead watering and is now mulched with wood shavings. This conversion was based on tests made in the Rose History Garden three years ago which indicated the efficiency of this means of rose culture. A greater number of better roses are now produced with less watering, weeding and spraying.

A planting of 25 Camellia reticulata plants was made in an area exposed to full sun to determine their sun tolerance. Thus far results are satisfactory but the plants have not been exposed to the hot summer months as yet.

Tutcheria spectabilis (a yellow flowered plant closely related to the Camellia) was crossed with Camellia pitardii and six plants are growing from the resulting cross.

Tests continue with a "Wick" system of sub-irrigation.

Experiments have been made with new light weight lawn and rose fertilizers.

Various insect spray materials have been tested. Disease controls of canker and oak root fungus are currently being tested. A test plot has been installed to determine degrees of susceptibility of various kinds of plants to oak root fungus, (Armillaria mellea).

## Biennial Recapitulation

The administration and public education aspect of Descanso Gardens has had its most productive period during 1959-61. It is noteworthy that during this period attendance increased from 310,484 for the previous two years to 554,274 for 1959-61. This 79% increase in attendance was handled with a budget increase of approximately 12% which was largely due to "cost of living" salary increases.

The Information Section of Descanso Gardens experienced an active year with increased attendance and a number of events that received acclaim from throughout the Los Angeles Metropolitan area. The entire operation of this Section is based on "Service to the Public". With this in mind, a goal is made to give every visitor a safe, educational and enjoyable visit that will long be remembered.

Emphasis on use of the Hospitality House has been for education in horticulture. Horticultural societies, garden clubs and other groups interested in horticultural subjects have free use of the house. In order to obtain maximum usage of this facility when it is available, other groups use the house at a nominal charge.

Notable among the 185 groups using Hospitality House were two receptions given in honor of two outstanding horticulturists. The Theodore Payne Foundation reception honored one of Southern California's most venerable native plantsman, Mr. Theodore Payne. Many garden clubs have met here during this time. Among them were Wiseburn Branch of the National Fuchsia Society; Beverly Hills Garden Club, Men's Garden Club of Los Angeles, La Canada Garden Club, Garden Section of the Ebel Club of Los Angeles, Seeders and Weeders, Green Thumb, Pacific Palisades, El Segundo, Southern California and Rancho Santa Fe Garden Clubs. Also, a Rose Judging Class was conducted by the President of the Pacific Rose Society.

Outstanding among the art exhibits was the preview showing of the Pinheiro wild-flower paintings, exhibits by Ethylind Smith and Ruby Andresen, and by numerous art clubs of Southern California.

Descanso Gardens has long been noted for its outstanding collection of camellias of all species and kinds, but during the last two years chief emphasis has been placed on making the gardens a year-around place of beauty. With the use of both annual and perennial flowers and bulbs, a continuous profusion of flowers is to be seen at all times. A Peony and Lilac section has been added and improved. Cymbidium orchids and hundreds of kinds of Iris add to the spring color.

New roses are added each year to keep the six acre rose garden up to date and to create a greater attraction. The rhododendron plantings are also continually increased in order to make the month of May a very colorful one.

## Education Division

Beginning with the next fiscal year the Research and Education Division will be organized into two separate divisions consisting of the Research Division and the Education Division. Therefore, the following information will be listed under these new divisions.

The Education Division will be supervised by the Chief, Arboretum Education. Formerly these duties were performed by the Plant Physiologist. The transferred sections include: Education Section (including both Children's and Adults' education at the Arboretum and Descanso Gardens), Information Section (Arboretum and Descanso Gardens), Library Section, Educational Services Section and the newly created Historical Section.

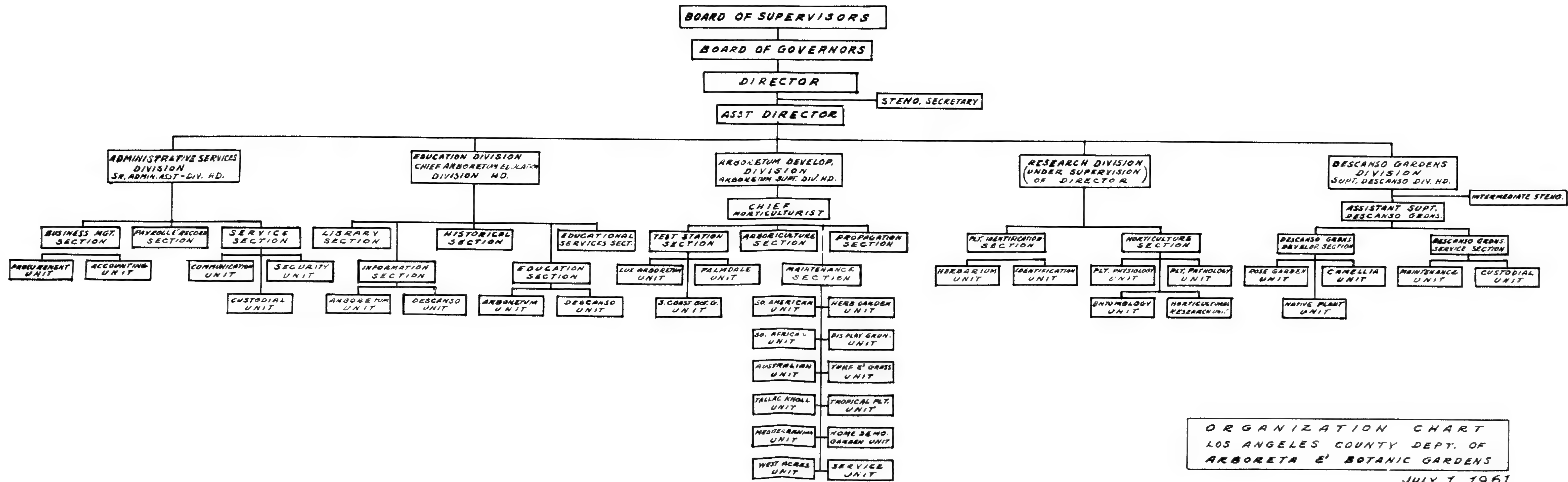
### Education Section

The Children's Education Section, supervised by the Arboretum Education Assistant is responsible for the following functions which drew students from 56 cities and school districts. The following is a tabulation of activities and attendance experienced by the educational programs.

<u>Activity</u>	Participation			
	<u>Arboretum</u>		<u>Descanso</u>	
	<u>1959-60</u>	<u>1960-61</u>	<u>1959-60</u>	<u>1960-61</u>
School Scheduled Classes Children	335	611	240	454
School Field Trips Children	12,269	14,347	5,480	5,702
Institute Sessions Adult	220	80	150	--
Youth Leadership Workshops	69	24	126	192
Youth Group Conducted Tours	115	34	126	44
Conservation & Service Projects - Children	300	71	34	68
Arbor Day Programs Children	1,200	1,088	700	445
Junior Museum Children Attendance		3,890	--	--
Dedicated 6/27/60				
Total	<u>14,508</u>	<u>20,145</u>	<u>6,856</u>	<u>6,905</u>

In addition to these activities, Youth Education was responsible for 37 displays held during the last two years at various locations, such as at public schools, Scout Groups, Bullocks', Descanso Gardens and the Arboretum.

Nature trails are maintained and used by Children's classes in their quest for learning about things that comprise their environment. Two pamphlets and a quiz sheet have been prepared and are issued for information concerning the use of trails and points of interest along the route.



ORGANIZATION CHART  
 LOS ANGELES COUNTY DEPT. OF  
 ARBORETA & BOTANIC GARDENS  
 JULY 1 1961



The Junior Museum at the Arboretum was opened for public use for the first time this year and has proved a success. It contains various displays relevant to ponds and gardens as well as an observation bee hive. It is used by all students, field trip classes and in addition is open by appointment to visitors.

A 40 foot children's greenhouse with automatic sprinkler controls, donated by Mrs. Casamajor, was dedicated on June 27, 1960. Propagation of garden materials was started in November of 1960. During December, cement for an adjacent potting yard was poured and additional electrical work completed and paid for by donations. The greenhouse has been used at full capacity since March 15<sup>th</sup>. On February 5, 1961 a Greenhouse Gardening Club was initiated and started a 10 week pilot course with 12 teenage students. An 8<sup>th</sup> grade teacher from the Alhambra City School System saw the merit of such propagation work and has included propagation and gardening classes in the science curriculum of their school.

As a result of increasing outside interest and enthusiasm, this Section at the Arboretum has received 500 hours of volunteer help in teaching and also assistance on our photographic film work which has substantially supplemented the efforts of our existing permanent staff.

The total number of children's classes given at both the Arboretum and Descanso Gardens has increased from 36 in 1959-60 to 50 in 1960-61 and the grade level has been extended from the 8<sup>th</sup> to the 12<sup>th</sup> grade.

### Library Section

During the two year reporting period, the Library has continued its growth in its new quarters which were opened June 8, 1959. In January, 1960, a six day week was initiated giving more of the inquiring public an opportunity to use the facility. Cataloguing of the general collection was concluded and our periodical collection is nearing completion. A part time typist-clerk was added to the staff in August, 1960, and she has given the librarians more time to assist the public in reference problems.

The Library's holdings have increased by purchase or gift from an estimated 5,000 items to approximately 10,000 catalogued items plus 8,500 uncatalogued items during the last two fiscal years. The programmed purchase of "Das Pflanzenreich" is complete. Volumes of "Die Natürlichen Pflanzenfamilien" are being purchased as reprints become available. In addition we have started to acquire badly needed out-of-print files of scientific journals. At present 326 periodicals are received on an annual basis through exchange, or donation. At least 309 volumes of periodicals have been bound during the two year period although 134 volumes await additional funds for binding. The California Arboretum Foundation, Inc. has donated the much needed "Revision of the Genus Eucalyptus" among other contributions. Another interested family gave us a set of Encyclopedia Britannica and a donation was received to finance the translation of a Japanese horticultural publication. Files have recently been acquired and now the Gray Herbarium Index is available for reference.

No attendance records were kept of library usage until January 1960. From that time to the present, the persons consulting our Library, other than the staff, have risen in number from 114 per month to a total of 386 per month. This usage is drawn from a wide area and is not merely confined to local use. On one memorable Saturday alone, 60 people required the librarian's services. This increase in use has been steady and consistent.

### Information Section

This Section is supervised by a Head, Arboretum Information who directs all informational services. The Section's responsibility includes presenting information to the public, conducting special tours, operating the jeep trains, maintaining an information center and answering numerous telephone inquiries.

Financed by The California Arboretum Foundation, Inc. a new tram was designed

with the assistance of staff members and carries sixty persons on forward facing seats. In the design special emphasis was placed on safety features to protect the visiting public. One of the two trams formerly used was rebuilt early in 1961 and a new jeep was purchased and is now in use. Beginning in September, 1960 tram service was extended and is now operated on a seven-day week schedule.

Four "program repeaters" (repeating tape recorders) are operated in the three historical buildings and in the test grass plot area. They present historical and scientific information to the public and serve also to supplement our information staff by giving information at anytime the public desires it at these points of interest.

Another function of this Section includes scheduling and showing of educational films on Saturdays in the Lecture Hall. The series for 1961 used the theme, "Industries Based on the Use of Horticultural Products". These films are furnished, without charge, by various industries and are shown at no cost to the public.

In the fall of 1959, production was begun on a colored motion picture telling the Arboretum story and is to be used as a twenty-five minute educational film. The technical work is being done by a photographer who is donating his services. The finished film, now in its final stages of editing, will be available this fall for television programs, organized groups, educational classes, and also will be shown to the general public in the Arboretum Lecture Hall.

During the fall, winter and spring months, bird walks are conducted on the first and third Sundays of each month under the auspices of the Pasadena Audubon Society. This pursuit is gaining in popularity, and has resulted in a listing of approximately 170 varieties of birds which can be seen on the Arboretum grounds.

A NEW TRAM AND JEEP PROVIDES A CONVENIENT MEANS OF VIEWING THE ARBORETUM.

BUILDING IN BACKGROUND IS REFURBISHED BALDWIN COACH BARN



In the spring of 1960, a census of the peafowl showed that the number was excessive. In order to reduce the size of the flock, 160 birds were sold at more than \$5.00 per bird. The total income to the County including the sale of peafowl eggs was \$848.02. An unexpected by-product of this effort was the resultant favorable publicity. Television, radio programs, newspaper articles and letters from all over the United States followed a picture story of the peacocks that appeared in Life Magazine.

The Tallyho Coach was refinished in the State Prison Workshops and will soon be replaced in the Coach Barn. The Historical buildings and their contents have all been popular educational attractions since the Arboretum has been opened to the public.

Historical displays of articles, linens and allied subjects used by Mr. Baldwin, are changed periodically in one of the display cases in the rotunda of the Administration Building.

Several outside displays honored the Arboretum in 1961 - including the City of Arcadia's float representing the Queen Anne Cottage on January 1, 1961 in the Rose Parade; an exhibit at the World Flower Show held February, 1961 in the Pan Pacific Auditorium depicting plants and a landscape of Central America; a salute to the Arboretum at Bullocks' Los Angeles, April, 1961, showing educational exhibits, photographs and other material relating to all major activities of our Department; and, an exhibit at the 75<sup>th</sup> Anniversary of the City of Pasadena in May 1961, in which photographs and other activities of the Department were displayed.

On the south side of Tallac Knoll, plantings of many different types of deciduous fruit trees furnish material for pruning demonstrations which are attended by approximately 600 home owners each February.

Free distribution of mosquito fish has been made to home owners. The distribution of these fish has a wide-spread beneficial effect throughout the County in helping to reduce mosquitoes. The distribution is made in cooperation with the Health Department and has resulted in approximately 4,800 fish distributed since the summer of 1960. These fish propagate freely in the Arboretum lagoons.

In June, 1960, turf plots were established in cooperation with the Agricultural Extension Service of the University of California. These show various lawn grasses including the new hybrid Bermuda grasses. A ground cover display was established north of the Library Building Wing in July, 1960 and is extensively used by visitors.

In addition to organized gardening groups which use the facilities, the Department served as host for the Horticultural Congress of the United States in November, cultural Extension Service for two meetings of the Southern California Turfgrass Council, held in 1960, and May, 1961.

Various flower shows at the Arboretum attract many visitors. The shows include the Spring Flower Show, the Iris Show, the Orchid Show, which are all held in the spring, and the Fall Flower Show which is held in November. Most of these displays are in the Lecture Hall. Often the Demonstration Home Gardens are used to show cut specimens, potted plants and flower arrangements. Other events included the 11<sup>th</sup> Annual Decorators Show featuring plants in a modern solarium setting, and a Flower Show School for those wishing to attain National Accredited Certificates for judging. This last event was sponsored by the California Garden Club, Inc. A comparison of attendance at some of the shows is shown in the following tabulation:

<u>Shows</u>	<u>1959-60</u>	<u>1960-61</u>
Iris Show	6,916	6,195
Orchid Show	23,905	18,824
Spring Flower Show	6,120	7,614
Fall Flower Show	13,668	17,260

Increasing interest in the Arboretum by the public is best expressed by the following table showing attendance by fiscal years:

<u>1955-56</u>	<u>1956-57</u>	<u>1957-58</u>	<u>1958-59</u>	<u>1959-60</u>	<u>1960-61</u>
50,505	102,575	214,209	372,952	365,328	420,406

The increase in attendance in 1958-59 was due to the opening of the Demonstration Home Gardens, which were constructed through funds donated by The Arboretum Foundation, Inc. and Sunset Magazine.

The record of Arboretum attendance was started January 1, 1955. Through June 30, 1961 a total of 1,562,854 visitors have been recorded.

### Education Service Section

The position of Staff Artist continues to grow in importance in contributing to the success of the Department's expanding activities. Three annual flower shows a year held at the Arboretum, the annual Camellia show at Descanso Gardens, plus two special flower shows make demands for signs and background art work. The Staff Artist has prepared and installed two botanical sketching art exhibits this past year. The first was in Bullock's Downtown store, and the second at the Bowers Memorial Museum in Santa Ana, California. All pictures were made in the Department sponsored botanical sketching courses, which the Staff Artist instructs.

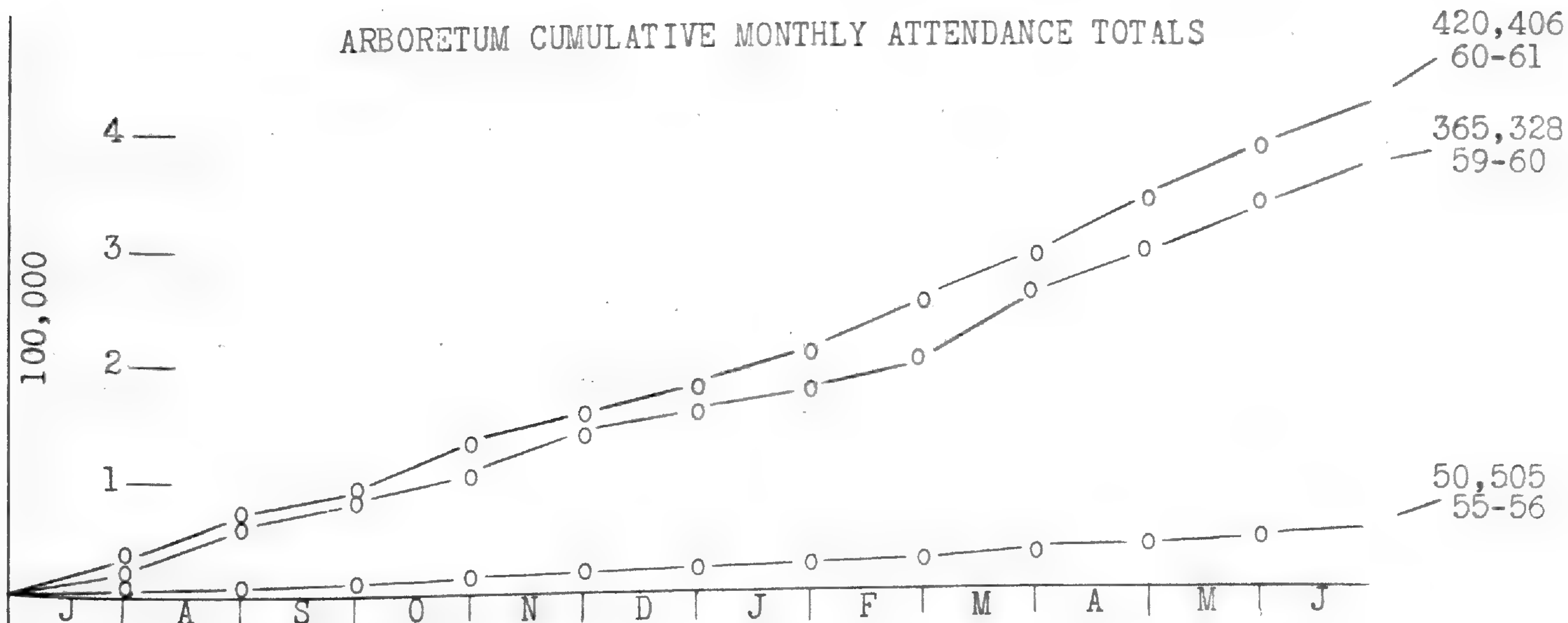
Mimeographing needs for news releases, education course materials, directional maps, special event brochures (Arbor Day, Hugo Reid Dedication), office forms and research grant proposal presentations occupies a large portion of this position's time.

The work load of this Section has increased greatly during the last two years and will continue to increase.

### Historical Section

This Section will be under the Associate Curator. The Restorations in the Historical area of the Arboretum, consisting of the Hugo Reid Adobe, E. J. "Lucky" Baldwin's "Queen Anne Cottage" and Coach Barn are now completed and require a professionally trained curator.

Anticipating the fulfillment of this position, the duties of the curator will be many and varied. They will consist of the care and maintenance of the historical collections and furnishings and presenting this material to the visiting public by means of lectures, writings, displays and programs.



## Research Division

All personnel of this Division are supervised by the Director. They have been involved in research projects and activities as enumerated below under each unit, section or position.

### Plant Identification Section

The Plant Identification Section is composed of the Herbarium Unit and the Identification Unit supervised by the Plant Taxonomist.

#### Herbarium Unit

Within this past fiscal year, the long-planned Herbarium has been activated and essential equipment and supplies secured. More than 5,000 herbarium specimens have been collected. When possible each collection is prepared in sets. The duplicate specimens are then exchanged with selected herbaria to increase the taxonomic representation. Cooperation with other herbaria also includes provision for loan of requested plant materials for particular study and consultation with specialists to allow critical taxonomic determinations.

The Los Angeles State and County Arboretum herbarium concentrates on woody-ornamental plants that are cultivated within Southern California. Through an active exchange program, representation also will include cultivated woody ornamentals from other sub-tropical areas and important related taxonomical units from geographic regions of interest. This goal is designed to provide a working herbarium that will facilitate routine plant-identification responsibilities and eventually enable critical taxonomic studies of the many cultivated ornamental plants requiring such attention.

From May to December 1959 the Director was selected for a United States State Department Fulbright Lectureship to Australia. As a result of this tour approximately 5,000 sheets of herbarium specimen plants were collected as well as seeds of 150 species of Australian plants not previously grown at the Arboretum. Personal contacts made during the tour with nurserymen, horticulturists and botanists have facilitated subsequent plant introductions.

#### Identification Unit

This Unit, consisting of a Plant Recorder and Assistant Plant Recorder, is responsible for: recording all plant and seed statistics; maintaining weather data; performing plant labelling; and for making seed and plant exchanges with other horticultural institutions.

In addition, a considerable amount of time was spent identifying plants and materials brought or sent in by high school and college students, teachers, home owners, nurseries, etc. It is estimated that approximately 1,200 persons use this service on an annual basis.

Condition and Survival Reports of introductions were prepared and forwarded, as requested by various institutions who had donated plants.

Several hundred kinds of seed were cleaned, packaged and placed in storage. This seed is used for continuing Arboretum propagation, as well as being prepared for exchange with other institutions and individuals.

The following is a tabulation of Seed and Plant Control Statistics for the years:

	<u>1959-60</u>	<u>1960-61</u>
Accessions	2,413	2,393
Seed planted	307	791
Cuttings inserted	359	1,026
Plants moved into one-gal. cans	1,811	3,675
Plants " " five-gal. cans	254	444
Plants " to permanent field location	1,727	3,315

Approximate number of species and varieties of plants on Arboretum grounds:

	9,200	9,500
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### Plant Identification and Name Changes

#### Labelling Program

Research on field display labels has been continued. One labelling technique involves a fiber-glass lamination and has been used as an attractive field display label and also for other types of signs. Through various tests it was found that these labels are both economical and durable. It is anticipated that they will be placed in the field in greater numbers during the coming year. Also the "engraved" Gravoflex display label is used in the Demonstration Home Gardens and surrounding areas. Furthermore, an identification "embossed aluminum" label is carried by all plants in the field and lathhouse.

An analysis of the various types of labels prepared for Arboretum use follows:

	<u>1959-60</u>	<u>1960-61</u>
1. GRAVOFLEX a phenolic plastic (engraved)	479	539
2. FIBRE-GLASS - laminated (typed insert)	249	499
3. ALUMINUM TAPE (machine embossed)	1,151	2,546
Total	<u>1,879</u>	<u>3,584</u>

Daily readings of temperature, rainfall, water evaporation and relative humidity have been recorded and forwarded monthly to the Los Angeles County Flood Control District from the Arboretum Weather Station No.1037-E. A copy of this report is filed at the Arboretum Plant Recorder's Office and also at the Administration Office. This information is extensively referred to by the Arboretum Staff, Research Unit, Smog Control Unit, many newspapers, city halls, and water departments. The general public and thousands of school children visit the Weather Station each year where weather data and the instruments are both described and their purpose fully explained.

Weather data for the two year period:

	<u>Date Recorded 1959-60</u>		<u>Date Recorded 1960-61</u>	
Lowest temperature	1-2-60	28°	12-9-60	32°
Highest temperature	7-7-59	109°	7-20-60	108°
Total rainfall	Annual	11.36 in.	Annual	6.92 in.
Total evaporation	"	54.57 in.	"	53.24 in.

Rain was recorded on twenty-three days in 1960-61 as compared to thirty-one days

for 1959-60 and the heaviest monthly rainfall for the two year period was 3.64 inches in November of 1960.

## Horticulture Section

### Plant Breeding Project

In cooperation with Brookhaven National Laboratory, a plant-breeding project has been initiated within several woody-ornamental groups. Seed of ten generic representative received mutagenic treatment at ten dosage levels of X-ray and neutron radiation. The young plants from this irradiated seed will soon be adequately matured for field planting in an experimental-garden area. These materials subsequently will be studied and selections made for improved ornamentals.

Exploratory hybridization was attempted on a limited scale within several species of Eucalyptus although none of the controlled crosses succeeded.

### Plant Physiologist

In February, 1960 the Plant Physiologist in cooperation with California Agricultural Extension Service of the University of California, planned and established a Turfgrass Variety Plot for research studies and culture demonstration. The objectives of this work serve both the home owner and the professional turfgrass industry. Twenty-one (21) grass varieties are on display in individual 400 sq. ft. plots.

Development of these plots was aided immeasurably by some twenty commercial firms who contributed pipe, turfgrass species, insecticides, fungicides, fertilizers, sprinkler heads, automatic sprinkler controls and other equipment and materials.

The present objectives of the plots are to determine optimum nitrogen levels of fertilization and optimum mowing heights.

Results of all tests and observations from the plots will be published in professional and popular journals.

The plots, in their first year of existence, have proved of interest to Arboretum visitors and have resulted in many inquiries as to management of lawns throughout Los Angeles County area.

### Entomologist

Special studies are being conducted on some of the most serious insect pests of ornamental plants in an effort to develop effective measures for their control. Included in these studies are the various leaf feeding insects, leaf miners, twig borers and the Ceanothus gall insect, Stagmatophora ceanothiella. In addition, the entomologist identifies insects for the public, develops a reference collection of the more injurious species and prescribes measures for their control.

A course in entomology is taught for gardeners and others to assist them in recognizing and controlling insects injurious to trees, shrubs, gardens and lawns.

Illustrative material is prepared for educational exhibits to acquaint the public with the biology and control of various species. Observation colonies of honeybees and harvester ants have been established at both the Arboretum and Descanso Gardens for the benefit of the children's education groups as well as the general public.

### Plant Pathologist

During the past two years, the Plant Pathologist has been responsible for:

- (1) Combining diagnosis of disease and consultation concerning these problems with assistance in effecting control, and evaluating results.
- (2.) Extending information to the public which required direct consultation concerning disease problems, laboratory examination of plant materials submitted to the department, diagnosis of disease

and suggested control and techniques. (3.) Classroom instruction of the Department Staff, Professional Gardener's School Students, and the public. This class acquaints the students with an elementary understanding of the nature of plant disease, the numerous causes of disease, and methods which may be used to control the problems. (4.) A plant disease research program to furnish a better understanding of the nature of plant disease as well as determining measures which will control these diseases.

The emphasis on plant disease research is on control of the Oak Root Fungus (Armillaria mellea). This fungus is a serious threat to ornamental plants in Los Angeles County. Efforts to eliminate the disease include both the testing of desirable ornamental plants to determine susceptibility, and the evaluation of new systemic fungicides which may destroy the fungus.

Currently, 60 different ornamental trees or shrubs are being tested for resistance to Armillaria. Efforts to control the fungus using several different materials are in progress, Different dosages as well as methods of application are being studied. Observations are made which suggest further studies to determine the nature of resistance and the effects of environment on the progress of the disease.

Also, a research program to establish a satisfactory control for bleeding canker in oak (Phytophthora cactorum) is under way. Two systemic fungicides are being used in a series of injection treatments which may offer a solution to this problem.

### Plant Research Assistant

The Slow Burning Plant Research Project is being continued in cooperation with the County Department of Forestry and Fire Warden and also as a cooperative project with the Forest Service, United States Department of Agriculture. Species of Atriplex, Eriodictyon and Cistus that have grown well in the Santa Monica Mountains were test burned with the use of a tunnel, fan and a propane gas burner to determine the degree of inflammability of these plants in comparison with chaparral species. The results of these burning tests were gratifying as these test plants appear to be extremely slow burning when compared to the native species such as Grease-wood (Adenostema fasciculatum). Additional burning tests also were conducted at Descanso Gardens in La Canada, Lux Arboretum in Monrovia and at the Los Angeles State and County Arboretum in Arcadia. As with the tests carried out in the Santa Monica mountains, all of these tests were very satisfactory and it is believed that the Slow Burning Plant Project studies should be accelerated. In the past year, six one-acre plots of Cistus and Eriodictyon were established in cooperation with the United States Forest Service in Angeles National Forest. Additional plots containing approximately 5,000 plants each will be established this coming year.

Although performance of the slow burning plants tested has been satisfactory, nevertheless, the screening program continues for other candidate plants. Besides Atriplex halimus, other species of Atriplex such as brewerii, canescens and polycarpa and species of Helianthemum show promise of being slow burning plants.

Seed germination studies are being continued after being temporarily delayed due to lack of rainfall this year. In spite of this it has been definitely established that seeds of Eriodictyon trichocalyx can be germinated in the laboratory and in the greenhouse. The one last hurdle for successful application of these germination studies is a method of sowing these seeds in the field and still have them germinate and grow.

During the past two years, several different types and sizes of containers for the growing of test plants in field locations were tested. Included, were cardboard, wood, and tar paper containers. The best suited container found was the 30 pound tar paper container with dimensions of 2" x 2" x 12". This container proved to have a lasting quality, durability and allows the plants to develop a long tap root type growth with a minimum of watering. These qualities are essential for successful transplanting to the field.



The Plant Research Assistant has worked with the Education Section in teaching a course on Soils, Fertilizers and Water for the Professional Gardening School. In past years, he has made suggestions to the Maintenance Section and to the Propagation Section on the use of fertilizers and soil mixes and on the preparation of soil beds prior to planting operations. It is felt that soil preparation is one of utmost importance and that there is no substitute for this operation. Also recommendations have been made to the Children's Education Section at the Arboretum and at Descanso Gardens for the preparation of their soil before planting is done by the children. Careful compliance to these recommendations has always resulted in a large yield.

Soil preparation in the Perennial Display Gardens has also been under direction of the Research Assistant.

The Plant Research Assistant also has made recommendations to the Chief Horticulturist and to the Superintendent on types of fertilizer for use at the Arboretum. Inquiries from the public and from professional horticulturists where soil conditions and fertilizers are concerned, are referred to the Research Assistant for reply.



HUGO REID ADOBE RESTORATIONS COMPLETED IN MAY OF 1961  
ARE AUTHENTIC IN EVERY DETAIL

### PART III. Non-Profit Organizations Affiliated With the Department

#### California Arboretum Foundation, Inc.

The California Arboretum Foundation, a non-profit organization, is governed by an elected Board of Trustees. Officers of this organization for 1960-61 are Mr. Ralph D. Cornell, President; Mr. F. Harold Roach and Mrs. John R. Mage, Vice-Presidents; Mr. Howard A. Miller, Treasurer; and Mr. George H. Spalding, Secretary.

The Foundation, through its Historical Committee, has completed the restoration and furnishing of the E. J. "Lucky" Baldwin cottage and continues to fund through private sources, necessary repairs, replacements and housekeeping functions for this historic site.

The Herb Garden continues to be financed through the Foundation by the Southern California Unit of the Herb Society of America. Books and publications have been donated to the Arboretum Library, in addition to an annual contribution of \$500 to the Library by the Foundation. The Demonstration Home Gardens, jointly established by the Foundation and Sunset Magazine have received an annual contribution of \$300 by both these organizations in order to provide examples of new landscape ideas and techniques for the public.

The Fragrance Garden, established for the benefit of the blind is being developed through the Foundation by interested groups and individuals.

Major donations through the Foundation for the period 1959-61 are listed below:

1. Contribution of funds for the Demonstration Home Gardens.
2. Contribution of funds for purchase of rare books for the Arboretum Library.
3. Contribution of funds for transportation for the Arboretum Orchid Specialist's attendance at the World Orchid Conference at London, England, in May of 1960, and to Costa Rica for the collecting of rare orchid plants in November of 1960.
4. Purchased a new jeep and installed two new trams for use by the public in touring the Arboretum grounds.
5. Provided funds, through interest of Foundation members, groups and individuals for development and completion of the following projects:
  - a. Establishment of the Patricia Reynolds perpetual trophy for award to the outstanding cymbidium entered in the annual Orchid Show.
  - b. Construction of a shade structure for the jeep trains.
  - c. Contributions of an air-conditioned greenhouse, known as the Ethel B. Casamajor Greenhouse, and \$1,000 for use in adapting this greenhouse for research.
  - d. Purchase of metal garden furniture for the "Queen Anne Cottage" Garden.
  - e. Development of the stone work, waterfall, pool and electrical facilities for this work.
6. Contribution by the Foundation of funds for architectural planning of the Gateway pool.
7. Contribution by private donors of funds for the Fountain pool and Gateway pool as part of the entranceway development complex.
8. Contribution of funds for the construction of the last unit of four orchid greenhouses, this last one to be known as the Mr. and Mrs. Archibald B. Young greenhouse.
9. Purchase of a dual greenhouse for special plant research.
10. Donation by Hollywood Park Race Track of the second pair of black swans, valued at \$300.
11. Provision of funds by the American Begonia Society for the further development of the Begonia Greenhouse.

12. Donations of plants and seeds through the Foundation by numerous friends of the Foundation and the Arboretum, valued at an estimated \$24,000.
13. Initiated the Conservatory Building Fund.

### Research Grants

1. National Science Foundation: Research continues under a grant titled "Plant Preferences of Insects". It is estimated work will be completed in the fall or winter of 1961.
2. Public Health Service: Research is continuing under a grant, titled "Air Pollution Effects on Plant Tissue". Also under this grant, members of the research staff were sent to the Air Pollution Research Seminar at New Orleans, Louisiana.

### Miscellaneous Service

1. Sponsored numerous Arboretum tours and special lectures.
2. Sponsored special classes - "Introduction to Home Horticulture" and "Professional Practices in Landscaping."
3. Sponsored the Christmas Posada held at the Hugo Reid Adobe, December 16, 1960.
4. Co-sponsored with Santa Anita Turf Club, the historical exhibit and film of E. J. "Lucky" Baldwin's influence in the raising of thoroughbred horses in the Rancho area.
5. Sponsored the Arboretum exhibit at the World Flower and Garden Show at Pan-Pacific Auditorium, in February, 1961.
6. Co-sponsored with Bullock's Downtown and Sunset Magazine, the Salute to the Arboretum - California Living Show.
7. Sponsored the Arboretum exhibit at the Decorator's Show at Pan-Pacific Auditorium.
8. Sponsored display at the Arboretum of original ceramics especially designed for garden use and display.
9. Provided the Broughton prints (a gift to the Foundation by the artist's niece) for public display on a rotating basis at the Arboretum Lecture Hall.

### Descanso Gardens Guild

The Descanso Gardens Guild, Inc. enjoyed significant growth and development during the two year period of this report. Membership continues at a high level with nearly 400 persons participating from a wide area of Southern California. The Guild was incorporated officially as a non-profit organization in 1960.

The annual Guild reception for an outstanding horticulturist honored Dr. Samuel Ayres, Jr., in 1960 and Mr. William Hertrich in 1961. Mrs. Judge I. Smith was unanimously re-elected as President. The Vice-President is Mrs. Melvin Burt of La Canada. Special committees were formed for the purpose of increasing cultural activity in the gardens. Mr. John Scott Trotter was appointed to head the Music Committee and Mrs. Morgan Padelford was appointed as Chairman of the Art Committee.

A drive for funds was made to assist in the capital development of the Home Demonstration Gardens at Descanso. Mrs. John Crowley of Pasadena was Chairman of this drive. Mr. Charles J. Detoy of La Canada was appointed Chairman of the Capital Developments committee and is providing valuable assistance in the development of the Home Demonstration Gardens.

Donations accepted by the Descanso Gardens Guild, Inc. for benefit of Descanso Gardens were: for Festival of Garden Lights - ornamental block wall \$200; 25 hydrocel plant containers \$45; 2 tons of feather rock \$200. Other gifts received included 2 ornamental plant containers \$90; 8 outdoor lighting fixtures; a collection of rare camellias, valued at approximately \$2,500; 2 ornamental flower containers; and a

chain-link fence to enclose the handicapped childrens' garden.

Donations received directly from the Descanso Gardens Guild, Inc. included: installation of 3,000 lineal feet of underground electrical conduit, wiring and 82 dual receptacles for a garden lighting system and 30 garden lighting fixtures.

#### Descanso Gardens California Native Plant Committee

The Descanso Gardens California Native Plant Committee initiated the installation of an outstanding garden of California native plants. All plants were donated to the County by Mr. Theodore Payne and by Rancho Santa Ana Botanic Garden, Mr. Percy Everett, Superintendent, and the Native Plant Committee. The Honorable Board of Supervisors has supported this project by making funds available for extension of the irrigation system, roadway paving, providing seating benches and construction of a garden house.

Mr. Conrad Fanton of Flintridge was unanimously re-elected as Chairman of the Committee for 1961-62 period. The Committee's sponsorship of a series of lectures on the use of California native plants is an important part of the total program at Descanso.

Donations from the California Native Plant Committee were: 706 shrubs, trees, and perennials; 66 pounds wildflower seeds; 153 hours labor, skilled and semi-skilled; 225 hours supervision, planning; 2 Sequoia gigantea trees were donated by the Native Plant Committee and the Boy Scouts of America for Arbor Day.

#### The Southern California Camellia Council, Ltd.

The Southern California Camellia Council, Ltd. is an organization formed to represent six camellia societies in Southern California. The Camellia Council has special interest in Descanso Gardens in that it annually sponsors the Camellia Show. The Camellia Show is Descanso's biggest event of the year and attracts many people from all areas of the County. The show is free of charge. It is financed by the Council's operation of the jeep train within Descanso Gardens which provides transportation for the visitors. In addition to providing funds for the show, the contributions received from this source maintain the train and provide for special camellia garden developments.

#### South Coast Botanic Garden Foundation

As a non-profit, private citizens supporting organization By-Laws of The South Coast Botanic Garden Foundation, Inc. were prepared on April 28, 1961. Their officers were installed on May 19, 1961. Mrs. R. O. Young was elected president. Other officers are: Vice-Presidents Mrs. John Vanderlip and Mr. Ove Hoyer, Treasurer, Mr. E. H. Shaffer, and Secretary, Mr. Alan True.

For more than a year prior to their incorporation the Foundation contributed much help and planting material for the initial plantings at the new Botanic Garden.

PART IV. Financial Report 1959 - 61

Departmental Summary  
1959 - 60

	<u>Appropriation</u>	<u>Expenditure</u>	<u>Balance</u>
Salaries & Wages	\$505,372	\$501,068.52	\$4,303.48
Maintenance & Operation			
Mechanical Service	8,650	9,473.06	(-823.06)
Stores Service	44,416	38,618.88	5,797.12
All Other	10,670	10,082.84	587.16
Total M & O	<u>\$ 63,736</u>	<u>\$ 58,174.78</u>	<u>\$5,561.22</u>
Capital Outlay	8,280	8,337.51	( -57.51)
Total Department	<u>\$577,388</u>	<u>\$567,580.81</u>	<u>\$9,807.19</u>

Number of Budgeted Positions - - - - 100.3

Departmental Summary  
1960 - 61

	<u>Appropriation</u>	<u>Expenditure</u>	<u>Balance</u>
Salaries & Wages	\$569,923	\$567,772.80	\$2,150.20
Maintenance & Operation			
Mechanical Service	10,923	11,148.06	(-225.06)
Stores Service	44,456	43,330.78	1,125.22
All Other	13,120	9,491.87	3,628.13
Total M & O	<u>\$ 68,499</u>	<u>\$ 63,969.71</u>	<u>\$4,529.29</u>
Capital Outlay	11,811	10,737.69	1,073.31
Total Department	<u>\$650,233</u>	<u>\$642,481.20</u>	<u>\$7,751.80</u>

Number of Budgeted Positions - - - - 106.6



THE DESCANSO FOREST COVERS THIRTY ACRES AND CONTAINS MORE THAN 5,000 PICTURESQUE CALIFORNIA LIVE OAK TREES. UNDER THE TREES IS THE WORLDS LARGEST ORNAMENTAL CAMELLIA COLLECTION NUMBERING MORE THAN 100,000 PLANTS AND ALSO MANY THOUSANDS OF OTHER ORNAMENTALS.



THE SYLVAN SETTING AT DESCANSO GARDENS IS RESTFUL AND ATTRACTIVE ALL YEAR. THIS VISTA IS ACROSS A SMALL POOL AND TWO ACRE MEADOW OF LAWN IN THE MIDDLE OF THE EXPANSIVE SHADE GARDEN.

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