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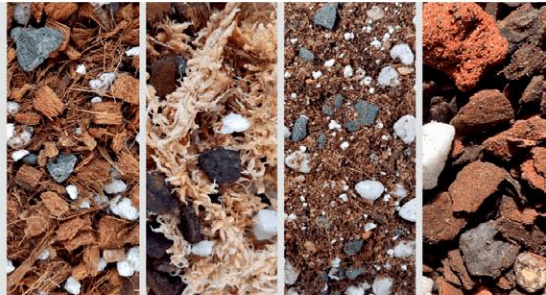
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THE AOS TURNS 100 YEARS OLD!

92 THE PRESIDENTS OF THE AMERICAN ORCHID SOCIETY

96 A PLEA FOR THE EXOTIC

The Early Years of the American Orchid Society
Erica Hannickel

103 WHO WERE THESE GUYS? PART 12

Oakes Ames (1874–1950); American Botanist and AOS Pioneer
David Rosenfeld, MD

106 AFFILIATED SOCIETIES COMMITTEE

Then and Now
E.M. Hector

109 THE BIG GROWERS OF THE 1940S

Arthur E. Chadwick

114 TECHNOLOGY AND THE AMERICAN ORCHID SOCIETY

Greg Filter

116 AN AMERICAN ORCHID DREAM

Hermann Pigors

120 A VINTAGE VIEW

AOS Special Annual Awards
Nile Dusdieker

127 HISTORY OF THE AOS RESEARCH COMMITTEE

Rob Griesbach

130 HISTORY OF AMERICAN ORCHID SOCIETY JUDGING

Taylor Slaughter

134 AWARDS THROUGH TIME

Laura Newton

150 LINES ORCHIDS

An American Legacy
From the Chattanooga.com

160 AOS CONSERVATION COMMITTEE

Past, Present, Future
Charles Wilson

DEPARTMENTS

Tom's Monthly Checklist 94

February: The Month of the Comeback
Thomas Mirenda

In This Issue

AOS MEMBERSHIP INFORMATION 82

AOS DIRECTORY OF SERVICES 82

PRESIDENT'S MESSAGE 83

AOS NATIONAL VOLUNTEERS 84

WEBINARS 85

GIFTS OF NOTE 86

CENTENNIAL DONORS 88

CALL FOR GRANTS 90

ORCHID MARKETPLACE 157

CONGRATULATORY WISHES 158

ORCHIDS CLASSIFIEDS 159

AD INDEX 159

FRONT COVER

The year — 1932. The first issue of *The AOS Bulletin* rolled off the presses. Originally a black and white quarterly, the journal of the American Orchid Society has grown over time; adding color, becoming a monthly magazine and then a name change to today's *Orchids* magazine, the only ongoing monthly orchid publication in the world.

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A 501(c)(3) Nonprofit Organization Founded in 1921

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The mission of the American Orchid Society is to promote and support the passion for orchids through education, conservation and research

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The American Orchid Society provides leadership in orchids

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PRESIDENT'S MESSAGE

THE ATTRACTION TO orchids is beyond description. Orchids are one of the largest groups of flowering plants. They are found on every continent on the planet, except for Antarctica. Thousands of species are found in the wild; thousands more are hybridized. They are hybridized for color, size, fragrance and any combination of those characteristics. It is really no wonder they capture such attention. And because orchids are such a sought-after plant, a group of 36 people on April 7, 1921, adopted the constitution to create the American Orchid Society.

The words of the constitution run through the veins of every member of the AOS. We are dedicated people striving for the preservation and continuation of these beautiful plants. The history of the AOS is full of remarkable milestones, setting standards for orchid study, conservation, and culture that are highly regarded on a worldwide platform.

The AOS was the first society of its kind in the USA, and has accomplished many other "firsts." It was destined for success considering the high caliber of the interested parties who collaborated together on this effort.

The AOS was the first society to have a show. The Great Orchid Exhibition in Boston from 1924 laid the foundation for shows in the future. The pioneers of the fledgling American Orchid Society established judging standards, which included photographic documentation, ensuring that a complete record of orchids awarded were historically recognized.

The commitment to orchids in the AOS included disseminating knowledge about growing orchids from seeds, resulting in a surge of available plants. This breakthrough made it possible for more orchidists to acquire orchids; not just the wealthy could afford them. There were also improvements in growing media, pots, fertilizers, greenhouses, and so on. And while all of this was happening, the core structure of the AOS — education, conservation and research — continued.

So, with all the groundbreaking work that the founders of the AOS did, and, with modern day advances, how is the AOS doing today?

For the first 60 years of the American Orchid Society, the headquarters were in various locations, including Massachusetts and New York. In 1981, we moved to West

Palm Beach, Florida. Currently, our office is based at the Fairchild Tropical Botanic Gardens, and we are pleased to be there. It is the perfect home blend for the AOS.

In the last 25 years, technology has exploded in the world. With the creation of the worldwide web, communication is at everyone's fingertips. Snail mail has been replaced with e-mail. Books are available on the internet and meetings are now virtual. Cell phones handle a good portion of our day-to-day business to the point of almost replacing our office systems.

Most recently, with the global pandemic that has affected everyone, we have learned how to make greater use of technology to take care of business.

Short of orchid judging, the AOS has redirected its course to make better use of automation so that there is no interruption of work. Judging will still continue to be an in-person activity. That live visual acuity cannot be duplicated mechanically.

How does this apply to the mantra that blankets the AOS? Education and some areas of research may be handled through the internet, no question there. Conservation can as well, although conservation is more hands-on, to some degree.

And what will the future of the AOS be like? With technology advancing in geometric proportions, there's no telling how things will operate until we get there. But one thing is certain: It is the people in the AOS that have made it what it is today.

A curious thing about the American Orchid Society is that the incredible work it has done throughout the years has all been accomplished by volunteers and a small staff.

Beginning with the Board of Trustees and the Executive Committee, all the other committees and judges alike, all these folks give their time and their talents to the AOS because of their love for orchids. They have a wealth of knowledge and an amazing willingness to help that is very hard to come by these days.

In addition to all of the hard work the volunteers do, there are still operating costs associated with running a successful society. The financial backing for the AOS does not only come from dues, it also comes from donations. And this is the

icing on the cake.

Just to give you an example, AOS records show that the president of the AOS in 1924, A. C. Burrage, knew that more money was needed over and above the dues paid. Though some efforts were made to raise funds, he donated \$1,000 of his own money (a great deal of money for that time period, especially from an individual donor) to the newly formed Ways and Means Committee that was created to raise much needed funds.

In addition to the members who play an active role in the AOS with their orchids and the volunteers with their tireless contributions of time and talent to keep the AOS as the dominant orchid society in the world, the donors are the third leg of this stool and keep the American Orchid Society balanced and strong.

In addition to the earlier reference of A. C. Burrage's donation, over the course of time, the AOS has been the beneficiary of many very generous donations. From the million-dollar donation to the ten-dollar donation, the AOS and the world of orchids are co-heirs of the charitable giving all the donors have made throughout the history of the AOS.

As we begin the new chapter of the next hundred years of the AOS, let's keep in mind that with all of us working together — the members, the Trustees and the donors — the American Orchid Society will stand the test of time and be around for the ages.

The American Orchid Society will always concentrate on its key elements of education, conservation and research of orchids, focusing on the conservation of orchids and their habitats to ensure they continue for future generations to appreciate. The Centennial Celebration is supporting the conservation program, allocating proceeds to this very important area of orchids.

If you have not already, please join us in preserving these beautiful plants for the world to enjoy.

I am looking forward to seeing many of you at the Centennial Celebration!

— Robert F. Fuchs, President,
American Orchid Society (email: bob@rforchids.com).

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Webinar announcements are posted to Facebook,

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We digitize the webinars and they are available to view at your leisure.

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CALL FOR CONSERVATION GRANT APPLICATIONS

AOS Conservation Committee Accepting 2021 Grant Applications
By Charles Wilson

IN ITS CONCERN for the protection of wild orchid species around the world, the AOS Conservation Committee announces that it is taking applications for conservation project grants for 2021. Please note that in recent years, the AOS has decided to separately fund conservation projects from research projects, allowing for some different types of projects to be considered. Although conservation research will still fall under the purview of the Research Committee, conservation grants are intended to encourage a more practical, hands-on grassroots approach. We are seeking applicants engaging in a wide range of projects that protect orchids and their natural habitats including, but not limited to:

- Studies that enhance our knowledge of crucial ecological information,
- Conservation assessments of specific orchids or regions,
- Seed propagation of rare or threatened species,
- Habitat restoration or reintroduction efforts,
- Raising public awareness regarding orchid conservation and encouraging public participation, and
- Providing education or outreach to present and future members of the conservation community.

All conservation-oriented projects, anywhere in the world, will be considered. Although an institutional affiliation is helpful, it is not required. An accurate, estimated budget is, however, required. Funds are limited; past grants have averaged about \$3,000.00. We REQUIRE projects be reported on annually, and that an article featuring your project be submitted for publication in *Orchids* magazine within six months of completion. Due to the nature of conservation projects, ongoing multiyear support is a possibility. The application period began January 1, 2021. Applications must be received no later than March 14, 2021. Please see the AOS website for application and requirements or contact the AOS Conservation Committee directly at Conservation_committee@aos.org for an application. Good luck! — *Charles Wilson, Chair AOS Conservation Committee*



Dendrophylax lindenii photographed in-situ
by Greg Allikas.

CALL FOR EDUCATION GRANT APPLICATIONS

AOS Education Committee Accepting 2021 Grant Applications
By Phyllis Prestia

THE AOS EDUCATION Committee announces the very first Education Grant for 2021. The new grant will support development, implementation, maintenance and support for comprehensive educational programs and activities that embrace learners of any age level. Applications are encouraged that develop, implement, maintain and/or support educational activities that embrace and promote the passion for orchids through education.

We are interested in a wide range of activities that encourage a hands-on approach to learning. Our goal for the outcome of projects is to develop a greater knowledge of, and appreciation for, orchids.

All orchid-related educational projects will be considered. Affiliation with an accredited educational institution is encouraged but not required. Grants are available to applicants from the United States, as well as countries from around the world.

The application period began January 1, 2021. Applications must be received no later than March 1, 2021. Please see the AOS website for further explanation and application requirements or contact the AOS Education Committee directly at education_committee@aol.org for an application. Good luck!

— *Phyllis Prestia, Chair AOS Education Committee (email: education_committee@aol.org).*



Students in the Writhlington School greenhouse. Photograph by Simon Pugh-Jones who leads the Writhlington School Orchid Project.

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The American Orchid Society Guide to Orchids and their Culture

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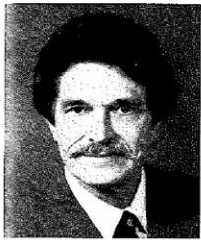
Norman B. Merkel
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(1982-84)



Robert M. Scully Sr., President (left) and Chief Jasper Saunkeah
(1958-60)



Fl. Stevenson
(1984-86)



Dr. J. Woodson Phillips
(1986-88)



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(1990-92)



Donald E. Herman (1993-94)



Peter R. Furniss
(1995-96)



Marvin Gerber
1997–1998



Milton Carpenter
1999–2000



Left: Roger Brown (2001–2002)
Right: Dr. Robert Griesbach (2003–2004)



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2005–2007



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2008–2009



Chris Rehmann
2010–2011



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2012–2013



Franklin Smith
2014–2015



George Hatfield
2016–2017



Robert Fuchs
2020–Present



Susan Wedegaertner
2018–2019

February: The Month of the Comeback

By Thomas Mirenda

WHILE MUCH OF the Northern Hemisphere remains in the depths of winter, and the world starts to recover from its lengthy infirmity, it seems to me that our fantastic orchid world is set for a major resurgence. Winter is followed by spring, dormancy followed by growth, and setbacks clear the stage for comebacks. We have all had to make adjustments in 2020, a year we can look back on with sharper vision. For me, it has crystallized an enhanced perspective on living well and prioritizing future goals. Although the past year may have been suboptimal in terms of our once-planned goals, and our achievements altered or postponed, we orchidists have an alternate reality, one realized by the success of our horticulture.



Thomas Mirenda

One new measure of progress for us has been our adaptability. Just as orchids have evolved and adapted to exist in an astounding array of ecological niches, so are we all adjusting to a new reality, one we may not have hitherto imagined. It may seem that we lost opportunities — no orchid shows, conferences or other events. But instead, we have come to embrace some new advancements. For example, we have embraced more technology, such as Zoom meetings, which allow fantastic speakers to spread their knowledge and goodwill to smaller orchid societies that otherwise might not be able to afford an in-person visit.

Finally, our Earth, with its “wake-up call” to humanity, has gotten somewhat of a break from the ravages of industry and defoliation, giving it a fighting chance to heal and recover. Let us hope this comeback continues both for us, and for all the creatures of our planet.

DORMANCY Almost all orchids have seasonal shifts in their cultural requirements. Fluctuations in temperature, rainfall, sunlight, air flow and humidity are all factors that contribute to successful growing and blooming of orchids both in the wild and in cultivation. Although seasonal differences may be

subtle in tropical climes, and drastic in boreal ones, these seasonal triggers are often crucial to recognize for success. Growers in the Northern Hemisphere experienced the shortest days and longest nights back at the winter solstice, but photoperiod, though lengthening this month, has not yet signaled rampant resumption of growth. Keep dormant plants, such as *habenarias*, *catasetums*, *cycnoches* and deciduous *dendrobiums*, for example, mostly dry until new root systems start to emerge from newly forming growths.

RESTING AND RESETTING So many other fantastic orchids are blooming at this time — *phalaenopsis*, *cymbidiums*, certain *cattleyas*, *lycastes* and slipper orchids, that it can be hard not to fuss over them this time of year. The general truth, however, is that most of these blooming plants require less care this month, even though in glorious bloom. The flowers you see this time of year are mostly the result of the culture you provided during the spring and summer growing season. This energy was stored in succulent leaves and pseudobulbs that were nurtured months ago. Too much fussing (watering and feeding) now will likely lead to rotting roots, botrytis-spotted flowers and blasted buds. Unless they are denizens of the cloud forest, allow your plants the luxury of drying off a bit this time of year.

KEEPING YOUR COOL Plants from higher elevations are enjoying the break from stressful summer

temperatures with the cooler clime they have experienced the last few months. Such plants generally are growing with enhanced vigor and exuberance. *Pleurothallids*, *odontoglossum*-type *oncidoids* and *oxyglossum*-*dendrobiums* still need moisture and small amounts of feeding now to support their comebacks. New growths and blooms of your cooler-growing species and hybrids are likely now, particularly as daylengths start to increase.

PLANNING YOUR COMEBACK We have all felt some deprivation this year. Although we have dutifully stayed home, worn our masks, voted and prayed for a better 2021, our orchid hunger has grown and our collections burgeoned. It is time to start planning for what is coming. Many of us hope to resume shows by this summer, such as our outstanding show in Hilo currently scheduled for late July. Although we do not know for sure what 2021 may bring, a better world will only arrive if we start preparing and nurturing the future. Although we may have to get to our destinations by alternative pathways, we will surely find our way if we keep moving and adapting, be it forward, sideways, circularly, upward etc. Let us make this next decade the best one in the history of orchidology.

— *Thomas Mirenda has been working professionally with orchids for over three decades and is the past chair of the AOS Conservation Committee. He is an AOS accredited judge in the Hawaii Center (email: biophiliak@gmail.com).*

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*— Regards, Ronnie Miller
Window Sill Grower*

Psychopsis Mariposa Photo Credit: Ronnie Miller



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A Plea for the Exotic

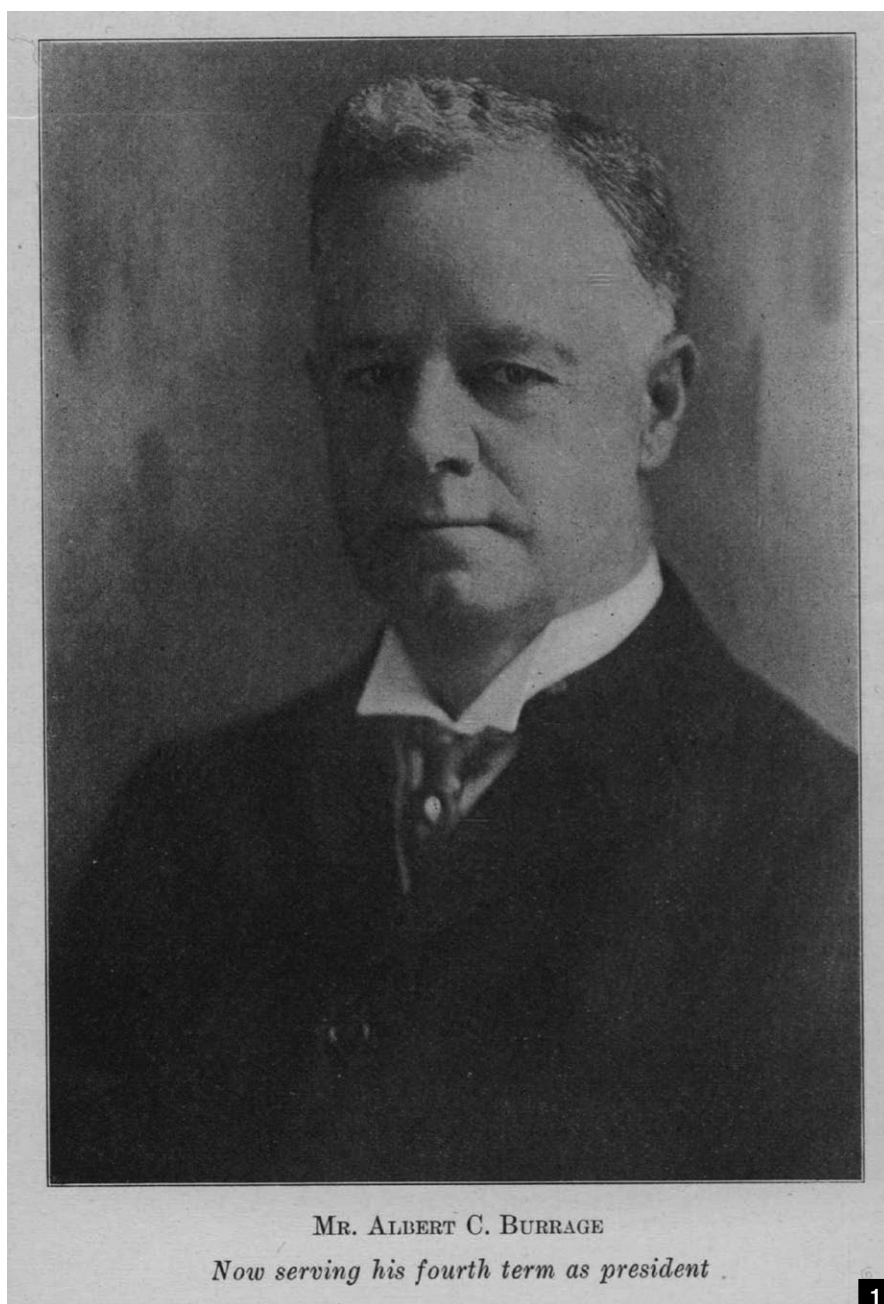
The Early Years of the American Orchid Society

BY ERICA HANNICKEL

If I have learned one thing about the early years of the American Orchid Society, it is that we were founded by passionate, but thoughtful, rabble-rousers. On the occasion of the centennial, I think we must also come to grips with the fact that if Albert Cameron Burrage had not come along, there would not have been an AOS as early as 1920, and the landscape of early 20th century horticulture would have been a lot less colorful.

By all accounts, Albert C. Burrage (1859–1931) was a force of nature. In his 72 years, he was a lawyer, a copper baron (at the time simply called “a capitalist”), a philanthropist, a Boston city transit commissioner, and a world-class orchid grower. His leadership as founding president of the AOS — and as the longest-serving president of the venerated Massachusetts Horticultural Society (MHS) — were both marked by “skillful and progressive management.” Throughout the roaring 1920s, he navigated both societies through contentious national politics, as well as adapted their activities to match the incredible growth in the horticultural industry and a waxing public interest in ornamental and edible plants.

We can surmise that Burrage’s interest in orchids was piqued at the turn of the century as he traveled the globe evaluating sites for copper mines, which were quickly developing throughout the United States, Europe, Latin America and Africa. After graduating from Harvard in 1883, and earning a law degree and gaining admittance to the Massachusetts Bar by 1884, Burrage practiced law and sat on the Boston City Council. By 1896, he was made president of the city’s Allied Gas Companies. And in 1898, he became the director of the Amalgamated Copper Company. Within the year, Amalgamated bought majority stock in the Anaconda Copper Company, one of the largest copper companies of the 20th century. A few years after that, Burrage the “Copper King” organized the Chile Copper Company, and all companies sat within the top five US copper companies for



many years.

Burrage, along with the Rockefellers and other barons in copper, oil, banking and timber, consolidated portions of their businesses to create vertically and horizontally integrated trusts. Using tac-

[1] Albert Cameron Burrage. *1924 Year Book of the Massachusetts Horticultural Society*. [Image: Massachusetts Horticultural Society]

tics such as price fixing and collusion — and under Burrage’s leadership — by 1929, leading US copper firms were worth \$1.5 billion (roughly \$22.8 billion in 2020 dollars) and Americans controlled more than half of the world’s production. An early measure of Burrage’s personal net worth came in 1913, when his South American copper holdings associated with the Guggenheims were sufficient to net him \$1 million per year (equivalent today of about \$22.8 million) for the next 30 years.

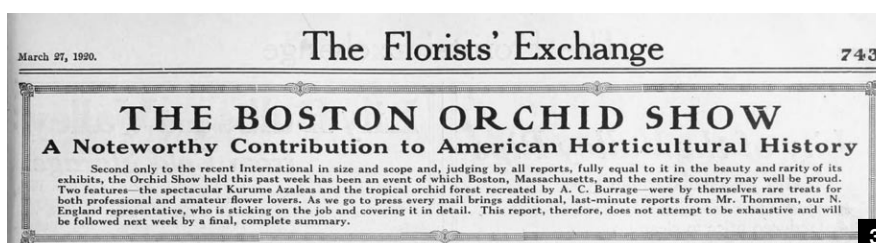
Burrage built his first orchid conservatory around 1900, and by 1910 he began to secure exotic species “in quantity and variety” and built a larger climate-controlled space “to give them the greenhouse care they deserved.” In 1920, in his role as a longstanding trustee of the MHS and to raise regional awareness of orchids, Burrage hosted monthly orchid shows in Boston. He pulled “scores of genera and hundreds of species” out of his greenhouses for display every few weeks. By that time, he had “20 or more” orchid greenhouses in “Orchidville,” part of his Beverly Farms estate in Massachusetts, on the coast 30 miles (48 km) north of Boston. Throughout the 1920s, many claimed that Burrage held the largest collection of orchids in America.

Under Burrage’s direction and dime, March of 1920 found visitors in awe of the grand Boston Orchid Show wherein the AOS was founded. With \$5,000 in prizes offered (about \$65,000 today), members of the MHS wrote that never in the history of the society was there a comparable event. (We might suspect that Burrage donated these funds, as he funded multiple other MHS projects that year. We might also surmise that Burrage was fairly sure he would win much of his money back, as he was the single largest exhibitor at the event.) The turnout and the exhibits were stunning. Even though the price of admission was \$1 (\$13 today) — double that of any previous show — “the halls were so filled with wonderful things that there was little room left for the crowds of people who came to see them.” A reporter from *The Florists’ Exchange* described his shock: “Wireless telegraphy, the airship, a cathedral, a painting or any of the untold numbers of man’s creations are wonderful in their way, yet none of them can ever arouse one’s admiration for the beautiful to such sublime degrees as does the first step into Horticultural Hall this week.”

Burrage was transacting business on the West Coast at the time and not in



A View in the Orchid house of Albert C. Burrage, at Orchidvale, Beverly Farms, devoted to *Cymbidium* 2



3



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[2] Burrage greenhouse ca. 1926. *1926 Year Book of the Massachusetts Horticultural Society*. [Image: Massachusetts Horticultural Society]

[3] Boston show headline, 1920. *The Florists’ Exchange* (March 27, 1920). [Courtesy Biodiversity Heritage Library]

[4] Horticultural Hall, 1920. Horticultural Hall, 300 Massachusetts Avenue and Huntington Avenue, ca. 1920. [Leon H. Abdalian, photographer. Courtesy Boston Public Library]

attendance at the Boston show, but his “orchidologists,” Douglas Eccleston and George l’Anson, along with several hired hands, mounted a grand exhibit of his orchids. The “forest scene” contained 1,500 orchids and filled an entire lecture room of Horticultural Hall. His “veritable paradise” was anchored by five trees, each 5 feet (1.5 m) across and 20 feet (6 m) tall, placed at the center of the lecture hall. These were covered in cork and inlaid with orchids. As one visitor described,

“As if in another world, fearful that it is all a mirage presently dissolving, the visitor wanders through the aisles, trying to admire one jewel of a flower more than another and finding the task beyond his power when, all at once, before him opens a new view almost more heavenly. He is beholding a riot of color, almost overwhelming in its contrasts and harmonies.”

Burrage’s men also distributed leaflets about orchid culture at the door, on the front of which was a full-color print of *Phalaenopsis schilleriana*. The crowds reportedly held on to these mementos dearly, as none were found lying about at the end of the show. Additionally, the MHS displayed several books from Burrage’s growing orchid library, highlighting multiple genera in full-color plates. He, “as was to be expected, won gold medals, silver medals, and first class certificates” for the orchids and novel display. In all, an estimated 50,000 people attended Burrage’s combined orchid shows in 1920. As the editors of the *MHS Annual Report* wrote, “It was indeed a memorable orchid year.”

Within this matrix of events, attendees took the occasion of the convocation of orchid enthusiasts to organize the AOS. On March 25, 1920, in the lower lecture hall of Horticultural Hall, Thomas Roland was chosen as temporary president. A committee of 15 people assembled to draw up the constitution and bylaws. Tellingly, their first act as a society was to telegram Burrage in Southern California about the good news. For the next several days, the focus on orchids continued as several papers were read by orchid experts, including Oakes Ames on orchid classification.

A little more than a year later, on April 7, 1921, Burrage was voted in as the first official AOS president, where he stayed until 1929. The purpose of the organization was first defined in this way:

“to aid in every way possible the importation and improvement by cultivation and hybridization of exotic



orchids; the preservation of native orchids; the dissemination by exhibitions, lectures and publication of useful information concerning orchids, and the extension of knowledge, production, use and love of these beautiful flowers.”

Education, preservation, appreciation: all excellent goals. But within the context of the time, “importation” of exotics was the most pressing issue. The founding of the AOS was more politically charged than its mission revealed.

Throughout the 1920s, Burrage and the AOS were at the forefront of a rancorous national debate about how to best control exotic plant pests in the United States. Farmers — mainly fruit and tree growers — had been hard hit by invasions of cottony cushion scale, red

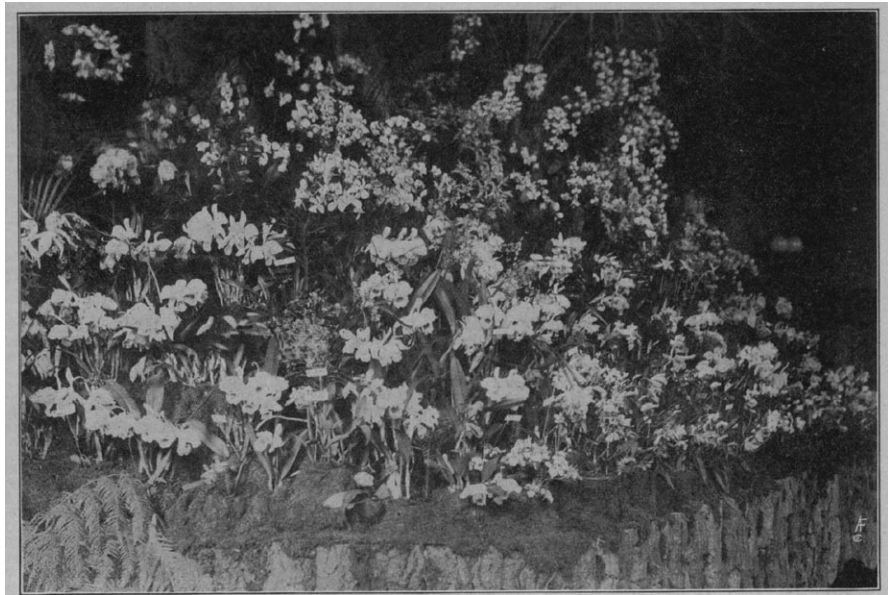
scale, San Jose scale, corn borer, chestnut blight, pine blister rust, gypsy moth, and the browntailed moth for decades. Seeking to “restrict and control the importation of plant pests,” the federal government had passed the Plant Quarantine Act in 1912, written with large cargoes of infected nursery stock in mind. Initially, it was not enforced, largely because of the run-up to World War I and limited federal funds. By late 1918, however, the Federal Horticultural Board (FHB) — an acting arm of the US Department of Agriculture (USDA) — administratively declared Quarantine 37, which broadened and strengthened the application of the Plant Quarantine Act. Most specifically for florists, nurserymen and amateur orchid enthusiasts, “Q-37” effectively aimed to

end all international commerce in plants for direct sale and trade.

Charles Marlatt, chairman of the FHB, believed that infected potted plants and trees were the most serious vector threatening US flora and staple crops. His decisions were infused with the era's racial politics: in a time of heightened "yellow peril," the FHB defined both Asian people and plants as threatening "alien enemies." The issue took on a devastating personal dimension for Marlatt, whose own wife had died of intestinal parasites picked up during their honeymoon to the Far East in 1901. Throughout his leadership of the FHB, Marlatt relied upon a "Chinese Wall" metaphor, arguing that all trade in living plants with east Asia be highly monitored, or ideally ended. He felt Americans could and should begin to grow *all* necessary seedlings — trees, fruits, vegetables, orchids and all other flowers — within US borders.

As you might expect, this view was directly at odds with horticultural societies and orchid enthusiasts, who wanted unrestricted access to new and exotic specimens. Scientists and plant enthusiasts then, as today, liked sharing plants with friends, and as of that time had no restrictions on doing so. While Q-37 made some provisions for experimental introductions, the law would require permits, inspections and posting of bonds for all plants, effectively killing friendly trades across borders. As for the design of Q-37, the law's primary impact was clear: nurserymen, plant lovers and botanical gardens would suffer the most, because free noncommercial exchange would not be accommodated.

In an amazing twist of history, the main center of opposition to Q-37 was not importers or professional plantsmen, but the MHS — and directly led to the founding of the AOS. In early 1919, members invited USDA plant pathologist Dr. Beverly Galloway to an MHS meeting to describe the reach of Q-37 and why it was passed. Once Galloway presented the information, MHS members peppered him with questions, and a "spirited and at times acrimonious discussion" ensued. Several members asked questions regarding orchids specifically: Was Galloway "aware that it required 5 to 10 years to raise orchids from seed," and that this lag time could kill orchid interests in America? The crowd found Q-37 resoundingly "full of inconsistencies." Galloway added fuel to the fire when he answered MHS members' worry with condescension, stating: "the quarantine



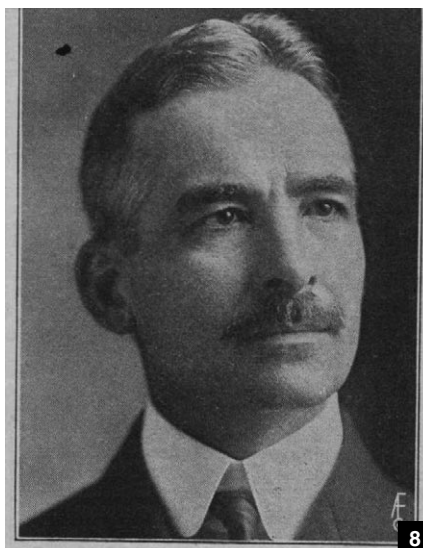
BOSTON ORCHID AND SPRING SHOW, MARCH 24-28, 1920.
Group of Orchid Plants in Flower Covering 200 Square Feet, Exhibited by Albert C. Burrage, Pride's Crossing, Mass.

6



BOSTON ORCHID AND SPRING SHOW, MARCH 24-28, 1920.
Partial View of the Cut Flower Section.

7



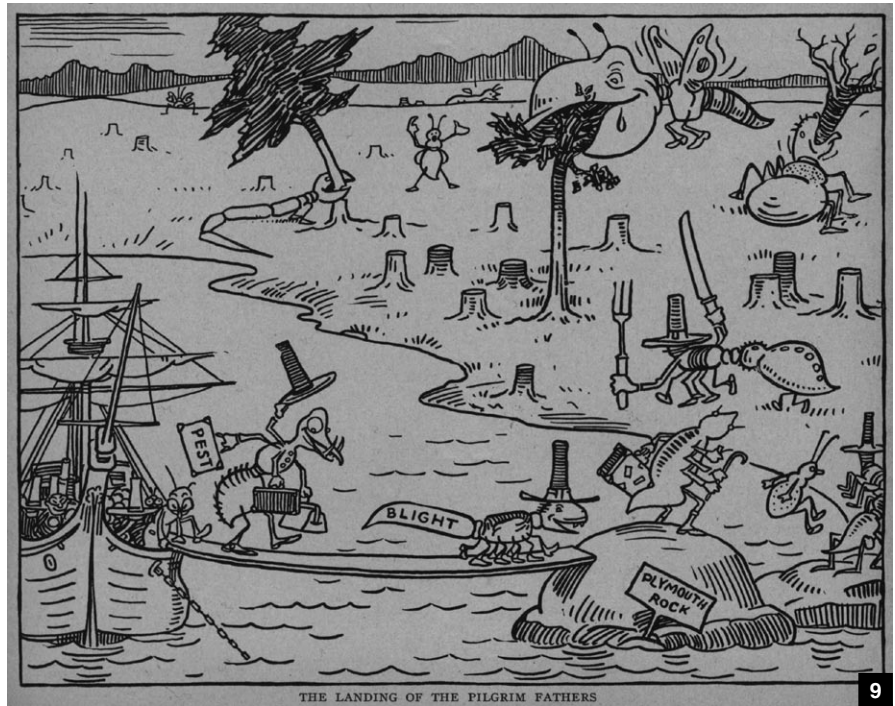
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- [5] *Phalaenopsis schilleriana* print in Burrage's personal library, from Robert Warner's *Select Orchidaceous Plants* (1862–1865), plate 1.
- [6] Burrage display, Boston Orchid Show, 1920. *The American Florist* (April 3, 1920). [Courtesy University of Wisconsin, Madison]
- [7] Cut flower competition, Boston Orchid Show, 1920. *The American Florist* (April 3, 1920). [Courtesy University of Wisconsin, Madison]
- [8] Charles Marlatt. *The American Florist* (May 20, 1922). [Courtesy University of Wisconsin, Madison]

will go into effect June 1 and stay there forever...orchids and the other flowers mentioned do not amount to a bagatelle." Orchids not a *bagatelle*? Announced in a historic hall full of passionate floraphiles? Unsurprisingly, Galloway was then heckled by the crowd. He gathered his things and walked out.

The meeting galvanized Burrage, who had a strong hand in organizing a coordinated resistance to Q-37. In June of 1920, a grand Horticultural Conference was convened at the American Museum of Natural History in New York to discuss the law. More than 70 people from over 50 horticultural societies and organizations nationwide attended at the behest of the presidents of the Massachusetts, New York and Pennsylvania horticultural societies. At the meeting, Burrage spoke first, and he set a professional tone. He argued that insect pests and plant diseases must be controlled and excluded to the best of US authorities' abilities, but that present regulations were proving fatal to large and small shipments of trees, plants and seeds from foreign countries. As it stood, there was only one inspection station: all plants had to be shipped through Washington DC for certification, and then on to their destination. Burrage presented the idea that there should be no less than five inspection stations to hasten processing: two each on the Atlantic and Pacific coasts, and one on the Gulf of Mexico. Attendees heartily agreed, and additionally suggested that the FHB add "a man versed in plants and their cultivation" to their body (at that point, it was made up solely of federal officials), and that the FHB effectively wake up to other threats entering the country through other forms of plant imports, including fruit and trees. At the conclusion of the meeting, an executive committee was formed, with Burrage at its head.

But Burrage found ways to widen his platform further still. In September of 1920, Burrage wrote, along with Charles S. Sargent of the Arnold Arboretum, "The Case Against Quarantine No. 37" in the renowned *Garden Magazine*. While Sargent highlighted that botanical gardens had never been found to import pests, and that Q-37 would devastate the mission of educational institutions such as his, Burrage emphasized the impracticality of the law. He explained that the MHS did "not favor any evasions or violations of the law," but that the federal government again needed to set up more quarantine stations at each major port of entry, so that harmless plants could pass through



THE LANDING OF THE PILGRIM FATHERS

9



Part of the Exhibit of President A. C. Burrage at the March Exhibition, 1923

10

efficiently. As a major orchid importer himself for his personal collection, and after the spirited meeting in New York just two months prior, Burrage had become the spokesperson for state horticultural societies, national trade organizations, garden clubs, amateur horticultural associations and private growers — effectively anyone requesting changes to Q-37. Burrage appealed to nationwide readers: "We ask that the regulations of the quarantine and their enforcement shall be reasonable, effective, and humane." Thus far, his fellow orchid growers and the larger horticultural community had found reason to doubt the efficacy and the execution of the law.

- [9] Pests cartoon satirizing Q-37, 1919. *American Forestry* (May 1919). [Courtesy University of Wisconsin, Madison]
- [10] Burrage display, 1923. *1924 Year Book of the Massachusetts Horticultural Society*. [Image: Massachusetts Horticultural Society]
- [11] Burrage AOS display, 1924. *1925 Year Book of the Massachusetts Horticultural Society*. [Image: Massachusetts Horticultural Society]
- [12] Burrage display, National Orchid Show, 1928. *1929 Year Book of the Massachusetts Horticultural Society*. [Image: Massachusetts Horticultural Society]

He continued, "We ask that the United States Government, with all its power and wealth, shall handle the business part of this subject in a business way, the sanitary part in a scientific way, and the human part in a humane way."

This set piece was the opening salvo to Burrage's presidencies of both the MHS and AOS, simultaneously beginning in 1921. His presidential inaugural address to the MHS, titled "A Plea for the Exotic," made both his politics and his focus on orchids clear. Falling in love with orchids 20 years prior, he explained that he soon wanted to share his knowledge of orchids with others, so that Americans could realize that "this country does not and cannot produce, except under glass, any of these wonderful flowering plants so rich in form and color and in romance." Since the MHS was founded in 1829, it had been a crossroads for introducing new plants and flowers into the country. He asked fellow society members whether its mission could be fulfilled without plants from other countries: "Shall this be done only with our native plants, without exotics? Shall we ignore the inspiration of our past? The traditions of this Society? Shall we be content with the mediocre? ... Or shall we improve horticulture and aid in beautifying the Commonwealth in which we live?"

In answer to these questions, Burrage promised that the AOS under his presidency would "secure alterations to the arbitrary and drastic regulations" of Q-37. And this would be done with even loftier goals in mind. Burrage felt that by securing plants "from Madagascar, England, Belgium, Siberia, or elsewhere" that natural and artificial hybrids would be made that would beautify America. Echoing language from the City Beautiful Movement, Burrage felt that a focus on beautification would lift up all Americans, but especially its newest immigrants. He boldly ended, "This is the way to decrease Bolshevism. This is the way to increase Americanism... this country shall secure and grow every known, useful, rare, and beautiful exotic plant which will add to the comfort, happiness, and refinement of the people."

One of the first acts of the AOS under President Burrage's tenure was to retain a New York lawyer to "look into the problem" of Q-37 and "once again seek a more favorable ruling." The connection between the fight against Q-37 and the formation of the AOS was made plain by several horticultural magazines as well: in an article announcing the formation of



Exhibit of President Albert C. Burrage at the American Orchid Society's Show in May, 1924

11



Tropical Garden of Mr. Albert C. Burrage Which Received the Garden Club of America's Award at the National Orchid Show in 1928

12

the AOS, "Welcome to the Orchid Society," the editors of *The Florists' Exchange* wrote "With the importation of orchids prohibited by Quarantine 37 there is all the more need [for the Society]...things can be best done only by an organized body." And in the very next article of the magazine, "Present Orchid Quarantine Regulations Retained," the editors reported that while the FHB believed there was "general agreement" that the need for orchids could be met through growing "orchids from seeds, either by species or by hybridization," *The Florists' Exchange* begged to differ. To their article the editors added the curt bracket "[Our report...did not bear out (the FHB's) statement.]" And so it was established: the FHB would continue to battle toe-to-

toe with the upstart AOS.

In addition to fighting the quarantine, the AOS's first years were dedicated to building up the membership, staging orchid shows and promoting orchids by attaching society displays to other flower and exotic plant shows. Orchids appeared as colorful friends within exotic fern shows and often threatened to upstage headlining flowers at frequent rose shows. In 1922, the MHS put on a large wildflower show, with Burrage's orchids again taking center stage. He was able to force a few dozen North American native orchids into blooming for the May event. And in 1924, the AOS staged its first solo orchid exhibition. Burrage also promoted the AOS on an international stage: already a respected presence in the orchid world,

in 1925 Burrage received the British Royal Horticultural Society's Lindley Medal for an exhibition of Cyripedioideae displayed in a natural setting at the Chelsea Flower Show in London.

Burrage was good to his word about pressing the quarantine issue; as early as 1922, some movement was made on Q-37 front. A Plant Quarantine Conference was held in Washington DC that May, where Marlatt and several other FHB employees were willing to talk to dozens of assembled leaders in US and European horticulture. They made small concessions in the law for orchids and respected European exporters.

In public and in private, Burrage was relentless in his fight against Q-37, although it took several years for the FHB to really relent. In May of 1928, he hosted a dinner at the St. Regis Hotel in New York City for US Secretary of Agriculture William M. Jardine and his wife, who were in town for the AOS's third annual orchid show at Madison Square Garden. Also in attendance were Burrage's powerful friends Mr. and Mrs. Pierre du Pont (of General Motors fame), as well as Burrage's key rival for almost a decade: the FHB's director, Charles Marlatt, and his second wife. A lavish table was set — of course “decorated with rare orchids” — but we can only wonder what the party discussed. At the orchid show that year, Burrage won gold medals from both the AOS and the Royal Horticultural Society for his 200-square foot (61-sq m) display of “groups of orchids in flower, embracing at least 15 genera or bi-hybrids.” His “jungle garden” featured a “cataract falling about 30 feet [9 m] over rocky steps.” He won additional golds for best cyripedium and dendrobium, and groups of odontoglossums, miltonias and odontiodas.

What finally became of Q-37 is that plants were allowed into the United States, but only from countries that developed official inspection and certification systems. Plant material coming from other countries was only accepted for experimental or scientific purposes, and then only by special permit. The law was eventually relaxed in the late 1930s, as it was found that potted plants and trees were indeed only one of several places pests hitched a ride into the United States — other major vectors included packing materials, lumber, fruit and ships' ballast. Of course, striking the right balance of monitoring and quarantining pests vs. not hampering horticultural commerce and friendly trades is a debate that lives on in

many aspects of orchid growing today.

Burrage remained president of the AOS until 1929, and president of the MHS until his passing in 1931. In 1930, he published a list of his orchids in a book he called *The Orchidvale Collection*. In it were enumerated approximately 4,300 separate species and hybrids within 172 genera. Upon his death, Burrage also held a library of more than 1,600 titles of “works relating to orchids, horticulture, and botany,” which he bequeathed to the MHS library. His love of orchids and horticulture was carried on by his wife and several members of his family.

In his later years, Burrage's inaugural presidential addresses were often infused with metaphors of light. He wished for more research into the science of light and its effect on all living beings, orchids and humans alike. Ever inventive, in his final years Burrage also patented an orchid greenhouse that rotated to follow the sun. Set on roller bearings, it was a tiny 12 feet square (3.6 sq m), but Burrage claimed that it housed 10,000 hybrid seedlings in 1-inch (2.5-cm) pots. We might still take his advice today: “Let us revere the sun, for without it there would be no life and no horticulture.” Still perfecting one's orchid game after more than a decade of dedicated service to the field: that sounds like a life well lived.

Further Reading

- 1924 Year Book of the Massachusetts Horticultural Society. Massachusetts Horticultural Society, Boston.
- 1925 Year Book of the Massachusetts Horticultural Society. Massachusetts Horticultural Society, Boston.
- 1927 Year Book of the Massachusetts Horticultural Society. Massachusetts Horticultural Society, Boston.
- 1929 Year Book of the Massachusetts Horticultural Society. Massachusetts Horticultural Society, Boston.
- 1932 Year Book of the Massachusetts Horticultural Society. Massachusetts Horticultural Society, Boston.
- American Forestry. May 1919. 25(305).
- Massachusetts Horticultural Society Annual Report for the Year 1920. 1921. Massachusetts Horticultural Society, Boston.
- Redlands Daily Facts. September 6, 1916.
- The American Florist. May 20, 1922. 58(1772).
- The Florists' Review. April 1, 1920.
- A.C. Burrage Dead; Boston Attorney. *The New York Times*. June 30, 1931.
- American Orchid Society. *The American Florist*. 54(1661) April 3, 1920.
- American Orchid Society. *The American Florist*. 56(1715) April 16, 1921.
- Boston Orchid Show: A Brilliant Achievement. *The American Florist*. 54(1661) April 3, 1920.
- Burrage Winner at Orchid Show. *The New York Times*. May 11, 1928.
- Honor Secretary and Mrs. Jardine. *The New York Times*. May 11, 1928.
- Horticultural Conference on Quarantine No. 37 Held in New York, June 15, 1920. *Bulletin of the Massachusetts Horticultural Society* (4). July 15, 1920.
- In Memoriam, Albert Cameron Burrage. *The American Orchid Society Bulletin* 1(1). June 1932.
- Orchid Greenhouse Rotates to Catch Full Sunlight. *The Science News-Letter* 19(526). May 9, 1931.
- Plant Quarantine Conference. *The American Florist*

58(1772). May 20, 1922.

- Benson, A.E. 1929. *History of the Massachusetts Horticultural Society*. Printed for the Massachusetts Horticultural Society, Norwood, Massachusetts.
- Burrage, A.C. 1921. A Plea for the Exotic. *Bulletin of the Massachusetts Horticultural Society* 5(February 5).
- Burrage, A.C. 1920. The Case Against Quarantine No. 37. *The Garden Magazine*. 32(1).
- Burrage, A.C. 1930. *The Orchidvale Collection*. The Plimpton Press, Norwood, Massachusetts.
- Burrage, A.C. 1930. *Catalogue of the Library of Albert C. Burrage, Esq., Manchester, Massachusetts, Consisting of Works Related to Orchids, Horticulture, Botany, Travel, Herbals, and Early Printed Books on Gardening*. Thomas Todd Company.
- Devorshak, C. 2012. History of Plant Quarantine and the Use of Risk Analysis. In: C. Devorshak, editor. *Plant Risk Analysis: Concepts and Application*. CAB International.
- Galloway, B.T. 1919. Protecting American Crop Plants Against Alien Enemies and notes on the Ensuing Discussion. *Transactions of the Massachusetts Horticultural Society*.
- Liebold, A.M. and R.L. Griffin. 2016. The Legacy of Charles Marlatt and Efforts to Limit Plant Pest Invasions. *American Entomologist* 62(4).
- Matthews, D., ed. 1996. *The American Orchid Society Celebrates Its Diamond Jubilee*. American Orchid Society. West Palm Beach, FL.
- Pauly, P.J. 2007. *Fruits and Plains: The Horticultural Transformation of America*. Harvard University Press, Boston.
- Schmitz, C. 1986. The Rise of Big Business in the World Copper Industry, 1870–1930. *Economic History Review*. 39(3).
- Thommen, M. 1920. The Boston Orchid Show: A Noteworthy Contribution to American Horticultural History. *The Florists' Exchange*. 49(13).
- Thommen, M. 1920. The Boston Orchid Show. *The Florists' Exchange*. 49(14).

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Who Were These Guys? Part 12

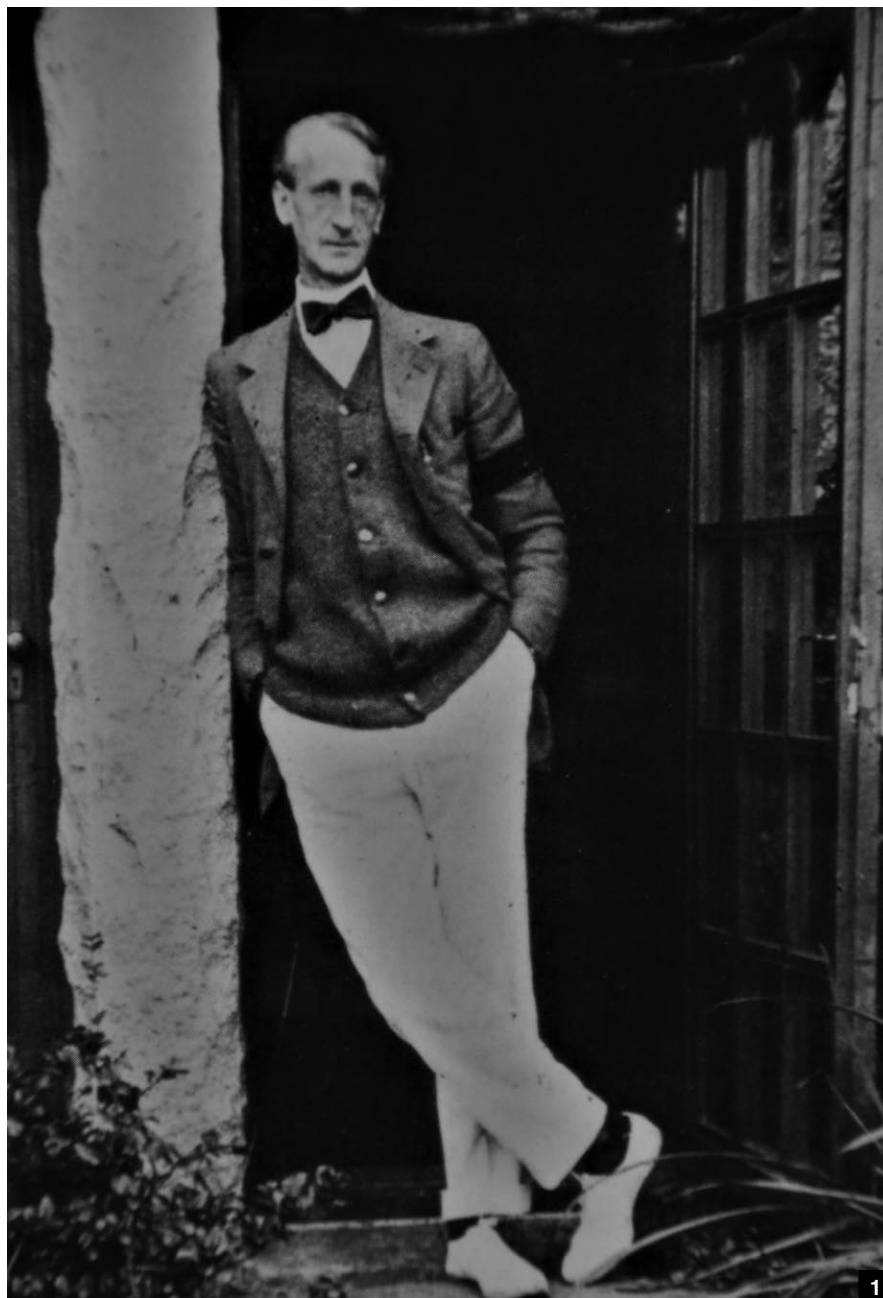
Oakes Ames (1874–1950); American Botanist and AOS Pioneer

BY DAVID ROSENFELD, MD

DURING MY 11 part Who Were These Guys? series, all of the 13 men discussed were either from Great Britain or Continental Europe. It is now time to include our first American in this illustrious group. Oakes Ames can be characterized as the 20th century successor to two great orchid taxonomists of the previous century. He was preceded in the first half of the 19th century by the Englishman John Lindley (1799–1865) (Rosenfeld 2018b) and in the second half by German Heinrich Gustav Reichenbach (1823–1889) (Rosenfeld 2018a). Both these orchid giants, although quite different in personality, were great taxonomists and described the majority of the new species discovered during the 19th century. Lindley and Reichenbach also established and maintained enormous herbaria. Oakes Ames followed in their tradition becoming the world's leading orchid authority in the first half of the 20th century. He established a large orchid herbarium at Harvard University and wrote profusely about orchids and their taxonomy.

The Ames family has a long and prominent history in Massachusetts. Oakes Ames came from two different families named Ames that emigrated from England between 1630 and 1640. These two families were eventually united by marriage around 1800. Oakes Ames' great grandfather, Oliver Ames, established a prosperous iron foundry business. His two sons, also named Oakes and Oliver, became prominent in finance and politics. Oakes was a member of the US Congress for six terms (1862–1873). The brothers were asked by President Lincoln to assume the management of the Union Pacific Railroad and their leadership led to the construction and financing of the first transcontinental railroad. Our Oakes Ames' father, also named Oliver, was governor of Massachusetts from 1887 to 1890. If this is a bit difficult to follow, it seems that many of the males in the Ames family were either Oakes or Oliver.

Our Oakes Ames clearly came from a family of wealth and privilege.



Oakes was born 1874 in North Easton, Massachusetts, very close to Boston, as the youngest of six children. In his later years, his father became fascinated with horticulture and so it is not surprising that Oakes developed an early interest in botany. During his teenage years, a series

[1] Oakes Ames in front of his laboratory circa 1915. From Plimpton, P.A. 1959. *Oakes Ames: Jottings of a Harvard Botanist*.

of greenhouses were constructed on the homestead, as well as a heated lily pond. Among the plants in the greenhouse was a small collection of orchids. Oakes said his devotion to orchids began one day in his father's bedroom "...in a wine glass, were two flowers of *Dendrobium nobile* which gave a pleasing glow of color. Then and there I fell in love with orchids." Even before leaving to attend Harvard, Oakes began to form an herbarium and gather classic books in orchidology (Plimpton 1959).

Ames graduated from Harvard in 1898 and received an AM degree a year later. He joined the teaching faculty and was also appointed as the director of the Harvard Botanical Garden. For the succeeding 50 years Oakes Ames devoted his professional life to Harvard in academic and administrative capacities. In 1926 he became a professor of botany and chairman of the division of biology. Additionally, he was the director of the Peabody Botanical Museum from 1935 to 1945. From 1945 until his death in 1950 he continued as an emeritus professor, energetically supporting and enhancing the prestige of his university.

Integral to Oakes Ames' life was his marriage in 1900 to Blanche Ames (of an unrelated Ames family). Blanche graduated from Smith College with a degree in art. Blanche became Oakes' illustrator. They worked together as a team with Blanche providing exquisitely detailed artistic etchings and line drawings for Oakes' botanical publications. Especially notable were Blanche's illustrations of new species described by Oakes and his assistants. Oakes' academic interest, other than orchids, was economic botany. Blanche designed numerous phylogenetic charts that Oakes used in his lectures. Oakes Ames was the world authority on economic botany of the time. His most important publication in the field was *Economic Annuals and Human Culture* published in 1939.

Oakes Ames was a true academic. His interests were in the beauty of pure science for science's sake. He judiciously avoided self-promotion, which kept him from receiving the wide international reputation he deserved. He was immensely proud of the accomplishments of his many graduate students. Edgar Anderson wrote in *Oakes Ames: Jotting of a Harvard Botanist* "Ames had the mind of a scholar with soul of an artist. Anything he ever did was done to perfection.... and not according to the conventions of his colleagues or his students" (Plimpton



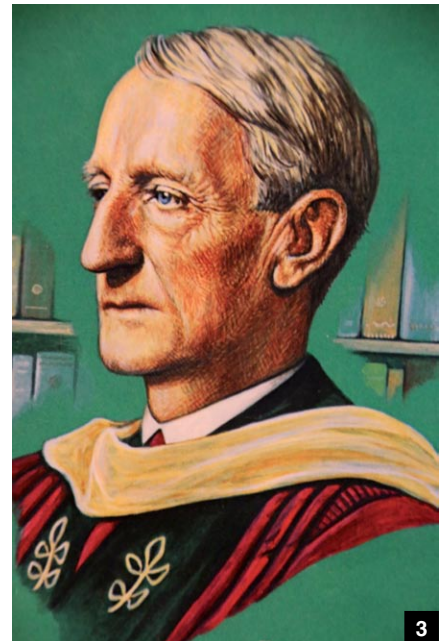
DAVID ROSENFELD

1959).

Oakes Ames' greatest legacy was the creation of the Ames Herbarium. This enterprise started slowly during the first decade of the 20th century at his home in North Adams, Massachusetts. As his reputation in taxonomy grew, he began to receive specimens from all over the world for identification and taxonomic description. In 1924 the collection was transferred to the Botanical Museum at Harvard. In 1940 the herbarium and Oakes' massive library on Orchidaceae were donated to the university. The herbarium became recognized as the most outstanding and well-organized collection of any group of plants in the world, rivaled only by Lindley's at Kew outside London and Reichenbach's in Vienna.

The herbarium contains 65,000 specimens. In addition to dried specimens there are 20,000 flowers on glass slides and, most uniquely, 4,000 fresh orchid flowers that are preserved in alcohol. The orchids on glass slides have been carefully dissected and described. Labels included the orchid's name, countries where the orchid were indigenous and the name of the collector. Many also include exquisite illustrations by Blanche (Schweinfurth 1956).

Another monumental contribution to the orchid world was his academic interest in the orchids of the Philippines. This association started in 1905 when the Bureau of Science in Manila inquired whether Oakes would be interested in committing himself to identify their extensive collection of Philippine orchids. Ames later wrote, "...it soon became apparent that I lacked not only the specimens but the requisite knowledge to carry on critical identifications. It became apparent also the Philippines possessed a



[2] *Amesiella philippinensis*. The genus was named in 1972 by Dr. Leslie Garay to honor Ames when he transferred *Angraecum philippinense* Ames to *Amesiella*.

[3] Oakes Ames in 1946. From Plimpton, P.A. 1959.

[4] Drawing of *Cypripedium acuale* by Blanche Ames. From Plimpton, P.A. 1959.

richer orchid flora than had been revealed by the published records" (Reinikka 1995). Within a month, Oakes, with his two assistants, sailed to Europe to study the Philippine orchid collections at Kew Gardens and at the British Museum in London. They then traveled on to Paris and Leyden, Netherlands, to study their specimens. Over the years, Oakes became the world authority on Philippine orchid species and was sent a never-ending supply for identification. He described

hundreds of new Philippine species and his herbarium became the repository for the largest collection of orchids from the Philippine islands. As he stated later in life, "A student of Philippine orchid flora...must come to the United States, because nowhere else in the world is there a comparable assemblage of types and critically identified Philippine orchids" (Reinikka 1995).

I would be remiss if I did not discuss Oakes and Blanche's devotion to the early years of the American Orchid Society. The AOS was established in Boston in the first years of the 1920s, with the organization's constitution being formulated in 1922. In 1924, they both received the first Gold Medal of Achievement awards from the AOS, which still bears the seal of the society designed by Blanche. In addition, Oakes was one of the first trustees of the AOS. Collectively, these trustees thought that since this organization was the "American" Orchid Society that one of the first large tasks should be the description of the native orchids of America. Logically they asked Oakes if he would undertake the venture. The result was the groundbreaking book written by Oakes and illustrated by Blanche entitled *An Innumeration of Orchids of the United States and Canada*, published in 1924. The final and most long-lasting gift that Oakes Ames offered to the AOS was in 1940. He presented them with a permanent headquarters located in the Peabody Botanical Museum at Harvard University. Up until this point, the office had frequently moved, being based at the home of whoever was the current secretary of the society. After the move to the Peabody, all functions of the AOS took place in that venue for almost 40 years, including the publication of the *AOS Bulletin*, the predecessor of our modern *Orchids* magazine. Throughout the first quarter-century of the AOS's existence, Oakes and Blanche generously devoted an enormous amount of time and energy to advance the fledgling organization and were the models for all the volunteers who have succeeded them.

Oakes Ames was the recipient of innumerable awards and accolades. An appropriate ending to this article is a portion of the tribute at a dinner honoring him in 1948, two years before his death.

The Orchidaceae, one of the largest and most complex of plant families, was but poorly understood when Oakes Ames as a young man began his systematic studies. Today, and in no small measure because of his work the species of the



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Orchidaceae have probably been more thoroughly studied and more completely classified than those of any of the larger plant families. (Plimpton 1959)."

References

- Matthews, D. (editor). 1996. AOS Celebrates Its Diamond Jubilee: Review of the First 75 Years (1921–1996). *American Orchid Society Bulletin Supplement* April 1996:8–16.
- Plimpton, P.A. 1959. *Oakes Ames: Jottings of a Harvard Botanist*. Harvard University Press, Cambridge, MA. p. 1–4, 53–56, 389–391.
- Reinikka, M.A. 1995. *A History of the Orchid*. Timber Press, Portland, OR. p. 297–301.
- Rosenfeld, D. 2018a. Who Were These Guys? Part 4: Heinrich Gustav Reichenbach (1823–1889). *Orchids* 87(3):202–205.
- _. 2018b. Who Were These Guys? Part 5: John Lindley (1799–1865). *Orchids* 87(6):438–441.
- Schweinfurth, C. 1950. Oakes Ames. *American Orchid*

Society Bulletin 19(6):298–301.

Schweinfurth, C. 1956. Oakes Ames Orchid Herbarium. *American Orchid Society Bulletin* 25(7):451–454.

— David Rosenfeld, MD, has been growing orchids with his wife Joan for 40 years. David is a retired professor of pediatric radiology at the Rutgers Medical School. They have a 700-square foot (about 65-sq m) greenhouse with both warm and cool sections where they grow a mixed collection of species and hybrids. Their skill as growers is illustrated by their 100 awards. David has written 19 articles for *Orchids* and last wrote about Hugh Low in the August 2020 issue (89[9]:636–639) (email: orchiddoc@comcast.net).

Affiliated Societies Committee

Then and Now

BY E.M. HECTOR

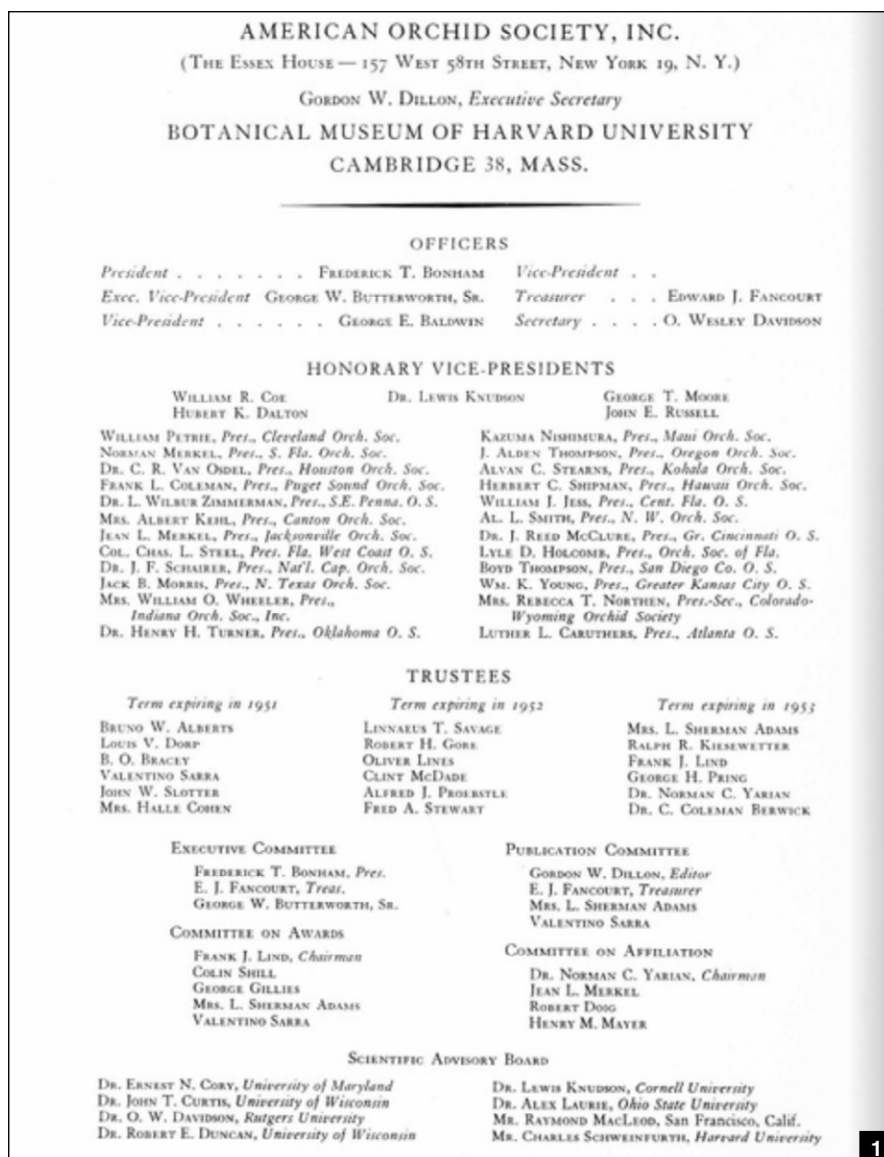
Compiling this article on the history of the Affiliated Societies Committee sent me flipping through the archives of the digital publications on the American Orchid Society website. Two editions of the AOS flagship periodical have already covered the early history of the Affiliated Societies Committee. The years 1971 and 1996 were indeed historic for the AOS as the society celebrated its Golden (50-year) and Diamond (75-year) anniversaries. As the Affiliated Societies Committee leans into the next 25 years to meet our centennial, there are common threads that tie all the years together.

A century ago, the AOS may have looked and functioned differently than it does today. Orchids were coveted, revered and hard to come by. How to grow orchids successfully in cultivation was still a mystery to many. Although the calendar has advanced 100 years, the allure of orchids has never waned.

Orchids have gained in popularity and those growing them have proliferated. Thus, our need to be a part of like-minded orchid hobbyists is an ongoing condition. An affiliated society is a direct link to the orchid grower. Local affiliates are where we learn hands-on about the fascinating world of orchids, tailored to our local growing environments.

Through the years, the definition of the Affiliated Societies Committee has changed. The qualifications and processes for affiliation have changed. The scope and responsibilities of our committee have changed at times too. The constant need to keep open the lines of communication between what is happening in the AOS and among our affiliates has not changed. The Affiliated Societies Committee's mission is to support our local societies. There is a recurring theme. In 2018, the AOS formalized our committee's job description (<https://www.aos.org/AOS/media/JobDesc/2018-Affiliated-Societies-Committee.pdf>).

In the past, speaking in generalities, most communication was printed, bound and mailed out through the postal



service. Photographs and drawings, rendered and reproduced solely in black and white, left us to imagine the beauty of orchids. By today's standards, the assembly, publication, and distribution of books, bulletins and journals must have been time-consuming. We are fortunate that, with the click of a button and the swipe of a mouse, we can still read, research and reap the benefits of all that hard work from years ago. Today we are

- [1] The presidents of affiliated societies were, at one time, listed as honorary vice-presidents of the AOS. Pictured here is the inside front cover of the November 1950 issue of the *AOS Bulletin*.
- [2] Back cover of the October 1996 issue of the *AOS Bulletin*.

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lucky to have both historical and current orchid information readily available and delivered quickly by electronic means through our AOS website and other electronic media. Let us explore how the flow of information between the AOS and our affiliates has been delivered through the years.

FROM ONE SMALL IDEA TO FORMATION

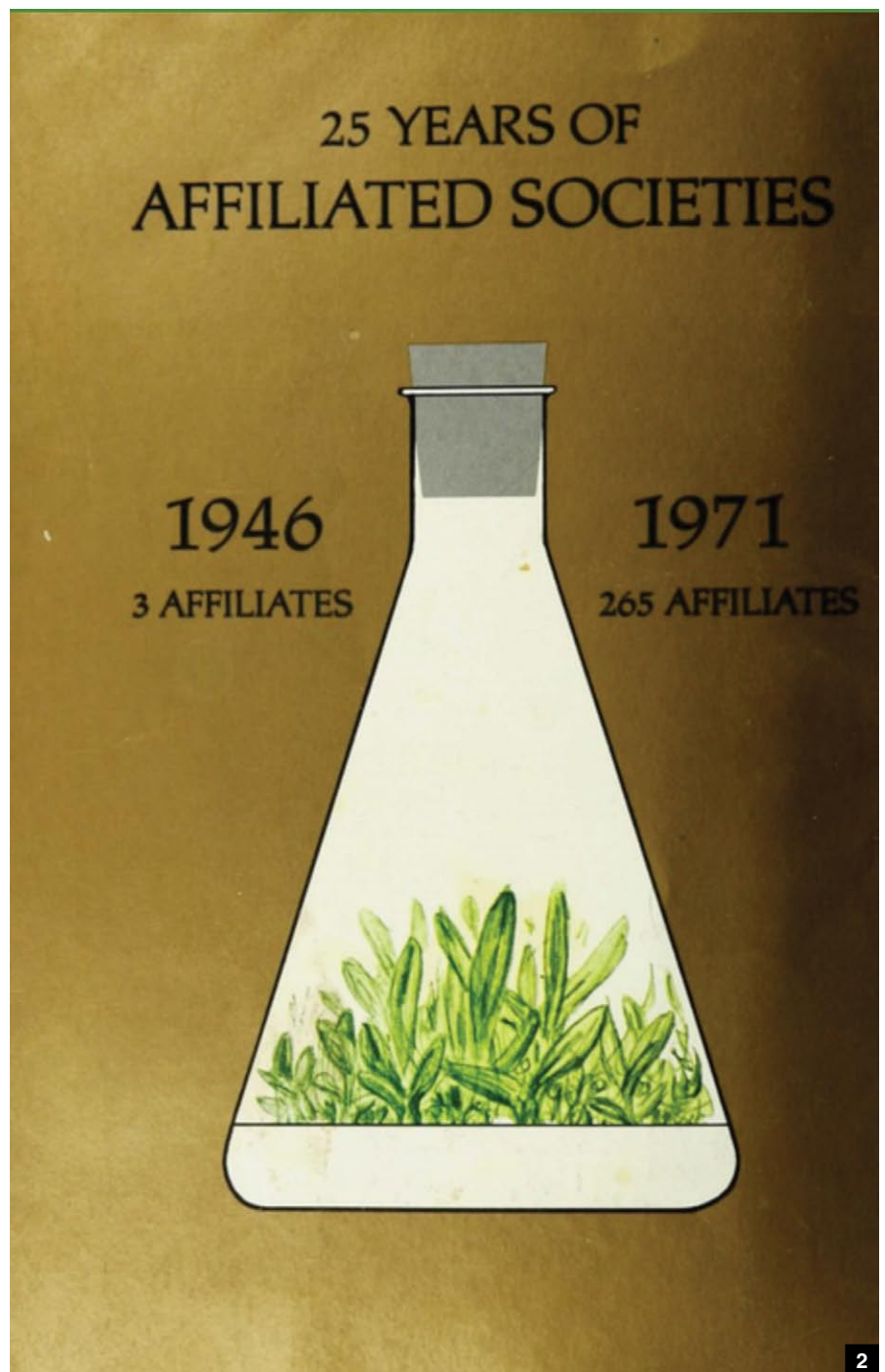
The earliest date I found referencing affiliates was 1945. The idea of affiliated societies was mentioned to the editor of the *AOS Bulletin* and the concept of affiliates was presented to the Board of Trustees in May of 1945. An informal committee was created and, by the following May, an amendment to the bylaws allowing affiliation was approved. In the April 1946 issue, it was reported by the Board of Trustees, in an update of the AOS bylaws, that societies for affiliation have complete control over their local membership. In November of 1946, the AOS Constitution was officially amended to permit local societies to become affiliated with the AOS.

MAKING CONTACT WITH OUR AFFILIATES THROUGH THE YEARS

The *AOS Bulletin*, the predecessor to *Orchids* magazine, was a staple for communicating with affiliated societies. The earliest editions of the *AOS Bulletin* have reports of society activity submitted and signed, respectfully, directly from affiliates about their monthly meetings and shows, albeit several months after they had taken place. It was customary to publish the names of each new affiliated society president as they changed through the years. For a period in the history of affiliated societies, society presidents held the honorary title of AOS vice presidents.

The forerunner to the current affiliates' newsletter kicked off in the spring of 1964. It was titled the *Orchid Reporter*. The president and secretary of each AOS affiliated society received an eight-page quarterly complimentary copy. It was available to society members and other individuals by subscription at \$1.00 per year. This newsletter went into hibernation in 1968 and reemerged in the spring of 1972. Like in our present-day *AOS Corner* newsletter, there was a rallying cry for sharing information among affiliates. (I wish I could get my hands on an edition of an early *Orchid Reporter* to see if societies at the time were struggling with the same issues our affiliates struggle with today.)

By August 1971, 25 years had passed since affiliates were welcomed into the



AOS. In a series of Golden Anniversary issues, the *AOS Bulletin* highlighted the official formation of the Committee on Affiliated Societies that took place in 1946. In that same issue, there was a notice of a new publication, the *Handbook on Orchid Culture*, offered to affiliated societies at half price. There was also an early appeal to the readers that the growth and development of research and educational programs were dependent on contributions made by members and affiliated societies. This opinion is still embraced today.

Much of the pre-1970s content regarding affiliates in the bulletin was of a social nature. Demonstrations on how to make corsages, as well as tabletop floral arrangements and lavish luncheons or banquets were often cited. According to the dictionary, "society" is defined as "a voluntary association of individuals for common ends especially an organized group working together or periodically meeting because of common interests, beliefs, or profession." Selecting this particular definition of society from Merriam-Webster seems to meet the

goals of early affiliates. We are much more than that today.

The current chair of our committee, Denise Lucero, shared these thoughts at the first-ever virtual AOS town hall meeting this past October: "The Affiliated Societies Committee seeks to support membership growth and retention through building relationships with local societies. We can accomplish this primarily by building relationships with their AOS representatives. We develop and share resources to help them thrive as a benefit of their AOS affiliated membership. This strengthens all of us in our goal to share knowledge and friendship with orchid hobbyists across the nation and around the globe."

We hope that in 2021 and beyond, affiliated societies will continue to receive the benefit of discounts on AOS publications, and take advantage and share with their members the many educational programs that have been developed through the years.

"Speaking Orchid-Wise" was a column written by the *AOS Bulletin* editor and published monthly in the bulletin. It often noted new benefits for affiliates. Slide programs, show listings and AOS judging at orchid shows were some of the earliest affiliated society benefits. In March 1980, the AOS Representative program (https://www.aos.org/AOS/media/Content-Images/PDFs/AOS_Rep-duties.pdf) was conceived to create a permanent liaison between the AOS and its affiliates. In March of 1982, another benefit for affiliates was born, the Speakers List (https://www.aos.org/AOS/media/Affiliated-Societies/AOS_Speakers_List_July27_2020.pdf). There were about 30 speakers listed with contact information for use by affiliated society program chairs. We have continued to build on the Speakers List year after year. In 2020 amid the coronavirus pandemic, many of the speakers now offer remote speaking engagements through electronic means.

Moving forward towards our centennial, we have added a monthly extension to affiliated memberships with each new individual AOS member recruited within a society. As we have moved into the electronic age of digital media, the AOS has added recorded webinars for use at monthly meetings. Beautifully designed appreciation certificates, which may be framed, are available for affiliates to recognize two valuable members of each society in each year. We are hopeful that in the future, requests for certificates can be submitted

through the AOS website.

In January of 2000, a new column specifically for affiliates debuted in the monthly magazine. The Affiliated Societies Liaison Committee chair authored the Affiliates Page, citing improved communication as the number-one goal. By July of 2000, this same column was directing affiliates to use the new AOS website to obtain information to develop their local newsletters. From 2002 to 2008, another column for affiliates was found in *Orchids*. The Society Page addressed everything from how to jumpstart a stagnant society, to setting up a website, to the value of society newsletters, again sharing timely and pertinent information with affiliates. Our primary goal as a committee continues to seek communication with and among our affiliates.

CONTENT AND INTERESTS SHIFT

Can it be that over the last 20-some years, we have moved almost all the communication between the AOS and our affiliates to an electronic platform and finally left paper behind? Not exactly, as a long-time benefit of affiliation, affiliated societies still receive a monthly print publication from the AOS. *Orchids* magazine is traditionally mailed to a designated representative for sharing with society members.

Delivering benefits originally intended for early affiliates as first established sounds painfully slow when compared to how we share current benefits, where information moves at lightning speed as it does in our world today. We live in a digital world. The Affiliated Societies Committee's current communication to its affiliates is delivered through the *AOS Corner*, a monthly electronic newsletter distributed by email to all of our affiliates worldwide. Orchid societies are welcome to reproduce the *AOS Corner* completely, or in part, in their society publications, whether printed or electronic. We have a presence on social media, on Facebook and Instagram, giving us more tools and outlets to communicate with affiliates.

KEEPING THE LINES OF COMMUNICATION OPEN

It seems that the more things change, the more they stay the same. Our challenge as we move on, as in years past, is to continue to connect with our affiliates. A column labeled "Growing Together" in the January 2005 edition of *Orchids* outlined 15 fabulous benefits of affiliated membership that were active

at the time; some remain and some have been replaced or updated to meet our affiliates' current needs. Our history as a committee shows that even though the number of affiliated societies has wavered at times throughout our existence, the message of this committee has been constant. The emphasis has always been on keeping the lines of communication open with our affiliates.

To help everyone better understand what our role is, the Affiliated Societies web page on [aos.org](https://www.aos.org/about-us/affiliated-societies.aspx) (<https://www.aos.org/about-us/affiliated-societies.aspx>) is dedicated to the many benefits of affiliation. There are guides and articles to help our affiliates thrive. An application for judging at orchid shows or outreach judging can also be found there. The *AOS Corner* newsletter is added monthly for affiliates to review. Additionally, affiliated societies worldwide are listed through a two-point lookup, by country and by state or province.

Throughout the years, the objectives of this committee have remained steady. As I browse the archives, I am awestruck by the litany of notable volunteers associated with the committee throughout its evolution. As a member of an affiliated society for close to 20 years, I will speak for my society and say we still like to share our successes. We still like to show off our blooms. We still like to have some social time. We still like to know what is going on in the orchid world, and I am grateful to find society benefits information online, with very little effort. Together with the *AOS Corner* newsletter as a monthly reminder, the AOS website is a full-color repository for all of the benefits available to our affiliates today.

— *Eileen Hector is no stranger to the American Orchid Society. In addition to serving on the Affiliated Societies Committee, she is also a member of the AOS Membership and Marketing Committee. At the local level, she serves monthly in the Florida North-Central judging center (FNCJC), and clerks many of their affiliated society shows. She manages the FNCJC website. She is the AOS representative for the affiliate, Tampa Bay Orchid Society, and manages their website and Facebook Group page (email: em.hector@verizon.net).*

The Big Growers of the 1940s

BY ARTHUR E. CHADWICK



ARTHUR E. CHADWICK

1

THE ORCHID INDUSTRY today is on full throttle and commercial nurseries everywhere are having their best year in recent memory and possibly ever. There is a nationwide shortage of plants as retailers are having trouble getting product and many wholesalers are simply sold out. The last time there was a run on orchids to this extent was 80 years ago, during the corsage era.

The 1940s were, indeed, the “The Golden Age of Cattleyas” because orchid corsages were in fashion and ladies everywhere were wearing them. My father recalls cattleyas “being worn to dances, the opera, or anywhere a woman wanted to look her very best.” It was a glamorous time and one that most people of that generation look back fondly on.

There were some informational books available but most enthusiasts got their material from the American Orchid

Society’s *AOS Bulletin*, at the time a pint-sized black-and-white magazine with 60 pages or so of culture, breeding and history. Readers of the 1940s were met with apologetic notices from nurseries that were unable to fill orders. We “withdraw all offerings of plants until further notice,” said one grower. “All shipments temporarily suspended,” said another. “Our quota of plants for sale is entirely exhausted,” said a third.

The largest orchid distributor in the country, Thomas Young Orchids, of Bound Brook, New Jersey, went so far as to run full-page ads soliciting hobbyists for their extra cut flowers. Their slogan, “We will sell them for you,” was seen each month for several years in the *Bulletin*. With blooms selling for as much as \$20 each (nearly \$300 today), there was plenty of profits to go around.

This shortage of cattleya flowers led

[1] Cattleya flowers were grown by the millions during the corsage era and generally came in three colors: white, white with purple lip, and solid purple..

everyday people to get into the business. Hundreds of producers of all sizes sprang up practically overnight with homeowners in every neighborhood frantically erecting hobby greenhouses or lean-to structures and filling them up with cattleya plants.

The big commercial growers had ranges of greenhouses — all glass, with boilers and packing houses. A sizeable staff was required to run such an operation and included a dedicated person to cut the blooms, place them in water tubes and sort, pack, and deliver them to florists. This was big business and fortunes were made by those who were efficient.

Some of the biggest growers of the 1940s included the following



ARTHUR E. CHADWICK

(alphabetically):

Alberts & Merkel of Boynton Beach, Florida, was a 1947 collaboration between Albert’s Orchid Farm and Merkel Brothers, which gave them two locations: Mandarin (South Jacksonville) for cut flowers and Boynton Beach for seedlings. They exhibited at flower shows in South Florida and sold primarily cattleyas and phalaenopsis. They prided themselves on

fine varieties, ran pictures in the *Bulletin* (such as *Cattleya* Helen Wilmer ‘Superba’), and issued illustrated catalogs.

Armcast & Royston of Los Angeles, California, billed themselves as the “Largest Breeders of Orchids in America” and decided early on that good stud plants were the key to success. They often ran full-page ads showing a single variety (such as *Cattleya* Remy Chollet

‘Armcast’).

“Arm-Roy,” as they were called, sold in high volume and sent freight cars full of their hybrids to the East Coast. They were considered pioneers in orchid propagation, having adopted a nonsymbiotic method of seed germination. Their nursery was open to the public six days a week.

E. W. McLellan Company of Colma, California, “Orchid Growers–Exporters–

Importers—Hybridizers,” touted their 50-year growing experience in the mild San Francisco climate for their success. Edgar had founded the company and, Roderick, who was one of three sons, was then in charge of operations. A young Herb Hager was the cattleya grower and would go on to future fame.

The McLellan head house alone was 400 feet (122 m) long and used for potting and packing. Cut flowers were sorted by size, color, texture and freshness, and their laboratory and flask houses were advertised as state of the art. The stud collection, billed as the “Finest Parents on Earth,” yielded a generous seedling listing that was issued each quarter.

Fennell Orchid Company, “Orchid Jungle,” of Homestead, Florida, was a state tourist attraction where visitors could see orchids growing in natural conditions. Signs were posted on Route 1, and most Florida maps showed the site. They sold a wide variety of species and hybrids of all sizes (including seeds) to collectors and commercial growers.

Three generations of the Fennell family ran the business. They also published *Fennell’s Orchid News*, which was an illustrated quarterly of culture tips and was mailed to subscribers. Their fine variety of *Cattleya trianae* ‘Mary Fennell’ HCC/AOS was regularly pictured in the *Bulletin*.


H. Patterson & Sons, “Orchidhaven,” of Bergenfield, New Jersey, was an enormous operation with a dozen greenhouses and was regularly shown as a two-page spread in the *Bulletin*. The family business included Henrietta (mother), who was in charge of shipping cut flowers; Harold (son), who did hybridizing, flasking and plant sales; Edwin (son), who handled mature plants; and George (son), who ran cut-flower sales. Harold was also a trustee of the American Orchid Society.

Their stud plants were the “who’s who” of the orchid world including such classics as *Cattleya Edithiae* ‘White Empress’ FCC/AOS, *Cattleya Enid* (1898) ‘United Nations’ FCC/AOS and *Cattleya Princess Margaret* ‘Orchidhaven’. They added to their stock with the acquisition of the famed Dixon collection of nearby Elkins Park, Pennsylvania. They were feature exhibitors at area shows such as the International Flower Show in New York and the New York Florists’ Club.

Jones & Scully, “Orchidglade,” of Miami, Florida, opened in 1946 and grew to be a major player in the orchid world, selling cattleya seedlings and flasks for the hobbyist and commercial grower. Founder

Time changes all things
... even YOUR ORCHIDS

“Time is a sort of river of passing events, and strong is its current; no sooner is a thing brought to sight than it is swept by and another takes its place, and this too will be swept away.” — Marcus Aurelius



Le. GERALDINE THOMPSON VAR. MAXIMA

TIME, which brings changes to your orchid situation—which brings new orchid hybrids and changes the old ones—can make your old orchid hybrids obsolete and change their meaning. CHECK your orchid hybrids with our SPRING ILLUSTRATED catalogue and our new FALL SUPPLEMENT catalogue (just out) to see if your present orchid hybrids reflect your desires in the light of the changes wrought by time.

SEND FOR A COPY of our new FALL SUPPLEMENT catalogue listing mature hybrids with lavender, white colored lip and pure white flowers.

ADDRESS ALL CORRESPONDENCE TO OUR MAIN OFFICE

ALBERTS & MERKEL BROS., INC. 3

ORCHID NURSERIES


Robert M. Scully billed the company as “Growers and Hybridizers of Fine Orchids” but also offered companion plants such as anthuriums, which he called “glamorous foliage plants for the orchid house.” He was a regular contributor to the Master Grower series for the *Bulletin*.

His wife, Lucile, worked with him and produced their catalogs. The greenhouses were open to the public.

Kiesewetter Orchid Gardens of Long Island, New York, was a vast nursery with full-page ads in the *Bulletin* showing their greenhouses in bloom. Aside from cut flowers, they sold cattleya seedlings in volume — including 500,000 to a single client. They also exhibited at all the area shows including the New York Florists’ Club.

Kiesewetter offered “light-control-able” labiata hybrids that could be forced to bloom anytime from November to June such as *Cattleya Amabilis* (1904) (*labiate* × *warscewiczii*) and *Cattleya Barbara Dane* (*labiate* × *Phoebe Snow*). They also worked with noted breeder Joseph Urmston of San Marino, California, and were selling flasks of his pedigreed hybrids. Founder Ralph Kiesewetter was a trustee of the American Orchid Society.


Lager & Hurrell Orchid Growers of Summit, New Jersey, was established in 1896 and was billed as the “The Oldest Orchid Establishment in America.” They issued a 60-page, wide-ranging catalog of orchid species and hybrids with an emphasis on cattleya seedlings, cymbidiums, cypripediums, and phalaenopsis. Each spring and fall, they imported cattleya species from Colombia and Venezuela for cut-flower stock and



LC. SAVITAR VAR. HERCULES

ARMACOST & ROYSTON, INC. 4

LOS ANGELES 25, CALIF.



TREPMEALEAU (SARGON × VALENCIA) × (SARGON × DIANA)

AVAILABLE CROSSES USING THIS PARENT:

<small>C. Alessandro × Le. Trempealeau</small>	<small>Flask</small>	<small>Composites</small>	<small>1/2 Pot</small>
<small>C. Apalache × Le. Trempealeau</small>	<small>\$2.50</small>	<small>2.50</small>	<small>1.50</small>
<small>C. Nobe × Le. Trempealeau</small>	<small>\$25.00</small>	<small>2.50</small>	<small>1.50</small>
<small>C. Prospector × Le. Trempealeau</small>	<small>25.00</small>	<small>2.50</small>	<small>1.50</small>

E. W. McLELLAN CO. 5

- [2] Some commercial growers branded their cut flowers by inscribed their company names in glass tubes.
- [3] Ad for Alberts & Merkel Bros., Inc., Boynton Beach, Florida, encouraging readers to get rid of their old plants and buy new hybrids. 1948.
- [4] Rare (and expensive) color ad of a new cattleya hybrid from Armacost & Royston, Los Angeles, California. 1949.
- [5] Ad for a new cattleya hybrid from E. W. McLellan Co., Colma, California. 1948.

resale. Located just south of New York City, they encouraged visitors to their greenhouses “by RAIL from New York, by

AIR from Newark, and by AUTOMOBILE." The founders had passed away and son, John B. Lager, Jr., who was a trustee of the American Orchid Society, ran the firm in the 1940s. A young Merritt Huntington was the grower and would later operate Kensington Orchids.

Rivermont Orchids of Chattanooga, Tennessee, was primarily a cut-flower operation, but also sold cattleya seedlings and community pots to hobbyists and other commercial growers. It was a family affair, with Clint McDade and his sons, Everest and Neil, as well as a young grower, John Lines, who would soon join his father, Oliver, at Lines Orchids in nearby Signal Mountain. Clint was a trustee of the American Orchid Society.

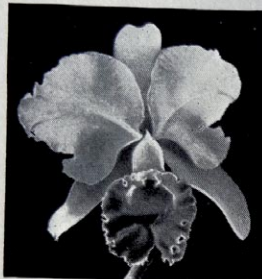
Rivermont was known for buying large collections — both private and commercial — including Ronaele Farms of Elkins Park, Pennsylvania, and the entire stock of Armstrong & Brown "Orchidhurst" of Tunbridge Wells, England (reportedly for \$75,000 plus \$35,000 shipping). Clint regularly traveled to Europe and South America in search of exhibition and stud plants.

Thomas Young Orchids, Inc., of Bound Brook, New Jersey, had a different kind of business model in that their plants were not for sale. Self-described as "America's Foremost Growers," they had a massive greenhouse range of selected stock in New Jersey, four satellite offices (New York, Boston, Chicago and Cleveland), and a nationwide network for florists who distributed their cut flowers. They were undoubtedly the largest orchid distributor in the country.

For many years, Thomas Young ran extremely creative ad campaigns in the *Bulletin*. Their 1946 four-page spread of fashion models wearing exaggerated floral pieces is iconic and has been reproduced countless times. They followed that effort with a lengthy series of whimsical cartoon sketches offering to buy extra flowers from hobbyists.

These large growers and many others like them thrived during the 1940s. The unbridled demand for cut orchids did not last, however, and it is rare to see anyone wearing a cattleya today. Nurseries had to change their product line or simply go out of business.

Yet, the plants themselves have never been more popular. Cattleyas are widely grown commercially for both hobbyists, who delight in their rich history, and for the general public who is looking to try something exotic. Perhaps one day, with fashion being cyclical, there will



Best Cattleya Species

Mendelii—Trianaei—Mossiae
Lueddemanniana (speciosissima)—Gigas
Schroederae—Gaskelliana—Skinneri

Many other fine species and hybrids available in large quantities for a short time only at present prices. If you haven't received your copy of

FENNEL'S ORCHID NEWS

write today for it. It contains many interesting facts for the Orchid grower plus our current lists of plants and seed.

FENNEL ORCHID COMPANY
ORCHID JUNGLE

Route 1 — Box 230 **HOMESTEAD, FLORIDA**

If you come to Florida this winter — plan to visit us at the Jungle. We think you'll like our outdoor orchid garden and the jungle paths under great live oaks covered with growing orchids.

6



be a return to the "The Golden Age of Cattleyas."

— Arthur E. Chadwick is a coauthor of *The Classic Cattleyas*, now in its second printing, that describes the large-flowered species that make up today's hybrids. He is president of Chadwick & Son Orchids, which operates 11 greenhouses in Powhatan County, two retail stores in Richmond, Virginia and boards over 13,000 orchids for local clients. Arthur E. Chadwick along with his father A.A. Chadwick are regular contributors to *Orchids* magazine. email

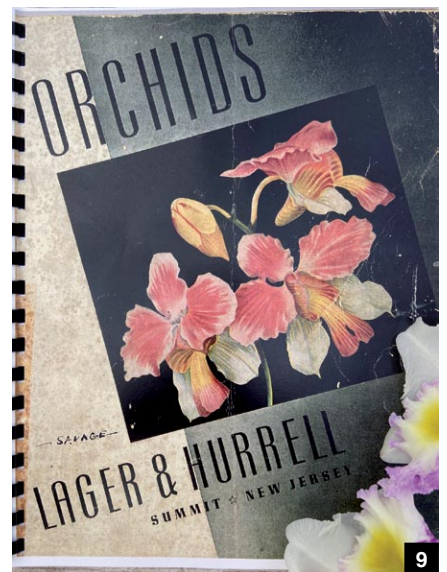
[6] Ad for cattleya species, *Fennell's Orchid News*, and tours of the "Orchid Jungle" from Fennell Orchid Company, Homestead, Florida. 1947.

[7] Clint McDade of Rivermont Orchids chats with Helen Adams at the American Orchid Society Trustee's Meeting. Ithaca, New York. 1946.

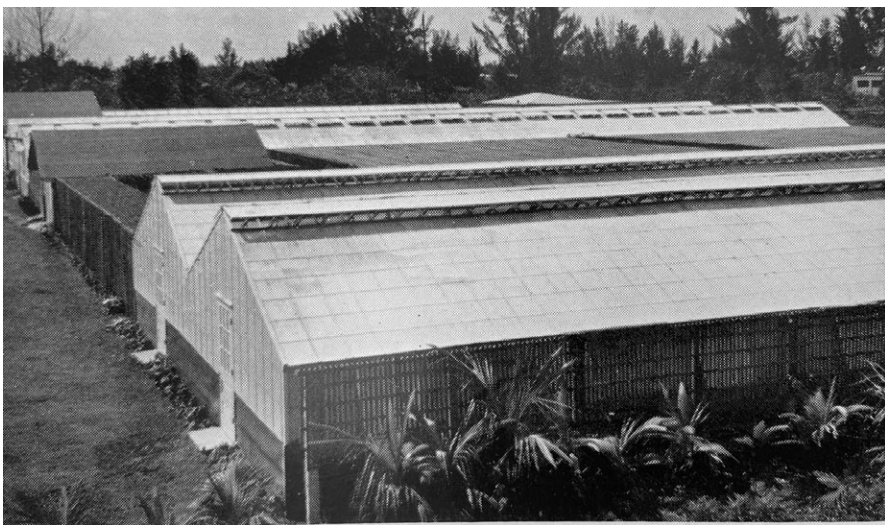
art@chadwickorchids.com; Website www.chadwickorchids.com).



8



9



"ORCHIDGLADE" for Fine Orchids

10



THOMAS YOUNG ORCHIDS I 11

- [8] Harold Patterson of H. Patterson & Sons, "Orchidhaven," selecting cattleya seedlings in greenhouse. Bergenfield, New Jersey. 1949.
- [9] Sixty-page catalog from Lager & Hurrell, Summit, New Jersey. 1940s.
- [10] Jones and Scully, Inc., "Orchidglade," greenhouses in Miami, Florida. 1949.
- [11] Cartoon advertisement for Thomas Young Orchids, Inc., suggesting that there is more to cattleya blooms than size. Bound Brook, New Jersey. 1947.
- [12] Ralph Kiesewetter (left) of Kiesewetter Orchid Gardens pollinating a cattleya. Long Island, New York. 1947.



12

ARTHUR E. CHADWICK

Technology and the AOS

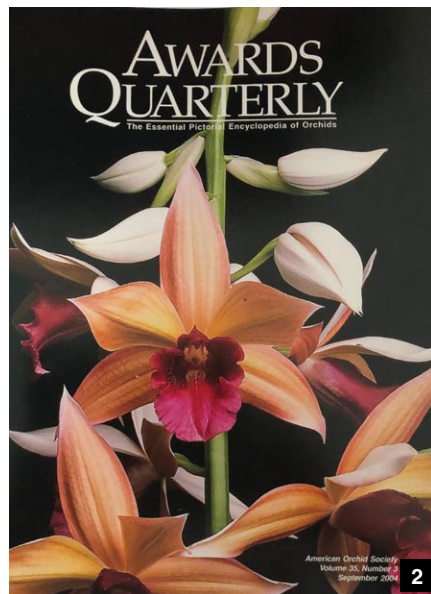
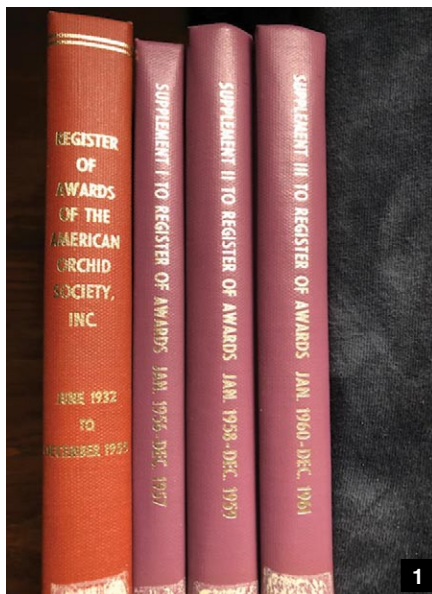
BY GREG FILTER

IT WAS 1932 when the AOS printed the first issue of *The American Orchid Society Bulletin*. New cars were about \$610, and a quarter of the US population was without a job. The publication was just about the only technology the organization had. There were awards to orchids that year. The technology of the day (paper) documented 14 awards in 1932.

Eventually, we would publish the *Register of Awards* — a hardbound volume in black and white with an occasional picture. That was followed by the *Awards Quarterly* publication. The first picture we have managed to preserve and attach to an award record appears to be in 1947. Since then we have created four applications that utilize a database to allow us to search and compare awarded orchids. The latest release, *OrchidPro*, will eventually have nonawarded orchid data and be something that the regular enthusiast can use to research orchids — not just review award data.

The digital transformation of awards data is a significant milestone for the AOS. The earliest version was *AQPlus*, which was created and maintained entirely by a volunteer. This application allowed PC users to search and display awards. Before this, all awards were supposed to be documented with a picture. Those pictures were done on slide film and distributed to 30+ judging centers. Because of the need to have the images in digital format for the computer application, we scanned thousands upon thousands of those images. Today we only take digital images, and they are uploaded along with the award data to a system we use to manage the awards. Once those awards are finalized, they become active immediately in the *OrchidPro* application that all members have access to. That database has nearly 100,000 records. *OrchidPro* lets you select a specific set of records and sort, aggregate and manipulate the data in ways that we could only dream of a decade ago.

The magazine has gone from four issues a year in black and white to a robust color, award-winning periodical that is published monthly along with a yearly supplement. The issues are available in



a digital format as well as print. We have built a huge index that will document all the magazine images and relevant text. The goal is to be able to find content no matter where it resides — in the website, in the magazine or in *OrchidPro*. All the magazines have been digitized and should be available online to all members.

Our presence on the World Wide Web probably goes back to 1998. It looks to have been a joint effort with another organization at that time. There have been various incarnations of the website

- [1] The *Register of Awards*, and its supplements — our first foray into award archives.
- [2] The *Register* was eventually followed by the *Awards Quarterly*.
- [3] The splash loading screen of *OrchidPro* offline version. The ultimate goal is to make this our primary portal to all things orchid.

over the decades. In just the past few months, we have unified the older legacy portion of the website, which handled the store and awards data, under a single-content management system. This effort has also migrated data from another legacy system that was used primarily for accounting and membership management to the same database system and unified the management of that data. This allows us to better manage the data and the relationships in all facets of the organization.

Marketing has come from print advertisements in magazines and rack cards to a full-fledged digital system. The website is key to that effort. We have adjusted the content on the site so that the search engines can readily document the pages and direct users that are searching to appropriate pages. That allows us to gain extra exposure every day. We have sophisticated campaigns to bring in new members on a regular basis. Additionally, we use Facebook and similar systems to give us even more exposure. The AOS now uses a sophisticated marketing system that can reach both specific and general groups. The system is always under analysis and improvement. Membership has stabilized and grown in recent years. We now have a dedicated team to keep this process viable and energized.

In the late 1990s, the AOS implemented a system that tried to unify various aspects of the data and management of processes. Over time it was less flexible, and software maintenance was not cost effective. We have just finished two projects that unify disparate data sources, modernize the store and reimplement or add the necessary processes to run the organization. The AOS can see at any time what membership numbers are, what donations have been received and awards processed, as well as store orders and much more. We have reporting that allows us to truly look at specific aspects of our data; this is and will be a huge benefit as we move forward.

In the early to mid-2010s, the AOS started creating webinars. The team behind this has done a fabulous job of building this resource. There is now a body of knowledge that is probably only surpassed by the magazine content. The platform is widely used by many and provides the chance for people to attend meetings and lectures without travel. Our judging center recently did our annual training seminar this way and invited the public. The most recent AOS members meeting and town hall were accomplished

using a webinar. As other technologies improve, they can be coupled with this process to make this kind of session more and more robust. Internet meetings are being used regularly with judging sessions to facilitate a broader experience for judges and help centers that have few judges.

“Computers are useless. They can only give you answers.” — Pablo Picasso

I am sure that Picasso was concerned about art and beauty. Computers do give us answers — necessary answers. But there is much more. They handle processes that take time, they do real work. Computers are everywhere and they will just become more pervasive as we move forward. Many of us carry an expensive device that we refer to as a phone, but is really a computing device that is more powerful than the early Cray computers. Your car will adapt to the type of gasoline you put in it, adjust the number of cylinders used on the highway and more because of onboard computers. Many of us control the climate in our houses with computing devices. The list is endless. In many ways computing is as essential as plumbing.

What comes next? Predicting the future is never easy. For years we talked about phones that did more than phone calls. The convergence really did not become truly useful until the touch screen was developed and was integrated as a human interface. The continued improvement in the size and performance of computing devices and increased memory and storage density surely indicates that changes will come.

The COVID-19 virus issue has pushed video conferencing (and network infrastructure) to the forefront and forced service improvement. This has allowed process changes that are unlikely to go away. If we couple this with advanced imaging of orchid flowers, we may be able to allow judges to assist with judging from great distances. That is a true boon to centers with large geographic areas and too few judges.

I would expect that we will eventually move to some sort of three-dimensional imaging. That eventually will integrate some sort of visual measurement system that allows us to judge dimensional differences. Three-dimensional imaging can be carried to our digital publications. Today we can include extra data with images. Imagine if our still award images carried some or all the dimensional data recorded with the award. Could we then take a subset of images with us on a

smartphone and evaluate plants in situ using just the image and metadata?

Do you unlock your smartphone using facial recognition? You are undoubtedly helping to create the ability to identify and differentiate other objects. As that technology improves, we will gain the ability to use for general identification. The same is true of natural language processing. Look at the pervasiveness of this in smartphones and smart speakers. This will integrate with virtually everything that requires a human interface. It will be the way we ask for data, both in applications and on the World Wide Web. Every improvement in both technologies will cause them to be more easily implemented and increase their use. If we can recognize faces, we can recognize other objects. It is a tall order given the variability of orchids. Even if it only helps to refine initial choices, there is some promise. And I suspect that the computer is even better at patterns and colors than we want to admit. I am sure that asking the computer questions by voice will be more and more pervasive as time goes by.

Mobility and consistency across various platforms is already underway. Currently this is being done with what is called a “progressive web application.” Instead of going to an app store, you go to a web page and you can save this like an application and use it as though it is a local application. Since it uses the language that is used for standard web pages, it becomes more universal. This is still evolving and there will be a good many variants before it becomes generally universal. It is somewhat challenging to see how this will play out. But there will be simple apps that you just install, and the need for special update processes will disappear.

The AOS has moved radically forward during the last decade. To stay relevant, we will need to continue to be progressive. Most of the items I have described for the future are generally near-term possibilities. There will no doubt be more disruptive inventions that radically change technology.

— Greg Filter is a semi-retired director of information technology. He has more than 35 years of experience in system design and programming. That experience spans the public, private and non-profit sectors. Additionally he is an active accredited AOS judge and trustee (email: gregf@proinnovation.com).

An American Orchid Dream

TEXT BY HERMANN PIGORS/PHOTOGRAPHS BY THE AUTHOR AND HIS FAMILY

I HAVE WITNESSED the vast changes that shaped the orchid world and cultural practices since the 1950s: the shift from cut-flower production to pot-plant growers, from orchid collectors being sent to foreign countries to collect from the wild to a shift to micropropagation of hundreds of plants from a single orchid in cultivation, advanced disease control, changes to pots and media and, finally, the popularity of growing orchids at home.

Before I cover these orchid-growing changes in the 20th century, credit to the horticultural trade where I began my career as an orchid grower in Germany is in order. In 1951, at age 14, I entered a three-year floricultural apprenticeship in Hannover, Germany. One day weekly was trade school. The pay was \$2 and increased to \$6 weekly in my third year, plus room and board, with Sunday duty every second week. The greenhouses were glass covered and hot-water heated via coke boilers. The marketing was through an on-site flower shop for indoor pot plants and local use.

Orchids came into the picture in 1953 when the foremost firm for orchids in the country, just north of Hannover in Celle, needed help, and I went to work for them. The H. Wichmann firm also operated a retail flower shop onsite in this medieval town. Its orchid specialist and talented breeder was Artur Elle, whose 100th birthday and hybrids were featured in the September 2015 issue of *Orchids*. This firm is still in operation at the north side of town in its third and fourth generation of ownership.

The greenhouses, like many of the time, were old, and two extended below ground level for ideal *miltonia* growing with a cool, moist climate. The heating was hot water pipes—gas heated. Only clay pots existed, as was the case elsewhere. Rainwater was stored under many of the growing benches, thus always tempered correctly. Potting media was *osmunda* fiber from Italy, sphagnum moss (self-collected live from nearby nature areas), and slight additions of leaf mold. Thus the orchids were supplied nutrients without additional fertilizing. The repotting was done manually with bamboo stakes,



which helped compress the media tightly around the roots into the pot.

The market was mainly domestic and commercial; the orchid flowers were sent to leading flower shops, but there were minimal plant sales to private growers at that time. Insect control was a minimal problem because of the lack of outdoor infestations and general climate. The central city location had no orchards or yards to supply pests, and purchased plants were thoroughly inspected before placement into the greenhouses. Snails and slugs were controlled with bait pesticides. Again the cold outdoor climate meant minimal fertilizing and insect control indoors.

The year 1957 brought a major change through my immigration to the Chicago area. Two major orchid firms existed there: the Andrew Benson firm next to the present O'Hare Airport and the Hausermann families in the Elmhurst area. Benson had apparently gone to South America, selected his breeding stock of *cattleyas* and created his own hybrids for cut-flower production. This had required vast knowledge and efforts to accomplish during the prior 30 to 50 years. Cut-flower production by large firms, their sending out collectors to native habitats to collect orchids and dabbling in hybridizing, was typical for how most orchids were grown



- [1] Wood lath shading mats at the Wichmann firm in Celle, Germany in 1957. These were rolled out manually for sunny days and rolled up whenever there was no sun.
- [2] *Paphiopedilum* seedlings growing in 4-inch (10-cm) clay community pots with a 2-inch (5-cm) empty clay pot in the center. Live Sphagnum moss was the seedling medium at the Wichmann firm in 1957.

PIGORS

in cultivation from the mid-19th to the mid-20th century.

There were promising opportunities for me with the Hausermanns, who are still major players in the Chicago area and are well known for their hybrids, including the still-popular lavender *Cattleya* Irene Finney and the beautiful semi-alba, *Cattleya* Shellie Compton. The main crop was cattleyas with a few phalaenopsis, *Paphiopedilum* Maudiae and cymbidiums, all grown for cut-flower production exclusively. The flowers were sent to wholesale houses in several midwestern cities on consignment.

All went well until the sky fell down for two reasons: Corsage-wearing went out of fashion, so there was declining demand and lower prices for the flowers. The second reason was a virus that had infected mass-produced cattleyas. Flowers showed black spots soon after opening up or being shipped out.

Where did this come from? Where is a cure? It was a problem for commercial growers' survival with no help in sight. Virus-prevention cultural practices became a major concern for commercial and hobby growers over the decades to come.

The proof and cause of infection was eventually found within the facility — young plants grown from seed out of the laboratory were clean and virus free. They were handled and repotted by the flower-packing ladies in a different potting room. When these plants came into flower, the blooms lasted as expected perfectly without virus spots. As the plants grew larger, they were incorporated into the mass-production cattleya stock. The repotting into osmunda fiber took place in a partly mechanized manner, but without sterilizing of cutting tools. Thus after 5–7 years of growing a seedling virus-free, it was soon infected. A photo showed a white cattleya in 6-inch (15.2-cm) pot divided during the previous season into two plants blooming with clean and virus-infected blooms a year later. The double-lead plant was divided with a sterilized knife while growing in the pot, then one side infected with the virus from another plant. Thus the virus does not transfer from plant to plant without human or insect help.

A method of sterilizing cutting tools was immediately initiated through the boiler's steam heat. Cloned virus-free plants were initially created in France from selected cut-flower stock here. Then the cloning technology was acquired for use in the in-house laboratory.



A new initiative was taken by company president Edwin Hausermann to begin the sale of orchid plants to the general public and specialist individual growers. If you read copies of the *AOS Bulletin*, the predecessor to *Orchids*, in aos.org magazine archives, and look at the advertising, you can chart for yourself the rise of this initiative to supply plants to individuals. Readers could hardly wait to receive their magazine to peruse the latest offerings or request often-color catalogues that were “wish books.”

My interest in species orchids gave me the opportunity of a lifetime during the 1960s. Neither a local plant market nor a nationwide, hobby-orchid-grower market really existed; it took years to build gradually. With increasing wealth in the USA, interest in the orchid-growing hobby grew substantially during the

[3] Hermann and Dorothy (Vater) with *Cattleya* J.A. Carbone and *Cattleya* (*Laeliocattleya*) Bruno Alberts at Hausermann's in 1960. These were the parents of their best known hybrid *Cattleya* (*Laeliocattleya*) Irene Finney, named for Edwin Hausermann's sister.

[4] Hermann at the second Mid-America Orchid Show and Conference in Chicago, October 1960.

1960s–1990s. Also, reasonably priced plants became available via mail order. This helped drive the desire for cultural information from growers and created demand for such publications as *Home Orchid Growing* by Rebecca Northen in its various editions from the 1950s onward for decades, and Mary McQuerry's small, paperback books on orchid culture for beginners. The title of Northen's book can

be viewed as a harbinger of the changes to come in the orchid world as the availability of orchids shifted from cut flowers from florists to pot plants that could be grown and flowered in a home year after year. The *AOS Bulletin* also played a historical role in the dissemination of cultural information over the decades. For the hobby grower, perhaps the "Beginner's Handbook" series of articles that appeared in the magazine from early 1955 through mid-1957 set a standard and was a recognition that the average person could afford to buy and grow orchids.

One major change that also contributed to the popularity and success of pot plants was the discovery of fir bark as a suitable and reasonably priced potting media. Along with this, plastic pots became widely used; they were cheaper, cost less to ship, and produced better results. This, of course, depended on grower preference and local climate area. It sure helped in the mail order department.

Insect control at the firm presented few problems because of the cold winter climate of the upper midwest. Imports of species were generally insect-free, and others were treated as needed upon arrival. This was always according to directions, with small sprayers or possibly fumigation of the entire range.

Fertilizing in bark mixes and the more bright-light climate here required more frequent fertilizing or at higher concentrations compared to lower-light areas. A 30-10-10 formula was in use at that time for fir-bark growing. More recently, with the advent of research on fertilizer formulations at Michigan State University and Texas A&M University, many growers have shifted to a formula with less phosphorus (the second number) and a higher potassium content for better flowering.

Our well water was virtually unusable for plants because of the high calcium content. A demineralizing system was installed with heating and food injection into the water. Water quality was to become an important topic in orchid magazines and was further popularized by Bob Gordon's widely read manual, *Orchid Seedling Care*, which recognized that hobby growers were growing orchids from seedlings and needed more-detailed cultural information for success, and that water quality was key to that success.

The plant-sale department sales volume increased annually through retail and wholesale sales nationwide at Hausermann's, reflecting the desire for pot



plants by the public. Show participation in Medellin, Colombia, and Hamburg, Germany brought no export orders, but were highlights for the firm and made it known on the international stage.

In 1973, a major opportunity came in the completion of my American orchid dream for our family in the creation of Oak Hill Gardens. A five-acre property with a home and commercial greenhouses was offered in Dundee, Illinois. It was located outside the Chicago suburban area but with no local plant or orchid plant market. We sold our Elmhurst home and moved to the unknown but well-designed and well-built facility. Miraculously, a nationwide interest in indoor plants developed on a large scale. We had the facilities and knowledge to propagate many terrarium

- [5] Seedling growing room for flasks and plastic flats at Oak Hill Gardens in 2002.
- [6] *Grammatophyllum speciosum* being divided with a spade (1987).
- [7] Hermann and Dorothy with *Cyrtopodium punctatum* 'Jack' CCM/AOS (1992).
- [8] The North American native *Cypripedium parviflorum* and trilliums at the north wall of a greenhouse at Oak Hill Gardens in the spring (1980-1990). A customer from Michigan had salvaged a few plants from a road building project. The shady protected area without trees assured even moisture, sufficient nutrients and light to make them grow better than generally seen in nature.

plants, then larger indoor plants, and hanging baskets. Orchid vendors often sold plants other than orchids to supplement their income. Customers came from near and far through our participation at the Chicago flower show. There we had displays and a sales booth. The public came to look, but also to buy—not so different from today’s orchid shows.

Some orchids were also purchased immediately to continue contact with hobbyists. A former cool room became the laboratory for orchids from seed. The CITES regulations had put all orchids on the endangered species list. Although this curtailed much orchid trade, it offered an opportunity for species seed propagation or cloning. One significant breakthrough was the cloning of a *Phragmipedium Sedenii* ‘Blush’ from flower stem tissue, which we listed in our 1983–85 catalog at \$8.00 in 2–3-inch (5.1–7.6 cm) pots. An abundance of flasks of the mysterious ghost orchid, *Dendrophylax lindenii*, was included in the business sale in 2012 when we retired.

A large concrete underground cistern was immediately built for our rainwater storage. A greenhouse was built over it, and heating pipes could heat the cold water. Hobby growers often also collect rainwater or now install reverse-osmosis systems to ensure that their orchids are not damaged by high-mineral-content water and to provide an environment that epiphytic orchids enjoy in the wild.

The orchids were kept virus-free by using a strong TSP (trisodium phosphate) solution to sterilize cutting tools in the process. Clean razor blades were used in cutting blooms and foliage, then sterilized in TSP overnight and reused for years.

A major technological advancement came through the purchase of an electrostatic spraying system for pesticides. This eliminated the need for spraying about 200 gallons (760 L) of solution for over 20,000 square feet (1,850 sq m) of plants. A four-gallon (15.1 L), stronger-solution, backpack tank was part of the electrostatic spraying system. Only 1–2 tanks were needed to spray more effectively with the air pressure and magnetic-static system.

Because the fir bark was and still is available in various grades, it was the basis for our orchid media. Although it is still the go-to for most growers, other bark products, such as the imported Orchiata bark, are becoming popular. Adding some peat moss or sphagnum moss helps hold moisture and nutrients. Cymbidiums were grown outside under 64% shade

cloth from May to September. They never bloomed sufficiently in our climate to make their growing profitable. The history of culture is much like this experience: one must adapt to one’s local environment and growing situation, whether it is indoors/outdoors, windowsill/under lights/greenhouse, apartment dwelling in the city or rural property, and the part of the country that you live in—cold or hot, dry or humid.

Co-Ray-Vac heating was another discovery we utilized for heating safety and efficiency. The traditional heating system for greenhouses consisted of low-pressure steam primarily under benches. Co-Ray-Vac was an air-based reflective heat system in 4-inch (10.2-cm) pipes above to reflect down from reflective covers onto the plants. It was intended as safety back-up and summer occasional heating while the steam boiler was shut off. I also feel the use of air movement in growing orchids in the colder upper midwest is often overdone. It can cause an adversely drafty, dry climate to advance insect proliferation and inhibit lush growth.

In retirement, we now grow around 30 phalaenopsis, cattleyas, oncidiums, dendrobiums and paphiopedilums in our four home windows facing east, south and west. We have come full circle from growing with the current technology to windowsill growing, as many of our customers have always done. The plants are potted in mostly plastic pots but sometimes in clay and in a fir-bark mix. They are placed in plastic trays with standing water on reversed saucers. Weekly watering is done with dehumidifier water (as it is pure) and occasional well water for some mineral supply. Fertilizer is added at 1/4 teaspoon (1.25 ml) per gallon utilizing 3–4 brands and formulations each time. Winter night temperatures are lowered to 60 F (15.6 C), with summer at 76 F (24.4 C) day and night. Heating and cooling outlets are deflected to avoid drafts on plants. We always have some orchids in bloom.

Once an orchid grower, always an orchid grower!

What will the future bring? Will the green revolution affect the availability of plastic pots and sphagnum moss? Experiments in using recycled ground tires as a potting medium have failed, and potting in Gromix or rockwool has been relegated to a few enthusiasts during the last 25 years. The *AOS Bulletin* and *Orchids* has followed these trends over the years with articles to help everyone



grow orchids better.

— *Hermann is one of the 12–16 million people who fled and were expelled from their East German homelands in 1945. He went to grade school and a 3-year floricultural apprenticeship in Hannover from 1945–1954. He subsequently worked with the best orchid firm in Celle, north of Hannover. Working for another firm near Cologne, he expanded his work experience into the bromeliads and tropical plants. In 1957, he immigrated to Chicago to live the American Dream. Here he worked with the Hausermann orchid firm for 17 years, building up an orchid plant business, which did not previously exist, as the firm they produced only cut flowers until 1959.*

In 1973, he purchased an existing greenhouse facility on five acres in Dundee, Illinois, and, with his family, established Oak Hill Gardens. This venture and firm grew incredibly fast and became a well-respected supplier of reasonably priced, locally produced orchids and house plants.

In 1995, the business was transferred to the next generation — daughter Liese and her husband Greg Butler operated the firm until 2012 when it was sold.

A Vintage View

American Orchid Society Special Annual Awards

BY NILE DUSDIEKER

ORCHID JUDGING HAS been an integral component of the American Orchid Society's mission from nearly the beginning of the society's existence. Since 1932, permanent records have established an ongoing history of these awards, including date of judging, exhibitor, detailed description with photograph and attachment of the award abbreviation to the clone name of the awarded plant. To date, the total number of AOS awards recorded is approaching 100,000. Over the last 56 years, the Board of Trustees has bestowed a series of special annual awards recognizing exceptional plants, culture, exhibition and breeding among AOS awards given in the previous calendar year. These special awards, now totaling 23, are meant to represent the best in their category. Except for the Jesup Trophy, all are monetary awards given to the plant exhibitor. In addition, awards are published in *Orchids Magazine* (previously known as the *AOS Bulletin*). All are permanently endowed. Let's take a look back at their origins with some select photos, where available, and comments about the initial award winners.

The Nax Botanical Trophy was the first AOS Special Award, established in 1964 by David and Micky Nax. It went to the grower of the most outstanding orchid species awarded the previous year. The first award (1965), *Phalaenopsis sanderiana* 'Varina' FCC-CCE/AOS, exhibited by Lewis C. Vaughn, was described as a large plant with five pairs of leaves to 14 inches (36 cm), and deep pink flowers with little venation. The 1966 award, *Vanda sanderiana* var. *alba* 'Lila J' FCC/AOS to grower Mr. and Mrs. J.J. Balga, Jr., had 15 striking flowers with sharp color contrast in white to green. The award winners' names and plants were inscribed on a plaque accompanying the acrylic trophy containing 12 orchids cast in solid gold housed at the AOS national office. This award was retired in 2001 and replaced by the Jesup Trophy.

The Ann and Phil Jesup Botanical Trophy, established in 2002, continues to



AOS AWARD ARCHIVES



RICHARD WAGNER



AOS AWARD ARCHIVES

this day to reward the most outstanding species awarded the previous year. This trophy is supported by donations in honor of the Jesups for their support of the AOS over many years. Both were Trustees, and Phil, now deceased, was an AOS judge. *Bulbophyllum sumatranum* 'Pepe le Pu' HCC/AOS grown by Richard Wagner,

was the first recipient in 2002. It was exhibited at the Michigan Orchid Society Show, Livonia, Michigan. Individual Jesup Trophies are given to the award winners.

The Butterworth Prize, since 1966, was permanently endowed by Rachel Butterworth Dietz in memory of her parents, John and Nancy Butterworth, and

DUSDIEKER

George Butterworth Sr., president of the AOS from 1953 to 1956. This award honors superlative orchid culture (Certificate of Cultural Merit and Certificate of Cultural Excellence) awarded during the prior year. The initial Butterworth Prize went to *Brassavola nodosa* 'Clearwater' CCM/AOS, which was grown by Roscoe Baker. It presented with over 700 flowers symmetrically covering the entire plant. A diverse variety of orchid genera have been honored over the years that followed.

Nine special awards were added in the 1990s. The Masatoshi Miyamoto Cattleya Alliance Award was established in the fall of 1991 by friends to honor Miyamoto's life's work (1914–1991). "Miya," as he was known by friends, was a pioneer in cattleya breeding at his Waianae nursery in Hawaii. The first award went to *Cattleya* (*Soprocattleya*) Beaufort 'Harford's Elmwood 4N' AM-CCM/AOS, grown by Thomas McBride. This was especially appropriate considering Masatoshi's innovation in breeding yellow cattleyas.

The W. W. Wilson Cyripedioideae Award (1991) was established by his friends to honor more than 50 years of growing slipper orchids. A physician by trade, orchids were his hobby. Wilson made hundreds of paphiopedilum crosses, many of which are the foundations of modern breeding lines today. He received over 500 AOS awards and five FCCs during his lifetime (1917–2014). *Paphiopedilum* Susan Booth 'J.C.' FCC-CCM/AOS, grown by John C. Kramer, was the initial award with eight, elegant flowers on two inflorescences. Over the ensuing years, Wilson awards have gone to phragmipediums and cyripediums as well.

The Roy T. Fukumura Vandaceous Award was established in 1992 to honor Roy's lifetime accomplishments breeding vandas. His grex, *Vanda* (*Ascocenda*) Yip Sum Wah, is one of the most highly awarded orchids by the AOS. He founded the Maui Orchid Society. This award includes *Vanda* species, hybrids and genera that hybridize with *Vanda*, excluding *Phalaenopsis*. The first award, *Rhynchostylis coelestis* var. *coerulea* 'Lea' CCM/AOS, grown by Richard Takafuji, had 670 flowers on 18 inflorescences.

The Herbert Hager *Phalaenopsis* Award was established in 1992 by funding from the International *Phalaenopsis* Alliance and friends of the late Herbert Hager to recognize his lifetime dedication to the advancement of orchids, especially *phalaenopsis*. The first Hager Award went to *Phalaenopsis* Carmela's Pixie 'Mistral's



- [1] 1966 Nax Botanical Trophy winner, *Vanda sanderiana* 'Lila J' FCC/AOS exhibited by J.J. Balga, Jr.
- [2] 2002 Ann and Phil Jesup Botanical Trophy winner, *Bulbophyllum lobbii* subsp. *breviflorum* 'Pepe le Pu' HCC/AOS exhibited by John Lewis.
- [3] 1967 Butterworth Prize winner, *Brassavola nodosa* 'Clearwater' CCM/AOS (note today this would be a Certificate of Cultural Excellence with 91pts) exhibited by Roscoe Baker.
- [4] 1991 Masatoshi Miyamoto Cattleya Alliance winner, *Cattleya* Beaufort 'Harford's Elmwood 4N' CCM-AM/AOS exhibited by Tom McBride and the Little Greenhouse.
- [5] 1992 Roy T. Fukumura Award winner, *Rhynchostylis coelestis* 'Lea' CCM/AOS exhibited Richard Takafuji.
- [6] 1990 winner of the W.W. Wilson Cyripedioideae Award, *Paphiopedilum* Susan Booth 'J.C.' CCM-FCC/AOS exhibited by John C. Kramer.

Plum Wine' AM/AOS, exhibited by Mark T. Steen. This was the first AM/AOS received for this pioneering cross in multifloral phalaenopsis breeding.

The Carlyle A. Luer Pleurothallid Award was also established in 1992 by the Pleurothallid Alliance and friends of Carl Luer (1922–2019). His unique taxonomic work promoted massive interest in Pleurothallidinae over the ensuing years. He was a physician and botanist who devoted his retirement to the study and illustration of these unusual orchids. The initial award, *Masdevallia* *Falcata* 'Jeannette' FCC/AOS, exhibited by Harry Evans, had 23 vibrant, deep-garnet flowers and six buds on a 6-inch (15-cm) plant.

The Merritt W. Huntington Award was established in 1992 to recognize the most outstanding plant awarded a First-Class Certificate (FCC/AOS), the highest flower quality award offered by the AOS. This was endowed by friends of Merritt Huntington (1927–2005) to recognize his dedication and service to the AOS. He established the first AOS judging center in New York, served as an AOS judge and trustee, and AOS President in 1974. The first three annual awards were 1992, *Cattleya* (*Sophranitis*) *coccinea* 'Neon Light' FCC/AOS (Fordyce Orchids); 1993, *Guarianthe* (*Cattleya*) *skinneri* 'Carpinteria' FCC/AOS (Stewart Orchids); and 1994, *Catasetum* *Susan* Fuchs 'Burgundy Chips' FCC/AOS (Charles Alford).

The James and Marie Riopelle Award was established in 1993 to recognize the most outstanding species or hybrid *Miltonia* or *Miltoniopsis* awarded the previous year. The Riopelles were dedicated to the advancement of orchids, especially *miltonia* hybridization and culture. This award was endowed by Mr. and Mrs. James H. Riopelle and others. The first award was *Miltonia* *Alysen* Ono 'Lizz' AM/AOS, grown by Hajime Ono, with six beautiful, rose-pink flowers, white lips, and delicate waterfall patterns.

The Robert Dugger *Odontoglossum* Award was established by the *Odontoglossum* Alliance and friends of the late Robert Dugger in 1996. It honors the best award to a plant historically classified as an *Odontoglossum* or containing an *Odontoglossum* in its pedigree at the time this award was initiated. The taxonomy of these plants has been changed recently to *Oncidium* and related genera. Robert created over 5,000 hybrid crosses starting in the 1980s. These popular star-shaped hybrids grow readily in common household conditions and the blooms are long lasting.



AOS AWARD ARCHIVES



AOS AWARD ARCHIVES



AOS AWARD ARCHIVES

- [7] *Phalaenopsis* *Carmela*'s Pixie 'Mistral's Plum Wine' AM/AOS, 1991 Herbert Hager Award winner exhibited by Mark T. Steen.
- [8] 1991 winner of the Carlyle A. Luer Award, *Masdevallia* *Falcata* 'Jeannette' CCM-FCC/AOS exhibited by Harry R. Evans.
- [9] *Guarianthe* *skinneri* 'Carpinteria' FCC/AOS, winner of the 1993 Merritt W. Huntington Award exhibited by Stewart Orchids.
- [10] Winner of the 1993 James and Marie Riopelle Award, *Miltoniopsis* *Alysen* Ono 'Lizz' AM/AOS, exhibited by Hajime Ono.
- [11] *Otorhynchocidium* *Cherry* Fudge 'Swiss Mocha' AM/AOS, winner of the 1995 Robert B. Dugger Award exhibited by Doug and Terry Kennedy.
- [12] *Rossioglossum* *Rawdon* Jester 'San Damiano' CCM-FCC/AOS, winner of the 1996 Dugger Award, exhibited by Joseph L. Walker.
- [13] *Dendrobium* *densiflorum* 'Meredith Ann' CCM/AOS, winner of the 1996 Benjamin Kodama Award, exhibited by Spencer's Greenhouse.

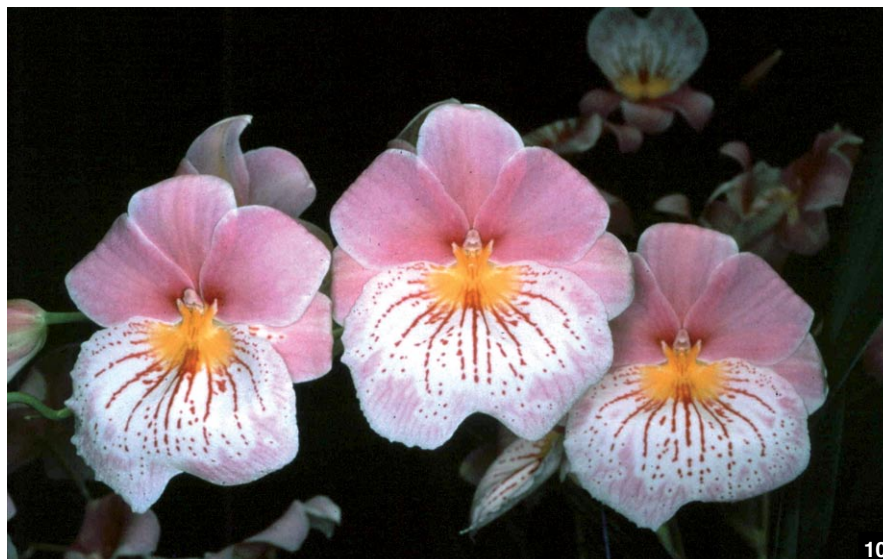
Otorhynchocidium (*Odontocidium*) Cherry Fudge 'Swiss Mocha' AM/AOS, grown by Doug and Terry Kennedy, was the initial award recipient. The following year's winner was an impressive *Rossioglossum* (*Odontoglossum*) Rawdon Jester 'San Damiano' FCC-CCM/AOS grown by Joseph L. Walker, PhD.

The Benjamin Kodama Award recognizes the most outstanding award in the Dendrobium Alliance. It was established in 1996 with donations honoring Benjamin Kodama (1925–2017) for his pioneering work hybridizing orchids at his nursery in Hawaii. He registered over 500 hybrids and frequently liked to use "Hawaiian" in their names. The first award was to *Dendrobium densiflorum* 'Meredith Ann' CCM/AOS (Spencer's Greenhouse), which was a marvelous specimen plant with over 2,000 flowers on 69 inflorescences.

The Benjamin C. Berliner Award is given to the most outstanding award from the genus *Lycaste* and closely allied genera. This was endowed in 2000 by donations honoring Benjamin Berliner (1917–2001), a physician and renowned orchidist who promoted education and conservation of orchids around the world. The initial award in 2000, *Lycaste* Island of Vulcorn 'Jane Bulman' AM/AOS was exhibited by Dennis Dayan, who also received the third Berliner Award for *Lycaste* Absolutely Stunning 'Sandra Dayan', FCC/AOS in 2002.

The Fred Hillerman Award for most outstanding Angracoid Alliance plant was established in 2000. It was endowed by friends to honor Fred Hillerman (1914–2011) for his love of orchids native to Africa and Madagascar. He was a pioneer hybridizer and educator. In retirement, he started a business, The Angraecum House, for importing and selling orchids. *Aerangis* Ivory Star 'Max' AM/AOS (Max Thompson) won the initial award in 2001 with 49 delicate, star-shaped flowers on three inflorescences to 17 inches (43 cm) in length.

The Milton Carpenter Intergeneric Oncidiinae Award was added in 2006, endowed by friends. Milton Carpenter, who still lives in Florida, was a commercial grower, hybridizer, and President of the AOS in 1998. He founded Everglades Orchids and is the author of several books. *Bratonia* (*Miltassia*) Dark Star 'Darth Vader' CCM/AOS, grown by Cathy Sullivan, received the initial award. This particular clone is the only one awarded to this grex with nine AOS awards to date. According to the AOS Judging Handbook,



10

AOS AWARD ARCHIVES



11

AOS AWARD ARCHIVES



12

KARL SIEGLER



13

ARTHUR PINKERS

“A plant may be simultaneously eligible for the Carpenter (intergeneric hybrids), Dugger (*Odontoglossum* in the genetic background), or Riopelle Award (*Miltonia*/*Miltoniopsis*); however, the plant may not win more than one of these prestigious awards.”

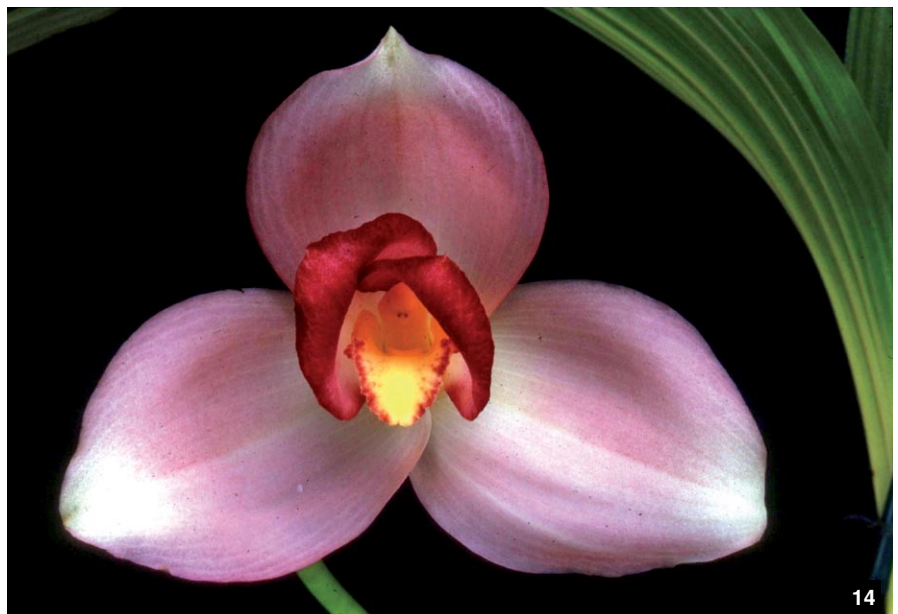
The Ernest Hetherington Cymbidium Award was established in 2006. This award was endowed by the Cymbidium Society of America, which also sponsors an orchid judging program. Ernest Hetherington (1917–2016) was a hybridizer of cymbidiums and cattleyas at Stewart Orchids in California, creating hybrids with such well-known names as Jewel Box, Chocolate Drop, Puppy Love, and Pamela Hetherington, to name a few. The initial winner, *Cymbidium* Clarisse Pepper ‘Rebecca’ HCC/AOS (Linsie Hu), had 19 brick-red flowers and 12 buds on three arching inflorescences.

The Bill Thoms Award for the most outstanding *Bulbophyllinae* was added in 2007. It was endowed to honor Bill Thoms, a renowned grower, author, and speaker on *bulbophyllums*. He is known for his humor and practicality in his presentations. *Bulbophyllum* Crownpoint ‘Algonquin’ AM/AOS; grower, F. Thomas Ott, was the initial award.

The Frank Sr. and Elizabeth Jasen Stanhopea Award was endowed by the Jasen family in 2012. Frank Sr. (1920–2012) and his wife were known for growing unique and unusual orchids. Related genera in the Stanhopea Alliance are eligible for this award. The first award was given in 2014 to *Stanhopea* Assidensis ‘Christine Bagsican’ AM/AOS, grown by Judith Neufeld.

Four awards were added since 2016, adding further diversity to these special awards. The Fuchs Family Award for the most outstanding plant awarded in the genus *Vanda* (excluding intergeneric hybrids), added in 2016, was endowed by the West Palm Beach Judging Center to honor the Fuchs family for being great ambassadors for the AOS over three generations. *Vanda* Trevor Rathbone ‘Passion’ AM/AOS, exhibited by Mark Licht, received the first award with 21 lavender flowers overlaid with grape-purple spotting. *Vanda* species and hybrids may be eligible for either the Fuchs Family or Fukumura Awards but not both.

The Paul and Mary Storm Award, added in 2017, recognizes the most outstanding hybrid with at least one member of the former genus *Schomburgkia* (now *Myrmecophila* or certain *Laelia*) in the genetic background.



14

CHARLES M. FITCH



15

AOS AWARD ARCHIVES

The eligible *laelia* species are listed in the Judging Handbook on aos.org. Endowed by friends of the Storms, this award highlights hybrids that are not intended to be round, full flowers. Paul and Mary have one of the largest collections of “anything Schombo” at their nursery in Sarasota, Florida. *Rechingerara* Honky Tonk Woman ‘Crownfox’ AM/AOS, exhibited by RF Orchids, received the initial award.

The Mario and Conni Ferrusi Award, added in 2018, rewards the most outstanding *Masdevallia*, *Dracula*, or *Dracuvallia*. This was endowed to honor Mario Ferrusi (1947–2016) and his wife, known as avid growers, exhibitors, and great ambassadors promoting the orchid hobby. Mario was a founding member of the Niagara Region Orchid Society and was active in orchid societies on both sides of the Canadian and US border. *Masdevallia*



16

KARL SIEGLER

ROBERT STILMAN



TOM KULIGOWSKI



TOM KULIGOWSKI



CRAIG PLAHN



CRAIG PLAHN



MALCOLM MCCORQUODALE



- [14] *Lycaste* Absolutely Stunning 'Sandra Dayan' FCC/AOS, winner of the 2002 Benjamin Berliner Award, exhibited by Dennis Dayan.
- [15] *Miltassia* Dark Star 'Darth Vader' CCM/AOS, winner of the 2006 Carpenter Award, exhibited by Cathy Sullivan.
- [16] Winner of the 2001 Hillerman Award, *Aerangis* Ivory Star 'Max' AM/AOS, exhibited by Max C. Thompson.
- [17] Winner of the 2006 Hetherington Award, *Cymbidium* Clarisse Pepper 'Rebecca' HCC/AOS, exhibited by Linsie Hu.
- [18] *Vanda* Trevor Rathbone 'Passion' AM/AOS, 2015 Fuchs Family Award winner, exhibited by Mark Licht.
- [19] *Rechingerara* Honky Tonk Woman 'Crownfox' AM/AOS, winner of the 2015 Paul and Mary Storm Award, exhibited by R.F. Orchids, Inc.
- [20] *Bulbophyllum* Crownpoint 'Algonquin' AM/AOS, winner of the 2017 Bill Thoms Award, exhibited by F. Thomas Ott.
- [21] 2018 winner of the Ferrusi Award, *Masdevallia* Confetti 'Spikenard' CCE/AOS, exhibited by Rick Rancourt.
- [22] 2014 winner of the Jasen Award, *Stanhopea* Assidensis 'Christina Bagsican' AM/AOS, exhibited by Judith Neufeld.



JULIE MCMILLAN
23

Confetti ‘Spikenard’ CCE/AOS (Rick Rancourt) received the first award for a plant with 67 fragrant, speckled flowers evenly distributed on a plant growing in a 2.5-inch (6-cm) pot.

The final two special awards recognize different aspects of the orchid milieu. The Walter Off Exhibit Award (2017) is given to the most outstanding Show Trophy, Silver, Gold, or Educational exhibit awarded during the prior year. Both amateur and commercial exhibitors are eligible for this award. It was endowed by friends of the late Walter Off, an excellent exhibitor of orchids but also a teacher of how to display orchids properly for maximum enjoyment. American Orchid Society Gold Certificate ‘Western North Carolina Orchid Society’ GC/AOS, won the initial award for a 210-square-foot (19.5 sq. m) exhibit arranged around a Chinese archway.

The Martin Motes Breeder’s Award is the latest addition. This self-funded award is given to the breeder/exhibitor of the best Award of Quality or Award of Distinction for a specific hybrid cross. It differs from the AOS Hybridizer’s Award, which honors a breeder’s lifetime of hybridizing. The initial award went to *Phalaenopsis bellina* ‘(Jim Krull’ AM/AOS × ‘Judy Smith’)’ AQ/AOS exhibited by Krull-Smith.

The AOS Special Awards for 2019 will appear in the upcoming April 2021 edition of *Orchids* magazine. Take a look and see how they compare!

This article was compiled from information available on the American Orchid Society website, aos.org, including archived magazines, the Judges



WES NEWTON
24

Handbook, *OrchidPro*, and from personal communication with AOS staff.

— *Nile Dusdieker is a retired physician and an accredited American Orchid Society judge associated with the Chicago judging center. He and his wife, Lois, grow around 900 orchids of varied genera in a greenhouse atop their third garage at their North Liberty, Iowa home. Most of the orchids move to an outside pergola for the summer months. Nile enjoys giving presentations on a wide variety of orchid topics and has presented at international meetings (email: niledusdieker@gmail.com).*

[23] Pictures do not often do justice to displays and such is the case with the 2017 Western North Carolina Orchid Society display, the winner of the first-ever Walter Off Exhibit Award. This magnificent display won the AOS Show Trophy and also earned a Gold Certificate.

[24] Awards of Quality are also difficult to photograph and catch the stunning features that caught the judges’ eye. This strain of *Phalaenopsis bellina*, a cross of ‘Jim Krull’ AM/AOS × ‘Judy Smith’, originated and exhibited by Krull-Smith resulted in five Awards of Merit, the Award of Quality and the 2018 Martin Motes Orchid Breeders’ Award.

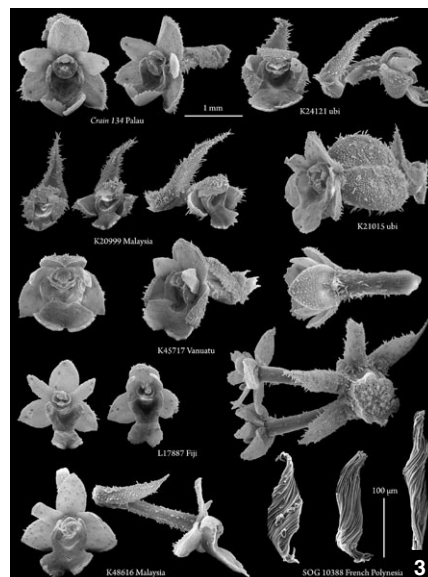
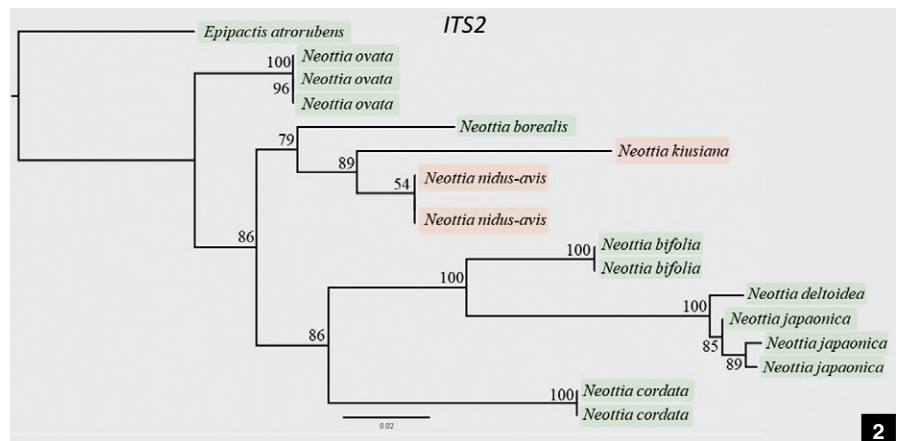
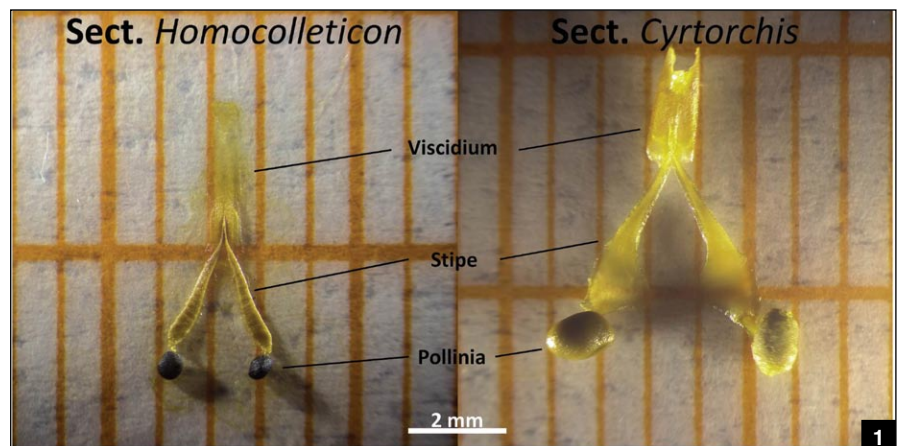
History of the AOS Research Committee

BY ROB GRIESBACH

PRESIDENT RONALD REAGAN told the nation about the importance of basic research. In his April 2, 1988 address to the nation, he stated “The remarkable thing is that although basic research does not begin with a particular practical goal, when you look at its results over the years, it ends up being one of the most practical things the government does.” If basic research has a practical value, why is it in the best interest of the government or the AOS to fund it? This was elucidated by President John F. Kennedy. At the 100th Anniversary of the National Academy of Sciences convocation on October 22, 1963, he stated “Science alone can establish the objectives of their research, but society in extending support to science, must take account of its own needs.” The American Orchid Society has had a significant impact on the practical outcome of basic orchid research through its funding of \$961,000 to 204 grants and \$414,000 to 16 fellowships.

This impact began in 1949, when the AOS established a Scientific Advisory Board to select research projects for funding. Dr. Gavin Rotor, Jr. at Cornell University was one of the first scientists to receive funding. In 1949, Dr. Rotor published in the December issue of *AOS Bulletin* an article on a new method using tissue culture to propagate *Phalaenopsis* vegetatively. In 1950, he was awarded \$1,000 to continue that research. This research is basis for the today’s methods for stem-propagating *Phalaenopsis*.

A more formal approach to awarding research grants occurred in 1952. At the March 1952 Trustees’ Meeting, a Research Committee was established to review research proposals and make recommendations for funding. However, it was not until 1956 that the Research Committee received its first annual budget — \$4,400. The funds were to be used to support two different programs: (1) a fellowship program “financed for sufficient periods of time to work out major research problems” and (2) a grant program “allocated in smaller sums ... to



- [1] Comparison of pollinarium structure in *Cyrtorchis* illustrating the distinguishing differences between section *Homocolleticon* and section *Cyrtorchis*. Courtesy of Laura Azandi.
- [2] Maximum likelihood phylogram for the ITS2 marker for *Neottia bifolia* samples and BLAST search results in *Neottia* and *Listeria*. Photosynthetic species are highlighted in green and species that are mycoheterotrophic as adults are highlighted in tan. Courtesy of Dr. Jeremy Rentsch.
- [3] SEM photographs of the flowers of selected *Oberonia* species. Courtesy of Dr. Daniel L. Geiger.

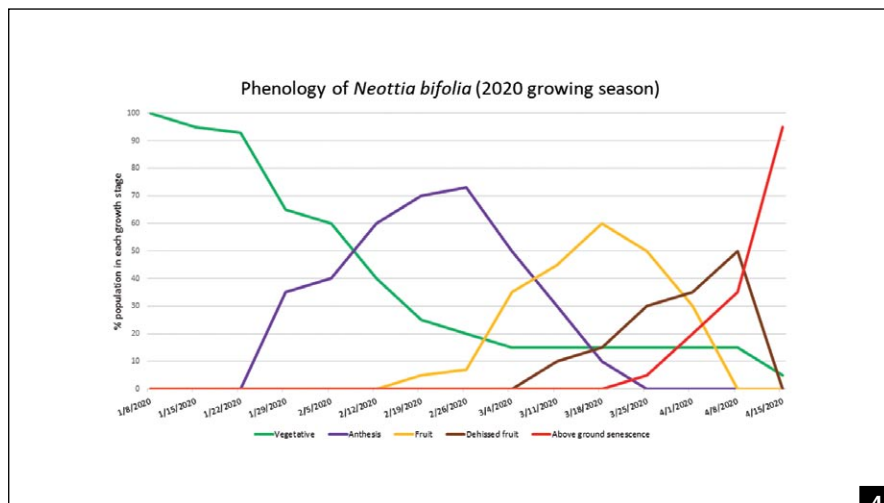
establish smaller projects.”

The first two Fellowships went to Dr. Gustav Mehlquist at the University of Connecticut and Dr. Haruyuki (Harry) Kamemoto at the University of Hawaii. Both projects were on the cytogenetics of diploid and polyploid orchids. It was not until the early 1950s that it was known that some of the major breakthroughs in breeding *Cattleya* (Bow Bells in 1945), *Phalaenopsis* (Doris in 1940) and *Cymbidium* (Alexanderi in 1911) were the result of polyploidy. There was a pressing need to identify polyploid parents and understand their breeding behavior. This research resulted in many of the commercial orchid breeders purchasing microscopes and starting to count chromosomes.

From 1959 to 1964, Dr. Yoneo Sagawa of the University of Florida was awarded a Fellowship to study seed development. Mature seed was not always obtained with polyploid parents or crosses between different species. Seed development started, but was never completed. Dr. Sagawa discovered that if immature seed from “green” capsules from these crosses was cultured in vitro, it would germinate and produce viable seedlings. Because of the importance of this research, his preliminary results were published in the October 1962 issue of the *AOS Bulletin*. Today, nearly every laboratory uses Dr. Sagawa’s “green pod” method.

The fellowship program only lasted for a few years; however, in 1990, the fellowship program was restarted. In the new version, three-year fellowships at \$9,000 for one year were awarded to doctoral students. To expand the program, Pete Furniss through the Furniss Foundation provided funds to award additional fellowship for doctoral students. Norman Fang through Norman’s Orchids worked with committee to fund two-year fellowships at \$5,000 per year for master’s degree students.

A major change in the AOS’s research program occurred in 1966. This was the year the AOS’s Fund for Education and Research, Inc. (FER) was established. Over the years, the AOS set aside a portion of its income as a Research Income Fund. When this fund reached \$100,000, its income from investments was used to finance the fellowship and grant programs. By the 1960s, due to rising costs and expanded services, it was no longer possible for the AOS to set aside any additional income for the fund. Because the AOS did not have a tax status allowing for tax-deductible contributions, the fund could not be



4

expanded through gifts and donations. Therefore, the FER was incorporated as a separate entity from AOS to accept tax-deductible contributions. All members of the AOS were automatic members of the FER. Management of the FER was by a Board of Directors that was distinct from the AOS Board of Trustees. The Board of Directors, like the Board of Trustees, was elected by the AOS membership. In 1973, the FER established a Conservation Fund and changed the purpose and name of the Research Fund to Research and Education Fund. FER now contained three Committees — Research, Conservation and Education. In less than 10 years, the Fund grew by 20% to over \$120,000. During the 1970s, donations ranged from \$10,000 to \$20,000 per year.

During the late 1960s, the Board of Directors recognized the need to provide members an authoritative source to identify orchid species correctly. Quite a few species were awarded under the wrong name and several illustrations in the *AOS Bulletin* were incorrectly identified. In 1968, Dr. Herman Sweet of Harvard University was awarded a grant to publish a review and guide to *Phalaenopsis* species in the *AOS Bulletin*.

His key was critical in identifying the true parents of many hybrids and correcting the AOS award records. For example, *Phalaenopsis* Golden Sands was not made with *Phalaenopsis lueddemanniana*, but with *Phalaenopsis fasciata*. The awarded *Phalaenopsis mariae* var. alba ‘Crestwood’ CBM/AOS was actually *Phal. lueddemanniana* var. *ochracea*. In 1975, to provide an authoritative source for orchid species, the FER helped establish and fund (yearly) the Orchid Identification Center at Marie Selby Botanical Gardens.

In 1986, the AOS’s tax status changed,

allowing for tax-deductible contributions. Because of this change, there was no longer a need for the FER. At spring meeting, the Fund Directors voted to dissolve the FER and transfer the Research and Education Fund and the Conservation Fund to the AOS. The Research, Education and Conservation Committees were then reincorporated within the AOS.

Also in 1986, the AOS began a new publication called *Lindleyana*. The goal of this journal was to publish scientific, peer-reviewed papers. All the scientists AOS funded were required to publish their results in the *AOS Bulletin*; however, surveys showed that the most of the membership was not interested in technical papers. In addition, the *AOS Bulletin* did not qualify as a scientific, peer-reviewed journal. Therefore, the AOS launched *Lindleyana* as a quarterly, peer-reviewed, scientific journal that was professionally recognized. In 2002, the last issue of *Lindleyana* was published. *Lindleyana*-type papers are now included in *Orchids* magazine on an ad hoc basis. We are now encouraging AOS-funded scientists to publish their research results in established journals and write nontechnical summaries for *Orchids*.

In the late 1980s, a change occurred in the research grant program. Instead of only funding proposals between \$500 and \$2,500, proposals up to \$25,000 per year were accepted. One of the reasons behind this change was to be competitive with federal research grants and attract nonorchid researchers into using orchids as a research subject. One of the success stories is from Dr. Sharman O’Neill at the University of California.

At a national scientific meeting, one of the Research Committee members mentioned to Dr. O’Neill the benefits of using *Phalaenopsis* as a model system for

studying flower senescence and that the AOS had research funding available. In 1990, she submitted a proposal entitled “Molecular Genetic Regulation of Orchid Flower Senescence” that was awarded a three-year grant at \$12,000 per year for a total \$36,000. As a result, Dr. O’Neill determined that there were two major genes involved in phalaenopsis flower senescence. The Research Committee encouraged Dr. O’Neill to identify a doctoral student to further the research. In 1991, the AOS awarded Ms. Janette Nadeau, a student with Dr. O’Neill, a three-year doctoral fellowship at \$9,000 per year to elucidate the regulation of one of the two major genes involved in senescence.

Dr. O’Neill used the research data from the AOS grants to obtain a major grant (over \$200,000 for several years) from the U.S. Department of Agriculture to expand the research. In her research progress update she reported that “The AOS funding provided the initial support that was necessary to initiate several lines of research that are now sufficiently advanced to attract funding from federal research agencies. This new funding provided the basis to substantially multiply AOS support and provides a strong base to more fully develop the molecular biology of orchids.”

The results of this research supported by the AOS and the USDA were the identification of two major genes that were responsible for inducing flower senescence and mode of action of one of those genes (Nadeau et al. 1993, O’Neill et al. 2017).

While Dr. Abraham Halevy of the Hebrew University of Jerusalem was visiting the lab of a Research Committee member, the discussion turned to floral senescence. It was suggested that Dr. Halevy find a doctoral student to work with Dr. O’Neill’s research group. In 1993, the AOS awarded Mr. Ronald Porat a three-year doctoral fellowship at \$9,000 per year to work with Dr. O’Neill’s group to determine the exact molecule that signaled the start of the senescence process. He determined that the onset of wilting is the result of an increase in the sensitivity of the flower to ethylene instead of an increase in its synthesis (Porat 1994).

Because of the success of the AOS-funded parentship, Dr. Halevy and Dr. O’Neill submitted a grant proposal to the Binational Agricultural Research and Development Fund (BARD) that was awarded \$240,000 for three years. This



5

grant resulted in a further elucidation of flower senescence in *Phalaenopsis* (Porat 1994, Porat et al. 1998).

While identifying genes expressed during postpollination, Dr. O’Neill’s group discovered a link between postpollination gene expression and ovule development (Nadeau et al. 1996). The results of this research are being used to help understand fertilization and seed development (Chen et al. 2020).

This research demonstrated the value of using *Phalaenopsis* as a model plant. As a result, other scientists started using *Phalaenopsis* for their research. For example, researchers at the National Cheng Kung University in Taiwan discovered a gene that regulated ovule development through ethylene (Tsai et al. 2008).

By supporting research, the AOS has contributed both to the creation of improved orchid cultivars, as well as improved methods for their cultivation. For a listing of all the funded scientists and their grants and fellowships, check out the AOS website at <https://www.aos.org/about-us/orchid-research.aspx>

REFERENCES

Chen, Y.-Y., Y.-Y. Hsiao, S.-B. Chang, D. Zhang, S.-R. Lan, Z.-J. Lui, and W.-C. Tsai. 2020. Genome-Wide Identification of YABBY Genes in Orchidaceae and Their Expression Patterns in *Phalaenopsis* Orchid. *Genes* 11(9):955.

Nadeau, J.A., X.S. Zhang, H. Nair, and S.D. O’Neill. 1993. Temporal and Spatial Regulation of 1-Aminocyclopropane-1-A-carboxylate Oxidase in the Pollination-Induced Senescence of Orchid Flowers. *Plant Physiology*

[4] Phenology of *Neottia bifolia* in a selected flowering season. Values are reported as proportion of total plants surveyed in any stage at a time, with the exception of above-ground senescence, which was cumulatively presented in this study. Courtesy of Dr. Jeremy Rentsch.

[5] Replanting *Platanthera holochila* seedlings in the laboratory. Courtesy of Dr. Lawrence Zettler.

103:31–39.

Nadeau, J.A., X.S. Zhang, J. Li, and S.D. O’Neill. 1996. Ovule Development: Identification of Stage-Specific and Tissue-Specific cDNA. *Plant Cell* 8:213–239.

O’Neill, S.D., A.Q. Bui, D. Potter, and X.S. Zhang. 2017. Pollination of Orchid Flowers: Quantitative and Domain-Specific Analysis of Ethylene Biosynthetic and Hormone-Induced Gene Expression. *International Journal of Plant Sciences* 178:188–210.

Porat, R. 1994. Comparison of Emasculation and Pollination of *Phalaenopsis* Flowers and Their Effects on Flower Longevity, Ethylene Production and Sensitivity to Ethylene. *Lindleyana* 9:85–92.

Porat, R., A.H. Halevy, M. Serek, and A. Borochoy. 1995. An Increase in Ethylene Sensitivity Following Pollination is the Initial Event Triggering an Increase in Ethylene Production and Enhanced Senescence of *Phalaenopsis* Orchid Flowers. *Physiologia Plantarum* 93:778–784.

Porat, R., J.A. Nadeau, J.A. Kirby, E.G. Sutter, and S.D. O’Neill. 1998. Characterization of the Primary Pollination Signal in the Post-Pollination Syndrome of *Phalaenopsis* Flowers. *Plant Growth Regulation* 24:109–117.

Tsai, W.-C., Y.Y. Hsiao, Z.-J. Pan, C.S. Kuoh, W.H. Chen, and H.H. Chen. 2008. The role of Ethylene in Orchid Ovule Development. *Plant Science* 175:98–105.

History of American Orchid

BY TAYLOR SLAUGHTER

AMERICAN ORCHID SOCIETY recognition of quality orchids is virtually as old as the Society itself. In fact, minutes of the meeting on April 7, 1921, at which the Society's bylaws were adopted, record a suggestion by Alfred J. Loveless in favor of "having committees in various centres (sic) to recognize worthy individual orchids." At their second meeting on November 4, 1921, trustees discussed awards for competition and proposed that a gold medal be offered for the best orchid exhibited at any exhibition of a regularly organized horticultural society. After discussion, the consensus favored "few awards which should be of the best" and that "only experts should be employed as judges." The first AOS National Orchid Show was held in 1924, at which gold and silver medals were awarded. Permanent, recorded awards that would follow an outstanding plant's name were created in 1932, the AOS's 11th year.

The early awards were made by teams of judges appointed by the AOS President at each quarterly meeting of the Society. These judges were people whose background and experience in orchids gave them automatic recognition as orchid authorities. There were no formal rules or regulations. Instead, the awards were made on the basis of a consensus of the judging team in a system reminiscent of the "appreciation method" employed by the Orchid Committee of the Royal Horticultural Society in England.

In 1944, R.H. Gore made two proposals: (1) that a pictorial record of plants receiving awards be instituted to "... set a precedent on which awards can be based," and (2) that a rating or point system be established giving credits for certain features. Gore also suggested that five judges each rate the flower and their ratings be averaged, thereby backing the awards with "... something besides the opinion of the individual judges." This marks a break with the RHS system of judging by appreciation, to one with a more objective assessment of the plants.

In 1947, the president appointed a committee to draw up a standard of Rules for Judging. Having no limit set to its powers, the committee proceeded to



SUSAN WEDEGAERTNER 1

review the whole problem that confronted the Society in a broad and general light. This committee's work resulted in the publication of the first *Handbook on Judging in Exhibition* in July 1949. With the publication of the Handbook, the Committee on Arrangements was renamed the Committee on Awards.

Up to 1950, judges had been recommended to and appointed by the President or the trustees. At the fall meeting that year, the trustees voted that all future recommendations for certified judges be turned over to the Committee on Awards (COA) for preliminary evaluation of the candidate's qualifications. Mention

- [1] Judges in the California Sierra-Nevada center examining plants submitted for a possible Award of Quality.
- [2] Left to right: Phyllis Prestia, accredited, Pacific South center; Susan Wedegaertner, chair of the California Sierra-Nevada Center; Tom Pickford, accredited, California Sierra Nevada center and Laura Bonnell, Toronto center.
- [3] Judges volunteer their time, sometimes traveling long distances, to judge shows and monthly judging sessions.

Society Judging

was also made in the COA Report for September 1951 of the “demands of localities for more orchid judges.” In 1949, monthly judging was established at the Essex House in New York City in cooperation with the Horticultural Society of New York.

By 1955, the revised edition of the *Handbook* stated that monthly judging in New York City “established a criterion which has been received with much enthusiasm and cooperation as evidenced by the flowers sent each month from growers throughout the United States, its possessions, neighboring and distant countries. Through these meetings the COA has gained considerable experience and knowledge, which greatly assisted in the development of the judging program. Sensing a very definite need because of the great distances and other factors involved, it has recommended the establishment of monthly judging in three other regions of the country, specifically in Miami FL, Los Angeles CA, and in the Bay area of California, serving San Francisco, Berkley, Oakland, and the whole Northwest.”

This edition of the *Handbook* also recognized the need for better organization of the judging system. As a result, all judges were to be appointed after certification by the COA following completion of a background questionnaire in conformity with the new rules.

In April 1958, the COA reported that, “the mechanics of organization and routine have improved considerably and are running quite smoothly,” and that with the “...increased facilities for regular judging and the adoptions of the High Class Certificate, the number of awards has materially increased.” The COA also recommended that a \$5 charge be assessed to defray the expenses of the award certificates. It reported that the first supplement to the Register of Awards was in press and would, for the first time, include black and white illustrations of the awards. At this time, a number of policies were made relating to the unity of judging standards throughout the various regional areas, but these were not listed in the report.

Later in 1958, the minimum area



WES NEWTON



GREG ALLIKAS

requirement for the AOS Show Trophy was reduced from 50 square feet to 25 square feet. The rationale in the report stated that this would increase competition, because, “In too many society shows there may be only one exhibitor who can put up a 50-square-foot group of any quality.”

Over the many years of AOS awards, the types of awards and their names have undergone many changes. The early awards were trophies given at the major flower shows in Boston, Massachusetts, New York, New York, Philadelphia, Pennsylvania, Washington, D.C., Miami, Florida, and Oakland and

Pasadena, California. The AOS show trophy started as the President’s Trophy for most meritorious exhibit. There also were a Vice-President’s Trophy for the best American-raised seedling and even an Affiliated Societies Trophy for the best American-raised seedling blooming for the first time. To encourage orchid show judging, the AOS offered a 2-inch (5 cm) Silver Medal in 1952 for the most meritorious exhibit when not superseded by the larger silver trophy voted by the Trustees. Certainly in those days, they really meant silver awards! The Award of Merit (AM) and the First Class Certificate

(FCC) have been consistent throughout, but the Highly Commended Certificate (HCC) was originally the High Class Certificate, and unregistered hybrids were granted the Certificate of Preliminary Commendation, which was changed to an AM or FCC according to points given once it had been registered. New species were originally granted a Certificate of Botanical Merit (CBM), which was later divided into two awards, the Certificate of Botanical Recognition (CBR) and the Certificate of Horticultural Merit (CHM).

The third edition of the *Handbook* was issued in 1960 with a revision in the point scales to a less complicated breakdown. This revision also included definitions of the duties and responsibilities of the Committee on Awards as approved by the Trustees in November 1959. The organization of the COA was changed to include a chairman and working committee from a specific area of the country. John Hanes from California became the first chairman from the West Coast in 1962. In 1966, the chairmanship moved to Florida under Thomas A. Fennell, Jr. In 1972, Dr. David H. Brown became chairman representing Mid-America in St. Louis, Missouri, followed by Raymond McCullough from Ann Arbor, Michigan. In 1977, the chairmanship moved to the Northeast, with Merritt W. Huntington as chairman, followed by Dr. J. Woodson Phillips. The chair then moved to the Northwest under Maurice E. Powers in 1982, followed by James H. Riopelle. Following the October 1986 Trustees' Meeting in Atlanta, Georgia, Anna Lee Boyett from the Southern Region became chairwoman. In 1990, the chair moved to the Southwest Region, with Anita Aldrich as chairwoman. Paul Bechtel, of the Pacific South center, succeeded as chair in 1996. The Pacific Northwest center followed in 2000 with James Rassman as chair. In 2004, the chairmanship moved to the Atlanta, Georgia center with Aileen Garrison as chair. The chair then moved to the Northeast, with Gary Kraus, M.D. as chair, followed by Harry Gallis, M.D. from the Carolinas center. Atlanta, Georgia served as the next home of the chairmanship, with Aileen Garrison as chair beginning in 2014. In 2018, the chair moved to the National Capital Center, with Taylor Slaughter as chair.

In 1995, the organization of the COA was changed to include all center chairs as active members of the committee, who were now expected to attend meetings and participate in the governance of the COA. The chair continued to be

appointed, along with 3–5 other members as needed for the smooth operation of the committee. This new structure gave greater voice to the individual centers. At that time, the name of the Committee was changed to the Judging Committee.

Two years after the 1957 Second World Orchid Conference, held in Honolulu, Hawaii, a regional AOS judging center was established in Hawaii. This inclusion followed the establishment of the Hawaii judging system, which provided judging to remote islands, and incorporated its point scales for dendrobiums and vandas into the AOS system.

Regional judging centers continued to be added after the addition of Honolulu, Hawaii. From the 1960s to the present in 2021, new centers were added, regions divided and reconstituted, and regional boundaries were changed. In 1996, the concept of regions was changed to remove regional boundaries and allow judges and affiliated societies more flexibility to affiliate with the most convenient center. Some supplemental centers became independent, and others remained one center with additional sites for judging.

- 1961:** St. Louis, Missouri, became a center.
- 1962:** Centers were established in Austin, Texas, and Seattle, Washington. The Northeast Regional Center moved to Philadelphia, Pennsylvania.
- 1966:** The Tampa Supplemental Center was established as part of the Southeast Region.
- 1968:** The Orchid Digest judging system merged with the American Orchid Society, resulting in the creation of supplemental centers in San Francisco and Long Beach in California, Hilo and Lahaina in Hawaii, and Dallas, Texas. The main center in Texas also was moved to San Antonio from Austin.
- 1971:** A supplemental center of the Northeast Region was created in New York, New York, returning monthly judging to that city.
- 1972–1973:** From the St. Louis Mid-America Region, two additional centers were created. Ann Arbor, Michigan became a supplemental center, followed by Atlanta, Georgia.
- 1976:** A supplemental center for the Northeast Region was established in Washington, D.C.

SPECIES IDENTIFICATION TASKFORCE

The SITF at Work by Ron Michelson

Cattleya brodiei Elizabeth Annor CHMAOS

SOMETIMES A LABEL is not close to correct. This *Cattleya brodiei*, given by James G. Morris, was submitted labeled as *Cattleya × aureana*, a natural hybrid of *Cattleya aurea* and *Cattleya aureola*. Both of these species belong to *Cattleya* Subgenus *Cattleya* Section *Crispa* Series *Cattleyoides* which include such familiar former *Cattleya* species as *Cattleya jayoungii*, *Cattleya frederici* and *Cattleya peruviana*. As such, they all share a common growth habit that clearly resembles traditional *Cattleyas*, namely shaped unilabiate pseudobulbs whose leaves have more or less flat blades and all flower from a well-developed sheath. The exhibited plant clearly shares none of these characteristics let alone flowers that come close to fitting published photographs or line drawings of the natural hybrid.

In this case, the next step is easier than it could have been with an established plant. The specimen is clearly a *Cattleya* — specifically one of the group of species formerly called *rupicola* series. This large group of species — *Cattleya subsericea*, *Cattleya Section Crispa Series Floribunda* — includes such common species as *Cattleya longii*, *Cattleya cinnabarina* and *Cattleya mini*.

The bright yellow flowers of the exhibited plant lend the identity to one of about 22 species out of 43 in the section. The short, four-flowered inflorescence and the more or less flat, open lip milobes further refine the determination to only a handful of species. In cases such as this, the evidence very often leads the input of experts in particular fields and dimensionally as well. The report and petals are of similar dimensions and those of the flower were reported as 0.25 × 0.67 in (0.6 cm × 1.7 cm) compared to Wilbur's 0.16 × 0.28 in (0.4 cm × 1.0 cm). Unfortunately the judges did not gather the lip of this flower when it was measured so comparison of the lip width isn't possible. However, the lip length of this flower was recorded as 0.71 in (1.8 cm) vs Wilbur's 0.43 in (1.1 cm) — all indicators of a well-flowered, full-form specimen.

— Ron Michelson, AOS Chief Education and Science Officer (email: ron@mos.org)

(1) The nearest image of *Cattleya brodiei* Elizabeth Annor CHMAOS taken by Ronon De los Santos at the time it was awarded as *Cattleya × aureana*. (Source: James G. Morris)

(2) Photograph of *Cattleya aurea* West (photograph, *Cattleya aureola*, the other parent of the natural hybrid *Cattleya × aureana*) (Carmentis & Deunandeno 2016). Source: Photographic courtesy of Lourens Coole.

(3) Line drawing of *Cattleya × aureana* from Clark Cranbrook Herbar.

Reference: Wilbur, C.E. 1961. *Bridges' Lilies, Cattleyas and Their Relatives*, Vol. 2. The Lilies, Stanford Press, Redwood City, CA.

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[4] Periodically, one or more members of the SITF will publish short magazine articles exemplifying the work of the task force. A publicly accessible archive is also maintained on the AOS website at <http://www.aos.org/sitf-blog.aspx> documenting all the groups determination.

- 1978:** The Southeast Region was renamed Florida–Caribbean Region. The Mid-America Region was divided into three autonomous regions, Mid-America in St. Louis, Missouri, Great Lakes at Ann Arbor, Michigan, and the Southern Region in Atlanta, Georgia.
- 1980:** The Great Plains Region was established in Oklahoma City, Oklahoma.
- 1983:** The Tampa Supplemental Center became fully autonomous under the name Florida North-Central.
- 1984:** The Northeast Region was divided into the Northeast Region in New York, New York and the Mid-Atlantic Region in Philadelphia, Pennsylvania.
- 1987–1988:** Supplemental judging centers opened in the Southwest Region in Dallas, Texas and Houston, Texas.
- 1990:** The Mid-America Region Supplemental Center, Chicago, Illinois was established. A center was established in Denver, Colorado as the Rocky Mountain Region.
- 1991:** The Florida–Caribbean Region Supplemental Center at West Palm Beach, Florida was established.

1992:

The Toronto Supplemental Center of the Great Lakes Region was established in Toronto, Ontario, Canada — the first center not in the United States.

1993:

The Great Lakes Region Supplemental Center at Cincinnati, Ohio was established.

1994:

The Washington, D.C. Supplemental Center of the Mid-Atlantic Region was granted full regional status as the National Capital Center.

1995:

The Southern Region Supplemental Center was established in Raleigh, North Carolina.

1996:

An additional center for the Northeast Region was created at Boylston, Massachusetts.

2002:

A supplemental center for the Pacific South Region was established at Encinitas, California.

2003:

An additional site for the Florida North-Central Center was established at Orlando, Florida.

2005:

The California Sierra-Nevada Center was established at Sacramento, California

The supplemental center in North Carolina was granted full center status to be named the Carolinas Center at Greensboro, North Carolina.

A supplemental center for the Toronto Center was established at Montréal, Quebec, Canada.

2006:

An additional site for the Pacific Northwest Center was established at Salem, Oregon.

An additional site for the Pacific Northwest Center was established at Vancouver, British Columbia, Canada.

2007:

An additional site for the Pacific South Center was established at Santa Barbara, California.

A center was established at Shreveport, Louisiana.

2009:

An additional site for the Florida-Caribbean Center was established in Puerto Rico at San Juan.

2013:

The Puerto Rico additional site of the Florida-Caribbean Center was granted full center status.

2017:

The additional site of the Pacific

Northwest center at Vancouver, British Columbia, Canada was granted full center status as the Western Canada Center.

2020:

The additional site of the Toronto Center at Montréal, Canada was granted full center status.

2021:

Most recently, the Shreveport Center has officially changed its name to the Louisiana center to more accurately reflect their constituency.

In the 25 years since the AOS celebrated its 75th Diamond Jubilee, the judging system has seen major changes. After recording awards in the Register of Awards from 1932 to 1968, the AOS created the Awards Quarterly, which recorded all awards, and many pictures, from 1970 to 2007. From 2005 to 2008, the AOS recorded awards both in the Awards Quarterly and in a new computer-based program, called *E-AOS*, which was succeeded by *AQ Plus*. AOS volunteer Howard Bronstein spearheaded this effort and then maintained the programs. At this time, images were also transferred to digital format, thanks to the efforts of volunteers Frank Slaughter, Bill Bannon and Ken Jacobsen, and all future awards were recorded digitally. Students and Associate Judges welcomed the introduction of computer-based records, as it meant they no longer had to tote AQs and slides to monthly judgments and shows. *Orchids Plus* followed, to be succeeded by *OrchidPro*, introduced in 2019. This new program is now included with all memberships, so members of AOS have access to the information and images for all awards.

For many years, the rules of judging required that species not previously awarded had to be identified for the award to be published. The process involved the owner sending a sample of the species to a known specialist in the genus or to the Identification Center at Selby Gardens in Sarasota, Florida. This frequently proved an arduous process, beginning with the difficulty of sending the sample, the cost of the identification, occasional problems with the accuracy of the identification and, later, the illegality of sending samples of plant material across international lines because of the rules of the Convention on International Trade in Endangered Species (CITES). By the fall of 2008, a better solution was found in the establishment of the Species Identification Task Force (SITF). This task force consists of a small group of dedicated volunteers and staff, under the

supervision of the Judging Committee, with access to significant reference materials and taxonomic keys. Under most circumstances, a determination can be made using documented references, but the SITF also relies on input from respected taxonomic authorities worldwide. There have been 2,400 identifications to species from the establishment of SITF. Because this is a function of the AOS and the Judging Committee, it is free to those who have received awards to previously unidentified species.

Over the past 100 years, the AOS judging system has evolved from occasional judging opportunities by a handful of knowledgeable orchid growers to a formally structured system. The judging system in 2021 is based on 27 centers and eight additional sites, in the USA, Canada, and Puerto Rico. Those centers, and their 588 judges, give approximately 2,500 awards each year to plants presented at monthly judgments in the centers, and 179 shows in the USA, Canada, Puerto Rico, and multiple shows in South and Central America and the islands of the Caribbean.

As we look to the next 100 years, the Judging Committee is engaged in creating, for the first time, a strategic plan for the future of the judging system. We expect to develop a section of the website that will be easy to navigate, with all available information about judging. We will encourage prospective judges, welcome new student judges, and clarify the judges' education program, timeline and standards for promotion. Judges' education will include exciting new programs and seminars, access to important information through references to historical information in the Orchids archive, as well as links to essential databases, such as *OrchidPro*. We hope the orchid community will watch as we grow the judging system to serve our entire orchid growing and exhibiting community better.

Further Reading

Matthews, D. 1996. Creating a Judging System. *The American Orchid Society Celebrates its Diamond Jubilee: A Review of the First 75 Years 1921–1996*. AOC, West Palm Beach, Florida, p. 62–89.

Stubbings, J. 1987. A Short History of American Orchid Society Judging. *Awards Quarterly* 18(2):90–91.

— Taylor Slaughter is the chair of the AOS Judging Committee and has been an accredited judge in the National Capital judging center for 34 years. She is very interested in the history of AOS judging and in the modernization that will ensure its continuation.

Awards Through Time

BY LAURA NEWTON

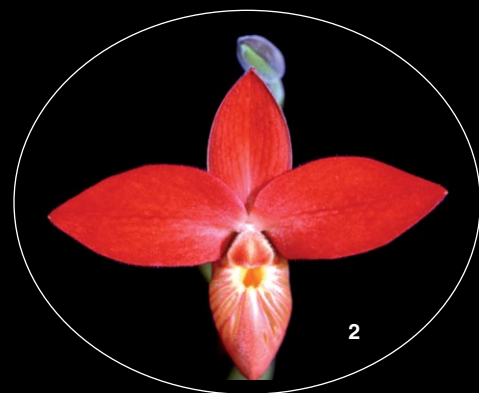
AMERICAN ORCHID SOCIETY awards are recognized as a measure of quality the world over and are coveted by hobbyists and commercial growers alike. The first AOS awards were given in 1932 at the Board of Trustees Meeting in Philadelphia, Pennsylvania. There were two other events that same year, both in Pennsylvania. The first awards went to the *Cattleya* alliance: *Cattleya schroderae* 'Hercules' AM/AOS and *Rhyncholaeliocattleya* (then *Brassocattleya*) Springtide 'Stonehurst' AM/AOS.

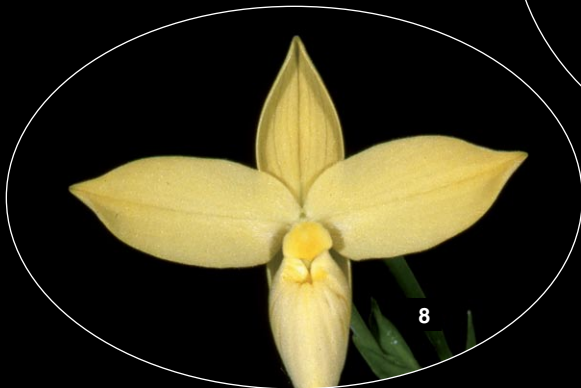
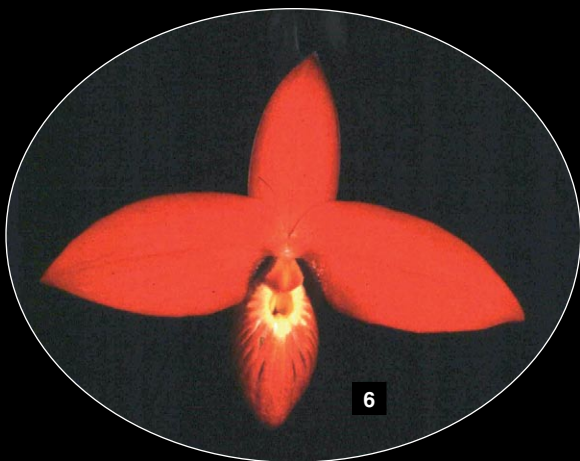
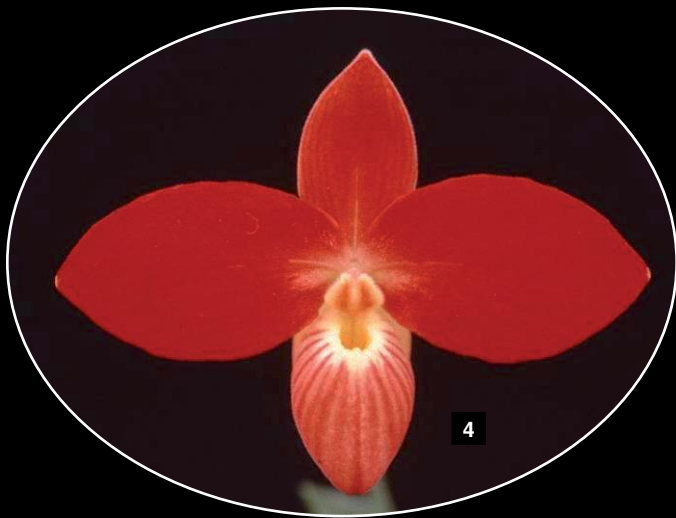
We have certainly come a long way from the 13 awards given in 1932 to 2,587 in 2019. From a mere listing of the flowers and exhibitors to the inclusion of a written award description with a few measurements along with slide photographs, today detailed award descriptions with full measurements and digital photography with multiple images are printed in our monthly magazine, and in *OrchidPro*, our digital database of awards available to all AOS members. Let us take a look at some popular species and how awards have changed over time. We ask, have we learned anything and has the flower quality improved?

PHRAGMIPEDIUM BESSEAE

The first award was given in 1986 to 'MAJ', an First Class Certificate (FCC). Rarely do judges give an FCC the first time a species is presented for judging, but there are several occasions where this has happened and it seems to always be driven by color. Before *Phrag. besseae* entered the scene in 1981, *Phragmipedium* species were various shades of green or chartreuse, often with some chestnut-to-mahogany margins — so being presented a scarlet flower most certainly wowed the judges. The form of the original awarded clone has great bilateral symmetry and the velvety texture was also a big plus. A flurry of awards ensued as this bright species made its way to the judging tables around the country. You can see the shift in form in 1990 when 'Aldarra' AM/AOS was awarded. The flowers are extremely flat, and the petals are wider and held horizontally. The color is described as bright orange-red with a lovely light orange flush on the inner folds of the pouch, which provides wonderful contrast. This same fullness for form and flatness continued in 'Cow Hollow' HCC/AOS. A year later, 'Cow Hollow II' received an FCC/AOS for vermilion flowers with a citron yellow pouch, although the form is not quite as nice, the two flowers presented on the inflorescence most assuredly added to this captivating clone. Two years later, the carmine, flat flowers of 'Fox Valley' earned an FCC/AOS. Toward the end of the 1990s, 'Eric the Red' FCC/AOS was awarded with brilliant crimson flowers with a contrasting golden yellow pouch, heavily veined crimson with wonderful balance between the dorsal sepal and the pouch size and shape. Numerous awards were granted in the coming years with deepening colors, size, fullness and flatness. 'Mendenhall Red' AM/AOS scored 89 points, the pouch of the brilliant Chinese red flowers shows the numerous "windows" that are a tell-tale sign of this species. The most recent award, given in 2020, shows just how far we have come with this species, 'Zephyrus Peach' HCC/AOS just barely squeaked in with 75 points, but look how balanced and richly colored these flowers are compared to the original award!

Lest you think that all *Phrag. besseae* are brilliant reds, there is also a lovely yellow form (f. *flavum*). In 1995, 'Rising Sun' AM/AOS was the first award to this lovely lemon yellow color form. Like its red counterpart, the form and balance of the flowers improved by 2012 when 'Yellow Vision' AM/AOS was awarded.





Phragmipedium besseae

- [1] 'MAJ' FCC/AOS awarded in 1986; exhibitor: MAJ Orchids. Photograph from the AOS award archives.
- [2] 'Cow Hollow' HCC/AOS awarded in 1990; exhibitor: Pui Y. Chin. Photograph from the AOS award archives.
- [3] 'Cow Hollow II' FCC/AOS awarded in 1991; exhibitor: Pui Y. Chin. Photograph from the AOS award archives.
- [4] 'Fox Valley' FCC/AOS awarded in 1993; exhibitor: Fox Valley Orchids, Ltd. Photograph from the AOS award archives.
- [5] 'Eric the Red' FCC/AOS awarded in 1998; exhibitor: Stephen Helbling; photographer: James McCulloch.
- [6] 'Mendenhall Red' AM/AOS awarded in 2004; exhibitor: Carter and Holmes Orchids, Inc.; photographer: Edwin Boyett.
- [7] 'Zephyrus Peach' HCC/AOS awarded in 2020; exhibitor: John Doherty; photographer: Jay Norris.
- [8] f. *flavum* 'Yellow Vision' AM/AOS awarded in 2012; exhibitor: New Vision Orchids; photographer: Lynn O'Shaughnessy.
- [9] f. *flavum* 'Rising Sun' AM/AOS awarded in 1995; exhibitor: Fox Valley Orchids, Ltd. Photograph from the AOS award archives.



CATTLEYA TRIANAE

The first AOS award to this species was given in 1936 to 'Edward Roehrs No. 45' (an Award of Merit), and there were a couple of early FCCs, all before we took photos or recorded descriptions and measurements. The first photographed quality award was 'Jungle Queen' AM/AOS, which shows the full round form and beautiful coloring that we have come to expect from this species, right down to the broad chevron marking on the lip. Later that year, 'Mooreana' AM/AOS showed the sharp flares on the petals and the recurring of the sepals and petals. Those same flares showed up on 'Cashen's' FCC/AOS but with flatter and broader petals. 'Boon' AM/AOS is a white form (f. *alba*) and you can see the slender petals with defined midribs, but is quite lovely in its simplicity. 'Michael' HCC/AOS exemplifies the blue forms (horticulturally referred to as var. *coerulea*). The much sought-after 'Jungle Feather' JC/AOS has distinct feathered margins and a richly colored lip. The full form and perfect undulation of 'The King' AM/AOS shows why this species has remained in demand. 'Las Nupcias' AM/AOS had 10 flowers wonderfully presented on two inflorescences. Three recent awards to Ben Oliveros of Orchid Eros 'Full Moon' AM/AOS, 'Mirtha Isabel' AM/AOS, and 'Sebastian' AM/AOS show three lovely color forms in which the *alba* and *coerulea* forms have progressed to the full flowers that the typical color form has had and continues to have. In 2014, 'Jardin botanique de Montréal' CCE/AOS presented with 62 flowers and five buds on 25 inflorescences on upright growths, while the most recent cultural award to 'A.C. Burrage' CCE/AOS shows a more free-form plant with 68 flowers and one bud on 27 inflorescences.



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Cattleya trianae

- [1] 'Jungle Queen' AM/AOS awarded in 1987; exhibitor: Fennell's Orchid Jungle. Photograph from the award archives.
- [2] 'Mooreana' AM/AOS awarded in 1987; exhibitor: Orchid Alley. Photograph from the award archives.
- [3] 'Cashen's' FCC/AOS awarded in 2005; exhibitor: William Rogerson; photographer: Rhonda Peters.
- [4] f. *alba* 'Boon' AM/AOS awarded in 2006; exhibitor: Kenneth A. Roberts; photographer: Ernest Walters.
- [5] (Coerulea) 'Michael' HCC/AOS awarded in 2007; exhibitor: William Rogerson; photographer: Loren Pollock.
- [6] 'Jungle Feather' JC/AOS awarded in 2008; exhibitor: Canaima Orchids; photographer: Monroe Kokin.
- [7] 'The King' AM/AOS awarded in 2008; exhibitor: Kenneth A. Roberts,; photographer: Monroe Kokin.
- [8] 'Las Nupcias' AM/AOS awarded in 2011; exhibitor: Jose Fdo Londono; photographer: Juan Carlos Uribe.
- [9] 'Jardin botanique de Montréal' CCE/AOS awarded in 2014; exhibitor: Jardin botanique de Montréal; photographer: Michael MacConnail.
- [10] f. *alba* 'Mirtha Isabel' AM/AOS awarded in 2018; exhibitor: Ben Oliveros and Orchid Eros; photographer: Glen Barfield.
- [11] (Coerulea) 'Sebastian' AM/AOS awarded in 2018; exhibitor: Ben Oliveros and Orchid Eros; photographer: Glen Barfield.



VANDA SANDERIANA

The first photographed award in 1952 to 'Kono' FCC/AOS shows the classic color patterning of pink flowers with burgundy tessellation on the lateral sepals but also exhibits an open form with some windowing. 'Carol Warne' FCC/AOS shows the petals starting to fill in that gap. By 1972, you can see in 'P.O.S.-25' that the lateral sepals are now overlapped and the petals are fuller presenting a rounder flower. 'Edith Normoyle' AM/AOS presents a nice head of 17 flowers on each inflorescence that all show the bright coloration and fuller form. 'Chris' FCC/AOS displays the continuation of full form with great contrast between the rose base color and the chestnut spots and tessellation. By 2000, the flowers have become downright fat as you can witness in 'Orene' AM/AOS. By 2016, you can see that the lateral sepals more than overlap, the dorsal sepal is quite broad, the petals are rounder as well and all together represent roundness with a vibrant color combination. There is also an albinistic form and one of the nicest is 'Bloomfield' AM/AOS, which although not as full as the traditional color, exhibits great white-to-green contrast and no fenestration. The most recent cultural award to 'Haley's Choice' CCM/AOS had 73 flowers and 23 buds on nine inflorescences on a five, flowering-growth plant.



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Vanda sanderiana



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- [1] 'Kono' FCC/AOS awarded in 1952; exhibitor: Kono's. Photograph from the AOS award archives.
- [2] "Carol Warne" FCC/AOS awarded in 1960; exhibitor: unknown. Photograph from the AOS award archives.
- [3] 'P.O.S.-25' AM/AOS awarded in 1972; exhibitor: J. Frank Hughes. Photograph from the AOS award archives.
- [4] 'Edith Normoyle' AM/AOS awarded in 1981; exhibitor: Bill Normoyle. Photograph from the AOS award archives.
- [5] 'Chris' FCC/AOS awarded in 1991; exhibitor: Chris and Loretta Rehmann. Photograph from the AOS award archives.
- [6] f. *alba* 'Bloomfield' AM/AOS awarded in 2006; exhibitor: Jim Marlow; photographer: Teck Hia.
- [7] 'Orene' AM/AOS awarded in 2000; exhibitor: Jack and Norma Majewski; photographer: Lewis Ellsworth.
- [8] 'Haley's Choice' CCM/AOS; exhibitor: Bill Castens; photographer: Beth Lamb.
- [9] 'Athena' AM/AOS awarded in 2016; exhibitor: R.F. Orchids, Inc.; photographer: Tom Kuligowski.

PAPHIOPEDILUM ARMENIACUM

In judging a new species, there is what is referred to as the “Number One Son Rule,” as displayed with the first award to *Phrag. besseae*. Likewise, the first award to *armeniacum* was an FCC to the cultivar ‘Number One Son’. This is a classic example of being so in awe of a newly found, beautifully colored species that you give it an FCC right out of the gate, before seeing any others to know if it truly is exceptional. The yellow coloring and the large pouch are enticing but notice the somewhat floppy nature of the flower. Compare that to ‘Citron’ FCC/AOS, which shows much improved form and deeper coloration. There were 17 awards given in 1986 to this species, three of them FCCs. By 1991, we are seeing better form, brighter color and improved size, ‘Oso-Grande’ FCC/AOS had a natural spread of 4.1 inches (10.3 cm), as opposed to ‘Number One Son’ whose natural spread was a mere 3.4 inches (8.6 cm). Although size is only 10 points, we fondly say it is often the first 10 points. ‘HOF II’ FCC/AOS with its somewhat undulate sepals and petals, although nicely colored, tops out as 4.7 inches (11.8 cm). As time goes by, you start to see a resetting of the judging scale (they cannot all be FCCs). Case in point: ‘Shenandoah’ AM/AOS has near-perfect symmetry and nice flatness to the sepals and petals with a full pouch, but the flower size probably dropped it below the FCC line. ‘Principessa d’Oro’ AM/AOS and the most recent award ‘Orchid Fix Golden Orb’ HCC/AOS both show the color and form that are now expected in awards to this species.





Paphiopedilum armeniacum

- [1] 'Number One Son' FCC/AOS awarded in 1983; exhibitor: Paphanatics, UnLtd. Photograph from the AOS award archives.
- [2] 'Citron' FCC/AOS awarded in 1985; exhibitor: Dr. Wharton Sinkler, III. Photograph from the AOS award archives.
- [3] 'Buttercup' FCC/AOS awarded in 1986; exhibitor: Hanes Orchids of Distinction. Photograph from the AOS award archives.
- [4] 'Oso-Grande' FCC/AOS awarded in 1991; exhibitor: Orchids of Los Osos. Photograph from the AOS award archives.
- [5] 'HOF' FCC/AOS awarded in 2000; exhibitor: Hilo Orchid Farm. Photograph from the AOS award archives.
- [6] 'Shenandoah' AM/AOS awarded in 2003; exhibitor: Woodstream Orchids; photographer: James Osen.
- [7] 'Principessa d'Oro' AM/AOS awarded in 2012; exhibitor: Ty Triplett; photographer: Maurice Marietti.
- [8] 'Orchid Fix Golden Orb' HCC/AOS; exhibitor: The Orchid Fix Nursery, Jurahame Leyva; photographer: Glen Barfield.

PHALAEOPSIS BELLINA

Originally this species was considered conspecific with *Phalaenopsis violacea*, but was moved to a separate species in 1995. You can see from the original award to this species, 'J & L' AM/AOS, the typical coloring that separated this species and also the irregular form of the somewhat upright petals and falcate lateral sepals. 'Jason's Marron' AM/AOS shows more intense coloring and somewhat fuller form. In 'Guyacan' AM/AOS, you notice the lateral sepal position change. By 2001, the more broadly stellate form and the dark markings on the inferior half of the lateral sepals in 'Judy's Delight' AM/AOS become evident. 'Krull's Perfection FCC/AOS is fuller yet, and fuller yet in 'Jim Krull' AM/AOS. The final shift happened with the awarding in 2018 of an Award of Quality (AQ —at least 12 plants displayed) to the cross of 'Jim Krull' AM/AOS × 'Judy Smith' described as: "plants of exceptional flower quality; recognized for flowers of superior size, shape, color and substance; flowers remarkably consistent across all the plants; five plants from this strain received AM awards." Among them was high scorer 'Zeus' AM/AOS with 87 points, and the AQ also earned the 2018 Martin Motes Orchid Breeders' Award. Then in 2019, a flurry of FCCs hit the tables starting with 'Blue Ridge Finest', which has great color concentration in the center of the full, flat flowers. In August of 2019, three FCCs were given at a single monthly judging. The nicest of those was 'Frank Smith' that also earned the Herbert Hager Award for that year. Not to be left out, a few months later the judges at the International Phalaenopsis Alliance Symposium then gave five additional FCCs, included among them 'Atticus' and 'Crystelle's Love'. Just look how far we have come...the bar has officially been raised for this fabulous species.





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Phalaenopsis bellina

- [1] 'J&L' AM/AOS awarded in 1965; exhibitor: J&L Orchids. Photograph from the AOS award archives.
- [2] 'Jason Marron' AM/AOS awarded in 1979; exhibitor: Ron and Margaret Wills. Photograph from the AOS award archives.
- [3] 'Guyacan' AM/AOS awarded in 1983; exhibitor: Rafael Rodriguez. Photograph from the AOS award archives.
- [4] 'Judy's Delight' AM/AOS awarded in 2001; exhibitor: Judy Mezey; photographer: Greg Allikas.
- [5] 'Krull's Perfection' FCC/AOS awarded in 2007; exhibitor: Krull-Smith; photographer: Greg Allikas.
- [6] 'Jim Krull' AM/AOS awarded in 2012; exhibitor: Krull-Smith; photographer: Greg Allikas.
- [7] 'Zeus' AM/AOS awarded in 2018; exhibitor: Krull-Smith; photographer: Wes Newton.
- [8] ('Jim Krull' AM/AOS × 'Judy Smith') AQ/AOS awarded in 2018; exhibitor: Krull-Smith; photographer: Wes Newton.
- [9] 'Frank Smith' FCC/AOS awarded in 2019; exhibitor: Krull-Smith; photographer: Wes Newton.
- [10] 'Blue Ridge Finest' FCC/AOS; exhibitor: Mike Mimms; photographer: James Curtis.

AERIDES LAWRENCEAE

One of the first quality awards to this species is 'Alida Sylva' AM/AOS. You can see the rather free-form petals that curl apically. Even 14 years later, you can still note in 'Evelyn' AM/AOS that the sepals and petals are fairly cupped and the narrowness of the lip 0.6 inches (1.5 cm). 'Tru-ford' AM/AOS shows the fenestration of the early awards. 'Troy Ray' displays increased size and floriferousness, and the lip crest shows great contrast. Starting with 'Elizabeth' AM/AOS, the fullness of the sepals and petals increase and the flares are larger. 'Florida SunCoast' AM/AOS is even fuller, but the major shift occurred when 'Crownfox Bubblelicious' FCC/AOS was awarded as part of an AQ to the strain *Aerides lawrenceae* ('Robert' AM/AOS x 'Crownfox Fuchsia' AM/AOS). The cross was "recognized for exceptional shape, clarity of color, large size, consistency of size and number of flowers per inflorescence." 'Carol DeBiase' FCC/AOS is another exemplary specimen. By 2018, with the awarding of 'Crownfox Magic' FCC/AOS, a new standard had been set. It shows exceptional coloration, size and flower count and is a product of the AQ strain ('Crownfox Delight' AM/AOS and 'Crownfox Fuchsia' AM/AOS) — what a fine example it is. Two awards were granted FCCs last year, 'Crownfox Velvet' and 'Crownfox Tropical Delight'. These are outstanding examples of how far we have come due to breeding excellent cultivars together to create a new standard.





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Aerides lawrenceae

[1] 'Alida Sylva' AM/AOS awarded in 1971; exhibitor: Robert Perry. Photograph from the AOS award archives.

[2] 'Troy Ray' AM/AOS awarded in 2004; exhibitor: Lynn Cook; photographer: Maurice Marietti.

[3] 'Elizabeth' AM/AOS awarded in 2007; exhibitor: Jean Wilson; photographer: Greg Allikas.

[4] 'Florida SunCoast' AM/AOS awarded in 2010; exhibitor: Jim Roberts and SunCoast Orchids. Photograph from the AOS award archives.

[5] 'Crownfox Bubble-licious' FCC/AOS awarded in 2013; exhibitor: R.F. Orchids, Inc.; photographer: Alberto Rodriguez.

[6] ('Robert' AM/AOS x 'Crownfox Fuchsia' AM/AOS) AQ/AOS awarded in 2013; exhibitor: R.F. Orchids, Inc.; photographer: Alberto Rodriguez.

[7] 'Surprise' FCC/AOS awarded in 2014; exhibitor: Carol De Biase; photographer: Nick Nickerson.

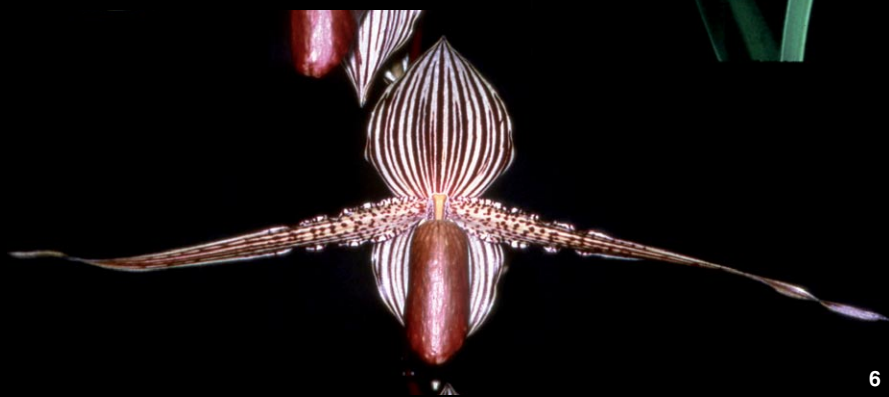
[8] 'Crownfox Magic' FCC/AOS; exhibitor: R.F. Orchids, Inc.; photographer: Tom Kulligowski.

[9] 'Crownfox Velvet' FCC/AOS awarded in 2020; exhibitor: R.F. Orchids, Inc.; photographer: Jeremy Losaw.

[10] 'Crownfox Tropical Delight' FCC/AOS awarded in 2020; exhibitor: R.F. Orchids, Inc.; photographer: Jeremy Losaw.

PAPHIOPEDILUM ROTHSCHILDIANUM

There were plenty of early awards to this species, but one of the first to have a photograph is 'Borneo' FCC/AOS. It shows the classic look for this species with its long, linearly outstretched, horizontally held petals. 'Phoebe' AM/AOS displays the alignment you want to see. Fuller segments earned 'Excelsior' an FCC/AOS. Even fuller segments and exceptional markings pushed 'Althea' FCC/AOS to 90 points. 'Rex' FCC/AOS is said to have had massive flowers, as those outstretched petals provided a 12-inch (30.4-cm) spread. 'Walter Stern' AM/AOS reached even farther to 12.1 inches (30.8 cm). 'Beefsteak' FCC/AOS shows broader sepals and pouch. The petals do not always have to be outstretched. 'Crystelle' FCC/AOS shows how charming this species can be with a downward tilt to the petals. Although many of the early awards produced four flowers per inflorescence, five eventually became the norm. 'Atticus' AM/AOS demonstrates how wide the sepals and petals have become. A selfing of 'Mont Milais' FCC/AOS produced 'Frank Smith' FCC/AOS exhibiting even broader sepals. 'New Horizon' FCC/AOS displays the perfect alignment that we have come to expect in this species. Skip forward eight years and 'Tempranillo' arrives with five flowers and two buds nicely arranged on a single inflorescence. Comparing the earliest awards to something like 'Graciano' FCC/AOS makes it feel like we are worlds away from where we started. It seems that the standard has already moved to at least six flowers. It will be interesting to see how many full, boldly colored flowers the hybridizers and exceptional growers can get on one inflorescence!





Paphiopedilum rothschildianum

- [1] 'Borneo' FCC/AOS awarded in 1977; exhibitor: Val and Jack Tonkin. Photograph from the AOS award archives.
- [2] 'Phoebe' AM/AOS awarded in 1982; exhibitor: Val and Jack Tonkin. Photograph from the AOS award archives.
- [3] 'Excelsior' FCC/AOS awarded in 1983; exhibitor: J. Frank Hughes. Photograph from the AOS award archives.
- [4] 'Althea' FCC/AOS awarded in 1984; exhibitor: Val and Jack Tonkin. Photograph from the AOS award archives.
- [5] 'Rex' FCC/AOS awarded in 1990; exhibitor: S. Robert Wertz, Jr. Photograph from the AOS award archives.
- [6] 'Walter Stern' AM/AOS awarded in 1995; exhibitor: Fox Valley Orchids, Ltd. Photograph from the AOS award archives.
- [7] 'Beefsteak' FCC/AOS awarded in 2001; exhibitor: Carol McCall-Haller; photographer: Mitch Paroly.
- [8] 'Crystelle' FCC/AOS awarded in 2001; exhibitor: Krull-Smith; photographer: Donald Wilson.
- [9] 'Atticus' AM/AOS awarded in 2004; exhibitor: Krull-Smith; photographer: Greg Allikas.
- [10] 'Frank Smith' FCC/AOS awarded in 2004; exhibitor: Krull-Smith; photographer: Ernest Walters.
- [11] 'New Horizon' FCC/AOS awarded in 2009; exhibitor: Hilo Orchid Farm; photographer: Glen Barfield.
- [12] 'Franklin Atticus Smith' FCC/AOS awarded in 2019; exhibitor: Krull-Smith; photographer: Paige Ramsey Moody.

DENDROBIUM CUTHBERTSONII

This species comes in many different colors. At first glance you might wonder why all the photos appear to be upside-down — that is because these flowers are nonresupinate, meaning that their lips stay in the uppermost position. The first quality award photographed was ‘Christopher John’ AM/AOS, a vibrant red flower, but notice the gap between the petals and the lateral sepals. ‘Ernie’ HCC/AOS shows how closed-up the flowers can be. The soft pink ‘Mountain Maiden’ AM/AOS exhibits a slightly better position of the sepals and petals, as do the orange-red flowers of ‘Mountainside’ AM/AOS. The move to fuller flowers with only slight cupping led to ‘Mountain’s Majestic’ AM/AOS. By 2011, the fullness and flatness of the flowers was reset, and ‘Deep Orange’ AM/AOS is a great example. ‘Buster’ FCC/AOS had four strikingly flat, huge flowers (for the species). In 2013, Golden Gate Orchids earned an AQ/AOS for its cross of ‘Anna’ by ‘Lafayette’, hybridized by John Leathers, which shows the fantastic diversity of intense colors and increased size. The roundest flower has to be ‘Bicolor Dream’ AM/AOS. The latest award to ‘Full Moon’ AM/AOS demonstrates just how far we have come from fairly cupped, narrowly segmented flowers to full, round, flat flowers in all the colors of the rainbow that we now see. There have been many cultural awards to this species, but it is hard to pick a winner of the best overall between ‘Red Parrot’ CCE/AOS and ‘Bicolor Splash’ CCE/AOS — they are both *balls of wonderfulness*.

— Laura Newton, AOS Award Registrar (email: Laura@aos.org).





8



9



10



11

Dendrobium cuthbertsonii

- [1] 'Christopher John' CCM/AOS awarded in 1985; exhibitor: John Sullivan; photographer: Charles Marden Fitch.
- [2] 'Ernie' HCC/AOS awarded in 1987; exhibitor: Ernest I. Katler, MD. Photograph from the AOS award archives.
- [3] 'Mountain Maiden' AM/AOS awarded in 1991; exhibitor: Mountain Orchids; exhibitor: Charles Marden Fitch.
- [4] 'Mountainside' AM/AOS awarded in 1994; exhibitor: Mountain Orchids; photographer: Charles Marden Fitch.
- [5] 'Mountain's Majestic' AM/AOS awarded in 1998; exhibitor: Mountain Orchids; photographer: Phil Matt.
- [6] 'Red Parrot' CCE/AOS awarded in 2002; exhibitor: Golden Gate Orchids; photographer: Michael Gallagher.
- [7] 'Bicolor Splash' CCE/AOS awarded in 2002; exhibitor: Golden Gate Orchids; photographer: Michael Gallagher.
- [8] 'Deep Orange' AM/AOS awarded in 2011; exhibitor: Golden Gate Orchids; photographer: Ramon de los Santos.
- [9] 'Buster' FCC/AOS awarded in 2012; exhibitor: Golden Gate Orchids; photographer: Ramon de los Santos.
- [10] ('Anna' x 'Lafayette' AM/AOS) AQ/AOS awarded in 2013; exhibitor: Golden Gate Orchids; photographer: Curtis Gean.
- [11] 'Full Moon' AM/AOS awarded in 2020; exhibitor: Golden Gate Orchids; photographer: Ramon de los Santos.

Lines Orchids

An American Legacy

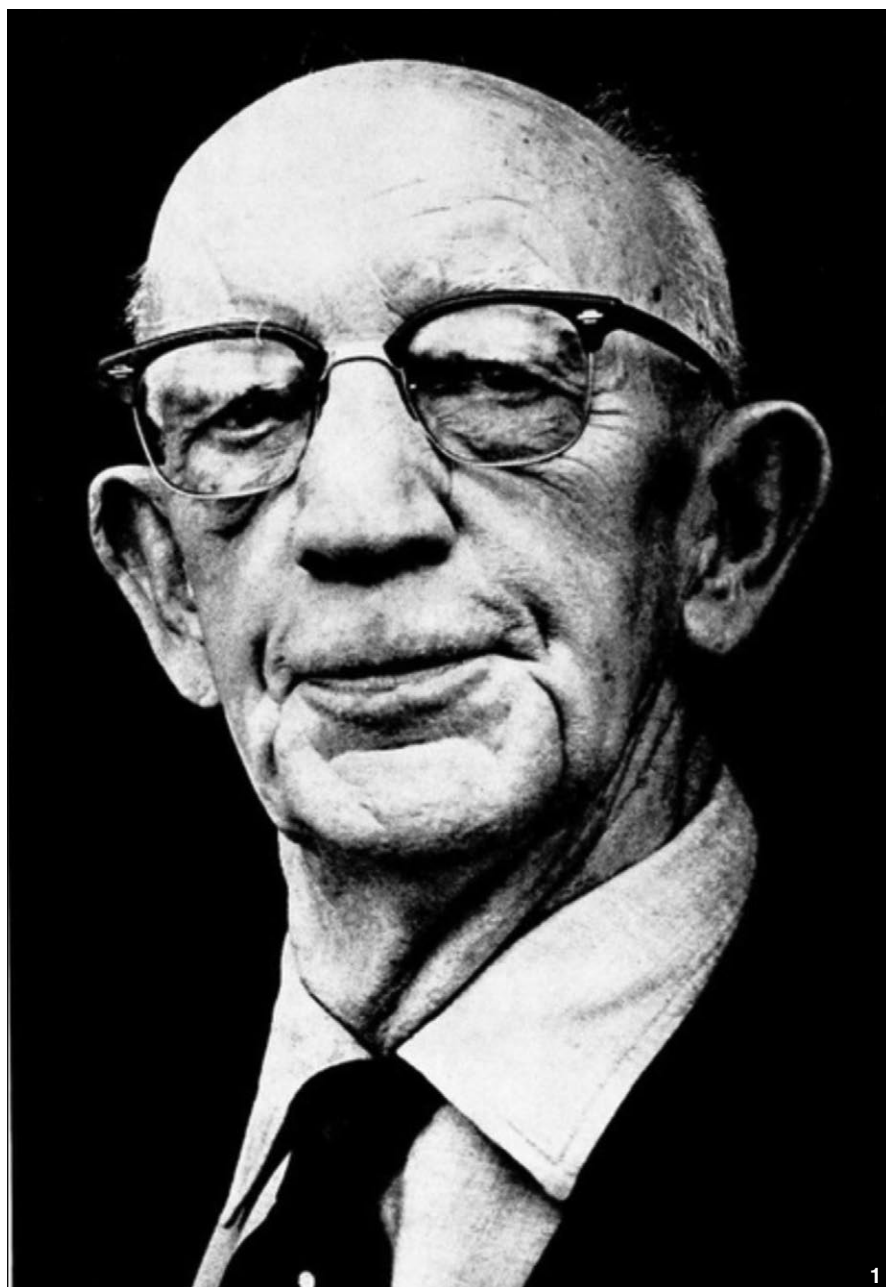
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IN THE FALL of 2018, Lines Orchids of Signal Mountain, Tennessee sold its 23-acre property to LOP, LLC. Instead of simply closing down the operation as is so common today, Reed McCandless, whose son Scott is the fourth-generation operator of Lines Orchids, said part of the sale included moving the operation to a new location a bit farther north of Signal Mountain. Mr. McCandless said the 1947 greenhouses “are somewhat obsolete” so they will be replaced with state-of-the-art greenhouses at the new location, which has 35 acres.

HISTORY Joseph Chamberlain, who was Great Britain’s Secretary of State for the colonies in 1895, had a love of orchids — they provided solace from the highly public, often stressful life he lived. Mr. Chamberlain was never seen in public without an orchid in his lapel buttonhole. On a daily basis orchids were shipped from London to his Highbury estate near Birmingham to ensure he always had the finest flowers available. Mr. Chamberlain’s son, Austen Chamberlain, who won the Nobel Peace Prize in 1925, and Neville Chamberlain had 13 greenhouses solely devoted to growing orchids.

In 1898, at the ripe age of 14, Oliver Lines began growing orchid plants at Joseph Chamberlain’s estate. Oliver’s first job at the Chamberlain estate was to polish glass day in and day out. And, after serving in this role for some time, he was transferred to the greenhouse to serve as a water boy. After a period of apprenticeship, Oliver was promoted to be a grower assistant, a role where he found much joy and success.

The head grower at the time, Mr. Smith, was transferred from Chamberlain’s estate to R.I. Measures’ estate just outside of London. Along with Mr. Smith, Oliver Lines was invited to work for R.I. Measures’ greenhouses. For the first time, Oliver left the comfort and familiarity of his family and friends in hopes of improving his orchid growing



skills.

The new job offer was full of opportunity as Mr. Measures, who manufactured steel for the construction of bridges, held one of the oldest and most respected orchid col-

lections in England. Although it was a good opportunity to work for the Measures family, orchid growing proved quite difficult under the industrial conditions Oliver was in outside of London. Winter fog and pollution

were less than desirable conditions for growing orchids, not to mention personal satisfaction.

In 1906, Oliver happily returned to his roots in favor of a more peaceful and rural atmosphere. Oliver left Measures to work at the Westonbirt estate of Sir George Holford. At the time, Holford's orchid collection was overseen by H.G. Alexander, who is now revered as the most celebrated British orchid grower for the first half of the 20th century.

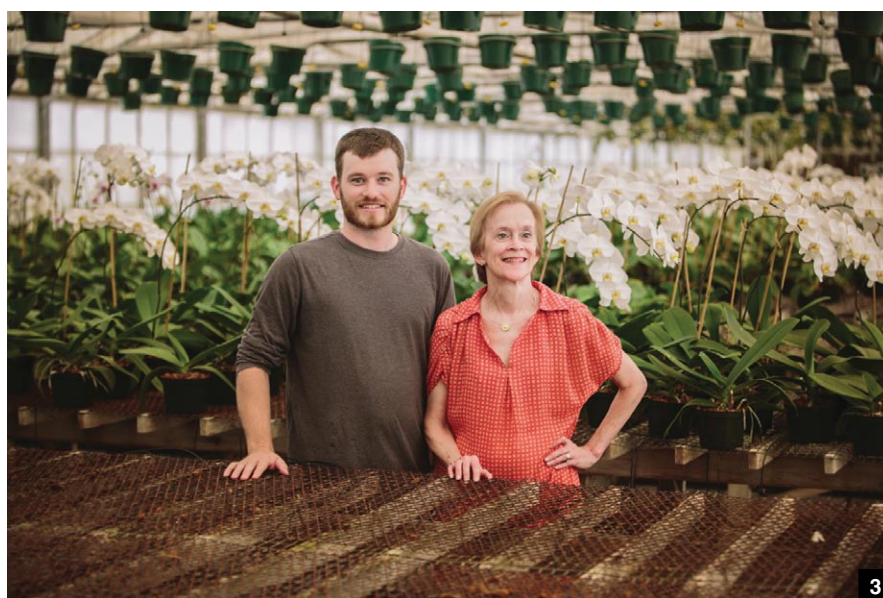
In a 1957 letter, Mr. Alexander wrote, "Oliver is an old and valued friend of mine. I well remember his joining the staff at Westonbirt — a position for which there was always a waiting list of ambitious young men — at a time when we were opening up and developing the collection toward its later peak of worldwide reputation. A range of new houses were erected away from the existing ones. Oliver was put in charge of this department as other houses were added to the block. It was here that he showed his aptitude and developing skills as a grower. He loved his plants and never stinted care and time on them. His intelligence and imaginative approach methods were evolving and his constant adherence to the highest standards of culture have made the sound basis of his successful career. I recall that at one of the Royal Horticultural Societies a few years ago, an American visitor remarked to me that Oliver Lines' cattleyas were among the best, if not the best, grown in the United States."

In 1910, Oliver was approached by a visiting American who offered him the opportunity to come to the United States to grow orchids. Oliver jumped at the opportunity and arrived at Ellis Island on February 13, 1910. He was only 25 years old.

In the states, Oliver was hired as an orchid grower by John Sloane of W&J Sloane Company in NYC, one of the largest exclusive home furnishings businesses in the U.S. at the time.

In 1914, Oliver moved to neighboring Pittsfield, Massachusetts to become a grower for Arthur N. Cooley who had a long-time interest in horticulture. Cooley had the financial means to cultivate orchids on an extended scale which brought about exciting opportunities for Oliver's career. With Oliver's contacts in England and Cooley's financial backing, the Cooley collection of plants and greenhouses flourished.

The first decade of the 20th century



was an exciting time of growth and experimentation — Oliver had the resources he needed to make his hybridizing successful.

In 1921, the American Orchid Society (AOS) was formed, and Oliver was named a trustee. He was the only estate grower chosen as a trustee on the board. And, in September 1921, the Massachusetts Horticultural Society held its first important orchid show and Oliver was

[1] Oliver J. Lines, ca. 1964 from the *AOS Bulletin*, May 1965.

[2] John Lines (left) with his father (right), Oliver in the mid-20th century. Photograph courtesy of the Lines family.

[3] Third and fourth generation operators of Lines Orchids — John's daughter, Joan McCandless (right) and her son, Scott McCandless (left) — against a backdrop of white phalaenopsis. Photograph courtesy of the Lines family

THE CHATTANOOGAN

awarded a gold medal for his superior cultivation of orchids. His hard work and creativity started to pay off.

During difficult economic times, the Cooley collection of orchids were being sold off and eventually Oliver found himself without a job. Luckily, new doors opened in Larchmont, NY and Oliver moved with his wife and two children to serve with John J. Murdock, also an AOS trustee, who was general manager for the B.F. Keith Vaudeville organization.

Only a year after Oliver and his family moved to Larchmont, Murdock moved from NY to Beverly Hills and his orchid holdings were sold to none other than Joseph P. Kennedy — father of John, Bobby and Ted.

Again in need of a job, Mrs. W.K. DuPont asked Oliver to become her grower at Wilmington, but, only after six-months time, Eleanor and Fitz Eugene Dixon were recruiting Oliver to rejoin his original Cooley collection which they had purchased in 1925 for their Ronaele Manor estate in Elkins Park, PA.

Oliver eagerly jumped at the opportunity because he could return to the original collection he had been so instrumental in building.

At the World's Fair in 1939, Oliver won three gold medals for Mrs. Dixon. He was even referred to as "The Dean" by many growers who sought his advice and counsel.

In 1845, he was awarded the AOS Gold Medal of Achievement for his skill in orchid culture.

Harold Patterson, a well-known orchidist at the time, wrote "Many fine hybrids were produced at the Dixon estate by the hands and thinking of Oliver Lines. Many of these varieties were great and still are. They are components of countless fine new hybrids unfolding year after year."

While working in Mrs. Dixon's greenhouses, Oliver was not alone. He had a bright-eyed, curious young son, John, who followed him around — helping him water and pot the orchids and stoking the furnace when necessary. John was like a sponge, absorbing all the orchid knowledge he could from his father.

During WWII, Oliver began selling the Dixon orchids commercially so the collection could survive the struggling economy. And in 1946, Mrs. Dixon decided to sell her large estate and consequently her fine collection of plants were sold off.

Yet again, change was in the future



for Oliver and his family.

As a thank you for all his hard work and success at the Dixon estate, Mrs. Dixon graciously gifted Oliver with plants from the Cooley collection as well as two greenhouses to use in the future establishment of Lines Orchids, which would be located on Signal Mountain, Tennessee.

Following in his father's footsteps, John too had a passion for orchids and spending his days under glass — watering, potting and hybridizing orchids.

John's first job after high school graduation was with Frank and George Off's greenhouses of Brighton Hotel in Atlantic City, New Jersey. And, in 1943, Clint McDade, who was an AOS trustee with Oliver asked him if he had any recommendations for a grower to help his expanding greenhouses on Signal Mountain, TN. Oliver recommended his son. And John got the job.

Timing was everything and John's new job at Rivermont Orchids on Signal Mountain provided him with a great opportunity to join a new firm, helping influence its future growth and development. Many great orchid crosses were made during John's time at Rivermont.

Due to some family conflicts at Rivermont, John approached his father, who was recently retired and living in New Jersey, to see if he would consider opening their own orchid business on Signal Mountain. Never seeming to outgrow change and opportunity, Oliver said yes. And, with a retirement check in hand, Oliver and John purchased a home with property on Signal Mountain in 1947.

Two of the original greenhouses from Mrs. Dixon's estate were dismantled and brought down in 1947 and Lines Orchids was established. Originally, Lines Orchids began as a cut flower business supplemented by plant sales to walk-in customers. During the hard early years, the two worked closely together to ensure the company's success. There were difficult times but happily the business began to pick up and eventually it was flourishing thanks to the fashionable cattleya corsage that adorned women's outfits to special outings, events and Sunday church. The cut cattleya was the cornerstone of the business for many years.

In 1962, John and his wife, Gladys, were given a private tour of the Truman Library in Independence, Missouri after naming an orchid for Mrs. Truman,



C. Bess Truman. The orchid was originally meant to be named after President Truman but John asked if it could rather be named for Bess as President Truman had lots of things named for him. And so it was.

John and Gladys kept themselves quite busy raising four children, tending to greenhouses, traveling the world to see various orchid collections and participating in orchid shows across the country. John and his father Oliver found much success at the shows for their beautiful hybridizations. Even today, the greenhouse shelves are filled with stacks of sliver pieces — trays, candelabras, serving dishes that were awarded to Lines Orchids for their orchid crosses and hybridizations.

After serving as an active trustee on the AOS for 31 years, longer than any other member, Oliver retired and was named an honorary vice president. Until his final days, Oliver joined John in the greenhouses, continuing to faithfully tend to the orchids he loved so dearly.

Upon Oliver's passing in 1965, John continued to run and expand the business, buying his former employer, Rivermont Orchids, in 1972.

In the early 1980s, the cut flower business began to fade and potted phalaenopsis orchid sales began to pick up dramatically. John adapted to the change in the industry, even though his true love always was for cattleyas.

John's phalaenopsis collection was an attractive potted plant available to the general public market. As the plants

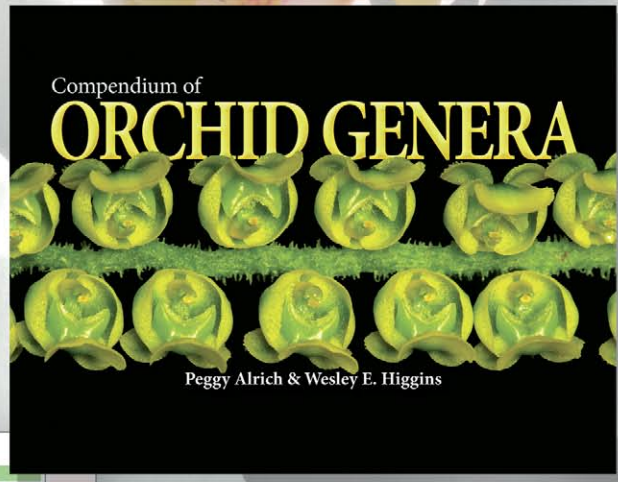
- [4] *Cattleya* Bess Truman, registered by Lines Orchids in 19, would still today be a fine addition to a cattleya collection. Photograph courtesy of Robin McLaughlin.
- [5] Bess Truman wearing a cattleya corsage. Bess Truman regularly wore cattleya corsages during her nearly eight years as First Lady. Photograph courtesy of the St. Louis Dispatch.
- [6] John Lines was proud of his semialba breeding. This composite image was scanned from the June 1965 AOS *Bulletin* and shows some of the many stud plants that he was using at the time.

bloomed, he hand-selected some for his own hybridizing. Although white phalaenopsis plants account for the majority of the sales at Lines Orchids, a number of John's hybrids of other colors have been awarded AOS awards of merit.

Following John's death, his daughter Joan McCandless took over the operation of the business and, most recently, the next chapter in the story of Lines Orchids — construction on the new site began in the spring of 2019.

— This article was adapted with permission from an article that originally appeared in the *Chattanooga* on October 26, 2018. The *Chattanooga*, published by John Wilson, is a full-service, web-only newspaper published daily.

Presenting
The Compendium of Orchid Genera
 by Peggy Alrich
 and Wesley Higgins



Angraecum Bey
 Type: *Angraecum* (1816).
 Epiphytic orchid.

ETHYMOLOGY: From the Latinized form of the Malay word (*Angrak* or *Angrak*) for the epiphytic orchid that resembles *Ardisia* and binds its habit. The name *Angraecum* was given by George Eberhard Rumphius (1626-1702), who coined it from the word *Angrak*, a name or title given by the Malays to "parrot-like" plants, the meaning of which has not been discovered. From Engelbert Kaempfer (1685-1716) we learn that *Angrak* or *Angrak* is also the name used by the Javanese for these plants.

CHARACTER: *Angraecum* *obovatum* Bey
 Illustration: *Angraecum* *obovatum*

More than two hundred twenty-one, very small to very large monopodial epiphytes, a few lithophytes or rare terrestrials have a wide range of distribution in humid, low to mid elevation, coastal to hill scrub, savanna to montane evergreen forests of mainly tropical Africa (Guinea to Somalia, Gabon to Zimbabwe and South Africa), Madagascar, Mauritius to Réunion, although one species is found as far away as the Seychelles and Sri Lanka. These miniature to large, rambling to clump-forming, warm to cool growing plants are vegetatively and florally quite diverse. The short to long, sometimes branched stems are leafy throughout with fleshy to leathery, channelled, unequally bilobed, usually distichous leaves. The one to several, short to long, solitary to few-flowered inflorescences have long-lasting, small to large flowers in shades of white, ivory or green with sepals and petals free, usually spreading. The flowers are noted for their spurs of widely varying lengths from quite long to short. The flowers have a thick, almost leathery texture, an exceptionally long flowering period, and an extraordinarily heavy nocturnal fragrance (usually within the long-spurred species) and the lip is larger than the other segments. The shell or boat-shaped, simple or obscurely lobed lip is usually quite concave, its base more or less encloses the column, and it has a central callus. The flowers have a very short, footless column with deeply divided lobes.

Culture: Growing conditions and habitat options vary widely from species to species. Generally they do best mounted on a firm slab with good drainage and most of the species benefit from a resting period of reduced watering. Provide intermediate conditions, bright to diffused light, high humidity and good air movement.

Valid Angraecum Synonyms

Aerobion Kamper ex Sprengel
 Spiz. 102 (Sprengel), ed. 16, 8:479 & 716 (1826).
 Epiphytic orchid for air and life, referring to the epiphytic habit of the plants.
 Lectotype: *Aerobion asperum* (Thunberg) Sprengel (*Angraecum asperum* Thunberg) designated by C. G. Hill, 2003 (10/27/03).

New recognized as belonging to the genus *Angraecum*, *Aerobion* was previously considered to include twenty-four epiphytes found in warm, mid elevation, montane forests of Madagascar and the Mascarene Islands.

Angraecoides (Candolle) Schachler, Mytnik & Goodrich
 Biodivers. Res. Conservation, 29: 11 (2013).

Epiphytic orchid, a genus of orchids, and Greek for likeness or form. Refers to a similarity to *Angraecum*.

Ten Sees (*Angraecoides pinguis*) Schachler, Mytnik & Goodrich
 (*Angraecum pinguis* Frappet)

New recognized as belonging to the genus *Angraecum*, *Angraecoides* was previously considered to include twenty-five epiphytes found in cool, mid elevation, hill scrub and montane forests in northwestern Madagascar, Mauritius and Réunion.

Arachnangraecum (Schachler) Schachler, Mytnik & Goodrich
 Biodivers. Res. Conservation, 29: 11 (2013).

Epiphytic orchid for spider and *Angraecum*, a genus of orchids. Refers to the long, spider-like segments.

Ten Sees (*Anchisangraecum rufum*) Schachler, Mytnik & Goodrich (*Angraecum rufum* Thunberg)

New recognized as belonging to the genus *Angraecum*, *Anchisangraecum* was previously considered to include thirteen epiphytes found in cool, mid elevation, hill scrub and montane forests in found in northwestern Madagascar, Mauritius and Réunion.

Bonniers Cochard
 Rev. Gén. Bot., 11: 616, 6: 10-11 (1899).

Epiphytic orchid in appreciation of Eugène Marie-Gaston Bonnier (1853-1922), a French botanist, editor of *Revue Générale de Botanique* and publisher of Candolle's notes on the orchids of Réunion.

Ten Sees None designated

New recognized as belonging to the genus *Angraecum*, *Bonniers* was previously considered to include two epiphytes found in mid to upper elevation, bushy montane rain forests of Réunion.

Boryangraecum (Schachler) Schachler, Mytnik & Goodrich
 Biodivers. Res. Conservation, 29: 12 (2013).

Epiphytic orchid in honor of the genus *Angraecum*, *Boryangraecum* was previously considered to include thirteen epiphytes found in cool, mid elevation, hill scrub and montane forests in found in Madagascar, Mauritius and Réunion.

Ten Sees (*Boryangraecum parviflorum*) Schachler, Mytnik & Goodrich
 (*Angraecum parviflorum* Schachler)

New recognized as belonging to the genus *Angraecum*, *Boryangraecum* was previously considered to include thirteen epiphytes found in cool, mid elevation, hill scrub and montane forests in found in Madagascar, Mauritius and Réunion.



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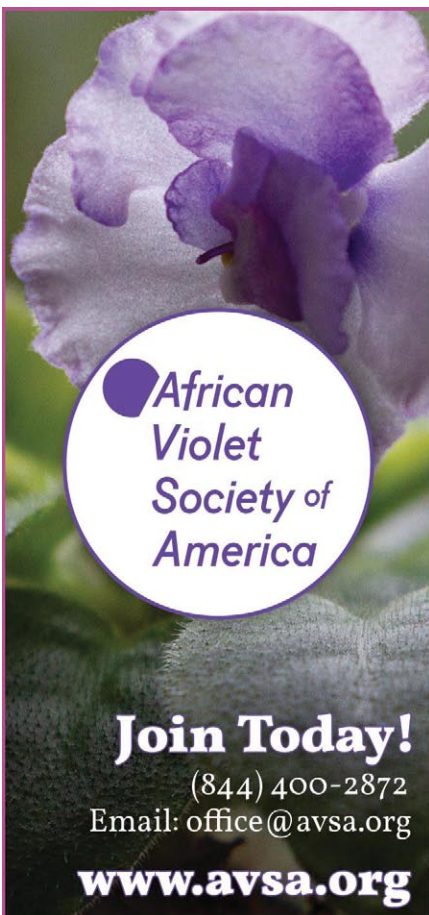
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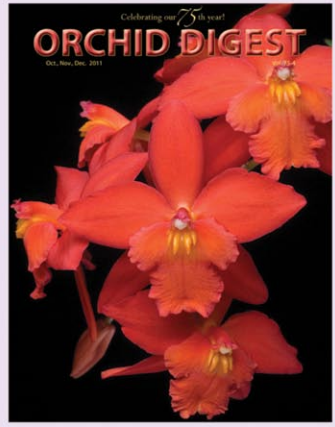
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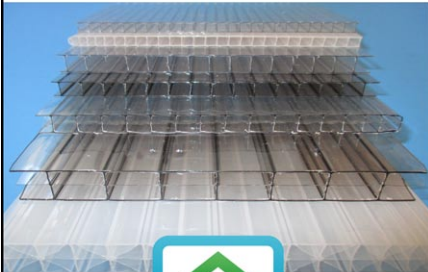


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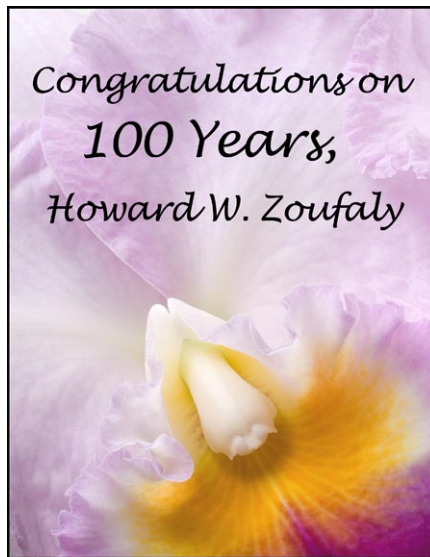
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the AOS Happy 100th
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AD INDEX

Advance Greenhouses.....	158	Gothic Arch.....	157
African Violet Society.....	156	Holly Stults, Artist.....	158
American Begonia Society.....	87	Howard Zoufaly.....	158
American Orchid Society		Jaybird Manufacturing.....	158
American Orchid Society Guide.....		JR Peters.....	156
to Orchids and their Culture.....	91	Krull-Smith.....	Back cover
AOS Commemorative Glasses.....	91	Kultana Orchids.....	157
AOS Staff.....	158	Mellick Associates.....	87
Better Grow.....	157	North Jersey Orchid Society.....	158
Classified Ads.....	159	Orchidjournals.com.....	157
Centennial Celebration Save the Date... 155		Orchiata.....	157
Compendium of Orchid Genera.....	154	Orchid Digest.....	156
Easy Money.....	156	Orchid Review.....	89
Editorial Board.....	158	Plantío La Orquídea.....	85
Webinars.....	85	Repotme.com.....	Inside front cover
Arcadia Glasshouses.....	157	R.F. Orchids.....	85, inside back cover
Delray Beach Orchid Society.....	158	Western North Carolina Orchid Society....	158
DynaGro.....	95	White Plains Orchids.....	94

Submission of articles for ORCHIDS magazine

The AOS welcomes the submission of manuscripts for publication in *Orchids* magazine from members and non-members alike. Articles should be about orchids or related topics and cultural articles are always especially welcome. These can run the gamut from major feature-length articles on such topics as growing under lights, windowsills and thorough discussions of a species, genus or habitat to shorter, focused articles on a single species or hybrid to run under the Collector's Item banner. The AOS follows the World Checklist of Selected Plant Families with respect to species nomenclature and the Royal Horticultural Society Orchid Hybrid Register for questions of hybrid nomenclature. The AOS style guide and usage guides can be downloaded from <http://www.aos.org/about-us/article-submissions/style-guide-for-aos-publications.aspx>. Articles as well as inquiries regarding suitability of proposed articles should be sent to jean.ikeson@gmail.com or the editor at rmchatton@aos.org.

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The Past, Present and Future

by Charles Wilson

In the early years of the American Orchid Society, the Conservation Committee functioned as a combined committee with Research. In November 1965, it was afforded its full status with its first chair being the internationally known orchidist, G.C.K. Dunsterville (1905–1988). This was long before the US Endangered Species Act of 1973 and implementation in 1975 of the treaty of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Your AOS firmly established conservation as one of the three pillars of our organization in those early days, long before other orchid conservation efforts got underway. The AOS has been an active supporter of the World Orchid Conferences since 1954 and is one of the three original founding world partners of the World Orchid Conference Trust in 1988.

In 2002, the AOS established the Philip E. Keenan Conservation Award with the support and donations from family and friends in honor of his early and indefatigable orchid conservation efforts. Each year the Conservation Committee may bestow this cash award to multiple individuals or organizations for efforts in North America. The Conservation Committee may also make similar annual Conservation Recognition cash awards for international efforts worthy of recognition. Information on how to make nominations for these awards is available on the AOS website under the Conservation tab.

In the last decade, the AOS has supported studies on the grass pink orchid (*Calopogon tuberosus*) in New York and cypripediums of the Pacific northwest, assisted the Nature Conservancy of Canada in conservation of the small white lady's slipper (*Cypripedium candidum*) in Manitoba, helped establish an orchid seed bank in central Africa as well as funding multiple studies on orchid conservation in the Andes, notably Ecuador and Colombia. Over a three-year period (2016–2018), the AOS collaborated with the Furniss Foundation for additional funding to support an in-depth study of the genus *Cyrtorchis* in Central Africa (Azandi, et al.).

In 2020, the Conservation Committee had the pleasure of awarding two Keenan Awards for conservation efforts in North American orchids. Jennifer

Reinoso was a recipient for her efforts in conservation of Florida's leafless beaked orchid (*Sacoila lanceolata*), and Dr. Andy Huber was also a recipient for his efforts in working to restore 11 species of native orchids and their habitat in eastern Oregon at the Grande Ronde Overlook Wildflower Institute Serving Ecological Restoration (GROWISER). Both of these recipients were highlighted in the August 2020 edition of *Orchids* and a December 2019 webinar is also available of Jennifer's work.

Today there are so many amazing efforts happening in orchid conservation worldwide that it is almost mind-boggling. Thanks to our member support, the AOS continues to be an active participant!

Just in the past two years, the AOS Board has provided combined funding, in excess of \$40,000, to orchid conservation projects worldwide via grants awarded by the AOS Conservation Committee. Information on how to apply for these grants is available on the AOS website under the Conservation tab.

Several recent projects that have been concluded now have reports with photos on the Conservation page. Of special note is the report from the La Reserva Orquideas, which benefited in 2019 from combined efforts of the Sociedad Colombiana de Orquideología (Colombian Orchid Society) and a grant from the AOS. The efforts included furthering orchid identification in the reserve, producing identification field guides for visitors and sponsoring community-oriented educational workshops (orchid horticulture; introduction to the cloud forest; plant photography; the role of birds in the forest; cloud forest tree taxonomy; botany and scientific illustration). A special article was recently published in the November 2020 *Orchids* magazine detailing these efforts.

A 2019, grant furthered Tara Luna's work in the conservation and ecology of western North American cypripediums. The results of her work have been published in *Orchids* (March 2019 and September 2020), and her work is also available as a special webinar suitable for individual study as well as showing at local society meetings.

An additional article detailing GROWISER's work was featured in the September 2020 edition of *Orchids*

along with a special report on AOS grant efforts in the conservation of the orchids of Madagascar; featured in the same edition.

The coming year promises exciting and great news in orchid conservation with a webinar coming in the spring by Julia Douglas of the University of Hawaii on the restoration of Karwinski's orchid (*Prosthechea karwinskii*) to the wild after being collected for ceremonial use in Oaxaca, Mexico. Other projects we plan to highlight this year include orchid restoration efforts we have funded in the US, notably the propagation and reintroduction of distinctly isolated populations of Chapman's fringed orchid (*Platanthera chapmanii*) in Florida and Texas, and the restoration of disas into their native habitat in South Africa as well as orchid habitat assessments in Malaysia and Madagascar.

We thank you for your support that has made these projects possible. Please consider continuing support for these all-important orchid conservation efforts by donating to the Conservation Endowment Fund (CEF) on the AOS website. The CEF was established by the AOS Board of Trustees to provide a long-term fund for support to the future for our conservation efforts and initiatives. Donations to the CEF enable the fund principal to grow, but also allow for the interest income to be applied to conservation efforts. Your donations will provide worthwhile and needed support to continue the Society's national and international conservation efforts today and for future generations.

References

- Azandi, L., Droissart, V., Sonké, B., Simo-Droissart, M. and T. Stévant. 2018. The Genus *Cyrtorchis* in Central Africa with a Cocus on its Two Sections. *Orchids* 87(1):48–55.
- Huber, A. Native Orchids at GROWISER. 89(9):694–695.
- Luna, T. 2019. Conservation at Work. 89(3):196–201.
- . 2020. *Cypripedium montanum*. *Orchids* 89(9):744–747.
- Mejía Duque, L.E. and T. Arias. 2020. La Reserva Orquideas. 89(11):862–869.
- Mirenda, T. 2020. The 2020 Phillip E. Keenan Awards. 89(8):612.

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