

Fancy Bloomers

A Paper for the Hopkinsville, Kentucky,
Athenaeum Society
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I will talk about bloomers, some of which are very fancy and at times can be quite expensive. It is of interest to note that these bloomers have a close relationship to the male testes, and I am confident that your wife or girlfriend would like some of them. OK, enough of getting your attention-although all of these statements are in fact true.

Let me start with some references to the history of my topic. The first definite references to orchids are in early Chinese writings from about 800 BC. Later, about 500 BC, the writings of Confucius spoke of the virtues of the perfume of Ian (which was the Chinese name for orchids.) In Europe, the earliest known interest in orchids dates back to the ancient Greeks. It has been reported that the Greek philosopher, Theophrastus, 370-285 BC, named these plants, based on the paired tubers of a local terrestrial species. To some they resembled testicles, for which the Greek word is "Orchis". From this came the names, "orchid" and "orchidaceae" (the name of this family of plants).

Confucius spoke of orchids as being flowers of refinement to be held in high esteem. Their rare beauty as well as other *supposed* factors about benefits available from orchids resulted in the lure of both men and women toward the acquisition of new and varied plants. By the early 1800's orchids were becoming very popular among the relatively wealthy who could afford a glass greenhouse, and among those who became professional hunters of orchid plants in various parts of the world. This means of acquiring new plants was needed because the art of propagating new orchids was yet to come. These professional hunters of orchids faced perils of a virgin jungle, scaled mountains and wandered ravines in search of new plants. Neither the

presence of pirates or cannibals, or stories of “man-eating” orchids, earthquakes and hurricanes deterred the hunters of the 19th century! Many tales have been told about the adventures of these orchid collectors from this time. For example, it has been told that Wilhelm Micholits, battled hostile natives, wild animals, and tropical diseases, as well as rival collectors, to be the first to ship any spectacular new find to his employers in England. Huge numbers of orchids were taken from the wild around the world. One collector proudly told how he got his *Odontoglossum* plants (a type of orchid): “ After two months’ work, we had secured about ten thousand plants, cutting down some four thousand trees, to obtain these, then moving our camp as the as the plants became exhausted in the vicinity.” Many orchid plant hunters destroyed large areas of orchids to obtain plants for their own efforts and to prevent rival collectors from getting them. Another extreme example was that of Benedict Roezl (1824-1885). He worked as a collector for over 40 years, traveling on foot throughout all of tropical America. It is said that his success was enhanced by the fact that he had lost his left hand, and wore an iron hook. Indian tribes in some places were so amazed by the hook that they did not harm him. He became notorious for the unbelievable numbers he collected: 10,000 plants from Columbia and Panama, another 3,000 from Columbia, eight tons from Venezuela, ten tons from Mexico, and others. It is reported that in 1873 he got 100,000 plants by agreeing to pay natives a set amount for every 100 orchid plants.

There are many other stories about this “orchid mania”, but obviously such practices could not continue. World War 1 finally helped to put a stop to them. When too many plants of a particular kind are removed, there are not enough left in the wild to reproduce and increase the population. Also, when wild places are cleared for farming, building or for roads, for example, or when forests are cut down, the habitats for certain plants are destroyed. It has been suggested

that perhaps 10 percent of all wild plants worldwide are endangered, and many are orchids. Finally in 1973 the CITES agreement, The Convention on International Trade in Endangered Species of Wild Fauna and Flora, was established to stop the trade in wild plants and animals around the world.

Orchids were used at first not as ornamental plants, but as aphrodisiacs. Carl Linnæus in 1751 wrote that orchids were aphrodisiacs with the result that men and women in Europe ate them to fill this need and farmers fed them to rams, stallions, and bulls to encourage them to reproduce. Eventually, the aphrodisiacs interest became worldwide and orchids were used in England, France, Holland, Norway, Ireland, Northern Africa, Persia, India, and in the Middle East. Even in the United States in the 1800's, orchid derivatives were found in many pharmacies. Today, it is known that orchids in fact had no such aphrodisiac effects. Another popular use of orchids, for some time, was with a substance called *salep*. Salep is a flour made from the tubers of a certain orchid. These tubers contain a nutritious starch-like polysaccharide called glucomannan. Salep flour is consumed in beverages and desserts, especially in places that were formerly part of the Ottoman Empire. In various cultures at different times orchids were thought to have magical powers, such as driving away evil spirits, bringing courage and good luck. Orchids have also been used for medical purposes. Especially in the orient, they have been used as herbs and regarded as precious medicines to treat every ailment known to man. One popular natural medicine, Valerian, is derived from an orchid plant. Information about this was learned from the North American Indians who used it as a sedative long before white men came. Valerian is still prescribed today by some physicians to treat sleep problems. *Bletilla Striata* is a terrestrial orchid in China, which is used for medicines to stop internal bleeding or to treat skin

and burn problems. In some places a tea is made from orchid leaves and the oil used in certain cosmetics.

The orchid, *Vanilla Planifolia*, is the one that for centuries has been used for probably the most practical purpose, other than for the beauty of the flowers. This orchid grows in various areas, including Polynesia, the west Indies, and Mexico. Vanilla flavoring comes from the pods which are picked green and fermented in air tight boxes until they turn black. These orchids are huge climbing vines reaching 15 meters. It is reported that the Aztecs had discovered the process of making vanilla and had a large industry in process when Cortez and his army arrived in 1520. At that time, vanilla was used in part by the Aztecs as an aphrodisiac and as money. From there, the Europeans took vanilla to Europe where it became very popular, especially among royalty and the elite. Thomas Jefferson discovered vanilla while he was in France and helped introduce it to the Americans. Today it has been stated that vanilla is the second most expensive flavoring after Saffron, except in Mexico. In the U.S., vanilla is a mix of vanilla and alcohol and is relatively expensive. For years, when we were still able to go to Mexico, we would buy pure vanilla in bottles at least one liter size for one to two dollars! We still have some of it stored! We were also fortunate to visit a vanilla plantation in Polynesia.

Of course the most popular use of orchids today is for their beauty and fragrance. There are so many types to potentially choose from. You are probably familiar with one especially popular and well-known orchid. A brief history of this particular orchid might be of some interest. Like many important discoveries, the origin of what was to become the best known, the overall best-loved, and probably the most widely used orchid is described with different details by different writers, but the basic information is close enough. An early orchid collector by the name of William Swainson, in 1817, discovered a new plant in Brazil and shipped specimens to

the Glasgow Botanic Gardens for identification. A little later, he also sent plants to Sir William Cattley from Barnet, England. He was an avid collector of ferns and other tropicals and he was able to bloom one of these plants, an orchid with beautiful large blossoms, a full year before the plants in Glasgow. Then in 1824, John Lindley, who was doing some work for Cattley, arranged to name this orchid after him, adding the species epithet, “labiate” to indicate the impressive labellum of the flower; thus the now well-known name, *Cattleya labiate*, or simply Cattleya. Over the years it has often been referred to as the corsage orchid or wedding orchid. The size of these beautiful and fragrant blossoms can reach six inches or more. A memorial to William Cattley was erected in the church yard of Barnet, England.

One simple way to give a general classification is to refer to the growing environment of a group of orchids. There are three general groups, classified according to the conditions under which they or their predecessors have evolved. Epiphytes are those that are air plants or tree-dwellers. Terrestrials are plants that grow in the soil. Lithophytes are those whose roots attach themselves to rocks. Beyond this, the classification can get quite involved. There are about 350 families of flowering plants on Earth. Orchids belong to the family, Orchidaceae, the largest family of flowering plants. In this family, there are around 25,000 species! I thought about reviewing the characteristics of each of these for you, but was not sure there would be time to do so! In spite of the massive numbers, all orchids have similar features, including leaves that are undivided and are narrow or egg shaped, with veins that run in a straight line down the leaf. The flowers have three sepals and three petals with one of the petals being quite different. Orchid seeds are produced in a pod and are so small they look like powder. Even a small pod contains hundreds of thousands, with some tropical orchids having very large pods that hold as many as

three million seeds! A former friend of ours, and former Athenaeum member, David Riley, in part paid his way through college by working with planting orchid seeds!

Cultivation of orchids finally began to replace the excessive, uncontrolled collection craze. One of the first nurseries to grow orchids was Conrad Loddiges and sons in London, England, about 1821. By 1838 they had over 1600 different kinds available. At first, only wealthy persons could afford exotic orchids, since most were expensive to buy and also to grow. The need for high temperatures was one difficult problem. Many tropical epiphytes need a special growing medium made from bark chippings and need warm water and fresh damp air. Some of these orchids can be grown as house plants, but most do better in a greenhouse. However, it was eventually discovered that orchids from cooler regions were also beautiful and could be grown in cooler conditions, making it possible for more orchid enthusiasts to grow them. Two highly specialized techniques for growing orchids are reproduction from seeds and from tissue culture. Growing orchids from seeds is difficult and requires specially trained persons to grow them in laboratories in special containers with particular plant foods. In addition to this procedure, a new method using tissue culture from parent plants was discovered in the 1960's. This technique also requires laboratory conditions. Seed cultivation will produce plants that resemble the parent plants in different ways, whereas with tissue culture all the plants are identical to the parent plant.

During the earlier years of cultivation, orchids were grown in foreign countries where the climate and other factors were suitable for certain types of orchids. This resulted in a fairly large supply of limited types of orchids for cut flowers and for plants to be grown by those who could produce the needed conditions. Today orchids are produced by growers in conditions ranging from the small private greenhouse to much larger commercial operations using multiple

greenhouses and conditions to make various orchid plants available for growing by even armatures. When my wife and I were in Hawaii in recent years we visited a commercial orchid company where large numbers of various orchid flowers and plants were available. We also visited a fairly large nursery in South Carolina just a few years ago where we bought two or three plants to grow in our special "plant room". One of those was a nice large white Cattleya.

(Handout)

With some of these advances over the years, the growing of orchids shifted from a few wealthy noblemen in England to a much larger cross section of the west coast of the United States. Then before long, the interest spread to many developed nations, and orchid societies began to form in many countries around the world. As part of this, orchid societies have been organized even in our part of the world. A few of these include the Memphis Orchid Society, Smoky Mountain Orchid Society, Dixie Orchid Society, The Birmingham Orchid Society, and The Orchid Society of Middle Tennessee. For several years Annette and I were active in the Orchid Society of Middle Tennessee that met monthly at Cheekwood Botanical Gardens in Nashville. I am sure that some of you were privileged to know Dr. Gabe Payne who was a prominent physician in Hopkinsville. Gabe and his wife, May, had near their house a very nice small to medium size greenhouse that was dedicated to growing orchids. Gabe and I would at times travel together to participate in the meetings and activities of the orchid society. Another very close friend of ours, also now deceased, was Bill Smith of Nashville who had been a primary person in charge of caring for the fabulous plants at the Opryland theme park. Bill was also an avid orchid grower who ran his own orchid business for a number of years. Along with this he was a very active and leading member of the orchid society.

A few types of orchids, primarily the phalaenopsis, have become readily available for extremely reasonable prices. A flowering plant that twenty years ago, purchased from an orchid

show or from a grower I knew in Nashville, would cost about \$35, can be bought today for about \$15 or less at places such as Sam's, Lowes, or Kroger. However, in selecting a plant, care must be taken. At such places the selections are much better at certain times of the year, and the condition of a plant must be carefully examined. During shipment and later in the store plants are often damaged or left uncared for. With care, very good plants can be found. A few years ago my wife found at Kroger a very nice, large, white phalaenopsis. That plant had on it numerous blossoms continuously for at least a year and a half, summer and winter! We keep our orchids and various other plants in a sun room that is part of our home, not a greenhouse. So keep your eyes open at Sam's, Kroger, possibly Lowes or elsewhere, and get some of these beautiful, fancy bloomers for your wife or girlfriend!



Phalaenopsis



Phalaenopsis



Cattleya



Cattleya