International Camellia Journal

Vol. 1 No. 2

March 1964



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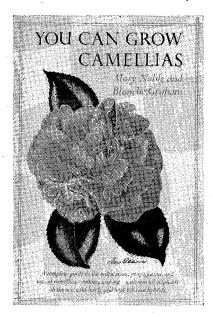
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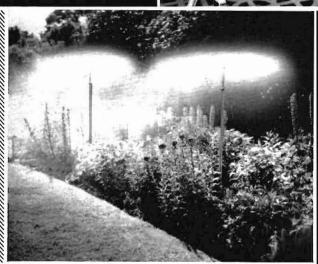
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International Camellia Journal

VOLUME I

NUMBER 2

An Official Publication of the International Camellia Society

EDITED BY
CHARLES PUDDLE

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The International Camellia Society has been inaugurated with the following motives:—

- To foster the love of camellias throughout the world and to maintain and to increase their popularity.
- To undertake historical, scientific and horticultural research in connection with camellias.
- To co-operate with all national and regional camellia societies and with other horticultural societies.
- To disseminate information concerning camellias by means of bulletins and other publications.
- To encourage a friendly exchange between camellia enthusiasts of all nationalities.

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AN OFFICIAL PUBLICATION OF THE INTERNATIONAL CAMELLIA SOCIETY

The Secretary's Page

I must sincerely apologise for the delay in the appearance of this second issue of the journal. I hope, however, that you will consider it well worth waiting for, and that the contents will prove of interest to all members. I would like to thank all our contributors and advertisers who have made this Journal possible.

The Directors of the Society are very conscious of the need for greater contact with members and an increased number of publications is planned for the future. Membership now stands at nearly a thousand from twenty-six countries so the Society is truly international.

I am sure you appreciate the difficulties of establishing an international society but I think I can safely say that our initial problems have been overcome and that members can look forward to much greater activity in the future.

During the past year much assistance has been given in the compilation of the new nomenclature checklist described by Dr. Moore in this Journal. The Society has commenced its duties as the International Registration Authority for Camellia. Assistance has been rendered to members undertaking overseas tours and practical advice on many camellia problems has been given.

The Society welcomes suggestions from members and contributions to the Journal. I hope that you will bring the Society to the notice of your friends so that with an increasing membership the Society can accomplish the many interesting projects which are planned.

A very happy camellia season to you all.

CHARLES PUDDLE.

Front Cover

'Star Above Star,' so named because each row of petals forms a perfect star, is a seedling of *C. vernalis* 'Dawn' raised by McCaskill Gardens, Pasadena, California. The medium sized semi-double flowers have a white base shading out to an exquisite lavender rose. They are freely produced and clothe the vigorous, bushy, upright plants over a long period. This new cultivar is another winner from Vern and Billie McCaskill, who have enriched our gardens with so many fine camellias. Photograph by Kassler Studios.

An International Camellia Checklist

HAROLD E. MOORE, JR.

Ithaca

U.S.A.

THE First International Code of Nomenclature for Cultivated Plants (1953) drew attention to the chaotic state of cultivar names of some specialty groups that are widely grown in different countries. Perhaps in no other genus were the problems more marked than in *Camellia*, despite the efforts of national and regional societies to maintain at least current registers of cultivars. The genus seemed an appropriate one to use in a study testing the difficulties of bringing together information on cultivars at an international level and of preparing a checklist that could serve as the basis for an international registry. Moreover, the genus is one of great importance to both the professional nurseryman and the amateur horticulturist.

Through the planning of Dr. G. H. M. Lawrence, formerly Director of the L. H. Bailey Hortorium, the support of interested persons and societies, and a grant from the Longwood Foundation (itself with an extensive collection of camellias), a project to accomplish the objectives mentioned above was initiated at the L. H. Bailey Hortorium in 1957. Ralph N. Philbrick was entrusted with the responsibility of carrying out this study.

After six years during which garden studies and library research have been carried on in Australia, Great Britain, Japan, New Zealand, the United States, and Western Europe, the list of cultivar names (originally estimated at about 3,000) includes over 14,000 entries. By the end of September, 1963, these entries were largely collated and annotated in a checklist ready for publication.

This checklist will consist of an alphabetic listing of all cultivar names of Western and Oriental languages, which have been found to be validly published from 1752 through 1958, together with date and place of publication, erroneous and synonymous names, and, for those cultivars most important today, pertinent historical and descriptive information. The literature upon which this register is based will be listed in full, and it is anticipated that a section will be devoted to the reproduction of the characters and the transliterations of Chinese camellia names. Unlike the Japanese names, most of these have never been brought together before.

The checklist will be published by the L. H. Bailey Hortorium with support from the Longwood Foundation and offered at a most reasonable price

(hopefully in the vicinity of \$3.00). The International Camellia Society has offered to accept the responsibility for co-ordinating the distribution of the checklist, which is to serve as the initial international register. The society expects thereafter to prepare periodic supplements.

The camellia project could never have been brought to a conclusion, without the great amount of work already done by the several regional societies and by dedicated enthusiasts, nor would it have been possible without their continued co-operation. To these societies and individuals, the personnel associated with the project are deeply grateful.

Further details of publication and distribution will be provided in later issues of the *International Camellia Journal*.

Propagation of Camellias

NEVILLE AND ERICA McMINN

Victoria

Australia

EDITOR'S NOTE.—This article is contributed jointly by Mr. and Mrs. McMinn, Mr. McMinn dealing with propagation from cuttings and Mrs. McMinn with commercial grafting. Mr. and Mrs. McMinn operate the Camellia Lodge Nursery at Noble Park, which is generally recognised as one of the foremost camellia nurseries in the world.

Propagation from cuttings.

BEFORE proceeding with the methods used at this nursery, I would like to draw your attention to an extract from a very old Horticultural book *The Cottage Gardeners' Dictionary*, Seventh Edition, published in 1863:

"The best time to put in camellia cuttings is when the wood has become nearly ripe. Prepare, first, the pots, six inches wide, for the cuttings, by covering the hole at the bottom with an oyster shell or large piece of broken potsherd; place an inch of smaller pieces upon it; cover these with a thin layer of moss and then fill the pots to the top with sandy loam, sifted pretty fine; press this firmly down and fill the pot again quite up to the brim, making it very firm. Then take the cuttings; make them about four or five inches long; cut the bottom off smoothly and level just under the bud; then cut off two of the lowest leaves, leaving as many on the cutting. Make as many ready as will fill the first pot. As soon as they are ready, insert them into the soil thickly all over the pot; place them in a cold frame or spent hotbed and in two or three months they will nearly every one be rooted."

While methods of propagation have varied since then, modern methods have returned very closely to that practised 100 years ago. For many years it was customary to take camellia cuttings in the Autumn after the current



Right: Completed pot of cuttings, cutting knife, dibbling tool, soft wood cutting board and two prepared cuttings,—left, cut at "heel", right, cut at leaf bud

Below: Propagating House, showing cutting beds and beyond, polythene sashes used for covering grafts.



new growth became well matured. These were struck over the Winter period in well heated propagation houses, usually equipped with boilers to circulate hot water through a system of pipes under the benches and thus provide ample "bottom heat" and humidity.

With the present day high initial costs of such equipment together with the cost of fuel for running them, most nurseries now use electrical heating. This has brought about the method of "green wood" propagating which relies mainly on the natural solar heating of the summertime to supply heat within the propagating house, plus the use of low voltage heating grids for night heating.

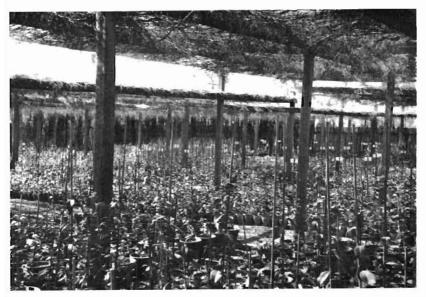
In the Melbourne area, most well grown Camellia japonica plants make two good growth cycles per year. The Spring cycle starts to harden off from late November to early December. The cuttings are ready once the tan markings of approaching maturity have started to extend up the new growth. Many varieties—such as 'Debutante,' 'Daitairin,' etc.—need careful watching as they harden early and make a rapid start on their second growth cycle, whereas other varieties may not be matured enough until end of December or even early January. We have found from experience that the wood should not be too green as it is likely to rot in the propagating medium under the high humidity, which will be mentioned later.

The cuttings are taken off with sharp secateurs and vary in length from 3" to 5", according to variety, although some varieties produce very long spreading growth, such as 'Dainty Maiden,' 'Lady Clare,' and many of these cuttings can be recut into two sections, provided that the terminal portion is matured enough and the intermediate growth buds are well developed. Only healthy, disease free cuttings are taken. These are collected in wicker baskets and prepared in the workroom; firstly by removing all but the two terminal leaves and approximately one-third of these is also cut off as the cuttings are placed in 5" pots for ease of handling and the trimmed leaves ensure both maximum numbers in the minimum space with room for air circulation which helps prevent foliage "sweating" in the high humidity of the glasshouse. The cuttings are then trimmed to length with a slanting cut using a sharp knife and a softwood cutting board so as to prevent possible bruising of the cambium layer, as it is around this cut area that callousing and root development takes place. We prefer cutting just below a leaf bud on the theory that this area produces optimum cambium activity. In many cases cuttings trimmed off between leaf nodes have died back along the stem in the propagating medium and roots have finally grown at the next leaf bud.

The propagating medium used consists of three parts by volume of washed river sand sieved through a 12 mesh sieve and re-washed and one part sieved peat moss, which retains sufficient moisture in the medium for the cuttings to absorb and replace any lost by transpiration. The medium is kept well wetted and packed into 5" clay pots just up to the rim; beforehand, a small piece of broken pot is placed over the drainage hole to prevent any spilling out of the bottom of the pot. From 20 to 25 cuttings can be inserted in this size pot by dibbling the holes with a large nail, screwdriver or pointed dowel, approximately \(\frac{1}{4}'' \) diameter being large enough for most varieties of cuttings. These are inserted gently



Newly-potted camellias raised from cuttings



Young camellias growing on in a shade house

approximately $\frac{1}{3}$ to $\frac{1}{2}$ their depth in the medium and firmed at the top by "pinching" in with the thumb and forefinger. When full, the pots are gently placed in a trough of water just deep enough to cover the top of the medium and this ensures that the sand becomes well packed in the pot and excess air pockets are driven out. After a minute or two the pots are removed from the trough and *gently tapped* three or four times on a block of wood to ensure the cuttings are firmly "anchored" in the medium. The pots are then lined out in the propagating house and the cuttings usually callous and produce roots within 10-12 weeks. During this period they are kept lightly watered without drying out. The propagating house itself is kept well watered around the inside walls, paths, benches, etc., to produce the utmost humidity. The benches are heated with electric grids at 64° F. but this is mainly applied at night with a time switch as during the summer months there is usually ample heat during the day to keep the house humid. Should a cold change come on, bottom heat can be maintained with a manual switch.

The maintaining of a high degree of humidity without waterlogging is a most important item, as the whole secret of propagating by cuttings is to maintain the rootless cutting alive until it can produce callous and roots to obtain its own moisture and, until it does this, it is particularly subject to dehydration. The doors of the propagating house are opened for a short period each day to allow a change of fresh air in the house, but at other times the doors are kept sealed to maintain humidity until the cuttings have rooted.

It will be found that some varieties are more difficult to strike than others. Cuttings should be checked for cleanliness and if mite or red spider is present they should be sprayed, as pests thrive in the humid conditions and an infestation can cause leaf fall with the consequent death of the cuttings. Occasional dusting with Captan or similar fungicide is beneficial in checking fungus diseases.

After the roots have developed, the cuttings are knocked out of the pot and reported into individual 3" or 4" pots. The potting mixture consists of equal parts light loam, peat moss and coarse sand, well mixed. The potted cuttings are then placed in greenhouses to mature over the winter and then reported the following Spring and grown on under shade-houses for resale the following Autumn-Winter.

Mist propagation is another recent development which has many advantages, particularly for quicker propagation of camellias, magnolias, rhododendrons, daphnes, etc. However, some experimenting is still required to find which of the various makes and systems suit our particular climatic conditions. Although we still use the conventional hand watering method our results have been satisfactory for both camellias and azaleas.

Commercial Grafting

The basic principles of grafting are the same, whether it is the amateur doing his two or three prized scions or the commercial grower doing thousands of grafts. However, the main difference is that the amateur probably has plenty of time to "coddle" his grafts while the commercial grower must get as many as possible done in a set time and still get the best results.



Grafts covered with hessian in a closed propagating house



Glasshouse containing yearling grafted plants in 7" plastic and clay pots

As we have not the space to grow on large understocks we use 3 year old container grown stocks in 7 lb pulp tins or 7" pots. These stocks have a diameter of a pencil, approximately 3%", and although rather small give very satisfactory results. Many people advise this and that as being best for understock but we find any healthy, quick growing variety of either C. japonica or C. sasanqua, gives equally good results. It is desirable that the stock be established for at least one growing season in the container to minimize decapitation shock to the root system. We prefer not to use variegated varieties for understock as variegation may be transmitted to the graft.

Our main grafting period is late winter, early spring—late June, July and August. At this time of the year cleft grafts are used. The procedure for preparation of understock and scion is the same as outlined in all good books on camellia culture. The stock is cut on a slant about 2" to 3" high with a slight bevel made on the high side where the scion is to be inserted. This we find gives a heavier binding callous. The stock is then split in the centre for a depth of approximately $1\frac{1}{2}$ ". The scion, which is taken from recently hardened healthy wood, is best with a terminal growth bud and one or more leaf buds. Thus, if the tip bud dies off the growth will throw from the other leaf buds. However, when grafting numbers of a new variety and there is not much wood available single leaf scions give excellent results. The scion is cut wedge shaped and if the leaves are large they are cut in half, retaining only two, or if small, three leaves. When preparing the scion, start the wedge immediately below a leaf bud, if possible. The scion is then inserted with this leaf bud just above the cleft. We find this gives a strong callous as the cambium cells appear to be very vigorous around this area of the scion.

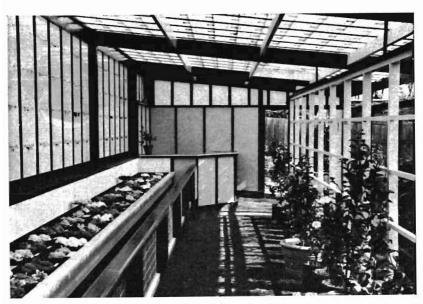
When inserting the scion we endeavour to get the cambium layers matching the full length of the scion but do not worry unduly about this as a slight tilting inwards or outwards of the scion does not appear to make any difference to the final "take." The graft is then bound with waxed tape. The waxed tape used is $\frac{1}{4}$ " strips of gauze bandage dipped in melted grafting mastic. This tape is self-adhesive and enables easy unwinding to see that all is proceeding as should be. A 4" length is quite sufficient to bind these small understocks. The graft is then dusted with a fungicide and covered with a large glass jar. The reason for binding is purely to keep the scion firmly in position until callousing has taken place. If using stocks of $\frac{3}{4}$ " or larger diameter we do not bother with the tape, there is sufficient tension on the understock to hold the scion firm. We no longer wax the cut area of the stock as we find we get just as good results without waxing and considerable time is saved.

Our grafts are then placed on benches in our closed propagating house and covered with hessian. The grafts need very little water until after the "take" as the decapitated stock needs little nourishment. We have experimented with polythene covered sashes in the propagating house. The grafts were placed directly under the sashes, without jars. The results have been very satisfactory, with very quick callousing. In future this will mean a lot of time saved as there will be no handling of jars.

The aftercare of the grafts is just as important as the actual doing of the graft. While the grafts are "taking" an odd one is inspected here and there



Established plants in the display nursery



Flower display and specimens for sale at Nursery entrance

to check on the progress. After approximately 8—10 weeks the grafts are usually calloused sufficiently and in some cases have made several inches of growth, for the jars to be taken straight off. Any that look a little weak are left longer. The hessian is still kept over these grafts for a further 7—10 days by which time the growth has hardened sufficiently and there is little likelihood of dehydration. Any grafts that tend to wilt are put back under hessian for a further few days.

After the grafts have hardened off they are reported into a larger container ready for selling or growing on for specimen plants. We also give the grafts monthly applications of a foliage fertilizer applied at half strength as we find this helps to develop lateral growth shoots.

Tea for Camellias

W. WIGHT

Port Erin

Isle of Man

What is tea? Like the rose, and many other cultivated plants, tea cannot be ascribed to a single species. The descendants of some rather wide crosses appear to have crept into the cultivated crop. Unfortunately, many writers persist in saying that tea is Camellia sinensis L. and give a correspondingly simple treatment of cultural conditions which is not justified by the hybrid nature of the crop. This presentation has been bolstered up by assigning varietal status (C. sinensis var. assamica) to a very distinctive tea plant that would be more correctly described as C. assamica Masters. Thus it has been difficult for those unfamiliar with tea plants to appreciate their variability and potentiality for general cultivation.

Similarly, an undesirable impression would be created by describing flowering camellias as cultivars of *C. japonica* L. — though this species constitutes the bulk of camellias cultivated for flowers. Other species deserve more attention than they have hitherto received, and there is a wide field of unexplored possibilities among species crosses.

What then are the differences between those species of *Camellia* generally cultivated for their flowers, and referred to as 'camellias,' and those species of *Camellia* which are cultivated for the manufacture of tea, and referred to as "tea"?

The flower buds of a "camellia" are enclosed in a series of graduated "scales" or bracteoles, which merge imperceptibly into sepals; and as these cannot be recognised separately, the whole series are described as *perules*. The flower buds are terminal, and extension growth of a shoot ceases when a flower bud is formed. The flowers are of the order of 10 cms., or more, in diameter, single or double, in shades of red and white.

The flower buds of "tea" are enclosed in a distinct calyx. The sepals do not differ greatly in size and are distinct from the bracteoles. The flowers are axillary, usually in fascicles, or, more rarely, on dwarf axillary shoots like the spur shoots of apple. Within reason, the longer and more vigorous the extension growth, the greater the number of flowers and the more prolonged the flowering season. The flowers are single, of the order of 2 cms., or less, in diameter, and, in India and Ceylon, almost invariably white.

So far as is known, the only pure species from which tea can be made are *C. sinensis* and *C. assamica*. But the foregoing description of "tea" applies perfectly well to *C. irrawadiensis* (Barua) from which tea cannot be made. And clear-cut distinctions between "tea" and "camellias" might be difficult if intermediate species were brought into cultivation, or if hybridisation were more extensively practised: for instance, it is likely that tea could be made from crosses of *C. sinensis* and *C. assamica* with several other species. It is easy to find hardy tea plants, and strains that will survive many degrees of frost have been bred in Russia from seed obtained in India.

The most floriferous tea plants seem to have descended from rather wide crosses. The flowering period of any particular plant extends over several weeks, with perhaps three weeks of maximum floriferousness. This is under conditions prevailing in north-east India. The general flowering period is from the end of October to about mid-January, though at any season of the year some genetically distinct plants can be found in flower. All flower well in full sunlight and less well under very shady conditions.

In the course of tea breeding in India it was a simple matter to raise notably floriferous plants with flowers exceeding 5 cms. in diameter. Neither was it difficult to get a profusion of rosy-pink flowers with a boss of yellow stamens: nor to get a deep carmine red in both petals and stamens. Yellow flowers might be possible.

These relatively large-flowered types of tea grew rapidly, with erect arching stems, reminiscent of *Philadelphus*, with flowers like those of Japanese cherry. The plants were 3-4 m. high. At the other extreme were spreading, procumbent plants, no more than 30-40 cms. high, with minute flowers and a mass of small, dark green leaves.

It does not, of course, follow that all these types would be frost resistant, or suited to cultivation in England, but they might do well in Georgia, for instance. Sufficient has been said to show that tea has interesting horticultural possibilities, not the least of which is the additional fact that old flowers fall cleanly from the tree. Camellia flowers usually do not.

One might ask why, in a tea breeding programme, attention was given to flowers. The answer is that distinctive floral types, when crossed with the more usual tea plants, or among themselves, can lead to enormous increases in the production of cropped shoots, the yield sometimes being more than doubled.

Much wider crosses offer further possibilities. For instance, it is known that distinctively flavoured teas, like those made in Darjeeling for example, depend on genetically distinct plants which seem to have descended from wide crosses. It appears, therefore, that a systematic investigation of crosses of *C. sinensis* and *C. assamica* with non-tea producing camellias might result

in new tea flavours of great value in a competitive market. There is also the possibility of patenting new varieties (cultivars) obtained in this way.

Furthermore, wide crosses can sometimes be recognised by the chemical method known as paper chromatography. If tea made from a patent variety could be recognised chemically, then the tea itself might be granted a patent.

Along these lines of thought, tea growers ought to be impressed with the need for registering new clones, whatever their origin, with the appropriate international authority. Failure to do so might make it difficult to obtain redress for unfair use of new clones on which the raiser has spent much time and money. Registration, however, is a secondary issue, and the main purpose of this article is to show that tea is needed for camellias and camellias are needed for tea. The two aspects of camellia cultivation—one for flowers and the other for vegetative shoots—are reciprocally related and both could benefit from co-operative research.

Hardiness in Camellias

A. D. ROTHMAN

New York State

U.S.A.

"REGRETFULLY, knowledge of hardiness based on temperature zones and recommended plants does not, *per se,* guarantee cultural success. Periods of drought, watering, feeding, micro-climate, air drainage, associated plants contribute to the successful growth of plants."

These words of horticultural wisdom utttered recently by Charles Webster, the respected president of the Horticultural Society of New York, apply perhaps with more force to camellias than to any other plant being pushed further and further north.

The truth of Mr. Webster's observation has been forced on me as a result of ten years' experience with "hardy" camellias in our nursery in an area in New York State where winter temperatures as low as -30° F. occur and -10° and -20° are common for days on end, sometimes with heavy snows and sometimes without any snow at all for long periods.

My desire to work with camellias here arose from my meeting with the late Prof. P. W. Zimmerman, plant physiologist of the Boyce Thompson Institute for Plant Research of Yonkers, N.Y., whose work in camellia hardiness dating back to 1927 is by now legendary. On a bitterly cold and blustery March day, in the company of Dr. Zimmerman, I saw several of his camellia plantings on the Institute grounds in bloom and looking very attractive indeed. Since Yonkers is only 75 miles south of Rhinebeck and temperatures of -20° F. do occur there, I was struck by the possibility of trying our hand with camellias here.



Two-year old plants of Camellia 'Page' ready for outdoor planting.



Camellia japonica 'Z' bred for hardiness by Professor Zimmerman.

Dr. Zimmerman kindy supplied me with cuttings of C. japonica 'Elegans', 'Kumasaka', 'Sarah Frost' and 'Dixie' and 'Page'. We lost the first batch of cuttings by trying some new fangled method of rooting; and Prof. Zimmerman patiently, though skeptically, supplied me with another lot. We had about 99 per cent. success with the second group in flats of perlite under fluorescent lights. After the plants were two years old and had reached a height of about 24", we put out fifteen of them in the autumn in an exposed position, with nothing other than some slats overhead. The temperature that winter went to a low of -23° . By spring all but one plant was dead. The survivor, an 'Elegans', looked fit. I immediately potted it up and put it under fluorescent lights, with the intent of propagating it by means of cuttings. This plant promptly died.

I had committed three mistakes. I had put out the plants in autumn, too late for them to snug in for the winter. It was asking too much to leave them completely exposed to the winter weather. I had disturbed a plant which had just undergone an extraordinarily tough experience; it might have continued to live if I had let it alone. From that day to this we have been learning a great deal about camellia hardiness.

The truth of the matter is that there is no extensive area in the United States where the camellia is perfectly hardy. The winters of 1960-61 and 1962-63 have proved this. In the furthest southern areas of this country very low temperatures killed thousands upon thousands of camellia plants, producing wide-spread disaster in the American camellia world.

Exceptions.—I do think that there is one spot in America where the rubric of completely hardy can be attached to the camellia. That is the Sierra Nevada range in Californa. It is among the heaviest snowfall areas in the world. There you have the perfect micro-climate for some selected camellias. All else being equal, the protection provided by the complete coverage of the plants by snow in winter is one of the most satisfactory answers to the question of hardiness. C. rusticana. whose buds open as the snow recedes down the Japanese mountain slopes in spring, inch by inch, responds the same way in the Sierra Nevada. Without the protection of snow C. rusticana either languishes or dies in relatively moderately low temperatures.

I once discussed with Dr. Francis de Vos, associate director of the U.S. National Arboretum in Washington, who is conducting interesting studies on camellia hardiness in the Potomac Valley, the matter of providing something that would be the equivalent of snow as a camellia protection. Now that snow-making machinery has been perfected for skiing purposes, it becomes possible to provide a micro-climate for camellias under conditions hitherto unavailable.

But many apperceptive gardeners in the United States have long been providing their own kinds of micro-climate for their camellias in zones where otherwise the winters, aside from low temperatures, would be too much for them. F. F. Rockwell, the noted American horticultural writer, grows tender varieties of camellias in an angle between two walls of his house, with a southern exposure, providing adequate protection against Cape Cod winters by means of boxing the plants in double polyethylene sheets. There are reports of camellias being carried through the winter successfully in other parts of Massachusetts and elsewhere only a hundred miles or so south of the Canadian border.

A grower sufficiently knowledgeable can grow camellias in the northern part of the United States if he can create an adequate micro-climate for them. This means providing the right amount of protection against low temperatures, drying winds from the west and north, spells of warm winter sunshine while the ground is still frozen; by judicious watering when the weather turns mild in winter and the ground is not yet frozen; by planting varieties which bloom late in the season or early in the spring; by making sure that his plants have adequate time to harden off before severe weather, through withholding fertilizers fairly early in the growing season; by planting shrubs of fairly large size and doing his planting in the spring and not in the autumn; by keeping his plants always in fine fettle, free of disease and pests. And by selecting varieties which have already demonstrated themselves better adapted to northern winter conditions.

This latter is an important shield against failure with the genus in the higher latitudes. And behind this shield, the selector and breeder can continue their work, at present still in its initial stages, of producing ever hardier camellias, varieties which can perform better not only in lower temperatures but requiring less selective sites than at present, say, such as those providing shade and soil acidity. It may seem strange to say that the right kind of shade is often difficult to provide, or that the proper soil acidity isn't easy to maintain. But these are the facts. We find this true in our nursery where the other genera we grow require full sun and our water is intensely alkaline.

Prof. Zimmerman was one of the few men who tackled the problem of breeding hardiness into the camellia at a fairly early date. To begin with, he had little material to work with. He started with some cuttings sent him from the University of Washington in Seattle in 1927. He wasn't able even to learn the identity of the variety, dubbing it "Z", for purposes of convenience. He then obtained the varieties: 'Elegans', 'Kumasaka', 'Madame Lebois', 'Sarah Frost', 'Dixie', 'Comte de Gomer' and a variety of seedlings and unnamed varieties.

In the succeeding years he made many crosses between these varieties and grew the seedlings on until they reached sufficient size for him to farm them out to interested gardeners in Westchester County where many of these plants are now still flourishing. In 1950 he began planting several sites on the Boyce Thompson Institute grounds with his selected camellia seedlings. They, too, did well through many winters, and some of them produced superior plants both as to hardiness and beauty of flower.

But Prof. Zimmerman was a man of many interests in horticulture and had many duties to carry out for the Institute. The project in camellias would have been too much for one man even if he could have devoted all his time to it. A few years before his death Prof. Zimmerman distributed his plants widely and was "out of camellias", as he told me when he came up to Strawberry Hill Nursery to get a few camellias for a friend, having no more of his own.

By the time of his death, his mind was far from camellia breeding. I do not know of anyone who is carrying on breeding with his stock in a systematic way. That is not to say that at the Glen Dale Plant Introduction Garden of the United States Department of Agriculture serious study is not being given to camellia hardiness. B. Y. Morrison, famous for his work in

azaleas, was responsible for the introduction of the Chinese C. oleifera which has withstood -6° and prospered. That, like C. fraterna and C. rusticana, are at least contemplated subjects for interspecific breeding in the interests of producing hardier varieties.

But I personally don't feel that the American camellia fraternity is too seriously engaged with the problem of producing varieties suitable for northern American gardens. As in the case of so many floral genera in America, interest has concentrated on producing ever more glittering flowers, rather than better plants by total standards. And wherever that has been done, in the end the given genus has suffered. Certainly camellia hardiness hasn't received a tithe of the work it merits. Thus, in the rather limited area where the "camellia craze" burns hottest and the proliferation of camellia varieties is the greatest and most confusing, come a few blasts of winter air from the arctic and the fanciers are left empty handed and bewildered.

I can only echo the words of Prof. Zimmerman, uttered so long ago as 1948:

"With proper crossing and selection I am of the opinion that satisfactory hardy varieties for northern regions can be produced."

Camellia Chronicle

Part Two

E. G. WATERHOUSE

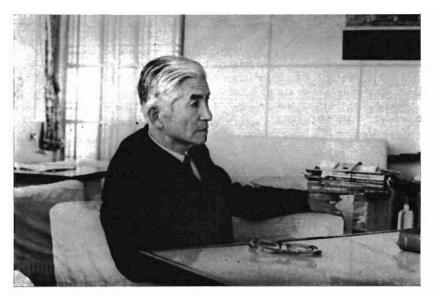
New South Wales

Australia

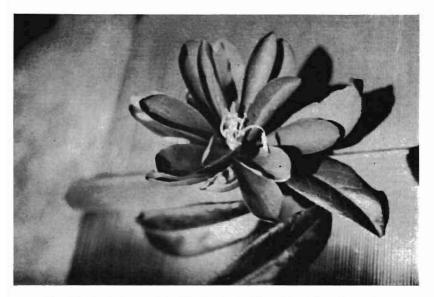
Japan

WE had heard of the "lily-leafed" camellia and were familiar with Adachi's interesting plate of it, but until we saw actual blooms we had no idea of the charm and fascination of this unusual camellia. We came under its spell in the garden of Mrs. Mitsui in Tokyo to whom we were introduced by the courtesy of Mr. Yasukuni Matsudaira. Her plant of 'Yuriba-tsubaki' (or 'Yuri-tsubaki' as it is sometimes called—Yuriba means lily-leaf and Yuri, lily) was about three feet high and three feet across with pendulous branches and long, narrow lily-like leaves. The flowers are semi-double with about sixteen long, strap-like petals curling slightly inwards at the edges, claret rose in colour, finely veined and blotched white. The petals do not touch one another but shoot out fan-like, arranged in two series, one set within the other and in the centre at their base a low broken cylinder of creamy stamens tipped with golden anthers evokes in fancy the play of a miniature cascade.

It was Mr. Matsudaira again who took us to visit the Saitama Botanic Gardens some twenty miles north of Tokyo. There we saw a fine plantation



Mr. Eikichi Satomi, our friend and guide for much of our visit



The 'lily-leafed' camellia 'Yuriba-tsubaki' at Mrs. Mitsui's garden

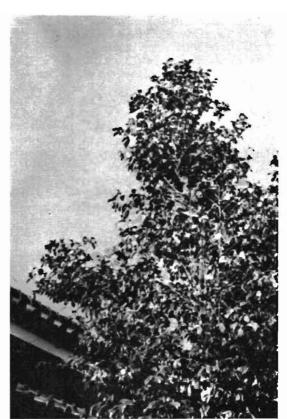
of American camellias generously presented by the late Ralph S. Peer. Apart from this collection we rarely saw other than Japanese camellias in Japan. Among other camellias in these Gardens were large plants of 'Ezo-nishiki,' 'Hi-otome,' 'Hanafuki' with white flakes and *C. sasanqua* 'Fujinomime,' very erect and open and quite distinct in appearance from 'Minenoyuki.' We were very impressed with 'Konron-kuro,' a very dark red double camellia with an unopened cone centre as illustrated in *Camellia Varieties in Japan*, 1956, by Satomi. Quite new to us and attractive was 'Tafuku-benten,' with small, variegated blooms of pink blotched and edged white and also variegated foliage. Another good camellia which we admired here and elsewhere was 'Miura-otome,' a soft rose pink semi-double which seems to have no connection with the Otome group.

We went on from Saitama to Angyo to visit Jisuke Minagawa's famous nursery and one of the most important collections of camellias in Japan. Here we paid particular attention to an advanced tree of 'Tsurikagari,' a camellia which can be traced back as far as 1810 in literature. Its semi-double blooms, red mottled with white were most appealing and reminded us of 'Donckelarii.' Mr. Satomi informed us that it is one of the sports of 'Okinonami' which was of great interest as we have in Australia another attractive sport of 'Okinonami,' which we had at first mistaken for the American variety 'Flame,' but which is undoubtedly 'Moshio,' frequently met with on plants of 'Okinonami' in Japan.

At Minagawa's too we saw a large tree of 'Ezo-nishiki' in full flower and with all the sports we are accustomed to find on 'Tricolor' in Australia. Here too 'Hanafuki' blooms showed white blotches as at Saitama, while the 'Hanafuki' we have in Australia is normally self-pink. Minagawa's 'Nankin-shiro' (Nanking White) proved to be none other than 'Alba Plena' plainly proclaiming its Chinese origin under its Japanese name. But this was the only plant of 'Alba Plena' that we met with in Japan and no bloom of 'Alba Plena' was shown at any of the four camellia shows we attended. In fact we were on all four occasions struck by the relative absence of formal double blooms from show benches. There were blooms of 'Otome,' 'Beni-otome,' 'Kikusarasa' and 'Shirosuminokura,' but few other formals. 'Shirosuminokura,' often called 'Shirasumi,' we saw frequently and liked very much. It is a good early white variety, imbricated and has a tinge of cream in the centre and flowers long before 'Shiragiku.'

Kyoto

It was a unique experience to stand before a very old tree more than twenty feet high of 'Bokuhan' in the temple garden of Hokyo-Ji (Doll Temple). It is one of the oldest of this variety in Japan. It was in full flower, laden with rich red outer guard petals and a compact cluster of pinkish white petalodes in the centre. This charming miniature camellia can be traced back in the old literature as far as 1719 in a work entitled Koeki Chikin Sho, which has been reprinted by the Kyoto Garden Club. Every Japanese camellia lover likes this flower even today. There is also a white form 'Shiro-bokuhan' and a larger pink form 'Momoiro-bokuhan' mentioned in the first instalment of this Chronicle. 'Bokuhan' was imported into America about 1930 and renamed 'Tinsie' but this can only be regarded as a synonym.



Right: 'Bokuhan.' A 20ft. high specimen in the temple garden of Hokyo-Ji, Kyoto.

Below: 'Bokuhan.'



Great interest is attached to the very old camellias still surviving in the Kyoto area. One of the most famous is 'Chiri-tsubaki,' the "petal scattering" camellia which the botanist Dr. Makino in 1928 published botanically as Camellia japonica f. polypetala. Professor Kitamura of Kyoto University states "The tree is most certainly an old one—at least 350 years" (American Camellia Yearbook 1956 P.19). Many Japanese come from afar each season to view this tree in flower. The Buddhist temple Jinzo-in where it is growing has come to be known on account of it as Tsubaki-dera (Camellia Temple). The spread of the tree is twenty-six feet from the trunk in all directions and the six main branches are supported by twenty strong props. The tree blooms heavily in April. The flowers are semi-double, of medium size, and range in colour from white to light pink, deeper light pink and deep rose. After blooming for some days the petals of the flowers detach themselves and fall on the mossy ground beneath, presenting an enchanting spectacle. Various plants propagated from this tree are found elsewhere in Kyoto. A smaller specimen of the deep pink sport is growing elsewhere in the temple grounds and flowers profusely. Mr. Satomi referred to this as "Junior."

Foliage is of great interest to the Japanese and they have developed some camellias with interesting leaf forms. The "fishtail" camellia 'Kingyo-tsubaki' is well known. But 'Sakuraba-tsubaki' or "cherry-leafed" camellia is less familiar. We were shown two specimens of it by Dr. Kitamura in the glasshouse of Kyoto University. The leaves look exactly like the leaves of a cherry with marked serrations. The flower is semi-double light pink, very interesting and beautiful. There is an illustration of it in Adachi's book, Camellia, Its Appreciation and Artistic Arrangement 1960, which distinctly shows the serrated foliage.

Another old camellia of great interest in Kyoto is 'Kumagai.' It is at the Doll Temple not far from 'Bokuhan' already described. It is the oldest known higo—250 to 300 years old according to Dr. Kitamura. It is nearly 30 feet high and 4 feet in circumference. The Kyoto Garden Club is very much alive and has contributed much to camellia knowledge by the publication of articles and by reprinting camellia illustrations from the early literature. We attended their Camellia Show in the large Kangyokan Hall, Okazaki Park, Kyoto, a much more comprehensive exhibition than the Show at Tokyo. Camellias were shown in two tiers all round the four walls in tumblers and glass containers—not isolated blooms but blooms on small branches. There were numerous exhibits of 'Kocho-wabisuke,' 'Beni-wabisuke' and 'Showa-wabisuke' ('Little Princess'), also a number of snow camellias and higo camellias as bonsai.

A second exhibition held at the Kyoto Botanic Gardens a fortnight later and sponsored by the Kyoto Garden Club included camellia books and publications, scrolls, colour slides of camellias, camellia designs on fabrics and camellia charcoal, camellia designs on fans and on costumes. Dr. Takeshi Watanabe, a completely dedicated camellia enthusiast, was most actively associated with the organisation of this fine exhibition. At the Takeda Herbal Gardens in Kyoto, Dr. Watanabe has established a Camellia Research Plantation from which important results can be expected. Both wild and garden forms of Camellia rusticana are planted alongside Camellia japonica and cross pollination between them has been carried out and careful records

kept. Already batches of young seedlings from these experiments are making growth. Dr. Watanabe published a nomenclature list of camellias in 1960 and has written articles on *Camellia rusticana* and on camellias and Japanese civilisation.

At an old, now derelict nursery for cut flowers at Momogama Fushima to which we were conducted by Dr. Watanabe we examined a very old plant of 'Matsukasa' with most interesting double blooms both crimson and variegated, and rows of petals rising tier by tier like a pine cone, from which effect the camellia takes its name. The accompanying photograph taken by Paul Jones exhibits the typical form of this variety.

Nursery Villages

Not far from Osaka there are many nurseries. We were able to visit two of the most important Chosaburo Kanaoka, at Yamamoto, Hyogo Prefecture has many advanced camellias and issues an illustrated camellia catalogue. Sadayuki Katayama, Kinobe Ikeda-Shi, Osaka Prefecture, has a very old and extensive nursery full of advanced camellias. We were particularly interested in his plants of 'Amagashita' which gave us the Japanese name for the camellia that came from England to Australia as 'Apollo' thus renamed by William Paul.

Kyushu

From Beppu, on the island of Kyushu, we taxied on to the Oita Prefecture Agricultural Institute and called on Professor Itoh. We found there a young plantation of camellias in excellent condition. We were impressed by 'Masayoshi,' a Kyushu seedling bearing a strong resemblance to 'Donckelarii.' At Hizi-Mati, a few miles out of Beppu, we saw what is claimed to be the oldest plant of C. sasanqua in Japan. It is 7 feet 9 inches in circumference at the base of the trunk and about 26 feet high and is reported to be over 300 years old. It was interesting to note that quite a number of its branches had inarched themselves. The tree is surrounded by a low fence and inside is an inscription on a stone post. The tree has become a national monument. C. sasanqua is indigenous to Kyushu and the flowers of wild plants are usually white. But this particular tree bears single light pink flowers, and is thus a cultivar of some antiquity.

Kumamoto

With Mr. Satomi as our Cicerone we went on by train to Kumamoto where we received an exciting welcome on arrival late in the evening from Mr. Shimada, past president of the Higo Camellia Society which has its headquarters in this city. As an appetiser for the morrow Mr. Shimada diffidently presented my wife with a large plastic bag filled with blooms of the various higo camellias we were to inspect on the next day and informed us that the higo blooms were at their best and that something exceptional was in store for us. And so it proved.

The next morning we spent with Mr. Shimada, his daughter and Mr. Hayashida inspecting old higo camellias in one private garden after another. Higos seen in full bloom are sensational. They seem to beckon you. One





Above: 'Matsukasa'. Flowers taken from very old plant at Momogama Fushima.

Left: The old plant of C. sasanqua at Hizi-Mati, near Beppu.

of the most arresting was 'Yamato-nishiki,' a large white streaked pink—very popular also as a bonsai. 'Egao' (Smiling Face) is a lovely large light pink, 'Haku-tsuru' (White Crane) is pure white and large. 'Ozora' (Vault of Heaven) is an enchanting light pink. And there are a number of good reds including 'Kumagai' and 'Hinomaru.' These all far exceeded our expectations. In the afternoon we were taken to Mr. Kimura's home where we saw many fine higos in the garden and a fine collection of bonsai higos on benches. Then a famous bonsai nursery was visited. In the evening we met Mr. Takero Kai, Secretary of the Higo Society, and were tendered a dinner by the leading members of that body. In short, the courtesy and kindness shown was overwhelming.

The oldest higo at Kumamoto is 'Hagoromo' (not to be confused with another camellia of the same name). This plant is said to date back 200 years. It was over 20ft. in height and you could not join your hands around the trunk.

The higo camellia is not a separate species. It is a particular selected form of Camellia japonica, with a large, flat, single bloom, with thick rounded petals surrounding a wide circle of innumerable, flared, gold-tipped stamens which shoot out individually at the base, evoking something of the dramatic effect of a Catherine Wheel in a firework display. There was a great vogue for these camellias one hundred and sixty years ago and they are now enjoying a marked revival, but they are little known outside Japan. In 1956 a Higo-Camellia Society was established in the city of Kumamoto on the island of Kyushu. Many of the old cultivars were re-discovered and in 1958 the Society published a descriptive list of forty-nine named varieties. This list was translated into English and printed under the sponsorship of the late Ralph S. Peer. At the same time interest has been concentrated in Kumamoto on the higo bonsai. The manner of making these bonsai by grafting scions on to the contorted lengths of camellia root cut from wild camellias in the forest is illustrated in Adachi's book. When not in flower the resultant bonsai are more bizarre and leggy than beautiful, but when in bloom they display most admirably the individual beauty of the variety.

Camellia japonica subsp. rusticana

Accompanied by Mr. Satomi we journeyed north to Niigata in order to see the 'Yuki-tsubaki' or snow camellias. The high mountains through which we passed were still covered in snow almost down to the railway line. This was April 27th. At Niigata station we were met by Professor Kaoru Hagiya, who in 1961 had published a paper entitled Studies on Snow Camellia (Camellia rusticana) in conjunction with Susumu Ishizawa. This important study is reprinted in the 1962-63 American Camellia Yearbook. At Niigata University Professor Hagiya showed us cutting-grown plants of C. rusticana and his wonderful collection of colour slides and photographs of hundreds of snow camellias. He then arranged to accompany us on two successive days to the mountains to see wild and garden forms of C. rusticana.

Villages visited were Higashi Gejo and Kamo and their surroundings. The snow which had been heavy during the winter had now melted and the camellias were in full flower. On the mountains above the lonely villages and at an altitude of 3,000ft, we saw vast expanses of snow camellia extending



'Yamato-nishiki'. One of the most attractive of the higo camellias



Typical blooms of the snow camellia *C. japonica* subsp. *rusticana* collected from plants growing at 3,000 ft.

and touching one another laterally beneath the tall deciduous trees. The blooms were all single, with five narrow oblong petals, in general appearance more like *C. sasanqua* than *C. japonica* but with foliage like the latter. The main colours were pink, rose pink and almost crimson. We saw one white one. There were slight variations in size. The filaments of the stamens were cadmium yellow and the anthers quite small. The petioles were very short, and under a magnifying glass were seen to be quite hairy—this latter being one of the characteristics which differentiates the subspecies *rusticana* from *C. japonica*. At lower levels *C. japonica* and subspecies *rusticana* meet and cross fertilization takes place. We saw many cultivars of *C. rusticana* at various farms and were struck by their great variety and their floriferousness. Their flower forms and colours ran closely parallel to what we are familiar with in *C. japonica*. Not many of them have yet been named. During their investigations Hagiya and Ishizawa claim to have collected as many as six hundred varieties.

Visit to Nurseries

We went from Niigata to visit the nursery of Jitro Nagao, Koai, Niitsu-shi, Niigata-ken and there found the Japanese name 'Harunoutena' for the camellia re-named 'Lady Vansittart' in Europe. Nagao has a wide range of camellias with variegated foliage, including variegated leafed forms of *C. rusticana* and *C. sasanqua* and lists quite a number of these in his 1962 catalogue.

Hakoneya Nurseries

It was of particular interest to visit Mr. K. Wada, of Hakoneya Nurseries, Yokohama, from whom consignments of camellias had been sent out in past years to Australia and New Zealand. His nurseries are beautifully situated on high ground commanding a view of the glorious landscape beyond. He has an extensive collection of camellias planted on the contour system. Mr. Wada grows for foreign export only and makes no sales in Japan. We saw many advanced plants of a camellia imported into Australia from Wada by the Victorian nurseryman Dave Chandler and renamed by him 'Crimson Cup.' Mr. Satomi at once identified this for us as 'Shiranui' a higo camellia which we had not seen at Kumamoto. There were plants, too, of 'Daitairin' which Chandler also imported from Wada and renamed Golden Temple' in Australia. Another Japanese name for this cultivar is 'Hatsuzakura,' but we were greatly surprised to see no other plants of it during our five weeks stay in Japan other than the number of plants at Wada's and the one large plant at the Takarazuka Botanic Gardens, which bore the obviously erroneous label of Gai-Jusan-Shu.' Possibly the conspicuous absence of this camellia from other nurseries and from all camellia shows is due to the fact that Wada grows for export only and therefore this camellia is very little known in Japan. This is a point on which I hope the Japanese members of our Society may be able to throw some further light.

Camellia Culture in Italy

HENRY COCKER

Noventa di Piave

Italy

VERY often, the pioneers in some particular field tend to lose interest and remain at a standstill when newer enthusiasts make more rapid progress. Such a situation appears to have occurred as far as camellia cultivation in Italy is concerned. Italy was probably one of the first European countries to grow camellias on a large scale out of doors and the number of old cultivars of *Camellia japonica* and *Camellia sasanqua* bearing Italian names testifies that many years ago there was considerable activity in raising new camellias. The numerous, very old, enormous specimens of *C. japonica* and *C. sasanqua* which can still be seen in many Italian gardens also prove that camellias were widely planted in those early days, and from their survival it is obvious that many parts of Italy offer the perfect environment for these plants.

- In spite of this brilliant start and the ideal conditions, enthusiasm seems to have collapsed during the period between the two world wars—a period of economic and political difficulty when horticulture was much neglected. Although there has always been a modest demand for young plants, it is only during recent years that camellias (and for that matter, gardening as a whole) have become really popular again. There is, in fact, a shortage of young camellias and among amateurs they are still much less cultivated than in many other camellia growing countries. It is largely the economic revival which has brought about a re-awakening of gardening and camellia culture in Italy. The creation of new gardens and the restoration of the old ones is directly linked with the now famous 'economic miracle' of Italy which continues to assonish the world. There may be another more obscure reason for the neglect of camellias. It must be remembered that camellias here are very common, very easy plants to grow and possibly it is a case of familiarity breeding contempt. In some districts camellias are cultivated as florists' foliage plants and one continuously sees branches cut and used solely for the sake of their leaves.

The newly awakened interest in the cultivation of camellias has revealed a great shortage of modern camellia cultivars in Italy. A new catalogue which I received a few days ago from one of the leading Italian camellia nurseries, lists only a dozen varieties of *C. japonica* and only two species; *C. reticulata* which at one time, must have been widely planted here as there are fine old specimens still to be seen; and *C. sasanqua*, which could almost be classified as a common plant, especially in the North. Among the cultivars of *C. japonica* offered are such old favourites as 'Adelina Patti', 'Alba Plena', 'Contessa Lavinia Maggi', 'Elegans', 'Elena Nobile', 'Giardino Santarelli', 'Grand Sultan' and 'Incarnata'. I doubt however if plants of such

hybrids as 'Donation', 'Caerhays', 'J. C. Williams' or even the species *C. saluenensis* are obtainable from a single nurseryman in the country, whilst the modern cultivars of *C. reticulata* are scarcely known to exist.

Modern camellias are practically unknown except for those plants which have been imported and planted in a sprinkling of private gardens. Probably the largest collection of camellia species and both old and new cultivars, is in the Villa Taranto Gardens at Pallanza, Lake Maggiore. During the many years I was superintendent there, a continuous flow of young plants, cuttings and seeds arrived from Australia, Japan, United Kingdom and the United States. All of these prospered with the exception of *C. hongkongensis* and there are now excellent specimens of over two hundred species and cultivars in the garden, plus some fine old specimens which must have been planted seventy or eighty years ago.

A fine collection of even older camellias can be seen by visitors to those unique gardens of Isola Madre and Isola Bella, two of the fascinating Borromean Islands on Lake Maggiore, opposite Stresa. In these gardens camellias are so well established that they attain the proportions of small trees and are cultivated as hedges. In 1906 a catalogue of these plants referred to a specimen which at the base of the trunk had a circumference of more than a yard, but unfortunately this remarkable plant died in 1929. Throughout the Lake District of Northern Italy, many magnificent old specimens can still be seen.

Italy has more to offer the camellia enthusiast who is interested in the past culture of these plants, rather than in modern camellia cultivation. There is treasure here for anyone interested in old specimens which have thrived over a period for many decades and for those investigating the nomenclature of camellias.

Fully developed plants are a remarkable sight when in bloom during April and May. Often twenty feet high, they are completely covered with flowers for many weeks and when planted in groups at the edge of a lawn, the effect is superb. As there is a considerable difference in the times of flowering of the various plants, the blooming period of a group can be extended so as to give a prolonged display. If planted with a groundwork of grass the flowers are also attractive when they fall, resulting in a colourful carpet all around the plant. In my opinion camellias produce their most effective results when planted in grass and whenever possible I try to incorporate a selection of naturalized autumn flowering bulbs in the turf using such subjects as Sternbergia lutea, colchicum and autumn flowering crocus, so that a second flowering period is obtained from the same site.

When planning new gardens I never fail to suggest to my clients the planting of camellias on a generous scale. Until recently, however, my enthusiasm for these plants had to be curbed by the fact that many zones of Italy have calcareous soil, but with the advent of that remarkable substance "Sequestrene" this difficulty has become less acute.

There are many lessons to be learnt by observing how easily camellias grow under certain conditions. Their success here over a very long period, proves beyond any doubt certain points which are frequently debated. The old cultivars of *C. japonica* and *C. sasanqua* (which is often used as stock for

grafted plants) will thrive in either full sun or complete shade in Northern Italy where the sun really is hot in the summer. They will tolerate very low temperatures, even twelve to fifteen degrees below zero centigrade. My personal experience which covers some thirty odd years of camellia growing in this country, fully confirms these points. I do, however, concede that their winter hardiness (of both plants and flower buds) is largely due to the hot dry summers which ripen the wood and make plants more tolerant of cold. Even during the past exceptionally severe winter, which has crippled such subjects as escallonia, ceanothus, rosmarinus, nerium, ligustrum, Azalea indica and many pines, I have seen no significant damage to camellias.

Before concluding this brief survey of camellia cultivation in Italy, I would like to refer to two points. Firstly the value in this country of the single and semi-double flowered camellias as evergreen shrubs of ornamental value in the late summer, when the branches are laden with large fruits, like small rosy apples. They are produced in great abundance and are of very great beauty even when they begin to open and expose their large black seeds. Secondly I would refer to the great diversity which exists between the many old plants of *C. sasanqua* which are grown here. The plants have such a variation of form, habit, foliage and flower that for many years I have found it difficult to believe that they really are all of the same species. Sometime, perhaps, a competent authority will make a complete study of the old plants known as *C. sasanqua* in Italy.

The Camellia Story

TOHKO ADACHI

Tokyo

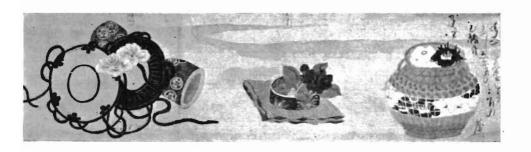
Japan

HAVE you ever heard the plaintive whistling sound made by the women divers as they inhale air deeply on surfacing from the depths of the sea? Some of you will be surprised to know that it is camellia oil which enables these women divers to work underwater, proving that they, too, can face the challenges of the ocean.

Diving underwater for abalone, turbo and other marine resources, these women of the Izu Peninsula and Oshima Island need a lot of energy. But their mothers and grandmothers have believed that women divers can dive three times longer than is ordinarily possible if they constantly ate food fried in oil derived from the camellia nut.

It is a fact that the calorific value of camellia oil is higher than any of the edible oils available in Japan. Long, glossy black hair, symbol of Japanese womanhood, and camellia oil are inseparable.

We are indebted to Miss Tohko Adachi and to Ikebana International for permission to reprint this article from Ikebana International Magazine issue No. 12, Spring-Summer 1963. It well illustrates the Japanese outlook on the camellia world today.



Above: Part of the 'Hyakuchin-shu', a hand-drawn, richly-colored picture scroll of the early Edo Period, elegantly depicting the way the Japanese of old cherished the camellia. Owned by Choka Adachi, chief representative of the Adachi School of pressed flowers.

Right: The Author of the story appears here in a Camellia kimona arranging her favourite flowers . . . THE CAMELLIA.



Today most Japanese women wear their hair short, but in the old days they dressed their hair with camellia oil and washed it with the grains of camellia nuts after the oil had been extracted. Camellia oil, with its seven "virtues", including absorption, aroma, nourishment and gloss, was indispensable to them.

Camellia nuts are often used for making trinkets and toys.

On setting foot on Oshima Island, visitors will no doubt see comely "anko" (Oshima maidens) in kimono with splashed patterns selling trinkets carved out of camellia nuts in the port area.

These trinkets are made of nuts uniform in shape and size after they have been selected from hundreds of thousands of nuts and polished for about two days for luster. They include necklaces, ear-rings, brooches, "obi" (sash) clips, rings and other items, initials and various designs are engraved by means of pointed knives. They make a good, easy-to-obtain handicraft souvenir of Japan, and are so nice that they will please any wearer.

I have about 4,000 camellia trees of 350 different varieties. A large number of foreigners come to see them, and without exception they ask this question with surprise: "Do camellias bear nuts?"

To we Japanese, the nuts of the camellia are more closely linked with our life than its blossoms. In other words, the camellia is a plant useful and essential to the Japanese.

By being useful to us, the camellia which is widely distributed all over Japan, plays an important part in our life. It is no exaggeration to say that we love the camellia.

About 300 species are grown in Japan at present. There are about 100 species of "wild camellias" which bear oil-producing nuts. One of these is called the "apple camellia", because it bears nuts the size of apples.

It is said that the name "tsubaki" originated from the term "tsuya no aru konoha" (glossy tree leaf), i.e., "tsuyaba no ki" (tree having leaves with thickness), i.e. "atsuba no ki" (thick leaf tree).

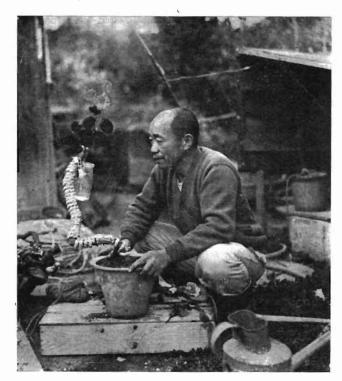
When using the camellia in flower arrangement, people in the old days showed an aversion to using the blossoms alone. Instead, they preferred arrangements in which the blossoms could be seen to peep out, as it were, from among the leaves.

The camellia and the *sasanqua* are considered the same in foreign countries. In Japan, however, they are distinctly apart in character, especially when it comes to flower arrangements.

Signifying autumn, the sasanqua has been so arranged as to feature less leaves in order to "show the branches".

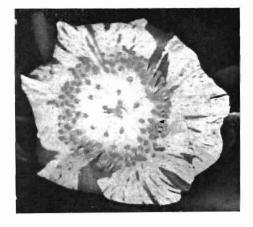
Conversely, the camellia has symbolized the approach of spring and is arranged with emphasis on the leaves in order "not to show the branches" In effect, the leaves cause the blossoms to stand out.

Now let us direct our attention to the blossoms.



Grafting to make a higo camellia bonsai.

'Shintsukasa-nishiki', one of the higo camellias. The beauty of the stamen and the pistils was compared to the heart of the samurai, and the camellia was developed and improved. It is representative of the Japanese camellia, the pistils of which are admired for their beauty.



The samurai in former ages interpreted a falling blossom as an ill omen. However, in more ancient days, this had been considered as a symbol of eternal youth and longevity.

There is a custom of celebrating the "age of the camellia" when one lives more than 90 years. Speaking of camellia blossoms, the Japanese instantly think of pistils covered with yellow pollen. To the Japanese, the gold-colored pistils in the center of the petals of various colours, such as red, white and dapple, pink, and shapes signify the beauty of the camellia blossoms.

Although there are double-petaled blossoms without pistils, the Japanese in general prefer single-petaled camellia blossoms with large pistils. The higo camellis may be said to be the best in Japan, and perhaps in the world, for the beauty of its pistils. Let me refer a little to this group.

The higo camellia is a celebrated flower of the Kumamoto area in Kyushu. A group called the "Hanaren", which adores the camellia as its "sweetheart", has grown, improved and preserved it with loving care.

Under the belief that the "heart is more important that the flesh in man and the pistils, likewise, are more important that the petals in the flower". this group considers that camellia blossoms having less than 200 pistils each do not belong to the higo group.

The camellias, grown with great care, are never made available to people outside the group. The members are guarding them so tenaciously that they are called "mokkosu" (stubborn people). There is no changing of hands even between brothers. In unavoidable cases, they exchange papers pledging to return the flowers.

Higo camellias are also appreciated as "bonsai," the growing of which requires high skill and techniques. The higo camellia is grafted to a choice wild camellia root which has been dug in the mountains and raised in a pot.

The camellia is turned into a bonsai in order to appreciate the beautiful blossoms with pretty pistils at close hand for a long time. These potted camellias are displayed in exhibitions held every spring. Many of them are owned by old families in the district. The higo camellias, with their gorgeous pistils, are reputed for their beauty excelling any of the large-petaled camellias grown abroad.

The camellia is native to Japan and grows wild all over Japan, except for the northernmost island of Hokkaido.

It is said that the world is now enjoying a camellia boom. There are about 3,000 varieties in the West. It has been proved scientifically that these are improvements of the "yuki tsubaki" species that grows wild on Japanese mountains. The camellias growing wild on the mountains and in the fields of the Tohoku (northeastern) district have borne blossoms of various colors for years, without being given names. These wild species were brought over to England about 300 years ago. No improvements were made for about 80 years after that, but later, new varieties were developed in France and then in the United States.

The camellias of Marguerite Gautier, the heroine of "La Dame aux Camelias (The Lady of the Camellias) by Alexandre Dumas, fils (1824—

1895), who in the novel adorns herself with white camellias 25 days of the month and with red camellias the remaining five days, originally came from Japan.

It is recorded that there was a camellia boom once in the Momoyama Period and again in the Edo Period in Japan.

It is said that Hideyoshi Toyotomi, the powerful warlord of feudal Japan, was particularly fond of camellias. In Fushimi, there are old trees called Momoyama tsubaki.

Old trees of historical interest, reminiscent of the ancient days, are also to be found at Buddhist temples in Kyoto and Nara, attracting tourists in the spring.

Despite the two booms in the past, interest in the camellia is low in present-day Japan.

On the other hand, interest in the camellia, as "Queen with Oriental Beauty", has mounted in foreign countries, and various species have undergone improvements at a fast pace.

What are the reasons for this?

It can be said that to the Japanese camellias are as easily to be had as the air around them and have become closely interwoven with their life.

Camellia blossoms are "blossoms of nostalgia" to the Japanese. They are blossoms which recall to their mind the memory that they used to bloom in their grandparents' gardens. The Japanese no longer can find new modern beauty in the camellia.

In other words, the camellia is representative of Japan, the Orient. This foreign, Oriental atmosphere of the camellia has hit the people in the West as something new and fresh.

When the rose boom was being replaced by a camellia boom in the West, the Japanese were enchanted by the beauty of the rose overflowing with the odor of the West, having become blind to the value of the camellia close at hand.

Noting the various improvements made in the camellia abroad, the Japanese today are greatly surprised.

Greeting the camellia returning home after being improved overseas, we feel some regret as though we have evaded our own responsibility. However, we should be thankful for such a trend for the sake of the camellia, for Japan and for camellia enthusiasts all over the world.

The Japanese method of appreciation is to understand the individuality of each plant and introduce it into our daily life by matching it with our creativity. This trend has been kept alive in the history of the Japanese camellia.

I would be very happy if my story about camellias should enable the reader to understand the Japanese thinking in regard to "arranging the heart of the flower."

Camellias and People

ELIZABETH BEEBE

California

U.S.A.

Looking Camellia upward I step forward

So runs a Hokku written years ago by one of the many inspired Japanese. Indeed it is said that more than a million of these 37-syllable poems (Hokkus) have been written to the camellia in Japan. Who knows how many other poems have been written by admirers in other countries? This particular Hokku however has always symbolized to me the truest tribute to the camellia I have ever encountered because its few words voice the challenge of reaching a rewarding goal in following any of the almost limitless avenues this versatile plant offers.

My particular road has happened to run along editorial lanes which have led me to people who make up the camellia world; to new, nearby friends and to far-off acquaintances including some of the heads of this new International Camellia Society. When I joined Camelliadom (and that is a very simple action demanding only the inclination to join), I was really not aware of what a tremendous and never-ending subject the camellia is. I was at first amazed when I discovered that through the centuries this one shrub has been peacefully and busily engaged in uniting people of east and west, of all walks of life and living in many different countries. Now I do not consider it at all amazing as I learn more and more of the camellia's wide appeal. I feel the certainty that this shrub will continue to be a source of usefulness, beauty and inspiration "Til the sands of the desert grow cold."

I like to muse on ways in which camellia plants are an integral part of the everyday life of Orientals with no thought of the flower itself.

There is an intriguing translation in a Japanese magazine of an article on tsubaki oil. I quote in part: "It is a fascinating scenery of Japan to see a maiden with rich long hair working at pressing oil out of seeds of tsubaki tree in a mild climate island, before its forest of dark green foliage and scarlet flower." End quote. Later the Japanese girl will use the oil to give a sheen to her black hair as she fashions it into an elaborate coiffure. Mother is using this same oil to cook the dinner, using heat from camellia wood that she has brought in from the forest. Father is probably taking a smoke with dried camellia leaves and of course the whole family will soon be drinking camellia tea. Undoubtedly nearby someone has lifted the camellia from the lowly mundane to empyrean heights by slowly placing one or two exquisite blossoms

in an ancient bowl. The deep contemplation and meditation, as the beauty of the arrangement seeps into the consciousness of the beholder, is akin to a religious rite.

Who can say the camellia is just another flower?

As an American and resident of Southern California, I am most familiar with the cultivation of camellias in the United States, yet a lot of my observations must apply equally well to Camelliaphiles in many other parts of the world.

Camellia origins are buried in antiquity, as of course are those of most other flowers, but there was certainly something special about the camellia that set it apart. Nearly three centuries ago sailors were commissioned to bring back to England plants that the English thought could be cultivated there for tea. Of these, many turned out to be shrubs bearing fascinating flowers. As these thrived and grew in numbers, camellias began to appear in English gardens and nurseries. Soon they spread to Europe. William Hertrich, Curator Emeritus of the Huntington Botanical Gardens in San Marino, California, worked in a European nursery as a boy in the later 1880's and recalls two varieties of camellias sold there. Customers came in asking for a "pink flower" or a "white flower."

Appearing in the United States, camellias began to feel ar home in the southeast areas where they soon bloomed rampantly in open fields. They have made many gardens and nurseries famous in our Southern States. It is reported that a bride carefully brought some of the first camellias across the plains to Sacramento, California. It is certainly true that some of the oldest and largest camellias on our West Coast are to be found there today. They are regular trees, 30 feet or more high.

Originally in the United States the so-called "Camellia Belt" was a narrow one because our soils and climatic conditions are a far cry from those of the camellia homelands. But, nothing daunted, persistent gardeners have been working to produce cultivars hardy enough or adaptable enough to withstand the cold of our northern states as well as the extreme aridity, hear and strong sun of the American deserts. Perhaps the camellias themselves have co-operated in their own unexpected and capricious ways. This urge for camellias everywhere has resulted in a plethora of new and different cultivars.

The few early imported varieties were rigidly formal and stately with no nonsense about them. A notable example of that is the dear old 'Otome' known to us as 'Pink Perfection,' the one variety that camellia tyros ask for by name at a nursery, and which, in spite of its centuries old popularity, could well be nicknamed "Pink Imperfection" by many a disappointed gardener. Long ago, though, its rows of perfect petals and beautiful colour set the rone for formality as the chosen type. Perhaps the straight-laced Mid-Victorian Age lengthened the reign of formal camellias.

When fashions changed in both the world and people, the idea of daring to breed a more casual flower sprang up among the more adventurous growers along with the necessity of cultivating plants adaptable to unwonted environments. Camellias began hardly to know their new shapes, probably being as scandalized as human elders seeing their grandchildren doing the

Twist in shorts. There appeared the playful 'Fimbriata' and 'Billie McCaskill' whose fringed petals were definitely appealing on the fancy side. New and delightful were the serene lovelies like the 'Emily Wilson' and 'Tomorrow.' Ultimate beauty was offered to the world in 'Hagoromo' ('Magnoliiflora') and the acme of purity in 'Shiro-daikagura' while lightening the spirit with a trace of humour came 'Dian Hartman' which often produces a bloom with one solid red petal which against the white background looks like a tongue the flower is sticking out at you and at all mortals who meddle with camellias.

Yes, one of the greatest charms of camellias is their unexpectedness. That you can always bank on. No better has it ever been demonstrated than in the past decade in America when in came the wide shower of Sasanquas hovering like bright butterflies over the self-righteously reigning Japonicas. From the forests of Japan they pioneered across the seas and found a delighted welcome from Camelliaphiles who discovered in them new types of their favourite plant to use in hedges and for garden backgrounds where their small but entrancing flowers started blooming earlier than the Japonicas. As if aware of their different role, the endearing little elfin faces like that of 'Charmer' or 'Shishigashira' brought a bright change from the heavier virtues of the Japonicas. The Sasanquas started a new vogue in Camelliadom but yet, much as they had startled the western camellia world, the Sasanquas and Japonicas too were all but overwhelmed by the impact of the introduction of eleven varieties of C. reticulata. Shoving all other camellias aside, the big, brassy 'Buddha' and 'Noble Pearl' ('Pao Cho') (like glorified cabbages), immediately caught the attention of a large marjority of Camelliaphiles from sheer dramatic power. One could scarcely believe these blooms then, or even now.

What more could there be for future camellias? Strangely enough even while admirers were gawking open-mouthed at these gargantuan globes of beauty, a new type was making a place for itself. Without a bit of fanfare but with some compelling power miniature camellias began to be noticed and cultivated. Passing by the huge Reticulatas, friends smiled at little 'Fircone' or 'Tinker Bell' or 'Johnny's Folly' slyly adorning a proud male's lapel.

It may be that such outstanding drama in the history of the ageless camellia has simmered down, at least temporarily, for gardeners have a pretty unlimited choice now among the recent discoveries of new species, successful hybrids and the thousands of fine cultivars. I am sure the average camellia collector does not realize how much his choices reveal of his personality.

In general (from my observation), a garden with a preponderance of tried and true Japonica cultivars is either that of a nurseryman whose living depends upon his wholesale sales or marks a sedate and unadventurous owner. The gardener that flaunts beds of big Reticulatas is that of an extrovert. The camellia gambler and showoff collects the newest cultivars advertised. Hybridizers may not have the time to keep up fine, diversified gardens as they are serious men of vision willing to work years to create plants that will meet certain standards and demands. The status seeker will have a trim, tremendously well kept garden of fine cultivars always ready to impress any caller. It is easy to tell the garden of the blue ribbon seeker, for there you are carefully watched and not allowed to touch a bush or flower. Perhaps the most heartwarming kind of garden is the hit-or-miss affair where a fine variety will bloom joyously next to a scrubby plant of uncertain lineage and whose overall serenity from lack of pressure forever reflects the charm of its owner.

There are just too many facets of a camellia even to touch on in a short article like this which indeed, I had planned to make shorter. But how to write about the camellia without at least mentioning some of the activities Camelliaphiles take up as hobbies with maybe not a single camellia plant to call their own? There is photography, for example.

Every ribbon winner wants his prize flower preserved in some way and usually the easiest way is to photograph it. There must be a colour picture of his garden too and of course of camellia arrangements. The latter is truly an unlimited field.

From photography to painting camellias is a natural step. One of the foremost of today's painters is Paul Jones who told me once that he had practically given up every other type of painting in order to develop a proper technique of transferring the personality of the camellia to raw paper. In his goal for perfection he says that 'Hagoromo' ('Magnoliiflora') is unpaintable as far as he is concerned.

In trying to immortalize prize blooms a number of experimental processes are continuously being tried; preservation by sand for one, and another is the careful covering of the flower with a thin plastic coating.

Serious minded camellia growers often turn from actual watering and fertilizing to scientific research in camellia culture, camellia colour, ionizing radiation, diseases, soils and many other important items of camellia life. Also there are the serious minded who research records and camellia literature in order to establish proper Nomenclature which will be authoritative all over the camellia world. This is considered of great importance to all camellia growers; just so important, in fact, that a grant was given to Ralph Philbrick to classify all accredited camellias. His task is a formidable one.

The subject of using camellias for arrangements is too broad to do more than mention. It ranges from the serious in the Orient to the lighthearted in the West where it is a charming hobby most taken up by women. Perhaps the word "lighthearted" does not apply to a hobby that leads to so much work and study in classes, and expense for exotic containers all usually slanted toward hopes of blue ribbons and trophies at camellia shows.

However, no one ever begrudges the time or money spent in whatever type of camellia pursuit he has chosen for something unusual always turns up along the line. Perhaps this quality which is such an integral part of Camelliadom and is such a human quality is why camellia people on the whole are more interesting than other types of hobbyists. For one thing they are all social minded. Who ever heard of a man growing even one camellia who did not want to talk about it or show it to someone? The "violet by a mossy stone, half hidden to the eye" does not apply to any camellia. No ladies in sewing circles ever buzz louder than members of a camellia society meeting. Now this is where words come in as one of the best parts of any camellia activity.

Social contacts often result in true friendships or sometimes, as human beings go, in jealousies and raging arguments taking place right by tables crowded with bright blossoms as pure and unearthly as angels.

How many words in a camellia? I don't have a computer here at hand but trying to estimate them would be as futile as trying to count the stars. Conversation about them is certain to have flourished in China and Japan by or before the Sixth Century because camellias were known to be already exchanged by then. And what two men could exchange camellias without words? Besides that, a gardening book was published in Japan in 1681 that listed sixty-six varieties of camellias.

The subject of words leads me straight to another important phase of all camellia life—WOMEN. No need in Camelliadom to "cherchez la femme." She is right there, sometimes out grubbing in the dirt by her favourite plant, sometimes in the public eye as the beautiful background for her husband's prized blooms—the perfect setting for a lovely camellia corsage or graceful hair ornament. Always she is the natural accompaniment to artistic camellia arrangements and at home her camellia life ranges from taking care of the precious plants in the absence of her husband to taking notes for his articles or doing camellia errands. If camellias could talk it is certain that many a prize flower would reveal just how much a wife had contributed as the husband is awarded the trophy and poses for photographs. Oh yes, one other very satisfying activity of camellia wives is the exchange of gossip about their "I might as husbands in relation to all the time they spend in the garden. well be a golf widow," sighed a camellia wife one day. "Well, at least he is home," rejoined her friend. The first one made a little face. "Yes, but we can't go on a vacation because he won't leave the camellias." Still, a lot of the husband's pride rubs off on his wife. She really can't resist camellias either.

It all adds up to the fact that if you are once introduced to a camellia it becomes an inspiration for you of some kind. You can't get bored with camellias any more than you can get bored with tomorrow for the camellia itself is a tomorrow-kind-of-thing. Its lure of today extends into a future of tantalizing shadows where the truly yellow camellia may lurk or that dream flower that will exude a new scent as mysterious and enchanting as itself.

The camellia gardener looks over his collection and remarks meaningly "Now, next year . . ."

I believe that is just what the little Hokku is trying to say

Looking upward
I step forward

Some Old Camellias in Quinta Do Meio, Porto

MURIEL R. TAIT

Porto

Portugal

In the north of Portugal the soil is mostly devoid of lime and consists of a friable loam containing a proportion of decomposed granite. This makes a perfect soil for camellias, especially when leaf-mould is added.

Camellia trees are found in nearly all the old northern "Quintas" or estates, some having grown into very large trees. My Quinta is an old one, how old I do not know as the only dated document I have is a water registration of 1786. As the population increased, Porto grew away from this district and fortunately left it undisturbed. The garden is on the side of a hill above the River Douro, facing south-west. It consists of four terraces looking down to the mouth of the river and out to the Atlantic Ocean. It is a beautiful situation and the view from the house, built on the second and third terraces is charming.

The old and large camellia trees are on the second terrace. One specimen with soft pink paeony form flowers is twenty-three feet high with a spread of thirty feet. Like many other trees in Portugal it must have been cut in its youth to make it spread otherwise it would have been much higher. Its divided trunk measures ten feet round, forty-two inches from the ground. Another tree is twenty-six feet high and has a spread of sixty feet. This produces paeony form blooms in three different colours, white, very pale pink and deep rose. A tree with striking medium sized flat rose red blooms is twenty-six feet high.

'Incarnata,' which is known as 'Camurça' in Portugal, is well represented here by three large trees, the tallest being sixteen feet. A favourite of mine with flat rose pink flowers is 'Princeza Real,' its leaves shade to a golden green. This camellia is neat looking and rather stiff and the flowers appear later than most cultivars. It is excellent for table decoration as it lights up exceptionally well. Also I have a large deep cerise paeony form unnamed variety that is most striking. I feel it is unsatisfactory that I can give so few names of the cultivars we grow, but the difficulty is that so many names have been lost or forgotten and many may be hybrids between "good neighbours."

In Portugal it is only recently that there has been a revival of interest in camellias, due most likely to the enthusiasm shown by tourists, who are astonished at the beauty of some of the cultivars and the size of the specimens. Some cultivars have been "re-discovered" and given names such as 'Herzilia Freitas de Magalhaes' or 'Augusto L. Gouveia Pinto,' both of which were called after a friend or member of the family of the person who found them;





Above: Large specimen of soft pink paeony form camellia with Author in the foreground.

Left: Camellia reticulata 'Captain Rawes'

names which most people will consider too long for everyday use. They are both beautiful camellias when they come true to colour, but I find mine, which grow out of doors, are rather variable, although I have seen some outstanding blooms of the latter in a camellia hedge at the Botanical Gardens.

'Saudade de Martins Branco' is a good shade of cerise and well worth growing. 'Portugal,' a large bright red single with very long yellow stamens, is a seedling introduced by Companhia Horticola Portuense Ltd. I find it a very prolific bloomer and it looks well in a pot for house decoration. In the garden are some of the old named cultivars, 'Fimbriata,' 'Alba Plena,' 'Mathotiana' and the exquisite 'Hagoromo' ('Magnoliiflora') now sixteen feet high. Two large trees of *C. reticulata* 'Captain Rawes' are always admired, one being eleven feet high with a spread on one side of four feet and a trunk of forty inches at two and a half feet.

On the third terrace there are six cultivars of *C. sasanqua* which must be at least fifty-five years old. They were given to my parents and came direct from Japan. I think they are probably 'Onigoromo,' 'Mikuniko,' and 'Minenoyuki.' They seed under the parent trees in great quantities.

Owing to the kindness of generous friends I have some of the newer cultivars from England which I am keeping in pots for the present. During the last few years I have been doing my best to return this generosity by sending to England material of unnamed camellias in Portugal which I think worth growing and in the hope that someone can give me the correct name. I am always on the lookout for worthwhile camellias and only the other day spotted a charming single bloom with light pink stripes when I was shown some clever flower paintings. I was told it came from a tree in a nearby village cemetery, so off I went to return with a big bunch of scions which were sent off to England and from which I hope later to receive a rooted cutting in return.

Part of the joy of growing camellias is that a young plant in a pot will start to flower when it is only one foot high! I grow a number in pots out-of-doors for house decoration and the only time they go under cover is during very strong south-westerly gales from the sea, for the salt-laden rain is liable to damage buds and foliage, otherwise their only shelter is from the thick leaves of a large grapefruit tree under which they stand during the winter.

Before ending I would like to mention the so-called "yellow" camellia which caused a certain amount of interest and speculation when it was re-discovered in a nursery garden near Porto. I was told that there was only one known tree, at any rate in Europe, but I thought it worthwhile to investigate this statement, and there sure enough was a flourishing tree in full bloom in another nursery garden. There I was shown an ancient catalogue where it was advertised under the name of 'Fortune's Yellow' ('Le Jaune').

It is a misnomer to call 'Jaune' yellow as it is actually a small camellia with cream petals round a collection of very bright yellow stamens and petalodes, which gives the impression that it is all yellow. It is more curious than beautiful but I like the effect when in a bunch. The plants I have seen appear to be quick growers. I was told it was old fashioned and had not been propagated for many years; now, however, it has been brought back into cultivation.

Design for a Camellia Garden

MICHAEL HAWORTH-BOOTH

Surrey

United Kingdom

THERE are monochrome gardens of stone and evergreen that can be delineated effectively with the use of a pencil on paper, but there are gardens made of flowers where sustained sequences of colour are important, which could not possibly be shown within such limited dimensions.

The designer specialising in the first-mentioned type may call the latter a "muddled riot of colour," but their designers retort by calling the former type "mere traditional patterns made with unnecessarily dull material". Be this as it may, what is new and truly creative in the real and emerging modern garden design of today are the "beautiful places" created in the language of nature that a greater knowledge of the balance of nature enables us to construct. A camellia garden lends itself particularly to this type of treatment.

A piece of wooded ground on a moist acid soil elevated somewhat above cleared lower ground is probably the most favourable site for a garden where camellias would be the principal plants; but most places can be adapted where the soil is free of excess lime and does not dry out too much in summer.

In southern counties, failing existing trees, some shade will have to be provided by planting. The selection of the trees is not without complications for most species have both good and bad points from the camellia growers' point of view. Crabs and oaks, for example, are overmuch plagued by caterpillars. Poplars require too much of the precious soil-water to keep themselves pumped-up. Beeches cast too dense a shade and magnolias and robinias are too brittle. Then, many evergreen trees have to be planted too small to catch up and shade the camellias. This rather rules out ilexes and pines, admirable as they are in other ways. Some exotics that appear to have advantages are Eucalyptus gunnii for its speed and friendly nature to growths beneath; Sorbus discolor for reasonable speed and fine autumn colour and Prunus serrulata var. spontanea (which I prefer to call mutabilis), a fast-growing healthful tree that seems to avoid the canker, black aphis and witches broom that so often ravages other cherries.

As regards layout, as it will be essentially a stroll-garden rather than a distant effect of massed colour, I think that the backbone of the design should be a convenient path (ideally of sawdust) winding round the slopes at a comfortable gradient, without any steps, and visiting all parts of the area without any cul-de-sac.

As a basic planting, camellias not nearer than ten yards apart and preferably fifteen, may be installed in carefully dug beds enriched with added black



Above: A fine plant of 'Lady Clare' in the Author's garden.

Right: 'Dobrei' used as a wall shrub.



humus. For these a generous size of five feet in diameter is much better than anything smaller and as the ground can be mulched with branches and fallen leaves the comparatively large individual bed for the small initial plant makes no eyesore.

As to varieties, this is a matter for personal taste but we may well discuss some of the commoner failings against which we should be on guard. Generally speaking, the weak point of *Camellia japonica* varieties is the bad presentation of the flowers. Out of the thousands existing it is very difficult to find more than a very small number that display their flowers properly on the outside of the bush. My fine specimens of the celebrated varieties 'Lady Clare' and 'Adolphe Audusson', for example, are the despair of the photographers who want a good illustration in colour. The flowers face all ways and are largely hidden in the interior of the bushes, furthermore, the great weight and substance of the flowers weighs down the branches in such an unhappy manner that I am constantly seeking varieties with smaller flowers presented so that the bush makes a better picture as a whole.

Among the more decorative camellias viewed as they grow are 'Alba Simplex,' 'Alexander Hunter,' 'Apple Blossom,' 'Jupiter,' 'Lady McCulloch,' 'Lady Vansittart', 'Takayama' and 'Tricolor' with its sports 'Lady de Saumarez' and 'Lady Mackinnon'.

I believe that a woodland camellia garden of the sort described would be all the better for the addition of a few other flowering shrubs able to look after themselves under woodland conditions.

Camellias being the first consideration, some of the additions would be selected to set off the camellias by complementary colourings such as the pale - vellow - flowered Rhododendron campylocarpum and Rhododendron augustinii. A red camellia looks the lovelier when neighboured by the heavily scented white flowers of Magnolia denudata. A camellia seems to do best when it has just a little clear sky directly overhead so the sunnier spaces in the woodland might have Rosa moyesii and such hybrid roses as 'Cantabrigensis' and 'Nevada' to follow-on in bloom with perhaps one of those lovely rhododendron that seem to like both sunshine and the moist soil and air of the woodland—like Rhododendron 'Tally Ho.' If the interest is to be sustained further, into late summer, the hydrangeas offer superb material. I think that the sophisticated Hortensia types are quite out of place in a woodland setting but the Lacecap varieties and such wild species as H. strigosa; H. villosa, H. aspera and H. sargentiana are naturally in keeping, sharing, as they do in nature, the wild mountain forests of China. Alas, slugs are very damaging to hydrangeas growing in woodland and both contact killer and poisoned bait must be put down every year in most places. If further decoration is desired we have the beautiful Cornels such as Cornus nuttallii and C. kousa, and the species and hybrids of eucryphia all of which seem to revel in woodland conditions.

Where still further elaboration of the "enchanted forest" theme are feasible we may plant more lavishly both higher and lower. Existing woodland trees may be made more decorative with certain climbers. Doxantha capreolata, Actinidia chinensis, Campsis radicans, Rosa moschata, Clematis chrysocoma and Berberidopsis corallina are among the more uncommon and interesting of

the innumerable species suitable for tree-climbing. A little overhead light, a well prepared bed and some initial tying-in are essentials to rapid establishment.

On the ground we may elaborate with decorative carpeters. In woodland conditions, I think some of the most effective are: Vinca minor in all its differently coloured forms; Trachelospermum asiaticum for its exquisite late summer fragrance; Cornus canadensis for starry flowers; Cotoneaster dammeri for neatness and red berries and Lithospermum diffusum wherever a moist sunny bank can be found.

The camellia garden will be appreciated in the course of a stroll and the single specimens suggested with, perhaps, fairly large groups of a single kind of carpeter will be found to provide a more interesting design than large beds which lend themselves to a more static approach. With these adjuncts the camellia garden cannot fail to be a source of pleasure and interest all through the season.

Seikatsu no Chie (Wisdom of Life)

Subtitle: Tsubaki (Camellias)
PROF. KEITARO ASAI,

Ikenobo College,

Kyoto

Reprinted from: Kin to Gin (79), April, 1961 Translated by: Mrs. Chiyoko Ichikawa, Tokyo

PLUM blossoms, peonies and many other flowers adorn Japanese spring and comfort our people. Plum trees and peonies originated in foreign countries, but wild cherry trees and camellias are native in this country. They have thrived among the Japanese people ever since they settled on the Japanese islands. Particularly camellias have something that permeates into the Japanese mind—some gorgeous and some simple.

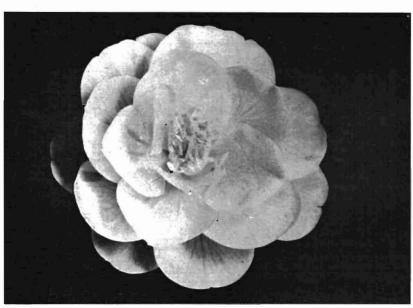
The reason that Japanese camellias have recently attracted enthusiastic popularity in Western countries is that their leaves and flowers have a super ethnical charm and appealing power. In the process of bearing seeds, scattering them, and then producing seedlings, changes takes place; and new kinds of camellias appear, which are entirely different from the original wild yabu-tsubaki. These new kinds are discovered, brought into gardens, and cultivated. Stimulated by competition among camellia lovers, camellia varieties have reached a tremendous number. If you trace their history, you

EDITOR'S NOTE.—We are greatly indebted to Dr. Ralph N. Philbrick for obtaining permission to publish this translation and for providing the illustrations.



Left: 'Chiri-tsubaki' in Iwasaki's *Honzo Zufu* (1828).

Below: 'Chiri-tsubaki' at Kodaiji Temple Kyoto.

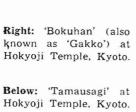




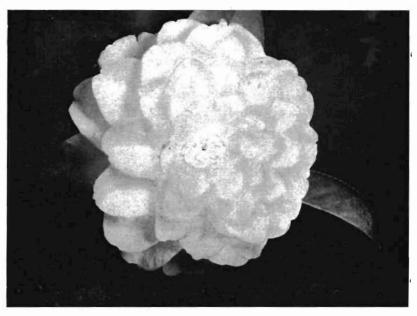
'Bokuhan' (Top right) and 'Karako' (Bottom right) in Iwasaki's . Honzo $Zu{\it fu}$ (1828)



'Karako' (also known as 'Benikarako' or 'Jikko') at Daitokuji Temple, Kyoto.







will find that this movement started as far back as the Muromachi Period (prior to 1615). But later than that, about the time of the second Shogunate, Tokugawa Hidetada, who ruled during the Genwa Period (1615—1623), Kyoto became the center of collecting and cultivating camellias. Later, camellias spread to Edo (Tokyo) and Nagasaki, and about the Kyoho Period (1716—1735), world famous, rare camellias were produced. Therefore, you will still find ancient rare camellias in the old capital of Kyoto even at the present time.

'Goshiki-chiritsubaki'

Hoko (the legendary hero, Toyotomi Hideyoshi) loved this camellia plant. Its flower cannot be said to be very large, but large for a medium sized flower. It is double and gorgeous. The color is red, but there are flowers that are dark pink, pale red, spotted, and white, depending on different branches where they occur. That is why this camellia is called 'Goshiki', five colors. Generally speaking, a camellia flower has one base, that is, the bases of the petals are united; therefore, when a flower falls, it falls as a single unit. But in the case of this kind of camellia, the petals are separate at the base so when a flower falls, each petal falls separately. This is why it is called 'Chiri-tsubaki.' True to Hoko's preference for anything large, he loved this tree. The size of the trunk is large, and the tree is vigorous and still thriving today at Tsubakidera Temple, Kyoto.

'Jikko'

People in the Kanto area (Tokyo) call this kind 'Benikarako'. * The flowers are small and dark red. The group of stamens is transformed to small petals and has the same color as the petals. This plant grows at Daitokuji Temple, Kyoto.

'Gakko'

This resembles 'Jikko' except that the center has changed to white:**
It is appropriate for the tea ceremony and is very noble. It may be seen at Hokyoji Temple, Kyoto.

'Tamausagi'

This is pure white and double, too beautiful to describe. It was named by Shinseiwain. It grows at Hokyoji Temple, Kyoto.

I selected only four kinds out of the rare camellias of Kyoto. It is a pleasant thought that there are truly several hundred camellias which are loved and cultivated.

EDITOR'S NOTES.—

^{*} The presently known published records show that 'Jikko' (also pronounced 'Nikko') is correctly known as 'Karako.'

^{** &#}x27;Jikko' and 'Gakko' (also pronounced 'Gekko') are occasionally confused in Japan. 'Gakko' of the Kyoto area is the same cultivar as 'Bokuhan' of the Tokyo area. Present evidence indicates that the name 'Bokuhan' was published earlier and is thus the correct name.

Lime and Camellias

WALTER G. HAZELWOOD

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Australia

THE generally accepted idea is that camellias need an acid soil and that lime is harmful to them, and if too much present, causes the death of the plant. Some writers state that it is not lime which kills camellias, but the high pH, caused by lime which is responsible.

It has always been a puzzle to me why camellias and rhododendrons are found in some parts of the world, growing on limestone soils. One suggestion is that the roots are mainly surface, and are growing in the top-soil which is the result of decaying vegetation, but this is not correct as the leaves from trees growing on calcareous soils are rich in calcium. Also, sooner or later, their roots will reach to the lime subsoil.

Dr. Henry Tod, of the Edinburgh and East Scotland College of Agriculture, in his article 'Rhododendrons and Lime' in the *Rhododendron and Camellia Year Book* of the Royal Horticultural Society, 1959, pp.19—24, has this to say about lime and rhododendrons: "Lime has been the bugbear of rhododendron growers for a very long time, and many attempts have been made to elucidate the exact role that calcium plays. One of the difficulties has been to separate the effect of calcium and the effect of an alkaline soil." In 1956 Dr. Tod showed that rhododendrons could be grown in both neutral and alkaline soils where the pH had been raised by the use of magnesium carbonate instead of calcium carbonate. Dr. Tod's conclusion is that it is calcium which is harmful and that where the pH is raised by the use of magnesium carbonate there are no ill-effects.

Action of calcium may occur in different ways. The first would be a simple poisoning of the plant by the calcium. Another possibility is, that calcium ties up some of the trace elements due to the presence of excess calcium. This is apparent when interveinal chlorosis shows in the leaves, due to manganese deficiency. Other signs show magnesium deficiency and in some cases, iron.

When limestone of a dolomitic type (magnesium carbonate) is used the fight between magnesium and calcium begins. When the dolomite becomes available to the plant, the calcium is leached away first, so that the proportion of magnesium tends to rise and this, in itself, will reduce the amount of calcium taken up by the plant. The effect of excess liming in inducing manganese deficiency is very great, especially where there is plenty of organic matter in the soil. From this it will be seen that dolomite can be applied to camellias without doing any harm and also it does the plant good to have

the pH raised as many trace elements are locked up by too acid a soil. I have had reports of wonderful improvement in azaleas by the application of dolomite lime, both in the health of the plant and in better quality flowers.

Another benefit from the use of dolomite lime would be the prevention of die-back, that is if applied before any signs of dying shoots are apparent. Once die-back has started, dolomite is too slow in action so calcium lime must be used. For a small plant of two feet high, about a tablespoonful would be enough, more for larger plants, but not enough to raise the pH too much. In the United States, die-back is still largely attributed to the fungus Glomerella cingulata, despite the fact that fungicidal sprays have very little or no effect and attempts to inoculate healthy plants with glomerella spores have been a failure. The one spray that seems to have had any effect at all is Bordeaux Mixture and the reason for this could be the lime content. Glomerella attacks the dead tissue and this accounts for the cankers in the old stems of infected plants. There are 43 strains of glomerella in Australia and only one of these is known to attack live tissue.

Two scientists of the Queensland Department of Agriculture, C. R. von Stieglitz and F. Chippendale, treat this subject in their pamphlet Nutritional Disorders of Plants. In the introduction to this work they state: "In 1951, the second edition of Dr. T. Wallace's publication, The Diagnosis of Mineral Deficiencies in Plants, was printed. This valuable text book lists in detail the many symptoms associated with various nutrient disorders and in addition contains numerous excellent illustrations in colour. It has proved a valuable aid to the Officers of the Plant Nutrition Section, in their diagnostic work on plant disorders." In the section under molybdenum is this:—

"SIGNS. Die-back of young growth. Leaflets show scorched tip on older leaves and this may enlarge to half the area."

"CAUSE: Molybdenum deficiency due usually to plants being grown in a too strongly acid soil."

Another cause of die-back is copper deficiency due to a too strongly alkaline soil, but this is not usually the case with camellias.

Dolomite lime is slow in acting as instanced by Sigmund J. Katz in his article in *American Camellia Quarterly* July, 1953, p. 9. "On three occasions, and at intervals of from four to six months, we made heavy applications of basic slag over the entire surface of the camellia beds. This material was not applied in bands around each plant, but over an area large enough to include all the feeding roots. After a lapse of three years, apparently the period required for the slag to dissolve and permeate the soil to a depth where it becomes available to the feeder roots, the occurrence of new cankers had almost disappeared and twig die-back had been reduced to an almost inconsequential amount." This delay in acting is why calcium lime must be used to check die-back.

Advice to Beginners on Importing and After-care

GEOFFREY R. WAKEFIELD

Sussex

United Kingdom

THE development of the modern high-speed aircraft has brought the corners of the earth infinitely closer. The wise man when asked by his King how long it would take to travel the world about said:—

"If you rise with the sun and set with the same, In the space of one day you will travel the whole world about."

The situation is almost at this stage now and with it comes the advantage of being able to have plants from any nursery in the world in your garden within a few days. With this advantage has come the disadvantage of the easy transmission of plant pests and diseases. Colorado Beetles are kept from our shores only by the most stringent regulations. Were they allowed to become introduced unchecked they would quickly become as severe a pest as the rabbit in Australia or the grey squirrel in Britain. To keep pests and diseases at least confined to as small an area as possible, inter-state and international regulations have been agreed upon demanding often the complete removal of all traces of soil and always the cleansing of the entire plant before it can be exported. A health certificate signed by the appropriate authority, is required by the importer. This means that our camellia plants may have to come "bare root." They are washed out clean of soil and the roots are then packed in some inert material such as granular peat or vermiculite to keep them moist on the journey. Rhododendrons will stand almost any amount of root disturbance and come up smiling. As the "Old Timers" used to say on one estate where I worked, "You can't kill they." But the camellia is an entirely different thing. Like any well bred lady she does not take kindly to liberty taking, which means that the nursing and after-care is a period of considerable importance.

On unpacking the plants first make sure that they are neither dry nor severely damaged. If damage is severe and the plants are very dry, notify the sender immediately. There may be the odd twig broken, it is most difficult to pack to prevent this. Trim it off neatly and store it away in a polythene bag to be used as scion material at a later date. Shake the roots free of the packing material and if dry soak thoroughly and drain well before potting.

Potting must be into as small a pot as the plant will comfortably go and a satisfactory compost is: One part granular peat, one part forest peat or well matured leaf mould, two parts coarse sand or washed river grit, half part very well rotted farmyard manure. No loam is used at this stage but the mixture is passed through a seive of not larger than half inch mesh. The

pots are crocked with one large piece over the hole and smaller crocks over this until the pot is about a sixth full. The plant is suspended in the pot with the left hand at a level slightly higher than the required final level and compost is drifted into the pot with the right hand shaking and tapping it well down as filling progresses to ensure that every tiny crevice is quite filled and that every root is properly covered. When the pot is nearly full, firm down gently thus lowering the plant in the pot to its correct level, refill allowing sufficient water space, make neat and that's that.

To serve as a nursery for freshly imported plants a lath shelter may be constructed under the shade of a north wall. The sides can be of hessian and the plants plunged for half their depth in granular peat. The initial watering is thorough to settle the soil and thereafter it is as required. Syringing with tepid water is done at least three times a day and gradually reduced as the plants become established. After a month the plant can be very carefully examined to see what root growth is being made. Once this is strong the plant can be stood on the standing ground or glasshouse bench with the other plants. The subsequent pottings are then normal procedure. It is doubtful if imported plants will be ready for planting out under eighteen months or two years.

The best time of the year to import plants (from America) is the latter half of March to the middle of April. Plants may arrive with young growth but thanks to the wonderful treatment and packing of the nurseryman this seldom even wilts. Plants washed out and packed in California on Thursday can be potted and under a shelter by lunch time on Monday. Plants from Australia seem to do better if they arrive in the early Autumn (early Spring to them). In this case they must have the benefit of a cool shaded greenhouse through the winter.

The after-care of camellias planted in the wild or woodland garden must follow natural procedure. Mulch is most necessary and in Britain there is nothing to beat bracken. Early in the spring give a dressing of well rotted farmyard manure or, if this is unobtainable, a handful to the square yard of a compound of equal parts fish manure, hoof and horn meal and bonemeal. Cover this with a six inch thick mulch of cut and stacked bracken laid to the full extent of the roots. If bracken is objected to on the grounds of untidyness or because it is unobtainable, plants in informal settings can be mulched with straw, leaf-mould or even sawdust. Those in formal settings are best mulched with granular or sedge peat. This has the advantage of being of some food value, is neat in appearance, retains moisture in drought and inhibits the growth of weed. A further mulch of fresh cut bracken will be appreciated by established plants if laid just before leaf-fall. The fronds catch and retain every leaf in the district providing further food and a winter blanket for the roots which will keep out very considerable frost.

Close attention to stakes must be given for at least three years by which time the plants should be growing strongly in their natural habit. Inspect labels regularly to see that those tied or wired on are not cutting into the expanding wood. Pruning is hardly necessary except to keep the bush in a good shape and to remove any dead wood. The little pruning carried out can provide further scion material with which to expand the stock or plants for gifts to friends.

Wood Aroma as a Possible Means of Camellia Identification

JACK CLARK

Auckland

New Zealand

OVER many years when propagating nursery stock I have observed the aroma of camellia wood and bark. I have come to associate these aromas with certain species and used them as a means of identification. The aroma gene appears to be carried in the plant oil and is very often passed on by the species to its hybrids. I have never found the aroma test to fail for identification purposes and when Dr. Doak's hybrids between C. saluenensis and C. reticulata were questioned, my suggestion that the aroma of the bark indicated C. reticulata as a parent proved to be true. Research is needed on the subject and if it were approached scientifically, a chemist could no doubt identify the oils transmitting aroma genes.

My present findings indicate that noticeable odours are present in the following species:—

C. cuspidata

C. drupifera

C. fraterna

C. granthamiana

C. irrawadiensis

C. kissi

C. oleifera

C. pitardii var yunnanica

C. reticulata forma simplex

C. sinensis var assamica

C. taliensis

C. tsaii

C. saluenensis is a problem. Some plants grown as C. saluenensis are non-aromatic whilst others which may really be first or second generation hybrids are aromatic. The form of C. saluenensis used as a parent by both Dr. Doak and Professor Waterhouse is non-aromatic, yet of the C. saluenensis x C. japonica hybrids raised by the latter 'Margaret Waterhouse' and 'Lady Gowrie' are aromatic but 'E. G. Waterhouse' and 'Crinkles' are non-aromatic. Mr. Les Jury of New Plymouth has a large number of excellent hybrids between C. saluenensis x C. japonica with aroma passed on from C. saluenensis but of those named to date 'Kia Ora' has the aroma but 'Elegant Beauty' has not. It would seem that the pollen parent may influence the transmission of the aroma. Such hybrids as 'Donation', 'J. C. Williams', 'Mary Christian', 'First Flush' and 'Hiraethlyn' are non-aromatic. A chromosome count could perhaps decide if any other species are present in some plants grown as C. saluenensis.

The Yunnan group of *C. reticulata* cultivars all have the same odour as *C. reticulata* forma *simplex*. Of the *C. japonica* varieties tested only 'Mathotiana' ('Te Deum' in U.S.A) and its mutations have aroma. Among hybrids the following have aroma 'Exbury Pink', 'Sunnybank', 'Tiny Bud', 'Brian', 'Barbara Clark', 'Fair Lass' and 'Dr. Lesley' plus those mentioned above.

In testing for aroma it should be noted that in some cases it is most apparent in the young wood and in others older wood should be cut or scraped.

Camellias for Posterity

FREDERICK HEUTTE

Virginia

U.S.A.

PLANTS, like people, live by their reputation. Camellias in America have one of being hard to grow, yet if seedlings had been planted from Norfolk, Virginia, along the coastline to Jacksonville, Florida, a hundred years ago and left undisturbed by the vicissitudes of man's whims of using bull-dozers to carve out new highways or saturated by chemicals to make them grow faster, there now would be a forest of them along that beautiful coastline a thousand miles long.

This was the first thought that came to mind when, over twenty-five years ago, I saw in Middleton Gardens, Charleston, three of the remaining four plants reputedly planted there by Michaux over 150 years ago. They had struggled on despite good times and bad, years of droughts and of plenty, with their heads held high.

Ever so often we read an article about old camellias in Portugal, in Germany, in England or in France. Along the coasts of Japan there are forests of *C. sasanqua* which yield a fine charcoal from the wood and a refined oil from the seed. We read of the snow camellia growing in northern Japan twisted and wind-swept from the severe winters and wild storms sweeping down from the Asiatic mainland. I like to think of 'Elegans,' a hybrid by Chandler of England, raised about 1830 which still produces the best flower in shows and whose progenies are legion. Therefore, I think of camellias as indestructible when placed in their proper environment, majestic when tuttred by the skilled hands of man, as I saw *Camellia reticulata* 'Captain Rawes' nestled at the main entrance of Bodnant Gardens some years ago.

During my visit to the British Isles I was surprised that so few camellias were being grown, yet so much has been done to make them popular since the time Lord Pètre brought them to Britain around 1730. This century for instance, by the late Mr. J. C. Williams of Caerhays Castle in Cornwall.

I think, as I read the report of Lord Petre's first importation, perhaps we sometimes kill them with kindness, as reputedly his gardener did. In being entrusted with them and told of their rarity, he pampered them under a glasshouse from which they never survived.

To-day in America more are killed by over-fertilization and deep planting than through over-exposure, for they survive temperatures from Long Island, south to Jacksonville, Florida, along a 1400 mile coastline, extending westward in varying widths to several hundred miles into Carolina and Georgia.

In the winter of 1962-63 wherever *Ligustrum lucidum* was killed outright, *Camellia japonica* survived in one of the coldest periods ever experienced in the southeast when temperatures got down to four above zero F. even in such camellia growing centers as Macon, Georgia, the home of the new yellow camellia by Mrs. M. J. Witman.

All of us who grow camellias have our own conception and interpretation of their worth. From the avid amateur whose primary goals are blue ribbons, and who will through the use of gibberellic acid stretch their size another centimeter in diameter. The other extreme is a fellow like myself who admires them for their place in the landscape, and as a legacy to posterity. As a member of the Camellia Research Advisory Committee, I am particularly interested in stretching their hardiness zone. As a lover of camellias for their aesthetic value, I believe that the name of Mr. J. C. Williams will long live for his contribution to the genus in producing C. x williamsii.

I hope that the International Camellia Society will foster the exhibition of camellias wherever climatic conditions will allow them to be grown in public displays. I speak from experience when I say that the more than 25,000 plants we have in Norfolk's public parks has done much to spread their culture hereabouts. We not only plant them in park areas, but in parkways and along residential sections near the sidewalk. We dream of the day when camellias will provide shady lanes. Naturally we use suitable varieties, even going back to typical *C. japonica*, that lovely single red which never fails us as it generally blooms around Easter.

I hope that some day we will have a camellia trail stretching from the nation's Capital, Washington D.C., to Jacksonville, Florida. We must sell the idea to our highway landscape engineers, that camellias if judiciously chosen, are tough and durable, just as are the hollies which are now being used so extensively.

I am sure that this same theme can be used in many portions of Continental Europe and the British Isles. Travellers have told me of camellia shaded lanes in Portugal. I am sure there are others and hope that those who have them will support my theme and publicize them in this journal. "Camellias for posterity" should be our goal.

Using Lord Byron's terminology, "I love not show blooms the less, but I love the others more, those who provide sweeps of color in the landscape through their multiplicity of bloom and whose foliage defy the elements."

In America we exhibit camellias in small shot glasses with an inch stem. We often cut armfuls of them from our Municipal Garden with unopen buds,

and find they will open over a long period, providing they are immersed in deep water with stem from 18 to 36 inches long. An exhibit of this kind will last two weeks to a month in a cool room. This is by way of saying that such varieties as 'Lady Vansittart', 'Lady Clare', 'Reverend John Bennett', 'Vedrine', 'Tricolor', 'Mathotiana', and 'Reverend John G. Drayton' to name a few of the more prolific growers, are expendable for decorative purposes and can be planted as hedges.

No matter how extensively we plant camellias they will never become a common plant. No other genus can provide, especially in the temperate zones, the wealth of flowers they produce during the shortest and coolest days of the year. There are few days during the winter that *C. vernalis* 'Dawn' will not greet me in my own garden even when temperatures drop to 25 degrees F. and from my observation *C. vernalis* 'Hiryu' is equally "petal hardy" and both are a must in any winter garden. It is true, nevertheless, that the species is not as stem or root hardy as *C. japonica*, and has been killed back in our region when temperatures drop below zero. 'Lady Clare', 'Vedrine', 'Letitia Schrader' and 'Sarasa' are another quartet that seem to defy our frequent temperature drops down to 10° F. and above during the winter. Within a week after a temperature rise they bloom as if nothing had happened; that's why camellias are irreplaceable in the winter landscape where temperatures seldom drop below zero.

To me no other plant produces blooms with the iridescence of *C. x williamsii* 'Donation'. When it is in bloom in our garden among at least 500 more varieties, visitors are drawn to its arching pink sprays and have cut a path to the first plant we placed there over 15 years ago.

I made a special trip to see Lord Aberconway's *C. reticulata* 'Captain Rawes',* fascinated by the fact that it survived the winters of North Wales and bloomed consecutively over the years. Our climate which temperaturewise does not get any colder (record cold 10 above) does not flower it or any of the *C. reticulata* cultivars, even when our average winter temperature during mild cycles does not go down below 18° F.

These are natural phenomena for which few of us can find an explanation. We realise that hardiness is an equation, and a combination of factors of which temperature is only one. Therefore, each of us who live in a camellia growing section cannot dictate to the other what varieties or species should be grown, for we must explore their optimum range in our locality and from our findings choose those most adaptable.

Therein is the formula to establish camellia popularity, even if only limited to one species and a few varieties. I hope that some day my dream of a camellia trail from Washington D.C. to Jacksonville, Florida, will become a reality and even further south with some of the tender species with which I am not familiar.

^{*} This specimen of Camellia reticulata 'Captain Rawes' was planted in 1906 and has survived many severe winters including zero F. temperatures. In the winter of 1962-63 after seventy-five nights of continuous frost, many of great severity, it flowered freely although some buds dropped and foliage was damaged.

Theoretically it should extend further North than Washington D.C. if we could duplicate the conditions that prevail in the Niigata Prefecture of Japan. Somewhere there must be the equivalent of its snow valleys, where we too in America as well as in Europe could enjoy the snow camellia so eloquently described by Dr. John Creech when he saw them as "a sea of red and pink flowers resting on billows of melting snow."

I became very much excited over *Camellia granthamiana*, which incidentally survives our winters (since 1958) with flying colors. If only for its foliage it is a gem. An imaginative writer friend of mine said when he first saw it, "Why don't you call it the 'Golden Angel.'" It is a white flower but the prominent golden stamens dominate its profile.

There is a camellia for your section from zone 7 to 10 and that takes in a lot of territory, much of which is still unexplored.

Camellia Pleasure

VIOLET LORT-PHILLIPS

Jersey

Channel Islands

B.O.A.C. produced a Round the World ticket and I travelled by Comet, stopping in Japan on my way to visit my son and his family in Australia, returning by New Zealand and the United States.

Camellia prospects were bright, although October was too early for blossom in Japan and November late for Australia. The preparations for a journey are, to me, almost as exciting as the trip itself—letters to write, maps to study, advice to seek. Without the help of Charles Puddle and the International Camellia Society there would be little for me to tell. Perhaps it is audacious of me to try. I warn members who seek scientific facts to skip the next pages. Mine was a pleasure trip. If you are an enthusiastic amateur, what better juxtaposition than Camellia X Pleasure.

It was fortunate for me that I followed, for part of the way, in the footsteps in Japan of our President, Professor and Mrs. Waterhouse; the fringe of his illustrious mantle covered my ignorance. I returned three months later the richer for many delightful friendships, grateful for the hospitality, time and kindness of the members of I.C.S. whom I had met.

It was late on the afternoon of October 1st when the Flight Captain of the B.O.A.C. Comet announced that we were to begin our descent from 30,000 feet to Tokyo. Looking out at the misty empty sea, I wondered when I should get my first glimpse of Japan—then ahead I saw a cone-shaped island of almost perfect symmetry. It was a second or two before I grasped that this was Mount Fuji above the clouds. Twice more during my two weeks in Japan I was fortunate enough to be able to pay my respects to the mountain; a good augury for my search. I replaced the list of camellias that

I hoped to find during my travels, next to Mr. Eikichi Satomi's *Camellia Varieties in Japan*, which had been my 'homework' on the journey, and felt the sheaf of letters from members of the International Camellia Society; already we had established an intimate acquaintanceship on paper. I looked out once more to see the lights of Tokyo in the dusk a galaxy of stars on a checkerboard.

The common language of gardening made communication easier—"mulch" is the same in any tongue—but I should not have got very far without the help of many people.

My host in Tokyo, Mr. Eric Watts, relayed to me a list of invitations and plans suggested by Mr. Kiyoshi Ishikawa, the President of the Japan Camellia Society, whom I had the pleasure of meeting the next day, and Mr. Satomi, who came to lunch.

Two days later I was in Kyoto, where a young friend, Mr. Matsuomoto, constituted himself as my guide. Sometimes when business commitments kept him in Osaka, he provided one of his friends.

On the morning that I was to visit the nurseries of the Takeda Chemical Industries by the invitation of Dr. Takeshi Watanabe, I drove with Mr. Toisaku Nishimura, my interpreter, through the busy streets of Kyoto, the ancient capital of Japan. The road wound up into the wooded foothills surrounding the city. Crimson splashes of Lycoris radiata grew along the banks of the dykes separating the fields.

A tall poplar felled across the road stopped the car. We walked the last part up the lane to the nurseries—crickets thrummed by the roadside, peasant women in cartwheel hats working in the fields directed us to the Director's bungalow. We passed the greenhouses and frames, purple, scarlet and heavenly blue trumpet flowers of *ipomoeas* cascaded down the fence, a shining hedge of *photinia* surrounded the little house.

We were greeted by the Manager, Mr. Watanabe, Jr., and were joined a few minutes later by Dr. Watanabe himself. Mr. Watanabe explained that the site of the nurseries had been chosen because there were different soils and conditions in a comparatively small area, which enabled them to grow the many varieties of herb and plants needed by their pharmacies—added to which the nursery contained a wonderful collection of camellias. A word here to the Jonahs who had predicted that it would be "boring with no flowers." Boring is the last adjective I would use to describe my fascinating day at Takeda—or for that matter any of the many gardens that I visited. I saw camellias at every stage of growth, C. japonica and its sub-species rusticana, C. reticulata, C. saluenensis, and learnt about many interesting methods of cultivation and grafting; the thorn of *Pereskia acoleata*, grown specially for the purpose, is used to join the grafts at these gardens. Young stock was under slatted shelters of bamboo canes; all the plants, young and old, were heavily mulched with dried grass or straw. I saw a bush 4ft. high which had seven different varieties of camellia grafts. In one greenhouse some interesting work on genetics was being carried out on character mutations which lead to mules.

The morning passed so quickly that it was a shock to find that it was lunch time. After a delicious meal of Socci—pickled fish plaited into a

rainbow ribbon, served in a bed of pearl-coloured seaweed, decorated with palm fronds, Dr. Watanabe showed me three of the many wonderful gardens for which Kyoto is famed. We went to the old Imperial Palace where there are camellia trees reported to be over 200 years old. In an ancient bent tree near the lake one of the gardeners was plucking out pine needles as if he was shaping the eyebrows of a shaggy old man.

A double hedge of camellia leads to Ginkakuji, or Silver Pavilion, built for the 8th Ashikaga Shogun's retirement, which belongs to the Shokokuji school of the Rinzai sect of Buddhism. The camellias are clipped square in August and must be at least 40 feet high—a wonderful sight when in flower in May. In front of the Silver Pavilion—so named because the Shogun intended covering the roof with silver foil—there is a sand garden, a flat mound symbolises Mount Fuji, or "a moon reflecting mound." The flat parterre of sand is raked into ridges to represent the waves of the ocean. This was designed by Soami, a great landscape gardener and artist in 1485. He also created the famous rock and sand gardens of Ryonji Temple. These gardens were made to express Zen enlightenment, every tree, stone or shrub placed to induce in the beholder a desire for the contemplation of Eternal Truths. They were also landscapes in miniature—a clipped camellia bush symbolising a mountain, for instance, or a strip of sand an inland sea—contrived yet blending into the natural scene.

Leaving the Abbotts Pavilion we followed the path round the first of the two ponds and I noticed the angle of a silver birch, the feathery charm of Nandina domestica almost concealing an old stone lantern, the evergreen azalea growing by the water's edge. Crossing a flat stone bridge we climbed up to see a "thread" waterfall falling from the rock face on to a moss covered boulder spilling over to join the stream. Nearby on the hillside there was a rock garden, but again not as we know rock gardens; the ancient stones were arranged on the short turf to demonstrate a moral precept.

The water dripping from rock reminded me of the Moss Temple of Saiho-Ji which I had visited the day before. The Temple was founded in 731 and belongs to Rinzai sect. Imagine a garden created with fifty different varieties of moss, add to this maples, azaleas, silver birch, beech and pine in conjunction with lichen covered grey boulders, waterfall effects of moss and rock, chosen and placed with the discerning eye of an artist, and you will understand my happiness in contemplating this symphony of browns, grey and green. The patterns cast by the shadow of the tree were repeated in the reflection of a still pool.

The last garden I saw with Dr. Watanabe was behind the Heian Shinto Shrine built in 1895 and famous for its flowering cherries and Japanese iris growing by the lakeside.

We paused to admire a splendid specimen of weeping cherry, then from the music school behind the gardens the voice of a young soprano floated over the sparkling water. The delicate scent of *Osmanthus fragrans*, silver and gold, growing nearby added the final touch of magic to the scene.

We crossed the end of the lake by the round flat stones of the Dragon Reclining Bridge to reach an old man who sold fish food in the centre of the arched wooden bridge spanning the main lake. The clear waters were a



Above: Camellia Hedge at Ginkakuji Temple, Kyoto.

Right: The Author wearing embroidered camellia kimono belonging to Mrs. Watanabe.



boiling, threshing mass of golden carp, jumping in the air to catch the light "Energen" type rolls we threw down, while an elderly turtle swam slowly round—try as we would to reach him he was always too late.

The day ended at Dr. Watanabe's house. He showed me part of his collection of camellia lore—books, paintings, china, photographs of the deer in the park at Nara eating camellias which had fallen from the huge old trees, and of the Camellia Festival, when the temples are decorated with flowers; in a late season paper flowers are used. He generously presented me with some beautiful souvenirs. While sipping delicious tea and being fed with golden persimmons I learnt more interesting facts; that the wood of C. sasanqua makes the best charcoal; the ash from camellia wood is used as dye, for brewing saké, and for firing pottery. Mrs. Watanabe showed me her beautiful kimonos embroidered with camellias, and persuaded me to wear one while Dr. Watanabe took photographs.

Many of my readers will have seen Professor Waterhouse's account of his visit to Niigata Prefecture in the spring, and read Studies on snow camellia (C. rusticana) by Professor Hagiya and Susumu Ishizawa, and so are familiar with the characteristics and habitat of this interesting species. When I asked Dr. Watanabe where I could obtain snow camellias he replied Niigata. I could not resist the chance of acquiring something new and beautiful. Thanks to the good offices of Dr. Watanabe and Mr. Ishikawa, I found myself a few days later in the air again, heading north. I confess that it was with some trepidation that I looked down on the mountain peaks below. Had not my friends warned me that it would be very cold in the north, clasped my hand in farewell and told me that I was brave. I did not feel at all courageous as the aeroplane bumped and dipped in the valleys and over the mountains, only sick.

We landed in brilliant sunshine on a wide, flat plain not far from the sea. I felt hot and foolish clad in my tweeds, clutching a fur coat. All my nervousness was dispelled when Professor Hagiya advanced to meet me. With him were the Niigata representative of Takeda Chemical Industries, Mr. Yamaura, and a pretty young interpreter called Meisan.

I was driven to Professor Hagiya's rooms at the Faculty of Agriculture, Niigata University, where I was shown slides of many of the varieties of C. rusticana and hybrids of C. rusticana and C. japonica, while he talked about the camellias. He showed me his nursery of seedlings and young plants. In one greenhouse I saw an ingenious method of regulating the water given to camellia plants; a porous flask was plunged into the earth of each pot and kept filled from a jar of water which was syphoned into the container, thereby ensuring constant moisture for the roots. The Professor told me this had increased the rate of growth considerably.

The next morning, Professor Hagiya, his young assistant, Mr. Yamaura, and my interpreter fetched me at 8.30 a.m. We were to drive into the country to show me *Camellia rusticana* and *Camellia japonica* growing wild on the slopes of the mountains in Niigata Prefecture. We left the city, crossing a wide river, where the delicious fresh run salmon I had enjoyed the night before was caught. Past fields of newly harvested rice, reaped by women dressed in baggy trousers with loose over-blouses, their coolie type flat hats of straw were wider than those worn in the country near Kyoto,

and were kept on their heads by a harness attached to a white or coloured scarf; later we passed groups of peasants on bicycles—looking like ships in full sail. I noticed that the rice ricks were small and squat, not unlike the haycocks in Scotland. Rice hung on long screens to dry along the edge of the fields was collected by the few men that I saw, an ox cart from one field and a tractor from the next.

Leaving the fields behind, the road wound up into the mountains. We stopped first for Professor Hagiya to show me a colony of Camellia japonica, which grows freely on the lower levels. Then we drove up into beautiful wild country. We got out to inspect the snow camellias growing on the side of the hill. Donning gum boots, thoughtfully provided by Mr. Yamaura, the Professor leading the way, we clambered over a dirch and up into the scrub of Camellia rusticana. It was rough going, but my readers may be reassured, it was no mountaineering feat, for a band of schoolchildren under the banner of their master passed us on their way for a picnic; each child, equipped with flask and sandwich case, greeted us politely.

Later on we stopped to view other wild colonies—under beech trees and in mixed forest of pine and cedar—growing very much as our blackberry or berberris—the old branches layering themselves as they crept along the ground, with roots like old men's whiskers. They seemed happier when growing near a mountain stream and yet obviously could flourish in much drier conditions. In some places the earth was the red of Devonshire soil, in others light and gravelly, and then again dark loam enriched with years of leaf mould. With the help of the Professor's magnifying glass, I saw the hairs on the petioles as described by him in his study, the shiny green leaves deeply veined and serrated, otherwise resembling Camellia japonica. The branches were springy—it took all the young assistant's strength and skill to break off a piece for me. I was impressed by the versatility of this species, it could perhaps serve as a decorative and useful ground cover.

During the afternoon we drove through villages in the plains. There were big trees of camellias in the back-yards of some of the farms, many of which Professor Hagiya told us were *C. rusticana* crossed with *C. japonica*. The love of flowers was evident in the many small garden patches gay with cosmeas, dahlias, asters and hibiscus. We passed nursery gardens with interesting camellias, catalpas and magnolias for which the province is famous.

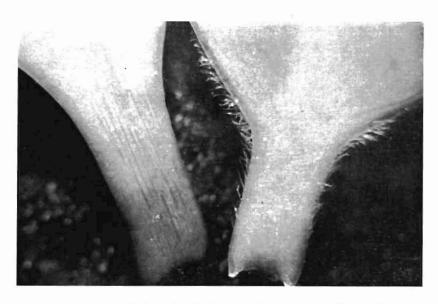
All too soon my twenty-four hours were over and I found myself saying goodbye and thank you to Professor Hagiya and his party for making my visit so pleasane. In one hand I carried a parcel of snow camellias presented by Professor Hagiya and the Faculty of Agriculture at Niigata—in the other half a salmon.

On my last day in Japan, I had the pleasure of meeting Mr. and Mrs. Choka Adachi, who with their beautiful daughter run a famous school of flower decoration, and instruction to brides in the art of the tea ceremony.

The list of camellias that I hoped to obtain and which I had carried with me from Jersey to Japan was largely drawn from the illustrations in Mr. Adachi's book, Camellia, Its Appreciation and Artistic Arrangement. It was with pleasurable excitement that I drove with Mr. Ishikawa after a wonderful



Niigata Prefecture. Looking for hairs on the leaf petioles of the snow camellia. C. japonica subsp. rusticana



Leaf petioles of C. japonica (left) and subsp. rusticana showing hairs

Japanese meal—a poem of superb cooking—to Setagaya on the outskirts of Tokyo. We left the car in a lane and walked the last few hundred yards down an avenue of camellias and rhododendrons to the two-storeyed wooden house.

Mrs. Adachi greeted us at the entrance and led the way along a corridor with a beautifully polished wooden floor to where Mr. Adachi awaited us, by a table set out with pictures and slides of his favourite flowers.

Many of my readers who are privileged to have visited Mr. and Mrs. Adachi will agree with me when I say that Mr. Adachi is not only a delightful urbane host, pressing his guests to take many varieties of tea and cakes served by Mrs. Adachi, but he is also a colourful figure. Signing one of his poems with fingers dipped in scarlet, finishing a painting with deft, quick brush strokes, or striding round his garden in his russet robe followed by his household. On one side of his garden is an orchard containing camellias; on the other a courtyard with many more bushes in containers and a collection of bonzai plants under a shelter along the wall. Perhaps the most vivid picture I retain is of Mr. Adachi and his gardener—small and wiry, in contrast to his tall, thin master, his ageless flat country face, surmounted by a shock of hair kept in place by a cloth tied round his head—climbing nimbly up and about a camellia tree, collecting seed for me, aided by a pretty girl member of Mr. Adachi's household. Seeds which I am happy to say are germinating in Jersey.

When they have grown into established plants in four, five, or six years time, I have the exciting prospect, and the excuse, to visit once again my camellia friends in Japan, to identify my flowers and, who knows, perhaps discover a new camellia.

Camellia granthamiana

R. E. DEAN

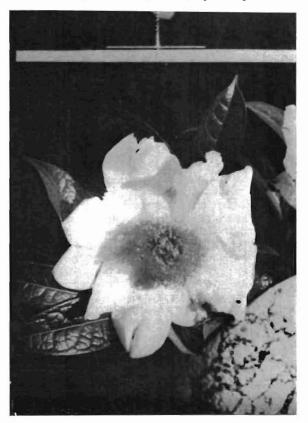
Hong Kong

IT was with considerable surprise and pleasure that Camellia granthamiana was found in Hong Kong, especially so, as the flora has been widely explored by a succession of botanists and collectors since 1841. The discovery of this new species was made quite accidentally in October 1955 by a Chinese forester who had from time to time sent to the Hong Kong Herbarium plant material collected on patrol duty. Amongst a miscellaneous collection he sent in on one occasion was a specimen bearing a striking white flower, recalling at first sight a Tutcheria or Gordonia.

Realizing that this specimen was something out of the ordinary and hardly believing that it was a new species, the Hong Kong Herbarium forwarded it to the Royal Botanic Gardens, Kew, England. The specimen arrived in late November, but due to having been damaged in post, it was not possible to dissect the flower.

A trip was immediately arranged to collect more specimens. Fortunately one flower—the last of the season for it was now early December—was found, and this Kew received undamaged.

The camellia was subsequently found to be a distinct new species and was named *Camellia granthamiana* in honour of the then Governor of the Colony, Sir Alexander Grantham, G.C.M.G., LL.D., by Dr. J. Robert Sealy who



Camellia granthamiana

published a description of it in the Journal of the Royal Horticultural Society, Vol. LXXXI, 1956, P. 151, and later in his monographic work The Revision of the Genus Camellia in 1958.

This camellia bears handsome flowers which measure five and one-half inches in diameter and has eight white petals with a cluster of golden stamens in the centre. It is not closely related to any other known species and is outstanding in the genus by the following unusual characteristics: flowers

without stalks, subtended by a large cup-like cluster of grey hairy perules (bracts and sepals), the white corolla $4\frac{1}{2}$ to $5\frac{1}{2}$ inches across, slightly united at the base to the clusters of stamens, stamens free, the 5-celled seed capsules invested by persistent perules even when split, and the dark lustrous green leaves with deeply impressed venations on the upper surfaces.

Although a thorough survey of the adjoining area has been made to the region each year, no other plant of this species has been found. This solitary tree is about 12 feet tall, growing in partial shade on the edge of a woody area by the side of a rocky stream in company with *Ilex rotunda*, *Caesalpinia nuga*, *Adina piluliferia*, and tall grasses. On account of its multibranched habit the tree is believed to have been cut to within a foot or so of the ground many years ago, and the base has a diameter of a little over 12 inches. Its age is difficult to determine, but it is probably between fifty and seventy years. The tree narrowly escaped destruction recently when an extensive hill fire swept to within 10 yards of it.

. Camellia reticulata at Crarae Lodge

SIR GEORGE I. CAMPBELL, Bt.

Argyll

Scotland

THE large specimen of *Camellia reticulata* now growing at Crarae was originally acquired by the late Lady Cámpbell of Succoth—my mother—and grown and flowered by her in a large conservatory which opened off the drawing room of Garscube, which was situated on the north-west margin of the City of Glasgow, but in the County of Dunbarton close beside the River Kelvin. It is not known where the plant came from. When the Second World War broke out, Garscube House was evacuated, and because *C. reticulata* was a particular favourite of my mother's, I brought the plant to Crarae Lodge on Lochfyneside in the County of Argyll. Here it was planted against a natural rock-face in the Glen Garden; hoping that it would in time cover the rock and form a feature of the wild garden. But this was not to be, it was asking too much of the plant! It remained alive, however, in its wartime and unsuitable home—beset by drips from the rock and in a damp and rather sunless position—but it made little or no growth and produced no flowers.

At the end of the war the plant was moved to the wall of Crarae Lodge and from that moment it has never looked back! The exposure is slightly south of west and sheltered from the north by steeply rising ground. Behind the plant is situated the kitchen stove, and it is felt that this fortunate circumstance has contributed to the successful growth and flowering of the

plant. The house is built of granite, and the stove is of a type supposed to contain and not disseminate heat, yet the fact that the flowers are often turned in towards the wall and away from the light, seems to prove the point.

Every second year the turf of the lawn which covers the ground and overlies the root system to within a few inches of the base of the stem is lifted like the flap of an envelope, a barrow load of well rotted dung is inserted and the turf is then replaced. The growth shoots are tied in hard to the wall each year. Usually the first flowers appear about the 10th



Camellia reticulata 'Captain Rawes' at Crarae Lodge.

February, but in 1963 despite the quite unusually arctic conditions, a flower was produced before the end of January, though the majority of buds did not open until rather later than in a normal year. The plant flowers most regularly and prolifically each year. In February, 1963, it had reached a height of fifteen feet and had a spread of sixteen feet.

EDITOR'S NOTE.—Crarae is situated well north of the normal range of camellia culture (lat. 56° 7′ N.) and this may well be the most northerly specimen of *C. reticulata* growing in the open. The plant referred to is the cultivar *C. reticulata* 'Captain Rawes.'

Sacramento, the Camellia Capital

JERRY OLRICH

California

U.S.A.

LOCATED in the middle of the State of California, about one hundred miles inland from the Pacific Ocean, is the City of Sacramento. Many stories have been written about it and the Gold Rush that made it famous. It was here that the citizens decided finally to build their state capitol, not only because it was centrally located, but was at the confluence of two rivers (the Sacramento and the American), with an abundance of water, good soil, a mild climate, and in the middle of a great valley.

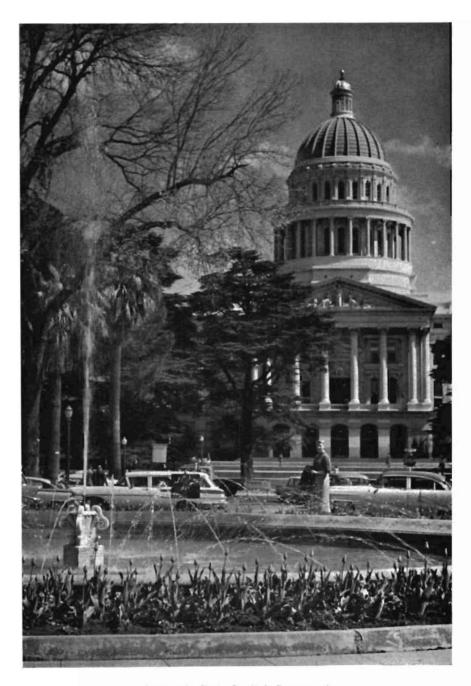
Sacramento Valley is several hundred miles long and a little over a hundred miles wide and is reputed to be one of the richest farming valleys in the world. The climate is very pleasant though the summers at times get quite warm. The temperature may get up to 105° F. but usually the evenings will get quite cool dropping to 60° or 65°. You will find that you need a wrap or jacket to keep from getting chilly after the sun goes down.

Winters are short, lasting through December and January. Rarely does the temperature go below freezing, but when it does, it is during the night. During the day the temperature will rise to 50° or 60°. The rainy season is not too long in duration, usually starting late in October and lasting through March. The average rainfall is around fifteen inches. The air is quite dry as the humidity is low.

This climatic condition seems to be very conducive to the growing of plants. Numerous varieties of shrubs, trees, and flowers have been imported from many lands and seem to do exceptionally well. Although the oldest specimens have just passed the century mark, they look like they are several centuries old. Elm trees that were planted then are about 125 feet tall with a like spread. The city streets were heavily planted with shade trees making the city virtually a forest.

It is in the heart of this city where the capital of the state is situated. The city in order to get the State Capitol gave the state four city blocks approximately sixteen acres of land wherein the capitol could be built.

The capitol building was built in the early 1860's. It is a very imposing structure of Roman Corinthian design with a golden dome 220 feet high. It is here where the state laws are made. It was here where the State Legislature passed a resolution vowing that the grounds surrounding this structure shall be second to none in beauty. Many felt that sixteen acres would not be sufficient so an additional twenty-four acres were purchased making a total of ten city blocks or forty acres.



California State Capitol, Sacramento

Thirty-three of these forty acres are fully landscaped. The other seven are used up in the building, sidewalks, and driveways. The perimeter is planted with California-Washington fan palms. The inner area is planted with trees and shrubs from every part of the world.

From Europe: Irish Yew, Italian Stone Pine, Olive, Linden, Grecian Laurel, Seville Orange, Hawthorn, Rock Rose, English Holly, Mugo Pine, Cork Oak, European Elm, Aleppo Pine, and Spruce from Norway.

From Australia: Eucalyptus in many forms and varieties, Acacia in many varieties, Eugenia, Araucaria, Casuarina, Leptospermum, Callistemon, Veronica, Coprosma, Cordyline, Phormium, Pittosporum, and many others.

From Africa: Belladonna Lily, Holly Ferns, *Plumbago*, Atlas Cedar, Banana, Date Palm, and *Diosma*.

From South America: Bougainvillea, Tibouchina, Solanum, Begonia, Escallonia, Feijoa, Datura, and Daubentonia.

From our own North America: Spruce, Pine, Redwood, Southern Magnolia, Arborvitae, Palm, Agave, Mahonia, Cypress, Oak, Ceanothus, and Jacaranda.

From Asia, where so many of our exotic flowering trees and shrubs are native: Cherry, Apple, Quince, Plum, Peach, Pomegranate, Crepe Myrtle, Abelia, Weigela, Kerria, Nerium, Skimmia, Hypericum, Pieris, Spiraea, Vitex, Hydrangea, Michelia, Magnolia, Buddleia, Persian Lilac, Loquat, Paeonia, Acuba, Azara, Berberis, Cotoneaster, Deodar Cedar, Cedar of Lebanon, Cryptomeria, Aralia, Euonymus, Viburnum, Nandina, Photinia, Mulberry, Bamboo, Pyracantha, Maple, Ginkgo, Rhododendron, Daphne, Azalea, and Camellia.

There are ever so many more from ever so many countries and areas that would take too much time and space. The ones that are my favourite are the camellias.

It has been this writer's good fortune to be employed in these grounds for the past thirty-three years and to be in charge for the past twenty-one years. Many changes have been made, many new plants added from time to time.

In 1941 there were twenty-two camellias growing on the grounds, mostly unidentified. Today, there are approximately twenty-six hundred plants and about six hundred varieties. Some were imported, some transplanted from private homes which were to be torn down and some were contributed by various growers. How readily they seem to grow without much care.

As I mentioned before the soil is very rich—a sandy loam with excellent drainage. The pH of the soil is 7.5 which doesn't seem to bother them very much. Most important is not to fertilize too heavily, otherwise they grow out of bounds and have to be pruned severely thereby losing much of the bloom. There is very little disease or very few pests to contend with. Occasionally some tea scale will show up especially where the plants get overcrowded or under intense shade. This is readily controlled by spraying with a light summer oil such as Volck.

There is a heavy demand for flowers for various governmental functions; such as luncheons, dinners, and decoration of the Governor's Mansion, and



The Author with a fine specimen of ${\it Camellia}$ 'Henri Favre' which he planted twenty years ago

many other offices. We have cut as many as five thousand blossoms at one time. One might think this would hurt the plants but it doesn't as it saves some pruning and helps to shape them.

The citizens of Sacramento are more than conscious of camellias. Many items are named "Camellia": sausages, streets, sub-divisions, parks, schools, and many others. In 1943, the Sacramento Camellia Society was formed to further the culture of camellias in every way possible—planting drives, sales, shows, and a ten-day festival are held annually. The City Council has designated ten days in March as "The Camellia Festival" time. Also adopted by official decree, the name: "Sacramento, The Camellia Capital." The society is permitted to use the Civic Auditorium rent free for the show. There cannot be any admission charge. This show is thirty-eight years old and draws 10,000 to 15,000 viewers. On display will be 10,000 blooms, or more. It is reputed to be the largest Camellia show in the country. The competition is quite keen, but friendly. I believe this show has done more to further the popularity of camellias than anything else.

In 1953 a group from the society decided to form a Festival Association. They were more than successful right from the start. The County Board of Supervisors and the City Council, the Chamber of Commerce, and many other civic bodies all assisted in every way, including financial help. The streets are decorated with flags and camellia banners. Large boxed plants are placed in store entrances, windows are decorated with camellias. Every day there are several functions such as breakfasts, luncheons, dances, fashion shows, parades, and ever so many other things to make this a gala affair. One of the most important is the selection of a Camellia Queen who presides over all during this period of festivity. The Queen is crowned at the Camellia Ball which is quite a social affair.

Sacramento has come a long way and the show and the festival have done much to beautify this community. It's no wonder Sacramento can call itself the "Camellia Capital of the World."

Some of our most outstanding camellias are 'Angel,' 'Arejishi,' 'Barbara Woodroof,' 'Betty Sheffield Supreme,' 'Carter's Sunburst,' 'C. M. Hovey,' 'C. M. Wilson,' 'Coronation,' 'Daikagura,' 'Drama Girl,' 'Dr. Tinsley,' 'Eleanor Hagood,' 'Elegans,' 'Elizabeth Arden,' 'Emperor of Russia,' 'Eugene Lize,' 'Frizzle White,' 'Grand Slam,' 'Guilio Nuccio,' 'Kick Öff,' 'King's Ransom,' 'Kramer's Supreme,' 'Lady Kay,' 'Lady Vansittart,' 'Margarite Hertrich,' 'Marion Mitchell,' 'Mrs. D. W. Davis,' Mrs. Freeman Weiss,' 'Nagasaki,' 'Onetia Holland,' 'Pink Clouds,' 'Reg Ragland,' 'R. L. Wheeler,' 'Strawberry Blonde,' 'Tomorrow,' 'Uncle Sam,' and 'Ville de Nantes.'

An Outline of Camellia Activities in Japan

EIKICHI SATOMI

Tokyo

Japan

1953 April:

A meeting to establish a Japan Camellia Society (Nihon Tsubaki Kyokai) was held in the Hibiya Public Hall, Hibiya Park, Tokyo, and was attended by 76 persons from various fields. Mr. S. Yoshino was elected President, and the late Mr. Y. Ishii Executive Secretary. At the same time the First Camellia Show was held at Hibiya Park, welcoming Princess Takamatsu.

April:

A study meeting was held at Angyo nursery village.

Tuly:

A study meeting was held at Chiba University especially for methods of propagation by cuttings, under the leadership of Dr. H. Hozaka.

July:

On 29th Mr. Y. Ishii, Executive Secretary of the Society, passed away.

October:

A meeting of the Directors was held at Kamito's Garden, Yokohama. Mr. E. Satomi was appointed Executive Secretary. The address of the office was care of Kamito's Garden.

Total membership in 1953 was 61.

1954 April:

The Second Annual Camellia Show was held at Saitama Botanic Gardens.

The late Mr. Ralph Peer and his wife visited Japan on their second camellia tour. The Society held a welcome tea-party for them jointly with the Japan Horticultural Society. There was an attendance of 39 members.

Mr. and Mrs. A. W. Jessep, of Australia, visited Japan, bringing 60 camellia slides taken by Mr. A. L. Stewart, of the Australian Camellia Research Society.

June:

A meeting to view camellia slides from Australia and America was held at Kamito's Garden. A similar meeting was held at Saitama Botanic Garden, also attended by many nurserymen. Young plants of camellia were distributed to all members free of charge.

The Society assisted in sending an article entitled Long-lived Camellia in Kyoto District,' written by Dr. S. Kitamura, of Kyoto University, published in the American Camellia Yearbook 1955.

Total membership 61.

1955 January: The Society received as a gift scions of one hundred

varieties from the late Mr. Ralph Peer, California.

March: The third Annual Show was held at Mitsukoshi Dept.

Store, Tokyo.

June: Dr. H. Ueki reported on the long-lived camellia in

Ehime-Ken (Ehime Prefecture). The Society reprinted the report as *Tsubaki News No.* 7 and distributed it to

all members.

September: Distributed young plants of camellia to all members.

October: Dr. C. R. Merrillees of Australia visited Japan. He

investigated sasanquas in Saitama, Tokyo and environs, Kyoto and Shikoku Island. The Society held a tea party

to welcome him at Chinzanso Gardens.

Published 5 Tsubaki News during this year.

Total members now 96.

1956 March: The fourth Annual Show was held at Daimaru Dept.

Store, Tokyo.

April: The Society sponsored an article entitled 'Wild Camellias

of the japonica group in Japan and their Relationship to Garden Varieties' by Dr. T. Tuyama for inclusion in the

American Camellia Yearbook, 1957.

July: The Society reprinted and distributed the booklet entitled

How to Grow Higo-Camellia, by the late Mr. Sakae

Taniguchi, of Kumamoto City, in 1900.

September: The Society presented the booklet Camellia Varieties in

Japan, by Eikichi Satomi, to all Rotary Club members in

Japan.

Tsubaki News published 4 issues in 1956.

The membership was 162.

1957 January: The Society exhibited camellia pictures and sent seeds to

the Oregon State Exhibition through the Foreign Ministry

of Japan.

March: The Fifth Annual Camellia Show was held at Mitsukoshi

Dept. Store, Tokyo.

April:

A few camellia friends visited this country from U.S.A. and other countries. The Society helped them in their

research.

Published 4 issues of Tsubaki News.

Total membership 183.

1958 March:

The Sixth Annual Camellia Show was held at Mitsukoshi Dept. Store.

Engei Techo (monthly garden magazine). A special issue for camellia was published by Daiichi Seeds Co., Tokyo;

the Society co-operated in issuing it.

Higo Camellia Society, Kumamoto, started. Mr. Y. Shimada was elected President. The Japan Camellia Society always maintains co-operation with this Society. Japan Camellia Society reprinted the list of Higo camellia issued by the Higo Camellia Society and distributed it to

members.

October:

Foreign varieties distributed to members.

December:

Mrs. Simon, of Australia, visited this country.

The Society published two small booklets on Seeding and Cuttings this year under the sponsorship of Mr. K.

Sawada and Mr. Choka Adachi.

Tsubaki News issued 3 times.

Total membership 219.

1959 April:

The Seventh Annual Camellia Show was held at Mitsukoshi Dept. Store with co-operation of Japan Horticultural Society's First Flower Show. (The President of Japan Horticultural Society is Mr. T. Shimazu).

May:

Young plants of overseas varieties distributed to members.

October:

Mr. and Mrs. H. T. Payne, of Australia, visited this country; the Directors held a meeting with them at the

residence of Mr. K. Ishikawa.

New Zealand Camellia Society inaugurated this year. The Japan Camellia Society received letter and sent answer

promising co-operation.

Published 3 issues of Tsubaki News.

Total membership 281.

1960 March:

The Eighth Annual Camellia Show was held at Mitsukoshi

Dept. Store, Tokyo.

A general meeting was held to discuss reconstruction of the organisation of the Society. As a result Mr. S. Yoshino was elected President Emeritus and Mr. K. Ishikawa was appointed President; Mr. E. Satomi resigned from the post of Executive Secretary and became one of the Directors' Bureau. The business to be done under consultation of four committees under the Active Director, Mr. Y. Matsudaira. The address of the office was changed to 5-290 Omiya-mae, Suginami-Ku, Tokyo, Japan.

Kyoto Garden Club held their First Annual Show at the Public Hall of Okazaki Park, Kyoto. They published a special issue for camellia of their publication named Kyoto Engei (Gardening of Kyoto).

Higo Camellia Society held their Camellia Show at Tsuruya Dept. Store in Kumamoto. There were exhibited many pot-cultured camellias. It is a special feature of the Kumamoto Show. Japan Camellia Society sent prizes to their Show.

April: Held Camellia Show in co-operation with the Annual Flower Show of Japan Horticultural Society.

July: Held study meeting at Koishikawa Botanic Gardens of Tokyo University.

September: Held a lecture meeting at the Hall of Inogashira Park, Tokyo. The lecturer was Mr. T. Kiyono, who lectured on the present condition of camellia culture in America. 60 members attended.

Held a meeting for 'Viewing C. sasanqua' at the nursery village in Saitama-Ken.

November: On 30th a study meeting was held at the Hall of Takinogawa School. Dr. T. Tuyama lectured on 'Himalayan Plants.'

Young plants of Japanese and foreign varieties were distributed to members at cost.

Total membership 268.

1961 March: The Ninth Annual Camellia Show was held at Mitsukoshi Dept. Store, Tokyo.

Kyoto Garden Club published *Tsubaki* No. 2. Japan Camellia Society published *Tsubaki* No. 1.

April: Camellia Show in co-operation with the Annual Flower Show of Japan Horticultural Society at Mitsukoshi Dept. Store, Tokyo.

Mr. and Mrs. Milo E. Rowell, of the American Camellia Society, visited Japan.

Mr. and Mrs. Ralph Philbrick, of the Bailey Hortorium, Cornell University, visited Japan for research in camellia varieties in Japan.

Camellia viewing meeting was held at the garden of Mr. K. Nagao, Kamakura. (Kamakura is located near Tokyo). Mr. T. Kiyono made a garden tour in European countries.

June:

Mr. George B. Morgan, of the American Camellia Society,

visited Japan.

November: Young plants of 'Miura Otome' (C. japonica) were distributed to members without charge.

Publication of list of 268 members.

19th. A meeting for viewing C, sasangua and studying was held at Jindai Botanic Gardens (recently established by Tokyo Metropolitan Government), Tokyo.

Publication of Tsubaki and News Letter.

Total membership 268.

In this year Mr. T. Oguri, member of Japan Camellia Society, published the leaflet entitled Camellia.

1962 March:

13th to 27th. The Fourth Higo Camellia Show was held at Turuya Dept. Store in Kumamoto City.

17th. Professor and Mrs. E. G. Waterhouse and Mr. Paul Jones, of Australia, arrived in Tokyo for a camellia trail in Japan. They stayed six weeks in Japan and made a research trip in Tokyo (including Saitama), Osaka (including Takarazuka), Kyoto, Nara, Kumamoto and Niigata.

24th. International Camellia Carnival held at Chinzanso Gardens, Tokyo. At the request of Mexico City and also in commemoration of the visit to Japan of the Mexican Song and Dance ensemble, young plants of Camellia japonica were presented by Japan Camellia Society to the Camellia Garden in Mexico City. Young plants were also presented to the members of the diplomatic corps attending the ceremony and were accepted by the Ambassadors of Canada, Ghana and Peru. During the ceremony Mr. K. Ishikawa, President of the Japan Camellia Society, introduced Professor and Mrs. Waterhouse and Mr. Paul Jones to the audience. Camellia Professor Waterhouse, together with Mr. Ishikawa, planted a camellia in commemoration of the occasion.

27th to April 1st. The Annual Camellia Show of Japan Camellia Society held at Mitsukoshi Dept. Store, Tokyo. Princess Chichibu exhibited 'Hatsukari' (syns, 'Setchuka' and 'Little Princess').

Professor Hagiya and his assistant Mr. S. Ishizawa, of Niigata University published their Study on C. rusticana, written in English and illustrated in black-and-white and natural colour.

Kyoto Engei Club published a special issue for camellia entitled Tsubaki vol. 3.

April:

1st—2nd. A camellia show of the Kyoto Garden Club was held at Kangyokan Hall, Okazaki Park, Kyoto. An excellent new variety named 'Gunrei' was exhibited by a

nurseryman, Mr. M. Sato, of Nagoya.

15th. A Camellia and Camellia Bibliography Exhibition was held at Kyoto Botanic Gardens, Kyoto, with the

co-operation of the Kyoto Garden Club.

January:

Japan Camellia Society issued their publication Tsubaki vol. 2, 'About Cultivated Camellia Varieties in Japan, especially on the relationship with Wild Camellias' by Dr. T. Tuyama.

July:

Shiseido Co. Ltd., a leading toilet manufacturer, completed their cinema film entitled 'The Land of Camellias,' and held a test projection. Their trade-mark is a design with a camellia flower.

The Japan Camellia Society with an annual subscription of 500 Yen (Sustaining Members 1000 Yen) publishes its booklet Tsubaki once or twice a year, also periodical Newsletters. Camellia Shows are held once or twice during March and early April in Tokyo. Directors' Meetings and Members' Study-Meetings are held about three times a year. Details of some Japanese Societies are given below:

Japan Camellia Society: President, Mr. Kiyoshi Ishikawa, 5-290 Omiyamae, Suginami-Ku, Tokyo.

Kyoto Garden Club: Representative, Mr. Yoshio Oyokawa, 28, Daishogun Ni-shitakatsukasa, Kita-Ku, Kyoto.

Higo Camellia Society: President, Mr. Taizo Hiratsuka, c/o Sect. of Agricultural Products, Dept. of Agriculture and Forestry, Kumamoto Government Office, Kumamoto City.

Chubu Camellia Society: c/o Mr. K. Kamata, Katahara, Isshiki, Moriyama, Inazawa-Shi, Aichi-Ken.

Toyama-Ken Snow-camellia Club: c/o Mr. M. Takeuchi, 195, Otanaka-Ku, Toyama-Shi.

Handa Camellia Club: c/o Mr. T. Oguri, 3-20, Ginza Hon-machi, Handa-Shi, Aichi-Ken

Higo Sazanka Club: c/o Mr. T. Fujimoto, Suizenji, Kumamoto City.

EDITOR'S NOTE.—Very little is known of the activities of Japanese Camellia Societies which for many years have so greatly contributed to our knowledge of camellias. Mr. Satomi is the author of numerous Japanese camellia articles and of two most informative check-lists of C. japonica and C. sasanqua published in English.

Camellia Culture in Greece

MICHAEL TSOHADZIS

Larissa

Greece

I AM a camelliaphile and this must be made clear for I am neither a scientist nor a horticulturist. I have grown camellias for about fifteen years and bearing this in mind I consented to write about camellia culture in Greece.

Greece is bordered on three sides by the Mediterranean Sea and has two main climatic zones. The coastal regions, the south and the islands have mild winters (with few exceptions) and no excessive temperatures during the summer but the continental part of the peninsular is cold in winter and very hot during summer.

In the colder regions camellias are not hardy and for this reason there are no old plants growing in the public gardens or in the Royal gardens. Another reason why they are seldom seen is that as far as I know no one has worked in this field. To the majority of the people in my country the camellia is unknown for there are no nurseries where they are produced in large numbers.

According to information I have been able to obtain camellias were cultivated here about 80 years ago as decorative pot plants. They were probably brought to Greece from other European countries. Although the colours, forms and sizes of the flowers differed they were all cultivars of *C. japonica*. In 1958 I was able to trace six different unknown varieties, which I describe below:

- (1) A large white formal double flowering at mid-season. Sometimes one petal has a red spot and the flowers do not open fully. It is of upright growth with large very dark green foliage.
- (2) A formal double white striped red which produces very large flowers and often a number of them are completely red. The plant is very strong and vigorous with large green leaves.
- (3) A formal double rosy-red producing many flowers of medium size. Unfortunately they bleach badly in the strong sunlight and discoloration is characteristic of this variety. It is a very strong and vigorous grower.
- (4) A formal double light pink flowering at mid-season and bearing medium size blooms which rarely open. It makes medium growth.
- (5) A semi-double red with a few yellow stamens. The flowers of medium size last only two or three days on the plant, but it is a prolific bloomer at mid-season. The plant is vigorous and has rather narrow leaves.

(6) An anemone form which appears to be 'Elegans.' I hope to check this identification from young plants of this cultivar which I have recently obtained.

Since 1959, on my own initiative, I have imported some of the best camellias from France and Portugal. In 1961 I imported from America small plants of seventy-five varieties including some of the newer introductions. Eight varieties I obtained from Australia in 1962. Also I have secured many seeds of the cultivars of *C. japonica* and *C. reticulata* from the U.S.A. Many of the resulting seedlings have made very good growth and I hope that in a few years I shall have the good fortune to flower some outstanding camellias. Otherwise I shall use these seedlings as stocks for grafting.

The usual method of propagating of camellias in Greece is by mound-layering. Leaf-mould and chestnut soils with a proportion of sand and rotted manure is the compost used in this operation. Grafting is seldom undertaken as we do not have an adequate number of stocks and scions imported from long distances often arrive in a poor condition due to the import regulations and postage delays.

The climate of Larissa is not very favourable for the culture of camellias. Last winter for the first time in forty years we had very severe weather and many plants in my collection were destroyed because they were not adequately protected. Therefore in the future my camellias will be kept in a glass-house, during the winter.

Growing Camellias Without Tears

DOROTHEA W. NEWTON

Kent

United Kingdom

At one time gardening was considered the occupation of two types of people: the cottager and the retired businessman. The cottager we saw, like the proverbial farmers' boy, leaning on the gate most of the day (quite erroneously!) and the retired businessman we saw as pottering among the geraniums. Wearing a panama hat and a white alpaca jacket our business man left all his "rough work" to his "man."

Today, nothing could be further from the truth. Along with our foremost scientists and experimentalists, the gardener has itinerated fresh fields and has burst the balloon of hoary orthodoxy, and a great deal of this endeavour is due to the imagination and experimentation of the amateur. This is often due to his need to improvise, to be forced by circumstances of various kinds, to try out the very opposite of the advice of the orthodox. So it is that some of us are proud to identify ourselves with just this sort of experimentation with the camellia. This shrub, so lovely, so provocatively attractive, has beckoned us on, on, to the point of one-pointed determination

—to find some way now of growing and enjoying it without tears. Now, instead of resigning ourselves to the advice that to grow camellias successfully we must possess a conservatory or grow it in dimness against a north wall, we have discovered to our delight that this fabulous shrub can, in fact, stand much the same treatment as the rhododendron and azalea; we have also found out that we can bring our camellias indoors to flower in our midst while the garden is enshrouded in snow or shrivelling under frosts. Not that this versatile shrub will shrink from British weather; far from it. Where the climate is on the mild side—roughly below the Midlands—the camellia will stand ice, frost and snow and will flower in spite of all three, although, if early sun reaches its petals while still frosted, damage must be expected, especially white-flowering forms. Far from the old conviction that the camellia must, if out-of-doors, be planted against a north wall, it can grow and does, as a hedge, as great tree-like shrubs, and in tubs on a terrace provided that great care is taken that they neither dry out nor get forgotten when the first frosts arrive.

To me, nothing can be more satisfying than to discover that we may enjoy one or two favourite shrubs—in our own homes. Where people are handicapped by health, or merely prefer not to be obliged to snatch a coat and stand shivering outside so as not to miss the fugitive beauty of their camellias blooming in the snow, this discovery can be heaven-sent. Let me tell you how I tackle the matter: I have about a dozen camellias. I started way back in 1954 with 'Adolphe Audusson,' building up my small collection little by little. Camellias are not cheap; their prices bring them into the luxury class, but—and this is the joy—once we get the hang of raising our own from cuttings and seeds, we have started off on a long and fascinating path of experimentation, trial and error, discovery and recovery. The more confining our means, the more trying our limitations, somehow we climb these ladders by ways and means. This is what I did.

Knowing next to nothing, I read, asked questions, and by way of trial and error discovered how to raise my own plants from cuttings and from seeds. Eventually I found that camellia seeds responded well by packing in moist sphagnum moss or peat, placed either in glass sweet jars or polythene bags, and kept in a warm position such as on the refrigerator in the kitchen, or in the case of polythene bags hung from kitchen pipes to swing in warm air. After a few weeks the white rootlets would be seen searching for the sides of the containers; it was then that I transferred the germinated seeds to thumb pots, dropping over each a small polythene bag, allowing this bag to stand loosely on the dish on which stood the pot. Little by little, as the seedling grew, the bag was removed for longer periods and eventually dispensed with. All this was done on a kitchen or study window-sill. As soon as the plant was about four to five inches high I placed it out of doors in my "nursery bed"—a sheltered position, dappled with sunlight.

Cuttings were a problem; it took time to get the hang of it. I tried the top of the refrigerator, window-sills and seed-boxes in a box-room, to no avail. It was when I tried two different methods success was arrived at: I used flat-topped, barn-cloches against a West wall in a moist part of our garden, inserting rows of cuttings in prepared soil, covering the top lights with sacking at night and in cold weather. Hardy, really good cuttings resulted, though more were lost than saved. But the best way I have yet

used is the splendid "indoor garden" propagator I discovered. This comprises a couple of gravel trays kept moist and warm with water and a heater tape and lit overhead by fluorescent lighting. Compact and standing on top of a handy surface in my study, it holds some 16 to 20 plant pots. At the back, and somewhat shaded by taller plants, I have batches of cuttings doing remarkably well. Using the new composition pots which themselves conserve warmth and water, I have greater all-round success this way.

My full-size, flowering camellias are each kept in pots of sizes suitable to their age, and sunk out of doors in dappled sunshine during the summer. I find that they will stand greater amounts of sunshine as they grow but that camellia leaves tend to brown this way, and therefore I choose a position which receives adequate shade especially at mid-day. Regular hosing of the leaves and buds is carried out during this time, also mulching and feeding. With the first frosts the camellias are introduced to the house via a short stay in the porch. Then up onto stools and a deep window-sill on our upstairs landing, where a movement of air can be relied upon and reasonable lighting. Here the shrubs regularly flower in profusion, to be admired by everyone in the house. Daily syringing, an occasional washing-over the leaves with soapy water and a fortnightly feed with liquid seaweed fertiliser is all that is necessary.

Even when the flowers are over, the camellia makes an attractive and graceful show with its glossy foliage. I would particularly recommend 'Latifolia,' 'Lady Clare,' and the varieties of *C. sasanqua* which tend to throw out graceful branches and so need little cutting back, as for instance 'Adolphe Audusson' does need occasionally.

When the colder weather has retreated I once more sink each pot outside with the happy thought that they will now get to work producing new leafage and next year's glorious blossom.



Camellias in Canada



This very fine specimen of *Camellia japonica* 'Cheerful' is growing in the garden of Mr. A. J. Ingram, Old West Road, Victoria, British Columbia. It was planted 35-40 years ago and has attained a height of 18 feet and a width of 7 feet. It is a prolific bloomer and when in full bloom is a mass of rose-red flowers. Normally it flowers from February till May, but several times during the past sixteen years it has produced blooms during January. Mr. Ingram has other camellias in his garden and must be congratulated on growing such fine specimens so far north.

Camellias in a London Garden

PETER GOTTS

Surrey

United Kingdom

THE culture of camellias in a London garden is not the arduous task many people think. They have a very long flowering period and by the careful selection of varieties, camellias can beautify the garden for seven months of the year. The season commences with the varieties of C. sasanqua in September and ends with the late-flowering C. japonica cultivars in May. Throughout the winter months C. x williamsii produces a good display whenever the weather allows.

In London the aspect does not matter too much and we have camellias in shade and full sun doing equally well. Our soil is a heavy clay which is improved by the addition of well rotted manure, peat and leaf-mould. Leaves are also used as a mulch.

I consider that correct planting and watering are two of the most important factors in the successful cultivation of camellias. Camellias must be soaked before planting at the correct depth and being well firmed. Always handle young camellias by the ball and not by the branches. After planting keep the soil quite moist but not waterlogged and do not leave a depression at the base of stem where water can collect. Camellias properly planted will last for at least a hundred years.

The greatest disadvantage of growing camellias in the London area are the fogs, which leave a sticky oily deposit on the leaves. This is most persistent and if hosing fails, it may be necessary to sponge the foliage. It is worth any trouble to see the lovely green leaves shining again.

Snow can be troublesome and during the terrible winter of 1962-63 much damage was caused by the weight of snow splitting the branches. I found that by careful binding into their old positions many stems calloused over and made a complete recovery. Flower buds dropped and also some growth buds and the bitter east winds browned the foliage of some varieties. The soot deposit was exceptionally bad.

Camellias flower extremely well under our adverse conditions and I would recommend the following for culture in large towns: 'Adolphe Audusson,' 'Elegans,' 'Peachblossom,' 'Daikagura,' all of the hybrid group C. x williamsii and C. sasanqua 'Showanosakae,' 'Hugh Evans,' 'Sparkling Burgundy,' 'Snowflake' and 'Pale Moonlight.' We have about 280 varieties of C. japonica and 60 varieties of C. sasanqua, so there is plenty of choice. In addition we have C. reticulata and several C. x williamsii.

I hope that my article will encourage others in London to grow camellias. They should be more popular but only hard work and thorough cultivation with attention to all minor points will bring success.





Above: Camellias in a London garden.

Left: Camellias under snow 1962-63 winter.

Book Reviews

You Can Grow Camellias by Mary Noble and Blanche Graham, 257pp. 61 illustrations plus 6 four-color plates. Harper & Row, Inc., 49 East 33rd St., New York 16, N.Y. U.S. \$7.50.

Camellias in bloom over half of the year? You can do this, say the authors of You Can Grow Camellias, a new book published by Harper & Row for amateur gardeners everywhere.

The authors, both of whom are gardeners and garden writers, have compiled their experiences and the recommendations of camellia growers in several countries to present a volume that will help other gardeners to grow camellias successfully. Special emphasis is allotted to difficult climates, and to extending the blooming season, for encouragement to those who live beyond the usual outdoor range of camellias.

A great deal of information is included about the hybrids, since the authors apparently feel that they have a great future, and will help to widen the geographical range and the flowering season of camellias.

There is detailed information on major and minor cultivated species, relatives of garden camellias, and how to use the blooms in decoration or corsages. Cultural information gives specific recommendations for preparing soil, planting, fertilizing, mulching, and disbudding. Adaptations for plants in containers or greenhouses are detailed.

A Roll Call of Cultivars divides plants by colors, within the species, to aid the gardener in making selections. This listing guides in choosing for blooming periods, flower types, plant habit, and special situations.

The international character of the camellia is brought out in this book, where information has been gathered from around the world and is adaptable to any country. The travel chapters are a guide to tourists visiting other lands.

An original painting by artist Lee Adams of *Camellia japonica* 'Blanche Graham' forms the jacket design and the frontispiece. Line drawings by Marion Ruff Sheehan illustrate how-to-do-it phases of camellia culture.

Both authors live in Jacksonville, Florida. Blanche Graham (Mrs. James S. Graham) has exhibited her blooms in shows in Florida and neighbouring states. (Miss) Mary Noble is known at home and abroad as an amateur orchid grower, whose paperback book You Can Grow Orchids guides hobby growers in the United States, Europe, and Asia She appeared on the program of the Fourth World Orchid Congress in Singapore in October, 1963, and visited camellia growers in that area while in the South Pacific.

FRANK REED.

How to Grow and Use Camellias (Revised Edition) by Sunset Magazine. Published by Lane Book Co., Menlo Park, California, U.S.A. \$1.95.

To sum up in a few words what I think of this book as it tells simply and practically "How one can really enjoy and use camellias for many purposes"—

This is one of the best well-rounded compilations on camellias and how to enjoy them, and how to get the most from the camellia plant.

A book excellent for the beginner as it teaches good culture and care in a practical and sound way. For the person just laying out or starting to landscape his garden, the book is just running over with ideas in words and pictures, and a beautiful garden can result from the instructions contained therein.

The selection of varieties and the use of species other than *C. japonica* are amply and fairly covered. If one follows the instructions and suggestions, I do not believe he can go very wrong with the use of camellias.

Another interesting point of the book is the fact that it is an excellent review to the advanced gardener or camellia expert, as it reminds us of some of the little points we tend to overlook in our zeal when caring for our collections. The language is simple, complete, and yet understandable for either the gardener, landscape architect, amateur grower, or the advanced hobbyists.

The book is prolific in practical illustration, used mostly to explain methods of growing or using the camellia. Yes, there are some colored illustrations of the better varieties and species, and showing a display of various colors and combinations of colors found in the camellia.

One most important chapter is the one on how to choose a good healthy plant and why. This can not be overstressed too much, and many of us make this mistake when we know better, as we sometimes seek newer varieties. This one chapter alone will repay the cost of the book.

I believe I should conclude by giving the table of contents, with my opinion in quotation marks.

- 1. Meet the Camellia—"Excellently done."
- 2. Choosing a Quality Camellia—"So often overlooked. And you are buying a root system."
- 3. How to Plant—"A must for good result. It is better to have a \$10.00 hole for a \$1.00 plant than a \$1.00 hole for a \$20.00 plant."
- 4. Caring for your Camellias—"So practical."
- 5. Color Section of Favorite Varieties—"A pleasing section."
- 6. Landscaping with Camellias—"Not done often enough."
- 7. How to Control Pests and Disease—"Practical and sound—a Must."
- 8. How to Propagate Camellias—"Can be fun and advice is sound."
- 9. Flower Arrangements and Corsages—"Explains various uses and ways to enjoy your blooms after all your work."

- 10. A Camellia Encyclopaedia—"An excellent list and practically covered in sufficiency."
- 11. Index—"Good in any book."

After reading all of the above you must now feel you can not afford such a book. However, you can not afford to be without, at the price of \$1.95, maybe a little more overseas.

This is the best buy in camellia literature, and if you follow its advice you can not be anything but pleased with your results.

EDWARDS H. METCALF.

Camellias for Everyone by Claude Chidamian, Revised English Edition, Faber and Faber, 24 Russell Square, London. 30/-.

Many members will be familiar with the first edition of this book which was published in the United States in 1959. This "English" version has been revised and edited by Mr. C. D. Brickell, botanist at the Royal Horticultural Society's Gardens at Wisley.

The advice given throughout is of a simple practical nature with chapters devoted to planting, subsequent cultivation both outdoors and under glass, propagation, pests and diseases, camellia arrangements in the home, together with a short history of camellias and their value in the garden. The chapter devoted to the selection of varieties, although dealing with some of the modern hybrids and the Yunnan cultivars of *C. reticulata*, confines the choice of *C. japonica* varieties to a dozen or so well known old favourites and their mutations. Whilst these would form an excellent nucleus for a collection, most beginners soon wish to have guidance as to the best of the more modern camellias.

The illustrations are new but those in colour are not very effective. One showing the potting of cuttings on an upturned box illustrates an elementary practical error. It is always difficult to edit a work written primarily for the United States but in this Mr. Brickell has been successful and the revised nomenclature is of a high standard. This new edition should appeal to everyone.

CHARLES PUDDLE.

The Camellia Book by John Threlkeld, D. Van Nostrand Co. Inc., Princeton, New Jersey, U.S.A. \$7.75.

It is fortunate, particularly for the serious amateur, that *The Camellia Book* by John Threlkeld has been published. The thoroughness in which each chapter has been covered leaves no doubt in the reader's mind how to proceed in the cultivation of the genus *Camellia*.

Only a person with great experience can write a chapter so controversial as "The best plants for your money," because when you select the ten best varieties for all areas and others for certain purposes from the confusion of present day camellia nomenclature, you have performed a fine service, especially for the beginner.

Companion plants is another subject seldom explored which is skilfully condensed . . . while written primarily for America, I see no serious defects that might lead to misinterpretation in other latitudes.

This volume will long stand as a fine reference book for camellia culture. John Threlkeld is to be congratulated.

FREDERIC HEUTTE.

1000 Named Camellias in Australia, 1962, by L. Outteridge. 45pp. 7/6.

This consists of an alphabetical list of camellia names, each followed by code letters indicating their colour, form, size and flowering season. Admirable in conception the work is yet marred by numerous errors, some of which were corrected after publication in an Errata sheet inserted in unsold copies of an edition limited to 100. While pointing out that there are numerous errors I do not wish to damn the work, but rather to incite the author to a revised and corrected edition of what would be a contribution of very considerable value.

The catalogue of names is followed by a classified list according to form and colour. There is some discussion of synonyms, of nomenclature, of mutations, related cultivars and other matters of interest.

E. G. WATERHOUSE.

The American Camellia Yearbook, 1962-63 and 1964 Editions. American Camellia Society, Tifton, Georgia, U.S.A.

Since 1946 the Yearbooks of the American Camellia Society have maintained a very high standard and each edition is eagerly awaited. The two latest editions published in December 1962 and December 1963 are both excellent volumes.

There are articles for all tastes. For instance in the 1962-63 issue there is a reprint of 'Studies on Snow Camellia' by Professor Hagiya and S. Ishizawa, 'Strains of the Color-breaking virus of Camellia' by Professor A. G. Plakidas, 'Developing Cold Resistant Camellias' by Dr. Francis de Vos, and 'Camellia Cold Resistance' by Wendell M. Levi, who again reviews the same subject in the 1964 volume. What could be more topical after the winters of recent years?

The 1964 edition contains tributes to Mr. Dave Strother, who has done so much for camellias and to the hybridization work of Mr. Howard Asper. 'Camellia Breeding Progress Report' by A. E. Langley and C. R. Parks, and 'The Treatment of Camellia buds with Gibberellic Acid' by Dr. Herbert Racoff are articles of special interest. Mr. J. Carroll Reiners has some interesting suggestions in 'Ground Cover for Camellias,' although many will not agree with his recommendation of Bishop's Weed and Helxine soleiroli, which are very evasive in all but dry areas.

The American Camellia Society is to be congratulated and long may the Yearbooks continue.

CHARLES PUDDLE.

The Rhododendron and Camellia Year Book, 1693 & 1964 Editions. Royal Horticultural Society, London. 1963, 12/6 (\$2.00). 1964, 15/- (\$2.50).

In both these numbers, camellia articles are rather overshadowed by the space devoted to rhododendrons, a tendency which has been apparent since the first combined edition appeared in 1954. In the 1963 edition Mr. Arthur Turner deals with 'The Relative Frost Resistance of Camellias grown at Wisley' and Colonel T. Durrant describes 'Historical Camellias of New Zealand.' Sir Giles Loder has some interesting observations on his tour of the Gulf Coast of the United States.

Mr. Reginald A. R. Try gives an account of old camellias growing in his garden at St. Leonard's Hill, Windsor, in the 1964 Yearbook. Sir James Horlick writes from first-hand experience on 'Growing Camellias off the South West coast of Scotland' and comes down heavily on the side of C. x williamsii. Mr. P. Wiseman deals with the propagation of camellias, and Mr. T. H. Findlay gives his comments on the Kunming forms of C. reticulata based on the fine collection at Windsor. Other short notes and reports of the Camellia Competition appear in both volumes.

For anyone like myself, who is interested in both rhododendrons and camellias the Yearbooks are a "must." I hope, however, that in future editions camellias will be more equally featured.

CHARLES PUDDLE.

Camellia Nomenclature, Ninth Revised Edition, 1964. Southern California Camellia Society Inc., 820 Winston Avenue, San Marino, California. \$2.25.

The latest edition of this most popular nomenclature book has been completely revised and information has been added concerning the source of the majority of *C. japonica* cultivars. The country of origin, name of introducer or originator and date of introduction or publication is given. In the case of many overseas varieties the date given is that of introduction into the United States, rather than a reference to the original publication. As in previous issues, names which have become popular in the United States are retained in some instances in preference to the valid name which may be in general use in the country of origin and elsewhere. This procedure is qualified in the introduction, but the book would be of even greater universal value if the International Code of Nomenclature was followed without local modification. But these are really minor criticisms and the Southern California Camellia Society and particularly Mr. Woodroof and his Committee are to be congratulated on making this most valuable book available for reference by everyone interested in camellias.

CHARLES PUDDLE.

Tsubaki by Eikichi Satomi. 1963. 70 Yen.

This interesting work is written entirely in Japanese. It deals with many aspects of camellia culture and contains a list of old Japanese and Chinese camellia literature. There are chapters on the origin of the word tsubaki, the Chinese names for C. reticulata and C. japonica, tsubaki and its luck,

distribution of *tsubaki* in Japana, cultivars of camellias in Japan, camellia culture in foreign countries and the future of camellia culture in America. The author is acknowledged to be one of the foremost camellia writers in Japan and is to be congratulated on this book.

CHARLES PUDDLE.

Azaleas and Camellias. Norfolk Botanical Quarterly, Vol. 1, No. 1. Summer, 1963. Norfolk Botanical Garden, Norfolk, Virginia, U.S.A.

One of the finest camellia collections in the world has been established at Norfolk chiefly due to the great enthusiasm of Mr. Frederic Heutte, the Director of the Botanical Garden. Twenty thousand camellias in over seven hundred varieties are already planted in the 150 acres of the garden at present developed. This booklet contains advice on all cultural problems, selection of varieties, propagation, pests and diseases, based on the practical experience gained in assembling this vast collection. A full list of camellia cultivars growing in the garden is given. The handbook is well illustrated and the section devoted to azaleas is of equal interest.

CHARLES PUDDLE.



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