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KOKUSAI TSUBAKI KAISHI
LE JOURNAL INTERNATIONAL DU CAMELLIA
RIVISTA INTERNAZIONALE DELLA CAMELIA
INTERNATIONALE ZEITSCHRIFT FÜR KAMELIEN
REVISTA INTERNACIONAL DA CAMÉLIA
INTERNATIONAL CAMELLIA TUDSCHRIFT



AN OFFICIAL PUBLICATION OF THE INTERNATIONAL CAMELLIA SOCIETY



I.C.S. Lake District Conference — presentation to Mrs Hugh Cavendish (see p.28)

I.C.S. Lake District Conference in the garden at Holker Hall — the Editor in foreground (see p.28)





International Camellia Journal

No. 18 OCTOBER 1986

An Official Publication of The International Camellia Society

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A Message from the President

JOHN TOOBY

You will notice the Journal this year is of a different format to past editions, this alteration brings our Journal into line with other horticultural publications and will also be a financial saving. The quality of the new publication will be of the same high standard as in previous years. The merits of last year's excellent number were overshadowed by the delays in its delivery which were due to a series of mistakes by the British Post Office. I have received an apology from the Post Office and the promise of compensation which includes reprinting costs.

The functioning of this Society depends very much on the hard work and enthusiasm of a small number of people and of these none are more important than our Membership-Representatives. I am sorry that so much of their time has been wasted in chasing last year's Journals and offer them our apologies and thanks. Our Registrar, former President, Tom Savige is working extremely hard to complete the Register which will include all known camellia names and run to about, 2,800 pages. Publication is planned for 1989.

As I write, Nancy and I are looking forward to the International Congress in Sydney. We are most grateful to Eric Craig, Nance Swanson and their helpers for planning and running another memorable event.

Our Executive continues to work hard and we are most grateful also to them for their efforts as we are to our Directors on whom we rely for guidance and support.

We welcome all our new members and particularly our large new membership in Germany where congratulations are due to Klaus Hacklander on his achievement so far.

The recent run of cold winters in the U.S.A. and western Europe must make many more of us aware of the problems of growing camellias in a cold climate and the Germans may have something to teach us in this field. As we approach Silver Jubilee year I send fraternal greetings to all the many Societies large and small who are devoted to camellias.

I think particularly of the American Camellia Society who in their fortieth anniversary year have lost their popular and capable Executive-Secretary Milton Brown, a former Director and Vice-President of this Society.

To each and every member of the Society Nancy and I send our warmest Christmas greeting and all good wishes for 1987.

With your help and support we look forward to working together for the future benefit of the Society.

Un Mensaje del Presidente

JOHN TOOBY

Los lectores advertirán que este año la Revista ha cambiado de formato con respecto a las ediciones anteriores. Este cambio pone concorde a nuestra Revista con otras publicaciones hortícolas y además ofrece ciertas ventajas económicas sin sacrificar las elevadas normas de calidad de los años anteriores. Los méritos del excelente número del año pasado fueron eclipsados por los retrasos en su entrega, los que fueron ocasionados por una serie de errores por parte de la Administración Británica de Correos. La Administración nos ha pedido disculpas y nos ha prometido una compensación, la que incluye los gastos de reimpresión.

El buen gobierno de esta Sociedad depende en gran parte del trabajo y entusiasmo de un número reducido de personas, y entre las más importantes se hallan los Representantes-Miembros. Siento mucho que ellos hayan perdido tanto tiempo en la búsqueda infructuosa de las revistas del año pasado y deseo expresarles nuestras excusas y gracias. Nuestro Registrador y antiguo Presidente, Tom Savige, está trabajando duro para completar el Registro, el que incluirá todos los nombres conocidos de las camelias y llegará a unas 2.800 páginas. La publicación de esta obra se ha proyectado para 1989.

En el momento de escribir estas líneas, Nancy y yo estamos esperando con mucho interés asistir al Congreso Internacional que tendrá lugar en Sydney. Estamos muy agradecidos por todos los esfuerzos que han hecho Eric Craig, Nance Swanson y sus ayudantes para proyectar y organizar otro evento que sin duda será memorable.

Nuestro Consejo de Dirección sigue trabajando con afán y agradecemos tanto sus esfuerzos como los de nuestros Directores y, como siempre, confiamos en su valioso apoyo y asesoramiento.

Damos una cordial bienvenida a todos los nuevos miembros y en particular al gran número de socios alemanes, por cuyo ingreso Klaus Hacklander merece nuestras felicitaciones.

La última serie de inviernos fríos en los Estados Unidos y Europa Occidental ha puesto de manifiesto los problemas relacionados con el cultivo de la camelia en un clima frío, y los alemanes tienen mucho que enseñarnos en este campo. Al aproximarse nuestro Jubileo de Plata, les envío saludos fraternales a todas las sociedades, grandes y pequeñas, que se dedican al cultivo de la camelia.

Estoy pensando especialmente en la Sociedad Norteamericana de la Camelia que en su cuadragésimo aniversario ha tenido la desgracia de perder a su popular y capaz Secretario Ejecutivo Milton Brown, antiguo Director y Vicepresidente de la Sociedad.

Nancy y yo les deseamos a todos los miembros de la Sociedad una feliz Navidad y un próspero Año Nuevo.

Contamos con su ayuda y apoyo en el futuro para que todos podamos seguir trabajando en provecho de nuestra Sociedad.

Un message du Président

JOHN TOOBY

Vous aurez remarqué que, cette année, le format du Journal diffère des numéros précédents, aux fins d'économies et de conformité avec les autres publications consacrées à l'horticulture. La qualité de cette nouvelle publication n'en demeurera pas moins aussi bonne que par le passé. Les mérites de l'excellent numéro de l'an dernier ont pâti d'une série d'erreurs de la part des services postaux britanniques, qui ont entraîné de nombreux retards. Le "Post Office" m'a adressé des excuses et une promesse de compensation, y compris les frais de réimpression.

Le succès de notre Société dépend beaucoup des efforts assidus et de l'enthousiasme de quelques personnes, parmi lesquelles les plus importantes sont celles qui représentent nos membres. Je suis désolé qu'elles aient perdu tant de temps à "poursuivre" le Journal de l'an dernier, et je leur présente nos excuses et nos remerciements. Notre Directeur du Registre — et ancien Président — Tom Savige est en train de travailler très dur pour terminer le Registre, qui incluera tous les noms de camélias connus et comptera environ 2.800 pages. La publication est prévue pour 1989.

Actuellement, Nancy et moi-même nous réjouissons à l'avance d'assister au Congrès International à Sydney. Nous sommes extrêmement reconnaissants à Eric Craig, Nance Swanson et leurs aides d'avoir organisé et planifié un autre événement mémorable.

Notre comité exécutif continue à travailler dur et nous exprimons toute notre gratitude à ses membres, ainsi qu'à nos Directeurs, pour leurs conseils et appui sur lesquels nous comptons tant.

Nous accueillons chaleureusement tous nos nouveaux membres et, en particulier, ceux d'Allemagne — félicitations à Klaus Hacklander pour son succès à ce jour.

Les hivers froids dont ont récemment souffert les U.S.A. et l'Europe Occidentale nous ont rendus plus conscients encore des difficultés inhérentes à la culture des camélias dans un climat froid, et les Allemands auront certainement beaucoup à nous enseigner à cet égard. A l'approche de notre Jubilé de 25 ans j'adresse un message fraternel à toutes les sociétés, petites et grandes, qui se consacrent aux camélias.

Je songe en particulier à l'American Camellia Society qui, en cette année de son quarantième anniversaire, a perdu son Secrétaire-Exécutif compétent et apprécié, Milton Brown, ex-Directeur et Vice-Président de cette Société.

Nancy se joint à moi pour vous offrir à tous nos voeux les plus chaleureux pour Noël et l'Année 1987.

Avec votre aide et votre appui, nous continuerons à faire tout notre possible pour garantir le succès de notre Société.

Messaggio del Presidente

JOHN TOOBY

Avrete già notato che questo giornale ha quest'anno una forma editoriale diversa rispetto al passato, per renderlo conforme alle altre pubblicazioni di orticoltura e per rendere inoltre possibile un risparmio finanziario. La nuova pubblicazione sarà di alta qualità, pari a quella del suo predecessore. Il numero dell'anno scorso era di qualità eccellente ma ha però sofferto di ritardi nelle consegne dovuti a vari errori da parte delle Poste Britanniche, che si sono già scusate con me promettendo di pagare un indennizzo che comprenderà i costi di ristampa.

L'attività di questa Associazione dipende in larga misura dalla grande capacità di lavoro e dall'entusiasmo di poche persone ed in primo luogo dei Rappresentanti degli Iscritti. Essi hanno purtroppo dovuto perdere gran parte del tempo a loro disposizione per rintracciare le copie del Giornale dell'anno scorso e per esprimere scuse e ringraziamenti. Il nostro Segretario Tom Savige, che fu già Presidente, sta dandosi molto da fare per completare il Registro che in 2800 pagine comprenderà tutti i nomi di Camelia conosciuti e che si pensa verrà pubblicato nel 1989.

Al momento di scrivere queste note Nancy ed io stiamo preparandoci con molto piacere al prossimo Congresso Internazionale di Sydney. Siamo molto riconoscenti a Eric Craig, Nance Swanson ed ai loro collaboratori che si sono incaricati di preparare e di gestire questo ulteriore memorabile evento.

Dobbiamo poi ringraziare i membri del nostro Esecutivo per l'impegno nello svolgimento del lavoro, ad anche i nostri Direttori su cui contiamo per ottenere consigli ed aiuti.

Diamo il benvenuto a tutti i nostri nuovi membri ed in particolare ai numerosi nuovi iscritti in Germania, dove Klaus Hacklander merita le nostre congratulazioni per tutto ciò che è riuscito ad ottenere finora.

I freddi inverni che si sono succeduti di recente negli U.S.A. e nell'Europa occidentale hanno accresciuto in molti di noi la consapevolezza dei problemi relativi alla coltura delle camelie nei climi freddi, un soggetto questo su cui i tedeschi avranno probabilmente qualcosa da insegnarci. Ci stiamo avvicinando all'anno del Giubileo d'Argento e desidero pertanto mandare i miei auguri fraterni a tutte le piccole e grandi Associazioni che si occupano di camelie.

Sto pensando particolarmente all'Associazione Americana della Camelia che, nel suo quarantesimo anno di attività, ha perso l'abile e benvenuto Segretario Esecutivo Milton Brown che già fu Direttore e Vicepresidente di questa Associazione.

Nancy ed io vogliamo poi esprimere ad ogni singolo iscritto della Associazione i nostri più affettuosi auguri di Buon Natale e di Felice Anno Nuovo per il 1987.

Saremo molto lieti di lavorare insieme con il vostro aiuto ed il vostro contributo per il bene futuro dell'Associazione.

Botschaft des Präsidenten

JOHN TOOBY

Wie Sie sehen, erscheint das Journal dieses Jahr in einem neuen Format. Mit dieser Neuerung gleicht sich unser Journal anderen Gartenbau-Publikationen an und erzielt überdies eine finanzielle Einsparung. Die Qualität der neuen Veröffentlichung entspricht selbstverständlich voll und ganz dem hohen Standard der vergangenen Jahre. Die Vorzüge der hervorragenden Ausgabe des letzten Jahres wurden allerdings durch Verzögerungen in der Auslieferung beeinträchtigt, die auf eine Reihe von Fehlern bei der britischen Post zurückzuführen waren. Ich erhielt eine Entschuldigung von der Post sowie die Zusage einer Entschädigung einschließlich der Kosten für den Neudruck.

Das reibungslose Funktionieren unserer Gesellschaft ist in hohem Maße von der unermüdlichen Arbeit und Begeisterung einer kleinen Gruppe von Menschen abhängig, darunter im vordersten Glied unsere Mitgliedschaftsvertreter. Es tut mir daher sehr leid, daß sie so viel Zeit darauf verschwenden mußten, dem Journal des letzten Jahres nachzujagen, und ich bitte sie, unser Bedauern und unseren Dank entgegenzunehmen. Unser Registrar, Altpräsident Tom Savige, arbeitet unablässig an der Fertigstellung des Registers, das die Namen aller bekannten Kamelien enthalten und rund 2 800 Seiten umfassen wird. Das Erscheinen ist für 1989 geplant.

Während ich diese Zeilen schreibe, sehen Nancy und ich bereits dem Internationalen Kongreß in Sydney entgegen. Wir sind Eric Craig, Nance Swanson und ihren Helfern für ihre Arbeit mit der Planung und Organisation einer weiteren denkwürdigen Veranstaltung äußerst dankbar.

Unser Vorstand leistet nach wie vor hervorragende Arbeit, und wir danken den Vorstandsmitgliedern für ihre Tätigkeit wie auch unseren Direktoren, deren Rat und Unterstützung wir nur ungern missen würden.

Wir begrüßen alle neuen Mitglieder in unserer Mitte, insbesondere unsere umfangreiche neue Mitgliedschaft in Deutschland, wo Klaus Hacklander zu seinen bisherigen Leistungen zu beglückwünschen ist.

Die kalten Winter der letzten Jahre in den Vereinigten Staaten und in West-Europa haben zweifellos vielen unter uns die Problematik der Kamelienzucht in einem kalten Klima zum Bewußtsein gebracht, und möglicherweise können wir in dieser Beziehung von unseren deutschen Kollegen etwas lernen. Angesichts des herannahenden Silberjubiläums gehen meine herzlichsten Grüße an all die vielen großen und kleinen Gesellschaften, die sich den Kamelien verschrieben haben.

Ich denke insbesondere an die Amerikanische Kamelien-Gesellschaft, die im vierzigsten Jahr ihres Bestehens von ihrem beliebten und tüchtigen Sekretär, einem ehemaligen Direktor und Vize-Präsidenten unserer Gesellschaft, Milton Brown, Abschied nehmen mußte.

Allen unseren Mitgliedern senden Nancy und ich unsere herzlichsten

Weihnachtsgrüße und alle guten Wünsche für 1987.

Mit Ihrer Hilfe und Ihrer Unterstützung werden wir auch in den kommenden Jahren zum Wohle der Gesellschaft zusammenarbeiten.

会長からのメッセージ

ジョン・トウービィ

すでにお気付きのことと思いますが、今年のジャーナルは従来のもものと比べて多少体裁がちがいます。この変更によって、他の園芸関係出版物と同じような判型になり、経費の節減にもなります。新しいジャーナルの質は今までどおり高く、何の変わりもありません。英国郵便局の手ちがいで発送に遅れが出て、昨年はせっかくのすぐれたジャーナルのメリットがそこなわれてしまいました。郵便局から陳謝状とともに、再版コストを含む補償の約束が私の手元に届いています。

この会の運営にあたっては、少人数からなるグループの熱意と勤勉さに負うところが大きいのです。なかでも最も重要なのが会員で代表になっておられる方々です。この人たちが、昨年のジャーナルを追跡したり陳謝の手紙を出したりすることに多くの時間をついやさねばならなかったことは、非常に残念なことでした。記録係で前会長のトム・サヴィジは、椿の全種をおさめた2800ページにのぼる名簿を作成するため、日夜努力を続けております。この名簿の出版は1989年の予定です。

妻のナンシーも私も、シドニーで開かれる国際会議を楽しみにしています。こうしたすばらしい催しの計画と開催へのはこびに尽力して下さった、エリック・クレイグ、ナンス・スワンソン、その他の協力者に対して謝意を表したいと思います。

役員活躍についても、その努力に対して感謝するとともに、理事の方々の指導と支援に対しても心からの感謝を捧げたいと思います。

新しい会員の方すべて、とくにドイツから新しく会員になられた多くの方々を歓迎したいと思います。この多数入会はクラウス・ハックランダーの功績です。

アメリカ合衆国および西ヨーロッパでは近年寒い冬がつづいており、寒い気候の中で椿を育てるにはどうしたらいいのかに関心が集まっておりますが、ドイツの会員がこの点について何かいいことを教えてくれるかも知れません。25周年を迎えるにあたって、椿の愛好家からなる大小さまざまな協会に、友愛のごあいさつを送ります。

とくに今年40周年を迎え、当協会の理事、副会長をつとめられ、人望が厚く、有能な幹事ミルトン・ブラウンを亡くしたアメリカ椿協会に哀悼の意を表したいと思いません。

協会の会員の方々にすべてに、私と妻のナンシーからクリスマスと新年のごあいさつを申しあげます。

会員の皆様の御助力と御支持により、協会が今後ますます発展することを願ってやみません。

A Note from the Editor

Una nota de la Directora

Un mot de l'éditeur

Dalla redazione

Ein Wort der Herausgeberin

Members will, I hope join with me in marking the Silver Anniversary of the International Camellia Society — Twenty Five Years of friendship and enjoyment with a worldwide membership drawn together, in the admiration, care and betterment of the Camellia — The Society has every reason to look forward with confidence to a very successful future — your journal has a new look and you have a new editor too.

I must express my gratitude to those members who have contributed articles of great interest for the Journal; and to those members who have written words of encouragement.

To your previous editor, I am appreciative of his co-operation and support.

To Major Walter Magor I offer my sincere thanks, for his support, assistance, understanding and kindness to me, at a rather difficult time.

JO FREEMAN

ATTENTION: Membership Representatives

Only names and addresses of NEW members with any change of address, status, etc. of existing members will be published in the 1987 Journal (see Board of Directors' decision Brighton Congress 1985). Membership lists to be with the membership registrar by

JUNE 1ST 1987 — FULL LISTING OF MEMBERSHIP

will be published in the 1988 Journal.

New Society Officers

Nouveaux membres du bureau de la société

Nuevos funcionarios de la Sociedad

Nuovi dirigenti dell'Associazione

The New Editor — Mrs. D. M. Freeman

La nueva Directora: Sra. D. M. Freeman

La nouvelle éditrice — Mme. D. M. Freeman

Il nuovo redattore capo, signora D. M. Freeman

Die neue Herausgeberin — Mrs. D. M. Freeman

After producing three first class journals, Kenwyn Clapp felt that, with the election of a new President, the time had come for him to retire from the editorship, and Jo Freeman nobly volunteered to take his place. She has been an active member for a number of years, both of the I.C.S. and of the R.H.S. Rhododendron & Camellia Group, participating in many of their garden tours, usually accompanied by her neighbour, Mrs Mary Chapman. She played a major part in the organisation of the Conference in Cornwall in April 1984, when Mrs Chapman decorated the Great Western Hotel in Newquay so beautifully with camellias. She also served a term on the Executive Committee of the Cornwall Garden Society. For many years, Mrs Freeman worked as an Auxiliary Coastguard in Cornwall, which she found to be an efficient organisation.

Jo Freeman has not had an easy time in her first year as editor. Tucked away towards the back of the 1985 Journal, not many of the regional Membership Representatives seem to have realised that lists of new members were required for inclusion in the Journal, and the Membership Registrar had retired, so there was nobody to remind them, until Jo Freeman did. The returns, when they did come in, required a good deal of sorting out; several regions seem to have enrolled new members from other parts of the world, and two sent in complete lists of all their members. Three contributors had sent in accounts of the same tour. Then, in the middle of all the bustle of checking galley proofs, Jo suffered a sudden, sad bereavement, but in spite of it all, she has struggled on, and devoted a great deal of her time to the production of this journal.

Acting Treasurer

Tesorero interino

Trésorier intérimaire

Sostituto Tesoriere

Geschäftsführender Schatzmeister



Peter Reynolds left Blundell's School, Tiverton, Devon with 11 'O' Levels and 3 'A' Levels in July 1983.

In August 1983 he followed his older brother John into the National Westminster Bank, where he has been selected for Management Training.

He is a devoted Camellia enthusiast.

When study for Bank exams permits, he spends much of his spare time helping his father, who is Branch Organiser of the R.H.S. Rhododendron and Camellia Group for the S.W. of England. Together they are developing a Woodland Garden, which now has over 800 varieties of Rhododendron and Camellia, mostly very young plants. A great deal of propagating, clearing, and planting out is done throughout the year, and Peter devotes his special attention to the Camellias.

Guan Kaiyun of the Kunming Institute of Botany, on his recent visit from China to the U.K., was able to visit the collection en route for Cornwall.

Peter was born in Sierra Leone and has travelled widely.

He was invited to take over the appointment of Honorary Treasurer in succession to Mrs Bowskill, who wishes to relinquish the office, and he is willing to serve for the remaining two years.

Dr Antonio Sevesi

JOHN TOOBY

Dr Antonio Sevesi, who has been a Director of this Society since 1974, and Membership Representative for Italy and Switzerland since 1975, has tendered his resignation as Membership Representative on health grounds, but has consented to continue in office as a Director for the time being.

ARCH. FRANCO GIORGETTA

Architect Franco Giorgetta of Milan has generously consented to take over the task of Membership Representative from Dr. Sevesi. We welcome him.

Thank you Joan Bowskill

JOHN TOOBY

!Muchas gracias! Joan Bowskill

Merci, Joan Bowskill!

Un ringraziamento a Joan Bowskill

Dank an Joan Bowskill

Joan Bowskill is retiring after over 3½ years as our Treasurer and Membership Registrar.

She has continued to serve the Society through thick and thin in spite of the difficulties caused by her husband's illness, and the need to continue running the family business which specialises in fine china.

She will be chiefly remembered for her part in organising with Cecily Perring the very successful Congress at Brighton.

She takes with her our grateful thanks for her hard work on our behalf and our best wishes for the future.

Vi Stone

JOHN TOOBY

Mrs H. S. (Vi) Stone's retirement as Vice-President is a great loss to the Society. An enthusiast for camellias for many years, she has been a regular attender at I.C.S. Congresses where her friendly nature and wide knowledge made her very popular. In addition she made several visits to Japan where she was particularly attracted to the higo and kawariba (unusual leaf-form) types. She collected a number, particularly of the latter which included forms with genuine leaf-variegation — not to be confused with the commoner virus- variegated sorts — long leaves, fish-tail leaves and so on which demonstrate the rich variation which is found in camellias in nature.

While a keen and successful exhibitor she was critical of dinner-plate size flowers, preferring the elegant simplicity of the higos and the daintiness of the miniatures. Her enthusiasm for these forms made her an expert on Japanese camellias. Her "Yard" is full to brimming over with camellias with ginger-lilies taking an honoured second place. After the damage caused by the exceptional winter of 1984/85 it is good to know that most of her plants are recovering well. She is an accomplished cook, and she and her husband Hank are generous hosts

in their elegant Louisiana home as many members including Nancy and myself can testify. She served with distinction as a Director in 1979 and 1980 and then as Vice-President from 1981 to 1985.

We offer her our grateful thanks for her past services and send our very best wishes to her and to Hank for the future.

Kenwyn Clapp

Kenwyn Clapp, a new Director for the United Kingdom, will be known to members as the Editor of the Society's Journal for the four years 1982 to 1985. He says that in this capacity he was particularly pleased to have been able to introduce colour into the Journal.

His interest in Camellias commenced some thirty years ago when he, and his wife Betty, moved to their present home in Plymouth with a mature garden of 2½ acres. The garden contained a number of less usual trees and shrubs but no Camellias, a defect which was immediately remedied by the planting of four Camellias and each year a few more have been added to a present total of over one hundred varieties.

Kenwyn has assisted in the judging of the Camellia classes at the Cornwall Garden Society's annual flower show in Truro and is involved in the creation of the Society's reference collection of Camellias at Mount Edgumbe.

He has recently retired from his law practice after nearly fifty years connection with his form and now looks forward to having the time to expand his interest in the propagation of Camellias and other shrubs.



Kenwyn & Betty Clapp

Joyce Wyndham

Joyce Wyndham has been a keen botanist all her life and her love of flowers and the countryside led her to become an artist after a serious illness. She is now internationally known for her paintings and is a member of many art Societies, including Hampstead Art Council, with works hung in the National History Museum in Cape Town, South Africa and Texas. She exhibits regularly in galleries in London and many parts of the country.

A visit to Bodnant in 1970 inspired her love of Camellias and she joined the I.C.S. taking an active part in the Conferences in the United Kingdom and has attended the I.C.S. International Conferences in France, Jersey, Georgia and California.

On being approached by the I.C.S. she designed the Head-square taking Adolphe Audusson as her subject and is a best seller in America and the British Isles.

She has arranged some very successful Conferences in the British Isles the most recent being in the Lake District.

In 1978, she was invited to organise an I.C.S. exhibit of Camellias at the R.H.S. Show held in Vincent Square and has since mounted I.C.S. exhibits of camellias at the R.H.S. Spring shows each year. These exhibits have been awarded a number of medals which are listed in the Journal.



Obituary

MILTON H. BROWN

Obituario

Nécrologie

Necrologio

Nachruf

All members of the I.C.S. will be said to know that "Brownie" died in hospital on 9th April, 1986. Born at Troy, N.Y., he graduated from Pittsburgh University and obtained his M.A. at George Washington University. He was a graduate student at the National War College in Washington D.C. and entered the army. During the Second World War he served with distinction in the Pacific and later with Army Intelligence and the C.I.A. During the 1950's and 1960's, he was a joint contributor of a series of articles in the A.C.S. yearbooks on the winter hardiness of camellias in the area around Washington D.C. Then he came to London as an attaché at the U.S. Embassy. It was here that he became well-known to British members for he was a regular and popular attender at I.C.S. Conferences in England. He retired from American Government Service in 1973, became Executive-Secretary of the American Camellia Society and moved down to Fort Valley, Georgia to be near A.C.S headquarters. While with the A.C.S. he did much to preserve the popularity of camellias in the United States despite the problems posed by the spread of the highly infectious fungus disease Petal Blight and a series of exceptionally cold winters. He was particularly successful in promoting fund-raising activities which permitted the appointment by the A.C.S. of a mycologist to study Petal Blight and to advise A.C.S. members on the best methods of prevention and control. He was a Vice-President of the I.C.S. for four years 1978-81 and was always a strong supporter of our International Congresses and other activities. He contributed a number of articles to the I.C.S. Journals as well as editing A.C.S. Publications. He was a man of many parts, an active supporter of many clubs and associations and an elder of Fort Valley Presbyterian Church.

He will be greatly missed by his many friends worldwide.

Our heartfelt sympathy goes to his wife Ann who was always such a help and support to him, also to his daughter and family.

H. J. TOOBY

Milton H. Brown

ANNABELLE L. FETTERMAN

“Brownie” is a familiar name to camellia growers world-wide through his travels, through correspondence, through published articles, through programs and papers. Many of us were privileged to enjoy his friendly personality and became the beneficiaries of the vast amount of camellia information that made him an outstanding authority on our favourite hobby. He spoke at local and regional camellia societies all over the United States as well as at American Camellia Society Conventions and International Camellia Society Conferences around the world. He spent untold hours of time and energy to further the cause of camellias. He was always a gracious host in his home and entertained camellia visitors from all over the world when they visited Masee Lane. He was the American planner for a trip to China in 1984 and made arrangements for many of the group’s exciting activities there. Camellia friends from Australia, New Zealand, the United States, the United Kingdom and Italy took camellia plants with them to be planted in a Camellia Garden of International Friendship in the Kunming Botanic Gardens.

His long drive for a camellia stamp resulted in the Honouring of the C. *japonica* ‘Betty Sheffield Supreme’ on a United States 18c stamp on April 23, 1981 with First Day of Issue Ceremonies at Fort Valley and the American Camellia Society. His next step was to compile a history of the use of the Camellia species on postage stamps around the world. The Library of The American Camellia Society now has quite a complete book with many rare camellia stamps that have been graciously donated including some rare ones from the Executive Secretary. His love for camellias was evident in all his endeavours.

As well as being Executive Secretary-Editor for the American Camellia Society since 1973, he was a life member. His services as a horticulture judge were in great demand every camellia season. He was president of the Georgia Historical Heartland Travel Association. He was past vice president of the International Camellia Society. He served as chairman of the Middle Georgia Camellia Show at Masee Lane several times. He was a founding member and first president of the Camellia Society of the Potomac Valley, Washington, D.C.

Retired U.S. Army Col. Milton H. Brown, 70, died April 9 in an Alabama hospital after a brief illness. Memorial services were held in Fort Valley Presbyterian Church where he was a member and graveside services in Portsmouth, Virginia.

He was a native of Troy, New York and a graduate of Pittsburgh University, George Washington University in Washington, D.C. where he received a master’s degree and the National War College. Mr. Brown, a World War II veteran, served in the Pacific Theater and was awarded the silver star. He was also an Army intelligence agent and employed by the Central Intelligence Agency. He also worked for the U.S. Embassy in London.

He is survived by his wife, Ann B. Brown of Fort Valley; a daughter, Blair Brown of New York; and a grandchild, Robert Jordan.

His untimely death was a tremendous loss to the American Camellia Society as well as to friends around the world and all of us will miss him.

Acknowledgement:

All members will be delighted to know that Mrs. Ann Brown has generously offered to assume the duties of Executive Secretary of the American Camellia Society in place of her late husband.

The Society is deeply grateful to Mrs. Brown for her kindness and enthusiasm in undertaking this and for providing continuity in the affairs of the Society.

The International Camellia Register

JOHN TOOBY

El Registro Internacional de la Camelia

Le Registre International des Camélias

Il Registro Internazionale delle Camelia

Das Internationale Kamelienregister

Our Registrar, Tom Savige is well on the way towards completing the Register in manuscript. He expects to put it on to the word-processor by the end of 1987 and to add Chinese and Japanese names in oriental characters by the end of 1988. The addition of oriental names in their original forms will make the Register much more useful to our eastern members and will be accomplished by gumming the names on to the print-out sheets from the word-processor. These sheets will then be used as master copies for the printer's photo-reduction process.

The Register will be by far the most comprehensive listing of camellia cultivar names ever published. Research was begun nearly 30 years ago by Dr Ralph Philbrick at the L. H. Bailey Hortorium of Cornell University. He was ably assisted by the late Professor Waterhouse, Albert Fendig and Charles Puddle and the work was financed by a grant from the Longwood Foundation. This was continued by Tom Savige so the project is the result of a great deal of effort by our Registrars and the members who have supported them. The Register will contain about 32,000 names of which about 23% are errors or synonyms. The original descriptions of the valid names will be given together with details of the earliest reference, species and country of origin. The number of references is about 3,700 and in itself will prove a most valuable listing of camellia records. It is estimated that the work will extend to about 2,800 pages which implies three or four

volumes. The REGISTER will therefore become a reference work of the greatest value to serious camellia enthusiasts, camellia societies, universities, libraries, botanic gardens, nurserymen, botanists and students of nomenclature in all parts of the world.

It will be well worth waiting for.



CAMELLIA HOUSE AT WOLLATON HALL. The Camellia House at Wollaton Hall near Nottingham, which was built by the 6th Lord Middleton in 1823, is one of the oldest cast iron buildings in Britain. Following a nation-wide appeal, its restoration was undertaken by the Nottingham City Council, in conjunction with the Historic Building Council and the Nottinghamshire County Council. On the completion of the £140,000 restoration scheme, it was re-opened by H.R.H. the Duke of Gloucester, in his capacity as President of the East Midlands Tourist Board. To mark the occasion, the Duke unveiled a plaque, and planted a Camellia 'Elegans Champagne', presented by the International Camellia Society.

Cuspidate

DAVID TREHANE

Cuspidiforme

Cuspidifoliés

Cuspidate

Cuspidata

While our more ardent and adventurous members are courting that fickle jade, *Camellia chrysantha*, and biting their nails in frustration, perhaps I might write a word or two in favour of a less voluptuous and more forthcoming camellia, to wit *Camellia cuspidata*.

As a parent, no Drama Girl dinner-plates may be expected among its offspring but more dainty flowers better suited to adorn the garden than the show bench. Moreover they will be hardy, hardier than japonicas and *williamsii* hybrids. We had a batch of a hundred one-year plants on their own roots in 3'' (76 mm) pots plunged by mistake outdoors through a hard winter. After 25 degrees F of frost (-14°C) most of the japonica varieties alongside were 100% dead and 70% of the *williamsii* hybrids whereas all the plants of Spring Festival were unharmed. A harsh test.

Camellia cuspidata is widely distributed over China in eleven provinces and was collected in Hunan and introduced to Britain by E. H. Wilson in 1900. It grows to 12 ft (4 m) high and wide, with narrow evergreen leaves up to 3 ins (7.6 cms) long, and innumerable small white flowers $1\frac{1}{2}$ ins (3.8 cms) across in the axils of the leaves and on the tips of the branches. The sub-species *grandiflora* has flowers half as big again. It does not seem to be in commerce.

Like *C. saluenensis*, *C. cuspidata* may be partially defoliated in winters approaching zero temperatures (-17C) but rarely killed.

J. C. Williams of Caerhays Castle in Cornwall shared with the nurseryman Veitch the cost and finds of Wilson's expedition to China in 1900, and also promoted George Forrest's second and third expeditions from which he received seeds of *C. saluenensis*, so that by 1920 he had both *C. cuspidata* and *C. saluenensis* flowering at Caerhays which has a mild climate on the south coast of Cornwall. There is a good photograph of J. C. Williams' son beside a large bush of *C. cuspidata* on P134 of H. H. Hume's excellent book on Camellias.

Maybe the seeds from flowers on which J. C. Williams put the pollen of *C. saluenensis* grew on this bush and, later, gave rise to Cornish Snow. I regard Cornish Snow as the best white landscape camellia, flowering over four of the early months of the year and weathering better than any white japonica. The flowers are larger than those of *cuspidata* but still small and touched with pink when opening. The foliage has the copper tint of *cuspidata*.

Two other seedlings were raised from the same cross, Michael and Winton, both with pale pink flowers, the former incorrectly listed in *Camellia Nomenclature* as a *williamsii* hybrid.

In the USA Dr Lammerts at about the same time made, I think, the reverse cross and named his hybrid, with similar white flowers, *Lamertsii*. I have not found it so good a grower as *Cornish Snow*. Dr Hilsman crossed *cuspidata* with *C. fraterna* and named the hybrid *Milky Way*.

I do not know the origin of *Sylvia May*, listed in *Camellia Nomenclature* as '(*cuspidata* × *saluenensis*) (Eng to US 1950) a pink medium single with long narrow petals', more likely, I would have thought, to be *C. saluenensis* × *cuspidata*, but it was used effectively in the James Rare Plant Nursery in California to raise the hybrids *Robbie*, *Santa Cruz*, *Spanked Baby*, *Monterey Sunset*, *Carousel*, *First Formal*, *Bonnie Lassie*, and others, and by Dave Feathers for California Snow in 1958.

There is a little story about the introduction of *Cornish Snow*. J. C. Williams gave a plant to George Johnstone at Trewithen, another famous garden in Cornwall, asking that it should not be propagated. The nurseryman, W. J. Marchant, one of the sixteen children of a Mendip stone-breaker (a man who sat by the side of the road cracking stones to mend the highway), who deserves fame as the finest propagator of trees and shrubs of this century, made an annual tour of Cornish gardens timed to include a visit to the Cornwall Garden Society's spring flowershow in Truro. He stayed at Trewithen and Mrs Johnstone gave him a buttonhole of *Cornish Snow*. His keen eye did not miss its value and when he returned to Trewithen in the evening he wrapped the sprigs in his face flannel. When he got back to his nursery in Dorset a few days later he made cuttings of the twigs and put them under one of the bell-glasses (cloches) which he used for all propagation, both cuttings and grafts. Within a year or two he was the first to put *Cornish Snow* on the market.

In those days camellias were priced by the height of a single main stem, a system to which *Cornish Snow* readily conformed. Nowadays the demand is for bushy plants and it is not easy to grow *Cornish Snow*, in a pot, with a sturdy bushy framework. It tends more towards graceful arching growth.

In Australia *Cornish Snow* sets seed and Mr Tuckfield has raised *Bellbird*, *Lollipop* and *Turkish delight*, each pink, showing the influence of *C. saluenensis*, and another, *Muriel Tuckfield*, a small semidouble white.

Miss Gillian Carlyon of Tregrehan, some twelve miles from Caerhays, crossed *C. j. rosea simplex* with *C. cuspidata* and raised *Cornish Spring* which was given an Award of Merit by the Royal Horticultural Society in 1972. It is a very bushy grower with leaves strongly influenced by *cuspidata*, 2½ × 1½ ins (6½ × 4 cms), mid-green with a matt surface, and deep pink trumpet-shaped single flowers in great profusion. Unfortunately Miss Carlyon's initiative was not followed up until Nuccio introduced *Candle Glow* in 1980 with a single flower, white shaded pink, probably too near a *williamsii* hybrid to have a future in England.

The real success, and the reason for these notes, is *Spring Festival* introduced by Toichi Domoto in 1975 from California. It is a *cuspidata* hybrid raised, if my

memory serves me right, from *cuspidata* crossed with the pink formal double Sawada's Dream. A fine photograph of it by Yvonne Cave adorned the New Zealand Camellia Bulletin No 3 of 1983 showing the dense fastigiate habit and the charm of its profuse pink flowers.

In warmer climates these are rose form double but in Britain they are formal double, 2½ ins (6.3 cms) across, late in season, escaping spring frosts, and they drop whole when over. It likes sun and is a very hardy camellia as I have related earlier on. Spring Festival has one possible fault in that its lateral branches are not, like those of *Anticipation*, at right angles to the main stem, which makes for strength, but ascending like those of the Lombardy poplar and the weight of the flowers or of snow may bend some stems outwards and downwards, a position from which they will not later return to a vertical one. They can be tied back in but, fortunately, branching is so prolific that such a branch may be cut out without spoiling the shape of the bush. The foliage has the copper colour of *cuspidata* when young and the mature leaves are a little broader and more glossy than those of *Cornish Spring*, but always in good proportions to the flowers, an attribute so often lacked by *japonica* miniatures.

To me Spring Festival is not only a superb camellia but also a signal that a tremendous potential is waiting to be released by crossing *japonica* camellias with *cuspidata*, hardiness being part of the reward.

The *williamsii* hybrids are lacking in reds, Freedom Bell being, possibly, the nearest to a real red and we do not know whether *cuspidata* is equally addicted to pink. Some of the parents I would choose to explore the range are Alexander Hunter, Midnight Serenade, Red Rogue, Midnight, Momijigari, Cardinal's Cap, Australis, Warrior, Little Bit, Tricolor, Contessa Lavinia Maggi, Vittorio Emanuele II, William Bartlett, Cheryl Lynn, Bokuhan, Margaret Davis, Desire, Lily Pons and Shiragiku, which ought to cover a whole range of colour and form. A white Spring Festival would be rather nice!

I.C.S. Conference, April 25-28, 1986

ROBIN MILLER

Conferencia de la I.C.S. 25-28 de abril de 1986

Conférence I.C.S., 25-28 avril 1986

Conferenza dell'I.C.S., 25-28 aprile 1986

I.C.S.-Konferenz, 25. - 28. April 1986

Ironically, there were more camellias in The Swan Hotel - exquisitely arranged by Joyce Wyndham - than in all the gardens visited on the ICS Lake District Conference.

The fact is that only *williamsii* varieties take kindly to the northern climate and flower with any freedom. Other varieties, such as the *japonicas* which have been mostly planted to date, will grow, but they simply do not receive enough sunshine to produce blooms.

For a glance at the map of the British Isles will show how far north The Lake District is situated, and how exposed to the gales that scream in from the Irish Sea. This is mountain country, an English preview of Scotland, but with its own character, a wild, empty landscape still redolent of its original Celtic inhabitants and the Norse invaders who displaced them. The nomenclature of both races survives everywhere; hills are "fells", the streams which chatter down their precipitous slopes are "becks", a waterfall is a "force", the valleys into which they plunge to form shallow, fast-moving rivers, are Shakespeare's "dales". Features in the landscape are "strath", "wick", "holm", "ham", and the Celtic "pen", forming place-names like Satterthwaite, Witherslack, Yealand Conyers, sonic echoes from a past before the past we know, strange yet somehow familiar to the British subconscious. To those of us who must live in the over-crowded south of England, in towns and cities or the suburbanised "country", this northern land, where more often than not you can look out over a vista of many miles and not see a sign of man, is infinitely refreshing to the soul.

The Conference assembled on the afternoon of Friday, April 25th, at Lingholm, the home of the Viscount Rochdale and famous for its rhododendrons. In my opinion, one of the great values of the ICS Conferences is that they are **not** devoted solely to the genus *Camellia*. Camellias are, it is true, our primary concern, and if camellias are to be seen, well and good. But most gardeners' enthusiasm is not confined to one genus and if camellias are in short supply, as they are in the Lake District, how interesting and enjoyable it is to tour gardens where we learn about other plants, acid-loving and otherwise, and see country that is unfamiliar to most of us.

We were greeted by Lord Rochdale, his son, the Hon. St. John Kemp (who in

young middle-age has embarked on a new career as an apprentice horticulturist) and their young and enthusiastic head gardener, Mr. Mike Swift.

While Lord Rochdale took one party direct to the rhododendron wood-garden for which Lingholm is famous, Mike Swift guided the rest of us past a towering specimen of *Abies nordmanniana*, one of the many superb conifers soaring above the woods that march down to the shores of the lake, a living reminder of the debt we owe our forefathers. By the end of the 17th century the activities of German charcoal-burners had left not a stick of the native forests. But thanks to the then-new fashion for landscape-planting, Lord Rochdale's predecessors at Lingholm laid out new woodlands - among them a stand of *Abies alba* thought to have been planted in 1745, though not surprisingly these doughty survivors are now posing preservation problems for the present proprietor.

The rhododendron collection at Lingholm, which was started around 1900 with plants from Muncaster Castle, a garden we later visited (see below) is formed mainly of species, though hybrids are now being introduced.

Mike Swift, who has been at Lingholm for three years, is busy propagating and hybridising on his own account.

"Although hybrids are useful, many people are propagating them and few propagating the species, as we are", Mike explained as we toured the area, where thousands of young shrubs are lined up under lath. "All these plants are from seed. I do some vegetative propagation but I prefer seed; I tend not to like grafting if I can possibly help it."

"To keep the pollen pure, I cut the bud open, insert the pollen, then cover the bud with a bag. Most plants take eight years to flower from the seed that results."

"I am going for late flowering to avoid the frost-damage that we so often get up here. From the *auriculatum*s we are getting a lot of white plants and some pale pink; now I'm trying to get red in, or at least spotted flowers. Whether it works or not remains to be seen in eight years' time!"

The garden of Lingholm (if garden is the appropriate word for such a vast expanse) covers some 35 acres of which five are formal and the remainder woodland. Mike led us through The Memorial Garden, a sheltered, sunken area where a plant of E. G. Waterhouse seemed to be doing well, and down the remains of what, in Edwardian times, must have been a splendid herbaceous border in the Jekyll-ian style when, one border over, the hostess simply steered her guests to another that was just coming into flower. Because Lord Rochdale understandably feels that the upkeep of such a feature is too expensive Mike tried to cut down weeding with black polythene but only succeeded in freezing most of the plants to death. It was comforting to learn that even professional gardeners can make mistakes.

Crossing a former orchard which now resembles an alpine meadow, the Catbells rising precipitously above and carpeted with the ubiquitous wild daffodil of the Lake District made famous by Wordsworth (though his "gold" is, in fact, a delicate, pale yellow the colour of winter sunshine) we came to a stand of *Camellia japonica*, well sited on the edge of a shrubbery but sadly yellowed and with not a flower among them. David Trehane, owner of Britain's leading

camellia nursery, diagnosed too low a pH (it was 4.5) and a new planting of *williamsii* varieties nearer the house where 120 years of cultivation will have raised the pH to acceptable levels.

In the woodland itself, under high beech shade, it was a case of "you should be here in three weeks' time", for the appalling winter (with the second coldest February on record this century, as native gardeners know to their cost) had delayed the early flowering shrubs to the point where they were only just daring to emerge.

Those that were in bloom included *R. Shilsonii*, which caused much comment with its pink-orange bark peeling to gray and splendid flowers; *R. sutchuenense*, pale pink; and *R. lutescens*, a pale yellow of great charm. Two with deep red flowers were *R. barbatum* and *R. sperabile* var. *weihsiense*, while everywhere the rosy-pink flowers of *R. fargesii* bloomed high above our heads. *R. oreodoxa*, which resembles *fargesii*, to which it is in fact, related, was just going over. The envy-making underplanting consists of naturalised *erythroniums*, *meconopsis*, ferns and foxgloves, all positively bursting out of inches of leaf-mould. For later flower, in addition to the host of azaleas and rhododendrons (whose season stretches to late August) there are *Magnolia*, *Amelanchier canadensis*, and *Eucryphia glutinosa*.

I would give much to visit Lingholm in August. "On a summer evening I often come down here" said Mike," and the lily scent of the *auriculatum*s is almost overpowering."

Nowhere is necessity more the mother of invention than in great gardens such as Lingholm, where labour costs have reduced manpower to a minute percentage of its former numbers. Mike Swift has thought of many solutions to the problems this poses but none, surely, more simply ingenious than the moving of fully-grown shrubs (which may have root-balls of 5') from one site to another.

Having dug down to the lower root-level of the plant, a wire is attached to a tractor and passed below the remaining roots which are then severed like cheese. A sledge is dropped into the hole, the plant's trunk is protected, and the plant is hauled on to the sledge and to its new site, where the process is reversed. An operation that formerly took four men an entire day can now be accomplished in a mere three hours.

A delicious tea in the attractive shop-cum-tea house, temptingly close to the plant-sales area, and supervised by Lady Rochdale, preceded our last function at Lingholm, the Society's customary thankyou presentation of a camellia, in this case a plant of Brigadoon.

Before leaving Lingholm the Beatrix Potter fans among us were delighted to learn that this was the house her repressive parents took for summer holidays, thus instilling in their London-raised daughter her abiding love for the Lake District. "Squirrel Nutkin" was written here (his descendants still live on Mr. Brown's island in the lake) and possibly "Peter Rabbit" as well; the garden patrolled by his enemies, Mr. McGregor and the white cat, was that of nearby Fawe Park.

From Lingholm we drove to Newby Bridge, at the Southern end of Lake

Windermere, through the sturdy, holiday Victorian towns that sprang up when the railways penetrated the isolation of the Lake District. Here we registered at The Swan Hotel, a characterful old coaching inn, well sited at one end of an ancient bridge under which the wide water flows to a shallow weir, a tranquil spot indeed.

Here, tribute should be paid to the perspicacity of Joyce Wyndham and Geoff Yates in their choice of hotel, and the Swan's justification of it. In all the years of attending conferences I cannot remember a staff who took more trouble nor a kitchen that served a more exactly right cuisine - not dreaded (and meaningless) "Continental" but the best of British sparked by just the right amount of French influence, another kettle of fish entirely. Nothing was too much trouble and I, for one, can heartily recommend the Swan to anyone considering a trip to the Lakes.

That night we enjoyed an experience new to me, an audio-visual show, by Richard Goodman of Images of The Lake District, in which slides and sounds were imaginatively blended, giving us a preview of the treats in store for us.

On Saturday morning an early start by coach took us, in brilliant sunshine, over "the spine of England", empty, rolling moorland, bisected by stone walls and dotted with tough mountain sheep, to Harrogate in Yorkshire, where our pre-luncheon garden was Harlow Car, the self-styled "Wisley of the North".

The main purpose of the visit was to see the camellia trials, presided over by Mr. Tony Lane, who has taken over this useful and enjoyable chore from Mr. John Tooby (now our President) not only at Harlow Car but also in Staffordshire, and at Belfast and Edinburgh. These ICS trials were started in 1978 and restocked in 1981. Six plants survive from the original planting of 140; Lady Vansittart, Innovation, Spring Festival, Philippa Forwood, Rose Parade, and Charlotte Rothschild.

As Tony Lane said: "Survivors they may be but they are not the best flowerers in these conditions. This is what the trial is all about; we are auditing annually at each of the four trial centres. As you may have seen, we published a report in the ICS Journal last year (1985) and we shall hope to continue with reports from time to time."

"At all four trial centres the best flowerers are Dainty Dale, Donation, Lady Vansittart, Leonard Messel, George Blandford, Mary Christian, Mary Larcombe and 1820.

"Here, at Harlow Car, the best flowerers last year were Dainty Dale, Lady Vansittart, Donation, Leonard Messel, Anticipation, Brigadoon, Elamine, Freedom Bell, Galaxy, J. C. Williams, Mary Christian and Mary Larcombe."

"This is after two very bad winters, '78-'79 and '81-'82, not to mention this last February, when the temperature dropped to -17° ."

As I went down the line of plants I told my tape-recorder: "To my non-expert eye some look healthy but none are what I would call flourishing, with the exception of Janet Waterhouse and Freedom Bell. Others are just blasted by the cold. Not one was in flower."

Though Harlow Car is on a more intimate scale than Wisley, we did not have time to tour the arboretum. But the rest, which echoes the native terrain, and

thus forms one immense rock garden, was interesting to those of us whose experience of such places is restricted to artificial recreations on a necessarily limited scale - in my case, three sinks! In the Harlow Car gravel garden alpines flourish in chippings broken by rocks and softened by every variety of miniature conifer. Many plants were unlabelled but that is due to the growing predilection for visitors to steal labels as souvenirs. Apart from the theft itself, and the lack of consideration for other visitors, what, one wonders, can people possibly do with a label for a plant which is not growing in their own garden? It is a reprehensible practice, and many agreed with one notably kind-hearted member who dreamily wondered whether a sharp electric shock could not be administered to offenders.

Plants I spotted included the almost prostrate *Rhododendron uniflorum*, with dark mauve leaves, ideal for a bank (I could not find it in my Hillier) and an outstanding winter heather, *Erica* (*darliensis*) *silberschmelze*, as good a white as its name suggests.

The excitement generated by the excellent alpine house suggested that must be an alpine enthusiast screaming to get out of many a camellia-lover. Among the gems causing "oohs" and "aahs" were fine pans of *Fritillaria bythnica*, *sibthorpiana*, *crassifolia* and *acmopetala*.

The presentation camellia was *Senorita*, in honour of the current State Visit by the King and Queen of Spain. We all hope that such a southern lady would survive the rigours of the north.

From Harlow Car we travelled on to Harrogate, to The Green Park Hotel near the Show Grounds, another admirable management who coped with an unexpectedly large number of us with the minimum fuss and maximum courtesy which seems typical of the North Country. After the meal members bore down on the show with that familiar glint in the eye of the gardener who believes that he or she may come across plants hitherto unknown or finally discover long-desired treasures.

Though camellias were only to be seen on two commercial stands there were many other attractions, not least the jolly, ice-cream, brass-band crowds who surged about in high good humour, commenting in ringing northern tones on the exhibits.

Among the most interesting stands, I am glad to say, was that of Geoffrey Yates's Ash Landing Gardens Nursery at Far Sawrey (nr. Ambleside) where a visit can be combined with another, to the house where Beatrix Potter lived when, in middle age, the deaths of her parents released her from them and London, and she was able, at last, to live in her beloved Lake District where, financed by her now world-famous books she devoted the rest of her life to her husband, her sheep and her 14 farms, all of which she presented to the National Trust. But a word of warning to pilgrims; the house is closed on Fridays.

From Geoff, I could not resist ordering a plant unknown to me, a miniature *Pieris*, "Little Heath Green", and two miniature rhododendrons with the fine foliage so essential for the small garden.

On stands beautifully arranged by local nurseries such as Edrom and Martin nest, were some of the finest primulas and auriculas I have ever seen; and a

rhododendron new to me called "Snow Lady" seemed to be ubiquitous. One of the nurseries that journey from far afield to this justly renowned show was Broadleigh, of Bishops Hull in Somerset, whose miniature bulbs won a well-deserved Gold Medal.

That night, after another excellent dinner, it was Geoff Yates's turn to entertain us with a fascinating slide show of various gardens in the area. Some, such as Levens Hall (famous for its topiary) and Sizergh Castle, we were not scheduled to see: for others that were on our itinerary, like Holker and Muncaster, we had an instructive preview.

One of the many interesting points made by Geoff explained why Lakeland gardens concentrate so heavily on spring flower. Quite simply, before the Second World War, most of the owners were rich enough to only spend the winter and spring months in their country homes; the summer was spent (unbelievably!) in London, Manchester or Liverpool for the social season, while the early autumn was spent slaughtering birds on the grouse moors or deer in Scotland. Hence, no need for summer flower. This is now, of course, being remedied.

Incredibly, Sunday's weather was as good as Saturday's; members emerged to join the bus with the dazed, suspicious air of moles making their first appearance in spring. Heading south to Cark-in-Cartmell, we arrived at Holker Hall (pronounced "Hooker") the home of Mr. and Mrs. Hugh Cavendish, the former being a young member of the family headed by the Duke of Devonshire.

Holker was originally the second home of the Devonshires, and a much-loved one too; it was the house to which they came for fun and relaxation, away from the formalities of Chatsworth, and that air of happiness still pervades both house and garden, not only lingering from the leisured past but fostered by the present owners who are passionate gardeners - and exceptionally honest ones, to boot.

"The rose garden is a disaster area," Hugh Cavendish admitted ruefully, "And it is scheduled for redevelopment next year; we've discovered painfully what roses can and cannot do here. On the whole Grania and I work harmoniously together. I'm told that it's quite unusual. When we do not agree we can both go to separate ends of the garden and do our own thing! In the end we do make decisions together, and it's a terrific joy."

The Cavendishes are just beginning to take an interest in camellias of which the garden has only a few specimens, mostly old plants which cannot now be identified, except for one great old specimen of *Magnoliaeflora* which was discovered under brambles. Judging by the intense "confab" between Grania Cavendish and David Trehane, Holker should be ablaze with camellias in a few years' time.

The design of the garden, we were told, was chiefly influenced by Lady Moira, Hugh Cavendish's grandmother, who was a more enthusiastic gardener than her predecessors, and whose notes the present owners study in an effort to carry out her plans, albeit with regard to modern labour and fashion.

With their usual refreshing candour, Hugh and Grania Cavendish admit: "In our first years here we did nothing but make mistakes." One can only add that they are now making amends. With only one gardener and two boys, a man who

takes care of the propagating and the kitchen garden, and (spasmodically) a young man from the job-creation scheme, plus a lot of work by the owners, the garden at Holker now looks at once interesting and immaculate. We all agreed that only at Chatsworth, on a previous Conference, had we seen such perfect pruning and tying-in of wall plants; notable at Holker were a wide-spreading *Rosa gigantea* ("Coopers Burmese") and a *R. banksia*. Could this be a Devonshire tradition?

As I said above, Holker has that indefinable (but immediately recognisable) air of a happy garden; I felt I could be content to spend the day sitting and staring at the daffodils and the salt water beyond.

Fortunately, we did no such thing, but toured the grounds with our host and hostess (accompanied by riotous dogs and children) and saw some fine plants, including the largest *Pteris* any of us had ever seen; it must have been fully 30' x 30'.

R. hodgsonii was in flower, as also was *R. campanulatum*, with superb indumentum; it is a fine architectural plant, a quality important in any garden but most particularly in one with large spaces.

I saw two shrubs new to me; *Neillia lutea*, like a *Spirea*, and easy in all but the driest soils, and the attractive but treacherous *Umbellularia californica*, known (justifiably, it seems) as The Headache Plant, due to the pungent aroma it exudes when the leaves are crushed. The "old school" of gardeners used to indulge in extravagant stories of prostrate dowagers overcome by the fumes - perhaps a subtle way of getting their own back on their "betters"?

Holker has fine magnolias, and walls add their protection to that of the sea for the more tender American and Australasian subjects; in addition to a grove of *Callistemon* there were fine specimens of *Leptospermum*, *Hoheria lyalli*, and a very unusual and shapely *Osmanthus yunnanensis*.

We left Holker regretfully (the fine collection of pictures all but unseen) after presenting our charming host and hostess with a *Camellia* and drove on, past the gleaming, sinister quicksands, on which are caught the most delicious shrimps in the world, to Muncaster Castle where, as we approached the gates, a cry of admiration rose from the entire party. In a glade near the road a cloud of flamingo-pink rose 50' into the burning blue of the sky - *Magnolia* Charles 'Raffill', unbelievably untouched by the frost which is usually guaranteed to strike the night before a party of gardeners is scheduled to arrive.

Our host, Mr. Patrick Gordon-Duff-Pennington, who describes himself in typical fashion as "just a dirty old sheep-farmer from Scotland who happens to have become involved in horticulture", is, in fact, saving both house and garden at Muncaster, which is his wife's property. Family dramas, on a scale which make "Dynasty" and "Dallas" look pallid by comparison, reduced the estate from its original 23,000 acres to the present 1,500 and caused the famous rhododendron collection to be all but abandoned, the beech-tree cover becoming ever thicker, at once drawing the plants upwards like seaweed and preventing flowers from forming.

"Taking trees out is a terrible problem," said Patrick, as we walked down the

drive, through shrubs as tall as trees in the south, interspersed with palms and historic conifers, including the first Douglas Fir to be grown from seed sent back from British Columbia.

But, as Patrick explained: "We're very lucky because the forestry contractor was the keeper here. He is keen on rhododendrons, and he's an absolute ace at taking things out without doing damage. It takes tremendous skill to fell fully-grown beeches without damaging the shrubs beneath."

Though Patrick, as he insists on being called ("Gordon-Duff-Pennington would take all day") has clearly thrown himself into his task with relish, it has its daunting aspects.

"We are actually the first generation to live here full-time since 1870. The winter is horrible. We have to use sleeping-bags by the library fire and wear overcoats and hats indoors. But we have cut the losses from £50,000 to nothing and we employ 3 instead of the former 10. In the garden we have three and a half, the half being the former university lecturer who decided life would be less stressful propagating plants, so that is what he does."

"My mother-in-law collected wild animals; I didn't approve at all. We've got four bears which are the bane of my life and an irresistible temptation. One little brute left a notice stuck up saying 'Beware! One bear is loose'. It caused chaos."

By the time we reached the cafeteria, in the sun-drenched stable-yard, no one was surprised to find that the eggs for sale, nestling beside the KitKat and cakes, were those of the rheas (a South American three-toed ostrich of repellent mien which lurk behind the wire of their enclosure clearly longing to bite anyone who ventures too close) "excellent scrambled" - or to learn the highly unorthodox history of the place from our host.

"The garden is 77 acres and it was set up by my wife's grandfather who subscribed to the Ludlow & Sherriff and Kingdon Ward expeditions; he had another great garden at Gerrard's Cross, where he propagated a lot. At that time he had 32 gardeners to get it all going, rather more than we had when we started to try to pull this place round - which was two and a half and me.

"Our real problem is the trees. They were planted by the first Lord Muncaster in 1780 but he couldn't get on with his father, whom he called "The Drip". He married a very rich girl and spent all her money on race-horses which didn't win. When she had had eight children he chucked her out and let the house fall down. My wife's grandfather never would cut anything down; her father was the same; so now we've got to do it. We've set ourselves ten years."

"We feel this is a family home and we like to welcome people to it as such. We had 38,000 through last year and we try to talk to everybody. Our philosophy is founded on that of a friend in Scotland; over her drawing-room door she has carved: "The ornaments of the house are the friends who frequent it". That's the impression we want you to take away with you. We're rather ashamed to have such knowledgeable people round this garden. You will probably know a great deal more than either my head gardener or myself; what we don't know we make up".

By this time anything seemed possible so it was with only the faintest surprise

that we learned that the head gardener in question is only 28 years old. Robert Batty (a new-style head-gardener, in jeans and sweater) has been at Muncaster since he was a boy.

"I served my apprenticeship at Newton Rigg at Penrose where I passed my exams and then I came here. I haven't any experience of rare plants but I'm learning about the rhododendrons all the time. I'm glad about all the improvements. Before Patrick took over our hands were tied; we just had to keep the grass tidy and the weeds down. Now, I can see plants grow and think, I put that in!"

Touring the woodlands in Patrick's company, beneath the forest-sized rhododendrons, where *sinogrande* self-seeds as easily as chickweed in my London rabbit-run, we could only marvel that anyone could tackle such a task. There were trees fallen, trees needing to be felled, 20' shrubs crammed together in rows where they had first been planted out as seedlings years ago. At first, it all appeared as dereliction and decay on an overwhelming scale, and the restoration of such neglect nothing short of madness. Yet what is gardening but an act of faith against all odds? And one can see that order is emerging. Patrick's drive, allied to Robert's youth and enthusiasm, make one believe that, in time, the rhododendrons of Muncaster will once again become a place of pilgrimage for the world's dendrologists.

The woods of Muncaster contain so many varieties (mostly species) that the list seemed almost as long as Hillier's so it is, perhaps simplest to tell the reader which varieties Patrick considers "a bit special". In addition to *sinogrande* and *macabeanum* he lists *hookeri*, *mallotum*, *beanianum*, *sherriffii* (which smells, he swears, of hot raspberry jam!); a particularly beautiful, dark butter yellow, very tender variety which some believe to be a *leucaspis* × *sulphureum* cross, and a hybrid, "Joan Ramsden". Other favourite plants include *Nothofagus obliqua* and *betuloides*; the latter 60× high. In addition to the above, I noticed tree-sized *R. thomsonii*, with deep blood red flowers and cinnamon or plum-coloured bark; the attractive small rhododendron *racemosum*; and the dwarf *R. megeratum*.

And camellias? Yes, they had been planted in the past and the old shrubs were doing well, and a newly-planted camellia garden gives promise for the future.

That evening we held the traditional Banquet at which our guests of honour were Patrick and his wife, Phyllida, and David and Linda Barron, whose garden was one of those we were due to visit the following day. John Tooby expressed the members' appreciation of the hotel staff's successful efforts to make our stay enjoyable, and paid a well-applauded tribute to the hard work put in by Joyce Wyndham and Geoffrey Yates which was making the Conference an outstanding success.

Joyce's efforts were particularly appreciated since she had suffered an accident at the Royal Horticultural Show only a few days before. While manning the I.C.S. stand, the gale blew out the window above her head, causing her to be badly cut and shocked. Anyone else would have obeyed the hospital's directions to stay in for observation and rest. Typically, Joyce refused to do any such thing. Discharging herself, she drove home through dense traffic and carried on with

the multifarious last-minute arrangements for the Conference as though nothing had happened.

John Tooby also proposed the toast "Our hosts who are also our guests" to which Patrick Gordon-Duff-Pennington replied with a speech that had us all in fits of laughter. Our Chairman then presented Patrick and Phyllida with a plant of *Camellia* 'Rose Parade'.

The following morning we awoke to find that our luck was not to enjoy a hat-trick and although Geoff Yates euphemistically described the weather as "Cumbrian Mist", to the rest of us it was pouring.

But gardeners are a hardy breed and the warm welcome given us by the Barrons, at their home, White Craggs, at Clappersgate, sent us off round their garden damp in body but not in spirits. Here was contrast, and on a scale much more familiar to most of us than the grandeur and glories of the previous days. We were conscious, too, of our good fortune, for the Barrons seldom open White Craggs, except for charity, when they are literally overrun with cars and people.

For to alpine enthusiasts the garden is of legendary fame. It was created on a rocky hillock by Mr. C. H. Hough, F.R.C.S., and I can give no better idea of this gardener than to quote the preface (written by his brother William Woodcock Hough, one-time Bishop of Woolwich) to the little booklet he modestly published in 1929 and dedicated to his daughter, Dorothy, who carried on his work after his death.

"To him," wrote his brother, "the garden was a sacred work to bear witness to the power and beauty of The Architect of the Universe, with whom he lived in close communion. He loved his garden, and the gate was always always open night and day to all who wished to share its beauty."

How his shade must rejoice that such keen gardeners as the Barrons should have acquired the place! For when they bought White Craggs six years ago, here too was that decay which can so swiftly turn a garden into a jungle of weeds and saplings that overwhelm treasures and blur outline and form.

The Barrons' task was not made easier by deer, that scourge of the gardener, four of which, having taken up residence in the garden, are now so accustomed to human beings that they only stare and resume grazing (often on choice plants) when people approach. I regret to say, if I were so plagued, venison would fill my deep-freeze.

The garden of White Craggs is made on a dramatic if daunting site, a steep outcrop of rock (a spur of Loughrigg Fell which rises above) like those in Chinese paintings. It is not for the elderly or infirm - though needless to say, ICS members could be seen wending their way, bending and peering beneath their brollies, to the very summit.

Mr. Hough's account reveals that the creation of the garden in 1904-1905 was 'only' a matter of clearing self-sown and coppiced trees from the site and planting shrubs, heathers and rock plants of all kinds in the pockets left by excavation - "except a few pathways and steps hewn out of rock" he adds, writing in a period when men were probably only too happy to hew pathways out of rock for modest sums. "Nature at her best has done the rest."

Indeed, but so has man, and while the original planting can now be seen in maturity (Japanese maples twisting up out of crevices in an authentic manner; cotoneasters hugging boulders) the planting of the Barrons' restoration period is much to be admired. Everything, old and new alike, is superbly grown.

In his slide-show lecture, Geoffrey Yates had told us that when Dr. Hough's two spinster sisters died, a third sister came to live at White Craggs. Her son developed the White Craggs Nursery (specialising in alpines) which was renowned in its day. Then the Aitchisons put the place on the market. Landscape gardeners descended like vultures and the garden was, in Geoff's words, "somewhat vandalised" - a history which makes the Barrons' achievement all the more remarkable. One could suppose Dr. Hough and his family had left only the day before.

Starting at the entrance (well above the road; everything is on a sharp slope in this country!) one approaches through a meadow literally filled "wall to wall" with the most lavish display of wild daffodils of the many we saw. The house is tucked into the hillside, commanding magnificent views (obscured by "Cumbrian Mist" the day we were there) and surrounded by shrubs; mature *Acer palmatum* in variety; *Berberis* ditto; a fine *Pieris* in full flower.

But it is the crag that draws the visitor. As I mounted it, meeting beauty at every turn, I noticed, among the many interesting plants in imaginative combinations, an immense *Cornus* growing out of and over a rock, *Lithospermum* tumbling down a boulder (wonderful in combination with the heathers tucked in below) and *Hydrangea petiolaris* clothing the rock face for 80'.

At the summit, 100' above the house, a crevice in the rocks has been converted into a shrine, dedicated in 1934. From this holy eminence one looks down on to the flowers of *R. macabeum* and *Magnolia stellata*, a rare experience.

On the way down I realised that time was running out, for this was our busiest day with no less than four gardens on the agenda, so I had to hurry past the fine collection of dwarf rhododendrons (some in flower) and all three types of *Embothrium*, noting only that *Camellia* 'St. Ewe' and others were successfully resisting the attacks of the resident deer.

Camellia 'Debbie' was presented to the Barrons to be added to their excellent collection.

By good fortune, our next garden - like the others on that day's itinerary - was close by and our drenched convoy soon arrived at Stagshawe, as renowned as White Craggs. Its eight acres of steep, rocky woodland, with a beck leaping down through rocks, were sympathetically 'landscaped' between 1959 and 1979 by Mr. C. H. D. ("Cubby") Acland, originally of Killerton, in Devon, who bequeathed Stagshawe to The National Trust. Geoffrey Yates is the resident Warden.

After dragging half the mud in Cumbria across patient Jennifer Yates's carpets, and much refreshed by her coffee, we once again scaled the heights, following Geoffrey (who clearly loves the place as much as "Cubby" did) up the beck towards the enviable waterfall, through dense under-plantings of *Erythroniums*, primroses, wood anemones, wild daffodils and great pools of naturalised *Pulmonaria* of a brilliant blue, known only as "Aunt Ethel's Best

Hat". "Cubby" Acland loved cherries and planted Collingwood Ingram's recommended best varieties but the soil (ph 5) is just too acid for them to give of their best.

However, there was much else to admire. More specimens of *R. barbatum*: a beautiful yellow rhododendron which Geoff thinks may be either *campylocarpum* or *litiense*; brilliant *Lisichitons* self-seeding down the stream; and every kind of leaf and bark and trunk-shape, the latter particularly noticeable in a birch growing out from under a rock with such grace that Japanese gardeners might have worked to achieve it for 100 years. In fact, it was natural.

It was tantalising to imagine the bloom that was awaiting later visitors from *Magnolia Proctoriana*, *Halesia carolina*, (a picture of which Geoff had shown us in his slide-show, white with blossom), a whole slope of *R. griersonianum* hybrids, a big group of *R. yunnanense*, with *R. rubiginosum*, to name only a few of the immense collection. "Cubby" Acland was a master at colour association, keeping the brilliant-hued rhododendrons and azaleas in groups instead of madly mixing them into that "blaze of colour" so beloved by the creators of the more popular gardens at the Chelsea Flower Show - and, it must be added, those who encourage them with their admiration.

Stagshawe is a garden in which the rhododendron species and hybrids are mixed, the latter including 'Daydream', 'Dawn's Delight', 'Damozel', 'Matador', 'Fabia', and 'Vanessa'. The season ends with 'Polar Bear' whose scent is so strong that fell-walkers passing up the slopes of Skelghyll Wood cause Geoffrey Yates much amusement by sniffing perplexedly as they catch the great gusts of perfume from the garden. Stagshawe also has extensive plantings of *R. triflorum*, *davidsonianum*, *trichanthum*, (the Tower Court form, usefully late) *oreotrepes*, and *augustinii*, to name but a few of its treasures.

We descended through The Moss Garden and crossed another miniature valley where *Magnolia salicifolia* and *Maianthemum biflorum* are planted with *Veratrum album* and *Lilium pyrenaicum*. The Royal Glade consists of all the purple-hued rhododendrons ('Frank Galsworthy', 'Royal Purple', 'Old Port', etc.) with below, the sweetly scented *occidentalis* azaleas and others - valuable again in the autumn, as are the *Acers*. *Synstylae* roses ... *cornus* in variety ... many magnolias ... these are just a few of the shrubs that add to Stagshawe's summer beauty while in autumn the garden blazes with the reds, yellows and pinks of *Parrotia*, *Eucryphia*, *Cercidiphyllum* (rumoured to smell of burnt sugar), *Nyssa*, and *Disanthus cercidifolius*, and one can only imagine the effect of the *Eucryphia* Nymansay in full flower; it must be quite 30' tall.

In front of the house, on what used to be a heather garden before it was decimated by rabbits (is there *nothing* those fiendish animals won't devour?) Geoffrey is now planting *williamsii* camellias. We saw 'Anticipation', 'Cornish Snow', 'J. C. Williams' (in full flower) with 'Donation' about to bloom. All were doing well - probably thanks to the fencing The National Trust has erected around the whole property. Tree heaths are also flourishing, contrasting with *Acer griseum*.

The camellias will be joined by 'Freedom Bell', the Society's thankyou

addition to Stagshawe's beauties.

Another few miles brought the trail of cars - their occupants now steaming perceptibly - to Brockhole, the Lake District National Park Visitor Centre, where the party had lunch and saw the slide-show "Garden Heritage" in which every location was bathed in blazing sunshine! Then it was out into the rain again which by now was coming down so hard that we only had the fortitude to squelch our way round - according to Director Ron Sands - the largest collection of *Camellia williamsii* in the area. In bloom were 'Christmas Cheer' (in late April!), 'E. G. Waterhouse', and 'Bow Bells', all fine specimens, in contrast to the "original" camellia on the house, a *japonica* which looked distinctly yellow. Also on the house was an old *Magnolia Soulangeana* which had self-layered and been trained up to form another full-sized plant on the other side of the window, an attractive idea for young gardeners with sufficient patience.

By this time some members had thrown in the towel and headed for hot baths and tea so it was a diminished party which arrived at our last garden, Holehird. Our colleagues' defection was understandable in view of the still-persistent downpour but they missed one of the most exciting experiences of the entire Conference. For Holehird must, I imagine, be unique - certainly in Cumbria.

The garden was originally laid out by Mr. Grimble Groves in the 1860s, with the usual lawns, shrubberies, wall-garden, greenhouses, etc. In the second generation, now named Leigh-Groves, the lady of the house was a keen gardener, and it was she who converted the spur behind the house into a 3-acre rockery. By the Second World War the Leigh-Groveses were ageing. Having no children, they retired to a small house nearby and generously handed over the property to Westmorland County Council, on condition that the gardens would be maintained for the public's enjoyment.

Due to the war and problems of upkeep, the W.C.C. let the house to The Cheshire Homes for the Disabled and rented out the kitchen garden to a forestry firm who filled it with rows of trees. The greenhouses and the rock-garden became derelict; the latter was simply abandoned to the usual jungle of saplings and bramble under which it lay, like a Sleeping Beauty.

The Prince who gave Holehird the kiss of life was not a handsome young man but a group of keen amateur gardeners, mostly middle-aged. In 1969 these public-spirited people formed The Lakeland Horticultural Society for the express purpose of rescuing and restoring Mrs. Leigh-Groves's rock-garden, and to there grow as large a collection as possible of plants that flourish in Lake District conditions - many of which would be native were it not for centuries of sheep-grazing.

The first few members, all amateurs working in their spare time, had a daunting task, as their leader, Mr. Hope-Simpson (now the garden's principal "architect") recalled.

"You simply could not get through it," he told us. "it was impossible to walk anywhere. The paths had disappeared under moulds of brambles taller than a man. We simply had to attack - and it took us two years to burn our way through. There were never less than two bonfires going. Eventually we got the ground

clear. Then we started altering the layout. We completely altered the rockery part. Of course, we were all quite a bit younger then," he added, meaning that this doughty band, shifting rock by hand, were in their 60s!

At the first meeting the Society enrolled 20 people. Now there are some 1,700 members. And the place shows it.

As the rain began to ease off, we walked past a splendid specimen of *Sciadopitys verticillata*, the Japanese Umbrella Pine, and the massive *Davidia involucrata*, the Handkerchief Tree, which at 44' is thought to be one of the largest in the country. Passing attractive beds of shrubs we mounted the escarpment where the range of plants, known and unknown to us, is simply too long to reproduce; one can only advise visitors to The Lake District not to miss Holehird on any account and to go round (allowing plenty of time) with the excellent guide-book; the plants are also admirably labelled.

Alas, though I assiduously whispered into my tape-recorder the names of plants unknown to me, or those of which I was reminded by seeing them in this perfect setting, the gremlins decided to play up and the tape was a blank. But the guide-book reminds me of the alpine garden and the heather garden (amazingly, the soil is lime-free), of winter beds and spring beds, with plants faultlessly placed everywhere, and seasonal colour extended from early spring (in normal years) to October, with plants such as *Calluna vulgaris* "Hiemalis", *Enkianthus campanulata*, and autumn gentians, the most successful being *Gentiana stevenagensis*.

The layout is charming, and I use that overworked word advisedly; rocky plants and steps lead the visitor from one delightful plant association to another, many conveniently sited on nature's raised (rock) beds beside the path. At every turn there are fine views and seats from which to enjoy them. At the summit the weather lifted just in time for us to see the breathtaking panorama, all the more beautiful for the storm-clouds lowering behind the snow-covered slopes of Crinkle-Crags, Pike o'Stickle, Pavey Ark and the famous Coniston Old Man.

We descended, filled with admiration for this Society's selfless (though doubtless satisfying) work and their ability to sink individual tastes and preferences into a cooperative venture, which looks as though only one hand - and that of a master-gardener - has been at the helm.

When *Camellia* 'Leonard Messel' had been presented, and our thankyou's and goodbyes said to the indefatigable Mr. Hope-Simpson (who had climbed every inch of the crag with us) the Conference reluctantly dispersed.

With all its limitations this account must, I think, convey the immense success of the Lakeland Conference. We all look forward to returning to this unspoiled area, its beautiful gardens and its forthright, hospitable inhabitants. Those members who were fortunate enough to attend will agree, I am sure, that the closing sentence should be devoted to once again congratulating and thanking Joyce Wyndham and Geoffrey Yates.

The Beginning of The International Camellia Society

ALBERT FENDIG, Sr.

Los orígenes de la Sociedad Internacional de la Camelia

Les débuts de la Société Internationale des Camélias

I primi passi dell'Associazione Internazionale della Camelia

Der Anfang der Internationalen Kameliengesellschaft

My first awareness of the beauty of camellias commenced during the summer of 1927. It was then that my Mother and I made our trip to Ostend, Belgium. I was going as a delegate of the Rotary Club of Georgia, USA.

We sailed on the MAJESTIC, a gigantic ship carrying hundreds of Rotarians to the convention. Among them were Walter D. Bellingrath and his wife, Bessie Morse Bellingrath. Mother and Mrs. Bellingrath became firm friends on that trip and Mr. Bellingrath, several times my age, and I learned to enjoy each other.

It was on this trip that Mrs. Bellingrath was unable to begin or end a conversation without mentioning camellias. She owned a beautiful site on a small river near Mobile, Alabama. It was there that she wanted to build, surrounded by an azalea-camellia garden.

Her husband, Walter, got tired of hearing these wants repeated over and over and finally said, "Bessie, I'll make you a deal. If you don't mention 'azalea and camellia' again until we reach Ostend, I'll give you ten thousand dollars."

Mrs. Bellingrath responded, "All right, Walter, that's a deal. Write your cheque and give it to Albert to hold."

Mr. Bellingrath took out his cheque book and wrote the cheque and handed it to me saying, "You heard the deal, Albert. Give it to Bessie in Ostend if she's kept her side of the bargain or else return it to me."

Mrs. Bellingrath kept her word. I gave her the cheque and that was the beginning of Bellingrath Gardens and of my interest in camellias.

My mother passed away six months later. Gladys and I were married in 1929 and planted two dozen camellia bushes around our home in Brunswick, Georgia.

By the time I was called to active duty in the Navy just before the United States entered into World War II, we had accumulated that many more camellia bushes and three children.

After five years of war when I was mustered out of service, I returned to my family, to my law practice and to my fifty-odd 'lost labelled' plants. I am so constituted that I felt that I must discover the correct names of the plants in Gladys' and my garden and re-label them. To my horror I found that no one really knew the correct names. Therefore, I set out to devise a simple system of

identification. For my system I adopted the obvious — namely the colors, the shape and the time of bloom. The old French system was simpler but not as easy. There seemed to be six possible colors. The reds, the pinks and the white forms and the variegated of each. For formations of bloom there seemed to be four fairly clearly defined types: the singles with one row of petals, the semi-double with more than one row, but with one central group of stamens, the incomplete doubles with more than one row of petals and with stamens interspersed, and the complete formal doubles with regularly spaced petals. Finally, there is the time of bloom, falling into three categories: the early, the mid-season, and the lates. Thus the abbreviation of the variety of DONCKELARII would be RV(SD)M. I got my information from every possible source — the old literature, the nursery catalogs, lists in public gardens, interviews with knowledgeable growers and every other available source. I visited university files and gardens. For example, I spent time with Dr. Harold Hume, Ray Wilmot and Austin Griffith of the University of Florida at Gainesville. Their garden was based on extensive notes and an attempt to put similar varieties side by side to ascertain duplicates of names. I knew personally many of the giants of camellia folks including Dave Strother, Maxwell Murray, Judge Soloman and the Jones of Savannah, Norwood Hastie and the other knowledgeable Charlestonians and the big gardens there; Les Marbury, the Kemps, Preacher Parsons and the Virginia and Carolina growers and the many well known growers and lovers of camellias in the Southland and on the West Coast.

Gladys, my wife, was with me on all of these trips. She was an important cog in the Georgia Society and was and is a master and lifetime judge. She co-authored a book on Southern Wild Flowers. Gladys and I were among the original judges recognized by the American Camellia Society, and the group who met in Judge Arthur Soloman's Garden and organized The American Camellia Society. I believe I drafted the Bylaws and Charter of the ACS as I later did the same for The International Camellia Society.

My information ascertaining the names and classifications of this flower was examined by my close friend, Bob Erdman, and he suggested that the contents of the notebooks should be illustrated and published. I told him I neither had the time or desire to undertake such an enormous job, but gave him leave to use my research if he could find an artist who could do justice to the subject. He found Athos Menaboni, the very noted bird artist, and they commenced the American Camellia catalogue, using my research and Menaboni's art. Commander Erdman and his talented wife, Anne, set out to silk screen Menaboni's drawings. The catalogue was necessarily a very limited edition and was published over a period of several years.

One of the foundations established by the Dupont family set aside fifty thousand dollars as a fund to develop and perfect the nomenclature of camellias. Such a fund was to be administered and used by the faculty of Cornell University. Ralph Philbrick, one of the faculty of this outstanding School of Horticulture, was assigned the task of compiling the information and Dr. Lawrence and his colleagues at the University appointed an International committee to furnish

Philbrick with the information in existence about camellias and be in charge of publishing a book containing the information developed.

I, along with Professor Waterhouse and Charles Puddle, were honoured to be named as members of the Committee. In our work and correspondence the three of us became 'Pen Pals' and we set out to cooperate with Philbrick and organize an International Society of enthusiasts.

Despite the existence of National and Regional Societies, there was a great need for an International Group to coordinate and consolidate the worthy work of these local Societies.

I think our Society is fulfilling that need and is creating goodwill on a worldwide basis. I am proud to be one of the original founders of such a group.

CHARLES PUDDLE

In 1987 the International Camellia Society will celebrate its 25th Anniversary and as one of the founders and its first administrator, I am delighted to have this opportunity to send greetings to all members throughout the world and to wish the society continued success.

I am often asked about the beginnings of the society. My interests in the plant world are very wide and I have no favourite flowers, they all appeal to me if they have "good garden value". My earliest recollection of camellias is the first flowering at Bodnant in the late 1920's of *Camellia saluenensis* (then known as *Thea speciosa*). Its beauty led me to look at other camellias, chiefly cultivars of *C. japonica*, and I soon realised that in Britain there was much confusion in their nomenclature.

Due to the Second World War, it was not until 1946 that I began to take a serious interest in trying to resolve some of the nomenclature problems. I obtained copies of many old camellia books and catalogues, looked at camellia specimens in detail and began to correspond with camellia enthusiasts throughout the world with a mutual interest in nomenclature. I soon gathered that the confusion in names was a world-wide problem. It was through the international exchange of knowledge that many of the nomenclature riddles were solved and in the early days I was greatly indebted to R. J. Wilmot, Dr Harold Hume, David Strother, Walter Hazlewood, Alex Jessep, K. Wada, Kan Yashiroda and Professor Hu. The publication in 1947 of *The Camellia, its culture and Nomenclature* by the Southern California Camellia Society was an excellent attempt by William Woodroof and others to bring some order to nomenclature in America, and the many revised editions and its wide use are a tribute to his knowledge and skill.

Early in the 1950's Ralph Peer came to Bodnant for the first time, and in subsequent years I met him at Bodnant and in London. His camellia interest was immense and, on his world travels collecting camellias, he was equally concerned with the duplication and confused nomenclature of camellias. We discussed ways in which the problem could be resolved. At this time also Henry Dupont visited

Bodnant and expressed interest, although having a much wider field of horticultural knowledge.

It soon became clear that a determined effort was at last to be made to produce an International Checklist of Camellias and, following discussions in America with the American Camellia Society, the Southern California Camellia Society and the American Horticultural Council, the Bailey Hortorium with a grant from the Longwood Foundation in 1957, appointed Ralph Philbrick to undertake a five year study of camellias, and to compile an international checklist.

A small Advisory Committee was set up to assist Ralph Philbrick, and as a result a continuous round of correspondence took place over the next five years between Ralph, Albert Fendig, Professor Waterhouse and myself. Many nomenclature problems were resolved, much information exchanged.

The idea of an International Camellia Society had evolved over the years and this great revival of interest seemed an appropriate time to see if such an organisation was possible. In 1961 I agreed to undertake the work necessary to organise the Society and, in April 1962 the Society was launched and, later the same year following intensive work, it was appointed the International Registration Authority for the genus *Camellia*.

In this brief note I have only mentioned a few of many enthusiasts who have assisted me, both with nomenclature and when I was actively associated with the society. To all of them I am most grateful. I would like to pay particular tribute to the work of my good friend Albert Fendig for his contribution in preparing the Constitution of the Society, and valuable help in so many ways which has never received the recognition it deserves.

That the Society is extremely active is well illustrated by the many Conferences and the devoted work of Tom Savige on the *Camellia Register*, the publication of which will give the Society great status in the *Camellia World*.

One of the most pleasing aspects of the Society is the many international and national friendships which have been formed over the years. At this time it might be as well to remind ourselves of the motives of the Society, for these are the foundation on which the organisation has successfully survived.

A very successful camellia season to you all and my best wishes to the many good friends that Muriel and I have made through the International Camellia Society.

Galician Camellias in 1986

BUNTY KITSON

Camelias de Galicia en 1986

Camélias galiciens en 1986

Camelie galiziane nel 1986

Galizische Kamelien 1986

Don Juan Armada, the I.C.S. Director for Spain, has done great work in his vast garden, one of the largest in Spain with an extensive collection of superb camellias, and through his woods a lovely cascade. Some of his camellias are very old, *C. reticulata* 'Captain Rawes' with a trunk of 60 cms circumference.

He has introduced cultivars of *C. × williamsii* and other hybrids, and in his own words the actual ground cover in his woods consists of seedlings of *C. japonica*, which are everywhere, in all the paths and poking happily out of the granite walls.

Many of his ancient camellias cannot be named, and were probably planted before 1870; some are of Portuguese and some of Italian origin, like that great favourite 'Vergine de Colle Beato'. His hundred years old *japonicas* flower splendidly, and are not very tall, as they are more or less wild. The soil is very acid, decomposed granite, and the rainfall is 65'', mild and damp.

We visited Pazo de Rubianes, where the elegant octogenarian Marquesa Viuda de Aranda had been picking blooms for the Pontevedra Camellia Show next day: astonishing flowers, I recognised a splendid *C. 'Royalty'*, *C. 'Anemonaeflora'*, *C. 'Gigantea'*, and that violet coloured 'Margharita d'Malgahaes', as well as 'Dr Clifford Parks'. The rest of her beautiful flowers were said to be unnamed Portuguese cultivars. In her garden, I paid my respects to a very thriving 12'' high *C. chrysantha*, with a tiny bamboo shade. I recalled the original which I had seen in the Kunming P.R.C. under its wrought iron cage in 1981.

It is quite difficult to describe Robert Gimson's superb, crisp, fresh, huge camellia flowers; they are *C. × williamsii*. It is very sensible to grow mostly *williamsii* in the open because, unless *C. japonicas* are grown under a tree canopy, they can look sad: brown, yellow and scorched. In Galician streets where they are exposed, there they are with yellow leaves and brown messy flowers all over. I almost made up my mind to go home and throw out all my *japonicas*. Robert Gimson's shrubs however were loaded with hardier flowers and glistening leaves, and some like 'E. G. Waterhouse' were shedding their petals to the ground to make a pretty pink carpet. In the shade of his woods, he had *reticulatas* 'Lila Naff' and 'William Hertrich', both prize winners.

We visited the great garden of OCA; in a fertile valley an enormous *reticulata*,

larger even than Juan Armada's, was starting to flower, good blooms of a deep red formal double, looking like 'Robert Fortune', but very high in the sky. The *C. japonicas* were of great age, sporting all over in red, pink and white anemone flowers.

Pontevedra Camellia Show is free, and it was packed with happy people, who are mostly very poor and get little amusement. A small group of giggly children spoke English welcomes to us, and we urged them on and made them laugh. Ideas of staging were very varied; lustrous blooms floated in new galvanised buckets; others in a pink painted basket, some with fans, ribbons and feathers. Such gorgeous blooms, and amongst them a show-stopper 'Dr Tinsley', large luminous, and glistening as never before. A truly wonderful world of camellias which prompted me to write this, to tell members less fortunate than myself.

Camellias in New South Wales

BETTY KNYVETT

Camélias en New South Wales (Australia)

Camélias en Nouvelles-Galles du Sud

Camelie nel New South Walse

Kamelien in New South Wales

With a climate of hot, dry summers and cold, dry winters and an irregular annual rainfall of about 550 mm (22 inches), camellias are not expected in the interior of N.S.W., Australia. In summer, in this area, the temperature reaches 114°F for several days on end, and in winter the frosts can freeze water pipes and troughs.

However, there is a garden on a farming property, "Broombee", Leadville, about 360 kms from Sydney, in the Central West of N.S.W., which grows about 130 varieties of camellias, mostly japonicas, with some reticulatas and hybrids.

There are also about 40 seedlings, two or three years old and some young cuttings. Last year over 300 seeds were germinated and potted.

The camellias are grown in containers as the garden soil is unsuitable. Although some are in suitable spots around the house, most are in a special area, under the dappled shade of pepper trees, with tall fences and buildings protecting them from strong winds.

In bloom, the camellias are a glorious sight and very rewarding. They flower from about May until October, with one exception which begins to flower in April.

Each year, for the last ten years, a "Camellia Day" has been held, towards the end of August, for charity, bringing 150 to 200 people from surrounding towns and countryside within a radius of perhaps 100 kms.

This year, however, tragedy has struck. This part of N.S.W. has been affected by drought, on and off, for the last six years. As a result, the dams are now dry and the camellias have had to be watered with bore water. Although a gadget, designed to keep harmful chemicals in suspension, has been fitted, it does not seem to have been effective as the bore water has caused root damage, leaf burning, leaf loss and severe dieback.

A thick coating of dust covers the leaves, preventing them from absorbing even the little amount of dew which falls occasionally. Occasionally they have been sprayed with a hand sprayer and fresh water, but with little effect due to the encrustation.

As soon as the damage was noticed, water was carted from another bore thought to be less devastating. House water is stolen whenever possible, but this is necessarily on a small scale. A bird died in one house tank - quite accidentally - so that water was available for judicious feeding, watering those particularly affected and young ones, and for spraying.

Bore water has been soaked into the surrounding ground in an attempt to provide a more moist micro-climate from evaporation, but the pepper trees are beginning to object.

Certainly, some new growth has appeared. Some of the new leaves are healthy, some have deep green veining, others are yellow to almost white, and some show a burning effect like fertilizer burn. pH testing has not revealed very high levels. In fact, some containers show a very low pH. Remedial treatments have been tried with mixed results. Some bushes have died, some are sadly affected, some show rejuvenation to some extent and some have not been affected.

Many of the seedlings have succumbed and less than 100 now remain.

And the problem remains. There has been only 100 mm (4 inches) of rain for the first six months of this year and there is no sign of the drought breaking, certainly not for the sort of rain needed to fill dams.

Nevertheless, with optimism, Camellia Day is still planned for 1986.

Breeding for Yellow

FRANK PURSEL
Oakland, California

El cultivo de la camelia amarilla

A la recherche du Jaune

Selettocoltura per ottenere il giallo

Gelbzüchtung

If a person wants to become a frustrated camellia hybridizer, all he has to do is buy a *chrysantha* plant, and his problems are under way. For starters, patience is a prime prerequisite. Taking four to five years for a good bud set, one then hopes that by hand pollination the *chrysantha* will set a bunch of seed pods. Don't you believe it for one minute! As of this time, no one in Northern California has been able to get a viable take. *Retic*, *japonica*, and Hybrid pollen has been used with zero results. Pollinations have been made outdoors and in the controlled environment of the greenhouse. Several times seed pods have formed, but after 60 to 90 days they have dropped off. Using the *chrysantha* as the seed parent, one has a much greater chance of getting a colour break on the first generation than using the *chrysantha* as the pollen parent.

Retic and *Retic* Hybrids seem to be the most receptive to *chrysantha* pollen, and quite a few seedlings are now being grown. The pollen used on *japonica* plants will set pods, but when picked, up to now they have all been empty of any viable seeds. Since several hundred attempts were made using the *Japonica*, one wonders if it will ever be possible to make this cross. Some of the *Chrysantha* plants being grown are now over 6 feet in height, and have yet to set any flower buds. On the other hand, one sometimes gets flower buds on a one year graft. To say the plant is fickle is quite an understatement.

In our climate, one must be careful not to expose the *chrysantha* to very much direct sunlight, as the leaves show burn damage within a few days. We also have trouble with bud drop and dieback, which is another reason one wonders if it's worth all the trouble to try and get a seed set. Climate conditions vary greatly in different parts of the country, and this may be the catalyst needed for a good viable seed set. What works in one area doesn't work in another.

Looking back at the hard work people have put into working with *chrysantha*, one wonders if it ever will be possible to get a large flowering yellow camellia.

Journey in China - May, 1985 (Part 2)

H. A. FRASER
Wagga Wagga, Australia

Viaje por la China — mayo de 1985 (II Parte)

Un voyage en Chine — mai 1985 (2ème partie)

Viaggio in Cina, maggio 1985 (Seconda parte)

Reise durch China — Mai 1985 (Teil 2)

International Camellia Journal No. 17 (pp.62-6) contained an account of the first part of my sixth trip to China in search of *Camellia* species, and looking into the agriculture.

On returning to Kunming, the rains had started and plans to visit Simo and Jinghong “Over the Hump”, down on the Mekong River and Menhai had to be abandoned. I was anxious to go into this area to see ancient tea trees in the heart of the famous Yunnan Tea Production Area, and also to visit the Botanic Institute to see *Camellia chrysantha* and the large plants of *C. reticulata*. This had to be postponed to 1986.

So I set off north, by a Trident flight to Beijing. Being a Westerner, and wearing my now famous ‘China Hat’, I did not lack attention or interest for fellow travellers. Awaiting the flight, many spoke to me, and I found they were mostly engineers, architects, and water conservationists, engaged on vast programmes of development in Yunnan: a railway from Chuxiong to Dali, to relieve the Burma Road; new hotels; roads, hydro-electric schemes; communications, and resources, many of great tourist value, especially for plant lovers, as many new areas will be opened up.

Dr Zhang Aoluo, head of the Academia Sinica of Yunnan, told me that it will soon be possible for tourists to see thickets of *Camellia reticulata* in full bloom, as well as old tea trees, close to the tea plantations accessible from Bohshan and Tengchong near the Burmese border.

Beijing was looking very beautiful in the late spring, with a lovely floral display, and the city is far tidier now than when I first saw it seven years ago. My China International Travel (C.I.T.S.) friends were full of plans for tours in China by Australians, small parties being preferable; it is all so much easier now that English is so widely spoken, and there are more western-style hotels and plenty of taxis.

Among other calls that I made in Beijing, I went to see Professor Tan Peisung of the Institute of Botany, who had welcomed the I.C.S. deputation who had gone to Kunming the previous year for the planting of the International Camellia

Garden of Friendship. He had been in hospital since his return from the U.S.A. earlier in the year, but was expecting soon to be allowed home. With him, I was able to discuss arrangements for a Chinese delegation to the I.C.S. Conference in Australia in 1986. I also visited the famous Rewi Alley (now 87), who was busy preparing his inaugural address, on conservation, as President of a new University in Houhot.

I left Beijing at daybreak, to fly to Hangzhou, which Marco Polo described in 1275-6 as the most beautiful city in China. On a warm and humid day, I was met by Dr Ying Cunshan, Director of the National Rice Research Institute, who took me to the famous Botanical Gardens, established in the last century, which have a number of new features, including camellias and magnolias, conifers and an extensive collection of Bonzai. He also took me to the Rice Research Station and to the newly built Zhejiang Agricultural University & Genetic Resources Centre, where my host was the President, Dr Zhu Zuxiang. That evening, I was the guest of honour at a banquet for 35 at the Hangzhou Hotel, at which I gave a talk on Sino-Australian aspects of agriculture and friendship.

Next morning, I was invited by the Director to visit the National Tea Research Station on the Dragon Well Mountain road outside the city. There I was received by Professor Chen Qikon, Chairman of the China Tea Science Society, and was presented with an autographed copy of the newly published 'Tea Science Journal', in which were recorded botanical surveys listing the locations of *C. sinensis* and other species used for the extraction of tea and oil. There were records of 339 specimens all from Yunnan, covering some 17 new species.

In a display room were 200 different brands of tea, many of which are exported; half of the 'Black' tea going to the United Kingdom and to Australia, while the 'green' tea goes in large quantities to the Americas and to Africa. The oil extracted from *C. sinensis*, unlike that from other species, contains saponin, which is used in making enamels and varnishes. In another room were museum specimens of tea brewing equipment from antiquity to modern times, including a teapot designed centuries ago for making Hangzhou Dragon Well Tea.

I was shown colour slides of most of the old large tea trees known, some very large; South of the Yangtze River all the trees were of the white flowered variety, but altogether 660 varieties were known. Tea plants are usually cut down and replaced after ten years, but in all 16 provinces where it is grown a few standards have been left, of which some of the oldest are in the mountains of the Upper Yangtze Basin in Szechuan Province.

I left Hangzhou by an early Trident flight for Hongkong, where I spent a few days before flying on to Sydney by Cathay Pacific.

The Camellia of 20,000 Blooms

A. E. (PETER) CAMPBELL
St. Ives, N.S.W.

La camelia de 20.000 flores

Le camélia aux 20.000 fleurs

La camelia dai 20.000 fiori

Die Kamelie der 20 000 Blüten

During a visit to Dali in Western Yunnan in 1982 we were told of two notable Camellia trees in the area. One was that of 10,000 blooms, an account of which was given in the I.C.S. Journal No. 14 of 1982 under the title of "A Tale of Tali". The other was that of 20,000 blooms which was too far away to be visited and, in any case, was out of bounds to foreigners. The rather arduous climb to the Camellia of 10,000 blooms in 1982 turned out to be a great disappointment as the local villagers had severely "pruned" the tree for firewood even though there was a notice, in Chinese of course, instructing them not to do so. But firewood is very scarce in this area and it was unfortunate that this very tree that we had toiled up the mountainside to see had suffered this treatment. On the other hand the views over Lake Er Hai were superb.

On a further visit to China in April of this year, we not only revisited Dali, which is a very ancient walled town on the western side of Lake Er Hai, and which has a great "atmosphere" about it but also obtained permission to visit the Camellia of 20,000 blooms. This very ancient tree, planted during the Ming dynasty and reputed to be at least 500 years old, is growing in the courtyard of the Jade Temple which is a few miles north of the town of Lijiang.

The road to Lijiang leads north from Dali along the shores of Lake Er Hai, past the Butterfly Spring which was visited by some members of the I.C.S. in March 1984. The legend of the Butterfly Spring is the ancient one, common to many countries, of the avaricious landlord seeking to carry off a young lady betrothed to a handsome local young man who, in order to escape the clutches of the scoundrel, jump into the spring, are drowned and turn into butterflies. Each May myriads of butterflies assemble at the spring attracted by some camphor trees.

After leaving the northern end of Lake Er Hai the road passes over several ranges of hills steadily gaining in altitude from approx. 6,000 feet at Dali to about 7,500 feet at Shihku. The villages passed through were obviously very prosperous with a lot of house building in progress. The country is most attractive, well watered and cared for, the main crops being rice, wheat and broad beans. The fields and roadsides are lined with buttercups, anemones, forget-me-nots and the common pink primula. At Shihku the road forks, that to the left leading to Tibet about four days drive away. To the right the road climbs very steeply into a tangle

of mountains eventually reaching an altitude of 11,400 feet. Here and there we stopped to look at the native flora which consists mainly of Rhododendrons, probably *R. scabrifolium* mixed with various conifers and cotoneasters. Regrettably there were no Rhododendron specialists in the party so we could only surmise the various species seen but we did identify many plants of *R. delavayi*.

The approach to Lijiang is spectacular through a long avenue of poplars and, while the town itself is rather undistinguished, to the northwest, some miles away, is the magnificent sight of the Jade Dragon mountain whose summit at 17,500 feet is perpetually snow covered. Local legend has it that this mountain caused the Yangtze river to change its course from almost due south to north east at Tiger Leap Gorge, a most spectacular chasm, which we did not have time to see.

The large public park at Lijiang is very attractive, it surrounds the Black Dragon pool where still waters reflect the Jade Dragon mountain. The area is dotted with interesting and colourful pavilions in whose courtyards were a number of red flowered *Camellia japonica*, many beautiful paeonies and a great display of old fashioned red and yellow roses.

We met the Abbot of the Jade Temple on several occasions during our walk around the town and in the park. It appears that he walks into Lijiang from time to time to organise supplies for the Temple. He is a short elderly man who wears a brown habit and has a ready smile.

Lijiang is situated at the lower end of a broad valley which was probably formed by a glacier long ago. The valley is well grassed and we saw many sheep when, on the following day, our bus took us in a northerly direction to the head of the valley, our altimeter showing a height of 11,800 feet, causing some slight discomfort. Here we entered a vast National Park and, after passing through several miles of alpine meadows which were dotted with large pines, odd junipers, cotoneasters and yellow euphorbias, descended to the Black Water River. We were told that this river carries water from several glaciers on the slopes of the Jade Dragon mountain. The road leads over the river and some miles further on it crosses the Yangtze by ferry at Dagu on its way to Eastern Tibet. Our driver declined to cross the river as the road ahead was narrow and more suited to four wheel drive vehicles and in any case there was no place where he could turn the bus.

On the run down to the river we passed through thick timber containing many spruce, pines, rhododendrons, birches, larches, red stemmed willows, berberis and sweetly scented white prunus. The country is extremely rugged and on the day of our visit much of it was mist covered with some light rain. The latter rather restricted our inspection of the extensive flora along the river banks but we did note many primroses, primula, clematis, rhododendrons, cotoneaster, dwarf willows, berberis and *Juniperus procumbens*. Particularly noted was a plant of *R. racemosum* partly covered by a pink clematis.

It had been decided to visit the Jade Temple on our return from the Black Water River and we had, in fact, noted it about six miles north of Lijiang in a

clearing about 350 feet up the mountainside and perhaps a mile or so from the main road. Though there were a number of tracks leading in its general direction we were puzzled as to which one we should take. On our first attempt we came to a halt in a village and, while endeavouring to sort out the position, were very kindly invited into one of the villagers' houses. This proved quite a revelation as almost all the houses in this part of Yunnan have outside walls of grey mud bricks, grey tiled roofs and appear unprepossessing. We entered through a pair of red painted gates into a small courtyard, welcomed by the lady of the house and her two daughters and shown into the living room. The room was spacious, well furnished, attractively decorated and comfortable. Next to it was a staircase leading up to three bedrooms, which we did not see, and beyond the stairs the kitchen.

After leaving the village we tried another track which proved to be the right one but was impassable for our bus. So it was decided to return to Lijiang and obtain a couple of jeeps which could negotiate the steep track to the Jade Temple. After a short and very rough ride we arrived in a clear area below the Temple and discovered there were three buildings. The centre one contained the Camellia which could just be seen over a wall. Two elderly brown robed monks greeted us in the outer courtyard and, after some ceremony, and the presentation of a white scarf, we were invited into the inner courtyard which contained several plants including the great Camellia. This yard is not large and is overwhelmed by the Camellia which, owing to its great age, is now supported on three sides and the top by a stout timber framework.

It appears that at the time of planting two varieties of *C. reticulata* were planted very close together and over the years have almost grown as one. They have been identified by Dr. Bruce Bartholomew as 'Tali Queen' and 'Wanhua'. The literal translation of the Chinese 'Wanhua' is 10,000 or a myriad, or a great multitude of flowers. One may wonder if this is the variety seen above Dali in 1982 but even allowing for the passage of four years and faulty memory, the flowers appear to be different. The two trees flower continuously over several months and must produce many thousands of blooms during the season. The flowers of these two varieties are very similar, being large red semi doubles and very like many *C. reticulata* growing in Western Yunnan. But the Camellia was not the only treasure in the yard. There were a number of tubs of Rhododendrons, pots of Primula, a bed of superb Paeonies and, best of all, two small trees of what were later identified as *Michelia yunnanensis*. These produce single white flowers about 3" in diameter with a most powerful and pleasant scent and, to the writer, one of the most interesting plants seen on the entire visit.

After the exertions of the day the party was very glad of large cups of excellent green tea and a generous bowl of walnuts provided by the monks. We noticed on a verandah wall a large sign, in English, describing the recent visit of a Chinese vice premier to the Jade Temple and his interest in the great Camellia.

What appeared to be a large Camellia with red flowers had been seen in the courtyard of a building below and to the right of that containing the Camellia of 20,000 blooms and, on asking if we could examine this tree, one of the monks

produced a large antique key and led us to the entrance of the building where he unlocked an equally ancient padlock. This building is larger than that first visited, it appeared to be just as old, in good repair but unused. There are four trees in its courtyard, the first on the left being an enormous cherry which had recently finished flowering and we were not able to identify its variety. The second tree on the left is the Camellia we had seen from above, a tall single stemmed tree which was estimated to be at least 20 feet high carrying a good crop of large red flowers which we guessed could be *C. retic.* 'Crimson Robe'. However we were later told by Prof. Xia Lifang of the Kunming Institute of Botany that it is in fact *C. retic.* 'Lion Head'. We were surprised by the thickness of the stem of this plant, about 40'' in circumference but it proved to be hollow. Opposite the Camellia is a tree, recently heavily pruned and cut back, now making lots of new growth, which appeared to be an *Osmanthus*. The tree first on the right entering the courtyard is a fine specimen of *Michelia yunnanensis* with many sweetly scented blooms.

We returned to Lijiang in the gathering dusk after a most fascinating day and on the following day retraced our steps to Dali. On the way north to Lijiang we had noticed an interesting irrigation system just north of Lake Er Hai and on our return were able to examine it more closely. The water comes from some high hills either from springs or natural run off. The hills appear quite barren but do support many large plants of prickly pear, a type of cactus which is a great pest in parts of Australia. The water is directed from its natural course into an aqueduct and so to a modern power house which provides electricity for the surrounding area. It is then led into a very ancient earth channel which is built up at least 20 feet above ground level. This channel could be eight or ten miles long, its water being directed to various farms as required and what is left drains into Lake Er Hai. Nothing is wasted in China.

At Dali we discovered that we were just in time for the opening of their Annual Fair the origins of which go back at least 1,000 years. One of their more noted visitors was Marco Polo in 1276. . . but that is another story.



Travelling with Harold Fraser's 14 strong camellia group in China 12 April to 7 May, 1986

PAT MACDONALD

Viajando por la China con el grupo de 14 personas a cargo de Harold Fraser (12 de abril - 7 de mayo, 1986).

Voyage en Chine avec Harold Fraser et ses 14 collègues du groupe-camélias, 12 avril - 7 mai 1986

Viaggio di 14 persone del gruppo della camelia con Harold Fraser in Cina, dal 12 aprile al 7 maggio 1986

Mit Harold Frasers 14köpfiger Kameliengruppe unterwegs in China, 12. April bis 7. Mai 1986.

Ron, his sister Shirley, and I, were the only New Zealanders to join Harold Fraser's latest tour to China. We took the opportunity to carry with us 24 Camellia plants, all New Zealand cultivars, to replace those lost in the Kunming Botanical Institute International Garden of Friendship, planted in 1984. As we flew to Kunming from Hong Kong only the day after leaving New Zealand, and it was cooler weather at home, we felt sure the plants would have a better chance of survival.

The next morning after our arrival in Kunming, we flew off at crack of dawn south to Simao, over endless rows of mountains. It is very difficult country for flying (called the Hump during the war when supplies were flown from Burma to Kunming) and the descent was very rapid to the airport in the valley, after we skimmed over the last ridge. We thought we were going straight on south to Jinhong on the Mekong River, by bus from the airport, but there was a great shortage of accommodation in Jinhong at the start of the Water Splashing Festival, and we had to stay in Simao for the night. This had its compensations as we had a trip out to a dam in the hills with a boat ride to the head of the dam and a botanical foray into the native forest. It was interesting but frustrating as we couldn't identify any of the trees and shrubs.

We were away at dawn again for a hair-raising bus ride to Jinhong. It was the first day of the Water Splashing Festival and all the villagers along the way were cramming into open trucks, buses, small vans and any other available transport to get to Jinhong too. Normally it is a five-hour trip, but we did it in under four, the back wheels squealing around the hundreds of hairpin bends as we climbed up and down more ranges of mountains. We had met an American doctor in Simao who was an orchid expert studying the wild orchids in these ranges. He told us that there was a reserve on one mountain where hundreds of different orchids grew. We looked up into the big trees in this region to see clusters of gorgeous yellow orchids spraying out from the forks of the upper branches.

Jinhong was packed with people from miles around, all the women dressed in

brilliant sarongs and blouses, carrying equally gaudy umbrellas, a paradise for photographers. We stayed at the Tropical Plants Research Institute of Yunnan Province in a beautiful setting. One morning we were escorted around the gardens attached to the institute to see plenty of interesting "economic plants". Their main research is into rubber cultivation and harvest, and their major achievement so far is to develop rubber trees which will grow at altitudes of 1,500m and latitudes of 21° to 25°. Previously all rubber in S.E. Asia was planted at altitudes of less than 500 m and latitudes less than 17°.

We were official guests at the Dragon Boat Races on the Mekong River, which opened the Water Splashing Festival, and in the evening attended the banquet for visiting officials and a few foreign tourists. Next day was like a family picnic day when everyone took their lunch and sat under the trees in a huge park before visiting the glistening white pagoda on the hill. Again much scope for colour pictures. In the evening we were invited to dinner in a Dai house, sitting on tiny chairs at a low table, dipping balls of sticky rice into dishes of delicious sauces, including a sauce made from peanuts, eating steamed pumpkin leaves, pork steamed in banana leaf parcels, bananas cooked in caramel and many other unusual and tasty dishes. The Dai, the people of this area, live in wooden houses on stilts with high thatched roofs. The animals, buffaloes or tractors, pigs and chickens, live underneath. Buffaloes are still preferred to tractors, we were told. After all, a buffalo produces young buffaloes, a tractor does not produce young tractors.

The Festival closes with Water Splashing on the third day. We were all very reluctant to take part as we were warned not to take cameras and to be prepared to change clothes after attending. However, we were herded into our mini-bus and driven out into the streets which were jammed with people once again, this time, all carrying basins or buckets of water. Fire engines and tankers were strategically placed along the streets and there were plenty of dirty puddles as well for replenishing supplies. The aim of the day is to splash water, or throw it, over as many people as possible, and it seems that it is extra lucky to throw it over foreigners. As we drove along we held onto the windows and door of the bus to stop them being forced open and water thrown in. I must emphasise that it is all in good fun and we did not feel threatened at any time. Eventually we reached the main city square, were given a basin each, and told to get out there and "do our thing". Only a few of us ventured out and as soon as I did, I was greeted by a bucket of water being tipped down the back of my neck. From then on I was wet and into the thick of it, trying to give as good as I got. There were cymbals and drums beating among a huge crowd in the middle of the square, and upon investigating, I found a huge circle of couples dancing slowly to the beat of the drums, and being constantly doused with water by the onlookers inside and outside the circle. A laughing local lady invited me to join the circle, which I did, and solemnly danced round the full circumference with her. It was time, then, to go back to the hotel for a shower, change and immediate start on the road over the mountains, back to Simao, and plane journey to Kunming.

Once back in Kunming, we had a day's breather before setting out for Dali and

Lijiang and had the opportunity to spend the afternoon at the Botanical Institute. We were very glad to see our plants potted up and looking happy in a shade house, plus the survivors of the plants given by the International party in 1984. Sadly none of the N.Z. plants remained from 1984, but they are confident that these will have a better chance, being transferred between seasons, instead of directly from our summer to their winter. No camellias are in the Garden of Friendship at the moment, except a couple of very large specimens, planted by visiting Chinese dignitaries, including the President, I believe. However, they have erected a very fine granite plinth over the time capsule, displaying the brass plates recording our planting and visit in 1984. They are very keen to have more camellia plants or any camellia material from overseas, and are looking forward to Jim Rolfe's visit later this year. We saw lots of *C. chrysantha* seedlings and a large grafted specimen, and there was much discussion on comparison of the leaves of specimens Peter Campbell brought of Australian seedlings with these. That night we entertained Dr. Zhang Au-luo, his wife Madam Li-fang and others from the Kunming Institute to our hotel for dinner. They are very keen to visit New Zealand and are looking forward to going to Australia in 1988 to join in Australia's bi-centenary celebrations and open Harold's camellia memorial garden in Wagga.

The weather was absolutely glorious for all the time we were in Yunnan, except for one day. We stayed at the Green Lake Hotel again, still very pleasant, but taken over by a Japanese franchise. Next morning we were off to Dali in brilliant weather, the winter wheat glowing gold in the sun, and the rice seedlings an iridescent green. We saw some red and white rhododendrons in the hills and were enchanted with the mauve sprays of flower which hung from steep banks. We were told it was a type of *Indigofera*. The late afternoon light was just perfect as we climbed the big hill before Dali, showing up the whole valley below as a gigantic patchwork of green, gold and brown. A night at Dali and Sunday morning we had a slow but fascinating trip to Lijiang as we met a constant stream of people coming and going from the markets in each village. Apart from the usual food and clothing stalls, there were timber markets selling rough poles for framework of houses, and horse markets and cattle markets. Each mountain pass was higher than the last as we climbed in big steps of broad valleys and mountain passes on our way to Lijiang, and on top of the highest pass, at 11,500 feet, we got out to wander through the bush where the rhododendrons in all shades of pink, mauve and white, grew under the straggly pine trees native to the area. It was sheer delight to be amongst so many wild rhodos., all within easy reach, and not more than chest high. Looking across the road we could see the peak of 17,500 feet Mt. Yulong or Jade Dragon Mountain, and felt so lucky to be in this fabulous place on such a lovely day. We were in Lijiang for lunch, in the new hotel (which I swear has been built from spare parts of old buildings) but it was very picturesque. The weather was still perfect in the afternoon when we joined hundreds of others for their Sunday afternoon outing to Jade Dragon Park. It seemed to be the meeting place for the Tibetan community which now lives around Lijiang and for people of other nationalities, all dressed in their best. The

best thing was that the Jade Dragon Mountain cleared while we were in the park and we saw it reflected in the lake, just like the postcard. We met an old Tibetan monk in the temple in the gardens who had walked down from the Temple of 20,000 camellias on the slopes of the Jade Dragon Mountain, to buy provisions. Harold had met him before at the Temple and it was arranged that we should visit the Temple the next day.

It dawned brilliantly with a perfect view of the mountain from the hotel at sunrise. We set off in our big bus, which we had hired in Kunming to give us more comfort than a minibus, with great hope for a day's botanising at the foot of Mt. Yulong. As we drove up the great glacial valley leading to the mountain, we could see that the weather was deteriorating and by the time we reached a broad alpine meadow at the head of the valley, the mist was down. We strained to see and try to identify the conifers, larches and other trees as we wound down to the Black River, a tributary of the Yangtse. When we stopped at the bridge, we could just see the peaks of Jade Dragon Mountain looming up out of the mist. It would have been a heavenly spot on a fine day, but it would be the one wet day we had in all Yunnan Province. The bus driver and guides thought we were mad, but we all donned wet weather gear and started scrambling around the river banks and along the gravel beds, finding countless botanical treasures. Even from a distance we could see clumps of a brilliant yellow primula near the water's edge. There were so many tiny alpine beauties, vaguely familiar, in the gravel beds, and we tried our best to photograph them holding an umbrella in one hand and the camera in close focus in the other. Needless to say the results are not brilliant, but the plants are recognisable. Other finds were a pink clematis, varieties of rhododendrons, dwarf and prostrate conifers, cotoneaster. We must return on a fine day perhaps a little later in the season. We were told that the road carried on to Tiger's Leap, a most spectacular canyon where the Yangtse takes a big bend, but it needed a jeep to get some of the way and then a 7 kilometre walk. You can read about it in the Lijiang chapter in "60 China Scenes". We ate our picnic lunch in the bus at the Black River, watching mule trains passing us, crossing the river and continuing on a back track to Tibet — 7 days by mule. There are many villages in this remote area where the only transport is by mule — but they all have power and a school.

On the way back down the valley towards Lijiang we turned off towards the mountains, heading for the 20,000 Camellia temple. There was some dispute about the way to go, the road grew narrower and narrower, and eventually we were stuck in a small village with no possibility of getting any further. It was still cool and drizzly, and a very charming lady invited us into her home. We stepped through a door in the wall into a courtyard and then into the house, into a room with whitewashed walls, tiny low chairs, a big settee and a low brazier of charcoal in the centre, making the room warm and welcoming. Somehow they managed to turn the bus around and we returned to Lijiang — but not defeated. Harold hired a couple of jeeps and we set off once more for the Temple and arrived at the door in the late afternoon. Happily the great camellia still had plenty of blossom to show us and we were able to photograph some of them reasonably close. Also

growing in the courtyard was an unusual michelia with a magnificent scent, something quite special. As a special favour, we were taken to another courtyard and temple a little below and to the right of the big one, where there grew an even older camellia. Harold claimed that no Westerner had ever seen it before and when he was there with Madam Lifeng they were not shown it. Fortunately Ron managed to photograph its blooms reasonably well as he had a strong telephoto lens with him. We were intrigued that the camellia has changed from the 10,000 blossom to the 20,000 blossom camellia. You will note the first name in references to it in 60 China Scenes.

It was maddening to have a perfect day following our mountain jaunt for our drive back to Dali. In the couple of days we were in Lijiang, the *racemosum* rhodos. had come out on top of the mountain passes and were just a carpet of mauve under the trees. It seemed sacrilege to find that much of the high plateau where these rhodos. flourish had been cleared recently for dry farming — cereals, potatoes, etc. I believe water has to be brought up from the valley in tankers to keep these crops going in the summer. New villages were being built and more rhodos. would be going under before long.

We were back in Dali in the early afternoon. The old city was full of people, the streets lined with stalls and displays in preparation for the big Fair which began the next day. Near the centre of the city a very elaborate staging and garden was being set up, and when we visited a private garden nearby, we found that the owner was occupied setting up the staging. In fact, this seems a time when everyone displays their best potted plants in the street, and there were many plants for sale including rhododendrons and Mollis azaleas of good size, and going for good prices. We visited four private gardens that afternoon, some of which Ron visited with the I. C. S. group in 1984, but of course we were too late for camellias. However, they were all very pleased to see us and interested to receive some of our N.Z.C.S. camellia cards, and a copy of our Jubilee bulletin.

It was another early rise to get the bus as close to the Fair as possible. We were to be the official guests at the opening and all given smart straw hats to wear. To reach the area where the opening ceremony took place, we joined the thousands jostling along the old cobbled way past stalls selling everything imaginable. This Fair has been conducted annually since about the 8th century, and was visited by Marco Polo. In fact, it was one of the great trading places between East and West in old China, and we felt it had not changed much at all. Missing were the precious stones, silks and spices, etc. but there was plenty of food, household goods, clothing, tools, etc. This area was away from the city and not far from the three Pagodas, and the way to the fair ground must have been about $\frac{3}{4}$ mile long. When we finally got to the top, we were told that the opening had been postponed to the afternoon, so we struggled back down again to the Old City, and the official lunch. We had other things to do in the afternoon, so missed the opening after all, but did see the parade featuring plenty of long dragons and local Dai people dressed in their best. The rest of the afternoon we spent at Erhai Park. The road was under repair to go to the top, so we climbed up the stairs on a hot afternoon. However, it was a glorious view as we went, and the gardens most attractive, with

intensive plantings of camellias, not in flower.

On the way back to Kunming the next day, we were intrigued to see the wheat harvest in full swing with the farmers flailing the wheat ears with whips on the hard earth or concrete threshing floors in each village. The scene was biblical, and we saw it happening in village after village.

On our last day, in Kunming, five of us elected to go to the Stone Forest. Of course I had been before, but as it was such a beautiful day, I decided I would like to see the stones with the sun on them. The road has been widened and improved to such an extent that it is now treated as a day trip. We arrived in time for lunch, toured the forest for about 1½ hours, and were back in Kunming for dinner (Remember how we nearly froze to death at the concert at the Stone Forest?!). As a bonus, we had the best views of rice planting and buffalo ploughing in all our travels. On our last morning in Kunming, we were taken to the Tanhua Temple and gardens which proved to have a huge nursery attached, supplying all the other gardens around Kunming. One of the main plants grown was the camellia — thousands of them. It would be interesting to see in the flowering season.

We were sorry to leave Yunnan Province and Beijing was indeed a culture shock with its wide streets, miles of new apartment blocks, and traffic — even motorways. Our hotel was newly opened and not too far from the centre of the city. We felt lucky again to have a fine day to visit the Ming Tombs and the Great Wall. As it was a Sunday, we expected to be swamped by the crowds and overcome by dust, but nothing like that happened. In fact, it was brilliantly clear on the wall and we were very pleased to have climbed to the highest point on the left hand side, which the guide said was too steep “for ladies”. That evening we entertained Professor Tang Peisung and his wife to dinner and had a very happy reunion with them. We spent our second day in Beijing seeing the other No. 1 tourist sights — the summer Palace and the Imperial Palace. They were rushed trips through these huge areas and I was overwhelmed by the magnitude and splendour of it all, especially the Imperial Palace.

Next morning, we had a very early rise — 4 a.m. — to catch the train to Luoyang. We had sleeping berths in case we wanted to catch up on a bit of sleep, but we couldn't bear to miss such a chunk of China gliding past us — in fact, the huge Yellow River Valley. It was quite flat all the way, everything on a grand scale with limitless fields of wheat and the only other colour the mauve of *Paulownia* trees, growing in every town and village. By the time we got to Luoyang, the weather deteriorated, and we were not to see the sun again in China — the wet season had started. Apart from the Buddhist carvings in caves along the river bank, Luoyang is famous for its paeonies. There is a large park all planted in paeonies, the streets have paeonies growing down the divide, and there is a large planting around an old Temple. . . but we were just too late for the tree paeonies and the herbaceous paeonies were just breaking — a little sun would have brought them out. We saw a few, but they must be a breathtaking sight at their best — a very fleeting couple of days, I should think, as they don't last. From Luoyang we were in the train again, this time overnight, to Nanjing and a night in our favourite Jinling Hotel. It is still as good as ever and they have a garden and

shopping arcade on the site. Sadly it rained all the time, but we did visit a most attractive garden, the Taiyuan, once the H.Q. of the Taiping Emperor, and the City Gate. Another train journey to Suzhou for a night and a very rushed visit to the Humble Administrator's and Lingering Gardens. Our last stop in China was at Hangzhou — still misty but still a beautiful city. Our most interesting visit was to the National Tea Institute. One of their personnel had just returned from a trip to Yunnan to photograph some of the giant trees in the wild and several new species were discovered. (Camellia trees I mean). We saw his slides and some of the dimensions mentioned were a *C. taliensis* 26 metres high and 10 metres in circumference, a *C. grandibractea* (new species) 16 metres high and several 15 metres high. I tried to copy down the names of the species and Bob Cherry extracted a promise from them that they would write an article for the I.C.S. bulletin. We also learned about the highly nutritious properties of green tea, especially the Dragon Well Green Tea released from the Institute this year. They claim that it has an unusually high percentage of Vitamins C, E and P, aiding blood circulation, is a tonic to inhibit ageing and helps overcome the effects of nuclear radiation by raising the count of white blood cells.

We flew direct from Hangzhou to Hong Kong. By this time we were pretty well under the weather with coughs and colds and Hong Kong was wet. However, Bob Cherry wanted to go out to Kadoorie Garden, so I rang Mrs. Barretto and she directed us how to get to the Garden by train and bus. It was quite easy really and we felt a sense of achievement to get there on our own by public transport. She was waiting for us with her jeep, and although it was very misty with cloud hanging low over the hills, she drove us all over the garden and right up to the top to view the *C. kissii* bushes. It rained heavily while we were in the garden — typical wet season weather. However, Mrs. Barretto said this appeared to be a good time to go botanising in the wild places and in the last week she had discovered three new species of plants including a *Michelia*, which we were the first to photograph. The yellow *Tutcheria* she told us about when we were there last proved to be *Pyrenaria* (new name for *Tutcheria*) *microcarpa*.

Ten of our party were in the 1984 group — Harold and Dorothy Fraser, Peter Campbell, Bob Cherry, Ron and I, Sheila and Alec Porter and Sylvia Beeman and Ina Goulding.

Villa Lanzara Nocera Superiore (Salerno)

CONTESSA CETTINA LANZARA

Villa Lanzara, Nocera Superiore (Salerno)

Villa Lanzara, Nocera Superiore (Salerno)

Villa Lanzara, Nocera Superiore (Salerno)

Villa Lanzara, Nocera Superiore (Salerno)

Some miles beyond the so-called “Miglio d’oro” or “Golden Mile”, between Naples and Salerno, is one of the most fertile areas in Southern Italy: this is the “Agro Nocerino”, or “Fields of Nocera”. The name comes from Nocera - a very ancient town, dating back centuries before Christ.

There stands the Villa Lanzara, so called from the owners’ family name, who have owned this property now for six generations. The house was built originally at the end of the 18th century when it belonged to Duke Pirro Carafa who held it only for a few years. At the beginning of the 19th century the owner was Andrea Lanzara who added a wing to the building.

Like many historic Vesuvian Villas, the house stands by the roadside and the garden is behind it. The entrance is by the front by a handsome portico and at the end of the garden there is a gate and another exit. The garden is beautiful and well known for its camellia trees and other plants, many of which can be found in botanical gardens. They thrive there thanks to the climate and the quality of the soil and water. Around the garden and house there is a village with orange and lemon orchards.

The garden was designed by one of the architects who worked on the “English Garden” of the Royal Park of Caserta. It is a small replica of this “Giardino Inglese” with the same qualities of plants, magnolias, superb yews, palms as well as ponds and a “Coffee House”.

The garden was cunningly planned in such a way that it is too big to be a garden and too small to be a park: however it is beautiful. The camellias, which are of the same age of those of Caserta, are not crowded together on the same site but have plenty of space among tall and small trees, just like a colour ornament. There is one which must be 160 years old and has been trained up a wall 8 metres high and 11 metres long and which has a very thick trunk for a camellia.

There are many of these trees: some grow quite wild and form thickets while others have been trained over the years and cut into round and other shapes. The youngest are 60 or 80 years old. We have many varieties of camellias. The family have always enjoyed their garden and its camellias merely as an aesthetic pleasure without so much interest in their names and qualities.

But then my husband began to develop an interest which we share with him. We love the beautiful “Tricolor”, very pale pink with red stripes. Looking at the plant it is possible to see that at the right the flowers have a very pale colour and at the left the colours are deeper. We have the ‘Alba Plena’, the semi-double ‘Lotus’, ‘Lavinia Maggi’, ‘Adolphe Audusson’, ‘Chandleri’, ‘Elegans’, the ‘Donckelarii’, ‘Drama Girl’, ‘Count Cicogna’ and a lot more.

The owners’ aim has been for many years, and still is, to keep the house and garden as originally laid out, without adding anything new, nothing which might spoil the harmony as a symbol of the 19th century, and only when a tree grows too old to live and dies, everybody mourns it and then we plant another hoping to see it grow up soon!

So it is more like an oasis since all other villas in the area have been sold during the post-war building boom and also because of the big 1980 earthquake, bringing considerable sums of money to the sellers.

The Lanzara family, and above all the widow of Giovanni Lanzara, daughter of Marchese Verusio, Duke of Ceglie, resisted during the last war to the German and Allied forces’ cannons which fought around the estate, luckily only for one month, and after her death many years ago, the family had to face the earthquake damages and repair everything, because of the love we felt for our roots, even though nowadays it is very hard to hold on to it.

The camellias - how clever of them to bloom during the winter when trees and flowers sleep their yearly rest! - are really gorgeous all by themselves, with their dazzling blooms, among the deep green leaves.

Villa Giulia San Giovanni a Teduccio (Napoli)

PRINCIPESSA UZZA DE GREGORIO CATTANEO

Villa Giulia, San Giovanni a Teduccio (Nápoles)

Villa Giulia, San Giovanni a Teduccio (Naples)

Villa Giulia, San Giovanni a Teduccio (Napoli)

Villa Giulia, San Giovanni a Teduccio (Napoli)

Villa Giulia, with its park, is one of those 121 18th century villas known as the Vesuvian Villas. Planned by famous artists and architects, they are placed in a wide stretch of land extending from Naples to Torre Annunziata, between Vesuvius and the sea. They were built around the Royal Palace in Portici, along the royal street of Calabria, re-christened “Miglio d’Oro” (Golden Mile), because of the vast wealth spent on their construction.

The original owner of Villa Giulia was Don Domenico Cattaneo, Prince of San Nicandro, Minister of Charles Bourbon and Tutor to King Ferdinando (after the nomination of Charles as King Charles III of Spain). On the transfer of the Royal Residence from Naples to Portici, he transformed his country house, bought by his ancestor Baldassarre, when he moved from Genoa to Naples a century earlier, into a sumptuous villa, designed by the famous architect, Luigi Vanvitelli, as can be seen on the facade design now in San Martino Museum.

In 1886, Giulia Cattaneo, Duchess of Monteleone, asked the architect Nicola Breglia to enlarge and transform the house as it is nowadays. It is still preserved in all its monumental and dainty beauty by its present owner, Prince of San Elia, de Gregorio Cattaneo, descendant of Domenico Cattaneo.

Villa Giulia, with Villa Campolieto, restored in 1984 by "Ente Villa Vesuviane" of the District of Campania, are the best preserved of all in their ancient sumptuousness, but Villa Giulia is the only Villa Vesuviana that has maintained its park as it was in the 18th century. The beautiful park still preserves the original 18th century design, rich in decoration, such as statues, basins, stone benches and balustrades, and an elegant cast-iron greenhouse, that is a late 19th century construction by Breglia, as well as in valuable trees and groves, among which the camellia grove stands out.

These wonderful camellia trees of rare beauty are to be seen in the gardens of all the Neapolitan nobility, and it was Admiral Nelson who presented the Queen with the first camellia in Italy, that is still admired today in the English garden of Caserta Royal Palace. In the Villa Giulia from November to late April, the camellias bloom along the paths or in the shrubberies. They include many old varieties, such as:

'Lady Hume's Blush'
'Collettii'
'Alba Plena'
'Ninfa del Tebroi'
'Gigantea'
'Nazario'
'Duchessa d'Orleans'
'Althaeaflorea'

'Red Sultan'
'Vergine de Collebeato'
'Mathotiana Rosea'
'Vessillo dell'Arno'
'Margherita Serra'
'Fra Arnaldo da Brescia'
'Dobrey'
'Cup of Beauty'

'General Gigalini'

R. H. S. Shows, 1986

JOYCE WYNDHAM

Exposiciones de la R.H.S. en 1986

Expositions R.H.S. en 1986

Esposizioni R.H.S. 1986

Ausstellungen der Royal Horticultural Society 1986

MARCH

It was thought it would not be possible to put on a display of camellias, owing to the very severe weather in February, and on the Monday arranging the stand, only eight blooms had been received by 9 p.m., that evening.

However, thanks to the support of many friends early on the Tuesday morning, and much hard work from 7 a.m., onwards, camellias shading from white to a pink and red centre were shown on a moss background, with supporting vases of sprays on either side. My thanks are due to all who contributed at the last moment, including Trehane, Stonehurst, Chatsworth and Windsor, and a tribute to the quality of their blooms that the R.H.S. awarded the display a Flora Silver Medal.

APRIL

With the scarcity of outdoor camellias again apparent, a theme for the display was not able to be established until late on the Monday evening. Fine blooms of camellias not usually seen by the general public were displayed, including Adelina Patti, Arbutus Gum, Augusto L'Gouveia Pinto, Brilliant Butterfly, Cara Mia, *Camellia pitardii yunnanica*, Valley Knudsen, Wild Silk, and Robert Strauss. Decorating the sides of these, were a Bonsai arrangement of Barbara Jane, a large Elegans, some magnificent blooms of Apollo with Cinnamon Cindy, and a centre pyramid of mixed blooms. This display, which was awarded the Banksian Silver Medal, would not have been possible without the enthusiastic help of willing supporters, who showed such interest in creating the whole arrangement. Camellias were donated from Tarn, Stonehurst, Chatsworth, Windsor, and many individual members.

Awards at R. H. S. Shows for I.C.S. Displays

- 1978 Banksian Silver Medal, March show
- 1979 Banksian Silver-gilt Medal, March show
- 1980 Banksian Silver-gilt Medal, March show
1980 Lindley Medal, for technical achievement, April show
- 1981 Flora Silver Medal, March show
1981 Lindley Silver Medal, April show
- 1982 Flora Silver Medal, March show, *Camellia reticulata*
1820-1980
1982 Banksian Silver Medal, April show
- 1983 Lindley Medal, for technical achievement, April show
- 1984 Lindley Medal, for technical achievement, *Camellia*
production and marketing, March show
1984 Flora Medal, April show
- 1985 Flora Silver Medal, March show, *Camellia* parents
- 1986 Flora Silver Medal, March show
- 1986 Banksian Silver Medal, April show

Awards at RHS Shows, 1986 for Camellia cultivars

Premios otorgados en las exposiciones de la R.H.S. en 1986

Récompenses aux Expos. RHS, 1986

Premi delle esposizioni R.H.S. 1986

Preise bei RHS-Ausstellungen 1986

Camellia 'Carolyn Snowdon' (*reticulata* 'Buddha' × *japonica* 'Ville de Nantes'). Award of Merit, 25 February, 1986, as a hardy, flowering plant. Crossed, raised and exhibited by Dr J. A. Smart, Marwood Hill, Barnstaple, North Devon. Habit upright, fairly fast growing; flower semi-double, striking red, stamens irregularly arranged.

Camellia 'Cornish Spring' (*japonica* 'Rosea Simplex' × *cuspidata*). Award of Merit, 8 April, 1986, as a hardy, flowering plant. Crossed, raised and exhibited by Miss Gillian Carlyon, Tregrehan, Par, Cornwall. Floriferous; young foliage slender, tinged bronze; flowers up to 4 cm diameter ± single, clear, soft pink with slightly richer veining, with a small dense boss of stamens, anthers brownish golden yellow.

Camellia japonica 'White Nun'. Award of Merit, 18 March, 1986, as a flowering plant for the cool greenhouse. Raised by J. McCaskill (USA) and exhibited by Dr J. A. Smart. Habit spreading, fast growing, leaves large, flowers up to 14 cm across, semi-double white, almost flat when fully expanded, boss of stamens very conspicuous.

Camellia 'Nijinski' (hybrid of C. 'Salutation'). Preliminary Commendation 8 April, 1986, as a hardy, flowering plant. Raised and exhibited by Miss Gillian Carlyon. Habit elegant, leaves long and slender, tinged pink when young; flowers up to 12 cm across, single, Red Group 55A.

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The Garden of Mr. & Mrs. Ford Kitchen "Southdown", Merricks, Victoria, Australia

VIOLET LORT-PHILLIPS

El jardín del Sr. y Sra. Ford Kitchen, "Southdown", Merricks, Victoria, Australia

Le Jardin de M. et Mme. Ford Kitchen, "Southdown", Merricks, Victoria, Australia

Il giardino dei signora Ford Kitchen, "Southdown", Merricks, Victoria, Australia

Der Garten von Mr. & Mrs. Ford Kitchen, "Southdown", Merricks, Victoria, Australia

In Victoria, there are forests of native trees and many established gardens of botanical interest, with old and new planting. I will describe that of "Southdown", which has been planted by Una and Ford Kitchen. It is on a peninsula of land overlooking Bass Strait on one side with a large inlet of water, Westernport Bay, about a mile or two away, on the other. A magnificent view, but when the garden was started, it was open to all the winds that blew.

Many of their trees are grown from seed collected in different hemispheres during their travels. The soil is for the most part acid or neutral and of volcanic origin, some parts have the rich red colour of Devon.

Numerous difficulties have been overcome in the making of "Southdown" not the least that the house was built before Mr. and Mrs. Kitchen returned from Europe. The land also was completely devoid of trees or shrubs, and there are still periodic shortages of water in spite of two large dams. Having chosen the site with care, the next thing, Mr. Kitchen said, was to organise wind breaks. Only a few native trees survived from a holiday planting of a year or so earlier, but sufficient for them to start gardening in earnest on their return in 1976: "Southdown" is nine years old. I was told that growth at first was very slow but increased rapidly once a minimum of shelter was established.

I saw the garden in 1981 and again in September 1985. It was their Spring. The wooded slopes with stands of dark *Pinus radiata* among the grey eucalypts and rich farmland led up to the crest of a hill, with a drive sloping gently to the house, and the fence line planted with seedlings of Captain Collingwood Ingram's *Cistus* 'Paladin'. My first visit had whetted my appetite, and my second reinforced my opinion that this is one of the most interesting and varied collections of plants in Victoria. The garden has also been planned with form and style, to make a balanced whole.

There is a brick-paved forecourt leading to the front door of the house, sheltered from the South and filled with a delicious mixture of scented flowers and climbers: jasmine, climbing roses and some fragrant camellias were underplanted with a prostrate rosemary.

Amongst this profusion, I noted the double pink flowers of Tom Savige's 'Wirlinga Princess', the neat rosy blooms of *C. rosaeflora* next to the formal white of 'Nuccio's Star', with 'Francie L', 'C. Howard Asper', the popular and long flowering 'Star upon Star', 'Freedom Bell' and the pointed leaves of 'Onetia Holland' - though I lost my heart to the modest double *sasanqua* with white scented flowers, which came from Edgar Sebire's nursery, standing next to the front door. Hawaiian hibiscus grew well on the North facing wall, with *Fremontodendron californicum* and a large yellow-flowered *Thunbergia* 'Moomba'.

Aquilegia alpina, grown from Wisley seed, set off the charming little terracotta fountain with water playing gently into a small fish pond. *Lapageria rosea* grew in a shady corner, and the small *Thunbergia* 'Black-eyed Susan' seeded itself about the sunny side.

Across the drive, under the shade of a large *Pyrus ussuriensis* (now 22 feet high and 24 feet wide) and a nearby shade house there were *C.* 'Moutancha' with silver rose flowers, 'Fiona Capp' a large white semi-double, 'Mary Phoebe Taylor' bright pink - one of the most attractive of the group was *C. reticulata* 'Samantha', a seedling of 'Cornelian' Australian bred and widely grown with good quality blooms, also several seedlings from a 'Flower Girl' × 'Buddha' cross not considered sufficiently different to register. Una Kitchen's pet, a seedling *C. granthamiana* promised well. There were also *Vireya* rhododendrons and camellia species as well as *Camellia* 'Dream Girl' flowering for nearly three months, and the apricot-centred Higo Camellia, *Pieris* and *Kalmia latifolia* in the deeper shade. *Cantua buxifolia* in two colour forms hung its red or yellow bells over them all. Here also on the low front wall was a charming clump of *Geranium lancastricense*, Wisley seed again.

In the front beds of the terrace, camellias were used as shelter for tender treasures; they had grown quickly, so much so that Ford Kitchen threatened to remove them or to chop them hard. I think we in the U.K. should follow the Australian habit of using the saw or secateurs drastically to renew and open up our old bushes. Near the orchard of plums, pears and apricots were *Camellia* 'Water Lily' and 'Betty Sheffield Supreme' with the white blush miniature *C.* 'Lin Po' and the *lutchuensis* × *japonica* hybrid 'Cinnamon Cindy' with the lovely *lutchuensis* scent.

The view from the main terrace of the house looks North-East, over lawns in which are island beds amusingly-named. To the left of the drive, sheltered by brush fencing, are three beds called 'The Steeplechase'. In the first of these, a dominant point is made by *Quercus coccinea*; *Magnolia sprengeri diva* flowering in five years; *Michelia doltsopa* and my favourite purple *Abutilon* 'Suntense'. The next two beds lived up to the promise of the first with, amongst other things, *Acer saccharinum fastigiatum*, *Magnolia grandiflora* 'Exmouth' and *Pinus palustris*. The long-fringed needles were slightly burnt by the North wind.

I went to the 'Boomerang' bed in the centre, pausing to admire the small fruit and interesting leaves of *Pyrus ussuriensis*, the Manchurian pear, which has spectacular autumn colour too; paying respects also on the way to *Nyssa sylvatica* and *N. sinensis*. Nearby was *Cotinus coccygria* 'Flame', which Una Kitchen

prunes carefully, half for flower effect and the rest for leaf. On the South side of this bed were three prized plants of *Helleborus lividus* from seed (collected originally in Majorca by I.D.S. member Derek Fraser Jenkins) and so far apparently not grown in Australia. The focal point of the North lawn is a new paved area, with a seat and earthenware pots, to which one's eye is drawn and where the silver leaves of *Leucodendron argenteum* shimmer in the breeze, to be set off by the pink flowers of *Albizzia julibrissin rosea* and with a small golden ash blending well. Bulbs thrive in the well-drained soil and this bed was built primarily for bulbs. These start with the early narcissi, especially bulbocodium, through the main flowering and going on to many varieties of iris in late Spring: Calla lilies and Galtonias for Summer and Nerines for the Autumn, to mention just a few. *Rhodohypoxis* is a great favourite as, in a good season, it flowers for months on end.

There was a nearby large bed of day lilies (*Hemerocallis*) which Una Kitchen finds invaluable for picking for the house throughout the Summer. Just beyond, was a bed of blue Polyanthus, inter-planted with locally-bred Narcissi in cool, pale shades. I wish our political divisions could merge in such harmony.

The remarkable growth rate left me envious. Tree magnolias were flowering after only five years; some camellias will soon have to be thinned, although they were planted well apart; the native *Banksia integrifolia*, with yellow flowers and silver-backed leaves; oak trees and most conifers all love the conditions. The scent of the Boronias near the Tasmanian section was delicious. They were in all shades of pink, as well as yellow and brown, and I am determined to see if they will grow in the Channel Islands. "Southdown" has good Autumn colour, due to its acid soil.

It may seem that there are no pests or diseases but my hosts tell me that they suffer very much from the Borers, which will attack any trees but particularly native ones, with devastating effect. We saw the result of their efforts on some fine old acacias.

Two areas of special interest to tree lovers are the East and West "Arboreta", with a good mixture of varieties from all over the world. The Chinese elm, *Ulmus parvifolia* 'Frosty', with its very small lime-green leaves, looked entrancing after a shower of rain. *Pseudolarix amabilis*, seen on the International Camellia tour in China, is there with *Cupressus cashmeriana*, *Juniperus formosana* and *Pinus patula* (now 22 feet after six years). Deciduous trees include *Robinia* 'Frisia', *Cornus controversa variegata* and a fledgling *Quercus robur* Concordia. These are sheltered from the hot North winds by a large stand of *Cupressus glabra* already 21 feet high, which does the double duty of sheltering a small orchard from the cold South winds.

There is also *Eucalyptus preissiana* with square shaped red stems, red veined leaves and bright yellow flowers. To the West, the area is surrounded by a shelter belt of Melaleucas, Eucalyptus and some large Cedar Wattles (*Acacia elata*) with soft ferny leaves. *Eucalyptus crenulata* is a relatively new species discovered some forty years ago in the Acheron Valley. Angophoras make a fine show for

Christmas with their white flowers, pink new leaves and red trunks against the backdrop of a blue sea in the distance.

The Eastern end includes some native frangipani (*Hymenosporum flavum*) from Queensland with copious yellow umbels of flower and glorious scent, which pervades the garden for weeks. Many of the early common names for plants in Australia are misleading. This superb tree of the Pittosporum family resembles the true frangipani only in the beauty of its perfume. The original tree is now 25 feet high.

There were several varieties of *Cornus* including *C. capitata* (the berries of this were successfully sprayed this year against the birds), elsewhere a group of silver birch, *Betula tristis*, with *B. jacquemontii*, *B. szechuanica* and *B. albosinensis septentrionalis* with their lovely silver or orange trunks showing up well in Winter, while many eucalypts are valuable for their white trunks in Summer.

Not content with their original four-acre garden to look after, Una and Ford Kitchen have taken in a new half-acre section from a field; a spur of good red soil running from an old volcano called Arthur's Seat. It already includes a *Eucalyptus fraxinoides* now 15 feet high grown from seed collected with the help of the long arm of Mathew Ridley during the I.D.S. tour of Eastern Australia in November 1981; also a very promising Australian-raised hybrid of the rather tender *Cupressus cashmeriana* and *C. glabra*. The perimeter has been planted with some flowering cherries and paulownias with, waiting nearby to be planted, some interesting rhododendron species. It promises well.

Running through all of these were large stands of camellias and some scented rhododendrons, and many magnolia species. With the lack of frosts and the vast number of plants that can be grown, there is colour at all seasons of the year and scent too at "Southdown".

Distinguishing *Camellia* L. Species using Dorsal Leaf Surface Impressions

W. L. ACKERMAN¹ and AO-LUO ZHANG²

Distinción de la especie de *Camellia* L. mediante las impresiones de la superficie dorsal de las hojas

Comment distinguer les espèces de *Camellia* L. par les impressions de la surface dorsale des feuilles

Le camellie di specie L. distinta tramite le impressioni della superficie dorsale della foglia

Erkennen der Kamelie L. Spezies mit Hilfe von Dorsal-Blattober-flächenabdrücken

Additional index words: ornamentals, morphology, speciation, taxonomy

Abstract: The dorsal (lower) surfaces of leaf samples taken from 38 species of *Camellia* were examined for distinctive characters which might serve as an aid in taxonomic characterization of subgenera and sections in *Camellia*. A simple technique involving cyanoacrylate adhesives was used to prepare microscope slides for examination with a light microscope equipped with differential interference contrast optics. Specific characteristics studied included the distribution of stomata, the shape and size of guard, and other epidermal cells, and the presence or absence of epidermal hairs and gland and corky cells. Characteristics of epidermal cells on the dorsal surfaces of *Camellia* leaves can serve as a technique for the classification of species and cultivars and in the verification of species purity or determination of hybrid status.

Camellia belongs to the family Theaceae, tribe Gordoniaeae, along with 8 other genera, including *Franklinia*, *Gordonia*, *Laplacea*, *Pyrenaria*, *Schima*, *Stewartia*, *Tutcheria*, and *Yunnanea*. Native to southeastern Asia and the largest of the genera within Gordoniaeae, *Camellia* is native to the People's Republic of China, Vietnam, Japan, Laos, Burma, India, Thailand and Malaysia. Based on numbers of endemic species the center of origin of the genus appears to be Yunnan Province, People's Republic of China. Sealy¹⁰ documented the taxonomic and probable phylogenetic relationships of species in *Camellia* and described 82 species in 12 intragenetic sections, and 16 species too imperfectly known at that time to classify. Chang⁵, in his recent monograph, drastically modified the taxonomy of the genus and recognized 196 species, including 91 new species and 6 new varieties.

The genus *Camellia* presents a wide variation in foliar and floral characteristics reflecting great genetic diversity between species. This is not surprising considering the extensive range throughout southeastern Asia where it grows

Footnote

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under tropical, subtropical, temperate, and cool-temperate conditions. The basic chromosome number is $x = 15$, and common numbers are $2n = 30, 45, 60, 75,$ and 90 , while exceptional individuals with $105, 120,$ and 150 chromosomes and a wide range of aneuploids have been documented^{1, 2, 7}. Interspecific sexual compatibility has also proven a valuable tool for determining the relationships between species within the same intrageneric sections as well as between species of different sections. Such studies have been useful in properly documenting a number of species too imperfectly known by Sealy to classify^{1,3}. Similarly pollen size and variability as related to chromosome number and speciation proved useful for determining species validity. Cultivars of species developed over many years of cultivation appeared subject to introgression and hybridization and were more highly heterozygous than their wild relatives. Thus, studies of pollen size, variability, and percentages of good pollen can serve as an indicator of hybridity among *Camellia* species.⁴

Light microscopic examinations of the epidermal cells of the lower leaf surfaces of *Camellia* species appear to be another approach to species identification and relationships at the intra- and inter-section levels. Several techniques have been used for the study of plant surfaces and epidermal cells, including epidermal stripping¹⁴, cellulose acetate films⁹, silicone¹³, and acrylic polymer imprints⁶. In human dermatology, Marks and Dawber⁸ used a cyanoacrylate adhesive for skin surface biopsy. Wilson, Pusey, and Otto¹² adapted the cyanoacrylate adhesive technique for the cytological examination of plant tissues, primarily for the lower leaf surfaces of *Prunus*, *Begonia* and *Tradescantia*. The latter technique, involving cyanoacrylate adhesives, was adjusted for use in the following study of the lower surfaces of camellia leaves. The primary advantage of this method is that it can be used easily in countries, such as that of the second author, where complex laboratory equipment (including scanning electron microscopes) are not available.

Materials and Methods

Leaf samples for study were obtained from *Camellia* specimens grown under greenhouse conditions at the U.S. Plant Introduction Station, Glenn Dale, Md. and the U.S. National Arboretum, Washington, D.C. Additional materials were obtained by the second author from the Kunming Botanical Garden, Kunming, Yunnan Province, People's Republic of China. Sealy's¹⁰ taxonomic classifications were used as the primary basis in the present study. Chang's⁵ highly sectionalized and more diversified classifications, however, were used when applicable for newly described species from China unknown to Sealy. Table 1 lists 38 *Camellia* species used along with their nomenclatural authorities, and sources.

The first objective was to verify the relative uniformity of the various structural characteristics on the lower surface of leaves taken from different parts of individual plants and from different plants of the same species. Leaves were taken of various ages and from different locations, representing differences in apparent moisture conditions and light exposure. Only minor variations in the

distribution of stomata and other epidermal features were evident between exposed and protected leaves. Older leaves were more glabrous than younger leaves. This suggested that these appendages are fragile and subject to abrasion and loss with age. Leaves from different plants of the same species usually showed no greater variation in epidermal features than did leaves of the same plant. To eliminate as much variation in sample-taking as possible, leaf samples were confined to the mid-portion of the previous season's growth from branches located at approximately one-half the plant's height.

Ten mature leaves per species were collected from the mid-portion of the previous season's growth and circular sections, 1.2 cm in diameter, were cut adjacent to the leaf mid-rib with a punch. Microscope slides were cleaned with 95% ethanol prior to the application of a single drop of cyanoacrylate adhesive ("Super Glue", Loctite Corp., Cleveland, Ohio). The lower surface of a circular patch was placed against the glue and a 2nd slide immediately placed on top of this, pressure applied, and the 2 slides held together with wooden clothespins. The slides were separated after about 5 mins and the leaf patch gently lifted from the first slide with the tip of a scalpel inserted along the perimeter of the patch. The imprint of the lower leaf epidermis including some adherent tissue was examined with a light microscope equipped with differential interference contrast optics. Photomicrographs were made of the best specimens. Cover slips were not necessary and the slide preparations maintained their clarity even after months of storage.

Results and Discussion

In *Camellia*, stomata normally occur in largest numbers on the dorsal (lower) surface. The distribution of stomata, the shape and size of guard, subsidiary, and other epidermal cells, and the presence or absence of epidermal hairs and gland and corky cells varied among species. In the majority of leaves, stomata were arranged without an apparent regular pattern of orientation. They were spaced more or less equidistant from each other, and were only rarely found on the veins. The number of stomata per unit area of epidermis varied among species and appeared to have only limited relationship to habitat or location on the plant.

The shape of the stomata showed only minor differences among the various species. Stomata of 2 distinct sizes, however, were observed on most leaf samples. Where present, the large stomata were surrounded with radiating ridges or rays extending into the epidermal tissue.

Subsidiary cells — those cells directly adjoining and forming a perimeter around the guard cells — were of 2 distinct types: 1) lightly pigmented (Fig. 1A); or 2) heavily pigmented (Fig. 1B). Heavily pigmented subsidiary cells of some species possessed radiating ridges or rays, similar but much shorter than those extending from the large stomata mentioned above (Fig. 1C), while others had none.

The size, arrangement, and patterns of the other epidermal cells were highly variable (Table 2). Four major epidermal cell patterns were apparent: 1) epidermal cells were bordered by dark lines forming a net-like pattern and the

general surface area appeared flat (Fig. 1C); 2) epidermal cells were bordered by single-row chains of cells forming a net-like pattern and the general surface area was uneven with both stomata and clusters of epidermal cells appearing recessed (Fig. 1D); 3) epidermal cells were bordered by light ridges forming a net-like pattern and the general surface was uneven with epidermal cells, but not stomata, appearing recessed (fig. 1E); and 4) epidermal cells were relatively uniform throughout without any of the previously described characteristics (Fig. 1F).

Epidermal hairs were present on the dorsal surface of leaves of some species (Table 2). Where present, they were located primarily on and alongside of the mid-rib and, less frequently, on and along the secondary veins and over interveinal surfaces (Fig. 1G). In no case were epidermal hairs found on the interveinal surfaces without also being present on the mid-rib.

Gland cells were present on the leaves of many species (Table 2). Their distribution appeared irregular without a consistent pattern (Fig. 1H).

Corky cells, which were quite distinct from gland cells, were present on leaves of about one-third of the species studied (Table 2). Where present, they were spaced more or less equidistant from each other in a consistent pattern (Fig 1I).

Stomatal density was highly variable among the species and no consistent pattern was observed between the number of stomata per unit area of leaf surface and their relationship with other species. The number of stomata per mm² varied from a low of 75 for *C. fraterna* to a high of 358 for *C. japonica*, almost 5 times the concentration. However, perhaps in compensation, the average length of the guard cells for *C. fraterna* was 46.5 μm while that for *C. japonica* was only one-third the length (15.5 μm). Some species had relatively uniform-sized stomata while others showed 2 distinctly different size categories. Here, a small percentage of stomata with guard cells up to 3 times the length of their neighbours were scattered over the leaf surface. Called giant guard cells, these structures differed further from their smaller companions by having radiating ridges or rays extending into the epidermal tissue for considerable distances (Table 2).

Characteristics of subsidiary cells were consistent within most intrageneric sections. Within sections Paracamellia, Theopsis, Camelliopsis, and Archecamellia, all species observed possessed heavily pigmented subsidiary cells, while within sections Camellia and Heterogenea, all species possessed lightly pigmented subsidiary cells (Table 2). Of the 2 species observed in section Thea, *C. sinensis* had heavily pigmented cells and *C. irrawadiensis* had light pigmented subsidiary cells. One possible explanation for this nonconformity is that our introduction of *C. irrawadiensis* has been suspected for several years of being of hybrid origin and most probably with a member of section Heterogenea⁴.

Three species in section Paracamellia — *C. sasanqua*, *C. hiemalis*, and *C. vernalis* — have identical readings for all characters tabulated in columns 6 through 11 in Table 2. The history of *C. hiemalis* has been closely linked with that of *C. sasanqua* and the species are frequently confused with each other. Their relationship is probably closer than any of the other species within section Paracamellia. *Camellia vernalis*, on the other hand, has been rather widely

accepted in recent years as a natural hybrid resulting from introgression between *C. sasanqua* and *C. japonica*¹¹. First-generation tetraploid hybrids, as is the introduction used here, would have 3 genomes (45 chromosomes) of *C. sasanqua* and 1 genome (15 chromosomes) of *C. japonica*. Under these conditions, its similarity to *C. sasanqua* is not then surprising.

Among those species possessing heavily pigmented subsidiary cells, there seems to be no clear pattern of the presence or absence of accompanying radiating ridges or rays with their taxonomic relationships. Two species within section Paracamellia — *C. kissii* and *C. miyagii* — possess rays while the others do not, 5 of 8 species within section Theopsis possess rays, and none of the species within sections Camelliopsis or Archecamellia have them.

There appeared to be a negative correlation between type A subsidiary cells and type A epidermal cells since both types of cells were never observed together in the same species. Conversely, with 2 exceptions, there appeared to be a positive correlation between lightly pigmented subsidiary cells and type B epidermal cell pattern. The 2 exceptions — *C. pitardii* var. *pitardii* and *C. wabisuke* — were of Type D pattern. Among 24 species with heavily pigmented subsidiary cells, epidermal cell patterns consisted of 11 type A, 5 type B, 4 type C, and 4 type D.

With one exception (*C. salicifolia*), type C epidermal cells were confined to newly introduced species from the People's Republic of China, most within section Archecamellia.

Epidermal hairs, at least along the leaf mid-rib, occurred on leaves of 22 of 38 species observed and were present on species within all sections with the exception of section Archecamellia. The heaviest concentrations were found within sections Theopsis and Camelliopsis.

Gland cells were prevalent on species in all sections, with the exception of section Theopsis, where they were rarely found. They were especially prevalent in sections Camellia and Archecamellia.

Corky cells were observed on 12 species and were confined mostly to sections Camellia, Heterogenea, and Archecamellia. Their presence on *C. maliflora* (section Theopsis) adds further suspicion to that already existing that our specimen is actually of hybrid origin involving *C. japonica*.

Many camellias now in wide cultivation — especially cultivars of *C. japonica*, *C. sasanqua* and *C. reticulata* — are of questionable species purity. Most of these cultivars are the result of chance seedlings resulting from open pollination where the pollen parent is unknown. The close proximity of cultivars in many gardens presents the potential for outbreeding and intermixing of species. Using data accumulated on distinguishing characteristics of the dorsal surface of leaves of Camellia species and cultivars can serve as a technique in the classification of camellias of questionable origin. Used in conjunction with other methods — such as chromosome counts, chemotaxonomy, and pollen analysis — it could help in a supportive way for either verification of species purity or determination of hybrid status.

Table 1: Taxonomic authorities and sources of 38 *Camellia* species used in this study

Camellia species	Source
<i>C. assimilis</i> Champion ex Bentham	Victoria, Hong Kong
<i>C. chekiangoleosa</i> Hu	Kunming, Yunnan, P.R.C.
<i>C. chrysantha</i> (Hu) Tuyama	Kunming, Yunnan, P.R.C.
<i>C. chrysantha</i> var. <i>microcarpa</i> Mo & S.Z. Huang	Kunming, Yunnan, P.R.C.
<i>C. crapnelliana</i> Tutcher	Victoria, Hong Kong
<i>C. cuspidata</i> (Kochs) Wright	Szechuan, P.R.C.
<i>C. euphlebica</i> Merrill ex Sealy	Kunming, Yunnan, P.R.C.
<i>C. forrestii</i> (Diels) Cohen Stuart	Kunming, Yunnan, P.R.C.
<i>C. fraterna</i> Hance	Kuling, P.R.C.
<i>C. gigantocarpa</i> Hu & T. C. Huang	Kunming, Yunnan, P.R.C.
<i>C. granthamiana</i> Sealy	Victoria, Hong Kong
<i>C. hiemalis</i> Nakai	Tokyo, Japan
<i>C. hongkongensis</i> Seeman	Victoria, Hong Kong
<i>C. irrawadiensis</i> P. K. Barua	Kew Gardens, England (Burma)
<i>C. japonica</i> L.	Oshima Is., Japan
<i>C. japonica</i> subsp. <i>rusticana</i> (Honda) Kitamura	Nigata, Japan
<i>C. kissii</i> Wallich	Katmandu, Nepal
<i>C. latilimba</i> Hu	Kunming, Yunnan, P.R.C.
<i>C. lutchuensis</i> T. Ito	Kunigami, Okinawa
<i>C. maliflora</i> Lindley	Kew Gardens, England
<i>C. miyagii</i> (Koidz.) Makino & Nemoto	Genka, Okinawa
<i>C. nokoensis</i> Hayata	
<i>C. oleifera</i> Abel	Nanking, P.R.C.
<i>C. pitardii</i> Cohen Stuart var. <i>pitardii</i>	Kew Gardens, England
<i>C. pitardii</i> var. <i>yunnanica</i> Sealy	Kunming, Yunnan, P.R.C.
<i>C. reticulata</i> Lindley	Kobe, Japan
<i>C. rosaeflora</i> Hooker	Hakgalla Bot. Gardens, Ceylon
<i>C. salicifolia</i> Champion ex Bentham	Kew Gardens, England
<i>C. saluenensis</i> Stapf ex Bean	Cornwall, England
<i>C. sasanqua</i> Thunberg	Higashi-selauria, Japan
<i>C. sinensis</i> L.	Kanaya, Japan
<i>C. tenuiflora</i> (Hay.) Cohen Stuart	Kanagawa-ken, Japan
<i>C. tsaii</i> Hu	Winchester, England
<i>C. vernalis</i> (Makino) Makino	Hirado Is., Japan
<i>C. vietnamensis</i> T.C. Huang ex Hu	Kunming, Yunnan, P.R.C.
<i>C. wabisuke</i> (Makino) Kitamura	Kyoto, Japan
<i>C. yuhsienensis</i> Hu	Kunming, Yunnan, P.R.C.
<i>C. yunnanensis</i> (Pitard ex Diels) Cohen Stuart	Kunming, Yunnan, P.R.C.

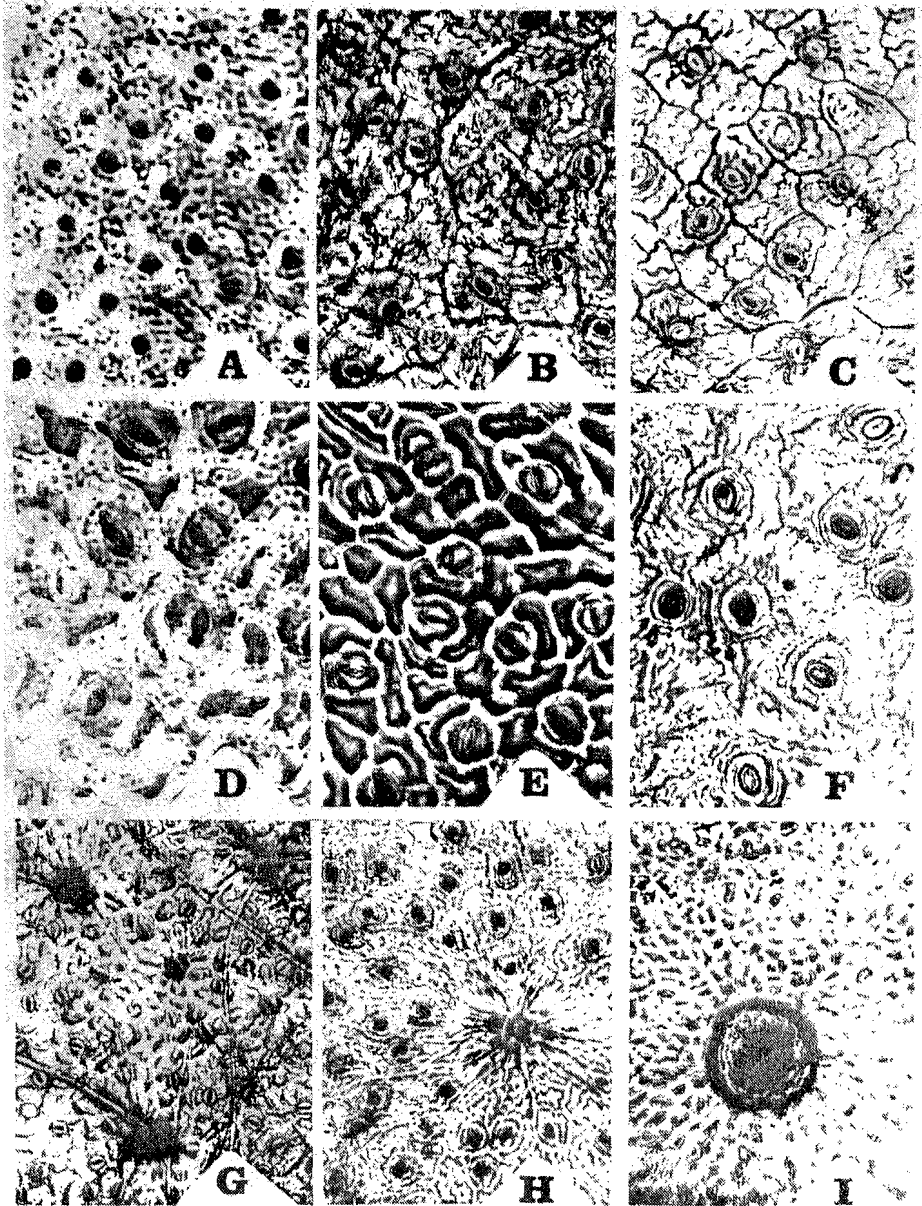


Table 2: Dorsal leaf surface characteristics of 38 *Camellia* species. Stomatal measurements based on 10 observations each

Intragenic sections Species	Stomata density (No./ mm ²)	Size of guard cells		Size of glant guard cells		Subsidiary cells type ^c	Epidermal cells type ^y	Epidermal hairs		Gland Cells	Corky Cells
		Length (μ m)	Width (μ m)	Length (μ m)	Width (μ m)			On Mid-rib	On leaf surface		
Archecamellia											
<i>C. chrysantha</i>	106	35.3	13.3	35.5	15.0	B	C	—	—	+	+
<i>C. chrysantha</i> var. <i>microcarpa</i>	175	31.8	12.0	44.5	19.0	B	C	—	—	+	+
<i>C. euphlebia</i>	140	32.5	14.3	42.0	20.0	B	C	—	—	+	+
Camellia											
<i>C. hongkongensis</i>	139	29.3	10.0	36.0	12.5	A	B	—	—	—	—
<i>C. japonica</i>	358	15.5	5.8	21.5	9.0	A	B	+	+	+	+
<i>C. japonica</i> subsp. <i>rusticana</i>	198	15.5	7.0	27.0	12.0	A	B	—	—	+	+
<i>C. pitardii</i> var. <i>pitardii</i>	232	20.8	7.5	29.0	14.0	A	D	—	—	+	—
<i>C. pitardii</i> var. <i>yunnanica</i>	206	27.8	11.0	39.5	15.5	A	B	+	+	+	—
<i>C. reticulata</i>	93	29.5	11.5	35.0	13.5	A	B	+	+	+	—
<i>C. saluenensis</i>	230	28.0	8.8	33.5	11.5	A	B	+	+	+	—
<i>C. wabisuke</i> ^x	229	23.3	8.1	27.0	11.5	A	D	+	+	+	+
Camelliopsis											
<i>C. assimilis</i>	129	29.5	9.5	32.8	11.3	B	B	+	+	+	—
<i>C. salicifolia</i>	140	33.0	12.3	39.0	13.5	B	C	+	+	—	—
Heterogenea											
<i>C. crapnelliana</i>	199	13.3	7.4	40.0	14.0	A	B	—	—	+	+
<i>C. gigantocarpa</i>	160	21.0	8.3	37.5	15.0	A	B	+	+	+	+
<i>C. granthamiana</i>	191	23.5	8.8	32.0	10.5	A	B	+	+	+	+
<i>C. latilimba</i>	103	23.5	9.0	27.5	9.5	A	B	+	+	+	+
<i>C. yunnanensis</i>	189	30.0	10.5	36.5	14.5	A	B	+	+	+	—
Paracamellia											
<i>C. hiemalis</i>	114	32.8	11.5	46.0	17.5	B	D	+	+	+	—
<i>C. kissii</i>	178	23.8	9.0	27.5	10.0	B+	A	+	—	—	—
<i>C. miyagii</i>	131	31.3	10.0	33.0	11.5	B+	A	—	—	+	—
<i>C. oleifera</i>	106	23.8	9.8	32.0	13.0	B	A	—	—	+	—
<i>C. sasanqua</i>	103	25.0	8.0	30.0	11.5	B	D	+	+	+	—
<i>C. tenuiflora</i>	201	23.4	7.3	29.5	11.8	B	A	—	—	—	—
<i>C. vernalis</i> ^x	137	27.5	10.5	38.5	12.5	B	D	—+	+	+	—
<i>C. vietnamensis</i>	90	34.3	11.3	41.0	17.5	B	A	—	—	+	—
<i>C. yuhsienensis</i>	136	32.0	11.8	44.5	18.5	B+	B	+	—	+	+
Thea											
<i>C. sinensis</i>	119	27.0	7.5	30.5	9.5	B+	A	+	+	+	—
<i>C. irrawadiensis</i> ^x	122	29.5	8.5	33.0	12.0	A	B	—	—	—	—
Theopsis											
<i>C. cuspidata</i>	170	28.5	8.3	41.0	13.5	B	A	—	—	—	—
<i>C. forrestii</i>	163	31.3	10.3	34.5	12.0	B+	A	+	—	—	—
<i>C. fraterna</i>	75	46.5	15.5	57.0	19.5	B+	D	+	+	—	—
<i>C. lutchuensis</i>	109	30.8	13.0	34.5	13.0	B	A	+	+	—	—
<i>C. maliflora</i> ^x	191	31.3	11.8	34.5	14.0	B	B	+	—	+	+
<i>C. nokoensis</i>	83	30.5	10.8	38.5	13.5	B+	A	+	+	—	—
<i>C. rosaeflora</i> ^x	140	29.8	11.3	38.5	16.0	B+	A	+	+	—	—
<i>C. tsaii</i>	119	41.3	16.0	52.0	18.5	B+	B	+	+	—	—
Dubiae											
<i>C. chekiangoleosa</i>	323	26.8	10.8	34.5	16.5	B	B	—	—	+	—

^z Subsidiary Cells

Type A = lightly pigmented

Type B = heavily pigmented

Type B+ = heavily pigmented with radiating rays

^y Epidermal Cells

Type A = epidermal cells bordered by dark lines forming a net-like pattern, surface area flattish in appearance.

Type B = epidermal cells bordered by a single-row chains of cells forming a net-like pattern, surface area uneven with stomata and clusters of epidermal cells recessed.

Type C = epidermal cells bordered by light ridges forming a net-like pattern, surface uneven with epidermal cells, but not stomata, recessed.

Type D = epidermal cells relatively uniform throughout without any of the characteristics described above.

^x Known or suspected of being of hybrid origin.

Literature Cited

1. Ackerman, W. L. 1971. Genetic and cytological studies with *Camellia* and related genera. USDA Tech. Bul. 1427.
2. Ackerman, W. L. 1973. Aneuploidy in the *Camellia*. *J. Hered.* 64:197—202.
3. Ackerman, W. L. 1973. Species compatibility relationships within the genus *Camellia*. *J. Hered.* 64:356—358.
4. Ackerman, W. L. and K. Kondo. 1980. Pollen size and variability as related to chromosome number and speciation in the genus *Camellia*. *Japan J. Breed.* 30:251—259.
5. Chang, Hung-ta. 1981. A taxonomy of the genus *Camellia*. *Acta Sci. Nat. Univ. Sunyatseni, Monograph Ser.* 1:1—180.
6. Horanic, G. E. and F. E. Gardner. 1967. An improved method of making epidermal imprints. *Bot. Gaz.* 128:144—150.
7. Kondo, K. 1977. Chromosome numbers in the genus *Camellia*. *Biotropica* 9:86—94.
8. Marks, R. and R. P. R. Dawber. 1971. Use of cyanoacrylate adhesive for skin surface biopsy. *Brit. J. Dermatol.* 85:117—123.
9. North, C. 1956. A technique for measuring structural features of plant epidermis using cellulose acetate films. *Nature* 178:1186—1187.
10. Sealy, R. J. 1958. A revision of the genus *Camellia*. *Royal Hort. Soc. London.*
11. Uemoto, S., T. Tanaka, and K. Fujieda. 1980. Cytogenetic studies on the origin of *Camellia vernalis*: 1. On the meiotic chromosomes in some related *Camellia* forms in Hirado Island. *J. Jap. Soc. Hort. Sci.* 48:475—482.
12. Wilson, C. L., P. L. Pusy, and B. E. Otto. 1981. Plant epidermal sections and imprints using cyanoacrylate adhesives. *Can. J. Plant Sci.* 61:781—782.
13. Witham, F. H., D. F. Blaydes, and R. H. Devin. 1971. *Experiments in plant physiology.* Van Nostrand Reinhold Co., New York.
14. Zelitch, I. 1969. Stomatal control. *Annu. Rev. Plant Physiol.* 20:329—350.

The Camellia Season at Catchfrench, Derbyshire, 1985-86

R. C. GLANVILLE

La temporada de la camelia en Catchfrench, Derbyshire, 1985-86

La saison des camélias à Catchfrench, Derbyshire, 1985-86

La stagione della camelia 1985/86 a Catchfrench, Derbyshire

Kameliensaison in Catchfrench, Derbyshire, 1985-86

It was lucky that the Camellia Society came to see our garden in the spring of 1983 and not this year, as many of our camellias growing outside look very sad, and the 'Elsie Jury' in full bloom that delighted David Trehane is alas brown all over, and almost certainly dead.

It is very difficult to assess why one camellia will die and another within a few yards of it will survive, and one just has to learn where to plant within the limited space of one's garden, and create the right microclimate around it with other plantings and contouring.

Our garden is on the 350 foot contour, facing south and south-east, and the hill behind gives protection from the north and east, complemented by Leylandii hedges and walls. However, being on a spur, the east winds eddy around, and the prolonged east winds of January and February this year, rather than the low temperatures we sustained, were responsible for our casualties.

Being on the southernmost tip of the Pennines, we are on the fringe of camellia growing country, and it becomes a challenge to grow them outside. This year we have found that the Williamsii hybrids bred in this country stood up to this challenge better than their Australian and New Zealand brothers.

Mature plants of 'Debbie', 'Anticipation', 'Elsie Jury', 'Grand Jury' and 'E. G. Waterhouse' have either been cut to the ground or died outright, whereas 'J. C. Williams', 'Donation', 'Citation', 'Brigadoon', 'St. Ewe' and 'Cornish Snow' survived intact and flowered, some quite well, others not so well, depending on their position.

Reticulata hybrid 'Leonard Messel' came out well and our largest plant in the semi-open suffered no foliage damage, though only the flower buds at the base bloomed. Owing to the wet, cool and dull summer of 1985, none of our camellias produced their usual crop of flower buds, so there were not so many to get caught by the severe winter weather that followed. Those buds that did survive were late in flowering and had no frost to contend with while in bloom.

The long established *Camellia japonica* cultivars, such as 'Gloire de Nantes', 'Adolphe Audusson', 'Rubescens Major', 'Berenice Boddy', 'Jupiter' and 'Sylva'

kept their foliage intact, but bloomed not at all, or only sparsely. It was notable that camellias planted against walls survived and flowered the best.

A plant of 'St Ewe' given to a friend a few years back and planted on the north wall of his bungalow flowered profusely, and was a sight to behold. In our garden, plantings against a west wall of 'Francie L', 'Leonard Messel' and 'Daintiness' all flowered reasonably well. The camellias that we grow in the greenhouses without heat did well, though I must admit that I took fright once or twice and connected up an old electric fire in one of them at night.

The 'Elegans Supreme' presented to us by the Society is doing exceptionally well; 'Royalty' was most spectacular, and will soon have to be pruned back to keep it in bounds. We were very thankful that we adopted the policy of ensuring that, prior to planting camellias outside, we had taken plenty of cuttings and so had plants growing on as replacements. We shall now embark on a replanting programme, trying out new positions where necessary. We have decided not to plant 'Debbie' outside again; we have lost too many over the years outside and, although we like it very much and it propagates easily, we shall content ourselves with the one we grow inside.

All the others we will replace and, who knows, with the scientists saying that pollution is making the world too hot, we may get a few mild winters and be able to grow camellias everywhere!

It was notable that, of all the evergreens in the garden, those that suffered least were our rhododendrons and azaleas; they have all flowered wonderfully well, and not very much later than usual. To our surprise, when visiting Stourhead Gardens at the end of May, *R. augustinii* was in full bloom, whereas in our garden 150 miles to the north *R. augustinii* was out and over. Berberis and summer heaths suffered the most. Several heather beds have been dug out and planted up with rhododendrons. Other more tender plants have survived with varying success. *Crinodendron hookerianum* lost most of its foliage and all its flower buds, but is now shooting hard from the old mature wood. Our *Embothrium lanceolatum*, Norquinco form was in full bloom in June with no ill effects. One *Enkianthus campanulatus* was in full bloom then too, whereas another planted in an equally sheltered place is growing well but has no blooms at all.

Our Pittosporum did not like last winter's conditions, but all have survived. The Magnolias have all done well except Soulangiana, which did not bloom this spring.

Now, we must turn the page, and think of all the excitements there are in store for us next camellia season, including the Cornish tour.

That Winter

BRUCE ARCHIBOLD

Aquel invierno

Quel hiver!

Quell'inverno

Jener Winter

When I was asked to write an article on the effect of the last winter on Camellias my first reaction was one of great relief. After all, all I had to do was dash out into the garden and catalogue the numerous disasters that had occurred due to plunging temperatures and hurricane force winds. Living on the side of a hill some 550 feet above sea level and facing south west I was sure that the prevailing winds must have done their worst. We have been in Devon for only some three years so, with the exception of a well established Adolphe Audusson and another hybrid of very doubtful parentage, our plants are small - indeed some are still in pots. This by reason of the fact that many generous friends who propagate and distribute with great generosity have looked kindly upon a new garden.

All this leads up to the fact that, having done the rounds of garden and nursery area the worst damage that I could discover was some bronzing of foliage in the most exposed areas. Let it be said that we did get down to -12°C and the chill factor of the high winds must have been very considerable. We did not get even a light covering of snow to help matters. A *Camellia sasanqua* of small stature and still in a pot has come through without a blemish and, although in a sheltered position, received no covering of any sort.

The only visible effect of the weather has been the late flowering of all the Camellias - in the first week in May and J.C. Williams is only just beginning to open. This may be a mixed blessing since the blossom has, to a large extent, missed the attention of the frost. It is an ill wind!!

The real villains of the piece have been the roe deer who, by our inability financially to erect a 15ft fence round five acres of land have had the free run of the garden and have left us in no doubt at all as to their favourite food - Camellias and Roses - both of which are pruned vigorously and, in the case of smaller specimens, pulled out of the ground altogether. As far as can be seen the only protective action that can be taken is the rather unsightly use of chicken wire. If anyone knows of a better method we would dearly love to hear it. Incidentally it seems that the saliva of deer may contain some of sort of growth retardant since plants browsed seem reluctant to break into new growth.

All in all though, I am constantly surprised that such a lovely plant as the Camellia proves to be so hardy and good tempered.

The effect of two cold winters on a Netherlands Camellia garden

G. KRANEN
Middelburg, Netherlands

Las consecuencias de dos inviernos fríos en un jardín de camelias en los Países Bajos

Les répersussions de deux hivers froids sur un Jardin de Camélias Néerlandais

L'effetto di due inverni freddi su un giardino di camelia olandese

Die Auswirkung zweier kalter Winter in einem niederländischen Kameliengarten

The last two winters were both unusually cold, but quite different in character. December 1984 was very mild until after Christmas; bulbs, plants and shrubs were still far too active when the cold struck suddenly in January 1985, at a time when there was too much sap in the branches, and the frozen cells burst. The winter lasted a long time, with frequent strong, dry winds and minimum temperatures about -15°C , but the soil stayed relatively warm under a cover of snow.

These conditions caused heavy financial loss to fruit growers, who lost many of their trees, and the government was generous with subsidies to meet the cost of replacements.

The 1985/86 winter started more gradually. There was a normal cool December, and when the frosts began there was not much wind, or snow, and skating conditions could hardly have been better. Minimum temperatures again about -15°C , but very little damage to crops, though a number of young fruit trees succumbed which had survived the previous winter.

My camellia collection began in 1973 with six 4-year old plants, to which I added a few more every year, usually obtained from nurseries in Kent when on holiday there. I do not have a greenhouse, and the rabbits take their toll, so my camellias have to be robust. Over the years, I have increased my knowledge of camellias from books and catalogues, and visits to English gardens, and I have carried out trials, to see the conditions under which they will thrive. These have shown camellias to be much tougher than the books would lead one to suppose, and some of my plants have done well in conditions that were far from ideal, though this may have entailed slower growth and fewer flowerbuds.

However, I was sufficiently pleased with the results to order 18 four-year-old plants from the Trehane Nurseries in November, 1984. These were all planted by the middle of December, by which time I had some 50 camellia plants with 450-500 flower buds.

By April 1985, all the flowerbuds, without exception, appeared to be dead. 35 camellia plants were dead as well, though five produced new shoots at ground

level late in the season. Only two of the newcomers survived.

A year later, the five that had made late new growth, had died also, as they evidently should have received protection like young plants. Out of my 50 camellias, only 10 have survived, and even these had lost up to half their branches during the 1984/85 winter. They were not affected by the conditions of last winter, and half of them have produced flowerbuds. A group of six survived in a very cold and uncomfortable corner near the house, subject to strong north-west winds, but in good soil with afternoon sunshine.

I can understand now why the I.C.S. has so few Dutch members, and I wonder how our Greman friends, with their even more extreme continental climate, suffered the last two winters. The books could tell one more about camellias' resistance to low temperatures and sunshine, and also about the environmental requirements of the different species from which the hybrids derive. I have the impression that strong winds are less of a hazard than the books suggest, provided that the plants are staked; also that the old-fashioned varieties may have more stamina than some of the new and more sophisticated ones. Young plants are evidently more at risk than those that are well-established. It is perhaps not very wise to plant out before Christmas.

I am afraid that my garden will not be a suitable venue for an I.C.S. visit in this century. The fruit growers and their advisers think that a disaster like the 1984/85 winter will not occur more than once in forty years, and so they have decided to carry on or start again, and I have also. In 40 years, when the plants are old and tough enough to survive such a winter, to the enjoyment of the next generation, I shall ask them to submit a report to your successor.

Camellias which survived the hard winter (1984-85)

PETER FISCHER
Wings, near Cuxhaven, West Germany

Camelias que sobrevivieron el riguroso invierno de 1984-85

Des camélias qui ont survécu au dur hiver (1984-1985)

Camelie sopravvissute al duro inverno (1984/85)

Kamellien, die den harten Winter (1984/85) überlebt haben

The range of really hardy sorts and hybrids is greater than supposed. But even two decades of trials with camellias in the open are not sufficient to give conclusive results as to the suitability of these shrubs as garden plants.

After a winter like the last one, 1984/85, this became especially clear.

Devastating winter damage in the whole of Western and Southern Europe dissolved old camellia dreams. The great optimism for the cultivation of outdoor camellias must surely have had a strong damper in Europe.

Claude Thoby, perhaps the world's biggest camellia grower at Carquefou near Nantes (France), suffered great damage this winter at all stages of cultivation when the temperature dropped to an unprecedented -18°C . In Brittany, after -25°C this year, super specimens of up to 4 metres high were wholly or partly defoliated. One must expect that some of the plants so damaged will be grubbed out. Also a casualty after this winter was the usual camellia blossom in the well known areas. Only Portugal and Cornwall registered hardly any bud losses, because they were spared the extreme conditions.

It is possible that I have fared relatively well because of my closeness to the North German coast, my choice of varieties and precautions learnt from experience. No reason for euphoria, but far from "throwing in the towel".

In order to understand the following list of sorts, first a little about the precautions, which in the meantime have been taken during the year.

Planting out in the open goes on from April until early July at the very latest. Well furnished plants, at least two years old make up the first condition for certain winter hardiness. A semi-shaded spot, protected from the east wind and morning sun is another vital matter. With guaranteed good drainage the soil type is less important than a pH of 5.5. Osmocote 14-14-14 at a rate of 2 kg per cubic metre of compost proves to be positive. A lightly rotted cowdung layer of up to 10 cm thick on the bed after planting gives, besides a little flow of nutrient and protection from evaporation, an outstanding winter protection for shallow rooted plants like camellias. This cowdung manure is replenished once a year.

Had there in previous years been intentional exposure in winter, then this measure was followed only for plants of under 80 cm. The short summer, with little sunshine, gave above average yearly growth, but disappointing bud set.

The camellias entered the winter much too soft, though the early part of it was quite favourable towards the plants. -20°C with plenty of snow caused no damage. The really serious damage was caused in February by four weeks of continual frost, without any protective snow cover. Maximum day temperatures of only -10°C at its most severe, constant easterly winds with 40% humidity put all evergreens back a lot. Also the typical "turning in" of the leaves, as is familiar with rhododendrons, was not sufficient to prevent serious damage. A thick tent of upright spruce branches round the whole plant averted the worst during the period of naked frost. With the first blossom at the end of March this tent was removed. The list of plants contains some which have been in the open for years as well as others which were only planted out last year for the first time. In every case it is a question of genuine plants from my own production. After the first year in the nursery these camellias overwinter in unheated boxes under glass, which, especially after this sort of winter, produce hardy stock. Warmer or frostfree cultivation leads undoubtedly more quickly to larger plants, but these camellias, after being planted out show considerably greater winter damage. After this winter camellia hybridisers are striving all over the world, and not for

the first time, to produce hardier camellias for our latitude. Should we get them, it could become tedious. Perhaps a pity when no more courage, optimism and patience is needed in the first place in order to open up the gardens of the northern world to the camellia which is such an exciting plant family.

The author's experiences in his garden with the winter-hardiness of *Camellia japonica* and its hybrids

Cultivar	Cover	Vegetative Damage	Bloom Damage
<i>Camellia japonica</i>			
'Adolphe Audusson'	with	Leaf & new shoot damage	Bloom loss
'Alba Simplex'	without	Little leaf damage	Bloom loss
'Apple Blossom'	with	Little leaf damage	Hardly any bloom damage
'Are-jishi'	without	Little leaf damage	Bloom loss
'Apollo'	with	Little leaf damage	Hardly any bloom damage
'Donckelarii'	without	Little leaf damage	Hardly any bloom damage
'Elegans' (Chandlers Rustique)	without	Little leaf damage	Hardly any bloom damage
'Eximea'	with	Little leaf damage	Bloom loss
'Mathotiana'	without	Heavy leaf damage	Bloom loss
'Magali'	with	Little leaf damage	Little bloom loss
'Spring Sonnet'	without	Probable total loss	
'Lady Campbell'	without	Probable total loss	
'Tricolor'	with	Little leaf damage	Heavy bloom damage
'Guilio Nuccio'	without	Little leaf damage	Little bloom damage
'Mattie Cole'	without	Leaf and shoot damage	Bloom loss

Variety	Cover	Vegetative Damage	Bloom Damage
<i>Camellia hybrids</i>			
'Anticipation'	with	Heavy leaf damage	Bloom loss
'Brigadoon'	with	Little leaf & new shoot damage	Hardly any bloom damage
'Debbie'	without	Little damage	Hardly any bloom damage
'Donation'	without	Little damage	Hardly any bloom damage
'E. G. Waterhouse'	without	Heavy leaf/new shoot damage	Hardly any bloom damage
'Elegant Beauty'	with	Leaf & new shoot damage	Bloom loss
'Spring Festival'	with	Little leaf damage	Hardly any bloom loss
'Hiraethlyn'	with	Little leaf damage	Hardly any bloom loss
'Dream Boat'	with	Little leaf damage	Hardly any bloom loss
'Golden Spangles'	with	Little leaf damage	Hardly any bloom loss
'Freedom Bell'	with	Little leaf damage	Hardly any bloom loss
'Leonard Messel'	without	Probable total loss	
'St. Ewe'	without	Leaf & new shoot damage	Bloom loss

Camellia oleifera Absolutely without damage, probably the hardiest of all the Camellias, unfortunately insignificant in flower.

A cross-breeding by Dr. Ackermann, USA, (*Camellia sasanqua* × *Camellia oleifera*) could possibly in the near future give us the most winter-hardy camellia.

Cold hardiness studies with camellias in Northeastern United States

DR. WILLIAM L. ACKERMAN
Ashton, Maryland, U.S.A.

Estudios de resistencia al frío con camelias en la región Noreste de los Estados Unidos

Etudes de résistance au froid de camélias au Nord-Est de l'Amérique

Studi di resistenza al freddo con camelia nel nord-est degli Stati Uniti

Kältewiderstandsfähigkeitsstudien an Kamelien in den nordöstlichen Vereinigten Staaten

Camellias in the Mid-Atlantic region of the United States have been devastated by the severity of seven of the past ten winters. Although our region is accustomed to cold weather, recent winters have been characterised by temperature changes of 30°C or more within a few days time. The abruptness of the drop has caught many broad-leaved evergreen plants, including camellias, without pre-conditioning, making them especially susceptible to bark and cambium injury. It has been established that the prevailing temperatures during the 72 hours prior to a drop to sub-zero weather are critical in affecting plant damage. The duration of the low temperatures also greatly affects plant survival. Thus, large mature specimens of hollies, azaleas, boxwood, certain ornamental cherries, and photinia, in addition to camellias, have been either killed or badly injured.

The extent of the devastation in the region can be exemplified by that experienced at the U. S. National Arboretum, Washington, D.C. which, in 1976, possessed a nationally recognised collection of over 900 camellia specimens (750 *Camellia japonica*, 120 *C. sasanquas*, and lesser numbers of various other species) many of which were 25 to 35 years old. At the present time only a specimen of *C. oleifera* (PI 162475) remains in its former condition. All others were killed to the ground and, with the exception of a few sprouted stumps, were removed.

Camellia Society membership here in the Northeast has suffered as growers, after having witnessed the death of plants, in some cases several decades old, became discouraged and have not renewed their membership. Our own local societies have been reduced by half, during the last decade. This, in turn, has also affected the national society which also has experienced a drop in membership.

It became evident eight years ago that if steps were not taken toward the development of more cold-hardy camellias capable of surviving our winters, this hæorrhaging of membership would continue. It even seemed quite possible that camellias might once again fall into disfavour with the American public as they did around the turn of the century.

Two lines of research are being investigated:

- (1) Hybridisation of *C. oleifera* to develop cold-hardy progeny with commercially acceptable flowers; and
- (2) Utilisation of wild forms of *C. japonica* collected in Korea and reported to be extremely cold-hardy.

Each approach has advantages and disadvantages over the other.

The difficulty of securing valid hybrids increases as one crosses *C. oleifera* with *C. sasanqua*, *C. hiemalis*, *C. vernalis*, *C. × Williamsii*, and *C. japonica*, in that order. Most camellia growers are primarily interested in spring flowering *C. japonica* cultivars: few of the *C. japonica* × *C. oleifera* hybrids have as yet flowered and those that have are intermediate in blooming period between the two parents. Thus, although the plants may be cold-hardy, their early blooming makes them susceptible to late frosts. Also, it should be emphasised that not all strains of *C. oleifera* are cold hardy. So far, the author has tested six strains (from different sources) of *C. oleifera* and found they ranged in hardiness from those no better than most *C. sasanqua* cultivars to strain (P 162475) which has withstood

Table I: Winter injury ratings of *Camellia oleifera* hybrids and minimum temperatures at fourteen locations

Location	<u>Winter Injury Ratings*</u>							Min. Temp. in Degrees Celsius January 1985
	1	2	3	4	5	6	151	
1. Kennett Square, PA	3	7	23	30	36	52	151	-23
2. Swarthmore, PA	5	5	13	4	2	6	35	-24
3. Edgewater, MD	17	27	32	18	15	14	123	-23
4. Glenn Dale, MD	3	12	24	26	31	45	141	-23
5. Ashton, MD	1	6	17	12	14	37	87	-25
6. Ashton, MD	4	11	12	7	12	18	64	-24
7. Gaithersburg, MD	1	1	1	3	8	14	28	-22
8. Westminster, MD	0	0	0	2	25	27	54	-24
9. Mitchellville, MD	0	3	1	2	5	4	15	-22
10. Bowie, MD	1	1	0	1	3	10	16	-23
11. Mt. Vernon, VA	5	14	19	8	9	9	64	-20
12. Washington, DC	0	1	0	2	4	10	17	-22
13. Hendersonville, NC	0	0	0	0	0	20	20	-28
14. Hendersonville, NC	0	0	0	0	0	15	15	-27
TOTALS	40	88	142	115	164	281	830	
Percentages	4.8	10.6	17.1	13.9	19.8	33.8	100.0	

*Injury Ratings

- 1 - No observable injury.
- 2 - 10% or less leaf injury.
- 3 - 11-30% leaf injury, some dieback of last year's growth.
- 4 - 31-60% leaf injury, dieback of entire branches.
- 5 - 61-90% leaf injury, severe dieback of major portion of plant.
- 6 - 91-100% leaf injury, killing of most to all above-ground plant.

interspecific hybrids were developed using two introductions of *C. oleifera* (PI 162475 & PI 162561). These had proved extremely tolerant of our winter conditions and were used as our primary source of cold hardiness. The *C. oleifera* hybrids were grown in greenhouses at the U.S. Plant Introduction Station, Glenn Dale, Maryland for three years. During the springs of 1982 and 1983, over a thousand of these were distributed to 14 cooperators in the Northeast for field testing. Although it would have been highly desirable to have made vegetative propagations of these so that replicated plantings would have been possible, our limited space and labour made this impractical.

Records of plant injury were taken during May and June of subsequent years, 1983 through to the present. An injury rating system of one through six was used with one designating no observable injury and six designating 91-100% leaf injury, and/or killing of most to all above-ground portions of the plant. Table I shows the numbers of plants assigned winter ratings at each location along with the minimum temperatures. High winds (40 to 56 km per hour) during the January 19-22, 1985 freeze were reported at most locations and would appear to have been associated with the low temperatures (-20 to -28°C) experienced at that time. Although this four-day period was perhaps the extreme in combined high wind-sub zero weather, lesser degrees of similar conditions have been all too prevalent in the region in recent years.

An unusual sequence of prevailing temperatures and plant injury is quite evident in Table I. In contrast to the expected, the lowest temperatures and greatest plant injury occurred at the southern-most locations and was less severe at the northern locations. Not shown in the table, but on the basis of cooperators' reports, the temperatures preceding the January 19-22 freeze were considerably warmer in the south, thus exacerbating plant damage during the freeze.

Table II shows temperatures of -10°C and below recorded during the winter seasons from 1980 through 1986 at the U.S. Plant Introduction Station, Glenn Dale, Maryland. These records were taken from official U.S. Weather Bureau data. The Glenn Dale Station was chosen as representative of the region because it is approximately mid-way between the most northern and the most southern of the 14 cooperator locations.

Although actual percentages of surviving plants vary among the locations (Table I), as was expected, the overall results are encouraging. Totals from all locations show that 15.4% of the plants had 10% or less leaf injury, with 4.8% showing no injury at all.

Beyond *C. oleifera*'s known capacity to withstand physical cold is our observation that it also resists excessive moisture loss from the leaves from drying winds compared to other camellias. In contrast, the best of our cold hardy *C. japonica* cultivars which for years were outstanding in this area because of their resistance to physical cold, have mostly succumbed in recent winters where high winds were also present. Apparently, they do not have the capacity to resist desiccation. An interesting research project would be to compare the leaf morphology of *C. oleifera* and *C. japonica* leaves to determine if observable differences in leaf tissue exist to account for this apparent phenomenon.

Breeding for superior hybrids involving any particular desired characteristic, be it cold-hardiness, floral fragrance, etc., is not necessarily a straight-forward matter of making the proper crosses and waiting for results. Much depends on whether one is dealing with qualitative or quantitative inheritance. Qualitative inheritance is manifest by characters which are mainly controlled by a few genes usually at one location on the chromosomes. Variation is discontinuous; examples: flower colour, singleness, or doubleness, etc. Here, a character is either present or it is not (a flower is either white or coloured, either single or not single). Quantitative inheritance is manifest by characters which are controlled and affected by a number of interacting genes, or a multiple series of genes at several chromosome locations. Variation is continuous; examples: most size measurements of leaves, flowers. Breeding for quantitative characters can be very complex.

It would appear that inheritance for resistance to physical cold and that for resistance to desiccation are controlled by separate genetic complexes; that some *C. japonica* cultivars possess the former genetic complex but not the latter, while some *C. oleiferas* possess both. Also, it is near certain that our *C. oleifera* introductions are heterozygous and contain both "good" and "bad" genes in respect to the cold hardiness expression. This, in turn, would explain the variation in the degree of cold-hardiness expression among the hybrids shown in Table I. The logical approach is to try to accumulate as many "good" genes for cold-hardiness into individual hybrids as possible. It is much like taking a

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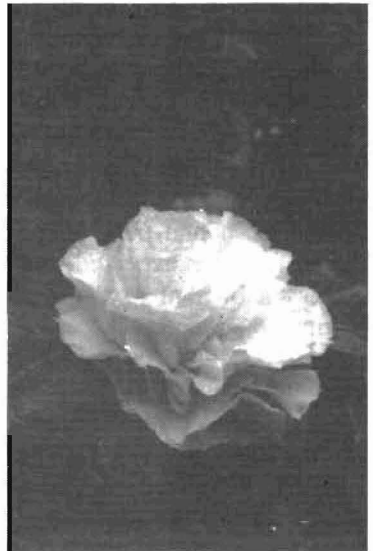
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thoroughly mixed deck of cards and repeatedly shuffling them in an attempt to draw cards all of one kind. The more cards (genes) you have, the more difficult the task. With cards this means many shufflings, with cold hardy camellias this means many crosses and large populations.

Scions and cuttings have been collected from most of the 128 hybrids observed to have less than 10% winter injury (Table I). Scions have been grafted onto *C. oleifera* (PI 162475) seedling rootstocks, and cuttings have been rooted under mist. These will be grown on for further field trials. Concurrently, a group of the best performers with good flower size and quality are in process for naming and release. The flowers of several of these are shown in Figures 1 through 4. All of these are fall blooming.

Of more recent origin and field testing are two series of crosses of *C. oleifera*; one with *C. × Williamsii* and the other with *C. japonica*. Because of the greater difficulty in making these crosses and therefore smaller numbers, the original hybrids were vegetatively propagated in the green house prior to replicated field planting.

The first plants from these two series were planted out during the spring of 1985. Although almost all of these came through the 1985-86 winter without injury, it was not an adequate test (minimum temperatures did not exceed -16°C - Table II), and further test winters are necessary before any selections will be made. Among those that have thus far flowered, several appear to have good commercial potential (Figures 5 & 6).

We may not completely understand the modes of inheritance of the two facets of cold-hardiness, and certainly no control over the random recombination of interacting genes. Yet, our working with large populations involving good parental lines should, and apparently has, come up with some highly desirable genetic combinations in individual progeny.

The most essential quality a plant breeder must have is patience, the second is a keen sense of observation. Mother Nature rarely concedes to the 'quick fix' so prevalent in today's society; for short cuts seem not to be in her genetic vocabulary. With the camellia growers here in Northeastern United States, we are not only dealing with the survival of plants, but the very survival of our local societies as viable organisations.

Camellias in the Scottish Highlands

LADY EDITH MACLAREN
1986

Camelias en la región montañosa de Escocia

Les camèlias dans les Highlands d'Écosse

Le camelie negli Altipiani Scozzesi

Kamelien im Schottischen Hochland

In January 1971 we came to live in Ard-daraich, a small house and garden, facing east on the shores of Loch Linnhe, near Fort William, in the west highlands of Scotland.

The house had been empty for some years, and the garden was a mass of every known weed, brambles, couch grass, ground elder, bracken, nettles, and heaven knows what else, so we were agreeably surprised to find in the midst of all this horror, three very healthy-looking Camellias covered in fat flower buds. One was *saluenensis* Bow Bells, which had been planted by the Spry family in the early 1950's, and which is, incidentally still going strong. The other two were 'J. C. Williams', and a large single pink, as yet un-named by us, now a good-sized tree.

Since that date we have added considerably to our collection, and now grow over 20 different Williamsii hybrids in our small Nursery, using parent plants from our own garden.

The garden was created on the side of a steep hill, with massive outcrops of natural rock, and shallow pockets of extremely acid peat, which were in no way ideal for growing anything at all. However over the years we have gradually incorporated a great deal of leaf mould, and compost, and sharp sand for drainage, to create some really nice corners for planting.

Gales could be a problem, but we have a few well-placed mature trees to give some shelter, and so far we have been lucky in not losing a single plant from gale damage.

Camellias seem to thrive in this part of the world, which a lot of people find surprising in view of our Northerly situation. We only grow Williamsii and *saluenensis* hybrids, which do really well in our moist peaty conditions, and seem to flourish in both semi-shade and full sun.

C. japonica will certainly grow in the Scottish highlands, and look quite healthy, but rarely, if ever, produce flowers, unless in a very sheltered walled garden, or some such favoured position, whereas Williamsii hybrids produce a mass of flowers every year. Our rainfall here is very high (anything between 90'' and 120'' per annum) so careful planting is essential. We use equal quantities of peat, sand, and leaf-mould, making quite sure that the level of the pot soil is

slightly above the level of the garden soil, to avoid danger of water-logging. It really is possible to drown a Camellia as we have proved, to our cost, once or twice.

We wage a constant battle against moss, which thrives in our damp condition, and festoons everything if not pounced upon relentlessly. Moss is lovely in the right place, but not when it is smothering small, and tender treasures.

One of the very nice things we have discovered about Camellias in the North is that, once established, they are most reassuringly hardy. I suppose the most testing time for us was the winter of 1981/82, when temperatures reached record low figures for weeks. Even the central-heating oil froze, and we had tremendous losses of various other plants in the garden. However, despite most of their leaves being blackened, and bark-split in one or two branches all the Camellias, with the exception of one plant of St. Ewe and one of E. G. Waterhouse, survived, and started producing flowers again in 1983, which was quite astonishing.

One of the strange things about this part of the world is that, despite our very high rain-fall, we can sometimes have long hot dry spells in the summer, which can cause problems, but an annual mulch of good well rotted leaf-mould is usually enough to protect the roots from drought, and we do, of course, save all our tea-leaves, and liquid tea as well, and give our plants a weekly treat in the summer months, which they seem to love, thus proving that some old-wives-tales really do work, and also that people in Scotland have a great fondness for tea!

An annual dose of dried blood is a good idea too. It has a truly awful smell, but

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it does help the plants to produce flower-buds, and in our peculiar climate they need all the help they can get. 1985 was one of the dullest and wettest years on record, and we wondered if our plants would set any flower-buds at all, however all was well, and we had a lovely show of blooms in May this year. We never get winter flowers as happens in the south, but once they come into flower in May, they do go on flowering for weeks in a most satisfactory way.

It would be very difficult to list our Camellias in order of preference, as they all have charm of their own. Glenn's Orbit, despite its rather unattractive name, is one of the most prolific flowerers in this garden and Mr J. C. Williams' charming Cornish Snow, with its cascades of small white flowers and attractive bronze new foliage is a great joy. Another of our favourites is Anticipation, with its gorgeous paeony-form dark pink flowers, and we now have a well-established plant of Freedom Bell, which is probably the brightest red Camellia that we grow. Surprisingly Debbie refuses to flower for us, for some reason, but perhaps if we move her to a different part of the garden she will do better. One of the new varieties we got last year was Hope. It produced one flower, a lovely creamy-white with a touch of peach-pink at the base the petals. We do not know yet if it will thrive here with us, but it is a really beautiful plant, and we hope very much it will do well. We are also trying Spring Festival and Rose Parade, which were given to us by kind friends, but they have not yet flowered, so I cannot say much about them yet.

Occasionally we have a visit from members of the I.C.S., which we always much enjoy. It is nice to compare notes with fellow enthusiasts, and there is always much to learn.

Camellias in regular cultivation at Ard-daraich Inverness-Shire

Anticipation	George Blandford
Bow Bells	Glenn's Orbit
Brigadoon	Hiraethlyn
Carolyn Williams	Inspiration
Charles Colbert	J. C. Williams
Cornish Show	Lady Gowrie
Debbie	Leonard Messel
Donation	St. Ewe
Freedom Bell	Water Lily

A Dream For Camellia Lovers

Un sueño para los amantes de la camelia

Un rêve pour les amateurs de camélias

Un sogno per gli appassionati di camelia

Ein Traum für Kamelien-Liebhaber

The exquisite Tea plant from Asia conquers more and more hearts. Now is the time for planting Camellias outside.

A Rose is the lovely Queen of Summer, a Camellia is the cool Empress of Winter. This was the comment of a visitor to the Stuttgart Wilhelma Exhibition showing Camellias flowering in great profusion. The remark fits the beauty and exclusiveness of the Camellia but points to: The Lady Camellia makes demands. Is this the reason for its attraction? Perhaps, since the appearance of an article about Camellias in our December '84 issue the number of friends of the Camellia has increased considerably and some months later many have joined the International Camellia Society.

The increasing demand, especially for outdoor Camellias has started a movement in growers. In America they are at present trying very hard to give the Camellia a greater hardiness for wintering.

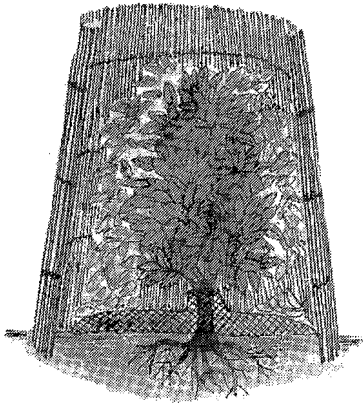
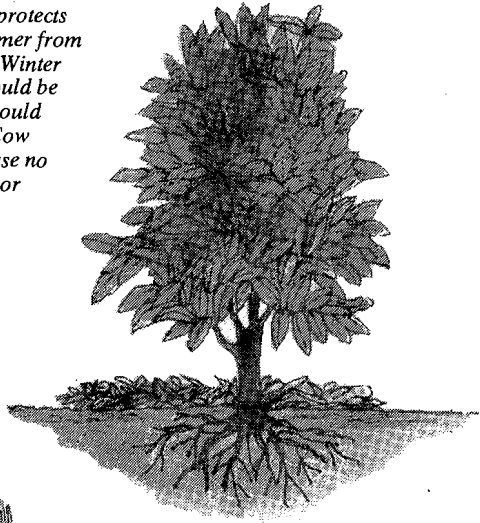
Peter Fischer, who in his Nursery at Wingst near Hamburg, has more than 100 varieties of *Camellia japonica* and also types of Wild cultivars and Forms, has undertaken rigorous tests. After years of trials only a handful were reliably winter hardy: 'Alba Simplex' (white), 'Doncklaeri' (red-white), 'Elegans' (pink), 'Debbie' (deep pink), 'Donation' (light pink), 'St. Ewe' (deep pink).

Condition Number 1: Correct planting. Ideal planting time April to July. Only plants with good root stock will overwinter without problems. Planting should be in porous humus, sheltered in light shade. A place catching the afternoon sun is especially favourable for bud formation and will give hardiness. Water the plant beforehand work-in Rhodhum into the dug out soil. Don't damage the roots and don't plant too deep.

Condition Number 2: Give proper attention during Summer. The Camellia must never dry out. Only feed when new shoots are showing. In rich soil feed less. Stop feeding from September in order for the wood to ripen. This is important for bud formation and to give hardiness. Fit Winter protection (see drawing 17). Peter Fischer's best results, so he said, have been with a mulch of well-rotted Cow manure, to be placed thickly once a year it offers protection against evaporation and the Winter climate; one never has to feed and the best thing is: After this lavish treatment Her Majesty the Empress Camellia will graciously consent to form new buds in great profusion.

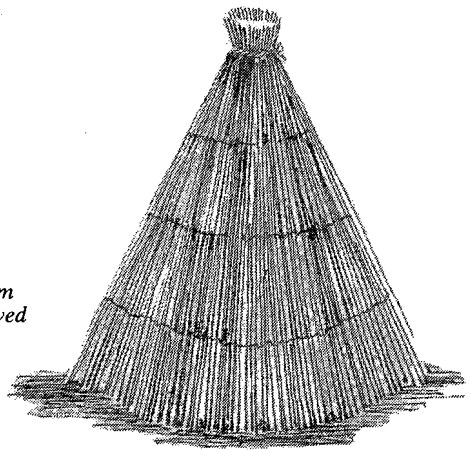
Care which guarantees outdoor flowering. Mulching and tent for overwintering

A layer of mulch protects roots during Summer from drying out and in Winter from frosts. It should be 10cm deep and should consist of rotted Cow manure (in this case no feeding required) or leafmould.



Mid December cover Camellia with leaves or straw. Protect against eating of buds by fitting chickenwire against stem and up to edge of Reed mat.

The Reed mat, tied at the top, protects the plant from wet and frost and is removed in March.



Camellias in East Devon

A. C. BARRY

Camellias en Devon Oriental

Les camélias dans l'Est du Devon

Camelie nel Devon orientale

Kamelien in Ost-Devon

East Devon suffered severely from the very cold February weather as we did not have the snow cover of W. Devon and Cornwall. In my Sidmouth garden on a 1 in 7 E facing slope, within sight of the sea half-a-mile distant, losses included several hardy camellias - Contessa Lavinia Maggi, Alba Simplex, Nigra, and one unknown which might have been Lady Loch. These were grouped together and probably a little more exposed than their neighbours.

Other losses were a *Desfontainea spinosa*, two *Ceanothus burkwoodii* more exposed than others. Several *Magnolia grandiflora* had 50% of their leaves badly burned and *Acacia dealbata*s shed a good proportion of their pinnate leaves in self protection. A *Eucalyptus coccifera* exposed to the N.E. came through unscathed.

My oldest *Crinodendron* in the shelter of the house appears to be a complete write off except for a few shoots at ground level. A curve of 10 younger plants, cuttings from the original, growing higher up the slope, were only slightly burned.

I have Kiwi fruit, *Actinidia* in their fourth year of growth in the open, following our New Zealand Conference trip, which suffered no damage to their plump leaf buds which are now making a decorative show.

I had very few flowers on my camellias this year in contrast to the magnolias which put in a tremendous show, particularly Veitchii, the white Isca form, which flowered as never before.

University of Liverpool Botanic Gardens

J. K. HULME

Jardines Botánicos de la Universidad de Liverpool

Les jardins botaniques de l'Université de Liverpool

I giardini botanici dell'università di Liverpool

Botanischer Garten der Universität Liverpool

February 1986 was characterised by a prolonged spell of cold weather with frost at night and day temperatures hovering around freezing point. The cumulative effect was to freeze bare soil down to a depth of five inches. Only in exceptionally severe winters like 1947 and 1962/63 do we find frost penetration deeper than that recorded in 1986. In such conditions plants cannot take in water and drought symptoms become obvious on a range of evergreen plants. This year when the temperatures increased in March we began to see browning of leaves on *Mahonia aquifolium*, *Berberis darwinii* and *Escallonia* ssp. The Mahonia will often withstand quite low temperatures without showing signs of damage. An interesting feature of the cold spell in February was that the minimum temperature was no lower than -7.1°C . More frequently minimum readings were in the range of -2°C to -4°C . The real threat was from dehydration and plants like *Camellia* are well adapted to withstand desiccation in dry conditions. Little damage is apparent on *Camellia* except on newly planted specimens and the damage to these may not be a simple cause and effect from the bad weather. Several fairly large *Camellia* plants have been transplanted in the garden this year and one specimen moved just before the bad weather has a scattering of brown leaves. There are relatively few flowers on outdoor *Camellia* but several plants in the conservatory are flowering well. *Camellia reticulata* 'Ming Temple' has produced splendid rich pink semi-double flowers. A young specimen of *C. reticulata* 'Captain Rawes' presented to us by the Rhododendron and Camellia Group is just about to open its first flowers in early April.

The Garden at Myddleton House

G. L. STEBBINGS

El jardín de Myddleton House

Le jardin de Myddleton House

Il giardino di Myddleton House

Der Garten von Myddleton House

In 1728 Michael Garnault purchased Bowling-green House on the west side of the Cheshunt Road opposite Tuckey Street in North Enfield. Remaining in the family till his death in 1809, Daniel Garnault left the property and his shares in the New River (the New River ran through the garden) to his sister Ann, he being unmarried. Three years later Ann died and her husband Henry Carington Bowles FSA acquired the estate.

It had been Daniel Garnault's intention to replace the existing house with another, named Myddelton House, in honour of the original projector of the New River, built to bring fresh water from Hertfordshire to East London, and in 1818 H. C. Bowles completed this task, building the present House.

The course of the New River can still be seen though it was filled in during 1958, and the Swamp Cypress planted to commemorate Ann and H. C. Bowles marriage still stands (as I write this!).

The House was then inherited by H. Carington Bowles-Treacher, JP, from his uncle, a son of H. C. Bowles. Upon inheritance the family name was assumed and it is one of his children, Edward Augustus Bowles that has made this name famous throughout the English speaking world.

Born in 1865, E.A.B. was the youngest of four children and, considered to be too delicate to attend Harrow for schooling, he studied at home with his sister Medora. His eldest brother studied law and later lived in the nearby Forty Hall estate. His other brother died after military service, and Medora shortly after, having nursed John till his death. It therefore fell upon EAB to manage the Estate and he gave up his career in the Church and returned home.

Whilst studying theology at Cambridge he became increasingly interested in natural history and especially entomology and this probably led to his developing interest in gardening.

In the late nineteenth century when his life turned to horticulture, the gardens of Myddelton were attractively laid out, if unexciting. E.A.B. began by clearing some of the spotted laurels and other evergreens and to increase the plant collections. Help and encouragement came from many sources, not least the clergy and soon a large network of gardening friends was built up. Although primarily a gardener and not a plant collector he did travel to the Alps every

summer, on the pretext that it was to escape the bombardment of pollen we hay fever sufferers have to endure every June. Nevertheless, he kept up with the latest introductions, being a great friend of Farrer, and serving on R.H.S. committees for over 50 years.

In 'My Garden in Autumn and Winter' (c.1920) he writes of *Camellia sasanqua* "This one is pure white, I am glad to say, for many varieties are known, pink, striped, and also semi-double, and those latter are more often met with than the more beautiful single forms. Its flowers are not made the most of by the plant, as they hang at the ends of the shoots and are rather hidden by the leaves... This no doubt protects them from bad weather, but in the present lowly stature of my plant, one has to lift up a branch to see the flowers well... It seems kind to cut them and bring them into a warm room, as they appear from late October till after Christmas.'

Although evidently still only a small plant, this was quite early to be writing with authority on *C. sasanqua* as it was not introduced to Europe until 1896. The plant still grows at Myddelton and is on a south facing wall in the Rose Garden having attained a height of 10ft and 12 ft spread.

The gardens were added to throughout the early years of this century and the rock garden was created at the west end of an adjoining field which became the Alpine Meadow. Some specialisms were made and the garden could be relied upon to provide an unrivalled display of bulbs and irises as he began to collect snowdrops and breed crocus. In later life his eyesight began failing and in May 1954 he died, a week after having a heart attack.

The House was now sold to the University of London and in the late 1960's to the Lee Valley Regional Park Authority. In this period till 1983 the garden became very overgrown due to the reduction in staffing levels and most plants were lost through various causes. E.A.B. often said that this was the driest and coldest garden in the country and though this is undoubtedly an exaggeration, it is true to say that in the 1985/86 winter we always had the minimum temperature quoted — down to 4°F! — and in summer, the gravelly soil needs rain every week or plants really begin to look unhappy.

Therefore, when the Lee Valley Regional Park Authority began the restoration of the garden in Spring 1984, the basic framework was intact but, with the exception of bulbs which are adapted to summer drought there were few plants of any merit and the only herbaceous plants that had survived were a few Paeonies, Veratrums and *Clematis recta*, most of the other survivors being biennials. One of the main priorities then, after installing an irrigation system to help rectify the situation, was to begin planting with subjects that would extend the season beyond May and into Autumn. Various pleas were made in local and national papers and Joyce Wyndham approached me regarding the founding of a *Camellia* bed.

As already mentioned, the gardens already boasted a fine *C. sasanqua*, and next to it was 'J. C. Williams' (a post-Bowles planting I believe). By the gatehouse were two more japonica cultivars but that was it. Being open to suggestions I gave the matter thought and between us we decided that the bed to

the north of the Eremurus Bed would be ideal. It faces north west and is next to a large lawn bed of Rhododendrons, partially shaded by a large *Ailanthus altissima* and a 7ft Yew hedge. In my research I had never found any reference to this bed and therefore had no idea of what it originally held although it is the best filled area with *Cyclamen hederifolium*. The idea of establishing a Camellia bed therefore seemed a good one. The position was ideal, they would not hurt the cyclamen and the present *Hippophae rhamnoides* and Prunus 'Amanagawa' would pose little problem.

It was thus with delight that Mrs. Wyndham began collecting plants for the bed which now number 6. Unfortunately the past winter has been a testing time for them and I have had one complete loss and another looks rather sorry for itself, but the others look quite happy in their new home and I would like to thank Mrs. Wyndham for her efforts and other donors for their generosity.

As with the National Collection of Award-winning Iris which we are collecting, in conjunction with the British Iris Society, this project will take several years to see to completion but I hope that it will become an interesting feature of the garden though in no way a source of competition for Chiswick House in West London. The restoration of any garden must be a long term project and changes have to be made. Not all changes are for the best. The New River is now gone and grassed over and for ease of maintenance I doubt that the Rock Garden will ever be fully restored.

However, in the past two years, over 1,500 new plants have been introduced and the Terrace beds, Rose Garden and Cactus bank restored. I hope that the Camellia bed is another change that E. A. Bowles would have condoned.

Acknowledgements

W. J. Bean. Trees & Shrubs Hardy in the British Isles.
E. A. Bowles. My Garden in Autumn and Winter.
The History of Enfield.

Hybrid Reticulata Camellias and Others at La Colle sur Loup, Provence, 1985/6

MRS. SOLLEY

Camelias reticulata híbridas y otras especies en La Colle sur Loup, Provenza, 1985-86

Camellia Reticulata híbrides et autres à La Colle sur Loup, Provence, 1985/6

Camelie reticolare ibride ed altre ancora a La Colle Sur Loup, in Provenza, 1985/86

Hybrid Reticulata und andere Kamelien in La Colle sur Loup, Provence, 1986/86

Here in the hills below Vence, our garden of 1500 square metres is on the south facing slope with an alkaline clay soil.

In the winter of 1985, when the temperature descended to -11°C and we had 2' of snow, we lost all our Mimosas, most citrus fruit and even the old established Eucalypts were cut back to the trunks or to ground level: these, and other losses, left our gardens looking like deserts. But my Reticulata Camellias which I had obtained (at David Trehane's suggestion, as he thought they would do well in spite of the very hot, dry summers), at intervals ranging from four years to a few months before, were unscathed. They flowered extremely well last Spring and are very well budded for this season, despite the fact that the extreme cold was followed by a summer of unparalleled drought and frequent watering was necessary.

All have been planted on raised beds as the garden is water-logged in winter after barely a spade's depth, and is rock hard in summer. When planting, as the soil is alkaline, I add leaf mould which has a pH of $5\frac{1}{2}$ - $6\frac{1}{2}$, and peat. Planting in peat composts without soil causes camellias to dry out too fast in summer. In some cases I plant in polythene sheeting in holes a metre in diameter and 70 cm in depth as we also "suffer" from the roots of nearby Poplar trees. The above ground polythene is supported by indescribably sticky clay and the whole disguised by boulders and rocks forming outcrops with lavender, rosemary etc, as ground cover.

The Reticulatas planted are: 'Dr. Clifford Parks', 'Lasca Beauty', 'Royalty', 'Arch of Triumph', 'Arbutus Gum', 'Bernadette Karsten', 'Harold L. Paige', 'Lila Naff' and, a 1986 addition, 'Valentine Day'.

Most have some passing shade from Robinia, Almond, Olive or Greengage trees but are not immediately beneath them.

The only ones to suffer from the frost and snow were a second 'Dr. C. Parks' and a Japonica 'Guilio Nuccio' which were, ironically, sheltered against the house wall but facing east and not on raised beds. These had slight browning of the topmost leaves and subsequent lack of flower buds.

We also have many varieties of *C. japonica* including 'Souvenir de Bahuaud

Litou' and some other rather tender ones, also 'Mathotiana Rubra' and, a favourite of ours, 'Paolina Guichardini' a very old Italian camellia which I have not seen outside France. It is late, very rose-like in appearance, and a warm light cherry colour. We also have modern hybrids like 'Jury's Yellow' and 'Show Girl', but these are mostly grown beneath the Eucalypts and are now under temporary shading for protection until the Eucalypts have completely recovered and can again provide it. All these camellias are extremely well budded and are underplanted with Carnea heathers (Springwood White and others), Hellebores and rosemary. A recent acquisition has been *Sasanquas* including two *Narumigatas* which are delightful.

In the South of France Camellias appear to be grown entirely in pots and we seem to be trailblazers in growing them in the open ground in a "natural" setting. They are grown in the open in the "Villa Noailles" but in rows and under permanent shading and are not, I think, the reticulatas. With the exception of 'Francie L' there appear to be no reticulatas on sale at even the very large local nurseries. I think that although M. Jean Laborey states that the French like their camellias small, this does not apply to the South where the reticulatas look gorgeous in the intense light and sunshine and not at all vulgar as they might in a less sunny environment, and indeed local French people have very much admired them, particularly 'Harold L. Paige' and all those that are architecturally well proportioned and with flowers that are pæony-shaped, wavy and double or semi-double.

Williamsii hybrids do not appear to do well in the heat although they are suddenly appearing in great numbers in the local nurseries.

This February we had a single day of freezing temperatures which killed off even more in the gardens than the previous year, but again the Camellias have mostly come through with colours flying. The following Reticulatas sadly had misshapen and frosted buds: 'Dr. Clifford Parks', 'Bernadette Karsten', 'Arbutus Gum' and 'Arch of Triumph'. But 'Harold L. Paige' is absolutely magnificent as are 'Lila Naff' and 'Lasca Beauty' and 'Royalty', and of the Japonicas, 'Nuccio's Gem' was, and is, covered in magnificent flowers, also 'Jury's Yellow', 'Guilio Nuccio' and 'Glen 40'. Indeed all the Japonicas seem in good health and are well budded. 'Show Girl' and 'Gloire de Nantes' have both flowered for several months.

In conclusion, may I say that fellow Members visiting the South of France would be very welcome to visit our garden and we should be very interested to hear if there are in fact other gardeners doing the same thing in Provence.

Ici dans les collines au dessous de Vence, notre jardin de 1500 mètres carrés se situe sur une pente face au sud sur un sol argileux alcalin.

Pendant l'hiver de 1985, lorsque le thermomètre est descendu au dessous de 10 degrés centigrade et qu'il y avait 60 centimètres de neige, nous avons perdu tous nos mimosas, ainsi que la plupart de nos agrumes, et même les eucalyptus bien établis depuis longtemps ont été ramenés jusqu'au tronc ou même jusqu'au au

niveau du sol: ces pertes, parmi d'autres, ont donné à notre jardin un aspect quasi-désertique. Cependant, mes *Camellia reticulata* obtenus (à la suggestion de David Trehane qui pensait qu'ils avaient des chances de réussir malgré les étés très longs et très chauds) à des intervalles variant de quatre ans à quelques mois avant le froid, en sont sortis indemnes. Ils ont fleuri abondamment au printemps dernier et sont couverts de boutons pour cette année, malgré un été d'une sécheresse sans précédent, nécessitant des arrosages fréquents, qui a succédé au froid extrême.

Tous ont été plantés dans des plate-bandes surlevées, car l'hiver le sol du jardin reste imbibé d'eau à la profondeur d'un coup de bêche tandis qu'en été il est dur comme roc. Au moment des plantations, puisque le sol est alcalin, j'ajoute du terreau de feuilles d'un pH de 5½ à 6½ ainsi que de la tourbe. Planter dans de la tourbe sans terreau a pour effet d'assécher les camélias trop vite en été. Quelques fois je fais mes plantations dans des trous d'un mètre de diamètre et d'une profondeur de 70 centimètres (à cause du voisinage néfaste des racines des peupliers assez rapprochés) que je recouvre d'un film épais de polyéthylène. Le polyéthylène qui dépasse le bords du trou est soutenu par de la terre glaise d'une viscosité indescriptible, et le tout est masqué par des grosses pierres et des morceaux de rocher de façon à former des affleurements partiellement recouverts de lavande, romarin etc.

Les *reticulata* ainsi planté sont Dr. Clifford Parks, Lasca Beauty, Royalty, Arch of Triumph, Arbutus Gum, Bernadette Karsten, Harold L. Paige, Lila Naff, et, depuis cette année, Valentine Day.

La plupart sont situés dans l'ombre intermittente des *robinia*, des amandiers, des oliviers ou des reine claudé mais ne se situent pas directement en dessous.

Les seuls à souffrir du gel et de la neige étaient un deuxième Dr. C. Parks et un *japonica* Giulio Nuccio, abrité, de façon assez ironique, contre le mur de la maison, mais face à l'est et pas sur plate-bandes surélevées. Ceux-ci ont subi un léger brunissement des feuilles les plus hautes et d'une absence ultérieure de boutons floraux.

Nous avons aussi beaucoup de variétés de *Camellia japonica* y compris Souvenir de Bahuaud Litou et certaines autres assez fragiles, ainsi que Mathotiana Rubra et notre bien aimée Paolina Guichardini, une variété italienne très ancienne que je n'ai vue qu'en France. Elle est tardive, ressemblant beaucoup à une rose, d'une teinte chaude de cerise pâle. Nous avons également des hybrides modernes comme Jury's Yellow et Show Girl, mais ces derniers sont cultivés pour la plupart sous les Eucalyptus et sont actuellement placés sous un ombrage provisoire en attendant que ceux-ci se soient suffisamment remis pour servir à nouveau d'ombrage.

Tous ces camélias sont bien fournis en boutons et en dessous nous avons planté des bruyères *carnea* (Springwood White et d'autres), des hélébores et romarins. Nous avons récemment fait l'acquisition de plusieurs *Camellia sasanqua* dont deux Narumi-gata délicieux.

Dans le midi de la France il semblerait que le camélia soit cultivé exclusivement en pots et nous avons l'impression de faire figure de pionniers en

les cultivant en pleine terre dans un site "naturel". A la Villa Noailles on les cultive bien en pleine terre, mais en ligne et sous un ombrage permanent. Ce ne sont d'ailleurs pas, je crois, des *reticulata*. Même dans les très grandes pépinières du pays, à l'exception de Francie L., il ne semble pas y avoir des *reticulata* à vendre. M. Jean Laborey affirme que les Français aiment leurs camélias petits. Ceci ne s'applique pas au Midi où les *reticulata* profitent superbement de la lumière éclatante et du soleil, échappant tout à fait à l'effet plutôt criard qu'ils peuvent parfois créer dans un environnement moins ensoleillé. Ils font d'ailleurs l'admiration des gens du pays, en particulier la variété Harold L. Paige et tous ceux qui sont architecturalement bien proportionnés, aux fleurs de pivoine, aux pétales ondulés, doubles où semi-doubles.

Les hybrides *Williamsii* ne semblent pas bien réussir dans la chaleur du Midi, mais font néanmoins tout d'un coup une entrée remarquée dans les pépinières locales.

Au mois de février cette année nous avons eu une seule journée de gel qui a causé encore plus de dégâts dans les jardins que le froid de l'année dernière, mais encore une fois, les camélias s'en sont tirés pour la plupart en pleine forme. Malheureusement le gel a touché et déformé les boutons des *reticulata* suivants: Dr Clifford Parks, Bernadette Karsten, Arbutus Gum et Arch of Triumph. Par contre, Harold L. Paige, Lila Naff, Lasca Beauty et Royalty sont absolument magnifiques et, parmi les *Japonica* Nuccio's Gem a été, et est encore, couvert de fleurs superbes comme le sont aussi Jury's Yellow, Guilio Nuccio et Glen 40. En fait tous les *Japonica* semblent être en pleine santé et sont couverts de boutons.

Pour conclure, j'aimerais ajouter que nous serions très heureux d'accueillir ici pour une visite du jardin tout membre de la Société passant dans le Midi de la France. Nous serions aussi très intéressés de savoir si, en fait, d'autres jardiniers ont tenté l'expérience de ce genre de culture en Provence.

The International Camellia Society in Germany and Austria

KLAUS HACKLÄNDER

La Sociedad Internacional de la Camelia en Alemania y Austria

La Société Internationale des Camélias en Allemagne et en Autriche

L'Associazione Internazionale della Camelia in Germania ed Austria

Die Internationale Kameliengesellschaft in Deutschland und Österreich

The first Congress for our Region took place in February in Frankfurt, details of which Professor Brandis has recorded in the minutes, with which are being

circulated the 1986 newsletter and an Information Sheet from Mr Fritschi of Zurich.

I have contributed articles on camellias and on the International Camellia Society for several gardening magazines in Germany, and there has been a very good response, resulting in 90 new members. Our region is now therefore the next largest in Europe after England; members can all help spread the society by seeking more members.

Mr Peter Fischer is an expert on the cultivation of camellias, in every sense, their pests and diseases, and their growth. Members are invited to write in with their problems or criticisms.

A 25th Birthday Party for the International Camellia Society is planned at Lake Maggiore in Switzerland; other Directors have other suggestions, and a decision will be made at the Congress in Sidney in September. If Lake Maggiore is not selected, an excursion there will be arranged for members of this Region; other trips are planned to England, France, Belgium and Holland; more details will be circulated to members in December.

The second Congress will also take place in Frankfurt, and regional meetings are being arranged, as well as a camellia show.

Der erste Kongreß unserer Region fand im Februar in Frankfurt statt, über den Verlauf informiert Sie das Protokoll von Herrn Prof. Dr. H. Brandis. Als weitere Anlagen finden Sie den Newsletter June 1986 und ein Informationsblatt von Herrn W. Fritschi, Zürich.

Ich habe in deutschen Gartenzeitschriften Artikel über Kamelien und die Internationale Kamelien Gesellschaft angeregt, das Echo der Leser war groß, wir haben bereits über 90 Mitglieder. Damit ist die Region "Germany & Austria" nächst England diejenige mit den meisten Mitgliedern in Europa.

Sie alle können mithelfen, daß die Renaissance der Kamelien in Deutschland und österreich weiterhin gedeiht, indem Sie im Freundeskreis neue Mitglieder werben.

Herr P. Fischer ist Fachreferent für die Kultur von Kamelien mit allen Fragen über Winterhärte, Krankheiten etc. Wir freuen uns über jede Anregung und auch Kritik seitens unserer Mitglieder.

Ich habe eine "birthday party" zum 25. Geburtstag der ICS angeregt und ein Treffen am Lago Maggiore vorgeschlagen. Aus dem Kreis der Direktoren kamen noch andere Vorschläge, entschieden darüber wird im September auf dem ICS Kongreß in Sydney. Sollte dieses Treffen nicht stattfinden, bieten wir eine Exkursion für die Mitglieder unserer Region im April 1987 an den Lago Maggiore an. In den folgenden Jahren sind weitere Fahrten nach England, Frankreich, Belgien und Holland geplant. Einzelheiten erfahren Sie in dem nächsten Rundschreiben Dezember 1986.

Unser zweiter Kongreß soll 1988 wiederum in Frankfurt stattfinden. Weiterhin bemühe ich mich um regionale Treffen in Deutschland.

Wir versuchen auch, eine Kamelienausstellung im Rahmen einer

Bundesgartenschau zu veranstalten.

Auf der Rückseite finden Sie die neuen Mitglieder in chronologischer Aufstellung.

Visit to the United Kingdom of Xiao Guan from Kunming

Visita al Reino Unido de Xiao Guan de Kunming

Une visite de Xiao Guan de Kunming au Royaume Uni

La visita nel Regno Unito di Xiao Guan di Kunming

Xiao Guan aus Kunming zu Besuch im Vereinigten Königreich

In April, Guan Kaiyun, Assistant Director of the Institute of Botany, Academia Sinica, Kunming, in Yunnan, visited the United Kingdom from China, under arrangements made with the Royal Botanic Garden at Edinburgh. He attended the Camellia Show in London, and before it he did a tour in Devon and Cornwall as the guest of Mr & Mrs E. G. Millais. While in Cornwall, he visited the Cornwall Garden Society's Spring Show at Truro, where he was able to meet Mr David Trehane, the President. He also toured the gardens at Caerhays, Tregrehan and Trewithen, well known for their camellia collections. In Devon, he visited the Secretary at his home near Barnstaple, and was taken to see Dr Smart's beautiful garden at Marwood Hill.

The Institute of Botany was established in 1951 on the site of the former Yunnan Research Institute of Agriculture, Forestry & Botany, and started with 2.7 hectares of ornamental garden, to exchange seed with other countries. After a visit four years later by the then Premier Chou Enlai, a botanical garden covering 80 hectares was established. Twenty years after this, the area was consolidated to 33.4 hectares, and it now comprises an arboretum, an economic plant experiment section, rhododendron and camellia sections, a monocotyledon section, a nursery, glasshouses, etc.

In the Institute brochure is a photograph of part of the camellia section with the caption "Yunnan Camellia, the Finest Flower under Heaven". It is hoped that it may be possible for two other members of the Institute's staff to visit the United Kingdom in the spring of 1987.

Camellias in the Shanghai Botanic Gardens

T. J. SAVIGE
Wirlinga, N.S.W., Australia

Camelias en los Jardines Botánicos de Shanghai

Les camélias des jardins botaniques de Shanghai

Le camelie dei giardini botanici di Shanghai

Kamelien im Botanischen Garten in Schanghai

Work began on the Shanghai Botanic Gardens in March 1974 and they were first opened to the public in April 1978. The Gardens are situated close to the centre of Shanghai city, being about five kilometres south. They are established on the site of the former Longhua Nursery, which specialised in flower growing and the art of miniature landscapes and dwarfed trees known as "Penjing", of which the Japanese Bonsai is similar. As a result, the Gardens have one of the largest collections of Penjing in China.

The gardens are at present noted for their collections of Conifers, Peonies, Azaleas, Maples, Roses, Bamboo and Camellias. Its main task is to handle the introduction of new ornamental plants from abroad and generally to spread botanical knowledge. The area covered by the Gardens exceeds 67 hectares and the number of taxa in this area exceeds 5000. Amongst these are over 100 *Camellia japonica* cultivars, as well as number of other species of the Genus *Camellia*.

Amongst the *Camellia* varieties are some of those that were taken to England during the years 1790-1830, which became the basis from which the present day thousands of cultivars originated. While the same expansion in numbers did not occur in China, never-the-less many cultivars have been developed there, which are unknown to Western horticulturists.

China has, in the past, produced a number of books, scrolls and similar works on botany, horticulture and agriculture, going back to the "Bencao Gangmu" (Materia Medica with Commentaries) of Li, Shizhen, dated 1590, which contain names, descriptions and illustrations of various Chinese *Camellia* cultivars, but there has been little attempt to systematise their cultivar names and bring them within the scope of the Horticultural Code, in the same manner as has been done for the Chinese cultivars of *Camellia reticulata*. However the situation is changing and a study project is being implemented, by former Vice-Director of the Guiyang Gardens, Senior Horticulturist Zhang Ben, with the aim of collecting all the Camellias growing in the Sichuan Province and establishing their correct names, by checking against other areas where they are grown.

Probably the largest group of *Camellia japonica* is that grown down the

R. Yangtze from Chonqing to Shanghai, but particularly in the delta and lower reaches from Nanking to the sea. As one of the largest collections in this area is in the Shanghai Botanic Gardens, a decision was made to endeavour to establish the identities and names of the cultivars in this group. Therefore with helpful assistance of the Honorary Director, Dr. Wang Dajun and members of the garden staff, who supplied colour slides and advice, names and descriptions of 81 cultivars have been established and the names of another 24 cultivars in the gardens, which are awaiting flowering, have been received. Following are the names and descriptions of the 81 identified.

Baibaozhu ... 白宝珠 (White Precious Pearl) Fang, Shumei. 1930 "Tiannan Chahua Xiaozhi"-: "The flowers are as large as 'Baizhu' but the colour is white". The flower is anemone-form with five, white, guard petals surrounding a cushion of petaloids with a creamy cast, similar to the Japanese 'Shirobokuhan'.

Baifurong... 白芙蓉 (White Hibiscus). Wang & Yu, 1981, "Shancha Hua"-: A medium sized, white, open, irregular peony-form with large twisted and fluted outer petals, surrounding a group of smaller, erect, twisted petals mixed with fascicles of stamens, with golden anthers and white filaments.

Baimainqui... 白绵球 (White Silk Ball). Wang & Yu, 1981, "Shancha Hua". Large white, open, peony-form to semi-double with a centre of bright yellow anthers on white filaments. Leaves, matt green, ovate with blunt, acute apex.

Baiyang Cha... 白杨茶 (Yang's White Camellia). Yü, Te-Tsun, "The Garden Camellias of Yunnan", published in the "Camellian", 1964.-: A medium sized, white, formal double. Slow growing. This is an ancient Chinese Camellia which was brought to England from China on the East Indiaman "Carnatic" in 1793 by Captain Connor. It was first listed in England in Andrew's "Botanical Repository" 1:pl.25, 1797, as "Flore plena albo". This later became its Western name - 'Alba Plena'. It has many different synonyms in China and the name above has been written with three different characters for "yang", 杨, 栒, 栒

It has also been called 大白, Dabai; 白玉杯, Baiyubei; 千叶白, Qianyebai; and 白茶花, Baichahua. 'Qianyebai' would seem to have priority as it is included in the "Qunfangpu", (Thesaurus of Botany) by Wang, Xianjin, 1621. The name means "Thousand Petalled White".

Chidan... 赤丹 (Loyal Red). Huang's Nursery Catalogue, Shanghai, 1949.-: A red, formal double with oblong petals, imbricated or tiered in an hexagonal shape. It is also listed by Wang & Yu, 1981, "Shancha Hua".

Chuandiao zhong... 串吊钟 (String of Enkianthus Bells). Shanghai Botanic Gardens List, 1985.-: A medium sized, five petalled single, ruddy pink with deeper veining. Petals irregular, from rounded to cleft with some wrinkling. Compact, stamen column with golden anthers. Leaves dark green, lanceolate, long acuminate, finely serrate.

Dabai Liujiào... 大白六角 (White Hexagonal). Shanghai Botanic Gardens List, 1985.-: A medium sized, formal double, imbricated or tiered with petals arranged in a 6 pointed star (Hexagonal). Colour, white with faintest blush.

Dahong Furong... 大红芙蓉 (Crimson Hibiscus). Shanghai Botanic

Gardens List, 1985.-: Light red, irregular, peony-form, some deeper veining. Centre a mass of petaloids with small, twisted petals and stamens intermixed. Outer petals, large, variable and twisted.

Dahong Xiuqiu... 大红绣球 (Red Embroidered Ball). Shanghai Botanic Gardens List, 1985.-: A red coloured, complete, informal double; spherical, like 'Debutante' in form.

Dataohong... 大桃红 (Large Peach Red). Shanghai Botanic Gardens List, 1985.-: A medium sized, soft, peach pink, formal double with the colour deepening to the base of the petals. Note: This name is invalid for this cultivar as it has already been used for a *C. reticulata*, Fang, 1930.

Dazhusha... 大朱砂 (Large Vermilion). Wang & Yu, 1981, "Shancha Hua"-: Vermilion red, formal double, often with a bud centre and notched petals.

Dianxue... 点雪 (Snowy Spots). Huang Nursery Catalogue, Shanghai, 1949.-: Medium sized, crimson, formal double with a bud centre and white spots.

Dongfangliang... 东方亮 (Eastern Light). Liu, 1959, "Chung Kuo Ming Ti Chi Chung Hua Hei"-: A medium sized, formal double, imbricated or tiered to a star shape (hexagonal), of faintest blush white, deepening to apricot pink blush at the base of the petals.

Duxin Mudan... 独心牡丹 (Single Heart Peony). Shanghai Botanic Gardens List, 1985.-: A scarlet, peony-form with the outer 3-4 rows of petals imbricated and a small centre of confused, small, erect petals mixed with stamens.

Feipi... 肥皮 (Fat Skin). Shanghai Botanic Gardens List, 1985.-: Medium sized, complete informal double red, with large, outer petals and a mounded centre of small, twisted, fluted and waved petals.. Leaves dull, dark green, very broad oval, blunt apex, round base, shallow, obscure venation.

Fendan... 粉丹 (Powder Red). Huang Nursery Catalogue, Shanghai, 1949; Wang & Yu, 1981, "Shancha Hua". There is also a *C. reticulata* of the same name, but the above *C. japonica* has priority.

Fenfurong... 粉芙蓉 (Pink Hibiscus). Wang & Yu, 1981, "Shancha Hua"-: A medium sized, anemone-form pink with the colour fading almost to white on the edges of the outer petals, which surround a centre cushion of feathery, pinkish white petaloids.

Fenhua... 粉花 (Pink Flower). Shanghai Botanic Gardens List, 1985.-: A small, pink, campanulate single to semi-double with 9-12 petals and a small group of creamy white petaloids in the centre.

Fenjixiang... 粉吉祥 (Pink Good Luck). Shanghai Botanic Gardens List, 1985.-: A deep, pink peony, complete informal double.

Fensan Xuesi... 粉三学士 (Pink Three Scholars). Shanghai Botanic Gardens List, 1985.-: A medium sized, rosy pink, formal double, imbricated and star shaped (hexagonal) with incurved petals and a faint white, centre stripe on the larger petals.

Fujian Manao... 福建玛瑙 (Fujian Cornelian). Shanghai Botanic Gardens List, 1985.-: A large, crimson semi-double with white spots on ruffled petals.

Furong... 芙蓉 (Hibiscus). Shanghai Botanic Gardens List, 1985,-: Deep, peach pink, incomplete, informal double with fascicles of golden stamens mixed with small, erect, twisted petals in the centre.

Guaxian Furong... 挂线芙蓉 (Variegated Hibiscus). Shanghai Botanic Gardens List, 1985,-: A small, white, open peony-form, incomplete double with some pink marks.

Hedinghong... 鹤顶红 (Crane's Crest Red). Ono, 1803, "Honzo Komoko Keimo" as "Heding"; Fang, 1930, "Tiannan Chahua Xiaozhu" described "Heding" (Crane's Crest) as; "It is as big as a waterlily and red as blood. The centre is full like a Crane's Head". However, "Hedinghong" was also used for a *C. reticulata*. (Feng & Shi, 1966) and is also included in the "Yunnan Cha Hua" 1981, p.121, with "Heding Cha" as a synonym. Because of this confusion it is proposed that 'Heding Cha' be the valid name for the *C. reticulata* and 'Heding' for that of the *C. japonica*. Different reading:- "Ho-ting". Japanese reading:- "Kakucho".

Hei Erpian... 黑萼片 (Blackish Petals). Shanghai Botanic Gardens List, 1985,-: A large, crimson, semi-double to open, informal double with a few small, erect petals mixed with the stamen cluster.

Hongbinlang... 红槟榔 (Red Betel Nut). Shanghai Botanic Gardens List, 1985,-: A medium sized, red, anemone centred, informal double with waved and fluted petals around a compact centre of small, erect, folded and twisted centre petals.

Honghe... 红荷 (Red Lotus). Shanghai Botanic Gardens List, 1985,-: Bright scarlet semi-double, with large, rounded, emarginate, overlapping petals, opening wide cup-shaped. Central compact column of stamens with gold anthers and pinkish filaments. Leaves, dark olive green, broad lanceolate, acuminate, finely serrate.

Honghudie... 红蝴蝶菜 (Red Butterfly). Shanghai Botanic Gardens List, 1985,-: A large, red, open, incomplete double with stamens broken into fascicles by large, erect, centre petals.

Hongmudan... 红牡丹 (Red Peony). Yang, 1965, "Camellia Varieties of Taiwan", as "Hung Mou-tan":-: A medium sized, red, full peony form.

Hongqixin... 红七心 (Red Seven Hearts). Shanghai Botanic Gardens List, 1985,-: A large, hemispherical, red, informal double with the stamens split into seven fascicles mixed with small, erect, folded and deformed petals and petaloids.

Hongwuzhi... 红武枝 (Red Flexible Branch). Shanghai Botanic Gardens List, 1985,-: A light red, open, informal, incomplete double with large outer petals and fascicles of stamens mixed with the centre petals.

Huabinglang... 花槟榔 (Variegated Betel Nut). Huang Nursery Catalogue, Shanghai, 1947,-: A medium sized, informal, incomplete double, soft pink with deep pink stripes and the central stamens split into several fascicles by a few erect, centre petals.

Huaheding... 花鹤顶 (Variegated Crane's Head). Shanghai Botanic Gardens List, 1985,-: A large, red, anemone-form double with white spots and

the central cushion of petaloids raised in a hemispherical form.

Huaheling... 花雀鸟翎 (Variegated Crane's Feather). Wang & Yu, 1981, "Shancha hua", -: A medium sized, red, formal double, variegated with white and imbricated to the centre.

Huangguan... 皇冠 (Imperial Crown). Shanghai Botanic Gardens List, 1985, -: Medium sized, full peony with crinkled, waved and fluted petals, red with white blotches and some yellow stamens scattered through the centre. Leaves, mid-green, broad-lanceolate, long acuminate apex, shallow crenate-serrate, prominent venation.

Huawubao... 花五宝 (Variegated Five Treasures). Liu, 1959, "Chung Kuo Chu Ming Ti Chung Hua Hui" -: A soft pink, informal double with some red marks.

Huawuzhi... 花武枝 (Variegated Flexible Branch). Shanghai Botanic Gardens List, 1985, -: A medium sized, blush white formal double with pink flecks and streaks. Centre sometimes breaking, when fully open, to show rare stamens. Leaves, dark green, elliptical, apex acuminate, base tapered, finely, shallowly serrate.

Huizhou Mudan... 徽州牡丹 (Huizhou Peony). Shanghai Botanic Gardens List, 1985, -: Medium sized, deep crimson, open peony-form, incomplete double with five fascicles of large, yellow stamens with small, folded, erect centre petals. Leaves, mid-green, broad-elliptic, apex blunt acute, raised venation, fine shallow serration.

Jinding Dahong... 金顶大红 (Gold Crested Scarlet). Shanghai Botanic Gardens List, 1985, -: A large, scarlet single with a large cluster of central stamens, anthers golden; filaments, pale yellow, becoming pinkish at base.

Jinsi Yudie... 金丝玉蝶 (Gold Silk Jade Butterfly). Wang & Yu, 1981, "Shancha Hua", -: A large, white semi-double with the faintest blush, petal margins somewhat waved; central, compact stamen column; anthers dull, brownish yellow; filaments whitish.

Jinxin Mudan... 金心牡丹 (Gold Heart Peony). Shanghai Botanic Gardens List, 1985, -: A large, red, open peony-form with white flecking and a centre of irregular, gold-anthered stamens, broken by a few erect petals.

Jixianghong... 吉祥红 (Lucky Red). Wang & Yu, 1981, "Shancha Hua", -: A medium sized, scarlet peony-form complete double.

Juhong Liujiào... 巨红六角 (Huge Red Hexagonal). Shanghai Botanic Gardens List, 1985, -: A large, red, formal double, imbricated or tiered in a star shape.

Liujiàobái... 六角白 (Hexagonal White). Huang Nursery Catalogue, Shanghai, 1949; Wang & Yu, 1981, "Shancha Hua", -: A medium sized, white, formal double, imbricated or tiered to form a star shape, (hexagonal). This cultivar was also listed by Yang, 1965 as "Bailiujiao".

Maofurong... 毛芙蓉 (Feathered Hibiscus). Shanghai Botanic Gardens List, 1985, -: A large, red, complete double peony-form with a high centre of small, folded, twisted and notched petals.

Meiren pian... 美人片 (Beauties Pieces). Huang, 1979, "American

Camellia Yearbook”, p.119,-: A very faint, blush pink, formal double similar to ‘Dongfangliang’.

Moguangjing... 墨光鏡 (Dark Shining Mirror). Shanghai Botanic Gardens List, 1985,-: A dark scarlet, bud-centered, formal double with white markings. The leaves are broad-elliptic, blunt apex, finely serrate, dark green.

Moseluohan... 墨色罗汉 (Black Arhat (Monk)). Shanghai Botanic Gardens List, 1985,-: A large, dark red, semi-double with central stamens having yellow anthers and reddish filaments.

Qixinhong... 七心紅 (Seven Hearts Red). Huang Nursery Catalogue, Shanghai, 1949; Wang & Yu, 1981, “Shancha Hua”,-: A large red, incomplete double peony-form with 5-7 fascicles of stamens amongst the petals.

Sangfoding... 雙佛頂 (Buddha’s Twin Crown). Shanghai Botanic Gardens List, 1985,-: A medium sized, incomplete open double with 3-4 rows of fluted and keeled petals and an irregular centre of stamens and petaloids. Leaves, mid-green, lanceolate to broad-oval, acuminate to blunt-acuminate, shallowly serrate.

Sanxing Dafurong... 三心大芙蓉 (Three Hearts Large Hibiscus), Shanghai Botanic Gardens List, 1985,-: A medium sized, pink, semi-double to incomplete double, with large, fluted and notched outer petals and the centre stamens broken into fascicles by a few small, erect centre petals.

Sanxueshi... 三学士 (Three Scholars). Huang Nursery Catalogue, Shanghai, 1949,-: A medium sized, formal double, imbricated and tiered to form a star shape; white with pink markings and the petals incurved at the apex.

Shentao Baozhu 深桃宝珠 (Dark Red Treasure). Wang & Yu, 1981, “Shancha Hua”,-: A medium sized, red, anemone-form with five guard petals, enclosing a large spherical mass of small, folded petals, petaloids and stamens. Some petaloids have fine white markings.

Shinyangjin... 十样锦 (Brocade of Ten Appearances). Shanghai Botanic Gardens List, 1981,-: A medium sized, open peony-form with large, folded, central petals forming fascicles of stamens. Colour, white with a few, fine pink stripes. Note: Both the Huang Nursery, 1949 and Wang & Yu, 1981, list a similar Camellia with a final character reading “jing” (view) instead of “jin” (brocade).

Shuangheding... 双鹤顶 (Twin Crane’s Head). Shanghai Botanic Gardens List, 1985,-: A red, medium sized, peony-form, incomplete double with oblong petals, fluted and keeled, with the stamens broken into many fascicles scattered throughout the flower. Leaves, mid-green, elliptic to broad-elliptic, apex acute; fine shallow serrations.

Simianjing... 四面鏡 (Four Sided Mirror). Shanghai Botanic Gardens List, 1985,-: A large spherical, complete double, peony-form with even sized, fluted and folded petals. Like a brilliant red ‘Debutante’. Note:- Liu, 1959, listed a Camellia name with the last character “jin” (beauty) and Wang & Yu, 1981 also listed a similar name with the last character “jing” (view) instead of “jing” (mirror). These may be synonymous.

Songhuapian... 松花片 (Pine Flower (cone) Scale). Shanghai Botanic Gardens List, 1985,-: A rose-form double of the faintest pink blush, opening with

petals layered and apart like an opened pine cone. Petals narrow-oval, cleft; opening to show a few yellow stamens. Leaves, small, dull dark green, elliptic, acuminate.

Wannianhong... 万年红 (Ten Millennium Red). Huang Nursery Catalogue, Shanghai, 1949,-: A medium sized, deep red with a purplish tint, formal double. Mid-green, lanceolate leaves with acuminate apex.

Weituo... 韦陀 (Buddhist Deity). Shanghai Botanic Gardens List, 1985,-: A bud centered red, formal double with well imbricated, oval, emarginate petals.

Wubao... 五宝 (Five Treasures). Liu, 1959, "Chung Kuo Chin Ming Ti Chi Ching Hua Hui",-: A soft pink, medium sized, slightly irregular, formal double with the colour fading out to the petal edges. This variety is also listed in Yang, 1965, "Camellia Varieties of Taiwan".

Wuse Furong... 五色芙蓉 (Five Coloured Hibiscus). Huang Nursery Catalogue, Shanghai, 1949,-: Medium sized, irregular, anemone form, soft pink shading to white at petal edge with rose-red markings. Outer petals, large, emarginate; centre consisting of small, strap-like petals and folded petaloids.

Wuse-Wubao... 五色五宝 (Five Coloured Five Treasures). Shanghai Botanic Gardens List, 1985,-: A small to medium, soft pink, formal double with an occasional rose-red stripe. Sometimes also produces full rose-red coloured blooms.

Wuxin Penzhu... 五心喷朱 (Five Hearts Sprayed Vermilion). Shanghai Botanic Gardens List, 1985,-: A medium sized, red, open informal, incomplete double with five fascicles of stamens, petaloids and fine, erect petals. Leaves, pale green, broad-obovate, blunt acute apex, shallowly, obscurely serrate.

Xiang Heding 湘鹤冠顶 (Hunan Crane's Crest). Shanghai Botanic Gardens List, 1985,-: A medium sized, bright crimson, open informal peony-form, with stamens scattered amongst small, twisted erect petals. Leaves, dull mid-green, elliptic, acuminate apex, serrations, shallowly obscure.

Xiaodong Fangliang... 小东方亮 (Faint Eastern Light). Wang & Yu, 1981, "Shancha Hua",-: A medium sized, white formal double.

Xialinglong... 小玲珑 (Petite and Exquisite). Shanghai Botanic Gardens List, 1985,-: A soft pink, semi-double with some pinkish petaloids amongst the central stamens.

Xiugiu... 绣球 (Silk Ball). Shanghai Botanic Gardens List, 1985,-: A large, deep red, with shadings of violet, anemone-form, with two rows of outer petals surrounding an irregular centre of small, strap-like, folded petals and petaloids.

Xiyang Dianxue... 西洋点雪 (Snow Spotted Western Camellia). Shanghai Botanic Gardens List, 1985,-: A large, brilliant red, formal double marked with white spots.

Xuemudan... 雪牡丹 (Snow Peony). Shanghai Botanic Gardens List, 1985,-: A large, white, frilly semi-double with some petaloids developing amongst the stamens. Very similar to, if not the same, as the cultivar with the Japanese reading of the characters:- 'Yukibotan', :Ito, 1879).

Yangfei... 杨妃 (Imperial Concubine Yang). Shanghai Botanic Gardens List, 1985; Wang, 1621, "Qunfangpu" lists "Yangfei Cha"; Fang, 1930, "Tiannan Chahua Xiaozhi" lists a *C. japonica* cultivar, "Zui Yangfei" (Intoxicated Yangfei) as "peach-red, early flowering. The outer parts have eight large petals, and the centre has the most" (petals?). This Camellia is still grown, particularly in Yunnan and was listed by Yü, 1951; Yü & Feng 1956; Feng et al., 1981. These seem likely to be synonyms; if so 'Yangfei Cha' would be the priority name.

Yanzhilian... 胭脂莲 (Rouge Lotus). Wang & Yu, 1981, "Shancha Hua", -: A large, red, formal double with many small petals. Leaves, elliptic to broad-elliptic, mid-green, flat, apex, blunt acute.

Yanzhilian... 胭脂莲 (Rouge Lotus). Shanghai Botanic Gardens List, 1981, -: There are two Camellias of the same name. This second one is a smaller, deeper red, formal double with less petals which are reflexed while the leaves have twisted edges.

Yingdou... 影都 (Shadow City). Shanghai Botanic Gardens List, 1985, -: A medium sized, incomplete double, peony-form with a pale pink ground, densely stippled, dotted and streaked with crimson. Stamens and petals intermixed in the centre.

Yuguang... 玉光 (Lustrous Jade). Shanghai Botanic Gardens List, 1985, -: A medium sized, soft, blush pink, complete formal double; outer petals emarginate; inner petals pointed.

Yuwei Cha... 鱼尾茶 (Fishtail Camellia). Shanghai Botanic Gardens List, 1985, -: A five petalled, campanulate single red with a central column of stamens. Leaves with multi-apices. Very similar, if not the same, to the Japanese variety 'Kingyo-tsubaki'.

Zaochun Dahong... 早春大红 (Early Spring Scarlet). Shanghai Botanic Gardens List, 1985, -: A large, bright red, hemispherical, complete informal double with waved and fluted petals. This seems similar, if not the same, to "Zaochun Dahongwiu", Wang & Yu, 1981.

Zhengbai... 郑白 (Zheng's White). Shanghai Botanic Gardens List, 1985, -: A large, beautifully imbricated, white formal double with channelled petals coming to points.

Zhongtai... 重台 (Heavy Tiers). Shanghai Botanic Gardens List, 1985, -: A medium sized, red, formal double with large, heavily textured petals.

Zhuapolian... 抓破脸 (Scratched Face). Wang & Yu, 1981, "Shancha Hua", -: A large, well imbricated formal double white, with a rare red streak.

Zhusha... 朱砂 (Cinnabar). Shanghai Botanic Gardens List, 1985, -: Small to medium sized, formal double red opening to bud centre with 7-8 rows of petals, outer rows, reflexed; inner, semi-erect. Leaves, large, elliptic, dull green, obscurely serrate.

Zijinguan... 紫金冠 (Purple and Gold Crown). Shanghai Botanic Gardens List, 1985, -: A medium sized, deep maroon red, complete informal double with large, outer petals and a mixture of small and medium sized, erect, folded and twisted petals in the centre.

Bibliography

- Fang, Shumei, 1930, *Tiannan Chahua Xiaozhi*. (An account of the Yunnan Camellias).
Li, Shizen, 1590, *Bencao Gangmu*. (Materia Medica with Commentaries) Commercial Press, Hong Kong, 1930 edition.
Liu, Tsu-ming, 1959, *Chung Kuo Chu Ming Ti Chi Chung Hua Hui* (Several Famous Ornamental Plants of China); 129 pp.
Wang, Xianjin, 1621, *Qunfangpu*. (Thesaurus of Botany) n.p. (1630 ed.)
Yang, Suao-ou, 1965, A Study of the Camellia Varieties in Taiwan. The Horticultural Society of China, Vol. 11, No. 3, 4. Dec.
Wang, Yipin & Yu Zhonghio, 1981. *Shancha Hua*. (Mountain Camellia Flowers).
Huang, 1949, Camellia Catalogue, Longhua Nursery, Shanghai.

New Zealand Snapshots

National Camellia Society Convention, show and garden visits.
24-26th August, 1985, at Wanganui, Waitotara County, North Island

VIOLET LORT-PHILLIPS

Instantáneas de Nueva Zelanda

Des instantanés de Nouvelle-Zélande

Fotografie della Nuova Zelanda

Schnappschüsse aus Neuseeland

The invitation to attend this event was irresistible. Flying to Auckland from Melbourne on August 21st, I was met by I.C.S. members Pat and Ron Macdonald at the airport, where we chanced to meet Helen Simon (I.C.S. Australia) for a brief re-union of "Old China Hands". We had travelled together in 1984.

Ron's family have farmed "Westwyn" for the last sixty-six years, and Ron and Pat have been developing their garden over the last twenty-five years. The traditional weatherboard verandahgirt house is in a slight hollow between rolling pasture. It is approached by a long drive lined with camellias, many were trees - some more recently planted. At the entrance to the garden, a lovely *Cercis sinensis* var. Avondale (Redbud) stood next to Magnolia Soulangeana 'San Jose'. The front garden and surrounding beds were planted with an interesting selection of dwarf conifers. The oldest planting of *Camellia reticulata* was at the back door: 'Shot Silk', 'Mouchang' and 'Pagoda', 18 feet high. Ron required a ladder to pick blooms for the show. Camellias lined the paths and spilled down the slope to a small lake. The growth to my Western eyes was phenomenal, also the luxuriant colours and size of the flowers. C. 'Dr. Clifford Parks' was underplanted with *Geranium maderense*. Others noted were the large-flowered 'Lasca Beauty', 'Pavlova', 'Howard Asper', 'Camelot', 'Jean Pursel' and the miniature 'Spring Festival', 'Cinnamon Cindy' and truly dwarf 'Baby Bear'. Further down the

slope, a new planting of *Rhododendron R. cubittii*, azaleas, camellias, and everywhere Magnolias, including *M. Veitchii*, *M. denudata*, *M. × 'Charles Raffill'*, *M. × 'Iolanthe'*, *M. Soulangeana Alexandrina*, *Lennei Alba*, *M. × 'Leonard Messell'*, *M. stellata*, *M. Soulangeana Picture*. The golden flowers of *Primula heladoxa* grown by Pat from Wisley seed marked her new bog garden, the path skirting the water had a mixture of native plants; the sculptured fronds of the tree fern and cabbage trees *Cordyline australis* were excellent foils to the broad leaves of rhododendron species, with an underplanting of more camellias and azaleas. The swampy areas are filled with arum lilies and large citrus trees, laden with gold fruit, and the Dawn Redwood *Metasequoia glyptostroboides*, twenty-two years old and already thirty-five feet high, complete the picture. There were over four hundred different camellia cultivars growing in the garden. A devastating hail storm with high winds that swept through the North Island a few days earlier had made it difficult to find perfect blooms, but at the Wanganui Show, the standard was high. Pat and Ron drove me down 270 miles through wonderful country; green pastures filled with sheep - six sheep to the acre is not uncommon. The technique of aerial spraying high marginal land with fertiliser had increased the productivity. Deer were farmed, with high fences surrounding their paddocks, goats too for their cashmere wool. An incredible variety of scenery; bare hills, some re-forestation in plantations of the Monterey pine, and native bush. The landscape altered as we approached the snows - Mt. Ruapehu, nearly 10,000 feet, unveiled her head from the clouds, the volcano Mt. Ngauruhoe gives off smoke, has thermal springs and snow-covered slopes. The road approaching the mountains had the golden tussock grass near the ski resort hotel, Château Tongariro, with nothofagus and beeches, and mountain cabbage trees, *Cordyline indivisa*.

I did not expect to find so many stud farms. The white fencing of the paddocks contained splendid examples of the N.Z. contribution to the racing world. They are famous for their bloodstock, contributing to the appearance of a stable and prosperous country, yet not without its problems of unemployment and divisions in the body politic.

The Convention was attended by 560 delegates, including groups from America, Australia and Europe (me), with the local members organising the Show, hospitality and garden visits. The Show was opened by His Excellency, the Governor-General, Sir David Beattie who, with Lady Beattie, toured the benches. A very high standard in the many classes made a hard job for the judges. I was thankful that it was not my task. The variations in form and colour bewildered me; they were splendid.

We visited five private gardens. I have notes once again of stands of camellia trees - the old-fashioned 'Lady Loch', a favourite - *Prunus taiwanensis* and its beautiful bark - *Cupressus cashmeriana*, with flowing skirt of branches to the ground. Some of you may remember two giant trees of this on the island in Lake Maggiore, Italy, circa 1976. Camellia 'Donation' grows well; Camellia 'Cho Cho San'; some flower beds were bordered by the split trunks of tree ferns; *C. 'Great Eastern'* (known to us as 'Emperor of Russia'), still strong and good colour; *C.*

retic. Pagoda, with C. The Czar, a clear red; *Salvia grahamii* growing nearby; the list is endless.

One recent development in a garden visited was an orchard of *Feijoa sellowiana*, two varieties to cross pollinate, Apollo and Gemini, which fruited in three to four years. I was also initiated into the correct pruning of *Actinidia chinensis*, the delicious kiwi fruit. It must have full sun and hates wind. I was not surprised that mine in Jersey had never set fruit.

The garden of the late Owen Moore - former I.C.S. director - was being restored. It was full of magnificent camellia plants, and will quickly return to its former glory. The Wanganui Branch of the N.Z. Camellia Society sponsored a new planting of the Owen and Jocelyn Moore Memorial Garden in the Bason Reserve. I was honoured to plant C. reticulata 'Eden Queen', next to Mrs. Pat Nelson, President of the N.Z. National Camellia Society, in the section reserved for red reticulata; they were in full sun. Preparations and planting was in progress to break the wind and salt spray from the sea, which was just over the dunes to the south.

The last garden to be visited was one of the most outstanding belonging to Mr. & Mrs. Harry Cave. Yvonne Cave is Chairman of the Wanganui Branch and the organising committee of the Show and Convention, and is also well known for her superb photographs. The Caves won many of the trophies at the Show. Their garden was a plantsman's paradise, designed with an artist's eye; beautifully groomed and shaped trees and shrubs covered with flowers throughout the year, so that there was, I guess, always something to see, with a surprise round the corner.

On my way across the North Island, I had mentally broken the Tenth Commandment, "Thou shalt not covet", many times - if I listed all the camellias I would love to grow as well and floriferously, it would take too long.

I ended my unforgettable week with a visit to Government House, Wellington. Their Excellencies hoped I would be able to name some of the old varieties. I was not very successful with this, as many of the names are synonyms of those used in Europe, and I had not the Nomenclature book to check. I had a most enjoyable morning with Her Excellency, Lady Beattie, and was impressed by the new planting of rhododendrons, magnolias and camellias. The National Camellia Society has planted, and is responsible for a new area laid out under a light canopy of pines, which promises a good feature in this interesting garden.

Thanks again to my many kind and hospitable friends for such a successful visit.

I urge I.C.S. members travelling to the Sydney Conference, or later to the Southern Hemisphere, not to miss seeing New Zealand - a veritable Garden of Eden minus the serpent!

Unexploited Opportunities in Camellia Culture

JOHANNES GOLD
Bonn

Oportunidades inexploradas en el cultivo de la camelia

Des possibilités inexploitées dans la culture des camélias

Alcune occasioni non ancora sfruttate nella coltura della camelia

Ungenutzte Möglichkeiten der Kamelienkultur

Neither varieties nor modern methods of cultivation are sufficiently researched.

Camellias have been cultivated for a thousand years and have their prominent advocate in the International Camellia Society. *Camellia japonica* has its origin in the small area between Taiwan, the Riukiu Archipelago, Japan and South Korea. The area has a moderately humid climate, similar to that of South Africa, Australia, New Zealand and in the USA, Florida and parts of California. And Western Europe can be added. The camellia is very adaptable. In favourable locations in the countries mentioned, it may be considered as largely naturalized, in Europe for example the upper Italian lakes, Brittany, the Channel Islands and Cornwall.

The history of the camellia in Europe is only about 200 years old. Long enough though to have been put in such opposing roles as Superstar and Cinderella. As the “Japanese Rose” the camellia has, during its triumphal march, challenged the position of our Queen of flowers.

Those were the times when Japanese and Chinese fashions ruled the “beautiful” 19th century. Germany was somewhat apart, but it did not stop a couple of growers gaining something from the mania.

J. F. Seidel, who became familiar with the camellia in Paris, developed in Laubegast from 1813 onwards the first horticultural “spezialkultur” which 30 years later exported 5000 camellias to Russia alone. Around 1890 there were around 20 camellia growers in the Dresden area with a stock of 800,000 plants.

The camellias in the Pillnitz palace garden, allegedly planted in 1801, are today often passed off as evidence of this former glory, although they had nothing to do with these nurseries. Covered every winter, they have reached a height of 10 metres and are undoubtedly the only fully grown camellias in Central Europe.

The decline in cultivation began before the First World War. Today in Germany the camellia has become an outsider among our ornamental plants, misunderstood and rejected like a Cinderella. It appears as if they are only to be found in technical books. I assume the cultivation of the camellia is familiar to readers and through the descriptions has become general technical knowledge.

So I can quietly confine myself to the knowledge and experience that have been gained in the last decades. These have become so extensive that the nurseryman's goal of starting an automated production system could become possible. Already in the middle fifties Professor Penningsfeld broadly clarified the requirements of *Camellia japonica* for nutrients and trace elements. The conclusion is that the camellia is best fed with the mineral fertiliser suited to its phase of development.

Concerning the plant's behaviour, the experiments with location and watering were also very informative. The observations on growth give hints of the enormous importance of light and heat and their relation to each other.

Penningsfeld discovered incidentally that in the case of buds it is partly a question of selection and of choice of cultivar.

Sir Peter Smithers achieved good success through using leaf mould during the seventies especially with *Camellia sasanqua*. The growth of the camellia, which occurs during a relatively short period of time, was especially favourably affected.

Partly based on the works of J. Bonner and McElwee, Runger refers to the very similar demands on light and heat of both the rhododendron and the camellia. In his experience the buds open in temperatures of 10°C; the blooms last longest in a temperature below 10°C. Schoser says that growth can be stimulated through extra light from late autumn onwards whereby the production time is shortened. More successful - and capable of being realized with simpler means - seems to me to be to lengthen the growing phase towards the summer. The camellia has only one shoot in the spring which with the beginning of the longer days and warmth becomes stimulated to form flower-buds. In its native country, which is between the 20th and 40th degrees of latitude north, the camellia has a growing period of about 120 short days, but in our latitude which is between the 45th and 55th degrees it has on average only 95 days.

Possibilities for shortening production time

Theoretically the growth of the camellia could be controlled through short days all the year round. The condition would be to hold the effects of the warm periods, which have an average of 15°C, with intervals of cooler periods, that is to check the formation of flower buds; so checked, production time could be shortened from 18 to 24 months depending on propagation date. Another possibility for shortening production time is to limit the period of long days to at most 10 weeks. At temperatures above 15°C 8 weeks are probably sufficient for forming a perfect start to the bud. The same holds for the ripening of the buds which in this country take a disproportionately long time of 4 to 5 months. With a temperature of below 12°C a period of 6 weeks is sufficient and production time can be saved or premature flowering brought about.

All this knowledge, which is increasing, in addition to the theories, cannot disguise the fact that the cultivars of camellia are wholly unresearched.

The rough estimate of about 5000 cultivars of *Camellia japonica*, the whole range of related and also more valuable hybrids resulting from crossing with *Camellia japonica* are only familiar in part to a few specialists, and only in the

details they find interesting.

With the birth of a variety we return to square one. The new becomes the enemy of the old. The novelty is bound to win and the old ones are discarded; namely cultivars whose importance was nowhere near known.

The picture of the ideal camellia has a bold outline. It must have strong growth and the ability to branch out. In addition it must be adaptable and hardy, and if possible frost-hardy. It must produce many and good buds above all retain them, and one after the other through the whole length of the winter develop them into beautiful flowers. These aims contain many contradictions. How often is not a bloom prematurely knocked off by the shooting bud! What too many buds make obvious to the gardener, the layman sees as a fault in the plant.

The inheritance of variety has up till now not been sifted

No doubt there are cultivars, no doubt also clones, of which the only one that has remained well-known to us, 'Elegans', has had high quality since 1831. I doubt whether there exists a gardener in our hectic times who can sort over this inheritance and make full use of it. Perhaps it is possible with the help of a computer.

Perhaps chemistry already has a great number of growth materials which could be used against bud-drop, for ideal growth, and for promoting branching. The future is in the mastery of the technology of the genes. After the splendid results from the chemo-biologists with useful plants, it is the turn of the ornamental plants. Gene-manipulated camellias are probably already on the programme of the new plant-breeder, who unfortunately, will no longer be a gardener. In one close season it will all be bygones.

About the economy of production in the case of the camellia generally there is nothing binding to be said, except that they are not expensive in any way and as far as heat is concerned, relatively cheap. For great success the market will have to change. So far, I have had the impression that the camellia has been shut out like a scapegoat. The risks with camellias are no doubt over-estimated, the margins accordingly much affected.

A great disadvantage is that the camellia is almost exclusively treated as a potplant. It is then automatically associated with dwellings where, when they are heated to above 15°C, it does not belong. Camellias are better employed as decorative plants in mobile gardens, balconies and loggias, terraces, light staircases and foyers, wintergardens and cold greenhouses, cool houses. All areas where they are protected from drought and undue heat are suitable.

Gerd Krüssman made one of his last journeys in a dreary spring to the camellias in Cornwall. Of the many varieties, he saw 30 in bloom. It filled him with enthusiasm and convinced him that the conditions in this country are suitable for planting out camellias. And I can only confirm that it is so. In wine-growing areas it is possible, though as a precaution in order to avoid any unpleasant surprise, the plants ought to be guarded with brush-wood or - better still - with a little shelter during January and February.

References

- Schimmler, Gerhard "Die Entwicklung der Kamelien-, Azaleen-und Erike Kulturen in Deutschland", Würzburg, Aumühle 1935.
Steffen, A. "Handbuch der Markgärtnerei." Paul Parey 1951.
Penningsfeld, F., "Die Ernährung im Blumen-und Zierpflanzenbau" Paul Parey 1962.
Rünger, W., "Licht und Temperatur im Zierpflanzenbau" Paul Parey 1962.
Schoser, G., "Pflanzenkultur mit dem Pflanzenstrahler OSRAM-L-Fluora".
Krüssmann, G. D., "Reise nach Cornwall" Gb+Gw 20/1979. s485.
Smithers, Sir Peter, "Sasanqua Camellias in Southern Switzerland" in The International Camellia Journal, Nov. 1977.
Camellia Nomenclature 1966.

Breeding Camellias in New Zealand

R. H. CLERE
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El cultivo de camelias en Nueva Zelanda

La culture des camélias en Nouvelle-Zélande

Selettocoltura delle camelie in Nuova Zelanda

Kamelienzucht in Neuseeland

A camellia revolution followed the release of the Yunnan reticulata camellias in 1947 and it has not finished yet.

Initially the excitement of seeing and then growing these superb flowers hit U.S.A., followed quickly by gardeners in Australia, New Zealand and England. It didn't take long before growers started hybridising with the new strains of reticulatas available and the avalanche of reticulata hybrids was under way. Many thousands of new flowers were produced, and hundreds have been registered. Obviously since quite a number of these are not seen in shows or gardens now, they had little to offer as improvements on previous flowers, and have been superseded. Some of them should not have been registered, but that is another story in itself.

For a while the reticulata crosses dominated the scene, although some growers continued to work with other species.

New Zealand growers showed themselves to be just as keen as any others. The N.Z. Camellia Society was founded in 1958 and in 1961 the first blooms were registered with the Society, Colonel T. Durrant acting as Registrar.

Dr. Brian Doak, a soil scientist and a very keen camellia grower, made the first seven registrations. They were all crosses between *Camellia saluenensis* using Captain Rawes pollen. Two of them, C. r. 'Phyl Doak' and C. r. 'Barbara Clark' are still common in N.Z. gardens.

Colonel Durrant, his wife Bettie and their daughter Dr. Jane Crisp were early in the field. While Dr. Jane started on a series of reticulata crosses producing

some good garden varieties like 'Mayhills' and 'Tom Durrant', Bettie used her skills in crossing some small leaved and small flowering species. Two of her earlier seedlings were 'Prudence' and 'Snippet'. Their *C. pitardii* traits show in the long lasting and outstanding floral displays. 'Grace Caple', another *pitardii japonica* cross gives a great garden display in pale pink. 'Garnet Gleam', again with *pitardii* predominating, is a very interesting cross. A slow growing spreading bush produces bright red single flowers from early to late season. A burst of bright golden stamens makes a great contrast to the red flower and the pollen is still bright even after the flower has fallen. This pollen should have great potential for further crosses. A later cross of Bettie's called 'Nicky Crisp' is justifiably popular as a beautiful pale pink semi double.

The late Les Jury will be remembered for his work with *saluenensis* crosses. Some of his flowers like 'Elegant Beauty', 'Anticipation variegated', 'Elsie Jury' and 'Mona Jury' are world wide favourites. 'Jubilation' is one that I think has been overlooked while 'Ballet Queen' and 'Rendezvous' demand a second look when seen in gardens.

Felix Jury, brother of Les, has been a plant hybridist in many classes of plants, camellias being just one of them. He, like Les, produced some outstanding *williamsii* crosses, *C. saluenensis* × *C. japonica*. Both used six different *saluenensis* seedlings from Bodnant. Amongst his best are the sister crosses, 'Water Lily' and 'Dream Boat', both *C. saluenensis* × *C. j.* 'K. Sawada', 'Softly', 'Julie Felix' and 'Pearly Shells' have yet to make their mark. The most recent addition is the *C. saluenensis* × *C. h.* 'Tiny Princess' called 'Itty Bit'. A real miniature in flower and leaf, with a slow spreading habit, its soft pink anemone flowers are plentiful and attractive. Felix's son Mark is continuing with the hybridising work.

Ida Berg and her late husband Les produced a large number of *C. reticulata* seedlings. 'Warwick Berg', 'Les Berg', 'Berg's Flame' and 'Jim Rivett' are fine flowers, and 'Blue Bird', a *williamsii* cross, has a very unusual blue cast in its medium semi double flowers. It could have potential in breeding to extend the colour boundaries.

Jack Clark of Auckland will be remembered for his work in transforming an old disused quarry into a magnificent public park called Eden Gardens. He featured camellias in the gardens and included a number of his own *reticulata* crosses. Amongst his best are 'Sandy Clark', 'Ross Clark', 'Craig Clark', 'Rhonda Kerri' and 'Tuisong'. My favourites would have to be 'Lisa Gael' and 'Eden Queen'. 'Lisa Gael' never fails to draw comment when people see it in our garden. The huge blooms cover the face of the 10' high plant, while 'Eden Queen' is one of the finest reds known. Jack Clark gave away a lot of seeds at times and two of those which grew well for other people come to mind, 'Cambria' for Mrs. M. Price and 'Margaret Hilford' for Jim Rolfe. The latter flower has been successful on the Show tables in America which is a rare honour.

Trevor Lennard has worked assiduously in recent years and has produced several new seedlings of merit including two *sasanquas*. 'Gay Sue', a medium to large semi double to pæony form, white, with scent; and 'Beth Lennard', a low

growing bush with rose form double flowers, phlox pink in the centre, deeper further out on the petals.

In the hybrids 'Emma Lennard' is a *rosæflora* seedling with miniature semi double flower in salmon pink. The plant has a willowy habit and could be used for hanging baskets. 'Ailsa James' has large loose pæony flowers of light rose pink with deeper pink veining. 'Diana Lennard' is an 'Elegant Beauty' seedling with a medium size deep pink formal flower.

Three *reticulata* hybrids and three *japonicas* which have not had enough exposure to establish their positions in gardens prove Trevor's wide ranging interest in camellias.

Neville Haydon will be known for his excellent 'Baby Bear'. This *C. rosæflora* × *C. tsai* is the best rockery size plant yet seen. 'Baby Willow' has its admirers and new registrations keep appearing bearing his name.

The accolade for the most interesting hybrids yet produced in N.Z. would have to go to Os Blumhardt of Whangarei. Tom Savige mentioned 'Black Opal' and 'Night Rider' in an article in the 1984 I.C.S. Journal. These two hybrids are *C. h.* 'Ruby Bells' × *C. j.* 'Kuro Tsubaki'. The black red pigment shows very strongly in the intensely black-red flowers; both set off with a burst of bright golden stamens which retain their colour long after falling to the ground. The same dark blood shows in the shiny dark buds and the intensely red coloured new foliage. 'Night Rider' has larger flowers, more petals and the plant has narrower leaves.

The older miniature hybrids of 'Gay Baby', 'Tiny Star' and 'Fairy Wand' are well known and deservedly popular for their attractive garden displays. The last and most interesting are two crosses, *C. h.* 'Dream Girl' × *C. oleifera* 'Jaune' called 'Bunny Girl' and 'Sugar Dream'. 'Bunny Girl' is registered as a semi double medium flower, pale pink with a good boss of stamens, occasional petaloids and some rabbit ears, early flowering season.

The other, *C. h.* 'Sugar Dream', I have flowering now. It is still the height of the *sasanqua* season and the flower is just medium in size but a lovely anemone form with medium pink petals and a good burst of creamy yellow petaloids in the centre. Both flowers are scented.

The combination factors of early flowering and the probability of some cold hardy characteristics from the *oleifera* parentage suggest further breeding from this source. 'Red Crystal' (*C. r.* Crimson Robe × *C. j.* 'Wildfire'). A change in *reticulatas*, usually single with 5 petals, occasionally semi double. Petals are very thick and heavy and very shiny, brilliant red. Large to very large.

'Blissful Dawn' is a chance 'Donation' seedling. Originally listed as a non *reticulata* hybrid. The presence of *reticulata* in its make up is confirmed as the original plant is now 3 metres high and shows *reticulata* type leaves. The flower is the colour of the Waterhouse form of Wild *Reticulata* which grew next door to the 'Donation' which was the seed parent. The blooms are large open semi double rose pink shading to white at the base. The bush flowers very freely.

Lack of space will not permit me to mention further by name or flower a number of growers who have registered good flowers and contributed to the N.Z. camellia scene.

Overall the breeders have registered over 240 cultivars in 25 years, not an enormous number but quite a good quota in the world's range of modern camellias. Significantly just about 100 of these registrations appear in the section of hybrids without *reticulata* in their composition and that is the area where the N.Z. contribution is notable.

Let us look at the small flowered species now available to hybridists in N.Z.:

<i>C. pitardii</i>	<i>C. salicifolia</i>
<i>C. cuspidata</i>	<i>C. transnokoensis</i>
<i>C. fraterna</i>	<i>C. tsaii</i>
<i>C. rosæflora</i>	<i>C. yuhsienensis</i>
<i>C. forrestii</i>	<i>C. yunnanensis</i>
<i>C. lutchuensis</i>	<i>C. chrysantha</i>

They are all here. Some have potential for early flowering, cold hardiness or scent as well as colour changes and new flower forms.

I am sure that the keen growers will continue to produce new flowers both for garden display and the show table.

The camellia revolution is still continuing.

Experiences of a Beginner

BOB KRANEN

Experiencias de un principiante

Expériences d'un débutant

Esperienze di un principiante

Erfahrungen eines Anfängers

While enjoying the pleasures of the Windermere weekend in April 1986, I was asked to write about my experience of growing camellias in Holland. I have always been interested in gardening, and the camellia has always intrigued me, though it is little grown in this country, except occasionally indoors, though some nurseries grow plants for export. However, on moving to a house with a bigger garden, the opportunity arose to try some camellias.

I started with six 8-year old plants, to which I added a few more every year, usually obtained from nurseries in Kent when on holiday there. I do not have a greenhouse, and the rabbits take their toll, so my camellias have to be robust. Over the years, I have increased my knowledge of camellias from books and catalogues and visits to English gardens, as well as listening to 'Gardeners' Question Time' on the B.B.C. I have also carried out trials, to see the conditions under which they will thrive. These have shown camellias to be much tougher than the books would lead one to suppose, and some of my plants have done well

in conditions that were far from ideal, though this may have entailed slower growth and fewer flowerbuds.

However, I was sufficiently pleased with the results to order 18 3- to 4- year old plants from a well known nursery in November 1984. These were all planted by the middle of December, by which time I had some 55 camellia plants with 450-500 healthy flower buds.

By April 1985, all the flowerbuds, without exception, appeared to be dead. 22 camellia plants were dead as well, though six produced new shoots at ground level late in the season. Only two of the newcomers survived.

A year later, the five that had made late new growth had died also, as they evidently should have received protection like young plants, thick layers of leafmould not being sufficient. Out of my 55 camellia plants, there are now only 10 survivors, and even these had lost up to half their branches during the 1984/85 winter.

Where we live is a 'polder', with sea water to the north, south and west, and only joined to the mainland on the east; the ground is mainly below sea level, but a well organised system of ditches, canals and pumps keeps the ground water level under control. The only fresh water is the rain, of which we get about 75 cms (30") annually, regularly distributed through the year, except for occasional dry spells in the spring, in July and in the early autumn. The soil is a fertile excellent quality clay, in which I dig wide shallow pits for the camellia plants, which I fill with a mixture of peat, sand, leafmould and the original clay. The prevailing winds are between South West and North West, force 5-6 (Beaufort scale — 17-21 m.p.h.) commonly, force 8 quite often, and force 9-10 (45 m.p.h.) occasionally.

We are less than 5 kms (3 miles) from Vlissingen (Flushing), where there is a meteorological station which provides us with weather forecasts. At times we get north winds, and at times east winds which can bring nice weather in summer, though sometimes storm force in winter, so I consider it prudent to stake all my camellia plants.

Being surrounded by sea, the climate is mild, and this in combination with the good soil makes the area ideal for agriculture, wheat, flax, potatoes, sugarbeet and peas, and more and more fruit is being planted: night frosts are unusual. The last two winters however were both unusually cold, though quite different in character. December 1984 was very mild until after Christmas; bulbs, plants and shrubs were still far too active when the cold struck suddenly in January 1985, at a time when there was too much sap in the branches, and the frozen cells burst. The winter lasted a long time, with frequent strong, dry winds and minimum temperatures about -15°C , but the soil stayed relatively warm under a cover of snow.

These conditions caused heavy financial loss to fruit growers, who lost many of their trees, and the government was generous with subsidies to meet the cost of replacements. The 1985/86 winter started more gradually. There was a normal cool December, and when the frosts began there was not much wind, or snow, and skating conditions could hardly have been better. Minimum temperatures

Name of Camellia		Planted			Situation		
Cultivar	Type	Year	Height in cms.	June 1985		June 1986	
				Height in cms.	Condition	Height in cms.	Condition
1	Effendee Moerlands		1974	100	180	D	—
2	Effendee Moerlands		1974	80	160	30%	H
3	Effendee Augustifolia		1974	90	140	30%	H
4	Effendee Augustifolia		1974	100	150	30%	D
5	Chandler Rustique Rosea	Jap	1974	60	75	D	—
6	Chandler Rustique Rosea	Jap	1974	65	90	60%	H?
7	William Bull	Jap	1977	70	110	D	—
8	Donation	Will	1976	65	105	D	—
9	Sparkling Burgundy	Sasan	1976	80	100	D	—
10	Blood of China	Jap	1976	70	100	D	—
11	Comte de Gomer	Jap	1977	90	120	D	—
12	Marjorie Magnificent	Jap	1977	100	130		
13	Akashi-gata	Jap	1977	35	70	60%	55 H
14	Adolphe Audusson	Jap	1977	90	130	30%	100 H
15	Margaret Waterhouse	Will	1977	115	140	S	— D
16	Marjorie Magnificent	Jap	1977	80	100	D	—
17	St Ewe	Will	1978	55	80	D	—
18	Shiragiku	Jap	1978	65	110	D	—
19	Reine des Fleurs	Jap	1977	115	140	D	—
20	Kramer's Supreme	Jap	1977	40	100	D	—
21	Elsie Jury	Will	1977	70	120	D	—
22	Nagasaki	Jap	1978	25	70	S	— D
23	Golden Spangles	Will	1978	30	110	S	— D
24	Tomorrow	Jap	1980	70	95	S	— D
25	Contessa Lavinia Maggi	Jap	1984	60	70	S	— D
26	Tomorrow	Jap	1984	60	80	D	—
27	Rubescens Major	Jap	1984	45	55	D	—
28	J. C. Williams	Will	1984	45	50	D	—
29	Francis Hanger	Will	1984	40	50	H	55 H
30	Sasanqua	Sasan	1984	40	55	D	—
31	Inspiration	Retic ×	1984	80	90	S	— D
32	Dream Girl	Retic ×	1984	40	55	D	—
33	Jenefer Carlyon	Will	1984	90	95	D	—
34	Cornish Snow	Hybr	1984	85	95	D	—
35	Love Light	Hybr	1984	40	55	H	60 H
36	Matterhorn	Jap	1984	40	55	H	60 H
37	Royalty	Retic ×	1984	45	55	H	60 H

Explanation

Jap:	<i>C. japonica</i>	60%:	-60% branches killed by frost
Will:	<i>C. × Williamsii</i>	S:	Whole plant killed by frost.
Sasan:	<i>C. sasanqua</i>		New sprouts at ground level
Retic ×:	<i>C. reticulata</i> hybrid	H:	Healthy
Hybr:	Hybrid not with <i>japonica</i> or <i>reticulata</i>	H?:	Recently lost another branch
D:	Killed by frost	cms:	centimetres (1 inch 2.5 cms)
30%:	10-30% branches killed by frost		

Serial numbers 25-35 were planted in April 1984

Serial numbers 36 and 37 belong to the consignment of 18 plants ordered and planted in November 1984; the other 16 plants are not specified on this list.

again about -15°C , but very little damage to crops, though a number of young fruit trees succumbed which had survived the previous winter.

I can understand now why the I.C.S. has so few Dutch members, and I wonder how our German friends, with their even more extreme continental climate, suffered during the last two winters. The books could tell one more about camellias' resistance to low temperatures and sunshine, and also about the environmental requirements of the different species from which the hybrids derive. I have the impression that strong winds are less of a hazard than the books suggest, provided that the plants are staked; also that the old-fashioned varieties may have more stamina than some of the new and more sophisticated ones. Young plants are evidently more at risk than those that are well-established. It is perhaps not very wise to plant out before Christmas.

I am afraid that my garden will not be a suitable venue for an I.C.S. tour in this century. The fruit growers and their advisers think that a disaster like the 1984/85 winter will not occur more than once in forty years, and so they have decided to carry on or start again, and I have also. In 40 years time, when the plants are old and tough enough to survive such a winter, to the enjoyment of the next generation, I shall ask them to submit a report to your successor. If it happens again in 10 years time instead of 40? Bad luck for the camellia admirers, but considerably worse for the fruit growers. Just see what we can learn in the meantime.

Camellia Activities in Australia

HELEN SIMON
Wahroonga, N.S.W.

Actividades relacionadas con la camelia en Australia

Activités associées en Australie

Le attività per la camelia in Australia

Kamelien-Aktivitäten in Australien

Long before the discovery and naming of Australia, early historians of the Northern Hemisphere knew of the existence of a great south land, "Terra Australis Incognita". Stories of untouched treasures fired the imagination of men who set off on incredible journeys. They navigated the high seas for thousands of miles mainly out of sight of land, and with the aid only of a compass, via Cape Horn and the stormy Tierra del Fuego or, perhaps with a more lively anticipation, the equally lonely route past the Cape of Good Hope.

Although it was a rough, tough beginning for the hardy pioneers, the old myths of Australia's natural wealth have been proved correct by very testing

experiences. The homeland was remembered when almost two hundred years ago, the first areas settled on the eastern shores were named New South Wales, Victoria, Queensland and Tasmania.

As many folk of later generations journey back to "dig the ancestral roots", these admirable adventurers have not been forgotten. People "down under" are very proud of connections with the "old Dart"; my own forebears were among the early settlers; sandstock bricks of my own home came from Britain as ballast on a sailing ship!

The indigenous plant life was meticulously recorded by artist/botanists aboard the first ships and are now among Australia's art treasures; some are housed in prestigious museums in the United Kingdom.

Before long, memories of home urged horticulturists to import exotic plants, including camellias, from overseas. Some of the first camellia plants to survive the long, arduous sea voyage from England were planted at Camden Park, just south-west of Sydney, where they are battling to survive after one hundred and fifty-five years.

In the early 1950's, a small group of friends, all with a love for camellias, began corresponding with each other; information gleaned from observation, research and experience went back and forth from Melbourne in Victoria to Sydney in NSW, some 500 miles/900 kilo-metres to the north. This group realised the need for a specialised society, resulting in the Australian & New Zealand Camellia Research Society being formed in July 1952. The first Council consisted of Mr. Alex W. Jessep, the now-nonagenarian and then-director of the Royal Botanic Gardens, and the late Dr. Merrillees, of Melbourne, Professor E. G. Waterhouse and nurseryman, Walter Hazelwood of Sydney, and Gordon Adams of Auckland, New Zealand.

The society's first publication was the *Camellia Annual* No. 1 1954, with a printed membership list of 78. At the end of 1958, the number of members had risen to 320 and because of the high percentage of New Zealand enthusiasts, it was decided to form a New Zealand Camellia Society under the distinguished leadership of Colonel T. Durrant. Both societies have continued to progress in complete harmony to advance research and knowledge of camellias.

The first issue of the Australian Camellia Research Society journal, *Camellia News*, began with a New Series No. 1 in March 1961.

A national constitution sets out the fundamental procedure for the whole society with management in the hands of the National Council comprising president, vice-president, secretary, treasurer, all of whom generally hold office for no longer than three consecutive years; other officers are appointed as required. I am told the editor's job goes on for ever!

A Congress is held each year in a different capital or major city. On these occasions, the National Executive Council have the annual meeting which councillors from all branches are expected to attend.

The host branch invites all members of the society to join tours and functions. These are happy occasions when friendships are made or renewed from previous years. Some members make it a longer holiday, arriving before or staying after

the Congress, especially those who have flown or driven across the continent or overseas to Tasmania.

It would surprise the founding members to know that eleven branches have now evolved through Australia viz: one each from the Australian Capital Territory, Canberra, Tasmania, Victoria and Western Australia; two in Adelaide, South Australia; five in New South Wales:— NSW Foundation, St. George & Sutherland, Hume, down Albury Way, Illawarra and Shoalhaven on the south coast. The Queensland Camellia Society is a complete and separate entity.

Each branch forms and conducts its own organisation, adapting guidelines to suit local conditions and facilities, for the purpose of developing regional interest in camellias. A monthly branch newsletter advises members of future meetings and field days. Usually branches hold mini-camellia shows at monthly meetings with some reward for aggregate points gained throughout the season.

All branches arrange bigger shows, some are competitive with trophies, ribbons and prize cards, some in conjunction with other garden clubs. Displays only are set up in galleries, foyers of banks, shopping centres and community halls. These occasions are most popular with crowds patiently waiting in queues to view the beautiful blooms attractively arranged according to named variety and species, mostly with artistic creations featuring camellias.

Whilst all branches have a particular interest in local public gardens, some have been instrumental in assisting municipal councils to establish special camellia parklands like the E. G. Waterhouse National Camellia Garden at Miranda within the St. George & Sutherland area. This branch is ably supported by keen members of the NSW Foundation branch. The fortunate members who attended the International Camellia Society Congress in Sydney in September 1986 have already experienced the joy of this garden. Now on the regular tourist itinerary, this garden is open daily and has attracted community support; tree-planting ceremonies are popular; specialised garden clubs have given azaleas, orchids, Australian native plants and other companion trees and shrubs to create a complete garden picture.

The latest garden of this kind is being planned in the Shoalhaven Shire, south of Sydney, where the council has set aside several hectares of lovely land for conversion to parkland where the native flora will complement the exotic camellias.

Adelaide's two branches, The Hills and The Plains, take tender care of the garden surrounding the National Trust Stangate House. This will have happy memories for those members who attended the ACRS National Congress in Adelaide, in August 1986, and admired flowering camellias in the valley below the house.

Illawarra branch has a camellia section in the Rhododendron Park at Mt. Keira, south of Sydney, with fantastic views of the Pacific Ocean coastline.

The Victorian branch also combine with the Rhododendron Society, with financial and physical assistance from lively members, to maintain and enhance the camellia garden area at Olinda.

Hume members give much time and thought to public gardens at Wangaratta and Wagga Wagga, supplying many colourful camellias.

The Tasmanian Royal Botanic Gardens have created a plot exclusively for camellia plants supplied by camellia members, further enriching a very lovely public garden.

Camellians in Australia are busy people, most care for private gardens from acres to several pots on a balcony. All time and talent are given willingly and efficiently; in some cases, outstanding services are appreciated by national or branch awards.

Many A.C.R.S. members have joined camellia societies in New Zealand and the U.S.A.; others have enjoyed travelling, as members of the International Camellia Society, to these countries as well as to China, Japan, Europe and the United Kingdom, delighting in the particular kind of generous and friendly hospitality of camellia lovers throughout the world.

International Camellia Society Trials in UK: Report No. 2: As at March 1986

A. E. F. LANE

Ensayos híbridos de la Sociedad Internacional de la Camelia en el RU: Informe No.2 : marzo de 1986

Essais de la Société Internationale des Camélias en Grande-Bretagne : Rapport No 2; mars 1986

Le prove dell'Associazione Internazionale della Camelia nel Regno Unito: Rapporto numero 2, marzo 1986

Versuche der Internationalen KJameliengesellschaft im Vereinigten Königreich: Bericht Nr. 2: Wie März 1986

The Society's trials continue at the following centres:

Sir Thomas and Lady Dixon Park
BELFAST BT9 5NA

The Scottish National Zoological Park
EDINBURGH EH12 6TS

The Northern Horticultural Society
Harlow Car, HARROGATE HG3 1QB

The Willoughbridge Garden Trust
near MARKET DRAYTON, Shropshire, TF9 4EU

A further audit of progress has now been completed, from the helpful records now being kept at the four trial centres. The following table shows the extent to which the plants were well budded on 30 March 1986, losses since the last report and the number remaining in the trial.

	<i>Belfast</i>	<i>Edinburgh</i>	<i>Harrogate</i>	<i>Willoughbridge</i>	<i>Total</i>
Over 10 buds	24	21	4	10	59
Over 50 buds	7	10	Nil	3	20
Losses 85/86	9	2	3	9	23
Number now under trial	73	88	64	82	307

The figures show that the severity of the past winter did not markedly affect the flowering ability of the plants at Edinburgh or at Belfast. At Edinburgh this is due in part to the fact that most of the plants are more mature than at the other trial centres, less replacements being required there than elsewhere when the earlier losses were made good in 1983. At Belfast the good results must certainly reflect the very congenial surroundings - a south west aspect in a delightful walled garden in one of the City parks. Both at Harlow Car and at Willoughbridge the siting is more challenging, lacking much in the way of screening from prevailing winter winds.

The varieties doing best at each of the trial centres were:

Belfast (varieties producing over 50 buds): St Ewe, Alba Simplex × J. C. Williams, Lady Vansittart, Charity, Charles Michael, Inspiration, Janet Waterhouse.

Edinburgh (varieties producing over 50 buds): St Ewe, Dainty Dale, Bow Bells, Citation, Cornish Spring, Garden Glory, George Blandford, Mary Christian, Spring Festival, Inspiration.

Harrogate (varieties producing any buds): St Ewe, Dainty Dale, Leonard Messel, Brigadoon, E. G. Waterhouse, J. C. Williams, Mary Christian, 1005, Inspiration, Innovation.

Willoughbridge (varieties producing any buds): St Ewe, Dainty Dale, Lady Clare, Donation, Baronne Leguay, Glenn's Orbit, Charles Michael, Cornish Spring, J. C. Williams, Mary Christian, 1820, Inspiration, C. M. Hovey, Clarise Carleton.

It is of interest to note that, almost without exception, hybrid varieties are faring better than *japonicas* at each of the trial centres and that those doing well last year have again excelled this year.

Looking at the results overall the varieties with the best flowering ability remaining in the trial this year are:

Inspiration (reticulata hybrid)

Bow Bells (saluenensis hybrid)

St Ewe (williamsii hybrid)

The next most promising group include: Charity, Charles Michael, Cornish Spring, Dainty Dale, J. C. Williams, Mary Christian, 1820 (now named Bridal Gown), Clarise Carleton, Innovation.

Again the varieties doing well at each of the four centres are with few

exceptions those which were specially commended last year - as reference to the report at page 84 of ICS Journal number 17 will show. If ability to survive is allied to flowering potential then, on this year's evidence, the best variety in the Society's trial is once again Inspiration, a reticulata hybrid introduced in 1954.

It is good to be able to report that the trials are now well under way and attracting considerable interest. There were of course early setbacks, largely as a consequence of subjecting insufficiently mature plants to the harsh winter frosts of recent years in the midlands and north of UK. No doubt one of the main lessons of the trials will be to re-emphasise the risks to young plants of such exposure.

On 26 April 1986 sixty members of the Society visited the Harlow Car trial and interest grows elsewhere. For example in Belfast the Director of Parks has appointed a panel of 'judges', drawn from various places in the province, who are already active in regular visits to record their views on the quality of individual varieties. An article by the Director in the 'Belfast Telegraph' was helpful in publicising the trial and, incidentally, the work of this Society.

For the future there are plans to introduce further varieties for trial and to propagate at trial centres replacements for hybrid varieties that seem promising but have become winter casualties elsewhere.

The Society is indebted to the four sponsors of the trials who continue to give practical help in tending the plants and whose records have enabled this report to be prepared. Our thanks are due in particular to Mr Wallace at Belfast, Mr Robertson at Edinburgh and Mr Ballard at Willoughbridge.

The Royal Horticultural Society's Camellia Hybrid Trials at Wisley

E. W. M. MAGOR

Los ensayos de camelias híbridas de la Real Sociedad de Horticultura en Wisley

Essais de camélias hybrides de la Royal Horticultural Society a Wisley

Le prove sugli ibridi di camelia effettuate dalla Royal Horticultural Society a Wisley

Kamelien-Hybrid-Versuche der Royal Horticultural Society in Wisley

In the R.H.S. yearbook 'Rhododendrons, 1981-82, with Magnolias and Camellias' (pp.57-60), there was published a list of all the awards to camellias by the Royal Horticultural Society up to that date, starting with a First Class Certificate (F.C.C.) to *C. japonica* 'Contessa Lavinia Maggi', when shown by James Veitch & Son in 1862. Apart from the better known species and hybrids, awards have been made to *Camellia* species as follows:

<i>C. cuspidata</i>	A.M. 1912	(J. Veitch)
<i>C. granthamiana</i>	A.M. 1974	(Gorer)
<i>C. maliflora</i>	A.M. 1977	(R.B.G., Kew)
<i>C. rosaeflora</i>	A.M. 1928	(R.B.G., Kew)
<i>C. tsaii</i>	A.M. 1960	(Crown Estates)

The earliest awards to hybrids were:

C. 'Salutation'	A.M. 1936	(Clarke)
C. 'J. C. Williams'	F.C.C. 1942	(C. Williams)
C. 'Mary Christian'	A.M. 1942	(C. Williams)
C. 'St. Ewe'	A.M. 1947	(C. Williams)
C. 'Cornish Snow'	A.M. 1948	(C. Williams)
C. 'November Pink'	A.M. 1950	(C. Williams)
C. 'Francis Hanger'	A.M. 1952	(R.H.S., Wisley)
C. 'Donation'	F.C.C. 1952	(Clarke)

These awards were all made by the R.H.S. Council, on the recommendation of one of its committees to exhibits brought to the London shows; since 1953, the committee concerned has been the Rhododendron & Camellia Committee. Since 1974, awards have also been made to camellia hybrids after trial at Wisley; originally, this trial was limited to *C. × williamsii* (*C. saluenensis* × *C. japonica*) hybrids, but now it is open to camellia hybrids of any parentage.

The following hybrids have received awards After Trial at Wisley:

1974 'Donation'	F.C.C.	(Hillier)
'George Blandford'	A.M.	(Treseder)
'Mary Larcom'	A.M.	(Treseder)
'Shocking Pink'	A.M.	(Trehane)
'St. Ewe'	F.C.C.	(Hillier)
'Exaltation'	A.M.	(Crown Estates)
1975 'Anticipation'	F.C.C.	(Trehane)
'Brigadoon'	F.C.C.	(Trehane)
'Elsie Jury'	F.C.C.	(Trehane)
1976 'Elegant Beauty'	A.M.	(Trehane)
'Glenn's Orbit'	A.M.	(Treseder)
1977 'J. C. Williams'	A.M.	(Hillier, Russell, Treseder)
'Mary Christian'	F.C.C.	(R.H.S., Wisley)
1979 'Mildred Veitch'	F.C.C.	(Veitch)
'Felice Harris'	A.M.	(Trehane)
1980 'Beatrice Michael'	A.M.	(Treseder)
'Inspiration'	F.C.C.	(Trehane)
1981 'Bowen Bryant'	A.M.	(Trehane)
1985 'Bartley Pink'	A.M.	(Hillier)
1986 'Bowen Bryant'	F.C.C.	(Trehane)

Promising camellia hybrids put up to the Rhododendron and Camellia Committee at the London Shows, whether or not they receive awards, may be recommended for Trial at Wisley, where they are judged by a sub-committee every spring.

In addition to the camellia hybrids in the trials, the following hybrids outside the trials have also received awards at Wisley, on the recommendation of this sub-committee:

'Grand Jury'	A.M. 1976 (Trehane)
'Felice Harris'	A.M. 1979 (Trehane)
'Inspiration'	F.C.C. 1980 (Trehane)
'Jury's Charity'	A.M. 1986 (Trehane)
'Daintiness'	A.M. 1986 (Trehane)
'Royalty'	A.M. 1986 (Trehane)

Besides those which have received awards at Wisley, the following camellia hybrids are in the trials there at present:

2. 'Tregrehan' (Carlyon)	40. 'Tristrem Carlyon' (Carlyon)
3. 'Parkside' (Crown Estates)	41. 'E. G. Waterhouse Variegata' (Trehane)
7. 'Maud Messel' (Nymans)	42. 'William Carlyon' (Carlyon)
8. 'Sayonara' (Trehane)	43. 'E. G. Waterhouse' (Hillier)
10. 'Lady Gowrie' (Hillier)	46. 'Jenefer Carlyon' (Carlyon)
11. 'Clarrie Fawcett' (Trehane)	48. 'White Coppelia' (Hillier)
12. 'Hiraethlyn' (Hillier)	49. 'Charles Michael' (Hillier)
13. 'Carolyn Williams' (Williams)	50. 'Burwell's Perfection' (Hydon)
15. 'Yesterday' (Carlyon)	53. 'Roza Harrison' (Hydon)
17. 'Coppelia' (Hillier)	54. 'Burwell's Primus' (Hydon)
18. 'E. T. R. Carlyon' (Carlyon)	59. 'Golden Spangles' (R.H.S., Wisley)
19. 'Duchess of Cornwall' (Carlyon)	60. 'Cherub' (Loder)
20. 'Farfalla' (Trehane)	61. 'Mary Jobson' (Treseder)
21. 'Philippa Forwood' (Pilkington)	63. 'Exbury' (Exbury)
25. 'C. F. Coates' (Hillier)	64. 'Bow Bells' (Trehane)
26. 'Citation' (Hillier)	67. 'Leonard Messel' (Trehane)
27. 'Brian' (Trehane)	68. 'Debbie' (Trehane)
28. 'Crinkles' (Hillier)	70. 'Sea Foam' (Hydon)
29. 'St. Michael' (Williams)	72. 'Cornish Spring' (Carlyon)
37. 'Lady's Maid' (Trehane)	73. 'E. T. R. Carlyon' (Carlyon)
38. 'China Clay' (Carlyon)	

Notes

1. Information, by courtesy of the R.H.S. Garden at Wisley.
2. Names in brackets are those of the exhibitors.

The International Camellia Register

T. J. SAVIGE

(read at the Sydney Convention, September 1986)

El Registro Internacional de la Camelia

Le Registre International des Camèlias

Il Registro Internazionale delle Camelia

Das Internationale Kamelienregister

In compiling, what will be the first complete register of the names of the world's Camellias, various decisions on contentious points had to be made, to ensure a uniform and consistent method of expressing the data involved, in a simple, direct and easily understandable form.

While the "International Code of Nomenclature for Cultivated Plants" (herein after called the "Cultivated Code") controlled the over-all concepts of correct nomenclature, many areas remained where more explicit guidance became necessary. As it is considered desirable that all concerned persons should have the opportunity for input into such decisions, it was decided to give this paper, setting out in some details, the problems, the decisions made with the reasons for same. It is hoped that feed-back from this will result in a Register format, acceptable to the majority of informed readers and researchers.

Duty of Registrar

The duty of an International Registration Authority is to use its best endeavours to persuade originators of new plants in the group concerned, to submit all proposed cultivar names for approval, so that only those conforming to the rules and recommendations of the Cultivated Code are registered and used. The Authority is further responsible for publishing and maintaining lists of these names as circumstances dictate.

Registration is a voluntary procedure and confers no legal protection of the use of a name, or the propagation of the plant concerned. However it is of obvious value to all interested in Camellias, that their nomenclature should be stable and as free from duplication as possible. As Camellias are exchanged and exported through-out the Camellia growing regions of the world, it is of particular importance that this be maintained on a world-wide basis and it is only by full cooperation of all concerned that this objective can be reached.

Valid Names

In this regard there are two areas in the history nomenclature, each with different requirements. The first is that before the initiation date of the Cultivated code in

1959 and the second is the modern era following that date. In the period prior to 1959, because of the lack of any control, there was a proliferation of synonyms and orthographic errors, so there can often be a problem in deciding on the prior valid name of a cultivar. This problem is not so common in the modern era with its registration procedures, where the trouble is to prevent the use of an earlier name.

The decision on selecting the valid name for a cultivar is based on the requirements of the Cultivated Code. The aim of this code is to promote uniformity, accuracy and fixity in the naming of agricultural, horticultural and silvicultural cultivars.

Registration requirements

The appendix to the code, 'Recommendation for the guidance of Registration Authorities' reads:

Registration Authorities should compile and publish full lists of cultivar names. These lists should, if possible, include:

- (a) The names of the cultivars in cultivation (see also Art. 56), giving, where possible, for each name, the particulars enumerated under 1. viz.
 - (i) The name and address of the originator, the introducer, if any, or their assignees.
 - (ii) The name of the describer or namer, when the cultivar has been previously described or named, together with a full reference to date and place of publication.
 - (iii) The original name, if the name submitted is a commercial synonym.
 - (iv) The parentage, when known.
 - (v) particulars of tests for distinctiveness, including date and place of testing.
 - (vi) If awards are mentioned, their date.
 - (vii) A description, if no description has been published.
- (b) The names of cultivars which, although no longer cultivated, are of historical importance, for example, as ancestors of existing cultivars.
- (c) All known synonyms, including commercial synonyms as such.
- (d) Rejected cultivar names.

Regarding cultivar names, it is found that rarely, if at all, is it possible to categorically state that a plant is extinct and, in any case, if a name is validly published it is there for evermore and becomes a potential source of confusion if another plant is allowed to assume the same name.

Nevertheless there are cases where a cultivar has never been commercially released and its identity has been long lost to cultivation. Where this appears reasonably certain, it has been marked as obsolete in the list; however it is not advised that the name should be re-used, although the Cultivated Code does permit this with the approval of the Registration Authority.

It must be said, as far as Camellias are concerned, that these are long lived

plants with ages over 600 years reported from China and Japan and it is rarely possible to be certain that a particular cultivar is not cultivated somewhere in the world. Therefore in this first edition of the International Camellia Register it has been endeavoured to include all names that have been published as *Camellia* cultivar names back to 1521 (465 years ago) which is as far back as dated and published records go.

Register listing

Amongst the conventions followed in the Register, is that listing of names shall be completely alphabetical, irrespective of species, rank, hybridity or particular cultivar group, or whether they are valid names, synonyms or erroneous names. This is to make it easier to use and also because name priority applies to the Genus *Camellia* completely, not to separate sections, and so that duplication of names can be seen immediately.

Name repetition

Duplication of names is, today, barred by the Cultivated Code. This has not been so in the past and, when investigation reveals that more than one *Camellia* has been listed under the same name, they are listed separately. This is particularly common amongst the Oriental names.

In the case of duplication amongst Western names, the course followed in the Register is to retain the name for the cultivar with the prior publication, without any change or addition. For the other cultivar or cultivars of the same name, the method of distinguishing them that has been used in the Register is to add, where possible, the originator's name in brackets, following the original cultivar name. This keeps the names together in the Register and underlines the difference.

This cannot be followed with the Oriental names and this problem is discussed in a later section dealing with such names.

Names that are considered valid are listed in "boldface", while all non-valid names will be set back in normal type.

Non-valid names

Non-valid names include synonyms, erroneous names, orthographic errors, orthographic variants, abbreviations, different readings of oriental characters and corruptions of Oriental names.

- (a) Synonyms are alternative names given to cultivars to suit local requirements of language or for commercial reasons or to provide a name for an unidentifiable cultivar so that it can be distributed.
- (b) Erroneous Names are valid names of other cultivars given in error due to incorrect identification and often retained due to local usage.
- (c) Orthographic Errors are names improperly spelt. Orthographic errors have been corrected, where necessary, in the listing of the valid names, under the procedure that the first validly published name is retained unless there is definite evidence of error or contravention of the Cultivated Code in the original orthography, but all such contraventions

or errors, including those of mis-spelling, grammar and typography are corrected.

- (d) Orthographic variants include all cases of alternative spelling of a name including variations in spelling conventions and different languages.
- (e) Abbreviations include all names where all or part of a name has been shortened or deleted to an abbreviated form.
- (f) Different Readings takes into account the different ways of writing transliterated names from Oriental characters, that are acceptable or legitimate in its original language.
- (g) Corruption of Oriental Names applies to the mis-spelling of transliterated Oriental names.

It was decided to list all orthographic errors or variants of a name, to assist those searching for information on a cultivar, for which they may only have a mis-spelt name. The only requirement is that these mis-spelt names must have been previously published. All non-valid names are completely cross referenced to their valid counterpart and vice-versa.

Cultivar groups

The valid names only are followed by the species or horticultural group to which they belong. This requires some definitions. Firstly, wherever the word "hybrid" is used it refers to a cultivar involving more than one species. Some of these hybrids bear acceptable "collective epithets" such as *C. × williamsii* for the cross between *C. saluenensis* and *C. japonica* as far as and including the F3 generation, whether they are selfed, inter-crossed or back-crossed. "Borde Hill hybrids" designates similar hybrids between *C. saluenensis* and *C. reticulata* and "Caerhays hybrids" between the species *C. saluenensis* and *C. cuspidata*. Where the formula for a particular hybrid is known it is given in detail in the description; where the seed parent only is known the word "hybrid" is added after the parent species, ie Reticulata hybrid. Where the parent species are unknown it is referred to as *C. hybrid*.

The species *C. japonica* has been divided into its sub-species as follows: *C. japonica* ssp. *japonica* var. *japonica* simply as *C. japonica*; *C. japonica* ssp. *japonica* var. *macrocarpa* is called *C. macrocarpa* and *C. japonica* ssp. *rusticana* is called *C. rusticana* and there are the specialised horticultural groups "Higo" and "Wabisuke". The three cultivated species whose taxonomical standing are in doubt, i.e. *C. hiemalis*, *C. vernalis* and *C. maliflora* are listed against the cultivars traditionally associated with them.

Publication reference

Immediately following the cultivar group is the author, name and date of the first valid publication of the particular cultivar name, or such details as are known. This is given in as full a form as possible, rather than the usual literary abbreviation for simpler reader reference, as the publication reference is very extensive. Sometimes further listing references follow to substantiate the first, including references to publications of illustrations.

Description

Following the publication reference is a description of the cultivar, where available, or a translation into English of the original description, if a suitable one has been made, of those published in other languages. For the sake of brevity and objectivity, these descriptions have, in the English form, been deleted of superlatives and extraneous matter and only information of assistance in identification has been retained. While some descriptions are long and detailed, others are so abbreviated as to be insignificant. Where further, more detailed description is available from later listings, this is used to amplify the original description.

All dimensions have been converted to the metric system in the description.

Season

If known, the flowering season is given. This has been reduced to "Early", "Mid-season" and "Late" to prevent transequatorial confusion when months are given and to stop misinterpretation caused by climatic variation when seasons are given.

History

A brief history, if available, is included. This carries the name and address of the originator, if known, synonyms and all other non-valid names for cross-reference purposes, parents, mutations, awards, country of origin, if not included in the originator's address.

Listing of non-valid names

In the case of non-valid names in the list, besides being set back from the valid names and being in normal type, no species or group designation is given; nor is any description or history; only the author and name of the first publication in which the non-valid name appeared with a cross reference to the prior valid name.

Establishing priority

Priority for name validification is established by the date of first valid publication as set out in the Cultivated Code. In cases where the same cultivar is listed in the same year in the languages of two different countries and one of those languages is that of its country of origin, this orthography is accepted as the valid one. In the case where a cultivar is named after a citizen of its country of origin, the valid name is considered to be that in the orthography of its country of origin, irrespective of the language of its first listing.

Virus induced variegation

Because of the unstable genetic structure of many *Camellia* cultivars, particularly in the horticultural forms of the species *C. japonica*, a considerable number of cultivar names are devoted to the sports arising from mutations, particularly as far as the pattern of colour of the flower is concerned, but also including changes

to flower and leaf form. However by far the largest group of cultivar variants are the variegated forms arising due to virus infection. In view of the fact that this virus is, in fact, a disease with a somewhat debilitating effect on the infected clone, its variegating action is variable and unpredictable and is influenced by the health of the clone and its environment.

Therefore it was decided that, where it was reasonably certain that the variegation was caused by virus infection, this would be noted in the history or description of the cultivar.

Transliteration of Oriental names

Article 32 of the Cultivated Code states:

Where a cultivar name has to be rendered into another language, it is preferably left unchanged. It may, however be transliterated or translated, in which case the transliteration or translation is regarded as the original name in a different form and its date is that of the original.

The interpretation of this article has been a problem, due to the following reasons:

- (a) Japanese names for camellia cultivars are usually written in Chinese characters known in Japan as Tōyō Kanji, of which there are about 1850 approved for general use. These can be pronounced in more than one way, resulting in different written representations. These are those previously referred to as “different readings”. For example 大紅 can be vocalised and written as Ōniji in the pronunciation known as “On” and as Taikō in the other pronunciation known as “Kun”.
- (b) There are also three systems of transliteration which represent Japanese language in English by letters of the Roman alphabet: the Hebon-shiki or Hepburn system, which is the one most widely used both inside and outside Japan and is the easiest for Westerners to vocalise. It has often been modified in various ways by various authors. The Kunrei-shiki (official system) and the Nihon-shiki (Japanese system) are alternative transliteration systems more or less confined to Japan. These systems give different ways of spelling the same character.

Examples

Character	Hepburn	Kunrei	Nippon
不	Fu	Hu	Hu
寺	Ji	Zi	Di
朱	Shu	Shu	Syu
白	Shira	Sira	Sira

- (c) Japanese writers sometimes mix these systems within the same sentence rather than stay with the one system, they can even mix systems in one word.
- (d) The guidelines prepared by various world libraries for use in word division, when transliterating Japanese, are primarily used for cataloguing and, because of their complexity, are rarely used by ordinary authors.

The decision to use any particular system is the writer's choice. As Dr. Philbrick, in his original investigations, selected the Hepburn system, this has been followed in the Register. This also matches the decisions of other Registration Authorities such as that for the Cultivated Japanese Flowering Cherries, where the names are almost totally in Japanese. The guides to the Hepburn system chosen were "The Modern Reader's Japanese-English Character Dictionary", 2nd revised ed., 1981 by Andrew Nathaniel Nelson and Kenkyushu's "New Japanese-English Dictionary", 1954 and later editions.

When there is prior publication in the transliterated form, this has been accepted in whatever system it occurred, although the word division has been modified if necessary for uniformity.

Word division

The word division that has been adopted for Japanese transliteration is that of using hyphens and only the initial capital letter. It has been found desirable to adopt a few simple rules for word division. In general, Camellia names are written in one word with the following exceptions:

- (a) Where a name includes species or group designation, these are separated by a hyphen, ie 'Higo-hagoromo'
- (b) Where names contain frequently occurring modifiers, these modifiers (shibori, nishiki etc) are separated by a hyphen, ie 'Shokkō-nishiki'
- (c) Where adjacent vowels are pronounced in separate syllables they are separated by a hyphen, ie 'Shiro-otome'
- (d) When the character for "no", meaning 'to', 'of', 'on', is included, this is separated by a hyphen, ie 'Hi-no-maru'.

This reduces the frequency of an excessively long cultivar name, and aids pronunciation by preserving a logical break which can be consistently applied.

Chinese

In transliterating Chinese, the official "Pinyin" is the only system now used and all valid names are expressed in this form. They are written according to the official "Pinyin Chinese-English Dictionary" 1979 and later editions, Editor-in-chief, Professor Wu, Jinrong. Usually a name in Chinese is transliterated as one conjoined word, in contra-distinction to earlier systems, where they were written in separate syllables. Longer names are divided into concepts for easier handling and are written with a capital letter for each part of the name and no hyphens.

Valid Oriental names

In interpreting Article 32 the possibility of using either the transliteration or the translation as an equivalent valid name in romaji is not sufficiently specific, considering the number of possibilities with the different transliteration systems and European languages into which the name may be translated; nor does a literal translation always carry the full meaning of the name. Therefore the transliterated names, in Hepburn for Japanese and Pinyin for Chinese, is considered the most suitable equivalent valid name.

It has also been decided, as far as oriental names are concerned, that the characters which make up these names be added immediately following the transliterated name. This is to make the Register more acceptable to Oriental horticulturalists, as it is often difficult to decide on the original meaning of the name due to the various possibilities arising from the different characters with the same transliteration. It also serves to distinguish between cultivars with the same transliteration but having different characters with different meanings.

Duplication in Oriental names

There are two types of duplication in Oriental names. The first arises from the transliteration of more than one character being identical. These names are not duplicated when written in the original characters, only in the transliterated form. They are let stand in the register but the difference in the characters and translation is noted.

The second type of duplication is due to using the same name for Camellias in different groups. It is not uncommon to find a *C. japonica*, a Higo and a *C. sasanqua* each having an identical name. In these cases the earliest published name takes priority for the use of the name. In some cases attempts have been made to separate them out by using the group name with the varietal name, ie 'Higo-hagoromo', or using a different reading for the alternative cultivar but the problem has not been solved in all cases.

Finally it must be said that, in a listing of such size and complexity, there will no doubt be some errors and, also as time goes on, further information may become available which will alter priority and add to missing descriptions and history. It is hoped that those with more detailed knowledge of cultivars, for which there is limited information, or with access to publications and catalogues with missing information, will make this available to the Registration Authority in the future so that the Register will increase in accuracy as time goes on.

New Registrations, 1986

Nuevos Registros, 1986

De nouveaux noms au Registre, 1986

Nuove registrazioni 1986

Neue Registrierungen 1986

No. 10. *C. × williamsii* cv. Moira Reid.

Applicant: Mrs Louis Reid, Moyclare, Liskeard, Cornwall, England.

Originator: Mr Charles Williams, MP, Caerhays Castle, Gorran, St. Austell, Cornwall, England.

Flower: A small campanulate single 3 cm in diameter and 2.5 cm deep, with 6 petals, colour rose-pink (RHS Red Group 55B). Stamens yellow, filaments white, flowers mid-season.

Leaves: Dark green, matt, linear, oval, 4.5 cm long by 2.5 cm wide, finely, sharply serrulate, apices sharply acute.

Habit: Vigorous, upright, bushy with medium growth rate.

No. 11. *Reticulata* hybrid cv. Carolyn Snowdon.

Applicant and originator: Dr J. A. Smart, Marwood Hill, Barnstaple, North Devon, England, EX31 4EB.

Parent: *C. reticulata* 'Buddha' × *C. japonica* 'Ville de Nantes'.

Flower: First bloomed 1978, the flower is a large semi-double size 12 cm dia. by 6 cm deep with 16 slightly notched petals in 2 rows, standing apart and 1-2 petaloids. Its colour is RHS Red Group 53B-C; stamens in fascicles, anthers yellow, filaments white. Flower shatters.

Leaves: Glossy medium green, keeled, elongated elliptical, moderately serrate, acuminate, 13 cm long by 6.5 cm wide. Petioles 10 mm long.

Habit: Rapid and upright.

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Who says opals are unlucky?

MRS. JOAN BOWSKILL

¿Quién dice que lo ópalos traen mala suerte?

Qui dit que les opales portent malheur?

Chi ha detto che gli opali portano sfortuna?

Wer sagt, Opale bringen Unglück?

At the Brighton Conference one of our overseas guests looked very pensive one morning. She did not attend the lecture but sat around. Eventually she approached me and said she felt she must share her problem although I would not be able to help.

The previous day, when we had visited Leonardslee in the morning and Heaselands in the afternoon, she had lost an extremely large and exceedingly valuable black opal ring. She had no idea when or where. It just so happened that on the previous day down by the fishpond at Heaselands another member had picked up the trampled remains of what looked like a piece of costume jewellery. This was the ring, without the opal. A telephone call was made to Heaselands and they kindly searched the paths round the fishpond and found this magnificent black opal, unharmed and no worse for the incident. They even sent it straight in to the Old Ship Hotel by car where opal and owner were reunited.

Who says opals are unlucky!!!!

A New Challenge

LADY BROWNLOW

Un nuevo estímulo

Un nouveau défi

Una sfida nuova

Eine neue Herausforderung

We moved to Jersey three years ago and our new garden is a complete contrast from our old one. We are therefore much enjoying being involved in the replanting programme that includes redesigning and growing different plants suited to acid soil, our previous garden being alkaline.

The garden is situated on high ground and slopes gently down to a field; it is therefore well drained and, in parts, the granite rock is only lightly covered by soil. Being on an island we are inevitably exposed to winds with the predominant wind being from south west but last winter it was the very cold north easterly winds which did most of the damage and many plants suffered from wind burn; fortunately we had only a little damage from frost. The rainfall on Jersey is between 30'' and 34'' per annum. We have found that with a good mulch put on the beds in April watering is not a necessity, despite the well drained light soil. Before any new planting we always dig in a lot of peat to help retain the moisture.

Now that we have cleared out the old overgrown shrubs and other rubbish we are ready to start on a camellia walk this autumn. For our new project we have chosen the west boundary of the garden as this is well seen from the house and we should be able to enjoy the flowering camellias in the winter from the windows. Along this side we have an established eunonymus hedge affording some protection and a large tree of some 12 feet high of *C. Adolphe Audusson* which is in good health and seems very happy even with a hot sun at times.

We are going to plant *Camellia reticulata* varieties and sasanqua Camellias, having been advised that they will do best in the situation described. Our aim is to plant a selection from these two groups to ensure the longest possible flowering season. For October and November we shall plant *C. Cleopatra*, *C. Plantation Pink* and *C. Snow Flake*. Although apprehensive about *Snow Flake* suffering from wind burn on the white flowers I am going to experiment with this. To follow on we shall have *C. Elsie Dryden* which makes a prolific bush and *C. Arch of Triumph* followed by *C. Eden Rock* and *C. Lila Naff* with *C. Captain Rawes* to end the season. It will be apparent that most of the current planting programme involves camellias in various shades of pink which we feel is in every way complementary to Jersey granite. However in later years we hope to add further plantings.

On the east side of the new walk we are planning to add some quick growing "mother shrubs" such as *pittosporums*, *escallonias*, *hydrangeas* and *tree lupins* to provide some initial shelter.

Application for Registration of a new Camellia

General Rules

- A 1. a This form and procedure is intended for the use of those who wish to Register a Camellia in a Country where there is no National Camellia Society which provides a Camellia Registration service. Copies of this form may be obtained from the I.C.S. Membership or any other officer or director of the I.C.S.
- b Applicants in Australia, New Zealand and the United States of America should seek application forms from the Secretary of the respective National Camellia Society.
2. a After completion of Page 3, applicants should detach pages 1 and 2 and retain them with as many photocopies of Page 3 as he wishes. The original copies of Page 3 and 4 (Page 4 is reserved for Society use) should be sent to the appropriate I.C.S. Membership Representative whose name and address is published in the I.C.S. Journal.
- b Applicants are urged to submit two colour photographs of the Camellia concerned. 35 mm slides in Kodachrome are preferred but in case of difficulty other colour transparencies or colour prints may be submitted.
3. The Membership Representative will forward the application to a member of the I.C.S. Nomenclature Panel; subject to the agreement of the applicant, this Panel member, perhaps accompanied by a second Panel member, may visit the applicant's garden to inspect the new Camellia in flower. Their comments and recommendations will be written on Page 4 of the form which will be returned to the Membership Representative for transmission to the International Registrar.
4. a If the application is approved the International Registrar will give the cultivar a Registration Number, Register the name, advise the applicant and arrange for the name and description of the new Camellia to be published in the Journal of the International Camellia Society.
- b If registration is not approved, the applicant will be advised and given the reason for rejection.
5. Approval for registration carries no guarantee beyond formal recognition and publication of the name and description of the plant and flower in the Journal of the International Camellia Society. Registration does not imply judgement on the distinctness or merit of the cultivar.
6. An application for registration of a sport will not be considered unless the sport has been propagated from the parent plant and flowered for at least two years during which period all of the blooms produced were 100% true to type. This test is required as an indication that the sport has been stabilised or 'set'.

NOMENCLATURE RULES

A FORMATION AND USE OF NAMES:

- The name must be a fancy name using proper names or words in common use; it must not be a botanical name in Latin form.
- Each word of the name must begin with a capital letter, except when national custom requires otherwise
- The name must not have been used previously for a Camellia.
- The name should preferably consist of one or two words and must not consist of more than three words; excessively long words or phrases must not be used (Example: 'Her Majesty Queen Elizabeth II').
- a The Name of a sport should include the name of its parent as the initial word whenever practicable. It is considered practicable when a solid coloured variety produces one sport consisting of a variegated form or a variegated variety produces one sport consisting of a solid coloured form (e.g. 'Herme Pink').
- b When a cultivar produces various sports a name not including the name of the parent is permissible, although reference should be made to the parent in any publication or application for registration (e.g. 'Colonial Lady').
- c If a sport is designated by adding the word "variegated" to the parent name, it must be written in full as the abbreviation "Var" is restricted in botanical use for "Varietas".
- It is strongly recommended that, whenever possible, new cultivar names in the following forms should be avoided.
 - Names composed of abbreviations, numerals or arbitrary sequences of letters.
 - Names containing an initial article, unless required by linguistic custom. Examples: Not 'The Colonel' but 'Colonel'; on the other hand not 'Rochelle' but 'La Rochelle'.
 - Names derived from proper names containing abbreviations, except for the abbreviation 'Mrs' in English. Examples: Not 'G. Creelman' but 'George Creelman'; not 'Wm. Thomas' but 'William Thomas'; not 'St. Judy' but 'Saint Judy'.
 - Names containing forms of address, unless required by national custom, for example for married women. Examples: Forms of address to be avoided include Fraulein, Herr, Mademoiselle, Miss, Mister, Monsieur, Senora, Senorita and equivalents in other languages. Acceptable forms of address include Frau, Madame, Mrs., Senora and equivalents in other languages, for married women. However, forms of title such as Doctor, Judge, Professor, etc., are, as permissible but should not be abbreviated; this applies to equivalents in other languages.
 - Names exaggerating the merits of a variety. Example: 'Mathotiana Supreme'.
 - Names resulting in a series of names with the same initial word. Examples: 'Pink Bell', 'Pink Beauty', 'White Bell', 'White Beauty'.

B PRIORITY OF USE OF NAMES

The first validly published name has priority; valid publication consists of a listing of the name accompanied by a description sufficient to identify the variety in a dated (at least as to year) printed or similarly duplicated publication which is distributed to the public, including horticultural books or magazines, nursery or trade catalogues and publications of horticultural societies, provided publication is made with the permission of the originator or introducer; however, names in use before 1st January 1959 retain priority even if they were published without description. Registration with an official registration authority without such valid publication does not give priority.

C CHANGE OF NAMES

A name first validly published cannot be changed except in the following cases:

- Translation or transliteration is allowed where there are linguistic or other difficulties; however personal names should not be translated. The first valid published translation or transliteration has priority in the particular language. The 'Pinyin' transliteration system should be used for Chinese characters, the 'Hepburn' transliteration system should be used for Japanese characters.
- Where a variety is introduced into another country and its original name is unacceptable due to the difficulty of pronunciation, or when the original name or a translation would have an undesirable connotation or implication, a synonym may be used, if possible with the approval of the originator.
- To correct errors in orthography, punctuation of names, synonyms and transliteration.

NOTES ON COMPLETING THE REGISTRATION FORM

1. Please ensure that your entries are legible. Proper names should be written in block letters.
2. The proposed name should also be written on the slide mount or on the photograph.
3. The original name is required when the proposed name is a translation from another language.
4. Growth Habit: Please enter one or more of the following: Fastigate, Upright, Spreading, Weeping, Dense, Open, Bushy.
5. Growth Rate: Please enter one of the following: Rapid, Medium, Slow, Very Slow.
6. Colour: Wherever possible, please match all colours with the current Royal Horticultural Society Colour Chart. If this is not possible, please indicate which colour chart has been used.
7. a Leaf Form: Please enter one or more of the following: Flat, Twisted, Curled, Keeled, Margins Re-curved, Margins undulate.
 b Leaf Shape: Please choose from: Rounded, Oval, Elongated, Elliptic.
 c Leaf Serrations: Please choose from: Coarsc, Moderate, Fine, Almost absent.
 d Surface: Please choose Glossy or Matt.
 e Petioles: The required dimension is the length of the leaf stalk.
 f Other Leaf Characteristics: Please include a note on venation and apex.
8. a Unopened Buds: Please describe the shape as Globular, Intermediate or Elongated.
 b Flowering Season: Please choose from: Long; Average, or Short and from Very Early, Early, Mid Season, Late, Very Late.
 c Flower Form: Please choose from: Single, Semi-double, Anemone, Loose Peony, Full Peony, Rose Form Double or Formal Double.
 These different forms are described and illustrated in 'Camellia Nomenclature' published by the Southern California Camellia Society.
9. a Character of Petals: Please choose from: Notched, Folded, Fluted, Standing Apart, Opening Flat.
 b Arrangement of Stamens: Please choose from: Higo, Column, Petaloids, In Groups, Few, None.
 Please describe any other arrangement.
 c Spent Flower Behaviour: Please choose from: Shatters, Falls Whole, Remains on Bush.
 d Abundance: Please choose from: Very Free, Free, Moderate, Sparse.
 e Tendency to Sport: Please choose from: None yet, Rare, Often.
 f Pod Development: Please choose from: Very Free, Free, Moderate, Sparse, None yet.
 g Seed Production: Please choose from: Very Free, Free, Moderate, Sparse, None yet.
10. Salient Features: Please include here a comparison with a similar well known variety, indicating the distinguishing features.
11. Changes under Glass: Please note any changes between out-door and greenhouse plants. More petals (and fewer stamens) are produced when Camellia buds are formed in cooler conditions. This is noticeable in cold temperate climates like, the U.K. where plants of the same cultivar are grown out of doors and under glass in the same garden. For instance 'Leonard Messel' and 'Laurie Bray' will usually produce loose peony flowers out of doors but semi-double under glass, 'Betty Sheffield' and its sports will have thin formal double flowers outside but loose peony flowers under glass, 'Annie Wylam' develops as rose form double out of doors but as peony form under glass. Similar changes may occur on established plants at various times in the season and in extremes of cultural conditions.
12. Other noteworthy flower Characteristics: Please include, if appropriate, comments on unusual texture, outstanding lasting qualities, uniqueness, fluorescence, etc.
13. Publication and Distribution: If there has been no activity under a particular heading, please write 'None'. The free space may then be used for other information or comment.
14. Signature: A cultivar name will not be registered against the express wish of the originator. The signature of the originator implies consent to the application; if it is not possible for him to sign the form, a separate document indicating his consent should accompany the application. The applicant is considered to have named the cultivar and to have described it unless he makes a contrary statement.

ACKNOWLEDGEMENT

The International Camellia Society acknowledges that this form is based on that of the American Camellia Society and on the Flower Classification promulgated by the Southern California Camellia Society. We have also taken note of the procedure used by the Australian Camellia Research Society and the New Zealand Camellia Society. We wish to express our gratitude for the contribution of all these Societies. The section on Nomenclature Rules has been taken from The International Code of Nomenclature for Cultivated Plants 1980, and that publication takes precedence over this form in the resolution of any discrepancy.

AUTHORITY

The International Camellia Society acts as the International Registration Authority for the Genus *Camellia* under the auspices of the International Commission for the Nomenclature of Cultivated Plants of the International Society for Horticultural Science.

Book Review

JOHN TOOBY

Reseña de libros

La Critique des Livres

Recensione

Buchbesprechung

YUNNAN CAMELLIAS OF CHINA, by the Kunming Institute of Botany, Academia Sinica; Science Press, Beijing (Science Press Book No 3354-32).

The issue of the English Edition of this notable work is an event to be warmly welcomed. The favourable impression given by the delightful end-papers is confirmed by the excellence of the colour-reproduction of the many illustrations, whether of paintings or of photographs. The authors spent over ten years studying camellias, and particularly *C. reticulata* in the wild and ancient specimens in gardens. No less than 120 cultivars are described and illustrated in colour.

The Photographs are all new and include several of camellias growing in the wild near Tengchong (Forrest's Tengyueh). Of the 120, 40 are established cultivars while the remainder have been selected in the wild or from seedlings raised at the Institute. They include several pale pinks while a rare white rose-form double of shrubby habit from Dali should whet some appetites as should a bud-sport from 'Hentiangao' which has the hexangular flower form long sought after by the early British camellia fanciers. The climate of Yunnan is described, setting out the sort of conditions to which these camellias are adapted and which the rest of us should aim to reproduce. The importance of soils and drainage is stressed and the finding of the optimum pH at 5.5-6 agrees with much western opinion. The chapters on propagation and cultivation are of considerable interest and highlight the differences between conditions in China and the U.K. The rest of us must be thankful that most of the pests and diseases described remain an exclusively Chinese problem. Thirty six species of camellias, many unfamiliar in the west are described and about half of them are illustrated in colour. Following this section there is a completely new and illuminating chapter on *C. chrysantha* with colour photographs of this species in the wild. This chapter must be required reading for those growing *C. chrysantha* in the west. It is a pity that the list of references and the index contain a few small errors. But this does not really detract from the otherwise excellent job which has done by all concerned in producing a beautiful and interesting book which will be of particular interest to those growing *C. chrysantha* and *C. reticulata*.

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Life Memberships available for an amount of at least twenty times that rate for annual subscriptions.

Book List

H. J. TOOBY

Lista de libros

Bibliographie

Elenco di libri

Bücherliste

A number of books on camellias written in other parts of the world and mostly illustrated have recently appeared in the U.K. Conditions here are much cooler and some of the recommendations are misleading to beginners. Books written in this country, though less glamorous, offer sounder advice and those out of print are often available second-hand.

A Revision of the Genus Camellia - J. Robert Sealy, R.H.S. London 1958. Excellent botanical study with descriptions of 82 species.

Camellias - E. B. Anderson, Blandford Press 1962. The first popular British work which has worn quite well.

Camellias for Every Garden - Geoffrey Wakefield, Collingday 1964. Also gives good advice.

Growing Camellias - Neil Treseder and Edwards Hyams. Nelson 1975. The best and most recent British full-length book.

Camellias - David Trehane. R.H.S. Wisley. Handbook No. 37, revised 1985. Brief but authoritative.

The Colour Dictionary of Camellias - Stirling Macoboy. Lansdowne Press 1981. Comprehensive and well illustrated, but descriptions apply to Australian conditions.

The Camellia - Peter Longhurst and T. J. Savige. Bay Books 1982. A prestige publication illustrated with reproductions of 53 paintings.

Camellias - Chang Hung Ta and Bruce Bartholomew. Batsford 1984. The latest botanical update which raises the number of species to 202.

In addition the R.H.S. Rhododendron and Camellia Yearbooks were published annually 1954-1970. Those of 1960-1963 contain excellent descriptions of 90 cultivars of camellias by Charles Puddle and Francis Hanger (1970 only by Charles Puddle). From 1972 the R.H.S. have issued a paper-back *Rhododendrons with Magnolias and Camellias* annually. The American Camellia Society has issued an annual Yearbook since 1946. The South California Camellia Society issue *Camellia Nomenclature* triennially.

NEW MEMBERS of the International Camellia Society

As explained in the 1985 Journal, a complete list of members will not be published again until 1988 (Journal no. 20), and only the names and addresses of new members are being published this year. Other changes, and corrections will be incorporated in the next full list.

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Left: *C. sasanqua* 'Oh-sakazuki' × *C. oleifera* (see p.84)
Above: *C. japonica* 'Mrs Bertha Harmes' × *C. oleifera* (see p.84)
Below Left: *C. hiemalis* 'Bill Wylam' × *C. oleifera* (see p.84)
Below: *C. oleifera* × *C.* 'Frost Princess' (*C. hiemalis* × *C. oleifera*) (see p.84)





Above: Stem of Great Camellia (see p.49)
Top Right: Foliage and flowers of Great Camellia (see p.49)
Right: Harold Fraser presenting scarf at Jade Temple (see p.48)
Below: Lower Temple Building with *C. reticulata* 'Lion Head' (see p.50)





*Above: Park scene at Lijiang (see p.48)
Left: The party examining rhododendrons on the way to Lijiang (see p.48)
Below Left: Entrance to Park at Lijiang (see p.48)
Below Right: Harold Fraser with the Director and Tea Scientist, at the National Tea Research Institute, Hangzhou (see p.46)*





Top: Dataohong (see p.108)
Right: Fujian Maneo (see p.108)
Bottom Right: Yuguang (see p.113)
Below: Dazhusha (see p.108)





Top: Xiyang Dianxue (see p.112)
Left: Fenfurong (see p.108)
Bottom Left: Huaheling (see p.110)
Bottom Right: Simianjing (see p.111)





Above: 'Sugar Dream'
(*'Dream Girl* × *C. oleifera*
'Jaune', raised by Mr O.
Blumhardt, Whengarei, N.Z.
Left: Bunty Kitson's
'Little Sport' (see p.41)
Below Left: The Villa Lanzara,
Salerno (see p.58)
Below Right: *C. 'Felice Biasco'*





Top Left: 'Tuisong', 'Lasca Beauty', 'Purple Gown', Sept. '85 (see p.116)
Above: Harry & Vonnie Cave's Garden (see p.116)
Left: 'Pagoda', 'Mouchang', 'Shot Silk', Sept. '85 (see p.116)
Below: Planting 'Eden Queen' (see p.116)





Top Left: Camellias at Ard Daraich (see p.90)
Top Right: Camellias at Ard Daraich (see p.90)
Left: Mr & Mrs Sebire's Camellia Plantation
Wandin North, Victoria
Below: Royal Tasmanian Botanic Gardens
(see p.129)





Trial Bed at Sir Thomas & Lady Dixon Park, Belfast (see p.130)

I.C.S. Trials. C. 'Leonard Messel' (see p.130)

I.C.S. Trials. C. 'Freedom Bell' (see p.130)



The International Camellia Society

was inaugurated in 1962 with the following motives:

1. To foster the love of Camellias throughout the world, and to maintain and increase their popularity.
2. To undertake historical, scientific and horticultural research in connection with Camellias.
3. To co-operate with all national regional Camellia Societies and with other Horticultural Societies.
4. To disseminate information concerning Camellias by means of bulletins and other publications.
5. To encourage a friendly exchange between Camellia enthusiasts of all nationalities.



The German Region's Congress in the Palmengarten at Frankfurt (see p.104)