

THE JOURNAL OF THE KEW GUILD

Founded in 1893

The Association of members of the Kew staff past and present

Events of 1996 and Index for 1991-95

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**Royal Botanic Gardens
Kew**

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ROYAL BOTANIC GARDENS, KEW

THE KEW GUILD

Patron: Her Royal Highness Princess Alexandra

THE KEW GUILD COMMITTEE 1996-97

Trustees:

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Retire 1997

Ms D. Cooper	Kew
A. Hart	London
P. Styles	Powys
M. Bentall	South Africa

Retire 1998

R. Storr	London
Miss S. FitzGerald	Kew
M. Leppard	Zimbabwe
A. Cooke	Ludlow

Retire 1999

M. Clift	Camberley
D. Barnes	Kew
C. Foster	Kew
J. Winter	South Africa

Retire 2000

J. Woodhams	London
Mrs. C. Bradley	Kew
P. Nutt	U.S.A.
Ms J. Evans	Kew

Award Scheme Chair: N. Hepper

Students' Union Representatives: P. Garton and Ms V. Wells

EDITORIAL

Your Committee have suggested that our Journal should not only record the past year's events at Kew and of Kewites, but also provide you with an insight into the future, into Kew's forward planning. If you read your *Kew Guardian*, which is mailed monthly and comes free with Guild membership, you will be well able to keep in touch with proposed schemes. If there are other aspects you would like to read about here, let me know.

I welcome all your news, news of other ex-Kewites who you keep in contact with and articles of interest.

This year Roger Storr, myself and particularly Allan Hart have spent a considerable amount of time marketing the advertising potential for our *Journal*, with some success. But it has to be said that there is no substitute for personal contacts and we look to you personally to contact us and to give us leads. Please contact me in the first instance. Advertising helps to subsidise printing costs and indirectly keep the annual subscription cost down. I have also provided you with a tear-off slip, below, for advertisements.

Towards the end of this edition I have set out some details about production for your interest. Enjoy this Journal, my twenty-first as Honorary Editor. If you don't it's your fault!

Keep in touch.

Richard C. Ward
Hon. Editor

Your Guild contacts are:

Secretary: Kenwyn Pearson on 01444 232973 (telephone and fax)

Honorary Editor: Richard Ward on 0181 878 6696 (telephone and fax)

Membership/Subscriptions: Jill Cowley on 0181 332 5296 (telephone)

Addresses as per list at the back.

Current subscription rates are £15 P.A., £12 for staff, £6 students. Check that you are paying the current amount otherwise you will not receive a Journal next year.



The Kew **GUILD**

Founded in 1892: Registered Charity No. 306064.

Royal Botanic Gardens, Kew, Richmond, Surrey TW9 3AB

KEW GUILD JOURNAL ADVERTISEMENT 1998

RESERVATION: We wish to place a reservation for inclusion of our advertisement in the 1998 edition of the Kew Guild Journal (to be received by latest 31.12.97 please).

Signed

On behalf of

Date

.....

Address and Tel/Fax No:

.....

.....

Please return to: Honorary Editor, The Kew Guild, Royal Botanic Gardens, Kew, Richmond, Surrey TW9 3AB.

TOM WOOD
President 1996/97



Tom Wood's early years were spent on the family smallholding and market garden, growing soft fruit and vegetables and then seeds for Carters, when supplies from overseas were difficult to obtain during the second world war.

On leaving Canterbury Technical College after a three year course in Agriculture he prepared for a farming career! Tom joined a local nursery company and set about growing every type of plant from alpiners to large trees, bedding plants to exotic fruit and cut flowers to landscaping.

This plant experience was extended when, during a happily undistinguished and non-eventful National Service, a period was spent in Malaya, where epiphytic orchids grew in the rubber trees and Etap palms were given a wide birth. The decision was made to learn more about the wonder of plants and, before demob in 1955, a place was booked at Swanley on the General Commercial Horticultural Course, and this was followed by the Glasshouse Course the next year.

While at Swanley Tom met Leo Pemberton, who was later to take over the post as Head of the School of Horticulture and was easily persuaded to move to Kew. This was not easy and a period as an "Improver" during the winter of 1957/58 was spent in the Alpine Department and 'On the Rocks' with George Preston and Alan Cook, converting the limestone paving to Sussex sandstone. He also worked on cutting the first hallowed sods of the Mound to create the Lily beds, before being accepted by Bill Campbell as a student.

The first move was to the 'T Range' and then on to the Tropical Pits with Lou Stenning. Next, spring in the Decorative Department with Stan Rawlings and involvement in the early bedding out for the Bi-centenary celebrations and the Queen's visit to open the Palm House. Then finally to the Arboretum Nursery under George Brown – "A great experience and having made many good friends, enjoyed a little sport and much good fellowship – two and a half years of the happiest days of my life".

On leaving Kew, Tom joined the Uganda Company in East Africa as an Estate Assistant, managing tea near Fort Portal, situated in the evening shadows of the Ruwenzori – the "Mountains of the Moon" that rise from the Great Rift Valley on the Zaire border. Treks into the foothills and forests and visits to the game parks relieved the routine of the tea growing process. A holiday saw a group of them among the giant lobelias and senecios near the snow line!

Tom was to take over the company's nurseries, selecting clones and developing vegetative propagation, as well as the traditional seed method, the growing of Eucalyptus for fuel and Grevillias and Albizzias for shade. Ornamental shrubs were gleaned from Entebbe Botanic Gardens to enhance and decorate the estate.

Returning to the United Kingdom in 1965 he was appointed Manager of Oakover Nurseries – a forest nursery at the time – but with a brief to expand into general nursery stock. The 15 acre nursery was soon doubled in size and further land purchased. After a short spell as part of English Woodlands, the present company, with Tom as Managing Director, was formed in 1976. Expansion was speeded up and today covers 300 acres with a staff of 30 producing a wide range of young trees and shrubs from seed for use as understocks and liners within the Nursery Industry. Much of the seed is hand collected in the wild or from friendly gardens and arboreta in the south.

Tom has been involved with Hadlow College (the successor to Swanley) since returning from Africa, initially through the Cantagnians as Chairman for a couple of years, and later as Industrial Assessor to the Commercial Ordinary National Diploma Courses. He is a Governor of the College and Chairman of the Horticultural Committee.

Plant production is a special way of life and he has played an active part through I.P.P.S. as a contributing member, as President of the Great Britain and Ireland Region in 1978 and as International Director from 1979 to 1981, giving opportunities to travel to the United States for annual consultations. When Bruce Macdonald moved to Canada in 1980 to take up the post of Director of the U.B.C. Botanic Garden in Vancouver, Tom took on the job of Honorary Secretary until 1986. He was awarded the Society's Rose Bowl and is an Honorary Life Member.

In 1980 he joined the H.T.A. Nurserymans Committee, becoming Vice Chairman of the N.F.U./H.T.A. Joint Committee the following year and Chairman from 1983 to 86, attending the N.F.U. Central Horticultural Committee and representing the Nursery Industry in its consultation with government through M.A.F.F. He joined the H.T.A. Council in 1985 and, after a short time on the Finance and Management Group, became Vice President and President of the Association from 1987 to 1989. He has represented the industry on Forestry Group matters for the past 10 difficult years and is a recipient of the Pearson Memorial Medal.

He has been involved in research throughout this time, particularly at East Malling, as a member of the E.M.R.A. Committee and as a Trustee.

On the formation of H.D.C., he became the Nursery Stock Representative and for the past six years the Panel Chairman. He was a member of the H.D.C. Council until 1995.

Tom manages to keep in touch with Kew as a member of the Consultative Panel of the School of Horticulture. He is lucky to have the support of Davina and their three children, John who is with him in the business, Anne, the chef who lives near home, and Clare, studying music at the Royal Academy.

To relax they plant trees and shrubs on the acid slopes of the old nursery around their house in the hope of one day creating a woodland garden to retire to!

BOB ADAMS

Vice President (1996-97)

I was born in Mingaladon, Rangoon, Burma on February 16th 1933 to parents serving with the army in India and Burma. The family returned to England in 1945 when India became independent.

Although I had been interested in nature from an early age I did not go into horticulture on leaving school. I did various jobs, including working in a toy and pram factory, a shop and a small building firm.

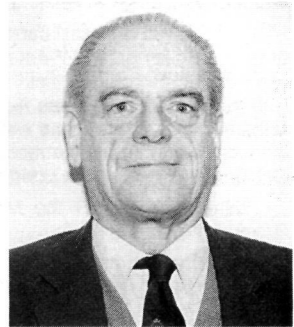
I started my horticultural career in my late teens, when I joined the gardening staff at Lyme Park, Disley, Cheshire in 1952, at the lowly grade of a garden labourer. This was just after the house and grounds were taken over by the National Trust, but administered by Stockport Corporation. At this time Lyme Park also housed the College of Park Administration.

It was whilst I was at Lyme Park that I started studying for the R.H.S. General Examination by taking evening classes at Stockport Technical College.

In 1954 I transferred to Stockport Corporation Parks Department where I gained further horticultural experience by moving around the parks. This experience included indoor as well as outdoor, doing spells in the greenhouses and also with the construction section. By this time I had moved to gardener grade and during the summer months was relief foreman on small parks learning the management side.

During my period at Stockport, having gained the R.H.S. examination, I took a two year extra mural course in Horticultural Science at Manchester University. After completing this I saw the advert for Kew students. I applied for and was accepted as a Kew student, commencing my two year course with the October 1957 intake. I was three days late starting the course as I caught 'flu at the doctors surgery whilst waiting to get a certificate of fitness!

When I arrived at Kew I started in the Palm House, my first charge being House No. 15 and then the cycad end of the Palm House. It was a time of replanting after major repairs to the



Palm House. My first move, after six months, was to the Flower Garden North, which included time in the old Decorative House, now demolished to make way for the new Princess of Wales House. My second move was to the T Range. Again this range was demolished for the new complex. Included in my charges were Begonias and Nepenthes which I found fascinating. My final move was to the Arboretum Nursery.

I enjoyed my moves at Kew and the bewildering array of new plants and experiences. It was at Kew that my love of plants was expanded enormously. Due to the atmosphere and the help of staff and other students I was taught a whole new way of looking at plants.

I look back to my time at Kew with affection. Not only did I enjoy the study and other activities, but it was the friendliness and helpfulness of everyone. I entered into most of the activities, regularly attending the Music Circle and Mutual Improvement Society, giving a rather poor talk on 'Growing Begonias'. I also joined most of the sporting activities, the 'Clog and Apron' races, 'Round the Gardens' race (winning one year) and the Kew-Wisley race. I played cricket in the summer, being Cricket Secretary in my last year, and was a wing-half in the Kew football team, which performed creditably in the Richmond League, easily beating Wisley in pouring rain.

Whilst at Kew, as with many other students, I took the Certificate of Arboriculture.

I finished at Kew in December 1959 and went to the College of Park Administration at 'The Grotto', Lower Basildon, Reading in 1960 for the one year course in Park Administration. As I was still employed by Stockport Corporation, the summer break was spent back in Stockport working with the construction unit and in the Technical Assistant's office.

I returned to Stockport Parks Department for a short time before getting a job as Technical Assistant at Cheadle and Gattey U.D.C. Parks Department, a small urban district council on the borders of Stockport and Manchester.

During this time I was an inaugural student of the new part-time evening course in Landscape Design at Manchester College of Art.

In 1965, with the assistance of Allan Hart, I joined the landscape group of the then Ministry of Public Buildings and Works as a Landscape Assistant. I remained with the Ministry under its various name changes, finishing as a Senior Professional and Technical Officer, Landscape, with the Property Services Agency prior to privatisation in September 1991, when I took early retirement. During my time with the Ministry I took the Final Diploma of Parks Administration, a landscape course at Hammersmith College up to and including the Landscape Institute's Final Design Set Piece and a London University Extra Mural Certificate in Ecology.

I also represented the Ministry on various British Standards committees and Ministry Research committees.

Retirement has allowed me to spend more time with local organisations, visiting art exhibitions and shows, and other activities to keep me occupied.

I have been a member of the Kew Guild ever since I was at Kew as a student and have served the Guild on the main committee and the Award Scheme Committee and have supported the Guild functions whenever possible. All of which I have enjoyed very much.

ANNUAL GENERAL MEETING OF THE KEW GUILD

By **Kenwyn Pearson**, Hon. Secretary

On Saturday September 7th 1996, 26 members attended the Annual General Meeting of the Kew Guild in the Conference Room at Wakehurst Place, Royal Botanic Gardens, Kew. The President, Professor Gren Lucas was in the Chair and the Secretary Kenwyn Pearson, recorded the minutes of the meeting.

Apologies for absence had been received from the following: Sandy Atkins, Sally Bidgood, Clare Bradley, Graham Burgess, Alan Cathersides, Alan Cook, Eric Curtis, Peter Edwards,

Alf Fordham, Dr. I. Ferguson, Father Hugh Flower, John Gaggini, Mr. and Mrs. Neil Gilmour, Mike Griffin, David Hardman, N. Hickman, Bob Hughes, Pamela Holt, Ian Leese, Mike Lycett, Brian Mathew, David Menzies, Brendan Mowforth, Roy Mowforth, J. Oikawa, Prof. Sir Iain Prance, Nick Thompson, J. P. Tregear, Richard Ward, Winifred Worth.

In opening the meeting the President welcomed everyone to Wakehurst Place, the first time that an Annual General Meeting had been held away from Kew Gardens.

A period of silence was observed while the Secretary read out the names of members whose deaths had been announced. They were: J. J. Aves (1939), P. Benton (1947), H. W. F. Davies (1938), T. Garwood (1947), Dr. H. Heine (1962), I. A. Kirby (1988), E. W. Macdonald (1973), Edgar Milne-Redhead (1971), J. L. Norris (1946), W. Parkinson (1971), D. Pearson (1965), G. W. Stonebridge (1932), P. G. Turley (1949), M. Tyas (1963), Mrs. Edwin Cherry (who donated the Name Boards for the Guild Room).

The minutes of the meeting held on 9th September 1995, which had been printed in the 1995 Journal, were approved as a true record. Proposed by Professor Bell and seconded by Nigel Hepper, with unanimous approval.

There were no matters arising other than those covered elsewhere on the Agenda.

The Secretary's Report: There had been four Committee meetings during the previous year in October 1995, January 1996, March 1996 and July 1996. The Committee runs smoothly but is businesslike. The Officers work well in their respective areas and adequately carry out the duties they are appointed to do. Through delegated powers and teamwork the work for the President and Secretary is made easier.

The Committee do take note of letters and comments from the membership and encourage this type of participation from the members. There are many Kewites who are prepared to serve on the Committee and it is still the intention of the Guild to honour Kewites who have done service to Kew, the Guild and the world of Science and Horticulture. The pattern for appointing a President will, as far as possible, follow the pattern in place for many years in that they select from Home and then go to someone at Kew then Home again, then Overseas then Home again and then back to Kew. It is the intention to have a broad based Committee made up from Kew, Home and Overseas. The Guild is aware of the need for publicity and to ensure it reaches Kewites everywhere. David Barnes will sell items available at this meeting.

The encouragement of members to take part still occupies the Committee and also consideration is still being given to Regional involvement. The Events of the Guild are well supported and the Committee continually look at improving this area and have appointed a sub committee to work with the Events Officer to deal with this area.

There has been correspondence concerning the possibility of opening the Gardens one day a year for the benefit of the membership and the Director is enthusiastic about this idea, but to date nothing has been finalised.

The Students are very active on the Committee and it is good to maintain strong links with the School of Horticulture.

Edgar Milne-Redhead passed away in the summer and under the terms of his will the Guild will receive a full set of Journals to be kept in the Guild Room for reference.

In conclusion Kenwyn Pearson thanked the President and members of the Committee for their support during the year. He particularly paid tribute to Dianne Cooper for organising the events of the day at Wakehurst.

Membership Secretary's Report: This was presented by Jill Cowley who confirmed that there were 537 members of the Guild. There were 65 staff members, 23 student members, 399 standard members, 41 life members and nine corporate members.

She reported disappointment that there had been little response from the Publicity Leaflet.

The report was proposed by Dianne Cooper and seconded by Brian Pitcher and adopted by the meeting.

The Treasurer's Report: Rebecca Bower said that it had been a satisfactory year, particularly with the increased subscriptions. The Charities Investment Fund grows and brings in a good level of income. *The Kew Plantsman* sales are dropping off and the *Journal* cost less than the previous year. Rebecca Bower explained that the accounts in coming years would be presented in a new form and that official independent auditors would have to be appointed.

In a question from Martin Sands the Treasurer confirmed that *The Kew Plantsman* was on sale at a price of £6 to retail outlets, £12 to members of the Guild and £15 at retail price.

Jean Griffin proposed acceptance of the report and it was seconded by Bob Adams and adopted by the meeting.

The Editor's Report: In the absence of the Editor, Kenwyn Pearson read a report from Richard Ward as follows: "I thank everyone for their part in the production of the '1995' *Journal*. It is good to see the write-ups from Award Scheme recipients. Sadly there was no advertising this year. It is hoped, with help from Allan Hart and Roger Storr, to improve this in future years. Special thanks should go to Allan Hart who has really taken this on board and advertising will be included in future *Journals* as a source of income."

Richard Ward also thanked The Reverend Hugh Flower for the work he had done for several years in compiling the News of Kewites section for the *Journal*. He also thanked John Woodhams for taking over this section of the *Journal*.

It was suggested by the meeting that an historian should be appointed by the Guild to look at archives and papers retained by the Guild. At the moment this is carried out by archivists at Kew, but the question of ownership was raised. The Committee would discuss.

John Woodhams proposed acceptance of the report and it was seconded by Derek Coates and adopted by the meeting.

The Award Scheme Report: This was presented by Nigel Hepper as detailed under the report printed elsewhere in the *Journal*.

The meeting felt that more could be gained from reports from Awardees and the Committee was asked to look at this.

Nigel Hepper was thanked for the work he does for the Award Scheme and the report was proposed for adoption by Theo Dumont, seconded by Tom Wood and accepted by the meeting.

Students Prize Day: Professor Gren Lucas reported on attendance at Prize Day and said that 14 students had received Diplomas, eight of them at honours level. He was impressed with the speech given by Sir Philip Dowson, with words on how architecture fitted in with the landscape.

It was good to see the number of prizes being donated by the Guild. Nigel Hepper commented on this point and felt that the Kew Guild should be recognised at Prize Day in a more prominent way on the information sheet given to people attending Prize Day.

It was also felt by the meeting that the President of the Guild should appear on the rostrum with other dignitaries. In answer to a question from Professor Bell, it was confirmed that the Kew Diploma is regarded as equal to a Bachelor Degree at University. Some students every year go on to University for further qualifications and research.

Jean Griffin said that it was good to recognise the standing of the Kew Diploma throughout the whole world.

Tom Wood wondered whether Spence Gunn, Editor of the *Kew Guardian*, could be approached to give more publicity to Awardees of the Guild and the work done by students and ex-students. The Committee should also capitalise much more on its success.

The President thanked the retiring members of Committee for their hard work. They were: Don MacGuffog, Mathew Biggs, Peter Boyce and Jim Redman.

Election of Officers: There has been one nomination to serve on the Committee other than those detailed in the AGM notice and that was Jenny Evans, proposed by Kenwyn Pearson and

seconded by Professor Lucas. With this addition it was proposed by The President that the Committee should be appointed en bloc, and this was seconded by Granville Turley and accepted in full by the meeting.

Auditors Report: It was confirmed that David Field and Colin Hindmarch had audited the accounts. They had examined them, with invoices and receipts of the Guild, and examined its financial affairs for the year ending 31st December 1995 and found everything to be in order. They had signed a statement as produced in the *Journal*.

Rebecca Bower then reported on the new arrangements that would be required for 1996 and these will have to be checked by an independent examiner. It was proposed by Rebecca Bower, seconded by Allan Hart and adopted by the meeting that Mrs. Jane Ritchie be appointed to audit the accounts for 1996.

Under *Any Other Business* Nigel Hepper asked whether the Patron could be asked to give the prizes in the 1997 Prize Day. The Committee would investigate.

Inauguration of the New President: Mr. Tom Wood took the Chair and received the Presidential Chain. He paid a warm tribute to the outgoing President, Professor Gren Lucas. Tom Wood said that he was honoured to have been invited to become the President of the Kew Guild and he said he had already observed the smooth running team in the form of the Committee at work and looked forward to serving the Guild in the future.

Professor Lucas thanked everyone for their support and guidance and was proud to be part of the Guild and further its work and help to maintain its high profile in the botanical and horticultural world. He also offered to have the President's Jewel re-ribboned.

Tom Wood confirmed the date of the next Annual General Meeting as Saturday 6th September 1997, at the Royal Botanic Gardens, Kew and thanked everyone for attending. After explaining the arrangements for the rest of the day and there being no other business, he closed the meeting.

REPORT ON THE KEW GUILD ANNUAL DINNER 1996

By Tom Risely, Events Officer

The Annual Dinner, the premier event in the Guild's calendar, was held in the Orangery at Kew on Wednesday 22nd May. This was the second annual dinner to be held in the gardens at Kew following the inaugural event in 1995. That proved to be extremely popular and it was with the unanimous support of the Guild Committee that the venue and format were repeated with few changes.

The evening began with a champagne reception in the Kew Gallery, where members and their guests had the opportunity to meet the President and his Lady, Shirley, and to renew acquaintance with old friends. This opportunity to exchange news and views in pleasant surroundings with ample supplies of bubbly was much appreciated by all present.

Diners then moved from the Gallery to the Orangery, which presented a splendid sight, the historic setting gleaming with glass and silverware in the early evening light. A small change from the previous year saw the introduction of larger round tables, each seating 10 diners, plus a top table of 15 who faced the assembled company and looked out onto the Gardens. The President, Professor Gren Lucas, had arranged for the menu card to be produced at the Gardens to a new format in dark blue and gold, another innovation receiving acclaim.

The meal, comprised smoked salmon mousse, cold breast of chicken bound in pesto dressing, topped with sun dried tomatoes, with various salads and new potatoes; strawberries and cream were followed by coffee and mints. A wide selection of wines was available.

The more formal part of the evening began with the Loyal Toast proposed by the President, followed by a toast to the President by the ex-President, Martin Sands. He and Gren had been

colleagues for three decades and he gave highlights of the President's career and the valuable and creative work in his chosen field since graduating at Hull University and entering Kew in the late 1950's. Now that Gren had officially 'retired' Martin could say what he wished about him and he went on to give information about Gren's unpaid and enthusiastic work for things in which he believed. Professionally he was an East Africa Flora Specialist. At the same time he introduced and campaigned for an awareness of conservation and did much voluntary work for the World Wildlife Fund. Gren is a believer in communication and from 1995 headed Kew's Information Service. In 1980 he was awarded the O.B.E. for services to conservation and thereafter was appropriately referred to as GLOBE.



Left to right: Shirley and Gren Lucas, the 1995-96 President, with chief guest and speaker Timothy Walker and Mrs. Jill Walker.

Responding and proposing a toast to the Kew Guild, the President began by saying "If I can't lecture in front of slides, I'm finished". and then went on to disprove that statement and inform and amuse guests with a discourse on the Guild, Kew and his interests and beliefs. He referred to the Guild and Kew's botanists and plantsmen as an elite group of people who ruled the world, but who were unaware of their position. "We are (the Guild) a hundred years old but young and vibrant and on the threshold of an exciting new life. The world thinks of conservation as saving tigers and elephants but we must communicate that plants are life's support system. The next 15 years will be critical and we must catch the public's imagination and support for the conservation of plants."

In proposing a toast to the guests, Gren included individual thanks to the many people who work for the Guild and for Kew and especially to the Friends "... who make sure that we communicate, the most important thing on earth". Thanks to the Committee, the events team, especially to Dianne Cooper, Helen Verdcourt (wines) and the Design Team (menu card). He referred especially to the menu card – a design that speaks to young people. "Communication means that we hang together and speak the same message".

The response on behalf of the guests was by Timothy Walker, Horti Praefectus, Oxford Botanic Garden. Tim enjoyed his title but said that he usually regarded himself as Head Gardener. In response to the President, who talked a lot about dead plants, his principal interest was in the living. It was pleasant for him to visit one of the newer gardens (Kew) from one of

GUESTS AT THE ANNUAL DINNER



the oldest. He stressed the importance of recycling, 'conservation on our doorstep'. He is the Oxford University scavenger, gathering in all organic waste. His only problem is that it includes shredded administration paper that contains so much hot air that the compost overheats immediately.

He poked gentle fun at current trends at Oxford and similar institutions and their references to job descriptions, reporting systems, mission statements and business plans. Nothing new, just new names. At Oxford Botanic Garden the mission statement is written over the gates 'Promote

learning and glorify in the existence of God'. Learning is not just for students at University. It equally applies to a 105 year old who regularly visits the botanic garden. It is vitally important that Oxford Botanic Garden, Kew and like institutions exist, work and communicate for another 375 years. Meanwhile he would continue in his rôle as the head gardener, an academic sheepdog ripping at undergraduate heels and hope to be the tenth to die in post, of very old age.

Student Vanessa Wells introduced the students present and proposed a toast to absent friends. The President made the George Brown award to Ray Desmond, and then asked past Presidents to stand, responding that he was surprised that there were so many who could still stand up.



The B(e)ards of Kew! *Left to right:* Graham Burgess (Obituaries), Richard Ward (Hon. Editor), John Gaggini (Vice President), Haydn Bell (Retired!).

For the record, the attendance was 115, including 18 students and two representatives of the Friends as guests of the Guild. Catering was by Town and County, Kew's official caterers and managed at Kew by Tony Allen. Tickets were £25 each for members and their guests and £12.50 for students.

Seated at the top table were Diane Collins, Ray Desmond, Mary Grierson, Jenny Long, Gren and Shirley Lucas, Christina Megroz, Professor and Lady Prance, Mr. and Mrs. Tim Walker, Martin and Jill Sands and Richard (toastmaster) and Wiena Ward . A full list of those attending is held by the Events Officer.

Make a date in '98. Annual Dinner 20th May, 1998.

(Editor's Note: The Committee are always looking at ways to contain costs for the Annual Dinner. Overheads, however, account for a proportion of on-costs – table decorations and presentations, official Guild guests and speaker, printing, postage, welcome drinks, etc. All Committee and even the M.C. (!) pay for themselves.)

NEW KEW GUILD COMMITTEE MEMBERS SPOTLIGHT

CLARE BRADLEY

Clare was a Kew Diploma student, qualifying in 1988 but never quite 'escaped' as she now lives here in Kew Gardens with husband Pete, Unit Manager for the Ferns and Cacti and Succulent Collection.

Best known as the 'Blue Peter Gardener', Clare has worked in television since 1991, for the BBC, Anglia and Meridian television. She is also 'Garden Expert' for Talk Radio and presents an exciting 13 part game show for Channel 5, 'The Great Garden Game' which starts in March.

Clare has used expertise at Kew as inspiration for many Blue Peter stories. She has learnt how Kyapo Indians garden deep in the Amazon jungle, how plant life hangs by a thread in the Namib desert and why ancient temperate rainforests are being destroyed on Vancouver Island. In Cameroon, Blue Peter filmed Kew botanists recording the rich biodiversity and



the aims of the 'Conservation Through Cultivation' project at Limbe. Clare hopes to continue to work closely with Kew to provide cutting environmental stories to the conservationists of the future.

As the author of two children's gardening books and working closely with young people, she is encouraged by their enthusiasm for the natural world. As we head for the digital age in the 21st century, Clare says she finds it gratifying and reassuring to discover that people of all ages still get much pleasure from plants and that they are probably valued more now than ever before.

JENNY EVANS

Jenny Evans has been at Kew for over 11 years and Assistant Curator of the Tropical Section since September 1995.

A graduate in Environmental Sciences from the University of East Anglia in Norwich, she spent two years in New Zealand before returning to horticulture, first in a bedding plant production nursery, moving on to propagation of herbs and alpinas at a small nursery in West Sussex.

At Kew, Jenny completed the Diploma Course in 1988, then spent seven years in the Technical Section, involved in a variety of projects including the design of the Evolution House and fundraising for the Restoration of the Choskushi Mon.



PATRICK NUTT

Patrick retired from Longwood Gardens as Assistant Department Head of Horticulture in March 1995. He still lectures and gives demonstrations at Longwood, the University of Pennsylvania, the Morris Arboretum and other gardens.

At present, Patrick is working as a consultant and trial horticulturist for White Flower Farms, Plantsmen, Litchfield, Connecticut. He acts as liaison for Kewites and other ex-British horticulturists in the U.S.A. and Canada and is a member of Longwood Gardens International Student Selection Committee. (The last Kew students were: Joanne Humphris, 1988 and Anna Bayley, 1993, both of whom have been back to Longwood since.)



Patrick keeps active with a 2.4 acre garden/mini-arboretum, which actually contains four of the original **metasequoia glyptostroboides** trees introduced into the U.S.A. in the late 1940's. The previous owner of 125 Cedarcroft Road was a dedicated plantsman, Dr. Aubrey Thomas, Entomologist of Pennsylvania State University.

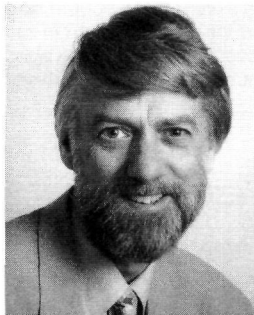
He also keeps active with distance running, in spite of somewhat slower times compared with a 19th place in age group finish in the 1990 Boston Marathon.

JOHN WOODHAMS

John's interest in horticulture grew and developed from his childhood days in Dorset, observing his father as a Head Gardener in private service and, from a practical perspective, in helping develop and maintain the family quarter acre garden at Dorchester.

It thus followed that on leaving school John commenced a career in horticulture, first joining Weymouth Parks Department, then training at Somerset Farm Institute – now Cannington College.

The next move was to enter R.B.G. Kew as an Improver Gardener in early December 1959 and after experience in Botanic – now North Arboretum – and the Fernery, to commence the Kew Horticultural Student Course in April 1962. John stayed on after completing the course and following some time in supervisory posts in the Tropical Pits, the Decorative Section and 10 years as Supervisor in the Fernery, John was officially appointed Assistant Curator for Tropical Section in 1982.



The 80s were a demanding but very rewarding time. The period saw considerable change for the Tropical Section with the sweeping away of the structurally failing T Range block of glasshouses, together with those on the Fernery site. In their place a modern, architecturally striking conservatory was gained in which state of the art technology could provide improved environmental conditions, save on running costs and, within which tropical plant collections could be far better displayed.

Following early retirement in 1995 John agreed to take over the 'News of Kewites at Home and Abroad' section for the *Guild Journal* and with Joan, also now retired from IMI at Egham – the former Commonwealth Mycological Institute at Ferry Lane, Kew – there is competent help at hand in compiling the notes on to computer.

THE KEW GUILD AWARD SCHEME REPORT FOR 1996

By F. Nigel Hepper, Chairman

It is now 20 years since the first Award was made; a year after the Scheme was launched in 1975. By 1976 the capital sum invested amounted to £1,100, which seems very meagre compared with today's nominal investment of some £70,000. We use only the interest for awards and this year there was £4,320, plus £250 from an unclaimed grant.

The Awards Committee meets in March each year and applications for grants are invited before the end of February. Every year, it seems, the number of applicants increases which, I suppose, must be due to the difficulty they have in raising funds from other sources – local councils face cut-backs and industry is less inclined to donate to individuals.

This year we had 20 applications by March and another six in July, when we hold a supplementary meeting to review residual income: enough for only one award of £170! Most of the other awards range between £200 and £400 and the following were successful: 'Neeth Abeygunawardana, Louise Allen, Nick Biddle, Darrin Duling, Roger Fischer, Edina Gallick, Sarah Higgins, Topher Martyn, Belinda Parry, Junko Oikawa, Harvey Stephens, Joanna Walmisley, Darren Webster, Vanessa Wells and Alison Scott-Wells (née Town). Unusually, a grant was made to Diploma Course 31 for excursion expenses. While most of the personal funds were also used for travelling, several of the awards were to help with professional qualifications. It is very satisfactory to know that the Guild can help in various ways.

I am grateful to the members of the Awards Scheme Committee which comprised Dor McGuffog, Jean Griffin, Mark Pitman, Darren Webster and Rebecca Bower, our efficient Treasurer. Our Honorary Secretary, Chris Kidd, disappeared to the Cameroon Project for six months, so David Barnes stepped into the breach.

12 REPORTS WERE SUBMITTED FROM AWARDEES DURING 1996

One of the conditions of the Awards is that recipients submit a report of no more than 700 words for publication in the subsequent *Kew Guild Journal*. Full copies of reports may be made available to Guild members from Kew upon request.

THE ROLE OF PLANTS IN URBAN SINGAPORE AND MALAYSIA

By Upaneetha Abeygunawardana

Between the July and August 1966, I visited Singapore and Malaysia (Kuala Lumpur and Penang Island) for 24 days. My aim was to look at how and where plants have been used to improve the quality of life of people who are living in modern cities.

My first destination was the city of Kuala Lumpur. The city reflects many of the dreams, aspirations and achievements of the government to provide its people with better quality of life through the provision of green spaces. The creation of 'Green Lungs' in various parts of the city is designed to meet the government's aspiration to make Kuala Lumpur a garden city. Well planned parks, gardens and other green spaces have been built to meet the recreational needs of the people.

The 1998 Commonwealth Games is going to be held in Kuala Lumpur and it was at the most suitable time when I arrived as the City had begun many new development projects to host these games.

The Parks and Recreation Department in Kuala Lumpur is responsible for creating and maintaining almost all the green facilities within the city. I met the Deputy Director of the Department, Mr. Sariffuddin Ibrahim, who gave me an introduction to many developments and projects undertaken by this department. Furthermore, he kindly provided me with a vehicle and driver with which to visit many parks, gardens and other recreational facilities. Mr. Ibrahim Ahamad, one of the Parks and Gardens managers for the City Hall, explained the background of these places. I was lucky to have a person like him for the whole time that I was in Kuala Lumpur.

The Kuala Lumpur Orchid Garden was one of my favourite places. It was set up primarily as a showcase for the nation's rich variety of orchids, as well as to provide a centre for the growing, conservation, research and study of this wonderful, flowering family of plants. Next to the Orchid Garden, the Hibiscus Garden provided another beautiful site to the visitor. Among many cultivars and variety of Hibiscus, the national flower of Malaysia, **Hibiscus rosa-sinensis** can be commonly seen at this garden. The Lake Garden Kuala Lumpur is also managed by the Parks and Recreation Department and it has a very attractive Arboretum with many native and non-native trees and shrubs.

I also wanted to see green spaces provided by other organisations and bodies. I visited Malaysia Agriculture Park, which is the world's first agro-forestry park and was initiated by the Ministry of Agriculture. Among many man-made and natural landscape areas within this site, the 'Four Seasons Garden' particularly impressed me. In this garden all four climatic seasons are created artificially, using modern high technology. Visitors get a chance to experience winter in the tropics, once they enter this man-made area, where snow, ice and frost can be touched and felt without having to even leave the warm climate of Malaysia.

From there I travelled to the Forest Research Institute Malaysia in Kepong, to look at one particular project that it has recently been involved in. The Prime Minister of Malaysia has decided that they should use more native plants in urban projects than they ever did before. As a result the surrounding of the Kuala Lumpur International Airport is re-landscaped using more native plants.

My last visit in Kuala Lumpur was to the University of Malaya Botanical Garden. It was established in 1974 out of a need to study and conserve some of the immense diversity of plant life found in the Malaysian tropical rainforest. Today the garden is used by many students as well as numerous members of the public.

From Kuala Lumpur I went to Penang Island to visit the Penang Botanic Gardens. The 29 hectare garden is situated in a valley surrounded by the evergreen tropical forest of the Penang hills. Trees and shrubs are planted in the gardens with the aim of blending in with the natural landscape. Today the garden is a popular recreation spot. Mr. Lim Boon Tiong, the Curator of the garden was very helpful and gave me a detailed introduction to this magnificent botanic garden. He was also keen to establish new links with Kew.

After having spent 10 days in Malaysia, my next destination was Singapore. The Parks and Recreation Department there is responsible for all the greening programmes in Singapore City. Mr. Ng Cheow Kheng, Head of Design and Development for the Department, gave me an introduction to it and later took me to many developments in the City that they have been involved in.

During my time in Singapore I was attached to the Singapore Botanic Gardens. They specialise in orchid breeding and hybridisation programmes in the region and play a key role in Singapore's Garden City programme through the continuous introduction of plants of horticultural and botanical value. I was given an introduction to the living collections by Ms Wong Wei Har, the Manager of the Botanic Gardens. Mrs. Jennifer Ng, the Principal of the School of Horticulture, was to give me insights into the School and its education programmes.

Mr. Ali Ibrahim, from the Botanic Gardens Herbarium, helped me in many ways. He accompanied me to the Bukit Timah Nature Reserves where we met Miss Sunia Teo, Nature Conservation Officer for the Singapore Parks Board (a former Kew student). Bukit Timah Nature Reserve is the only genuine patch of primary rainforest left on Singapore Island. It is linked by secondary forest 'channels' to the Central Catchment Area, which encompasses Singapore's major reserves in the centre of the island. The forest at Bukit Timah is typical of lowland evergreen forest.

After my request to see mangroves in Singapore, Mr. Ali Ibrahim suggested that we visit the island of Palau Ubin. The island is situated to the east of Singapore and I spent a whole day there to see mangroves, including *Rhizophora mucronata* and *Brugutera gymnorrhiza* and many other species of the rich tropical flora.

My final visits were to Singapore Zoological Gardens and the Jurong Bird Park. These gardens provide a wonderful feeling of balance between plants and animals. Within them the beauty of plants has been used to bring out the splendour and wonder of animals. Altogether, the study tour was a very useful experience for me.

FUNDING FOR M.Sc. HORTICULTURE AT THE UNIVERSITY OF READING SPECIALISING IN SOCIAL AND THERAPEUTIC HORTICULTURE

By Louise Allen

It would be easy at this point to outline my reasons for wishing to study for this course, but instead I have chosen to focus on the highlight of the course, which was the chance to carry out a long term piece of research. In particular I have given the background to the subject that I have researched.

M.Sc. Thesis – Think Global, Act Local ; Local Authorities and Agenda 21

The walls in the Tokyo subway used to be plastered with advertising posters. The authorities, aware of Japan's shortage of wood pulp, searched for ways to reduce this wastage of paper. They quickly found an 'environmental solution', they mounted video screens on the walls and these now continuously bombard passengers with commercials – paper problem solved (Sachs, 1995). This is just one example of what is happening around the world.

The Earth Summit took place during my time as a student at Kew and it was generally felt at the time that the Earth Summit had focused peoples' minds on the environment. Yet here we are in the nineties approaching sustainability through development. It is almost as though we are now so well down the path of development that we cannot think of tackling sustainability by any other means.

Countries, especially those in the Third World, are very protective of their right to develop. This was one of the major points raised at Rio. Malaysia's resistance to the forest declaration, Saudi Arabia's attempt to sabotage the climate convention and President Bush's cutting remark that the lifestyle of the U.S. would not be up for discussion at Rio all illustrate this major problem. Yet how can we, with our luxurious lifestyles start to lecture those less fortunate about why

they should not chop down the rainforest. Is this not what we have already done to the ancient woodlands that existed in this country centuries ago? Are we using the well known phrase "Don't do as I do, do as I tell you" and expecting them to listen to us?

The issue of Rio and Agenda 21 has featured within the lives of many of us during the last few years, yet there are a far greater number of people who are simply unaware that it even exists. With this in mind my thesis for my M.Sc. at Reading has been to examine the methods used by local authorities to get the community involved. As an educator this is very close to my heart. I now spend my time convincing young people of the reasons that biodiversity, ecology, botany and horticulture are important in our everyday lives.

"Local authorities, as the level of government closest to people, have a vital role in educating and mobilising the public to get behind the goals of Agenda 21."

This short statement from Agenda 21 emphasises the importance of local involvement in Agenda 21. Chapter 28 of Agenda 21 aims to encourage a more sustainable approach to living, concentrates on the role of local authorities and is concerned specifically with the need to find out the views of local people involving as many different kinds of people in the processes of preparing the strategies – women, young people, indigenous people and those with their own cultures.

As I write this report I am midway through my thesis, yet I have already discovered some innovative and enterprising projects to raise awareness of sustainability, yet at the same time I have discovered some mind numbingly boring initiatives which are failing miserably.

I shall end this brief look at Agenda 21 by asking you all whether you are aware of what is happening within your local authority to address the issue of Agenda 21? If you do not know, it may well be that your local authority has simply not yet involved your community within Agenda 21. What is extremely worrying is that without this community involvement it is impossible to create a more sustainable way of living. Sustainability is essential if we are to ensure that future generations have a planet to live on and a planet to love.

References – Sachs, W., 1995. *Global Ecology*, Zed Books.

A STUDY TOUR OF THE HAWAIIAN ISLANDS

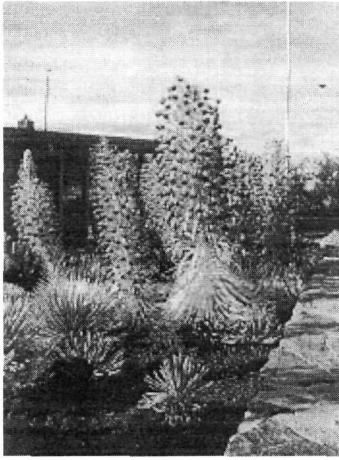
By Nick Biddle

During the summer of 1996 I spent a month on a study tour of the Hawaiian Islands. I visited four of the eight main islands; Oahu, The Big Island, Maui and Kauai. I visited 13 botanic gardens, National and State Parks and nature preserves as well as hiking in natural vegetation with local people and attending the two day Hawaii Conservation Conference. I was treated royally throughout and had the time of my life; not only because of the amazing and unique flora of the islands, but also thanks to the wonderful people I met there. The following is an extract from my Travel Scholarship Report.

Haleakala National Park

My principal motivation for visiting the island of Maui was to see the Haleakala Silverswords (*Argyroxiphium sandwicense* subsp. *macrocephalum*). This is a celebrity species which acts as a symbol of Hawaiian conservation. Their striking appearance and spectacular flowering is set off to perfection by the strange landscape they inhabit. When I first saw a postcard of the Haleakala Crater I was sure the photographer had been a little over enthusiastic with the filters, but it is in fact largely made up of black, dark green and orange-red cinders.

One problem these plants do not currently suffer from is competition from other plant species. They are adapted to a most extreme climate, endemic to the Haleakala Crater at elevations between 6,500 and 10,000 foot. Concave hairs reflect the searing sunlight and an intercellular gelatinous substance stores water and helps to prevent freezing. By 1920, however, they were believed to be near extinction, due to the combined effects of browsing by goats and



Silverswords flowering outside the Visitor Centre.

cattle, and the habit of visitors removing whole plants as trophies to signify that they had reached the summit. Under legal protection since then, population numbers have risen from an estimated 4,000 in 1935 to a current figure in excess of 64,000.

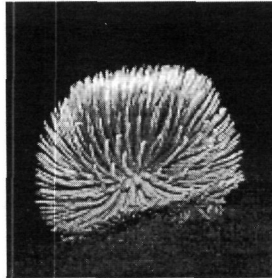
The biggest threats at present are the possible invasion of non-native mullein (*Verbascum thapsus*) and fountain grass (*Pennisetum setaceum*) from neighbouring islands where they occupy similar habitats. More pressing than that however is the Argentine Ant (*Linepithema humile*) which has colonised the area, threatening the endemic arthropod fauna, including pollinators which evolved in the absence of ant predation. Research has shown that the Silverswords require cross-pollination for successful seed set and are therefore reliant on their pollinators. A marked expansion in the ants' range was noted in 1993. If not controlled, this species could have potentially catastrophic effects on locally endemic biota, including Silverswords.

Silverswords are monocarpic; they flower once only and then die. The flower-spike appears as if it has erupted from the globe-shaped spiky silver rosette. Each one typically bears hundreds of capitula; daisy-like heads with maroon disc florets and yellow ray florets. The proportion of the population which flowers each year is quite variable. The environmental stimuli for flowering or non-flowering are still unknown. It is believed that root disturbance stimulates flowers (Loope pers. comm.), perhaps as an association with volcanic eruptions. An apparent relationship of the 1991 mass flowering event to stratospheric alteration by the eruption of Pinatubo Volcano in the Philippines is intriguing.

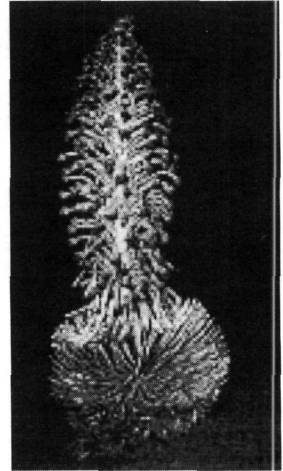
To see flowering Silverswords for the first time is a fantastic experience, but the real treat was that the last night of my scheduled stay on Maui was the night of the full moon, and I was able to join a Ranger guided hike into the Crater to see wild populations by moonlight.

The quality of the restoration work at lower altitudes is also remarkable. What was once over-grazed and impoverished has been returned to native scrub. The method of goat control is simple but ingenious. Six Judas Goats with radio collars, all male, are kept within the Park. Goats are naturally gregarious, so when other goats do penetrate the fencing they will socialise with the Judas Goats. Whenever the herd exceeds six, the interlopers are dealt with.

The many miles of trails are interpreted by excellent signage



The Hawaiian name for the Haleakala Silversword (*Argyroxiphium sandwicense* ssp *macrocephalum*) is Ahinahina, a repetition of their word for grey, also the name of their goddess of the Moon. Early Hawaiians had no metals and so the association with silver was not made.



Silversword at night in full bloom.

and guide leaflets. Camping is free and well serviced. The quality of the Ranger guided hikes is superb.

('Travel Scholarship Report: A Study Tour of the Hawaiian Islands, Summer 1996' by Nick Biddle is available at the School of Horticulture, R.B.G. Kew and the R.H.S. Lindley Library, Vincent Square. email address: n.biddle@rbgkew.org.uk.

HUNTING Q'ASAM IN NORTHERN OMAN

By Darrin Duling

24th March, 1996; Sayq Plateau Ridge, Hajar Mountains, Oman:

With my quarry in sight, I stealthily crept through the sweltering, rock-strewn gully, making certain that I did not alert the creature to my presence. Closing in, with my heart pounding, I carefully reached out, all the while recalling the tales of colleagues who had emerged lacerated and bleeding from encounters with members of this group. Realising that I was in an opportune position to strike, I grabbed hold. There was no struggle. In fact, considering the fearsome appearance and robust constitution of this particular specimen, it was surprisingly docile. I spoke softly to it, complimenting on its unique beauty as I snipped samples and dropped them into my collection bag – q'asam was mine at last!

Now before the reader decides to contact the authorities to report me as suffering with 'Walter-Mitty Syndrome', please allow me to explain: Between 22nd March and 5th April 1996, I was in Northern Oman conducting preliminary field research for an M.Sc. Plant Taxonomy thesis project at the University of Reading. My objective was to make morphological observations and collect specimens of a **Ziziphus** which was believed to be a new, undescribed species. Known by the local people in northern Oman as q'asam, this tree was only recorded from the Hajar Mountains at altitudes above 1,000 metres. The few references about q'asam dubbed it **Ziziphus** sp. nov, but no one had ever investigated any further to prove this.

I found out about this situation through Dr. Hew Prendergast, of the Centre for Economic Botany at Kew; he had seen this plant during collecting trips to Oman and also believed it to be something completely unique to the region. After examining his and other available herbarium specimens it was apparent that the plant was too under-collected to allow a definite determination of its identity as a new species. With Hew's encouragement and guidance, I developed an outline for a thesis project researching q'asam and made arrangements with the authorities in Oman for a field trip to collect additional specimens.

My base of operations while in Oman was the capital, Muscat. Upon arrival, I received a warm welcome and generous assistance from officials and staff of the Ministry of Conservation of the Environment, The Oman Natural History Museum and Sultan Qaboos University Department of Biology. Particular mention must be made of the hospitality shown me by Dr. Shahina Ghazanfar and her husband Dr. Martin Fisher, both of Sultan Qaboos University; with their help I was able to quickly orient myself and head out into the field within a few days.

The first time that I saw a living specimen of q'asam I realised that it was indeed morphologically different from the other local **Ziziphus** species, **Ziziphus spina-christi**, particularly in its overall habit and the character of its spines and fruit. Another thing which set q'asam apart was the fact that it was found only at altitudes above 900-1,000 metres. I visited four sites within the Hajar Range and found specimens of q'asam in bloom as well as a few which retained fruit from the previous season. Having enjoyed eating the fruit of **Ziziphus spina-christi**, I was rudely shocked to find the more visually enticing fruit of q'asam to be extremely dry, fibrous and astringent!

This was my only disappointment while in Oman. Throughout my stay I was completely captivated by the dramatic desert landscape and interesting flora. Among the many species encountered were: **Moringa peregrina**, **Calotropis procera**, **Ebenus stellata**, **Boerhavia elegans**, **Schweinfurthia papilionacea**, **Dyerophytum indica**, **Nannhorrops ritchieana**, **Ecbolium viride** and **Tecomella undulata** (the latter being especially striking, with masses of

golden-yellow flowers). Other, less common species found at higher elevations presented additional interest in that they are the indicators of an interesting phytogeographical situation: the area which is now the Arabian Peninsula was once completely joined to Africa and Asia, forming a floristic 'bridge' between them. Approximately 12-20,000 years B.P., the peninsula separated from the two landmasses and its climate became steadily warmer and drier. As a result of these changes, relict species with disjunct distributions on both continents were left isolated on the cooler, wetter mountain tops. A few of the most noteworthy examples, with their distributions in parentheses, are: **Juniperus excelsa** subsp. **polycarpus** (Hajar Mountains/western Asia), **Prunus arabica** (Hajar Mountains/western Asia), **Sideroxylon mascatense** (Hajar Mountains/western Asia/Somalia) and **Rhus somaliensis** (southern Oman/Somalia). Endemic species have also been recorded from Oman, for example: **Anogeissus dhofarica** in Dhofar, southern Oman and **Caralluma pedicellata** in the Hajar Mountains – throughout my research I wondered if q'asam would join these as an endemic species in the north.

At one of the sites visited I encountered an archaeological, rather than botanical, mystery: in the Jabal Bani Jabir, a small range in the eastern Hajar, the mountain tops are dotted with a number of beehive-like stone tombs. Amazingly, these monolithic structures were just recently discovered through aerial photography. Researchers are still puzzling over who built them, why they were built and what building techniques were used? The exact age of these structures is also unknown, with estimates of as much as 10,000 years being proposed.

My last few days in Oman were spent in Muscat sorting out my specimens and taking advantage of a few of the tourist offerings. With so much to hold my interest, it was difficult to leave this newfound paradise, however my mission was completed and I headed back to England. After four months of intensive research involving herbarium/literature surveys, DNA and flavonoid extraction/analysis, I concluded that q'asam was indeed a new, undescribed species of **Ziziphus** which is endemic to northern Oman! It will be named **Ziziphus hajarensis** in honour of the mountains to which it is native.

In this limited space it is impossible for me to adequately relate the entire range of my experiences in Oman, or how much I have benefitted from my time there. I enjoyed the privilege of studying in a completely different part of the world and as a result I also made many new friends and valuable professional contacts, both in Oman and the U.K. Certainly my M.Sc. project would not have been so successful, or even possible, without the field observations and specimens gathered in those two weeks.

I am very grateful to the Kew Guild for their generous financial support. I would also like to thank the Bentham-Moxon Trust and The Royal Horticultural Society for their contributions to my expedition.

ITALIAN GARDENS

By Roger Fischer, Course 32

The travel scholarship to the north of Italy during September 1996 gave me an excellent insight into Italian garden art and, therefore, enhanced my knowledge of the subject.

The Italian imagination, flair for design and craftsmanship extended into every facet of life. Italian gardens, like other facets of art and literature, is not coldly rational, but very human and individualistic. Each garden has its personalised charm and touch of the unexpected. It has been an object of study for a long time. Edith Warton wrote *Italian Villas and their Gardens* in 1905 which was reprinted in 1976. Luigi Damini's collection of photographs and old engravings came out in an English edition in 1924 (*The Italian Garden*) followed by the renaissance garden plans of J. C. Shepherd and Geoffrey Jellicoe.

In the 1930's the English landscape architect, Cecil Pinsent, went to Italy where he created a number of Renaissance inspired gardens. 'I Tatti' and Villa 'La Voce' in the Val d'Orcia.

At the University of Florence the architectural faculty is experimenting with a course on garden preservation and restoration.

Harold Peto's architecture was strongly inspired by Italian architecture which can be seen in Britain and the south of France.

The north of Italy was subjected to the proximity of top French fashion of the 18th century. Yet the French garden is basically an outgrowth of Italian gardens, so elements of classic gardens remain. Some gardens have undergone transformation into English landscape parks.

The Italian elements include a strong symmetrical axial design with interpenetration of villa and gardens. Gardens were designed with geometrical parterres, pergolas, lawns, clipped hedges, fountains and grottoes. Beyond them were orchards and game preserves.

The gardens are usually located out of town and not easily tracked down. Property owners change as do the names of the villas. Many gardens are protected by Italian law, but this does not ensure their upkeep.

Public interest is growing and the demand to visit private gardens is increasing. The Fondo Ambiente Italiano (F.A.I.) is attempting to preserve properties in Italy, opening them to the public but without government support for their costly maintenance.

MEDITERRANEAN MAQUIS AND GRENADINE GARDENS

By Sarah Higgens

In April 1995 I went to southern Portugal, to a part of the region in south west Europe that is the centre of distribution for the genus **Cistus**. There, with *Flora Iberica* as a companion, I encountered seven of the c. 20 species in the genus, including the low-growing subspecies of **C. ladanifer** surviving on Cape St. Vincent. I also became familiar with other plants of the Mediterranean maquis of which **Cistus** is so characteristic.

The impetus for my expedition, sponsored by the Kew Guild, was a systematics project on **Cistus**. Identifying species in the wild and seeing the natural range of variation was an effective way of grasping the taxonomy of the species, and gaining confidence in checking the identification and labelling of cultivated collections.

I pursued my interest further during a four week visit to Andalucia, Spain, in April 1996. The trip was funded by a travel scholarship from Hozelock Ltd. and sponsorship from the Merlin Trust and Kew Guild.

For the first week I joined Robert Page and Jean Pierre Demoly, both enthusiastic **Cistus** experts. Robert Page has a National Collection of **Cistus** in Leeds. Jean-Pierre Demoly also has an extensive collection, in the Charentes-Maritimes. They arranged a series of excursions from our base in Marbella, to investigate references made in books or journals to sightings of **Cistus** and its near relative, **Halimium**. My aims were to get a feel for **Cistus** hybrids and to see species, such as **C. clusii** and **C. libanotis**, that I had not seen before in the wild.

For the second week I met a new companion in Granada, to explore its carmens, campos and patios. We decided to see the Alhambra on the last day, suspecting that it would overwhelm any other experience. However, I enjoyed changing views of the fortress from the streets below as we walked around the city, more than our tour of its interior. The two famous patios and the tiled walls were superb. But there was such a crush of visitors moving as an irresistible stream through the one-way system, and such a clicking of cameras from every angle, that the only place to pause in admiration was overlooking the market garden, sandwiched between the Alhambra and Generalife.

We were able to take a more leisured stroll around the patios of the Hospital de San Juan de Dios. The outer patio was surrounded by frescoed arches, had palm trees at each corner, a central fountain and scattered pots of **Aspidistra**. At four o'clock the same day we met a Spanish family rapping on the gateway to the Real Monasterio de San Jeromino and we followed them in when it opened. We walked around the plain white cloister with dark wooden benches, alcoves holding pots of **Agave**, and floor tiles entombing 500 monks. The patio here had rows of lemon and orange trees, a raised pond in the centre and jasmine climbing up the corner pillars. From an interior chapel we could hear the nuns of the closed order singing.

I had read about the Carmen de los Chapiteles in a book on Spanish gardens, but when we arrived at its gate found it to be a private residence. We rang the bell and after some clumsy communications on our part, the gentleman who answered very kindly allowed us in. The garden was laid out on a series of terraces descending from the house. The upper terrace had a wisteria-covered arbour, tiled pavement and geometric box hedges. From there we had views into carmens on the opposite hillside, views which are tantalisingly beyond you at street level.

For the final two weeks I joined the Reading University Ecology Field Course, which started at Las Negras, near Almeria. There were botanising walks through a range of habitats, with discussions on Mediterranean ecology. We started by the sea, walked along dried out ramblas, saw the desert of Almeria and moved up through maquis and cork oak woods to the snow of the Sierra Nevada. Many of the species we saw had adaptations to the environmental stresses of intense light and heat, little water, high salinity, fire and grazing.

The field trip ended with a dash to see the last remaining stands of the endangered **Abies pinsapo** near Ronda, with colleagues Harvey Stephens and Dave Waldren. The beautiful countryside around Grazalema is one of my most vivid memories of what was an eye-opening expedition. I am looking forward to meeting more of the wild and garden flora of southern Europe in the future.

Recently I went to Kew's museum of economic botany to see a ladanisterion, a rake used to extract resin from wild-growing bushes of **Cistus ladanifer**. I also saw the dark, dense coils of the dried resin, which is still used in perfumery. On my next visit to south Portugal or Spain perhaps I will have the good luck to see someone out collecting ladanum gum.

STUDY TRAVEL ON ECOLOGICAL RESTORATION AND ENVIRONMENTAL EDUCATION IN USA

By Junko Oikawa

Ecological restoration is currently defined as the process of renewing and maintaining ecosystem health. In practice this usually implies deliberate and some extensive human intervention in the nature conservation status of an area through processes such as habitat recreation or species re-introduction. Since the United Nations Conference on Environment and Development in Rio de Janeiro in 1992, governments, institutions and international conservation organisations have put increasing emphasis on the need to recognise social, cultural, political and economic factors as aspects that should be integrated into biodiversity protection strategies. As a fine example of the positive repairs of degraded ecosystems, ecological restoration is becoming a common component of biodiversity strategies internationally.

Following some literature research, the author, Junko Oikawa, a student of the Kew Diploma Course 32, carried out a study trip to investigate theories and practices as well as to gain knowledge of new approaches in ecological restoration and environmental education as tools for biodiversity conservation.

This trip, supported by the Kew Guild, the Henry Idris Matthews Scholarship, the Sainsbury Orchid Funds (the Bentham-Moxon Trust), the Kew Rotary Club, the Orchid Living Collection Section of R.B.G. Kew and the Royal Horticultural Society, was originally designed as a scholarship project of the Kew Diploma Course and took place for four weeks between August and September 1996. Eastern United States was chosen as the ideal location to carry out this project, as several organisations in this area have been particularly innovative in their philosophy and activities on environmental education and ecological restoration.

To extend the study, attendance at the 'International Congress on Education in Botanic Gardens', held in New York, was also integrated with the visits. This was an excellent opportunity to meet professional educators from around the world and to accumulate further knowledge of the proposed subjects to be studied. In addition, the participation of the Congress provided a challenge for the author to represent the Sainsbury Orchid Project carried out by R.B.G. Kew with her ideas on Botanic Garden Education as her original poster display at an international meeting for the first time.

The main places to be visited were the University Wisconsin Madison Arboretum, Chicago Botanic Garden, Illinois Nature Conservancy, Brooklyn Botanic Garden, Central Park and New York Botanic Gardens. Together with various meetings with educational staff and volunteers, there were several opportunities to participate in their projects on ecological restoration and environmental education during that time. A study of flora of North America in the field was also carried out. It was a great pleasure for the author to meet an ex-Kew student, Gregory Armstrong, who is a Director of the Madison Arboretum.

It is hoped that the information accumulated during this tour will be shared with many people who are involved in ecological restoration and environmental education in England and Japan, the author's home country, as well as many others. Certainly, there is no doubt this experience will encourage Junko Oikawa in her future career.

Finally, the author would like to thank the Kew Guild for their support for this study trip.

FIVE WEEKS IN 'THE FAIREST CAPE IN ALL THE WORLD'

By Belinda Parry

In September 1996 I travelled to South Africa to study propagation and cultivation techniques of Fynbos species, concentrating on the **Proteaceae** and **Ericaceae** at Kirstenbosch Botanic Garden. This report details what I achieved.

My principal aim was to base myself at Kirstenbosch and work alongside the horticulturists, studying various nursery techniques. Other aims included visiting the Harold Porter and Karoo Botanic Gardens, the study of Fynbos plants in their natural habitats, visiting other nurseries and participating in any other trips where possible.

I am currently senior botanical horticulturist in the Temperate and Arboretum Nursery at Kew, responsible for the propagation and cultivation of mainly woody species. Plants are produced for the Palm, Temperate, Waterlily and Evolution Houses and Arboretums.

I arrived in South Africa on September 6th. It was dull, gloomy and raining and hard to believe I was in the southern hemisphere, some 6,000 miles from home! The first three weeks were to be spent at Kirstenbosch where I was lucky enough to be offered accommodation.

Kirstenbosch Botanic Garden is situated on the eastern slopes of Table Mountain and encompasses an area of 530 hectares. Just 36 hectares are cultivated, the rest forms part of the natural vegetation of the mountain. This vegetation type is called Fynbos and is dominated by species from the **Proteaceae**, **Ericaceae** and **Restionaceae**. The Garden is devoted to the propagation and cultivation of indigenous plant species. An estimated 900 species grow in the naturalised areas and some 6,000 are in cultivation. The principal roles of Kirstenbosch include the introduction of indigenous wild flowers to the public and their assessment for horticultural and/or scientific potential. Kirstenbosch also plays an important educational role.

Work started on Monday morning when I was introduced to Hildegard Crous, Propagator at Kirstenbosch. Hildegard was to be my main contact during my stay (we have since become good friends!). I was given a tour of the facilities before being introduced to the Head of the Herbarium, Dr. John Rourke – an expert on Fynbos plants. Much of the first week was spent meeting with various members of staff and comparing notes on different propagation techniques and cultivation methods. Establishing contacts is an important part of any study trip, especially when time is so short. Five days into the trip I was lucky enough to be taken for a drive around Table Mountain. It was the first sunny day! Deon Kotze was my guide and we spent time talking primarily about **Ericas** and looking at the vegetation. Deon was the **Erica** specialist at Kirstenbosch until he was appointed gardens developer and designer for the National Botanical Institute (the body responsible for Kirstenbosch and its sister gardens).

More botanising was done on the Friday when I was taken to the Caledon Wildflower Show – a must for any visitor at that time of year.

By the second week I had settled in well at Kirstenbosch. I met Anthony Hitchcock, who works in the commercial nursery and spent a couple of hours talking shop! I visited a private **Protea** nursery and the commercial nursery at Elsenberg Research Centre in Stellenbosch. I also visited the Darling Wildflower Show and was not only impressed by the floral displays, but by the educational information available to visitors. The final week at Kirstenbosch gave me the opportunity to explore the Garden in depth. I also met with Fiona Powrie, Nursery Manager.

I stayed in South Africa for a further two weeks and was joined by Marcos Smith, a horticulturist of the South Arboretum at Kew. These extra two weeks gave me the opportunity of getting to the places I had been unable to visit whilst at Kirstenbosch. We spent our time touring other gardens and places of horticultural interest covering some 5,500 kilometres in a fortnight! Visiting Namaqualand was a particular highlight. The Goegap Nature Reserve was a sight to behold, carpeted with predominantly pink and orange **Compositae** species. The Tsitsikamma Forest along the East Coast was in complete contrast with the vegetation types we had witnessed so far. Huge **Podocarpus** trees towered above us and we stumbled across a valley filled with **Streitizias**.

Other highlights of the trip included climbing up (and down!) Table Mountain, visiting the Cape of Good Hope Nature Reserve and, of course, the Harold Porter and Karoo Botanic Gardens. On the last day I returned to Kirstenbosch and gave a talk about the Temperate and Arboretum Nursery at Kew.

I felt my time in South Africa was well spent and I gained a valuable insight into the Western Cape flora as well as learning many useful tips on cultivation and propagation of Fynbos plants. I am currently putting together a more detailed report on my trip to South Africa on my Kew web internal homepage so that the more technical aspects learnt on my trip are easily accessible to other members of staff. I am indebted to the Kew Guild and Kew Staff Travel Awards and to the staff at both Kew and Kirstenbosch who made this highly fascinating and rewarding trip possible.

ECOTOXICOLOGY; PESTICIDES AND BENEFICIAL ORGANISMS
Conference held by the Welsh Pest Management Forum, Cardiff
14th-16th October, 1996

By Alison Scott-Brown

Over the last 20 years members of the International Organisation for Biological Control (I.O.B.C.) have developed a standard procedure to test the side effects of new and commonly used pesticides on natural enemies and biological control agents. Use of these standard methods allow the exchange of results from one country to another and saves costs of repeated testing. The overall objective of rating the harmful effects of pesticides is to limit the availability and use of broad spectrum compounds worldwide and provide regulating authorities with information on selective, less harmful alternatives that can be incorporated into I.P.M. systems.

The aim of the conference was to evaluate the current procedure used to test the toxicity of pesticides on non-target organisms. The standard sequential tests are described below:

TIER I

Laboratory tests
 (worse-case scenario)

Methods

Glass plate bioassays. Beneficial arthropods are exposed to fresh pesticide residues.

Aims

To establish per cent mortality of*, and sub-lethal side effects on beneficial test insects.

TIER II

Extended Lab testing
 Semi-field tests

Methods

Leaf tests or caged plants in a semi-controlled environment.

Aims

Observations on fecundity, growth and development of beneficial larvae/nymphs.

TIER III**Field tests****Methods**

Uniform treatment plots or large scale field trials using test compound on crop plus the introduction of test beneficial, in a realistic environment.

Aims

To monitor the knock down effect and recovery and recolonisation period of beneficial test organisms.

*If direct contact with the pesticide results in <30% mortality then the test compound is considered harmless and therefore suitable for I.P.M. If, however, there is >30% mortality of beneficials at the tier I stage of testing, then further evidence is required by regulators to show that the compound is harmless to beneficial organisms. This evidence may be established by data collated in Tier II and III stage testing.

[Guidelines to test side effects of pesticides on beneficial organisms were published in an E.P.P.O. Bulletin (1985) and two I.O.B.C./W.P.R.S. Bulletins (1988, 1992).]

Seminars and debates were led by delegates from international academic institutes, organisations, industry and pesticide regulators from European countries. The lively discussions which punctuated the conference programme highlighted the key concerns of each tier stage of the sequential tests:

Tier I

1. Choice of *four* instead of two test beneficial types (one parasitoid, one foliage predator, one soil based predator and one predatory mite) for each active test compound.
2. Choice of beneficial species as an indicator of susceptibility to test compound. To represent a group for parasitoids or predators the indicator species must be generally susceptible to pesticides and be a valuable biological control agent.
3. A combination of life stages of beneficial arthropod must be tested, as susceptibility and vulnerability to pesticides may vary at each stage (e.g. *Trichogramma sp.* indirect contact – pupa developing in host egg and direct contact – adult).
4. A statutory level of <30% mortality of beneficial test organism is unacceptable for all indicator species.
5. Resistance to test compounds in laboratory cultures of beneficial insects.

Tier II and III

6. Acute toxicity and persistence of side effects should be measured by sampling the test populations at periods of time after application of pesticide.
7. Accumulation effects should be assessed by monitored population of indicator species after numerous pesticide treatments.
8. Variation between different field testing sites is dependant on:
 - Climate
 - Soil type
 - Crop density
 - Method of application of pesticide
 - Rate of application of pesticide
9. Different seasons may effect sensitivity/recovery and recolonisation, therefore a comparison of a spring and autumn application should be made.
10. Post registration monitoring must be maintained to establish long-term effects of pesticides.

General concerns

11. Behavioural studies are ignored by following the standard tests described above. A small change in the behaviour of predator/parasitoid (such as delayed egg laying) may effect resulting population in the field.
12. Absence of a separate procedure for the registration of biochemical pesticides in E.U. countries. Non toxic compounds such as pheromones are subject to standard pesticide testing rendering them unavailable for I.P.M. for lengthy periods of time.

Several projects undertaken within Biological Interactions, Jodrell Laboratory, focus on behavioural studies of predators and parasitoids used to control major insect pests (thrips, mealy bug, aphid and whitefly) found within the glasshouses of R.B.G., Kew. Detailed examination of the effects of individual plant species on the foraging success of introduced beneficials may highlight some of the problems encountered with the use of available biological control agents in the display houses. Laboratory and semi-field tests are being carried out with potential botanical insecticides to observe their effects on the behaviour, development and reproduction of insect beneficials. All studies aim to further the decrease in use of harmful pesticides in I.P.M. programmes at Kew, whilst identifying alternative 'beneficial friendly' compounds.

I am very grateful to the Kew Guild for providing funds to enable me to attend this extremely interesting and worthwhile conference.

THE SPANISH PROVINCE OF ALMERIA

By Harvey Stephens

During April of last year I joined a small group of students from Reading University on a field trip to the Spanish province of Almeria. Although my aims were numerous, I hoped to answer several key questions related to the vegetation types of the Mediterranean.

The first part of the trip was based around Las Negras, a small coastal village east of Almeria. Each day was structured with trips, walks and lectures related to local vegetation zones and niches. Much of the Mediterranean is mountainous, causing thermals and other factors to vary with altitude. As a consequence of this, zonation of the vegetation is very common. We visited sites and identified indicator species in the Thermo, Meso and Oro-Mediterranean zones.

The majority of my time was spent with the postgraduate group who devoted more time to surveying methods and practical plant identification techniques. We used the Braun-Blanquet system, which I believe is frequently used to identify and describe the Mediterranean vegetation on a hierarchal basis. The vegetation of the region can, in principle only, be classified after a full study of all the local communities by means of releves. Each releve is a description of a more or less uniform stand of vegetation. A representative sample area of each community was carefully selected and then described. The sample area had to be large enough to ensure that the community was fully developed within it and has to be of a size greater than the minimal area of the community. The descriptions included a list of all the species present together with an indication of their abundance on a 'cover' abundance scale. The releves were completed with an additional description of the site, its soil and other comments such as the phenological conditions of the species. This system is far more complex than I've described and there are several conflicting accounts related to the systems' implementation.

On one occasion two other colleagues from Kew (Dave Walden from Wakehurst Place and Sarah Higgins, now Kew graduate) and I, hired a car and drove west along the coast past Malaga to Rhonda, a tiny village in the hills. The purpose of the journey was specifically to see two stands of **Abies pinsapo** endemic to this region. Dave was particularly interested to see it growing in its natural environment. The area surrounding Rhonda apparently has the highest rainfall in Spain and the vegetation was therefore very different. Although very long and tiring the excursion was most interesting and very useful.

From Las Negras we moved our base inland to Lanjaron, a small spa town nestling in the foothills of the Sierra Nevada. Two days were spent botanising and carrying out further surveys. We also took the opportunity to study the soft cushion chameophyte plants from the Oro-Mediterranean zone near the summit of the Sierra Nevada.

On our final full day we travelled to Granada. The main purpose of the journey was to visit the Alhambra and Generalife, both remnants of an Islamic medieval society. The gardens and pavilions of the Generalife date from the region of Ismail (1315-1325). Its most famous part is the Patio de la Acequia, with water fountains set in carved lotus shaped bowls. The Generalife

was a palace of retreat. The court would often retire there on summer afternoons, taking advantage of the dramatic and cooler situation. The palace of the Alhambra is not a garden but a building punctuated and linked by courtyards and water. A maze of intricate corridors guide you around the spectacularly decorated palace.

The whole trip was well scheduled and thoroughly enjoyable. I learnt many skills which I'm already applying in my new position here in The Jerusalem Botanic Garden. I'd certainly recommend this trip to future Kew Diploma students interested in the Mediterranean flora. May I once again thank the Kew Guild and its Awards Committee for their continuing support.

MEXICO AND PANAMA VERACRUZANIAN ANTHURIUMS

By Joanna Walmisley

On Thursday 1st August, 1996, descent into its airport showed a vast conurbation that makes Mexico City one of the largest in the world. This marked the start of my three-week travel scholarship visit during which I hoped, in particular, to study Veracruzian species of **Anthurium** as part of a systematics project.

Two days later, a five-hour bus journey took me to the university town of Xalapa, state capital of Veracruz. Here I met up with Phil Brewster who showed me round the Jardín Botánico Francisco Xavier Clavijero where he now works. The Botanic Garden, on the edge of town, is approximately 16 acres in size and was opened to the public in 1977. It is set at 1,300 metres, in natural countryside on the slopes of the Sierra Madre Oriental in a disturbed cloud-forest environment with relatively high rainfall and humidity and frequent mists.

At this stage the Garden was closed, and all staff taking annual leave. So, at the start of the following week, I travelled with Dr. Andrew Vovides, Curator of the Botanic Gardens at Xalapa, to the Biological Reserve of 'Los Tuxtlas', which is owned and administered by the National University of Mexico, U.N.A.M., (where I spent my final afternoon in Mexico), in the lowland rainforests of southern Veracruz.

In the Sierra de Los Tuxtlas small remaining tracts of rainforest – once the predominant vegetation of the area – are home to many species of rainforest plants at the northernmost locations of their habitat. I was very pleased to find four out of five species of **Anthurium** that could be expected: **A. pentaphyllum**; **A. scandens**; **A. schlechtendalii** and **A. flexile**. A particular remit of my visit was to investigate the pollination biology of the genus. In cultivation, seed set is uncommon except in a few species, and a high degree of pollinator specificity is suspected. My attempts to identify pollinators were thwarted in Mexico but more successful in Panama!

On returning to Xalapa, the Botanic Gardens had re-opened. A visit was made to a nearby village to see an initiative that was set up in 1988 by Dr. Vovides, known as the **Dioon edule** project. Having noted huge quantities of heads of this endemic cycad being sold for ornament at local markets, he obtained funding to help villagers grow plants from seed and to set up an organised nursery business. In 1994, profits were good and the scheme is presently being extended to the cultivation of other endemic plants including several **Chamaedorea** species.

The third week of my visit was spent in Panama which, according to Dr. Tom Croat of Missouri Botanical Gardens, is a centre of diversity for **Anthurium**. Indeed, thanks to the Smithsonian Tropical Research Institute in Panama, many species of **Anthurium**, together with innumerable bromeliads and orchids, were found in great abundance at a cool, wet site of submontane rainforest in western Panama. Explanation for the diversity of **Anthurium** is thought to be due to the large number of endemic bird species in the country with which **Anthurium** has evolved specialist seed dispersal mechanisms.

The three weeks spent on this travel scholarship visit passed all too quickly. It was a wonderful and unforgettable experience for which I would like to thank the Kew Guild and all those without whose generous support it would not have been possible.

A STUDY OF EDUCATION DEPARTMENTS IN SOUTHERN CALIFORNIA

By Vanessa Wells

On 1st September 1996, I departed from England and started my tour in San Diego, visiting Balboa Park, San Diego Zoo, San Diego Wild Animal Park, Torrey Pines State Park and Quail Botanic Garden. I then drove to Los Angeles, where I visited Rancho Santa Ana Botanic Gardens, L.A. State Arboretum, Huntington Botanic Gardens and Griffith Park. Following my time in L.A., I visited Santa Barbara Botanic Gardens, Sequoia National Park, Yosemite National Park, and C.M. Goethe Park in Sacramento. My final stop was in San Francisco where I visited the Golden Gate Park, which housed the Strybing Botanic Garden and Arboretum and the Japanese Tea Garden. I also visited David University Arboretum and University Berkeley Botanic Garden.

The zoo and wild animal park at San Diego both had extensive education departments, which consisted of 12 staff each. The staff would conduct all the tours and classes. There were a few volunteers used, but they were not relied upon. This type of education set-up was what I expected to find at most places that I visited, but to my surprise these were the only ones. Nearly every other place that I visited tended to rely on one employed member of staff, who would act as a director of education. The rest of the facilities were provided by the use of volunteers. There would usually be 50 or so volunteers who would lead tours, classes, teacher workshops and outreach programmes. The volunteers in the education departments would usually go through an intensive training programme and would then be called 'docents'.

It was very interesting to see how volunteers can play such a large role in the running of an organisation and even though we do use volunteers over here, it is nowhere near the amount used in the States.

I found the trip very rewarding and, not only have I made some great friends and contacts, but I have also learned about California's wonderful gardens, flora and its amazing, forever changing landscape.

COURSE 31 STUDY TOUR TO CRETE

Participants: Anna Bayley, Katie Butler, Felicity Frost (staff), Gwenda Kitchener, Christopher Leach and Richard Ottaway

Course 31 chose to visit Crete for its third year study tour, with the assistance of funding from the Kew Guild. The group carefully researched the Cretan flora before the visit and selected target subjects to research.

Our expectations were certainly not disappointed. During this April visit we almost literally could not move for orchids, which were flowering in profusion by the roadside. We nearly caused several traffic accidents by spotting these roadside jewels and screeching to a halt to inspect them! We saw many species of **Ophrys** and **Orchis**.

The topography of the island provides spectacular contrasts between the low, hot coastal areas and the central mountain ranges. We experienced this during visits to the high plateau of Lassithiou and the White Mountains (Lefka Ori) where the temperature was much lower and the humidity much higher. The contrast in the flora was equally astonishing. A 'hike' down the Imbros Gorge, a smaller version of the famous Samaria Gorge, which was closed in this season, provided us with a veritable feast of diversity. Notable examples were Cretan endemics such as **Procopiana cretica** and **Origanum dictamnus** – and lots more orchids! Examples of woody species in the Gorge included **Quercus coccifera** and the evergreen **Acer sempervirens**. We arrived at the bottom of the Gorge, Chora Sfakia, to find the rest of the (non-botanical) excursion party waiting impatiently for us, having treated the Gorge as a pleasant stroll!

A visit to Crete would be incomplete without visiting the Minoan palace at Knossos. This labyrinthine ruin evokes a vision of this peace-loving matriarchal ancient culture in all its complexity. Being a major tourist site, we were able to observe Cretan amenity horticulture. The **Citrus** used as street trees were in full flower and their delicious scent filled the air. Nearby, however,

the car park was being extended, cutting an ugly swathe into the Minoan landscape. It remains to be seen whether Crete can extend its already burgeoning tourist industry without sacrificing habitats and natural beauty.

One of our interests was ethnobotany and we talked to several Cretans about their use of plants. Herbal teas are popular for refreshment and as medicinal treatments and there are stalls in the streets selling them. Wild-harvested plants are particularly prized and gatherers risk their lives to pick herbs in the mountains, including the Stone Fern (*Asplenium ceterach*), used for urinary system problems, and the legendary Dittany of Crete (*Origanum dictamnus*), drunk for pleasure and as a digestive. Mandrake (*Mandragora* sp.) was also seen growing wild and the Squinting Cucumber (*Ecballium elaterium*) was a common opportunistic weed. We wondered what it must be like when they all ripen!

Our trip to Crete was unforgettable. The flora was a constant source of interest and the archeological sites added historical depth to our experience. But above all, it was the people of Crete who impressed us the most. The genuine friendliness and unconditional generosity of the Cretans we encountered made our visit enjoyable and relaxed. In spite of the tourist environment, they treated us like welcome guests in their beautiful Mediterranean island.

SCHOOL OF HORTICULTURE KEW DIPLOMA PRIZE DAY 1996 SPEECH

By Ian Leese, Principal, School of Horticulture

Your Worship, Sir Philip, Chairman, Director, distinguished guests, ladies and gentlemen, may I add my own welcome to you all today and use this opportunity to review some of the many successes associated with the School of Horticulture over the past year.

In terms of academic achievement, there are several graduates from previous years undertaking Master of Science courses. These include Ruth Davis and Darren Duling at the University of Reading, and Shelagh Kell at the University of Birmingham. Janet Burnell will be starting at Reading next month, as will John Anderson at University College, Dublin. Terry Sunderland is commencing a Ph.D. on Rattans at University College, London. Isabella von Groeningen and Sophieke Piebenga have completed Ph.D.s on landscape subjects at the University of York.

Another key strength of Kew Diploma graduates is their knowledge of botanic gardens and conservation issues. Appointments during this year include Wolfgang Bopp becoming Assistant Curator at Liverpool University's Ness Botanic Gardens. Ian Turner was made Horticulturist at Paignton Zoological and Botanical Gardens. Another Kew graduate, Christopher Bailey, replaced Ian as Head Gardener at Staunton Country Park, Hampshire. Ruth Davis has become Species Action Officer for Plantlife at the Natural History Museum.

Overseas, two Kew-linked projects have been strengthened by Kew graduates. Paul Blackmore has been appointed Botanic Garden Management Advisor at Limbe Botanic Garden, Cameroon. Colin Parbery is now Plant Conservation Officer of Rodrigues.

A significant number of Kew graduates have entered the field of education. Guillaume Baltz, Benedict Murrell and Alan Hulme have been lecturing on a new Diploma in Garden Design course tutored by another Kew graduate, John Sallis-Chandler, at Norwood Hall. Benedict has now been appointed full-time lecturer at Bicton College, Devon.

Richard Baines, formerly Assistant Horticultural Officer at Glasgow City Council, has gained a lecturing post at The Barony College, Dumfries. Richard Smedley is now Gardens' Advisor for the Henry Doubleday Research Association near Coventry, liaising with schools, the media and the general public. Louise Allen, Education Officer at Oxford Botanic Garden, arranged a very successful Botanic Garden Education Network Conference at Oxford.

Sir Philip, I know that you yourself are interested in landscaping and amenity horticulture, which is another direction for our graduates. Anthony O'Grady has been appointed Head

Gardener of the prestigious garden, Penshurst Place, in Kent. Daniel Pearson and Peter Styles both won medals for their gardens at Chelsea Show this year. Graham Burgess is involved with the design of a Knot Garden and a larger landscape development at Southwark Cathedral. Mike Wilkinson, Chief Parks Officer for the London Borough of Wandsworth, has been overseeing a major project in Battersea Park, demonstrating methods of lake rehabilitation and management. A European Conference on this London Lakes Project has been organised for next March.

In the commercial sphere, Kew Diploma graduate Russell Forbes has been appointed Sales Representative for Lefroy Valley Seed Company, near Sydney, Australia, importing seeds from Europe and the United States. He seemed to be doing sufficiently well there to afford to telephone me for some length of time with his news.

Back home, Mike Burridge was promoted to be Director of Business Development, Ealing Tertiary College. He then immediately suggested ways of gaining income for both Ealing and Kew by running joint courses here, something which is currently under investigation.

One should not forget that several other Kew Diploma graduates are on the staff of the Royal Botanic Gardens, Kew. Apart from two in the Herbarium, David Gardner and Brian Stannard, the rest are in the Living Collections Department at all levels from the Deputy Curator downwards.

Without decrying the work of colleagues who are not Kew Diploma graduates, the injection of people with this unique botanical horticultural training does appear to have dramatic effects from time to time. Last year, for example, Jenny Evans was promoted to become the first female Assistant Curator at Kew, in charge of the Tropical Section. This year in the Tropical Section up popped the plant *Amorphophallus titanum* which produced its two metre high flower for the first time in 32 years. Such was the drama of this event that the plant was guarded by the Constabulary while thousands of people trailed past in awe and the news was flashed across the world to millions of people via the Internet, television and newspapers.

The School of Horticulture, our current students and Kew Diploma graduates, could not be so successful without the support of staff across all departments at Kew and the large number of people outside of Kew who come to lecture, who act as External Examiners, External Assessors, or members of our overseeing body, the Independent Panel. To everyone, I offer my sincere thanks for all your help and support.

The success of this interdepartmental collaboration was also clearly demonstrated during the summer when a total of 17 people from 16 countries worldwide came on the Darwin Initiative Course on Threatened Plant Species and the International Diploma Course in Botanic Garden Management. The tutor for both courses, Dr. Colin Clubbe, had the support of many people throughout Kew to ensure that each course was extremely effective, both for the participants themselves, their institutions and for Kew also.

In addition, I should like to thank the staff of the School of Horticulture – David Barnes, Pam Black, Chris Downes and Barbara Hanson, who all combine with tender, loving care to balance the misery that I inflict on the students through lectures, coursework, examinations and deadlines.

And so, finally, to those students of Course 31 who graduate today, I want to thank all of you for the tremendous amount of practical work which you have done in the gardens at Kew while you have been undergoing your training, as well as for the ambassadorial roles which you have undertaken both at home and abroad. Kew would be much poorer without such an input and without being stimulated by your ideas and research. Some of you are going to continue here as staff members. To those who are leaving, may I ask that you keep in touch with us through the Kew Guild and that you continue, in the years that lie ahead of you, to promote the mission of the Royal Botanic Gardens, Kew which is "to enable better management of the earth's environment by increasing knowledge and understanding of the plant kingdom – the basis of life on earth".

PRESENTATION OF KEW DIPLOMAS AND PRIZES 1996 (COURSE 31)

We begin with the presentation of Kew Diplomas and prizes to our third year students. I shall first read out the awards, followed by the name of the person who is to receive them. Thanks must go to all sponsors of our prizes, many of whom are in the audience today. I also congratulate all who contribute in any way to the delivery of the Kew Diploma course for enabling such high standards to be maintained by the students.

ANNA BAYLEY

The Dummer Memorial Prize, sponsored by the Kew Guild, an Association of past and present staff and students, for the best Herbarium Weed Collection project. The President and several Committee members of the Guild are in the audience today.

The Kew Diploma Honours grade.

KATIE BUTLER

Life Membership of the Students' Union for services rendered during the course.

The Kew Diploma Honours grade.

SARAH HIGGENS

The Metcalfe Cup, donated by the late Dr. Metcalfe, a former Keeper of the Jodrell Laboratory, the building we are in today, to the student attaining the highest second year examination marks.

The Lecturers' Prize, donated by Dr. Nicholas Hind of the Herbarium to the student attaining the highest mark for their Systematic Botany project.

The Plant Identification Tests Prize sponsored by the Students' Union to the person with the highest marks overall in these tests.

The Kew Diploma Honours grade.

GWENDA KITCHENER

The Proudlock Prize, donated by the Kew Guild to the runner-up in the Herbarium Weed Collection project.

The Kew Diploma Credit grade.

CHRISTOPHER LEACH

The Landsman's Bookshop Prize, awarded by that bookstore to the person with the best final year Landscape Design project.

The Kew Diploma Honours grade.

ADRIAN LOVATT

The Kew Diploma Honours grade.

RICHARD OTTAWAY

The Donald Dring Memorial Prize, presented by the Bentham-Moxon Trustees in memory of a former mycologist of the Jodrell Laboratory to the student attaining the highest marks in the Crop Protection project.

The George Brown prize, sponsored by the Kew Guild in memory of a former Assistant Curator of the Living Collections Department to the runner-up in the student lecture competition organised by the Kew Mutual Improvement Society.

The Kew Diploma Honours grade.

MARKUS RADSCHT

Living Collections Department Postgraduate Scholarship for the funding of a Master's level degree, followed by a year's paid appointment at Kew. In this instance, the degree is a Master of Science in European Horticulture provided by Writtle College in the United Kingdom and the Agrarische Hogenschool, Holland.

The British Friends of Jerusalem Botanical Garden Scholarship for a six-week placement in the garden made earlier this year. Mrs. José Dent, the Chairman of the Friends, is in the audience.

The Kingdon-Ward Prize, given by Winifred Kingdon-Ward in memory of her brother, Frank, a noted plant collector, to the student attaining the highest marks in their Management thesis.

The Prize for the Best Vegetable Plot, sponsored by the Kew Guild for the student coming top in this practical first-year project.

The C. P. Raffill Prize, again presented by the Kew Guild, to the winner of the Kew Mutual Improvement Society student lecture competition.

The Kew Diploma Honours grade.

JO SCRIVENER

The Ernest Thornton-Smith Travelling Scholarship, which is a £2,000 final-year travel award, sponsored by the Ernest Thornton-Smith Young People's Trust, to allow a Kew Diploma graduate to travel overseas, in this case for a study tour of botanic gardens in Sri Lanka and India.

The Kew Diploma Pass grade.

HARVEY STEPHENS

The British Friends of Jerusalem Botanical Garden Scholarship, in this instance, a national award from the British Friends for a year's fully-funded placement at the garden.

The Sir Joseph Hooker Prize, presented by the Director in memory of his famous predecessor to the student who has done most for the Kew Mutual Improvement Society as Chairman for the past year. The prize is augmented by a cup given by Mrs. Hazel Hyde, who retired as Administrative Officer of the School of Horticulture in 1993.

The Worshipful Company of Gardeners' Prize, sponsored by the Company for the student who has contributed most to the Royal Botanic Gardens, Kew during the Kew Diploma course. The Master of the Company is in the audience.

Life Membership of the Students' Union for services rendered.

The Kew Diploma Credit grade.

DARREN WEBSTER

The Tony Kirkham Arboricultural Prize, donated by Matthew Vincent, a Kew Diploma graduate with a plant business called 'The Kew Gardener', situated near Kew Gardens station. Matthew Vincent is in the audience. The prize is named after the principal lecturer of the arboriculture course.

The Kew Guild Individual Study Prize, given to the person with the second highest marks for their Management thesis.

Life Membership of the Students' Union for services rendered as President during the past year.

The Matilda Smith Memorial Prize, sponsored by the Kew Guild in memory of a botanical artist at Kew and given to the best practical student.

The G. C. Johnson Memorial Prize, administered by the Bentham-Moxon Trustees on behalf of the magazine 'The Grower' in memory of an ex-Kewite. The prize is for the best overall performance on the Kew Diploma course.

The Kew Diploma Honours grade.



Kew Diploma and prize winners pictured with (left to right): Ian Leese, Principal, School of Horticulture, The Mayor and Mayoress of Richmond, Mr. Robin Herbert, Chairman of Trustees, Lady Dowson, Sir Philip Dowson, President, Royal Academy of Arts and guest of honour, Professor Sir Ghilleain Prance, Director and Lady Lennox-Boyd, Trustee.

The other Kew Diploma awards listed in your programme for Guillaume Baltz, Suzanne Michal and Carl Nelson, are for students from last year's course and, unfortunately, none of them are able to be with us today. Guillaume Baltz is working as a Landscape Designer and has gained a place on the Postgraduate Course in Landscape Architecture at the University of Central England in Birmingham. Suzanne Michal was winner of the Ernest-Thornton Smith Travelling Scholarship last year. She has yet to return from working at the Katherine Dunham Botanic Garden, Port-au-Prince, Haiti. Carl Nelson has completed his first-year L.L.B. (Bachelor of Law) examinations at the University of Greenwich where he obtained a first overall. He plans to become an environmental lawyer at the end of his training.

We turn now to second-year students who have been awarded travel scholarships.

AZRA SECERBEGOVIC

The Stanley Smith Travel Fund Scholarships, administered by the Bentham-Moxon Trust. Azra, the top scholarship winner, is currently on leave at home in Sarajevo, having successfully completed a tour of botanic gardens, natural parks and nature reserves in Estonia to study their education and conservation policies.

Rotary Club of Kew Gardens Prize, for doing the most charitable work in the community, in this case by working for the Appeal for Sarajevo Botanic Garden charity. The President and Chairman of the Vocational Awards Committee of the Rotary Club are in the audience.

ROGER FISCHER

The Stanley Smith Travel Fund Scholarship. The other winner of this scholarship is soon to leave for Italy, where he will visit La Mortola and other gardens in the north of the country.

JUNKO OIKAWA

The Henry Idris Matthews Award is also given by the Bentham-Moxon Trust. This year's winner is currently attending the Third International Congress on Botanic Gardens Education being held in New York.



Bernice Hearne (left), Group Marketing Manager for Hozelock Limited, presenting a cheque for the Hozelock Prize to Nick Biddle (centre), Kew Diploma second year student, watched by Ian Leese (right).

NICK BIDDLE

The Hozelock Prize is donated by the manufacturers of garden irrigation equipment. Julie Legg, the Marketing Manager of the company, is in the audience. The prize this year has been used to visit botanic gardens on the Hawaiian islands to study their conservation of native flora.

The Institute of Horticulture Prize, awarded for being the overall top first-year student last year.

UPANEETHA ABEYGUNAWARDANA

The David Dalziel Travel Scholarships are sponsored by Mr. Dalziel who lives in Florida. Upaneetha has recently returned from a study tour of botanic gardens, nature reserves and parks in Singapore and Malaysia.

JOANNA WALMISLEY

The second *David Dalziel Travel Scholarship* was awarded to Joanna who, two days ago, returned from a study tour of rainforest ecology in Mexico and Panama.

DINA GALLICK

Dina was awarded the third *David Dalziel Travel Scholarship*. She is still away on her tour in Borneo to study the ethno-botanical uses of wild forest fruit trees.

VANESSA WELLS

The final *David Dalziel Travel Scholarship* was awarded to Vanessa who is in California researching schools education programmes at botanic gardens there.

MARK PATERSON

Mark, another second-year student, has won an award. *The Kew Mutual Society's Prize* is given to the person taking the most active part in running the Society as Secretary over the past year.



Harvey Stephens, winner of The Worshipful Company of Gardeners' Award for the person who has contributed most to Kew during the Kew Diploma Course, is pictured with the Master and Past Masters of the Company.

Coming now to first-year students, two awards are available to them.

PATRICK GARTON

The Institute of Horticulture Prize has been newly established this year for the student who gained the highest marks overall. The winner, Patrick, is currently attending the 15th World Orchid Conference in Rio de Janeiro and so cannot be here.

GREG MULLINS

The Tom Reynolds Prize for Plant Biochemistry and Physiology. This award is due to the generosity of one of our lecturers, Mr. Tom Reynolds. Greg obtained the top results for this subject in the first year.

Gardens staff have opportunities to compete for some awards alongside Kew Diploma students. Several staff attend the weekly lectures of the Kew Mutual Improvement Society and some actively participate in the proceedings.

DAVID COOKE

The Professor Keith Jones Cup, donated by a former Keeper of Jodrell Laboratory, is presented to the person who has given the most "items of interest" talks to the Society. This year's winner works in the Palm House, but is unable to be here because he is in New York attending the Education Congress.

STEPHEN KETLEY

The John Scott-Marshall Scholarship. Fieldwork study awards for gardens staff are available through the bequest of the late Mr. John Scott-Marshall, who was a former editor of 'Gardeners' Chronicle'. The first of three awards this year is to Stephen, a member of Temperate House staff who, later in the year, will make a study of the flora of the North Island of New Zealand, based at the Auckland Regional Botanic Gardens.

BELINDA PARRY

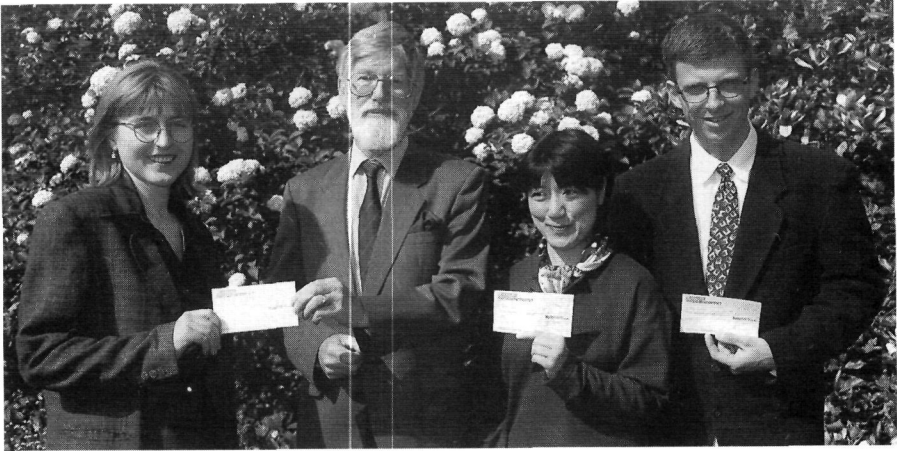
The second winner of *The John Scott-Marshall Scholarship*, Belinda left the country yesterday to study the propagation and cultivation of South African plants and she will be based at Kirstenbosch National Botanical Garden.

DAVID WALDON

David, from Wakehurst Place, is unable to be with us. He used his *John Scott-Marshall Scholarship* earlier in the year to attend the field trip of the University of Reading in southern Spain, in particular studying the surviving population of *Abies pinsapo*, near Ronda.

That ends the presentation of Kew Diplomas and prizes. I would now like to ask our Guest of Honour, Sir Philip Dowson, President of the Royal Academy of Arts, and a former Trustee of the Royal Botanic Gardens, Kew, to give his address.

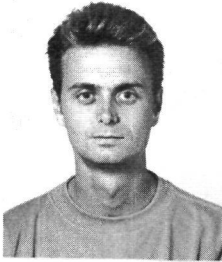
There were no Kew Medal Awards made in 1996.



Professor Sir Ghillean Prance, pictured with Azra Sercerbegovic (left) and Roger Fischer (right), winners of the Stanley Smith Travel Fund Scholarships, along with Junko Oikawa, winner of the Henry Idris Matthews Award.



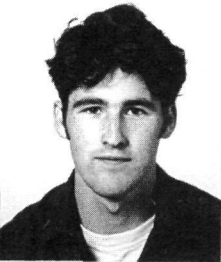
Ian Leese, Principal, School of Horticulture (with wheelbarrow) and David Barnes, Staff Training Manager (left), pictured with members of Kew Diploma Course 34.



ROB ALLISON



JUDY BENNETT



EAMONN BYRNE



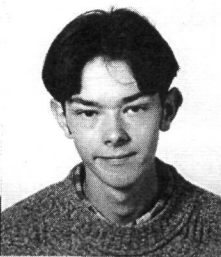
CHRIS COLE



EMMA FOX



JAMES FURSE-ROBERTS



LEIGH HUNT



ELIZABETH KIERNAN



KATHLEEN KING



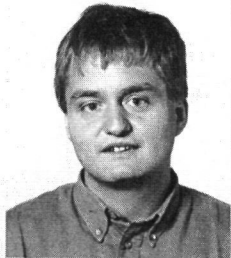
HELEN LONG



UNAI ONAINDIA



PAUL POLLARD



EMMANUEL SPICQ



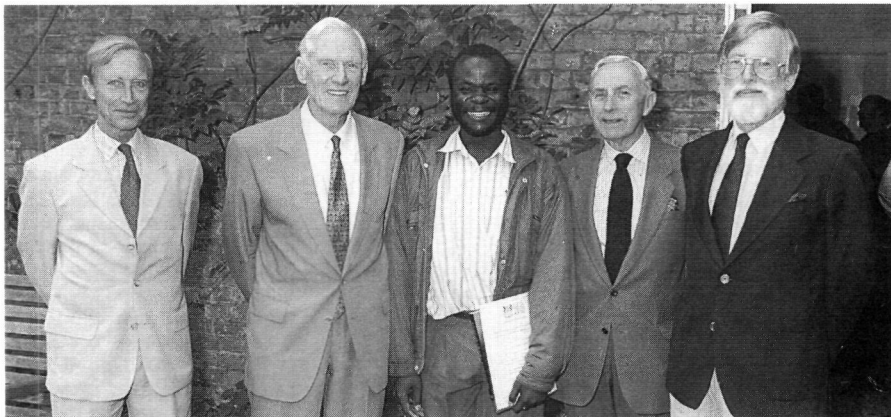
JUSTIN TURNER



Prof. Sir Ghillean Prance, Director (rear centre), pictured with participants of the 1996 International Diploma Course in Botanic Garden Management and the Darwin Initiative Course for U.K. Dependent Territories in the Propagation, Maintenance and Conservation of Threatened Plant Species. Delegates came from Brazil, Cayman Islands, Falkland Islands, Hong Kong, Israel, Montserrat, New Zealand, Papua New Guinea, Solomon Island, Sri Lanka, St. Helena, Switzerland, Taiwan, Tanzania, Tasmania and Zimbabwe.



Mrs. José Dent, Chairman of the British Friends of Jerusalem Botanical Garden, pictured with Jerusalem Scholarship winners Harvey Stephens (left) and Markus Radscheit (right).



The Director (right) pictured with Tawanda Ganda of The National Botanic Garden, Causeway, Zimbabwe (centre). Also in the photograph are the Trustees of The Lennox-Boyd Memorial Trust, Sir Kenneth Stowe and Sir John Moreton, along with Mr. David Lewis, Honorary Director of the Trust (left). Mr. Ganda was sponsored in full by the Trust to attend the 1996 International Diploma Course in Botanic Garden Management.

THE KEW STUDENTS' UNION ANNUAL REPORT 1996

By Mark Paterson, Secretary

With another Kew Guild publication in our hands we are all reminded once again that another year of gardening has indeed passed. As is so evident in these pages, the past year has been no less busy, invigorating and progressive for the Gardens itself. 'Progressive' and 'busy' are apt terms when applied to the Kew Students' Union. Elections for new members (and the passing of old) were held on 20th August, 1996. All three student years voted in Topher Martyn as President; Mark Paterson as Secretary and Treasurer (interest in money matters not being shown by other colleagues – a first!); Greg Mullins as Sports and Social Representative and Kathryn Kidby as the Fund Raiser. Both Greg and Kathryn are second year students while Mark and Topher are in their final year. The elected members are, as ever, well represented in Independent Panel and Student Representative meetings by fellow colleagues – three representatives from each year.

With Student Representative meetings now held every 10 weeks, all representatives have been able to provide crucial input into the various meetings. From the mundane to those of great importance, common points of discussion have included the need for photocopying limits (a garden wide scheme), increasing the use of student skills in the Living Collections Department, to the crucial inspection of the Course by the Kew Diploma Review Group – an internal body. Likewise, putting words into action has successfully occurred with the use of computers in the School of Horticulture. Much of the course-work is now either down-loaded onto the internal World Wide Web or e-mailed to respective students. This has helped reduce the level of paper being used and firmly brought the Course into the computer age! E-mail and the WWW can now be accessed from all the terminals within the School of Horticulture and whether the use is social, intellectual or work based, all terminals are in frequent use.

Last, but not least, the Union continues to have an important affiliation with the National Union of Students. Regular updates from the N.U.S. are received and all relevant information is posted to let the Student Body know what is occurring U.K. wide regarding education and socio-economic issues. It is the combined access to internal and external information that continues to be the prime role of the Kew Students' Union. The ongoing trend shall continue!

STUDENTS' UNION SPORTS AND SOCIAL REPORT 1996

By Greg Mullins (Course 33)

1996 has seen a great many sporting successes at Kew. Unfortunately the traditional early season football matches with Edinburgh and Wakehurst Place did not take place. Later in the year at the M.A.F.F. Sports Day in June, David Barnes (Staff Training Manager) continued his



Course 34 celebrating the end of a closely fought Clog and Apron Race.

unbeaten series of victories in the Bowls Competition, stretching his run to five. Clive Foster took part in the tennis and had a victory in the first round before being knocked out in the second. A ladies tug-of-war team led by Gwenda Kitchener competed in the first round as did the cricket team. The six-a-side football team went all the way through to the semi-final where they were narrowly beaten.

It was a season of success for the L.C.D. cricket team. The season started with a game against Lonsdale's Lobsters, which L.C.D. won convincingly. A return match yielded the same result. The Under 30's v Over 30's proved an interesting game. The

'oldies' made just 80 all out and in reply the 'youngsters' managed 83 for 3 in 19 overs with Harvey Stephens 27 not out and Graham Scrowther 25 not out.

A further victory followed against Wakehurst and in the last game of the season against Kew Rest, the 'Rest' started with a fine innings of 121 from 20 overs, but L.C.D. were too strong in reply. Dave Barnes scored a magnificent 61 and Phil Griffiths was 24 not out to push the score up to 122 with only one over remaining. L.C.D. ended the season unbeaten. Phil Griffiths noted the absences of Nigel Taylor for the L.C.D. team (lame excuse) and 'The Rests' John Lavin (yet again).

September arrived all too quickly as usual and the new first years were treated to the traditional Clog and Apron Race. Course 34 decided to run a conventional race this year; Judy Bennett was the first lady across the finish and Paul Pollard won the event, followed by James Furse-Roberts and Justin Turner. Prof. Simon Owens kindly presented the winners with their medals.

The end of year Round the Gardens Race saw Nigel Rothwell vying for his fourth



Professor Simon Owens (left), pictured with the winners of the Clog and Apron Race. Outright winner was Paul Pollard, holding the cup. James Furse-Roberts (on Paul's left) was second, while Justin Turner (right) was third. Judy Bennett was the first female runner.

consecutive win and Nigel met the challenge with ease, winning in 14 minutes 55 seconds. This year's event attracted the greatest number of competitors seen in recent years and it was decided to reinstate the over 50's prize, which was fought out between Peter Edwards and Steve Davis, victory going to Peter. Kathy King beat off the other female entrants to secure her second 'First Ladies' prize in as many years. Nigel Taylor was on hand to present the awards.

Upcoming events include a pool competition, darts evening and Pancake Race. Football practice continues at Sheen Sports Centre, organised by Clive Foster. It is also hoped a weekly softball game can be arranged during the coming summer.

I would like to thank those who have given their help and support to all of this year's events and hope to see even more interest and enthusiasm during 1997.

THE KEW MUTUAL IMPROVEMENT SOCIETY 1996-1997 REPORT THE FULL STORY!

By Kathryn Kidby and Tammy Woodcock

Far gone are the lantern slides and the blackboards of the 1900's as the Kew Mutual Improvement Society continues into its 127th year, 1996-1997. However, the committee structure remains the same in that it retains permanent staff, currently Dickon Bowling (Microprop), Peter Brandham (Cytogenetics) and David Cooke (Palm House) and the all-important student members, Kathryn Kidby, who became Chairperson, Tammy Woodcock, Under Secretary rapidly to become Secretary, changing places with Marcus Adams, while Mikel Pagola acts as Treasurer. Owing to illness Marcus sadly left at Christmas and has been replaced by James Furse-Roberts, a brave first year student. The current committee would like to thank the previous committee for their untiring help, while we were finding our feet.

Having reached a state of equilibrium after the euphoria of being nominated and elected, the hard work began, i.e. that of deciding and requesting lectures; to formulate an interesting and informative lecture series. The student committee decided that it would be a good policy to renew acquaintances with ex-Diploma students, who span a number of years, as well as encouraging new speakers and retaining a few favourites.

Thus the new season began with Anne Swithinbank, a Diploma graduate who has done well in the media, but has not addressed the Mutual for 20 years since her Travel Scholarship lecture, in her words, felt that she "was laying a ghost to rest". Revealing that television work is not all sweetness and light she went on to talk about her faithful broom and her garden jobbing days and her beloved house plants. Similarly Ian Smith, a Kew graduate who took a job abroad immediately on completion of the course, only to return 30 years later to talk about Landscaping in the Middle East and the difficulties of growing plants under such arid conditions. The title 'Plants in Medicine' announced by Mathew Biggs, Kew Graduate and now a well-known presenter, generated a great deal of interest, however the title was changed to the 'Back Gardens of Britain' which initially caused some dismay; soon dispelled under Mathew's enthusiasm and charm. A more recent Kew Graduate, Darrin Duling, enlightened the audience as to the real nature of the Lotus from the Green Mountains of northern Oman.

A precedent has been set by the student lectures so far, beginning with Nick Biddle and his adventures in Hawaii confidently addressing the problems of conservation. Despite the initial failure of the projector, Joanna Walmisley was cool, calm and collected and proceeded to give an informative talk on **Anthuriums** and other worthy flora of Mexico and Panama. Neeth Abeygunawardana dazzled us with his double slide presentation and flowing narrative on Singapore and Malaysia. Presenting education in California was never going to be easy. However Vanessa Wells delivered this challenging topic with candour and spirit, incorporating it into a whistle-stop tour of California.

Wild flowers are obviously popular among staff at Kew, as demonstrated by the large turnout for David Bevan's lecture (Conservation Officer London Borough of Haringey), who

illustrated the beauty of flowers normally considered to be street weeds. Roy Dicks, who had a profound love and knowledge of Beverley Nichol's garden novels and poetry, brought literature to life. Memories were stirred for Tammy Woodcock when Tony Boulding gave his talk on the Restoration of the Privy Garden at Hampton Court, as he recounted the complexities of restoring a baroque garden. Emotions ran high in the Herbarium after Professor Simon Owens, the Keeper, unveiled his ambitious plans for the future of the Herbarium. Top tips for good photography abounded from Dr. Peter Brandham's lecture 'Looking at Plants'.

On the lighter side of the K.M.I.S., the incoming first year students were welcomed by not only a cheese and wine party, but also a barbecue on the lawn at Cambridge Cottage, which ended in people actually dancing. However, it would have been nice to see more of the permanent staff present to welcome them!

Moving away from purely horticultural matters, a garden-themed music evening evolved, separated into two distinct halves. Instruments made from plant materials were demonstrated and played, for example the harp, ukelele, piano accordion, various wind and percussion instruments. The interval led to much merriment after David Cooke's special mulled wine and mince pies and people even braved the cold to wander around the floodlit Alpine House. After an extended break, the audience settled down for the second half, which entailed audience participation in a rousing rendition of 'The Holly and the Ivy', followed by 'The Biggest Aspidistra in the World', with a verse of 'The Biggest Titan Arum in the World'. Our special thanks to all those who participated and especially Jay Venn and Katie Butler for their organisation, production and a thoroughly enjoyable evening.

This year the Kew Club joined the K.M.I.S. for an eventful Christmas party which brought together all departments at Kew. Our fears of low attendance owing to people going home for Christmas were soon allayed. Partygoers were drastically transformed by Victorian face masks which caused some hilarity as revellers were filled with plenty of food and drink.

With the autumn lecture series successfully complete, there is now the spring programme to look forward to. Echoing the last season, another Kew Graduate will be Simon Goodenough, delighting us with the flowering of Victoria's Island; while Heather Fooks 'Keeps Gardeners Growing!' A journey with Roy Cheek to Tenerife to look at the garden of Marianne North contrasts with Jim Buttress's lecture on 'London's Central Royal Parks'. Welcoming back a favourite, Mark Flanagan, will take us 'Among the Red Dawn Redwoods'. 'Horticulture Birds and Biodiversity', given by Barbara Young, links with 'Naturalistic Approach to Gardens' by Dan Pearson, Kew Graduate and presenter. Kay Sanecki will take us through a historical theme in 'Gardening with the Edwardians'.

"Eat more Fruit" is the advice given by Dina Gallick, who is to lecture on the forest fruit trees of Borneo in the first student lecture of the spring season; while Roger Fischer takes us through some romantic gardens in La Mortola, Italy. Reiterating subjects touched on before, Junko Oikawa approaches 'Education, Restoration and Conservation in the U.S.A.'. Last, but not least, Azra Secerbegovic rounds up the year with 'Conservation and Education in Estonia', prior to the A.G.M.

If you haven't attended a K.M.I.S. lecture before, maybe this rendition has tempted you! On behalf of the committee we would like to thank all who have helped or supported us. The lectures cost £1 a night, or a bargain at £7 for the whole season, which hasn't changed since 1994. There aren't many things that don't go up! Lectures take place in the Jodrell Lecture Theatre on Monday evenings at 6.30 p.m., between September and March. Please contact Barbara Hanson in the School of Horticulture for the latest schedule (Tel. 0181-332 5545).

LIVING COLLECTIONS DEPARTMENT REPORT 1996

By David Hardman, Deputy Curator, Head of Living Collections (Kew)

Amazing worldwide interest shown in the flowering of a **Titan Arum**, royal visitors, a changing weather pattern affecting collections, a strike, plus an incredible amount of organisational

planning to keep the gardens functioning efficiently during major construction projects and all against a background of financial constraints and staff reductions inadequately sums up 1996.

The Scientific Visiting Group arrived in January and were given the opportunity to view work in the Gardens associated with science programmes. Their comments were most complimentary as the tour helped them to appreciate the extent and wealth of Kew's living collections. In the presentations to the Scientific Visiting Group, 15 staff including one Diploma student, were involved from L.C.D. in 10 out of 18 topic group submissions.

It is important to draw attention to the fact that the Living Collections Department at the Kew site ran with more than 10% of posts vacant throughout the year. This reflected corporate financial savings relating to non-recoverable VAT and support for the Board Reserve Fund. The effect of this was felt across all Sections. The situation would have been more serious were it not for the late spring and the unseasonably cool weather, which following last year's exceptional summer, contributed to fine, long-lasting displays of spring flowers. Many favourable comments were received in respect of the show provided by the magnolias, cherry blossom, herbaceous and bulb plantings and especially the Palm House front bedding displays.

Later in the year it became necessary to re-prioritise areas of operation where further savings could be made. Reductions in L.C.D. could only be made to the staff complement in areas of work, this included re-landscaping the Heather Garden, reducing all five main beds by removing carpet plantings of **Erica** and **Calluna** to reduce the maintenance load. Work also started on reducing beds in the Rhododendron Dell and maintenance regimes in the Banks Building Garden, Waterlily House and Marine Display to account for a reduction in staff complement.

DROUGHT

As in 1995, weather continued to be a major preoccupation for the whole year in the Sections. The low rainfall, which on top of last year's drought, caused considerable losses and damage in the Arboretum affecting trees of all ages. We hope for a return to more regular rainfall patterns. The whole year has been exceedingly dry with considerably less rainfall received than in 1995, with the sunniest and driest June since records started in 1980. Upgrading existing irrigation systems as in the Rose Garden and introducing new ones to areas such as the Japanese landscape, will alleviate the workload pressures whilst utilising water more efficiently.

During November a new automatic irrigation system was fitted in the North Wing of the Temperate House, utilising a nitric acid injection system to produce water at the correct pH for irrigation purposes in both the Temperate and Evolution Houses. A new treatment system was fitted to the Temperate Nursery House No. 29 fogging system; this utilises copper and silver ions to act as fungicide and bactericide, although copper levels need to be monitored by staff.

MELON YARD REDEVELOPMENT

This required a great deal of attention as the old Alpine and Jodrell glasshouses were replaced with modern technologically advanced structures. The raised tufa bed was removed from in front of the Alpine House and a temporary nursery constructed which included a prototype poly tunnel for the new Alpine Yard. Temporary facilities were constructed in House 17 for the bulb collections, bedding plant production capacity was reduced by 25% as a result. The Jodrell Glass moved Science Support material



The Melon Yard – the single phase project meant a logistical nightmare. Careful planning overcame difficulties during the demolition and early construction phase.



The Melon Yard nearing completion, the new Alpine range to the left with the Technical Section's new high-hat house centre year. The run-off water will be returned to the compost heaps, which will improve the efficiency of the composting process.

to temporary facilities in the Cycad House, Quarantine House, assorted frames and Wakehurst. Co-operation between L.C.D. and Building and Maintenance Department ensured this complicated project was completed on time within the available budget.

STABLE YARD REDEVELOPMENT

After many years of waiting, the Stable Yard base has been reconstructed. During the period of the project, which was completed ahead of schedule, staff had to operate in difficult conditions but managed magnificently. The end result is a credit to all concerned and incorporates a water recycling facility, which will save about a million litres a

SHAFT YARD REDEVELOPMENT

At the same time as the two projects above were in process, a much needed facility to house the Constabulary and provide additional storage has been completed.

LOWER NURSERY REDEVELOPMENT

Rationalisation of all the collections in the Tropical Lower Nursery has been undertaken during the year in preparation for the demolition of the many old existing glasshouses before the planned new single nursery block is built. Establishing the requirements has been undertaken through the year in order for a quick start once the finances are agreed.

Collections rationalised include: **Araceae**, **Ferns**, **Marantaceae**, **Acanthaceae** and **Begoniaceae**, the Canary Island Collection and the entire succulent collection has been re-potted and is showing improved growth. The process has produced surpluses which have been distributed widely with some material transferred to Temperate for display use. Collections will be decanted during the building programme, as a consequence propagation will be reduced.

ROYAL VISITORS

Following a visit to launch the Millennium Seed Bank appeal on 31st May, H.R.H. Prince Charles planted a Plymouth Pear (***Pyrus cordata***) in the Duke's Garden. This was later relocated to the winter/spring flowering display border by the wall.

The 8th October saw Princess Sayako, the daughter of the Emperor of Japan, accompanied by H.R.H. Princess Alexandra to officially open the restored Japanese Gateway and the new Japanese landscape. The ceremony was the culmination of many years work by many people to re-establish the site to its full glory. Preparation of the site and planting was undertaken by Arboretum staff. Visitors will acknowledge how successful this has been.

IN THE GARDENS

Reports from the Living Collections Department (L.C.D.) are now organised broadly in line with the institution's Corporate Strategic Plan (C.S.P.) format, reported in 1994 and shows how the work of L.C.D. meets the objectives of the C.S.P. It is readily referred to throughout the

Department and gives a clear focus in presenting Annual Management Returns, enabling individual staff to see their own role at Kew. It is set out in eight Programme areas and then split into sub-programmes. It is interesting to note that L.C.D. has input into nearly all of these sub-programmes. Below is work undertaken in the sections for future historical reference.

Arboretum and Horticultural Operations and Support Services (H.O.S.S.)

Renovation work to the **Sophora japonica** (1761 planting) was undertaken when the old concrete was removed from the basal cavity and traditional brickwork carried out. An extra steel prop was inserted to prevent twisting. A new Tree Management system has been completed jointly between Horticultural Operations and Support Services (H.O.S.S.) and Gardens Development Unit and is now live and being used by the Arboricultural Unit.

The new Woodland Walk along the riverside boundary was completed, but the opening had to be held back due to several dangerous large Poplar trees overhanging from the tow path.

An extensive pruning programme, aimed at renovating the **Rosa** species collection, has been undertaken. Planting the winter border by the Tea Bar commenced and the last four **Syringa** beds have been prepared for planting next year. The **Berberis** taxonomic review project has seen fruiting **Berberis** being sent to the Herbarium for determination.

A new skip system was investigated, ordered and delivered by April. It proved to be a very effective system in use. A thorough investigation into a whole range of small ride-on mowers was undertaken, with comments from potential users about the advantages and disadvantages of each machine being sought before making the final choice.

Temperate

In the Temperate House the **Cycad** review continues with replanting in the south end, whilst a new epiphytic display has been installed in the North Wing including **Orchids**, **Ferns** and **Vireya Rhododendrons**. The snow guards were finally replaced on the Central Section of Temperate House. External painting to the south end was completed and the external beds replanted. Work on the North Wing exterior stonework continues. Environmental controls were fitted and linked to a control box in the Unit Manager's Office and a new hot air curtain (prototype) was fitted over one of the Centre Section public doors to replace the old inefficient type. This should reduce the 'cold spot' in the centre of the house.

In the Temperate and Arboretum Nursery a technical manual has been completed and is available to assist staff working there. In the Marine Display, **Posidonia** seagrass was put in the seahorse display tank and is growing well. A baby seahorse went on display to the public and is the first seahorse born and raised at Kew. Displays completely renovated included the British Rocky Shore, the Coral Hamimeda, the British Seagrass and the Rock Pool.

Tropical

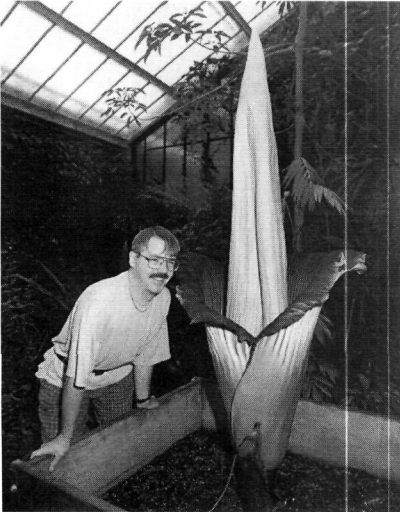
The second Orchid Festival was successful and included the Tropical and Temperate Sections using the Princess of Wales Conservatory, Waterlily House and Victoria Gate Visitor Centre. Again N.A.F.A.S. provided floral displays for the Orchid Festival. The Micropropagation



The Japanese Gateway – the new landscape surrounding the restored Gateway being constructed by Japanese craftsmen alongside Kew's Arboretum staff.

Unit contributed to a 'Hardy Orchid Study Day' and 'Orchid Conservation Day' as part of the Festival.

In the Princess of Wales Conservatory two huge **Echinocactus grusonii** seized by H.M. Customs and Excise were planted in Zone 3, whilst **Vanillas** flowered very well in the orchid displays. In the Temperate Orchid Zone, reed forming **Epidendrums** and the **Sobralia** collections were moved from the Nursery and planted out as part of the re-locating process prior to the Nursery redevelopment. The Moist Tropics Zone was prepared for the winter season (top dressing and pruning) ahead of schedule. The **Bromeliaceae** bed was replanted (plants are divided every three years) and in the Dry Tropics Zone, the **Welwitschia** bed was prepared and planted. The far bed by the south door was re-soiled and re-planted with **Aloe** and **Cycads** from South Africa.



Titan Arum. Excitement in the Princess of Wales Conservatory as the flower opened. Well, what did it really smell like? Peter Boyce investigates.

Herbaceous

A new **Lavender** border has been planted along the wall close by to the Grass Garden where two new central display beds were re-shaped and then planted with **Miscanthus**.

The **Peony** Garden beds were prepared and the pathways laid out towards the end of the year ready for planting. Mike Sinnott has negotiated the supply of cultivars of herbaceous **Peonies** for the garden with David Austin Nursery.

Work in the Rock Garden continues with the New Zealand and Australian area cleared and

re-soiled, the first phase of planting was completed and the area mulched. A planting trial of **Cypripedium pubescens** is being carried out on the Rock Garden.

SHOWS AND SCULPTURE

On the show scene, Kew supplied plants for the Alpine Garden Society Chelsea Exhibit of Chinese plants. 'The Tower of Seed' for the Hampton Court Show, which received much visitor interest, was set up and dismantled by L.C.D. staff, the 'Tower' was later re-located to a prominent display area within Kew to promote the seed bank appeal.

The restoration of the Palm House Pond Urns was completed. Whilst in the Duke's Garden area, the Peter Randall-Page sculpture exhibit was installed at the end of the year.

A fully funded Darwin Initiative Course in Cultivation and Conservation Techniques of Threatened Plant Species commenced on 11th July, with five participants from U.K. Dependent Territories. At the same time the International Diploma Course in Botanic Garden Management commenced. L.C.D. staff again made valuable contributions to both these important courses.

RETIREMENTS

1996 saw the retirement of two of L.C.D.'s long serving staff members., John Norris, who worked in the Tropical Section and Bryan Oakes, who had been responsible for the servicing and supply of vehicles and machinery at Kew for many years. Good luck to them both for their future health and happiness in retirement.

SUPPORTING EVENTS

Friends Coffee Mornings are regularly attended by various L.C.D. staff, who give advice on a wide range of botanical and related matters. Events where L.C.D. staff were in evidence included the Plant Auction, the Jazz Concerts, Gardeners' Lunches, Founder Friends Evenings and many other Foundation and Friends events whenever support is needed. Cambridge Cottage is now used for weddings, which puts an added pressure on the maintenance of the Duke's Garden.

AWARDS

Congratulations to all who so successfully achieved well-earned recognition when, during 1996, the Royal Horticultural Society granted certificates to the following plants from Kew: *Iris* 'Sindpers' [*I. aucheri* x *I. persica*], *Euphorbia characias* ssp. *wulfenii* 'John Tomlinson', *Paeonia mascula* ssp. *russei*, and *Origanum rotundifolium*, all First Class Certificates. *Epacris impressa* 'Strathgordon White', *Pulsatilla vulgaris* ssp. *grandis*, *Iris tubergeniana*, *Campanula tommasiana*, *Deutzia gracilis* 'Nikko' and *Thalictrum tuberosum*, all an Award of Merit. *Helleborus vesicarius*, a Botanical Certificate, *Sarcococca ruscifolia* var. *chinensis*, *Sutera cordata*, *Gemmaria chaplinii*, *Cheilanthes lindheimeri* and *Tulipa humilis* 'Alanya', all a Certificate of Preliminary Commendation. *Iris nicolai*, *Iris pseudocaucasica* [2 forms], *Frerea indica* (*Caralluma frerei*), *Ranunculus asiaticus* 'Mount Hermon' and *Iris regis-uzziae* [3 forms] all a Certificate of Cultural Commendation. *Brassica balearica* and *Teucrium cyprium* (a rare Cyprus endemic) both received a Botanical Certificate for special botanical interest. Double awards were made to *Iris aitchisonii* 'Baker' (Boiss) receiving a C.P.C. and C.C.C. with *Iris bucharica forma* receiving an A.M. and C.C.C.

Special mention must be made of *Cyclamen colchicum* (a very rare Caucasion species introduced to cultivation by Kew) which received a Botanical Certificate for special botanical interest, a Certificate of Preliminary Commendation and a Certificate of Cultural Commendation when shown on 17th September.

FIRST SPECIAL FLOWERINGS AND PLANTS OF INTEREST

The following flowered for the first time: *Iris subdecolorata* (Russian cent. Asia), *Merendera hissarica* (Tadjikistan), *Tulipa regalii* (Kazakhstan; first flowering in U.K.) *Hypseocharis biloba*, a link plant between *Oxalidaceae* and *Geraniaceae*, *Mutisia retorsa*, *Iris* sp. aff. *sichuanensis*, *Iris fulva* x *giganticaerulea*, *Spiranthes aestivalis*, *Amorphophallus curvistylis* (type clone of recently described Thai species), *Amydrum humile* (very difficult in cultivation) and *Schismatoglottis* (two undescribed spp. from Sarawak). Valuable material of *Iris hymenospata* (Subgenus *Scorpiris*) from Iran was received for identification, study and cultivation (the first time in cultivation). *Eryngium leavenworthii* (a very rare monocarpic endemic of Missouri) created much interest this year in the Alpine House and has been illustrated for a future volume of Curtis's Bot. Mag.

Milletia thoningii (*Leguminosae*) flowered for the first time in nine years in the Princess of Wales Conservatory, although during late July/early August flowering of *Amorphophallus titanum*, the 'Titan Arum' captured the attention of the media. The news of which is said to have reached 200 million people around the world. The Gardens were heavily visited during the flowering period, with long queues outside the Princess of Wales Conservatory requiring a one-way system to be instigated inside. Visitor records have subsequently indicated that there was only a modest increase in paying entrants, the bulk of extra visitors apparently being made up from Friends and Season Ticket holders.

STRIKE

It only leaves me to conclude with the one remaining item which needs to be recorded for posterity. This occurred on Friday 8th March, when the Botanical Horticulturist grades and students decided to take industrial action and went on strike about their pay offer. This event received much media attention, since it was the first time in Kew's history. The day passed in good spirit and a revised offer was later accepted.

The year continued to be eventful and I hope I have given you just a taste of what happened in L.C.D. in 1996 – a year when everyone worked hard and accomplished a great deal, a hectic year of changing pressures on the institute, a year to remember and take personal pride in one's own efforts. What will 1997 have in store?

THE DIRECTOR'S ACTIVITIES DURING 1996

By Eleanor Bunnell

It has been yet another busy year for the Director – whilst running Kew he manages to rush from meetings to airports to meetings etc. and, in between, fits in visits from the occasional V.I.P., lectures and, of course, his research.

The main milestone for Kew this year was the successful application to the Millennium Commission for a grant to build a Millennium Seed Bank at Wakehurst Place. As well as the grant from the Millennium Commission, funding has to be found from other sources, so naturally the Director has done a fair amount of fundraising, along with many other very hard working members of staff. Prince Charles, as Patron of the Appeal fund, came to Kew to launch the Appeal at the end of May and in November, Lady Thatcher came to Kew to host a dinner for the Seed Bank Appeal.

More royal visitors came to Kew at the beginning of October when Princess Alexandra and Princess Sayako of Japan opened the restored Japanese Gateway and landscaped garden.

January was dominated by the Scientific Visiting Group, chaired by Professor John Krebs, who came to review the quality and appropriateness of Kew's scientific programmes.

In February the Director went to India to give lectures and to receive the Janaki Ammal Medal from the Institute of Ethnobiology in Lucknow. Along with several other staff, he attended the Kew workshop in Brazil on the *Plantas do Nordeste* project in April. He attended the American Institute of Biological Sciences Conference in Seattle in August and presented a paper and then in October he and Giles Coode-Adams went to the U.S.A. to fundraise for the Millennium Seed Bank. He received an Honorary Doctorate from the University of Bergen, Norway, in August. In September he attended the celebrations of the 150th anniversary of the Melbourne Botanic Garden where he gave the opening lecture. He also took part in the Proteaceae Conference, where he gave another paper on his and Vanessa Plana's research on that family.

Sir Philip Dowson, the former Trustee, gave the prizes at the School of Horticulture prizegiving this year. Professor Bill Chaloner and Chris Brickell retired this year from the Board of Trustees and the two new Trustees this year are Professor John Parker, Director of the Cambridge Botanic Garden and Professor Mick Crawley from Imperial College.

In July, the Royal Botanic Gardens, Kew was one of the joint hosts of the annual meeting of the Society of Economic Botany. Dr. Hew Prendergast and other staff organised a symposium on plants of arid lands as part of the meeting and the Director gave a paper on his work on medicinal plants of the Amazon.

The Director gave lectures at various venues this year including Reading University, Tonbridge School, St. Andrew's Botanic Garden, Lampeter University, the London Environmental Centre, Imperial College and Nottingham Trent University. He still continues to be on the boards of numerous organisations. In May he was appointed President elect of the Linnean Society of London and assumes the Presidency in 1997.

Several other important people visited Kew during the year including Mr. Tim Boswell from the Ministry of Agriculture, Fisheries and Food, who visited Wakehurst Place as well; the Welsh Minister, The Rt. Hon. William Hague and William Bush (brother of George) who is a President of the Board of Trustees of Missouri Botanical Garden.

Professor Charlie Stirton, Director of Science and Horticulture, left Kew in September to become Director of the National Botanical Garden of Wales, where he will be directing an entirely new venture. Although Professor Gren Lucas retired from Kew in December he will still remain on the Editorial Advisory Board of *Kew Magazine* and will assist with fundraising for the Friends and Foundation.

1996	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year totals
Total rainfall	42.35mm	44.4mm	29.16mm	27.46mm	27.41mm	9.54 mm	18.2 mm	46.26 mm	19.26mm	37.23mm	103.4mm	14.79mm	419.56mm
Rainiest day	8th 20.7mm	24th 12.5mm	8th 7.6mm	12th 10.9mm	24th 5.6mm	7th 6.0mm	5th 7.6mm	22nd 15.0mm	30th 8.10mm	8th 8.80mm	3rd 20.0mm	2nd 5.9mm	8th Jan 20.7mm
Rainless days	23	11	12	17	18	22	19	13	15	13	6	13	167
Total sunshine	26.6 hrs	98.7 hrs	78 hrs	148 hrs	185.1 hrs	284.1 hrs	237.0 hrs	222.7 hrs	142.6 hrs	141.8 hrs	98.3 hrs	55.5 hrs	1718.4 hrs
Sunniest day	7.2 hrs on 31st	9.6 hrs on 29th	9.4 hrs on 10th	12.6 hrs on 27th	14.0 hrs on 8th	15.7 hrs on 15th	14.9 hrs on 21st	13.7 hrs on 4th	11.7 hrs on 6th	8.9 hrs on 13th	7.5 hrs on 21st	6.7 hrs on 4th	15.7 hrs on 15th June
Average sun	0.86 hrs	3.4 hrs	2.52 hrs	4.93 hrs	5.97 hrs	9.47 hrs	7.64 hrs	7.18 hrs	4.75 hrs	4.57 hrs	3.28 hrs	1.79 hrs	4.69 hrs
Sunless days	19	6	11	5	5	1	0	1	5	5	7	16	81
Highest max temp	12.9°C on 14th	13.3°C on 16th	12.1°C on 17th	23.4°C on 20th	25.1°C on 30th	31.3°C on 7th	31.5°C on 22nd	32.0°C on 19th	23.5°C on 15th	20.4°C on 23rd	18.0°C on 2nd	11.5°C on 1st	32.0°C on 20th Aug
Lowest max temp	-1.0°C on 26th	1.0°C on 6th	3.5°C on 12th	7.9°C on 12th	8.5°C on 17th	17.5°C on 1st	17.9°C on 3rd	17.3°C on 29th	14.0°C on 20th	6.5°C on 30th	6.5°C 20th & 23rd	1.0°C on 18th	-1.0°C on 26th Jan
Highest min temp	9.8°C on 13th	6.7°C on 17th	7.5°C on 24th	9.5°C on 16, 17, 19, 28th	12.9°C on 31st	16.8°C on 7th	17.9°C on 23rd	16.5°C on 6th	15.3°C on 3rd	12.9°C on 28th	14.2°C on 7th	7.7°C on 19th	17.9°C on 23rd Jul
Lowest min temp	-4.5°C on 27th	-5.1°C on 22nd	-5.5°C on 31st	-3.7°C on 2nd	-1.5°C on 5th	5.3°C on 3rd	8.0°C on 18th	6.8°C on 31st	3.0°C on 24th	2.0°C on 30th	-4.7°C on 22nd	-4.7°C on 14th	-5.5°C on 31st Mar
Nights air temp below freezing	3	16	10	4	3	0	0	0	0	0	13	11	60
Nights grass min temp bl frz	10	21	18	14	8	1	0	0	3	7	17	16	115
Nights concrete min temp l below frz	7	21	16	7	5	0	0	0	2	3	17	16	94
Windiest day	13th with south westerly 28 knots gusting to 38 knots	18th with west north-westerly 34 knots gusting to 41 knots	7th with east north-easterly 20 knots gusting to 30 knots	18th with south westerly 21 knots gusting to 32 knots	19th with south south-westerly 22 knots gusting to 36 knots	11th with north easterly 20 knots gusting to 28 knots	5th with north easterly 24 knots gusting to 24 knots	6th with south south-easterly 18 knots gusting to 28 knots	18th with north north-westerly 24 knots gusting to 30 knots	28th with south south-easterly 30 knots gusting to 41 knots	7th with south south-easterly 28 knots gusting to 38 knots	3rd with south south-easterly 25 knots gusting to 30 knots	18th Feb with west north-westerly 34 knots gusting to 41 knots

WEATH SUM. DOC DH – The table on the previous page was provided by the Deputy Curator, David Hardman. It is a compilation of monthly weather reports from Dickon Bowling.

Notes

- January: The least amount of sun for a month (26.6 hrs) since Kew records started in 1980.
 May: The maximum average (14.9°C) and minimum average (5.5°C) monthly temperatures were lowest since Kew records started in 1980.
 June: Driest and sunniest since Kew started recording in 1980
 October: Was the sunniest since Kew started recording in 1980.
 1996: was the driest year since Kew started recording in 1980

DR. OTTO STAPF'S HOUSEMAID - NOW AGED 103.

By F. Nigel Hepper

On Wednesday, 4th September 1996 the Friends of Kew coffee morning was attended by Mrs. Charlotte Ashley (née Sharp) with her daughter who is a Friend. On chatting with them I realised that this was a significant piece of Kew history that should be recorded.

Mrs. Ashley, though 103 years of age, having been born on 31 August 1893, was able to walk, with a little assistance, into the coffee room. She is alert and reasonably fit and keen to tell me her age and that she was in service to the Keeper of the Herbarium – Dr. Otto Stapf – before the Great War. As Dr. Stapf was Austrian, she was about to go to Austria on holiday with the family when war broke out and the holiday was cancelled. In preparation for this holiday, Charlotte was being taught to speak German and still retains the little she was taught.

She was housemaid for about three years, probably from 1911 to 1914/15. As the room was so noisy and Charlotte is a little hard of hearing I asked her daughter, Mrs Iris Clack, for any Kew recollections which her mother had told her:– “ My mother lived-in at Herbarium House and had a room at the top of the house. She rose at 05.30 a.m. in order to clean out the ashes from the Kitchener grate in the kitchen. It had to be black-leaded and any steel cleaned with wirewool, the hearth had to be cleaned with hearthstone until it was an immaculate white with no lines on the surface. The fire then had to be lit so that the cook, a Mrs. Burford, could prepare breakfast. Charlotte took most of her instructions from Mrs. Burford. There was a machine for cleaning the knives (the knives were placed into slots and a handle was then turned). One unbelievable chore was 'sorting the rice' – the rice had to be tipped onto the table and every husk or discoloured piece removed.

“Weeding the garden path was another task and for each full basket she was given a farthing (a quarter of one penny). Instead of emptying the full basket as instructed, she would carry-on reading her book hidden in the basket and after a time return for another farthing.

“Mrs. Stapf was badly affected by the full moon, to such an extent that she would chase Charlotte round the house – up one flight of stairs and down the other. My mother did not mind this as she could easily outrun her pursuer and she knew that in the morning Mrs. Stapf would be filled with remorse and would present her with a gift. On one occasion a carving knife was wielded with threats of murder. This resulted in a trip to Richmond and a present of a dress length (material sufficient to make a new dress), As Dr. Stapf said, according to my mother, “You must bear with her, Lotta, they only attack the people they love!”

It would appear that Charlotte took her revenge: “my mother did very little in the way of housework as this was the function of Mrs. Burford's daughter. My mother's main responsibility was to escort Mrs. Stapf wherever she went and on one trip to Richmond, Charlotte left her behind and went home alone – a great to-do. They also delivered Christmas cards by hand.”

“She was allowed one evening off per week and had to be back by 10 p.m. Mrs. Burford would leave a plate with one slice of bread and butter, cut into fingers and sometimes spread with honey, on the hall table for her supper. She had one day off per month when her mother

expected her home for lunch ('I'll have a nice dinner ready for you') to hand over her monthly wages - about £2.00. Her mother would give her a couple of shillings back.

"Charlotte left this employment to work in a factory (unheard of then) making ammunition and earning lots of money (the men used to light their cigarettes with £1 notes). She wed her fiancé in 1916 whilst he was on leave and before he was gassed - mustard gas - the effects of which took until 1942 to kill him."

Postscript: Where Utell House now stands at the foot of Kew Bridge, was once a Coaching Inn called the Star & Garter. This was the last stage before London (or first from) and was kept by Charlotte's grandparents. Her husband's people had the Smithy at Brentford End.

NEWS OF KEWITES AT HOME AND ABROAD IN 1996

Compiled by J.R.Woodhams

Wolfgang Bopp (1995) with Harvey Stephens were the first recipients of a new award made available to the Kew School of Horticulture by the Worshipful Company of Gardeners. Wolfgang's award was for being the Best Student of 1995, while Harvey's was for the Student Contributing the Most Towards R.B.G. Kew. The awards were presented at the company's Spring Court Dinner in March which was also attended by the Head of School. Ian Leese.

Peter Bridgeman (1964) informs as follows "Peter Bridgeman's Arboricultural Consultancy and family life are getting back to normal after two years as Chairman of the Arboricultural Association (1993-95), as well as being Secretary of Aldershot Town Football Club (1992-1996)."

R. Roy Forster (1957). Via an article in the *Canadian Plant Collections Newsletter* (Spring 1996) we learn of Roy's retirement in September '96 from the VanDusen Botanic Garden in Vancouver. He was appointed Curator of VanDusen in 1972 and for over 20 years has been responsible for the planning, design and construction of the 55 acre garden.

Roy emigrated to Canada after completing his training at R.B.G. Kew and first joined the Horticultural Research Institute at Vineland, Ontario, where he expanded his interest and expertise in plant breeding especially with the genus *Rhododendron*. Following a period as a Horticultural Instructor Roy graduated in Art History and Methods from McMaster University and in 1981 participated in the first Canadian Botanical Delegation to China; since that time travelling extensively in China, Europe and North America. Roy has received awards for his hybridisation work and his accomplishments at VanDusen are widely recognised.

The last sentence of a quote from the *VanDusen Garden Bulletin* (April 1989) used to conclude the retirement notes is worthy of inclusion here. "The next time you are walking in the garden and see a man with a beard, not too tall, often wearing a cap, with a twinkle in his eye and a friendly smile, you'll be meeting R. Roy Forster, the Curator of VanDusen Garden". (Anon.)

Laurence John Foster (1940) wrote sending his 'potted history' as a follow up to the article about his experiences at Kew published in the 1994 *Journal* pp 404-407.

Laurence mentions that he served as an apprentice at Kew between 1937-1940 after which he joined Hilliers at Winchester. Following war service he graduated from Reading with a Degree in Horticulture (later M.Sc.) and in 1949 entered the Colonial Agricultural Service and was posted to Nyasaland (now Malawi) as an Extension Officer. Along with helping the local villagers to improve their standard of food production, a small experimental hill station was managed, as well as developing a thriving co-operative among local growers. During this time a number of collections were made for the Kew Herbarium including specimens taken during the rainy season.

In 1952 Laurence took charge at Bvumbwe, a leading research station during the days of the Federation of Rhodesia and Nyasaland. Many crop trials were conducted, including that of Queensland (*macadamia*) nuts introduced first at Bvumbwe and now an important export crop. A small model mixed farm for experimental purposes was run as was an extension service

for local European farmers. A move to Sarawak came in 1962 to take charge of the Research Branch of the Agricultural Department. During 1964 Laurence joined the Commonwealth Development Corporation (C.D.C.) as a Senior Agriculturist, retiring in 1980 as Deputy Natural Resources Adviser. Many countries within and outside the Commonwealth were visited in regard to feasibility studies in proposed agricultural/horticultural projects etc. Laurence was Secretary General to the Tropical Agricultural Association for four years from 1981.

Eric Grant (1948) started work in private service with a weekly wage of six shillings (all that was left of the wages allowance), under his father as Head Gardener.

He won a scholarship for the sons and daughters of agricultural workers to the Hertfordshire Institute of Agriculture and Horticulture, (Oaklands).

He joined the staff of the then Urban District of Harrow Parks on the construction of King George Vth. Memorial Garden at Edgware and advanced from Gardener to Propagator until called to the army services where nearly six years were spent growing vegetables and agricultural crops for the forces.

On discharge in 1946 he returned to Harrow Parks and from there entered R.B.G. Kew as a student.

A position was found as Propagator in the nursery of Wembley Borough Council Parks, but this had to be terminated due to parental illness and he returned to private service in order to maintain his father's position.

A steady happy service of 19 years followed in the Parks Department of Ealing with marriage, family, and foremanship.

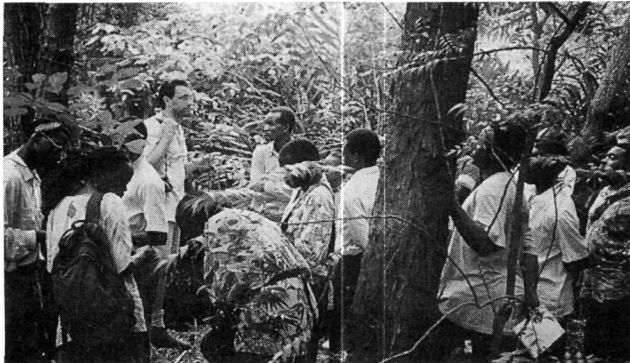
In 1965 he moved to Slough Parks Department as Supervisor and from there to Horticultural Officer in the Technical office.

Early retirement in 1984 came after 40 years in local government. Eric's wife died shortly afterwards and he now spends his time judging local flower shows as Show Secretary to Windsor Allotments and Home Gardens Association. Helping to promote the 'Slough in Bloom' competition and an occasional spot on Thames Radio. He lives in Windsor and often visits Kew.

Peter Green (1982) Honorary Research Fellow at Kew and former Keeper of the Herbarium, is to be congratulated on the award of a Doctor of Science degree at the University of London for his work in the fields of taxonomy and phytogeography of flowering plants.

Shelagh Kell (1995) a Kew sponsored M.Sc. student at the University of Birmingham has undertaken an analysis of vegetation on Cascade St. Louis in the Mascarenes to establish targets for habitat restoration, the work funded by the Friends of Kew.

Chris Kidd left Tropical Section at Kew In December to pursue a new venture in horticultural retailing.



The Kew Guardian informs that **Mike Maunder** (see photo left), together with Claire Hankamer and Colin Clubbe spent three weeks in November in Kenya contributing to the Darwin Initiative funded East African Plant Conservation and Techniques Course, which was held at the National Museums of Kenya in Nairobi. The

course, a joint venture between Kew and the National Museums of Kenya, involved Nairobi based teaching plus a week of field work near the coast looking at conservation problems and threats to the coastal forest.

The following note came from **Edgar Milne-Redhead** (1971) before he died. It was held over for the present publication as it was received too late for inclusion in last year's *Journal*. The note recalls a story concerning **C. P. Raffil** as follows: "As a member of the Herbarium staff, before my Territorial Army Unit was mobilised for the Second World War in 1939, I knew several of the Kew people mentioned by L. J. Foster in his interesting memories (*Kew Guild Journal* Volume 11 page 405). Unfortunately I scarcely knew C. P. Raffil but the following story reveals something of his delightful character. Raffil had been on a holiday in France and was travelling back with half a dozen bottles of choice wines. In the train he listed the names and set about memorising them. When he got to Dover a Customs Officer asked him if he had anything to declare. 'Yes,' said Raffil, and reeled off the names of the wines he had. The officer told him, before he had finished, that he had no time for such nonsense and passed him and his luggage through, duty free! A good memory can be useful!"

Sue Minter (1989) sends news regarding Chelsea Physic Garden activities etc. A marvellous grant of £100,000 from the Heritage Lottery Fund has enabled the construction of a Research and Environmental Education Centre for the garden, to go ahead during 1996. The new centre will be an energy-conscious, low impact building which will provide access to the heritage of the second oldest botanic garden in England (founded 1673). Contributory funding for the project will come from Glaxo Wellcome, with whom the garden has an active programme of screening plants for new pharmaceuticals.

The garden co-operated with Palais des Congres, Grasse, France, to mount a summer exhibition entitled 'Thinking with your Nose'. It gave a unique look at the plants used in the perfume industry and included herbals from the old library of the Society of Apothecaries, through to demonstrations of the most recently patented extraction methods for essential oils.

Both Sue and **Penny Hammond** (1987) embarked on a visit to Kwa-Zulu in September and, as Sue stated in her letter, "Got an inside view of Zulu medicinal plants".

Patrick Nutt (1953) sent a letter from the States at the end of August enclosing, among other information, two US newspaper cuttings reporting Kew's flowering of the Titan Arum, *Amorphophallus titanum*. The flowering of this plant really did hit the headlines worldwide. Patrick sent his congratulations on the achievement and mentioned the imposing figures relating to the increase in visitor numbers, the flowering and associated P.R. activity surrounding the event secured for Kew.

Patrick also enclosed photocopies of Longwood Gardens house journal '*Longwood Chimes*', Issue 197., (March/April 1995) which featured Patrick's career. The front cover displayed a photograph (seen on the right) of him taken in 1957 standing in an outside lily pool observing the first flower on a plant of *Victoria cruziana*. Longwood have been in the throes of major renovation on their Orangery and Exhibition Hall Conservatories. Patrick who was involved with the plant salvaging operations (especially of a number of very large and majestic *Bougainvillea* plants) prior to refurbishment commencing, indicates that the planned reopening of these conservatories has been set for 1st October 1996.



Apparently Pennsylvania has enjoyed a somewhat cooler summer than usual as it only topped 32.2 (90f) on a few occasions and coupled with this, rainfall had been an impressive

31 inches so far! Patrick says the countryside was very lush, quite different from the states "out west" where drought led to numerous forest fires.

The March edition of *Kew Guardian* mentioned that **Tom Reynolds** (1993) had been called on to advise the Orange Tree Theatre in Richmond about a play, 'The Verge', concerning a lady botanist in the 1920's. Much of the action takes place in her laboratory. Tom was able to advise on the set using photographs of the old Jodrell Laboratory demolished in 1964.

Stella Sealy (née Stella Ross-Craig) wrote at the Editor's request concerning her husband **Robert Sealy** who retired from the Kew Herbarium in 1967. Stella writes as follows "There cannot be many members of the Kew Guild who remember Robert (Bob) Sealy when he was Secretary of The Guild from 1960-1966. Those who do, and of course others, will be sorry to know that he is in an advanced stage of Alzheimers Disease. He can no longer remember the exciting time we both had in the involvement of getting The Guild Charity Status and the designing and granting of our splendid Heraldic Arms. Sadly he has no interest in botany although he worked for 40 years as a botanist in the Herbarium.

Martin Sands will remember him as he was on the Guild Committee at the same time and also in the Herbarium. Members might be amused to know that Bob is commemorated by the Crest on our Arms, as I supplied the drawings required by the College of Arms and it is his hand holding the sprays of *Quercus* and *Cinchona* (oak and quinine). However, although he is 89 and I am over 90, we both enjoy short walks and visits to Kew Gardens and look forward, also, to reading the *Kew Guild Journal*, which keeps us in touch".

Lester Searle (1987) writes from Bathurst N.S. Wales, Australia, saying that he enjoys receiving the increased mailings from the Guild. He also enclosed a photocopy from the magazine of the N.S. Wales Nursery Industry Association of an obituary for **Roy Henry Rumsey** (see also obituary in *Kew Guild Journal* Volume 11 number 100). The article says Roy was a past President and life member of N.I.A.N. and was particularly loved as one of nature's gentlemen, especially by the staff at Rose Hill. When Roy returned to Australia in 1932 after completing the two year course at Kew, he rejoined the family business, 'Rumsey's Seeds' started by his father. He stayed there for 14 years before moving to manage a nursery at Carlingford for four years.

The Nurserymans' Association was revived after the war (1945-1946) and Roy was associated with this organisation ever since, particularly at his Rose Farm in Dural. Lester says he met up with him at his nursery in 1992. He comments "it gives me some pleasure to have growing in my garden at Bathurst the rose '*Crepescule*' it being obtained from Roy at his nursery".

John Simmons who retired from the Curatorship at Kew in 1995 wrote in a letter to the compiler that "time now rushes by – very enjoyably though!" John mentions that between work that comes in (mostly voluntary) family, garden etc there never seems enough time to do all one would like to.

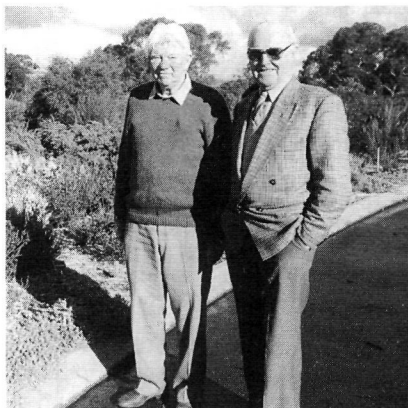
As reported in the *Kew Guardian*, **Charles Stirton** has been appointed the first Director of the National Botanic Garden of Wales. He took up the post on 1st October 1996. Professor Stirton commented: "I am thrilled to accept this exciting challenge and to be able to help establish a unique new botanic garden. The new gardens will be innovative and creative and we will be working with all sections of the community with the role of defining the role of botanic gardens in society. This is a once in a lifetime opportunity".

Ted Storey (1952) cheerfully makes the best of things following a stroke some few years ago. With ramps in place at his home in Kingston and using his wheelchair, Ted enjoys the good summer days out in his garden.

As reported in the *Kew Guardian* in August, **Terry Sunderland** (1991) is making a good recovery, (though still on crutches) at Brighton, after sustaining injuries when a tree fell on him during an expedition to Cameroon.

John Taylor (1947) wrote to the Editor to say he and his wife, Morag, took the opportunity to meet up with Viv and **Noel Lothian** (1940) in Adelaide in August. He wrote "The two

antipodean past Presidents of the Guild, Noel Lothian from Australia (President 1987) and John Taylor from New Zealand (President 1994) had many stories to swap when they met up in Adelaide in August. Noel's Kew days began in 1938 and John's in 1945, so the memories of over 50 years were revived and possibly, over a dram of Scotch, embellished. With news that the Melon Yard and the Alpine and Herbaceous nursery area were being completely reconstructed their minds were taken back to the old library, the Curator's Gate, the 6.30 a.m. start, washing clay pots and lectures in the Iron Room. Now in their eighties and seventies respectively they are both in reasonably good health (being looked after by their wives!) and still almost entirely absorbed in some sort of horticultural activity or horticultural administration".



Noel Lothian (left), Australia, John Taylor (right), New Zealand, Antipoldean past Presidents of the Guild at the Wittunga Botanic Garden, Adelaide, August 1996.

John mentioned that he had the pleasure of meeting again with Professor Sir Colin Spedding during his recent visit to New Zealand when he delivered a memorial lecture at Lincoln University. He says "Sir Colin was my guest speaker on the occasion of the Guild Dinner during my year as President".

Merce Trias (1994) now in Catalonia Spain informs that "I got married last October (1995). My husband Jordi and I are working our own landscaping business 'Estudi de Jardineria'. Things are going well, although it's hard, but we have many projects for the future". Merce says that it is so good to receive news of Kew via the *Kew Guardian*.

James Turner (1936) wrote to say he would be 90 in October though he now has failing sight. He speaks of **W. Porter** (1930) and the late **Henry Cocker** who died in 1995, (see obituary in *Kew Guild Journal* Volume 11 number 100). He asks for the botanical name of the Sharon fruit from Israel and comments "someone in the Herbarium will know". Incidentally Jim Keesing indicates this to be *Diospyros kaki* L.f. or *D. virginiana* L. the Persimmon. varieties with qualities that lend themselves to intensive production are no doubt grown commercially.

John Whitehead (Log) (1972) has moved to Wales and by all accounts continues to captivate audiences with illustrated talks on plant related subjects. John writes as follows "the Winter Plant Exploration of 1996 was spent utilising my early retirement lump sum on an eventful three months journey from the extreme heat of the isolated Pacific Islands, to the sub-zero temperatures of Antarctica. Botanical extremes varied from the last remaining tree of *Serianthes nelsonii* on the island of Guam; to the isolated southernmost tree in the world on Campbell Island and to see black lichens on rocks of Commonwealth Bay, Antarctica. I have now settled in Snowdonia and at long last, have seen *Lloydia serotina* in flower, during the first week of June on Mount Snowdon".

Annette Wickham, Propagator in the Temperate Section of The Living Collections Department, has left Kew to pursue a career as a Propagator with a commercial nursery in Beaulieu, Hampshire.

C.J.Wilmot (1947) wrote in May saying that he takes life at a somewhat slower pace now that he has logged up over four score years. However memories of the days spent at Kew, which he has known since 1931, "remain ever verdant". He remembers a number of other Kewite friends including the late **Stan Rawlings** and also **George Preston**, **C. J. Mitchelmore**, **John Taylor** (New Zealand), **Noel Lothian** (Australia) and **Jim Redman** (Canada) who was with him at the John Innes Institute. He concludes "As a last throw of the dice I hope the Orchid Department is flourishing".

Philip L.D. Wood (1950) wrote to the Editor to clarify the statement on page 505 of the 1995 *Journal* regarding his appointment as Technical Officer engaged in setting up Accreditation Standards. He states "From the few enquiries I've made it seems that Accreditation of nurseries is not a common practice in Britain, so in case my position needs clarifying can I add that I am T.O. to the Nursery Industry of Western Australia. Accreditation refers to a high standard of nursery practice, covering a wide range of criteria – in fact all aspects, but in particular, health and quality of nursery stock and sales lines, hygiene, observance of environmental protection, use of pesticides and workplace safety etc. In part it also embraces Quality Assurance Guidelines – (ISO.9002)". Phil also mentions that the Accreditation Scheme is at present voluntary and states that of several hundred nurseries in Western Australia only 11 are accredited at present: all production nurseries, none yet in the retail sector. He concludes "It is a nation-wide scheme, each state having it's own Tech. Officer(s) – some also have a Nursery Industry Development Officer". Phil sends his best wishes to **Don McGuffog**.

ADDENDUM TO NEWS OF KEWITES (Sent direct to the Editor)

From **Malcolm Leppard** (1971) who now runs his own Arboricultural and Landscape Consultancy Business in Zimbabwe after 20 years at the National Botanic Garden in Harare.

Kew Diploma devalued

The Kew Diploma, acclaimed throughout the world, has lost some of its lustre. Once sought after by all budding, high calibre foreign horticultural aspirants, this is sadly no longer wholly true. The cause, Kew's relentless push to maintain its pole position in training botanical horticulturists, whatever the costs, devaluing 'the' Diploma in the process.

Having lived in various developing countries for the last 20 years or more, working in various horticultural fields, and studying many botanic gardens and related establishments, I seriously question the value of the International Diploma.

Firstly, a diploma after a few weeks study. Who's kidding who! At best it should be nothing more than a certificate. Some three decades ago the then existing two year Kew Certificate course was deemed inadequate for modern developments being subsequently replaced with the three year Kew Diploma. That being so, what has changed to justify the International Diploma?

For already *well* trained and *experienced* participants I can see some benefits of such a course. However, in the main I question the standard of entrants that tend to lack the right exposure particularly in the practical fields. One needs to experience third world conditions in order to appreciate the problems. It would be interesting to know what market research Kew carries out and what follow up procedures it uses in designing and monitoring the relevance and effectiveness of its courses. Or does it rely on input and feedback from *scientists* in these countries that in the main have little relevant/appropriate experience, together with the knowledge to enable them to assess horticultural and related needs? Unlike developed countries, they cannot count on input from suitably trained and experienced staff, it's too often just not there, though, even if it is, this is unlikely to be acknowledged let alone admitted and used – a peculiar trait seemingly inherent, but one not confined to developing countries.

A problem lies in developing countries where any diploma can make a tremendous difference to one's job prospects whatever its real worth. The outcome is that, understandably, students choose the shortest possible courses and why not when such a route can increase wages that barely support basic living. The effect of this, however, is obvious. Fewer applications for the three year course and a gradual dilution of knowledge and skills! But perhaps even more importantly, 'trained' graduates are unable to make any impact on their return, for a number of reasons that are too involved to delve into in this short critique.

I strongly believe that staff of Kew's School of Horticulture, if they want to contribute more meaningfully in this field, should visit and study the training facilities and botanical establishments in developing countries such as those in Africa. Not for a day or two, but considerably longer and at various establishments, with appropriate, periodic follow-up assessment visits. I think such participants would be in for a severe shock! I can assure you that standards are no

way comparable to the developed world though some are very much better than others, for example South Africa is way, way ahead of Zimbabwe. Below the surface is where the shock normally lurks.

It is also very depressing to witness the decline of previous botanic gardens into nothing more than public parks or gardens! I have seen quite a few of these in different parts of the world, more so in once colonised countries, but the crunch for me came when the botanic garden that I was once responsible for, deteriorates by the day due to senior incompetence and no real desire to do otherwise by the department.

I strongly believe that developed countries need also to input considerably more into existing third world botanic gardens, at the same time, help create new ones with the U.K. for instance, concentrating on the Commonwealth. Kew could also lead by compiling a comprehensive guide on why botanic gardens are essential, how to plan and develop them, and how to maintain them to the required standard. This information is not generally out there. Where it is, it's not getting through to the right people. The consequence of this is that usually well intentioned individuals initiate botanic gardens, but lack the whys and wherefores. The end result? This I leave to the staff of Kew's School of Horticulture to discover!

(Published verbatim – Ed.)

Ian Leese, Principal of the School of Horticulture, was invited by the Editor to give a short reply:

The International Diploma Course in Botanic Garden Management was established in response to a need for such training identified by L.C.D. managers already associated with helping botanic gardens overseas. The Diploma award reflects the high level of management training provided, and attracts the financial sponsorship from external agencies that many participants require to attend. The external examiners of the course have experience of working overseas, and some follow up visits abroad have been made by Kew Staff. The participants are a valuable resource of contacts for current Kew students and staff. Their course fees have been of tremendous financial help to the School in increasing the facilities available to all students. A certificate course for technicians has been developed for U.K. Dependent Territories funded under the Government's Darwin Initiative.

EXCERPTS FROM THE 'KEW SCIENTIST'

April and October 1996

Thanks to the Editor, Professor M. Bennett, for permission to reproduce a selection of items for posterity in *The Kew Guild Journal*

£21.6 MILLION GRANT FLOATS BOTANICAL ARK

April

In December 1995, R.B.G. Kew was granted £21.6 million towards the Millennium Seed Bank project by the Millennium Commission. It is one of the Commission's National Landmark projects which celebrate the year 2000 and looks forward to the next millennium. This exceptional opportunity for plant conservation was the culmination of many months' work by Kew's Seed Conservation Section, the Foundation, Public Relations and the Buildings and Maintenance Department, guided by Professor Charles Stirton (the Director of Science and Horticulture). Pivotal to the project application's success have been the architects, Stanton Williams and Sir Jeffery Bowman, who steered the financial planning.

With species' impoverishment and loss accelerating globally, the project's ambitious aim is the conservation of seed samples from some 25,000 species by the year 2010. The facility will be available for safe deposit of wild plant germplasm from many sources but the geographical focus for collecting will be the world's drylands where human welfare is absolutely dependent upon plants. This collaborative effort will involve a network of overseas institutes and will dramatically expand Kew's current seed work. Closer to home, the project aims to bank a near-complete representation of U.K. native seed-bearing species by the year 2000 with the



Prince Charles, the Director and Sir David Attenborough at the launch of the Millennium Seed Bank Appeal presenting one-year-old beech seedlings to children from families connected with the regional offices of Orange, the Bank's Premier Sponsor. If you would like to help sponsor a species, please call 0973 10 2000.

April

give Wakehurst's 250,000 annual visitors the chance to view the facilities and learn more about the project's vital role in conservation.

The project team, under the interim management of the Director of Operations, John Lavin, is now working towards the launch of the Foundation and Friends' £7.9 million appeal to help the project reach its target for fund raising. The Kew Foundation has already received generous donations from several sponsors as well as a substantial legacy.

A CONSERVATION FIRST

April

One of the first priorities of the Millennium Seed bank project is to initiate new seed collection of the U.K. flora. The aim is to have collected and conserved at least one population sample of every seed-bearing native species by the year 2000; collections from further populations will then consolidate the species' genetic representation. This will be the first time that a near-complete species representation of a national flora has been assembled in a seed bank. These samples will not only underwrite the survival of the plant in the wild, but provide germplasm for re-introduction, research and major revegetation projects.

The present Kew Seed Bank collection already numbers over 600 native species. Therefore the project will concentrate on the estimated 800 additional species. Being essentially a collaborative exercise, the work will rely heavily on extensive natural history expertise from across the U.K. Many organisations (both statutory and voluntary) have offered their support to help with collecting; English Nature has also generously offered financial assistance. During 1996, discussions will take place with these organisations to develop a realistic collecting programme for 1997-99 involving three full-time collectors.

DIRECTOR'S MESSAGE – KEW 2020

April

In January we had one of the periodical reviews of our science programmes by a Scientific Visiting Group (S.V.G.) of national and international scientists. The panel was chaired by Professor John Krebs, Chief Executive of the Natural Environment Research Council and was convened by the Trustees of Kew. The last S.V.G. took place in 1990. At the time of writing this message we are just beginning to discuss their report and react to their various suggestions.

Professor Charles Stirton, who did most of the work to co-ordinate the S.V.G., is currently meeting with all staff involved in order to prepare an Action Plan based on the report. I am most grateful to Professor Stirton for all the time he has devoted to this process, both before and after the S.V.G. To prepare for such an extensive review of our science programmes is not an easy task and a large number of staff were involved in preparing both the written documentation

help of nature organisations. Underpinning the conservation effort will be a seed research programme aiming to maximise seed lifespans; some collections may well span the millennium. A comprehensive seed biology database will be another important product of this work.

At the heart of the project is the Millennium Seed Bank building which will be built near to Wakehurst Place by the end of the century. This will house the science facilities and underground bank and it will greatly increase the opportunity for research and training visits by scientists from partner institutes. Public access to the building's central atrium will

and the verbal presentations for the S.V.G. The positive report which we received is a result of the way in which so many staff took the preparatory process seriously. I am most grateful and encouraged by their team work. The report is a strong endorsement of our science programmes and in particular of our basic work on plant and fungal taxonomy.

One of the many aspects reviewed by the S.V.G. was a draft of a long-term strategy document that is currently in the final stages of preparation. *Kew 2020* is a vision statement for Kew, looking ahead for the next 25 years. The S.V.G. report said 'We admire the long-term thinking represented in *Kew 2020* which, when fully elaborated, will be of enormous benefit to the institution in setting out a clear framework for all its activities over the next couple of decades.

The panel made various helpful suggestions for Kew 202 which will be considered as we prepare the final version. This will be done once the draft, which has been endorsed by our Trustees, has been reviewed more widely by staff. Much of the work of a botanic garden is of necessity long-term, whether planting trees or carrying out a taxonomic monograph, and so it is vital that we look ahead beyond the normal five year period of our Corporate Strategic Plan. *Kew 2020* will enable us to take a long-term approach to our planning in order to provide continuity and stability through a period of change. *Kew 2020*, once it is completed, will provide the necessary framework for the strategic planning process.

Professor Sir Ghilleen T. Prance, Director

RE-OPENING OF MUSEUM NO. 1

April

In February 1996 the National Heritage Memorial Fund, financed by the National Lottery, announced the award of £1.4 million to Kew to help renovate its Museum No. 1, a Grade II listed monument designed by Decimus Burton and first opened to the public in 1857. The Kew Foundation is seeking to raise the remaining funds and has received generous support from the Weston Family. Once funding is complete, the Museum will be developed as a major education and exhibition centre.

BACKGROUND – THE BENTHAM-MOXON TRUST

April

The Bentham-Moxon Trust, (founded 1885) is a registered charity comprising 25 general and special trusts and funds. It is managed by a Board of Trustees and employs one full and one part-time support staff. 'Bentham-Moxon' has been intimately involved in the scientific and horticultural life of Kew for 110 years. For example it has provided support to botanists and scientific assistants (over 120 people); commissioned botanical art (*Curtis's Botanical Magazine*, 15 artists) and portraits; purchased books (numerous; £10,000 towards the purchase of Banks *Florilegium*, 1995); herbarium specimens (J. Percival's wheat collection, 1928); maps (African); photographs (W. C. Davies' collection of New Zealand vegetation photographs taken prior to deforestation, 1930); correspondence (Banks, Hooker); botanical artefacts (S. Loch's Greek dye plants and samples of dyed wool, 1938); and supported plant collecting in little explored places (Augustine Henry in W. China, 1888). It also publishes *Curtis's Botanical Magazine* and books (e.g. J. D. Snowden's *The Cultivated Races of Sorghum*).

During the last few decades it has acted increasingly as an agency for projects ranging from Floras (Brunei, Cyrus, Iraq, Tropical East Africa, Zambesiaca, Ceylon Mascarenes, Ethiopia) to research on conservation (**Allium**, wild bulbs, seed banking, C.I.T.E.S. projects), taxonomy (**Inga**) and genetic resources (cultivated peppers). Notable special funds are the Sainsbury Orchid Trust Fund for orchid conservation research, the Marjorie Hurley Bequest for conservation of wild flowers at Kew and Wakehurst Place, and the Krukoff Fund supporting the B. A. Krukoff Curator of African Botany. Two recent funds commemorate distinguished Kew botanists: the Pat Brenan Memorial Fund to promote field studies in the tropics, and the Jan Gillet Mounters' Fund. Bentham-Moxon also manages six prizes and two scholarships for Kew horticultural students.

Kew thanks Peter Cavalier, the recently retired Secretary, for his excellent stewardship. Paul Davies, the Trust's Archivist and Assistant Secretary (0181-332 5222), is gathering information for a history of the Trust.

CONVENTION ON BIOLOGICAL DIVERSITY

October

The Convention on Biological Diversity (C.B.D.) has now been ratified by 159 countries. Its objectives are the conservation and sustainable use of biodiversity and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources. These challenge governments worldwide. For institutions such as Kew, the C.B.D. reflects the concerns and aspirations of our partners in the developing world. The new Biodiversity Conventions Officer post will be a catalyst for the institution's response to this challenge.

BIODIVERSITY CONVENTIONS OFFICER

October

In May 1996, Kerry ten Kate took up her post as Kew's Biodiversity Conventions Officer. Kew's implementation of the C.B.D. will be central to Kerry's work and her job will entail working with staff across the Gardens to finalise, for example, codes of conduct for collectors and material transfer agreements and to set up partnerships with countries in which Kew collects. She will also develop model case studies and pilot projects in the field on benefit sharing and access to genetic resources. On Kew's behalf, she will continue to work with the secretariat of the C.B.D. and advise the U.K. delegation in negotiations on biological diversity such as the Subsidiary Body on Scientific, Technical and Technological Advice to the C.B.D. and its Conference of the Parties.

By background Kerry is a barrister, but for the last six years she has worked in environmental policy. She served for two years on the Secretariat of the United Nations Conference on Environment and Development (the Rio 'Earth Summit') and directed Environmental Strategies, a consultancy in sustainable development.

Contacts: Kerry ten Kate (0181-332 5741), Noel McGough (0181-332 5722).

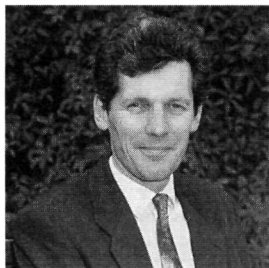
EXCERPTS FROM 'KEW GUARDIAN'

Thanks to Editor, Spence Gunn, for permission to reproduce a selection of items from 1996 *Guardians*, for your interest and posterity, in date order.

KEW GUARDIAN REPORTING

February

Don't be a shrinking violet: put your news in *Kew Guardian*. Contact the Editor, 0181-332 5906, or your *Kew Guardian* Representatives: Christine Brandt (E. & M.), Bill Webb (Administration), Bob Johns, Nicholas Hind, Susyn Andrews, David Pegler (Herbarium), Ian Leese (School of Horticulture), Steve Ruddy (L.C.D.), Chris Clennett (L.C.D., Wakehurst), Geoff Kite (Jodrell), Janet Terry (Jodrell, Wakehurst).



HONOURS FOR STAFF

February

Professor Michael Bennett was awarded an O.B.E. in the Queen's New Year Honours List. He joined the Jodrell as Keeper in 1987 after undertaking scientific research at the Plant Breeding Institute in Cambridge. His chief research interests are in cytogenetics, chromosome evolution, organisation and behaviour and the development of in-situ hybridisation techniques.

Simon Owens (pictured left), Keeper of the Herbarium has been made Special Professor at the University of Nottingham Department of Life Sciences.

KEW AND PLANTNET

May

PlantNet, the Plant Collections Network of Britain and Ireland, was officially launched at a conference at Oxford University Botanic Garden at the end of March. It was attended by Stewart Henchie, Assistant Curator (Temperate Section) who is a member of the PlantNet working party. Kew staff taking part in the conference were: Susyn Andrews, Mark Flanagan, Andy Jackson and Simon Linington.

The idea of PlantNet was suggested two years ago as a forum bringing together botanic gardens, arboreta and smaller gardens which hold plant collections. It has already held workshops on 'Commercialisation: Ethics and Intellectual Property Rights', 'Working with Friends and Volunteers' and 'Managing a Collection of Ericaceous Plants'. Enough funds have been accumulated to employ Judy Cheney at Cambridge University Botanic Gardens as an administrator.

PlantNet is now hoping to undertake a review aimed at developing a strategy for better strategic planning for the management of plant collections. This will include a review of holders of plant collections and an assessment of the needs for exchange of data between collections.

Most importantly, PlantNet will allow all holders of collections, both large and small, to learn from each other's experiences and provide a focus for promoting the importance of plant collections to the public and to decision makers. It should help Britain and Ireland manage their collections more efficiently.

"We are particularly keen to work to produce a better listing of all the collections in the British Isles so that we have a better idea of what plants are in collections and what gaps may exist," said Henchie. "There are quite a few lists around at present but there is no single comprehensive reference."

PlantNet is to hold a meeting this autumn on Marking and Retailing in connection with botanic gardens and plant collections. Contact Stuart Henchie on x5530 for further details about the meeting or about PlantNet generally.



Stewart Henchie is a member of the PlantNet Committee.

SEA HORSES BREED IN KEW'S MARINE DISPLAY

May



Daddy and baby sea-horse

Peter Morris, the marine biologist who looks after Kew's Marine Display beneath the Palm House, reports that sea-horses have bred in his tanks.

"We obtain our sea-horses from an aquarium in Tenerife which breeds them," he said. "We obtained some in October last year and a month later they had produced two babies which I reared in a breeding tank in my office. They went on display a couple of months ago but unfortunately one disappeared, probably eaten by a fish or one of the crabs. The other is now about four inches long and doing well."

It is not unusual for sea-horses to breed in captivity but Morris was particularly pleased to rear some at Kew because many species are endangered in the wild "They are fished for use in Chinese medicines" he said.

Sea-horses are found throughout tropical and warm temperate waters and there are species which visit warmer British waters in summer. An aquarium in Exeter has bred these species and Kew hopes to obtain some in due course.

There are currently six sea-horses (genus *Hippocampus*) on display at Kew and two breeding pairs "behind the scenes". They live about two years in the wild and Morris manages to keep them at least a year in captivity. They grow to a maximum of about six inches long.

DIRECTOR'S MESSAGE

July

Each year the Directorate and Heads of Department conduct an annual review of our financial status before presenting a proposed budget to the Trustees. Following the preliminary assessment of our finances of 1996/97 carried out in November 1995 we initiated a detailed review of our programme activity in the light of our financial expectations. I would like to report to you the results of the study into which your senior management have put much time and effort over the past six months. The measures reported here have been taken after full consultation with the Trade Unions.

Even though our income is increasing well, costs have increased disproportionately, mainly because the external environment places extra demands upon us. For example, the fact that many of our activities are now subject to VAT costs us an extra £500,000 a year. In addition staff costs increase beyond income as we maintain our existing staff level within the current pay framework. If we continued to spend at our current rate we would use up all our reserves and run into the red within two years.

Details on attachments 1 and 2 (inserted in staff copies) show a summary of financial projections which form part of our annual financial review to the Trustees. I draw your attention to the line in bold face showing savings needed. Attachment 1 shows the situation before any of the measures of the prioritisation exercise took place, and Attachment 2 shows the situation once the measures outlined have been put into place. You will note that it shows the savings on extra income needed between 1997/98 and 2000/2001.

Having identified these issues it is vital to address them now within a reasonable timescale before the situation worsens and more sudden and drastic measures would need to be taken. Hence, the senior management has been through a prioritisation exercise, the results of which were approved by the Trustees at their May meeting, and are reported here. The purpose of this exercise was twofold: firstly, to focus our activities towards key priorities as determined by Kew 2020 (final version available on Kew Web in August) and the Scientific Visiting Group and, secondly, to bring expenditure in line with income. It is much better to prioritise rather than to make even cuts over the entire budget and adversely affect all that we do.

It may seem strange to reduce some activities at a time when we are receiving funds for exciting new projects, but we must look to the future and be prepared to stop doing some exciting things if we are to evolve as an organisation.

Over the past two years we have been particularly successful in obtaining capital funds from M.A.F.F. which are enabling the improvement of the Melon Yard, the restoration of Museum No. 1 and the Aroid House, the construction of a Central Storage Building in the Shaft Yard and the long sought after improvements to the Stable Yard. We have also been successful, pending signing of contracts, with two parts of the lottery, obtaining £21.6 million for the Millennium Seed Bank and £1.4 million towards the restoration of Museum No. 1. All these projects will help to make Kew a better place and help us to fulfil our mission. It is obvious that when capital is given for a project it should be spent on that project and cannot be diverted to other activities. As an institution we should be greatly encouraged that even in rather difficult financial times we continue to make great progress, in improving the infrastructure of the sites.

Factors taken into consideration by the prioritising exercise:

- The exercise reviewed our activities by Programme in line with the Corporate Strategic Plan (C.S.P.) rather than by Department.

- The programmes are listed in order of priority in the C.S.P. and so there are fewer reductions to the Collections Programme activities, our primary programme. The Conservation Programme will be expanded through re-assignment of people to address the current low level of resources allocated to such a key programme area.
- The report of the 1996 Scientific Visiting Group was considered and, where appropriate, their recommendations influenced this exercise and have been incorporated into the latest revision of the C.S.P.
- The vision of Kew 2020 also guided the process.

Some of the actions needed to realise savings over the next five years:

- With the greatest regret a small number of currently filled posts are being gradually removed from the complement. In addition a few currently unfilled posts have also been removed.
- Some senior scientific staff who retire over the next few years will be replaced at more junior grades on a five year fixed term appointment basis, and a few selected posts will not be replaced.
- There will be some changes in the maintenance regime of some areas of the gardens, such as the heather garden to save re-appointing six posts which are already vacant. However, care will be taken to see that we retain the beauty of the gardens and the quality of the collections. The impact on visitor attraction will be minimal since the changes will not effect the most visited areas.
- We will close Cumberland Gate later this year, which still leaves four public entrances available.
- Once current commitments have been delivered in 1998, the Kew Gallery will reduce the number of exhibitions, but will remain open to the public.
- Stricter controls will be put on a number of service activities such as photocopying, phone calls and postage; in addition the use of email will be encouraged.
- Messenger service will gradually be reduced to a basic level only and departments will have to collect and deliver their own post to and from the Administration Building. This will be done by reducing staffing from six to three as retirements occur over the next year.
- Various fixed term posts in P.P.D. and Finance will not be replaced when the tasks for which the appointments were made have been completed.
- A cap will be placed on the total amount of overtime allowed, although some key tasks, such as L.C.D. weekend duty officers, will be protected.
- There will be no recruitment until April 1997, though a few essential vacancies may be filled on a case by case basis, but only with my approval.
- We will be considering whether or not to put in place a scheme of voluntary early retirement in order to reduce the complement further.

Further actions

Based on our current financial analysis, even with the magnitude of the current exercise, the savings realised are insufficient to bring the long-term budget into balance. Therefore several task forces and working groups have been set up to examine carefully other activities that might either reduce costs further or generate more income. For example, we are examining the possibility of central purchasing and the appointment of a European Liaison Officer to increase our funding from the E.U.

Activities to generate income

In recognition of the growing problem of adequately financing our activities we have taken significant steps in this direction that are already bringing in results. We have established R.B.G. Kew Enterprises and earlier this year appointed a full-time Managing Director. In addition the Foundation and Friends have set up a legacy programme which is already beginning to bear fruit. By careful analysis of the marketing of admissions we have gradually been able to generate more income whilst at the same time increasing visitor numbers. All these activities are a great help to our finances. In future the Foundation and Friends will give greater priority to fund raising for items that give budget relief and that are in line with our strategic priorities. R.B.G. Kew Enterprises will also continue to increase its revenue generating activities and thereby contribute more each year to our budget. This will require the support of the whole organisation.

Conclusion

This exercise is absolutely necessary to assure our long term future and help us to meet our strategic priorities. The implementation of the actions outlined above means that we will have a balanced budget for the rest of the financial year 1996/97 which has now been set and delivered to Heads of Department. The projected budget includes sufficient funds for us to be able to make a reasonable pay offer to all staff in this financial year.

KEW'S RECORD BREAKING PLANT AUCTION

June

The Sixth Annual Kew Plant Auction, run by the Friends of Kew and L.C.D. on June 20th, netted a record profit of £7,131 – including £1,800 worth of smaller 'fixed-price' plants and £750 worth of surplus stock sold to Kew staff the following day.

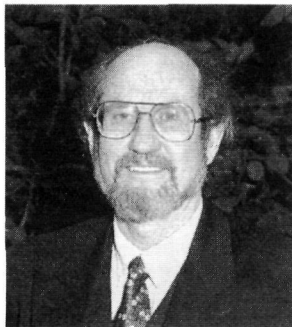
The highest bid knocked down by Christie's Auctioneer Hugh Edmeades was £130, paid for a *Koelreuteria paniculata* 'Variegata' – described in the catalogue as being from the only variegated form of the tree known in Britain. It is referred to in Victorian books by Elwes and Henry, but was only recently re-discovered in the north of England. Another bidder paid £100 for a katsura tree (*Cercidiphyllum japonicum*) – a beautiful graceful tree with splendid autumn colour, collected from the wild in the Himalayas. The most spent by an individual was £411.

More than 140 people attended the auction, bidding for 130 lots. Curator, Nigel Taylor, made at least once successful bid, while on one occasion the Director looked mildly surprised to find himself purchasing a plant having been "helping the bidding along".

Around 20 staff from L.C.D. and the Herbarium helped organise the plants for sale and dealt with sales on the night. The money raised will be used to help fund a range of projects in the Gardens, including developments to the Japanese plantings around the Japanese Gateway and support for 'Art in the Gardens'.

STIRTON IS DIRECTOR FOR NEW WELSH BOTANIC GARDEN

September



Professor Charles Stirton (pictured left), Kew's Director of Science and Horticulture, has been appointed the first Director of the National Botanic Garden of Wales, currently being developed at Middleton Hall, near Carmarthen. He is already taking a course in the Welsh language, in preparation for taking up the post on October 1st. The Garden is expected to open to the first public visitors in 1998 and will be fully open by 2000.

"I am thrilled to accept this exciting challenge and to be able to help establish a unique new botanical garden," said Professor Stirton. "The new gardens will be innovative and creative and we will be working with all sections of the community, with the role of redefining the role of botanic gardens in society. This is a once in a lifetime opportunity.

"I also want to thank all my colleagues who I have worked with at Kew for nearly five years for all their help and support in what has been a time of great change in Kew. Such changes are not always easy, but in the years ahead will be seen to have been timely and essential for the long term future of Kew. I leave with fond memories and look forward to staying in touch."

The Chairman of the Trustees of the National Botanic Garden of Wales, Brian Thomas, said: "In the four years he has held his present job at Kew, Charlie Stirton has built a reputation as a forward thinking and innovative member of the directorate".

Funding for the botanic garden has been supported by the Millennium Commission, with matching funds raised by the Trustees from individual donors and commercial interests. The first £21.5 million phase of the £43.3 million project begins later this month.

Kew's Director, Professor Sir Ghillean Prance writes:

"I would like to congratulate Charlie Stirton on his appointment as the first Director of Middleton Botanic Garden, the National Botanic Garden of Wales. We at Kew should be proud that one of our staff has been chosen for this prestigious and challenging position. We will miss both his scientific and leadership skills at Kew but he has the vision to make a success of this new garden, which has been made possible by a grant from the Millennium Commission.

"I would like to thank Charlie for his important contribution to progressing our science programmes at Kew. The Scientific Visiting Group went well because of the careful planning and preparations which he co-ordinated. He has played a major role in the integration of our scientific departments with the programmes of the Corporate Strategic Plan. I will miss him as a colleague and a friend and thank him for all that he has done for us."

PRICE WATERHOUSE HELPS KEW DEVELOP INTERNAL AUDIT SYSTEM *October*

In June, R.B.G. Kew appointed the multi-national accountancy firm, Price Waterhouse, to help Kew organise and maintain an internal audit programme.

This month the Price Waterhouse team, led by Frank Hailstones (Partner) and Jon Gorrie (Senior Manager) will be making a start, drawing up an Audit Needs Assessment, which is to be completed by November.

Bill Webb, head of R.B.G. Kew's Corporate Services, says such internal audits are a requirement of H.M. Treasury guidance for the financial management of public bodies such as Kew. Price Waterhouse has already been involved with similar internal audits for other public sector clients.

"The remit of the internal audit is to independently review Kew's activities to ensure that all our assets and interests are protected adequately by our systems and controls," said Webb.

In particular the internal audit will:

- Reassure management that the arrangements for internal control are adequate, economic and operate effectively in practice.
- Identify and draw to the attention of management weaknesses in control or procedures which are unsound.
- Make suggestions for improved performance and the prevention of potential shortcomings.

The auditors will report formally to the Director in his capacity as Kew's Accounting Officer, but also to an Audit Committee of three members of the R.B.G. Kew Board of Trustees. This committee will be chaired by Sir Jeffery Bowman.

When the Audit Needs Assessment has been agreed with R.G.B. Kew, it will set out Price Waterhouse's planned audit programme to 1999. As part of this, the auditors will be seeking from staff their views on the issues and risks facing Kew through a combination of questionnaires, interviews and workshops.

Initially, the audits are likely to cover areas such as financial systems, budgetary controls and buildings and maintenance.

In undertaking each audit, Price Waterhouse will contact the relevant management in advance in order to discuss the proposed timescales and the scope of the work planned. During each audit they will need to test transactions and undertake other procedures to ensure that the system is working properly and so will require access to information and staff.

Once each fieldwork programme is completed and the systems evaluated, the findings will be discussed with the relevant staff and management. A draft audit report will be drawn up, sent to management for comment and to obtain agreement on the action to be taken by Kew on any recommendations. After this process has been completed, a final report will be issued and Price Waterhouse will then monitor progress for Kew in the implementation of the recommendations at appropriate points in the future.

THE JAPANESE GARDEN

October



Kew's newly restored Japanese Gateway, and its new surrounding Landscape, is due to be officially opened tomorrow (Tuesday October 8th) by Her Royal Highness, Princess Alexandra and Her Imperial Highness Princess Sayako.

Among the many symbolic elements in Kew's new Japanese Garden are two islands linked by stone bridges. The low, rounded turtle island and a more angularly shaped crane island are traditional elements in Japanese gardens. Both creatures have associations with long life in Japanese, and earlier Chinese, mythology.

"Such islands are used in gardens to bring longevity," explains Professor Masao Fukuhara, who designed the Garden. "I hope they will bring longevity to Kew and longevity to the relationship between Kew and Japan."

Kew's Japanese Gateway (Chokushi-mon) is a four-fifths scale replica of the ceremonial Gateway of the Imperial Messenger at the Buddhist temples of Nishi Hongan-ji and was placed in Kew Gardens after the Anglo-Japanese trade fair in London in 1910. But by the 1980s it needed restoration.

"A highly successful appeal raised sufficient funds from both the U.K. and Japan," said John Lonsdale, Assistant Curator in the Technical Section of L.C.D. More than 20 master craftsmen came from Japan to work for Maeda Corporation, the contractor for the job.

As restoration neared completion, attention became focussed on the surrounding landscape. "We wanted to create a garden that would complement the Gateway and which would feature traditional elements of Japanese garden design, but one which would also allow us to present plants in an appropriate way for a botanic garden," said Lonsdale.

Japan's Organisation for Urban Greenery Technology, responsible for the country's parks and landscapes, and the Kyoto Landscape Association, agreed to help with the project and asked Professor Fukuhara – a Landscape Consultant and a Lecturer on landscape design at Osaka University of Fine Art – to put a team together to create a garden for Kew.

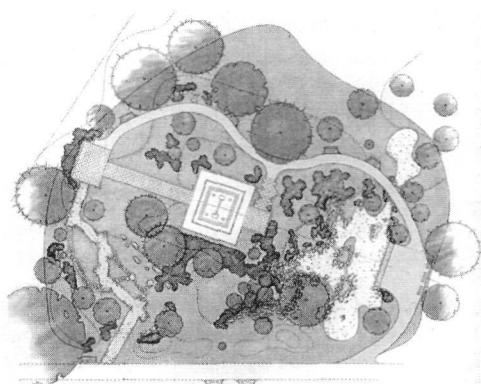
"Chokushi-mon is from the Momoyama period and this period was also one of the most important in the history of Japanese gardens," said Professor Fukuhara. "We wanted to incorporate both of the very strong and opposite influences from this time – a powerful rock and stone landscape on the one hand and a green, peaceful tea garden on the other. The expression of activity in the rock landscape and peace in the tea garden are linked by plantings symbolising harmony."

The dramatic dry stone garden is based on a similar feature at Nishi Hongan-ji. It evokes the natural landscape of Japan, dominated by mountain scenery and with many rocky streams that dry up in summer. The dry waterfalls of Kew's garden, pouring into a lake of fine gravel, are typical of the Momoyama period.

Perhaps it is best, however, to begin your experience of the Japanese landscape at Kew not here, but at the entrance to the tea garden. As you turn each corner of its path you are further from the world outside, so free your mind and prepare to accept some of the symbolic associations you will find around Chokushi-mon.

A tea ceremony calls for tranquility and utter simplicity. Two particular qualities pervade: *wabi* (solitude, quietness and tranquillity of nature) and *sabi* (an atmosphere of unobtrusiveness). The plants used around the tea garden at Kew are drawn from the mountainous regions of Japan and give a much greener, softer atmosphere than the drama of the rock landscape.

A traditional tea-garden has three sections: an outer, entrance garden which is small and simple; a middle garden, perhaps with a thatch covered bench where guests assemble; and the main part with a 'roji' path of irregularly laid stones leading to the tea house. In the garden at Kew only the roji path is represented.



The Director with the Japanese Ambassador, Princess Sayako and Princess Alexandra.

November

In Japan tea ceremonies are held in the evening and stone lanterns are used to guide the guests to the tea house. Stone lanterns, *Tourou*, are used in the garden at Kew. *Tobi-ish* (small stepping stones) and *Nobedan* (long stepping stones) typical of the Momoyama period are

used alongside the main path – which itself has a pebbled surface of a type found in many Japanese tea gardens of the period.

A water basin – Tsukubai – is used to illustrate the type of basin that would have been placed close to the entrance of a tea house. Here guests would stop to rinse hands and mouth before stooping to enter the tea house itself.

Linking the peaceful tea garden and the dramatic rock landscape are plantings of a range of species and varieties chosen to reflect natural Japanese mountain plant associations. They will grow to reach their full effect over the next 10 years or so.

PEOPLE IN FOCUS

December

Michael Godfrey, Manager of the Friends of the Royal Botanic Gardens, Kew, is to retire in March. He has been Manager of the Friends since it began in 1990 and has seen membership rise to more than 30,000 people in 20,000 households under his leadership. He will maintain his connection with Kew as he has taken over secretaryship of the Bentham-Moxon Trust and will remain in an advisory role as publisher of the Friends magazine. His successor, **Deborah Lewis**, comes from the National Trust where she was Direct Marketing Manager.

Professor Gren Lucas will also be maintaining his relationship with Kew after his retirement in December. He has agreed to assist fund-raising with the Friends and Foundation and will remain on the Editorial Advisory Board of *Kew magazine*.

BIG YEAR FOR B&M

December

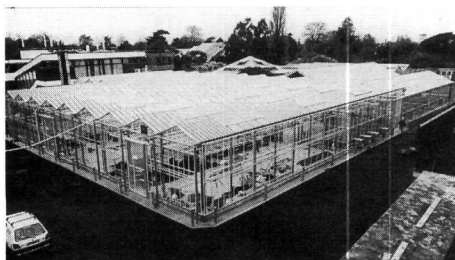
Since 1987 Kew's Buildings and Maintenance Department has managed one major capital project a year. 1996, however, has seen Tom Bailey and his team looking after four major projects – and they are likely to be just as busy next year with the restoration of Museum No. 1; the restoration of the Aroid House as a Main Gate visitor centre; the extension of D-wing of the Herbarium and the redevelopment of the Lower Nursery all set to start in 1997.

“Obviously this has been a great increase in workload for B&M staff and we did have some worries about whether we could handle it at first,” said Tom Bailey. “But it was important that the organisation took advantage of the opportunities offered by the Grant funding being made available for the work.

“It was a window of opportunity we had to grasp. We all know such funding is likely to be much more difficult to get in the future and all these projects had become urgent priorities for Kew.”

To enable Tom to concentrate on overall management of the capital works, Malcom Anderson and Roger Thompson have taken responsibility for the maintenance programme. Two clerks of works, Richard White and David Farmer, look after the day to day running of the capital programmes.

Construction work in the Melon Yard nursery is now complete and ‘handing over’ took place



The Melon Yard: after.

in the first week of December. Plants are likely to start going back into the new high efficiency greenhouses after the new year and there is likely to be some on-going fine tuning to ensure the new computer-controlled growing environments are properly adjusted. “We’re pleased the work was completed to a very tight schedule or around 28 weeks, as the project involved some complex logistics involving L.C.D. handling the plants,” said Bailey. “The whole thing went very smoothly thanks to the two departments working so well together.”

Another much needed facility is the combined Constabulary Accommodation/storage facility behind the Victoria Gate complex. This was on the tightest construction schedule of all but is due to be handed over before Christmas. The constabulary will be able to vacate their portakabins and move into the new building in the New Year. The tastefully designed brick building also provides much-needed storage space for L.C.D. and for books and other items sold by the Shop.

The two other major projects, the Shaft Yard resurfacing and the Japanese Gateway and Garden, were completed in the autumn. The Shaft Yard resurfacing not only improves working conditions for staff but, says Bailey, the water recycling facility which it includes will save about a million litres of water per year. This water, which runs off the compost heaps, can be recycled back onto the heaps where it improves the efficiency of the composting process.

But as two projects finish, others begin. The B&M team will be gathering themselves over Christmas ready for construction work in Museum No. 1 to start on January 6th. Work will involve underpinning some areas of the structure and installing facilities such as lifts and toilets. Installation of the museum displays is likely to be able to start in the autumn of 1997, ready for a public opening in the spring of the following year.

Later in the year, work starts on the redevelopment of the Lower Nursery and the Herbarium Extension. The Lower Nursery is another project close to Tom Bailey's heart and it will involve more than twice as much work as the Melon Yard. All the existing buildings and greenhouses will be removed and replaced by just one greenhouse complex with 16 different environments. The extension to Wing D involves building an extra storey, to expand accommodation for the collections.

Then in the autumn, work is due to begin on the Millennium Seed Bank and on the renovation of the Aroid House, which will accommodate a shop and visitor centre for those using the Main Gate.

I NEED TO TELL YOU ABOUT INDEXING AND OUR JOURNAL . . .

From the Editor, Richard Ward

In the past, *Journals* have been indexed by volunteers on a 10 year basis. More recently the editions have become larger, by page number and cannot easily all be bound into a 10 year volume. I sought advice from Sylvia FitzGerald, Kew's Herbarium Librarian and currently a Guild Committee member and she suggested a five year index in future.

The index contained in the 'Events of 1996' *Journal* therefore covers the previous five years – 1991-1995 Events. Sylvia, acting as co-ordinator and indexor for 1 *Journal*, held a meeting with four other volunteers in early January '96: Mike Clift, Kenwyn Pearson, John Woodhams (ably supported by his wife, Joan) and myself. Sylvia had previously volunteered to 'highlight' copies of all five past *Journals* for items considered worthy of indexing so as to provide a measure of uniformity for us all.

We were briefed on such tips as indexing names of people who have done particular things; sponsors; 'change'; photos; repetitions of subjects, names of countries etc. We gave ourselves three weeks to put the information on individual and alphabetical index cards and Sylvia undertook to double-check the four lots of cards received and get them to our long-suffering Printers by mid February in time for detailed typesetting. I would like to sincerely thank these volunteers for the time they spent on this worthwhile job. I hope that you find the indexes useful when researching Guild matters.

For general information on *Journal* production, perhaps I should firstly invite any Guild member who would like to take over as Hon. Editor to contact me soonest! Perhaps a fresh (younger?) approach would produce better results. I send out reminders to regular contributors in September and give them a deadline of 15th January. I reckon to actually get the last one in by mid February by which time I have sorted/edited/checked spelling, facts etc. on the majority. The Printers collect and typeset the lot within about four weeks. They send proofs to me which are proofread by most contributors within another two weeks. Printers correct mistakes/omissions from either side by mid April and the *Journals* are timed to be printed and delivered to Kew in time for the Annual Dinner in late May. Your *Journal* costs approximately £50 per page.

Late receipt of copy and often too much good copy, makes it difficult to keep to the optimum 72 pages though. I am grateful to all those members who work so hard to regularly keep our *Journal* to the standard that you are reading today. Floreat Kew!

OBITUARIES

Kindly prepared by Graham Burgess, unless otherwise stated

COMMANDER FRANK W. FISHER

F .W. Fisher was born in Stockport, Cheshire England in 1915 but he was soon to move South to Bristol where his Father, who owned a scrap metal business had a contract for breaking up ships left over from the first World War. After attending Bristol Grammar School he joined the City Parks Department. He then moved to Cannington School of Horticulture before entering Kew.

Frank entered Kew in 1937. On November 28th 1938 he gave a lecture on 'The Cold Storage of Fruit' to the Mutual Improvement Society.

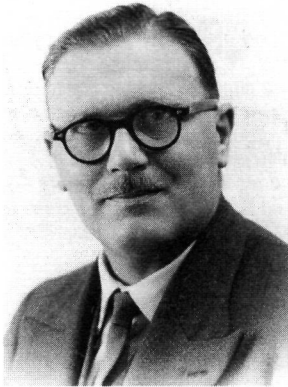
After Kew he entered Ilford Parks Dept. In 1948 his address was in Wells, Somerset.

Even to his son he was a man of mystery and his career is punctuated by large gaps. During the War he served in the Royal Signals. He went to work for the Ministry of Agriculture for the Sudanese Government and later returned to the Sudan to work for a millionaire. In 1954 he wrote a book with one J. Robbie called '*Commercial Horticulture in Sudan*'. This was published in Khartoum in 1954.

In 1955 he joined the Commonwealth War Graves Commission as Superintendent for Northern Europe. He was initially based in Arras but later moved to Brookwood Cemetery in Surrey and then on to Cheltenham.

He retired in the mid Seventies. The last 18 years of his life were spent in Kent. He leaves a brother 11 years younger than himself, a sister two years older and twin sons, Anthony and David.

To his family we send our condolences.



TOM GARWOOD

Tom was born in Stockport, Chester on March 12th 1918. He started his horticultural career at the age of 16 when he joined Stockport Parks Department, later studying Horticulture as a day release course at Manchester University.

He was called up for army service in 1939, spending the war years in the Royal Artillery serving at Dunkirk and at the D-Day landings in Northern France.

He entered Kew in October 1946, one of the first to come to Kew under the Government rehabilitation scheme for ex-servicemen. He and Ted Storey wrote an article for the *Journal* where they enthused about their accommodation with its capacious lounge and comfortable chairs, enjoying a standard of living surpassed by few in those times of stringent rationing. They also regretted that their course was not long enough.

In 1948 he gained a Fellowship of the Institute of Park Administration and in that same year took up



the post of Foreman in charge at Woodbank Park, Stockport. Two years later he was appointed Park Superintendent at Northwich, Cheshire, where he remained for 11 years until his appointment as Park Superintendent to the City of Cambridge. He retired in March 1979.

Tom was always close to Kew and supported it whenever he could. A regular attender at Dinners and recorded as giving generous donations to the Award Scheme and the George Brown Lectures.

Tom passed away on the 29th May, 1996 after a long illness.

To his wife Dorothy we send our deepest condolences.

HEINO HEINE

A dear friend of Heino Heine, Edmund Launert, has sent us lots of information from which we have extracted the following Obituary.

Herman Heino Heine was born in 1923 in Mannheim, Germany. His father, who lived to the venerable age of 101 years, was a doctor and in 1948 Heino also graduated in medicine from Heidelberg University. He did not pursue his career in medicine but chose to study plant sciences in Munich, which was where I first met him shortly after he first graduated in 1953. He was a fine figure of a man distinguished by a sartorial elegance which even extended to his outfit in the field, his "lederhosen" being made of most exquisite deer skin. On Sundays, this, then vegetarian/teetotaler could be seen properly kitted out on horseback in a fashionable Munich Park.



His knowledge was striking, not only in his chosen subjects, but also in diverse fields which included linguistics; folklore; history; literature and the visual arts but significantly, not philosophy. He so impressed the authorities that he was given the post of Scientific Officer in the Botanical Institute and allocated one of the best appointed rooms in the building. But, as careers go, he was often a square peg in a round hole, reacting against institutional discipline and generally agreed formats and this finally led to him leaving Germany to join me in England, where I had a job at the British Museum. In October 1958 Heino Heine started work at the Kew Herbarium employed by the Colonial Office on the new Flora of West Africa. He was not terribly keen on the task nor his place of work which was now just an alcove adjacent to the Ladies' cloakroom.

We spent many happy times together exploring London but at times he was very lonely. He would return to his bleak room in the guesthouse of the legendary Miss Williams, where he would swap the dim 25 watt bulb in the ceiling with a 150 watt one he hid in his suitcase.

He was very much a Francophile who longed to live in France. One day, as we stood outside Buckingham Palace awaiting Her Majesty the Queen and the visiting French President, he alone sang as the Band of the Royal Guards played the Marseillaise. In September 1961 his dream came true and he was offered the enviable position of "Maitre de Recherches" complete with spacious room at the Musée D'Histoire in Paris.

Heino lived in Paris for 27 years but sadly he never found real fulfilment there and hankered for England. He travelled to England regularly, to the Chelsea Flower Show, his annual pilgrimage and at other times to visit prestigious houses and gardens. He acted as an advisor to the R.H.S. and played a role in the English branch of the International Dendrological Society. He loved to give hospitality to English visitors to Paris, often taking friends, at his own expense, to the most exquisite restaurants. When he retired he returned to Germany but he planned to return to England to live in Kew. He died before achieving this but his considerable library went to Kew Gardens.

Heino Heine was, for much of his life, a lonely and frustrated man who could be likened to a musician who has thousands of tunes in his head but is unable to string them together into a composition. He was a man without malice who delighted many and irritated a few.

EDWARD W. MACDONALD

Mac, as everyone knew, him would only be totally satisfied if this obituary was written in Egyptian hieroglyphics for, from an early age, being surrounded by family deeply involved in the Theosophical Society, he grew up amongst books not generally found on the nursery shelf.

He told me he used to browse through the Egyptian Book of the Dead and make temples to the cats in the attic.

When I came to Kew as a young man I spent my first three months in cacti and succulents with Mac. Can you imagine being exposed to Kew, with its wealth of plants and finding oneself in the company of Mac? Whilst species like Mac must exist in the north I had never come across one. He was a highly educated man, intelligent and eccentric. Only those who knew his masogentic tendencies can imagine his expression when he was asked by what he called a Duchess type lady "My man, how often do you water the plants?" and when he replied from his position on top of a short ladder as he watered the top shelf "Madame, how often does it rain?".

He was a meticulous record keeper and well respected in the world of cacti and succulents for his knowledge and practical skills.

His early career had been in the church and he was fond of showing pictures of himself in various European churches and cathedrals where he, with a friend, served mass. He reached a turning point when he was asked if he would teach at Downside. He had a crisis of conscience, admitting then that the only reason he joined the Roman Catholic Church was because it was the nearest thing he could get to ancient Egypt. He felt it would be hypocritical to teach what he did not thoroughly believe in. So to Harkness Roses, where he worked alongside that great bearded man. He went to South Africa, hoping the change of scenery would solve emotional problems in his life but as he said, you cannot run away from yourself.

He returned and entered Kew. To his retirement he remained as a Supervisor, in spite of being offered promotion several times. Mac could not, however, see himself disciplining the young men of Kew, so he chose to stay amongst the plants. Any opportunity to dress up made him a 'life and soul of the party' person and, when we had our Christmas parties at Richmond Ice Rink, Mac was there in full force. For many years he was Toastmaster at the Kew Guild dinners.

There are many Kewites all over the world who will say that Mac's kindness and intelligent advice made the loneliness of the early times at Kew easier to bear. When I left Kew and moved to Hampshire Mac painted an enormous mural, an Egyptian water garden scene with myself, my wife and children, all portrayed and all the names in Egyptian hieroglyphics.

After retirement he walked a lot to keep himself in good fettle; listened to his enormous and meticulously catalogued record collection and prepared a concordance of hieroglyphics.

He died peacefully in a retirement home in Winchester and is survived by his brother.

He was convinced he had been on this earth before and that he would return. I think we would all like to see him again.

EDGAR MILNE REDHEAD (May 1906-June 1996)

Roger Polhill's obituary of Edgar Milne Redhead, published in *'The Independent'*, 5.7.96, is so comprehensively interesting that I recommend any interested Kewite to read it. Between the lines we feel a very special sort of energy which moved the man to many adventures. They took the form of solitary searching for more and more plants in the field and the organisation of new sorts of conservation bodies, large and small.

His career at Kew lifted off when Kew's Director, Arthur Hill, offered his services towards an aerial survey of what is now Zambia. His early interest in Africa was to become a central part of his career. The Flora of Tropical East Africa was a result of his interest and his network of contacts allowed him to play a major role in setting up many of the conservation bodies extant today. He persuaded Professor Heslop-Harrison to set up a Conservation Unit, now a backbone of the Kew mission.

His world view of conservation and highly practical approach to understanding of plants in their habitat led to him advocating a modern scientific approach to conservation on the Badgeworth Nature Reserve, home of **Ranunculus ophioglossifolius**. He was an enthusiastic naturalist and gave his time, one weekend, to take a group of us from Kew to this site and other exciting plant locations near his home. The world of plants is infused by an understanding that everything is linked and this applied to those of us who have been drawn into it. I have memories of Edgar and Heino Heine round the same table, after a day botanising in Gloucestershire. Then we all had life and now we share in the next but equally essential stage of death. Read the obituary for Heino.

He was a committed Guild member and President at the time I came to the Kew Guild Committee for support for the Guyanan exhibition. More than anyone on the Committee, he enthused, perhaps empathising with the spirit of the young man standing before the Committee. Older as I now am and bereft of many of the energies that accompany youth, I understand more of his ways, but even then I was so inspired by this sharing of adventure from someone who seemed so much more aged than I. He was a great inspiration.

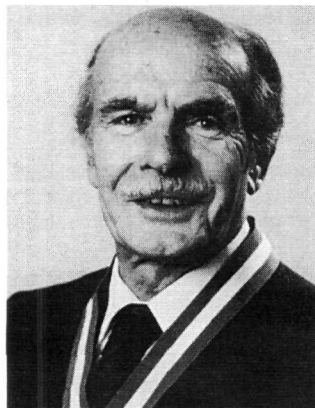
His career was founded on a love of plants and it never left him. Kew has lost a very committed worker and friend.

To his family and friends, we offer our sincere condolences.

JOHN NORRIS

John (Skipper) Norris was born in Montreal, Canada on 11th July, 1914, but, after being educated at the County Technical School in Enfield, worked in various horticultural establishments prior to entering Kew in 1936.

After his first year at Kew he went to the State College of Horticulture at Vilvorde in Belgium, where he supervised the practical work of the students. He was studying for the Vilvorde Diploma and this included lecturing in French.



John Leonard Norris, Guild President 1980/81.

The outbreak of war interrupted all of this and he returned to England and joined the Royal Navy.

During five years afloat he saw action in the Atlantic, Mediterranean, Indian and Pacific Oceans. He was involved in the Normandy Invasion and Mountbatten's Pacific Fleet, bound for the invasion of Japan.

After the Japanese capitulation he sailed to Australia and there was given the task of laying out the grounds and gardens around the Naval Commodore's house.

In 1946 he combined his military background with his love of plants and joined The Commonwealth War Graves Commission. He spent 33 years with the Commission. In 1977 he was awarded the Associate of Honour by the Royal Horticultural Society.

He was a plantsman through and through, but also very practical. In an article in the 1978 *Journal* he writes comprehensively of methods of using indigenous flora in cemeteries in Turkey.



John was active in the War Graves Commission in its formative time. In this country and in many abroad, his design, management and planting skills were brought to bear. The great Brookwood cemetery was chosen for John's trials, which brought increased use of mechanisation into cemeteries world-wide.

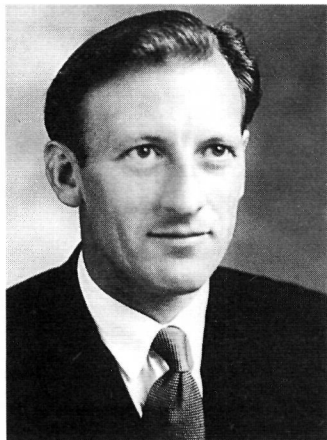
After tours in Italy, Lebanon, Syria and Iraq he returned to the Establishment Division in England.

All this experience was applied to the re-organisation of the Supplies, Transportation, Stores and Insurance. This latter included the re-evaluation of world-wide insurance policies. He was proud to be a Kewite and especially pleased to be our President in 1980.

John died early in 1996.

FREDERICK (FRED) GEORGE NORTH

Frederick George (Fred) entered Kew in 1947 where he gave a paper to the members of the Society entitled 'Plant Breeding' and also took frequent part in the discussions. He gained a distinction in Plant Physiology, Ecology and Genetics and had an extensive knowledge of plant cultivation. After leaving Kew, Fred undertook a number of positions within the horticultural arena.



In 1960 Fred went to the Grotto and obtained a Diploma in Park Administration and in 1964 was elected a Fellow of the Institute. Fred worked in Belfast Parks Department from 1961 to 1964 and then in Eastbourne as Deputy Parks Superintendent. In 1969 he went to Stevenage as Parks Superintendent and then to South Bedfordshire from where he retired.

Fred was a very modest and compassionate man who never lost his interest in plant life or the love of his garden. He was a great historian and enjoyed reading and visiting old established gardens.

He was a devoted family man and will be survived by his widow, Sheila, four children and three grandchildren. Fred died peacefully at home on 26th September 1996 after a long illness bravely borne. May he rest in peace.

The photograph above was taken of Fred after he left Kew.

WILLIAM PARKINSON

William 'Bill' Parkinson died of multiple sclerosis on 2nd September 1996, aged 49.

Bill started his career in horticulture as an indentured apprentice at Blackpool in 1963. Whilst working in the Parks Office he soon discovered how effective a blank piece of paper and a purposeful step can be and was often seen hurrying with a set of plans under his arm to buy ice-cream from the young girl with a summer job in the café.

He took a lot of 'stick' from the rest of us, as Sue was the Senior Foreman's daughter but, undeterred by cries of 'nepotism', they were married in May 1969. From that moment it was impossible to separate them and it was always 'Bill and Sue'.

In September 1968 Bill moved to Kew to attend the three year Student Gardener Course, where his ever present smile and good humour made him a welcome member of staff. Notwithstanding that he seemed to be six inches taller and wider than most of the other students, Bill's presence was usually first detected by the sound of laughter which I can still hear in my mind.

In 1971 they moved to Finchley, when Bill took the post of Area Supervisor with the London Borough of Barnet where Richard, their first son, was born in June 1973.

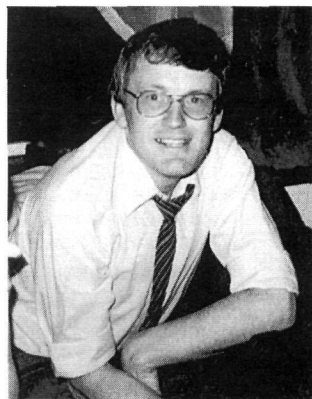
Bill was very keen on reading and Sue would sometimes accuse him of not listening to her. He would always respond by reiterating her last two to three sentences verbatim without raising his eyes from the book, which only served to 'wind her up' some more.

Bill became Assistant Parks Manager at Tunbridge Wells in 1974 and second son, Ben, followed in 1975. He left a legacy to the town when he came by a couple of hundred seedlings of *Araucaria araucaria* and promptly set about planting them all over the borough.

In 1983 he moved to Loughborough as the Parks Manager of Charnwood Borough Council. Unfortunately, it was not long before he was diagnosed as having multiple sclerosis and he retired in 1987.

Bill held strong views on some things and so 'no flowers' were requested at the funeral. He loved plants, especially Lilies and Orchids and his views on florists and what should happen to them differed 'fitted the crime' that Bill perceived as committed by those who removed their roots.

He will always live on in the happy memories of all of us who knew him.



STAN RAWLINGS

Stan Rawlings died on 13th November 1996 after a long, lingering illness. He was 84 years of age.

He was born on the 17th February 1912 and educated at the County Grammar School in Denbigh, North Wales. At the age of 16 he left school to work on his father's nursery – a firm foundation for a career which was soon to find him working on Salford Parks Department. On the 20th July 1936 he entered Kew.



Stan Rawlings, Guild President 1979/80.

Stan was classic Foreman material, so classic in fact that he was made up to Foreman although he was still a student. Foremen are quite rare now. They were not afraid of entering into interpersonal conflict with their subordinates. An unscrubbed floor or late arrival might release a tirade but, as one grew older, one found that they dearly loved their work and plants as much as anyone and their only interest was maintaining the quality of the profession.

He was a man of great energy both emotional and physical. In his first year he was not only promoted to Foreman in Orchids but threw himself into the sporting life of Kew. Many played billiards as he did but few then, or now, could swim from Isleworth Ferry Gate to Kew Bridge in the Thames. He was Vice-Chairman of the Swimming Club, Vice Captain of the Football Club and Assistant Secretary of the Mutual Improvement Society. He did a short stint in Kirstenbosch before returning to his active life at Kew. In 1939 his Mutual Topic was 'Lost Opportunities at Kew'. One wonders whether this was chosen so he could find out if there

was anything he was missing. In 1939 he moved to the post of Foreman in the Tropical and Decorative Department. In 1940 he arranged a visit for a number of fellow Kewites to the Ghent Floriales. The long weekend, enthusiastically reported by Stan in the *Journal*, cost £4 per head.

The war drew Stan away and he served with The Royal Artillery in Africa and Italy. He returned to his beloved Kew and was appointed Assistant Curator of the Decorative Department in 1948.

Outside working hours Stan was a great host and many a happy time was enjoyed at the parties held by Stan and his wife Peggy. He was a keen photographer and from 1972 a proud and fine ambassador of the Royal Photographic Society of which he was an Associate. The Photographic Society at Kew owes much to Stan's enthusiasm.

In 1961 he moved to the Tropical Department as Assistant Curator, where he spearheaded the re-landscaping of the tropical houses.

He was welded to the Kew Guild, ever present at its functions and sitting on its committees. In his last year at Kew he was Vice President. In 1979/80 he was our President (see photo).

In retirement he continued to lecture and take photographs and both he and his wife, Peggy, took to sea fishing, their retirement home being in Bournemouth.

To Peggy and their two sons, David and Philip, we send our condolences.

MICHAEL TYAS

Michael was born in Yorkshire in 1937. He entered Castleford Parks Department as an apprentice at the age of 15. He gained R.H.S. certificates in evening classes and correspondence courses and spent a year at the Yorkshire College of Agriculture at Askham Bryan.



In 1961 he came to Kew as one of the first married students and was Secretary of the Photographic Society and a founder member of the Mountaineering Club. He was particularly interested in mountain flowers and gave a Mutual on them in February 1962.

After Kew (1963) at Tatton Hall in Cheshire, he was a Propagator for two and a half years. In 1966 he became Deputy Curator at Birmingham University Botanic Garden, using botanical knowledge gained at Kew to run the seed exchange with other universities world-wide. Teaching and exam material was supplied for the University and he helped M.Sc. students with their work on economic crops. There he met members of the British Antarctic Survey Botanical Section, in whose work he was very interested.

After eight years at Birmingham he felt the need to take his young family out of the city so he took the rather unusual step of moving to be Head Gardener of a private garden. Overbury Court had a 'manicured' garden, which suited Michael very well and he maintained a high standard until he left 14 years later. Overbury is an Estate Village and the gardeners kept the village and churchyard tidy as well as providing flowers, fruit and vegetables for the 'big house'. He joined in the life of the village, becoming a parish councillor, school governor, church bellringer and general advisor on anything to do with gardening.

In 1988 he took on the job of restoring and maintaining a walled kitchen garden on a south facing slope in the Tweed Valley. Old fruit trees were pruned into shape again, paths cleared, the water supply restored, greenhouse heating made to work and the garden was beginning to look neat as well, when he was told in 1991 that he would have to leave within six months. The owner could no longer afford to keep the garden.

Michael felt that he needed to bring in all the experience of working in private gardens just as much as his University and Botanic Garden training to tackle the job at King's College, Cambridge. He took over when the College Domestic Bursar was wanting to upgrade the standing of his Head Gardener and Michael fitted. He gradually made changes: he acquired an office; he started providing flowers for College functions; he could be approached by anyone for advice and his gardeners began to take an interest in their work. Some of you may have seen him, Christmas 1995, reading in the televised 'Carols from Kings'.

It was typical of him that he did not want any fuss when he found out that his heart was in a poor state. He told only his gardeners, so when he became ill and died 10 days later it was a great shock to the College and to all who knew him. By resting every evening and all day on Sundays he had been able to appear fit and well and do his job properly.

Thanks to Alison Tyas for this information.

The Kew Guild send sincere condolences to Alison and family.

ADDENDUM

Graham Burgess has collated most of our Obituaries and I thank him for the time he has given to research for this. Often it is necessary to obtain information about departed Kewites from past *Journals* and, where possible, from relatives. Why not 'write your own' together with a suitable photograph and we can keep it in the archives for posterity?

If you hear of the passing of any ex-Kewite please let our Secretary know immediately. Normally the Guild will publish obituaries only of members of the Guild, although others may be mentioned in the 'News of Kewites' section of the *Journal*.

Editor

KEW GARDENS STAFF LIST

The Guild Committee had agreed to print a full, current Staff List this year but, unfortunately, this has not been possible. Editor Richard Ward and David Green of R.B.G. Kew Personnel hope to provide the goods next year.

Copies of current Rules of the Guild may be obtained direct from our Secretary.

**THE KEW GUILD STATEMENT OF FINANCIAL ACTIVITIES
FOR THE YEAR ENDED 31st DECEMBER 1996**

	AWARD SCHEME			Total 1996 £	Total 1995 £
	General Fund £	Restricted Funds £	Endowment Funds £		
INCOMING RESOURCES					
Subscriptions	6,962.81			6,962.81	7,450.61
Donations and Legacies	477.05			477.05	153.00
Investment Income – COIF	1,327.48	4,401.42		5,728.90	5,406.94
– Interest	645.17			645.17	468.96
Annual Dinner	2,542.50			2,542.50	2,575.07
A.G.M. Day	467.50			467.50	898.00
Sale of “Kew Plantsmen”	634.00			634.00	739.00
Sale of Emblems	82.00			82.00	56.00
Journal Adverts	0.00			0.00	430.00
	<u>13,138.51</u>	<u>4,401.42</u>	<u>0.00</u>	<u>17,539.93</u>	<u>18,177.58</u>
RESOURCES EXPENDED					
Direct charitable expenditure:					
Kew Guild Journal	4,428.00			4,428.00	3,810.00
Prizes	380.00			380.00	380.00
Awards		4,404.00		4,404.00	4,216.00
Annual Dinner	2,478.35			2,478.35	2,683.93
A.G.M. Day	565.18			565.18	755.55
Postage	1,789.78			1,789.78	1,142.06
Other expenditure:					
Cost of “Kew Plantsmen”	344.10			344.10	358.05
Cost of Emblems	79.22			79.22	27.50
Insurance	41.58			41.58	40.57
Honorary Officers’ Expenses	110.00			110.00	108.00
Sundry	148.72			148.72	217.31
	<u>10,364.93</u>	<u>4,404.00</u>	<u>0.00</u>	<u>14,768.93</u>	<u>13,738.97</u>
NET INCOMING RESOURCES	2,773.58	-2.58	0.00	2,771.00	4,438.61
OTHER RECOGNISED GAINS					
Gains on investments:					
Unrealised	2,116.03	2,663.10	4,431.19	9,210.32	15,252.80
NET MOVEMENT IN FUNDS	4,889.61	2,660.52	4,431.19	11,981.32	19,691.41
Balances brought forward at 1 January 1996	41,744.46	35,601.41	59,227.38	136,573.25	116,881.84
BALANCES CARRIED FORWARD AT 31 DECEMBER 1996	<u>46,634.07</u>	<u>38,261.93</u>	<u>63,658.57</u>	<u>148,554.57</u>	<u>136,573.25</u>

KEW GUILD BALANCE SHEET AS AT 31st DECEMBER 1996

	1996		1995	
	£	£	£	£
FIXED ASSETS				
Investments		132,315.80		123,105.48
CURRENT ASSETS				
Stock				
– Emblems	584.98		664.20	
– Past Presidents' Jewel	50.00		150.00	
– Centenary of Kew Plantsmen ..	3,199.20		3,543.30	
	3,834.18		4,357.50	
Debtors	155.50		112.51	
Charities Deposit Fund	12,500.00		9,500.00	
Cash at Bank	73.43		48.26	
		16,563.11		14,018.27
LIABILITIES				
Life Subscriptions	71.93		94.50	
Creditors	252.41		456.00	
		–324.34		–550.50
NET CURRENT ASSETS		16,238.77		13,467.77
NET ASSETS		148,554.57		136,573.25
FUNDS				
General		46,634.07		41,744.46
Restricted		38,261.93		35,601.41
Endowment		63,658.57		59,227.38
		148,554.57		136,573.25

These are summarised accounts extracted from the Annual Report and Accounts of the Kew Guild. The Annual Accounts were approved on 28th January 1997 and have been submitted to the Charity Commission.

These summarised accounts may not contain sufficient information to allow for a full understanding of the Guild's financial affairs. For further information the full Annual Report and Accounts including the Independent Examiner's Report should be consulted. Copies of these can be obtained from Rebecca Bower, The Kew Guild, Royal Botanic Gardens, Kew, Richmond, Surrey TW9 3AB.

LIST OF R.B.G. STAFF AND HONORARY RESEARCH ASSOCIATE MEMBERS OF THE KEW GUILD

(as at 31st December, 1996)

Staff:

Andrews, Roselle	Davis, S. D.	Lonsdale, J.
Andrews, Miss S.	Dempsey, Clare	Madill, Graham
Atkins, Mrs. Sandy	Edwards, P. J.	Martland, Nicholas
Barnes, D.	Evans, Jenny	Morley, James
Bayley, Anna	Ferguson, Ian Keith	Owens, Dr. Simon
Beentje, Henk	Field, D. V.	Parry, Belinda
Bell, Miss S.	FitzGerald, Miss S. M.	Pipe-Wolferstan, Karen
Bidgood, Sally	Foster, Clive	Pitman, Mark
Bower, Miss Rebecca M.	Frost, Felicity	Pope, Gerald
Boyce, Peter	Gardner, David	Power, Deborah
Brett, Robert	Godfrey, Michael	† Prance, Professor Sir G. T.
Brewster, Phil	Green, Paul W. C.	Ravenhall, Mrs. T.
Bridson, Diane M.	Griffiths, Phil	† Sands, M. J.
Brummitt, R. K.	Hardman, David	Scott-Brown, Alison
Bryant, Tracey	Hayes, Mrs. D.	Simpson, David
Chantler, Annabel	Henchie, Stewart J.	Sparrow, Mark
Christensen, Lisbeth N.	Higgins, Sarah	Staniforth, M.
Cooper, Ms Dianne	Johns, R. J.	Stannard, Brian S.
Cowley, Mrs. E. Jill	Johnson, Margaret	Taylor, Nigel P.
Cribb, P. J.	Keesing, J. L. S.	Thomson-Ward, Nicholas H.
Cutler, Dr. D. F.	Leese, Ian	Walley, D. A.
Davies, Ryan Ivor	Leon, Christine	Weekly, R. J.

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