THE JOURNAL OF THE KEW GUILD

Founded in 1893

The Association of members of the Kew staff past and present

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Royal Botanic Gardens Kew

CONTENTS

	Page
Trustees and Committee	87
Editorial	88
President	89
President's Message	90
Presidents of the Kew Guild	9 1
John R. Woodhams, Vice President	92
Vice Presidents of the Kew Guild	93
One Hundred Years of the Kew Guild	94
Annual General Meeting of the Kew Guild	98
Honorary Secretaries of the Kew Guild	101
Editors of the Kew Guild Journal	101
Printers of the Kew Guild Journal from 1893	101
Royal Botanic Gardens Edinburgh	101
Outgoing President's Report 1991-1992 to the A.G.M.	102
Committee Discussions	102
Report of the 1992 Annual Dinner	103
Kew Guild Award Scheme Report	104
Ethnobotany '92	104
Some Plants Used by the Quijos-Quichua Shamen, Near Tena, Amazonian Ecuador	105
To China in Search of Roscoeas	109
Jerusalem University Botanic Gardens	111
Postraduate Research on the Conservation of Landscapes Laid Out by	
William Sawrey Gilpin (1762-1843)	112
In Search of Rosemary — A Field Trip to Southern Spain List of Awards Granted — 1977-1992	113
List of Awards Granted — 1977-1992	114
School of Horticulture Kew Diplomas and Prize-Day 1992 (Course 27)	116
Presentation of Kew Diplomas and Prizes	118
Kew Students' Union Annual Report	121
Kew Students' Union Annual Report The Kew Diploma in Horticulture Grows Stronger	123
The Kew Medal Award 1992	125
The Kew Mutual Improvement Society — 123 Years of History	126
Kew's New Diploma for Overseas Garden Staff Course in	
Botanic Garden Management	127
The Director's Activities during 1992	128
The Director's Secretary, Pauline Churcher	129
Kew Students Help Narcissus National Collection Holder	129
The Living Collections Department Report 1992	
Together with Historical Notes, and the Future	130
Picture Pages	139
Kew Admission Charges	141
The History of the Clog and Apron Race	142
The Kew Guild Coat of Arms	143
Excerpts from the Kew Guardian — Official Staff Newsletter Excerpts from Kew Scientist	144
Excerpts from Kew Scientist	167
R. Ian Beyer, A.H.R.H.S., F.I.Hort.	174
R. Ian Beyer, A.H.R.H.S., F.I.Hort.	175
The Herbarium and Library at Kew in the Age of the Computer	177
Records of One Hundred Years and More	179
The History of the Jodrell Laboratory	181
The Birds of Kew, Past and Present	185
News of Kewites at Home and Abroad in 1992	188
One Hundred Years of Kewites Around the Globe	199
Obituaries	212
Finances of the Guild Over One Hundred Years	216
Treasurers of the Kew Guild	217
Accounts	218
Members Address List	220
Advertisements	230

ROYAL BOTANIC GARDENS, KEW

THE KEW GUILD

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EDITORIAL



Congratulations to Kew Guild! I am delighted to be the Editor of the Kew Guild Journal in this one hundredth year of growth.

It is gratifying that we have Royal patronage this year, and it is fitting that the Director, Professor Ghillean Prance, should have been elected President of the Guild this year.

As you immerse yourself in the pages of this historical edition I feel sure that you will also realise that hours of preparation, planning, forethought and discussion went into it. I pay tribute particularly to the 'Centenary Journal Sub-Committee' — Sylvia FitzGerald, Graham Burgess and Dr. Tony Lord, and the ever-guiding influence of Martin Sands who chairs the Centenary Sub-Committee. Also to members of the main Kew Guild Committee and outsiders who have provided advice and 'copy' and to our Printers for their most generous support in many ways.

But I am not complacent! With your help this Journal will start its second century fostering further fellowship amongst its members and affecting better communication, thus enabling you to . . . keep in touch.

Richard C. Ward Hon. Editor

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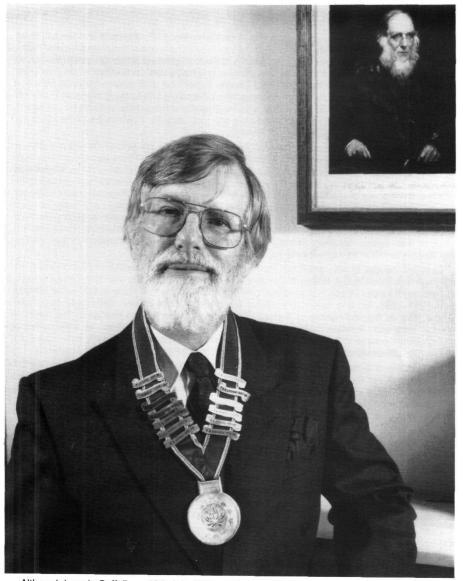
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GHILLEAN TOLMIE PRANCE, M.A., D.Phil, Fil.Dr., F.L.S.

President 1992/93



Although born in Suffolk on 13th July 1937, our President's earliest memories are of Dunvegan, Isle of Skye. While living there he developed a love of natural history in early childhood. From 1945 he was brought up in the Gloucestershire Cotswolds, another excellent area for the study of plants and animals. His interest in plants grew as it was encouraged by two amateur botanist aunts and later by his housemaster and biology teacher at Malvern College, H. C. W. Wilson. He first visited Kew as a child and again later on a Malvern field trip to an open day and to study the Order Beds. Collecting and identifying of plants began as a hobby which he later turned into a career.

He studied botany as an undergraduate at Oxford under E. F. Warburg and stayed on at Oxford to complete a D.Phil. in 1963 in the Forestry Department under the supervision of Frank White. His thesis was a study of the generic limits of the tropical plant family **Chrysobalanaceae** using recently established techniques of numerical taxonomy. On completion of his doctorate he was invited to join a New York Botanical Garden Expedition to Suriname followed by a one year post doctoral position to work up the expedition collections and to study extensive holdings of **Chrysobalanaceae** at New York. After a second year in a temporary position he joined the curatorial staff of the Garden and extended his one year into 25, in which he eventually rose to the rank of Senior Vice President for Science.

His career developed as an Amazonian botanist, and from 1964-1987 he led a series of botanical expeditions in that region collecting over 30 thousand numbers including more than 350 new species. His research in Amazonia included work on plant taxonomy, vegetation ecology, pollination biology, economic botany and ethnobotany. He has written monographs for *Flora Neotropica* of the **Chrysobalanaceae**, **Caryocaraceae**, **Dichapetalaceae** and part of the Brazil nut family, **Lecythidaceae**. He has over 175 scientific papers, 87 popular and general articles, and has authored 11 books and monographs including the recently published *Out of the Amazon, Leaves, Wildflowers for all Seasons* and *Arvores de Manaus*. He had edited a further nine books including *Extinction is Forever, Biological Diversification in the Tropics* and *Amazonia* in the Key Environments Series.

Over the course of his career, as the destruction of natural environments increased, he became more interested in issues of conservation and the sustainable use of the environment. He became Founder Director of the New York Botanical Garden Institute of Economic Botany from 1981-1988. He is a frequent speaker on environmental issues, especially about the conservation of tropical rainforest. He was Director of post-graduate studies at the National Amazon Research Institute in Manaus, Brazil, from 1973 to 1975 where he established a post-graduate course in tropical botany. He has held professorships in Brazil, Yale University and the City University of New York and is currently a Visiting Professor at Reading University.

His honours include an Honorary Doctorate from Gotebörg University for his work on the conservation of the Amazon flora, the Distinguished Service Award of The New York Botanical Garden, The Henry Shaw Medal of Missouri Botanical Garden and the Linnaean Medal. His hobbies include squash, bird watching and the collecting of flower and plant stamps.

PRESIDENT'S MESSAGE

It is a great privilege to be President of the Kew Guild in this our centenary year. Since its foundation, the Kew Guild has played an important role in the life of the Royal Botanic Gardens. I hope that this bringing together of the position of Director of the Gardens and President of the Guild will further strengthen these ties as we begin our second century together. It is a great tribute to the Guild and all its past presidents and officers that it has survived and flourished for a century. That is because it is built upon the world's leading botanic gardens.

Over the last century, many things at Kew have changed but it has been a positive progression of change establishing and maintaining our position in the areas of botanical science, horticulture and education. In spite of financial constraints the improvements continue. This year we have enhanced science by the completion of an extension to the Jodrell Laboratory that will triple our laboratory space. We have improved visitor facilities by opening a new visitor centre at Victoria Gate and horticulture by the restoration of the Waterlily House, many new plantings such as new magnolias and lilacs and extensive work at Wakehurst Place. In education we have introduced a system of volunteer guides to lead tours of the gardens, enlarged our training of school teachers, and introduced new adult courses. The School of Horticulture, which the Guild supports so well, continues to thrive and has increased the number of internships for short-term overseas students. I am also encouraged by the continued support of the scholarship programme by Guild members. During the past year we have received two major legacies for this. The scholarship programme is a vital part of the School of Horticulture and is giving many students wonderful opportunities to travel and to do useful work in many parts of the globe.

I am also delighted that we enter our centenary year with a distinguished Royal Patron, Her Royal Highness Princess Alexandra, our neighbour in Richmond and an enthusiastic gardener.

I would especially like to thank all members of the Kew Guild Centenary Committee, chaired by Martin Sands, who have worked so hard to make this a special year in the life of the Guild. As I write this in December the Kew Guild planting of daffodils along Bird Cage Walk on Kew Green are just beginning to sprout as the first sign of the Centenary. Thank you for all you are doing and will continue to do to see that this year is a year of strengthening of the Kew Guild so that it will endure for its next century.

PRESIDENTS OF THE KEW GUILD

DATE	PRESIDENT	DATE	PRESIDENT
1893/94	<u> </u>	1927/28	W. Irving
1894/95	G. Nicholson	1928/29	W. N. Sands
1895/96	G. Nicholson	1929/30	J. Coutts
1896/97	G. Nicholson	1930/31	F. S. Sillitoe
1897/98	G. Nicholson	1931/32	D. Bliss
1898/99	G. Nicholson	1932/33	G. T. Lane
1899/00	G. Nicholson	1933/34	A. Osborn
1900/01	G. Nicholson	1934/35	W. Hales
1901/02	G. Nicholson	1935/36	W. L. Proudlock
1902/03	W. Watson	1936/37	C. P. Raffill
1903/04	W. Watson	1937/38	R. E. Gill
1904/05	W. Watson	1938/39	H.J. Davies
1905/06	W. Watson	1939/40	L.G.Godseff
1906/07	W. Watson	1940/41	A. D. Cotton
1907/08	W. Watson	1941/42	W. L. Lavender
1908/09	W.W.Pettigrew	1942/43	A. J. Brooks
1909/10	W.W.Pettigrew	1943/44	J. W. Besant
1910/11	R. Hooper Pearson	1944/45	Miss E. M. Wakefield
1911/12	R. Hooper Pearson	1945/46	A. Blackburn
1912/13	LieutCol. Sir David Prain	1946/47	S. W. McLeod Braggins
1913/14	W. Goldring	1947/48	J. Richardson
1914/15	W. J. Bean	1948/49	Dr. W. B. Turrill
1915/16	L. Gentil	1949/50	F. G. Preston
1916/17	Miss M. Smith	1950/51	G. H. Pring
1917/18 1918/19	C. H. Curtis J. A. Gammie	1951/52	H. Spooner
1919/20	G. Stanton	1952/53	Sir Edward Salisbury
Part 1920	Sir Arthur Hill	1953/54	H. H. Thomas
1920/21	J. Jones	1954/55	T. D. Maitland
1921/22	C. Cundy	1955/56	T. Sargeant
1922/23	E. H. Wilson	1956/57	Dr. C. E. Hubbard
1923/24	J. M. Hillier	1957/58	C. W. Robinson
1924/25	M. T. Dawe	1958/59	F. Flippance
1925/26	W. Dallimore	1959/60	G.C. Johnson
1926/27	R. L. Harrow	1960/61	Dr. C. R. Metcalfe
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1961/62 1962/63	W. J. C. Lawrance F. G. Harcourt	1977/78 1978/79	W. Nelmes W. E. Storey
1963/64	J. S. L. Gilmour	1979/80	S. W. Rawlings
1964/65	S. A. Pearce	1980/81	J. L. Norris
1965/66	P.W.H.Conn	1981/82	B. L. Perkins
1966/67	T. H. Everett	1982/83	P. S. Green
1967/68	F. P. Knight	1983/84	A. Woodward
1968/69	E. W. B. H. Milne-Redhead	1984/85	C. J. Mitchelmore
1969/70	C. R. Stock	1985/86	Dr. M. Y. Stant
1970/71	Dr. P. J. Greenway	1986/87	J. B. E. Simmons
1971/72	F. H. Eul	1987/88	T. R. N. Lothian
1972/73	Professor J. P. M. Brenan	1988/89	P. Maunder
1973/74	N. J. Prockter	1989/90	E. W. Curtis
1974/75	G. R. Groves	1990/91	M. J. S. Sands
1975/76	C. E. Cherry	1991/92	F. N. Hepper
1976/77	Professor K. Jones	1992/93	Professor G. T. Prance

NOTE: All the Past Officers Lists were kindly compiled by Winifred Worth with assistance from Dr. Margaret Stant, except where otherwise noted.

JOHN R. WOODHAMS

Vice President 1992/93

John Raymond Woodhams was born in Corsham, Wiltshire on 30th December 1940. Horticulture was very much in the family, with his father at that time Head Gardener at an estate at Corsham, though soon and for all the war years, to be recruited by the Westinghouse Brake and Signal Company to oversee the production of food crops for their factory at Swindon.



Following the war the family moved to Dorchester, County Town of Dorset and on leaving school at 15 John joined the Weymouth Parks Department obtaining basic training at their nursery at Melcombe Regis.

Frank Goldsack, who trained at Kew (1937) and who was for many years County Advisor for Horticulture and Rural Studies for Dorset, noticed John's keeness and interest in horticulture during his latter school years and carried on the contact forged at that time to guide his early career. There followed a year's General Commercial Horticulture course (September 1958 to July 1959) under Stuart Brookfield's watchful eye at Somerset Farm Institute — its title then, now Cannington College. John gained the course Practical Prize together with the R.H.S. General and N.C.E.H. Certificates.

Having so much enjoyed Cannington and wishing to broaden the training base, Kew was approached though initially with little success. However, eventually persistence paid off and with a little help from Frank Goldsack a place on Kew's Improver Scheme was gained with agreement to commence in Sydney Pearce's Botanics (now North Arboretum) on Monday 1st

December 1959. The Improver Scheme provided a stepping stone to attain a place on the Kew Student course — April 1962 to March 1964.

92

Circumstances contrived that the link with Kew should continue after the two year student course, initially with a Propagator post followed by a Formanship (1965) both in the Tropical Pits Unit, which was then based in the Melon Yard.

January 1969 saw a move from Tropical to the Decorative Section where the Queens Garden planting and final development required supervision in preparation for its official opening on 2nd May that year.

Having acquired an interest in ferns — from working in the Fernery as an Improver — a request was made to move across to take over the formanship there on Bert Bruty's retirement in 1970. The following decade saw great change in the presentation of Kew's tropical collections, not least with the ferns where Houses Two and Three (Tropical and Temperate Ferns) underwent complete interior landscaping, a procedure which proved very successful from a cultivation standpoint and which greatly popularised these previously little visited conservatories.

For developmental work with the Kew fern collection, together with work for the Kew Guild coupled with plant collecting and advisory activity, John was awarded the Kew Medal in 1980 — one of the initial five recipients.

On the resignation of the Assistant Curator Tropical in June 1981, John was asked to take over the reins initially in a temporary capacity — the appointment being confirmed in March 1982.

Major planning work was in hand and ongoing for the future Princess of Wales Conservatory, a project which was to make singular demands on Kew's resources and on the Tropical Section in particular. Team effort and personal identification with the project by section staff and those Diploma Course students who participated with the landscaping and planting was very much encouraged. The celebrations throughout the day on 28th July 1987, when the Conservatory was officially opened by Her Royal Highness The Princess of Wales, marked a particular milestone in John's association with the Royal Botanic Gardens.

John has always shown interest in Guild affairs covering the Annual Dinner and A.G.M. tea organisation from 1968-1975 and serving on the Committee in 1969-1973 and 1983-87.

John's wife Joan, who he married in 1966, works at the International Mycological Institute now based at Egham. Until 1992 it was based on Kew Green beside the Herbarium and known as the Commonwealth Mycological Institute (C.M.I.).

VICE PRESIDENTS OF THE KEW GUILD

1896-1924	W. B. Hemsley (died 7th October 1924) in office.
1902-1908	G. Nicholson (having been President from 1894, died 20th September
	1908) in office.
1909-1913	W. J. Bean (having been Treasurer since 1893)
1913-1925	W. Watson (died 30th January 1925) in office

There appear to be no further appointments until:

DATE	VICE PRESIDENT	DATE	VICE PRESIDENT
1959/61	J. Hutchinson	1970/72	E.F.Coward
1960/62	J. D. Snowden	1971/73	H. G. Butcher
1961/63	C.F.Coates	1972/74	S. W. Rawlings
1962/64	E. K. Thomas	1973/75	G. H. Preston
1963/65	E. Brown	1974/76	G. E. Brown
1964/66	C. Jones	1975/77	D.V. Wells
1965/67	A. B. Melles	1976/78	A.J.W.Check
1966/68	V.S.Summerhayes	1977/79	P.S.Green
1967/69	F. L. Squibbs	1978/80	B. E. Humphrey
1968/70	F. Ballard	1979/81	L.A. Pemberton
1969/71	W. Howell	1980/82	B. E. Lowe

1981/83	Miss D. M. Catling	1987/89	R. I. Beyer
1982/84	A. Hart	1988/90	A.G. Burgess
1983/85	F. N. Hepper	1989/91	K.R.Jones
1984/86	A. P. Dunball	1990/92	N. Gilmour
1985/87	A. D. Schilling	1991/93	J. Woodhams
1986/88	J. K. Burras	1992/94	C. Hindmarsh

ONE HUNDRED YEARS OF THE KEW GUILD

Condensed by Ray Desmond

At the last meeting of the 1892-93 session of the Mutual Improvement Society, William Dallimore, then a relatively new recruit to the gardening staff, proposed the launching of a society or brotherhood — he was unclear what form it should take — of Kew gardeners, past and present. The suggestion being favourably received, it was resolved "to form a Guild to keep in touch with each other, to compare the Kew of the present with the Kew of the past, and thus increase the interest of all Kewites in each other and in Kew".

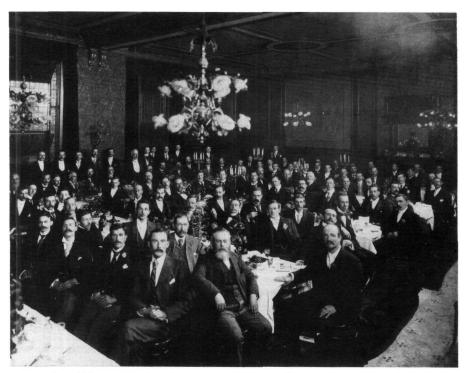
The Director, Sir William Thiselton-Dyer, warmly welcomed this initiative which he thought would promote fellowship and solidarity among the staff. "I have always felt that a great responsibility falls upon the staff in doing what can be done to maintain a healthy and somewhat stimulating tone throughout the establishment. As you know we do not 'coddle'. We treat our young men as 'men' and expect them to work out their own salvation. We wish them to be manly, self-respecting and strenuous." ('Strenuous' was a favourite word with Sir William.) He was also convinced that former employees would appreciate this link with Kew. "Men go from us to all parts of the Empire, some in official, some in private employ . . . to have a record of their whereabouts, to rescue their names and work from oblivion which sooner or later falls on everything human, will be of interest to everyone concerned."

A circular announcing its formation was distributed in April 1893 to all Kewites where their addresses were known, and the following month the first issue of the *Journal of the Kew Guild*, displaying the motto of the Guild, *Floreat Kew*, on its title-page, was published.

The role of the *Journal* was to provide current appointments of past Kewites, accounts of their activities, a selection of essays read at the Mutual Improvement Society, a regular feature of notes and correspondence, and from 1894 the portrait of a distinguished Kewite to serve as a frontispiece. This editorial formula was established with the first issue with 11 of its 57 pages devoted to a list of present and former members of staff; the Mutual's prize essays by W. Dallimore and G. H. Krumbiegel; reminiscences of early days at Kew by W. Botting Hemsley; and an international flavour with brief contributions from Hong Kong, Ceylon, St. Vincent and Trinidad.

The response was most encouraging to the sextet that formed the first steering committee: support came from Kewites employed at home and abroad or in retirement like J. W. Thomson. "On Wednesday next, March 21st, I shall be 90 years of age, and as a birthday gift to the Kew Guild I send you a cheque for five guineas. If the Almighty . . . permits it, I shall make annually a donation to the funds of the Guild for I entertain towards it warm feelings and hearty wishes for its success."

The Curator, George Nicholson, was elected President, and the constitution of the Committee was amended in 1894 to comprise five members of the staff at Kew and seven old Kewites: three from England, one each from Scotland, Wales and Ireland and a representative from mainland Europe. The President was pleased to report to the General meeting in February 1895 that the Guild was "knitting together into one brotherhood the whole of the Gardeners who had been or were still at Kew". The Kew Guild had been originally conceived with the interests of the gardening staff in mind and that aim persisted for some years although the membership was gradually being extended to other departments at Kew. The title page of the *Journal* itself proclaimed that it was "an association of Kew Gardeners, past and present" and it was not until 1898 that 'etc.' was added to this phrase to indicate its extension to all staff, the



The first Annual Dinner of the Kew Guild held at the Holborn Restaurant in London on the 22nd May 1900, chaired by the then Director of Kew, Sir William Thiselton-Dyer.

only exclusions being constables, labourers and stokers. Within a few years its membership embraced the globe. By 1900 former Kewites had been located in Europe, North and South America, West Indies, Africa, Australia, New Zealand, Malaya and even the remote Falkland Islands.

Annual General Meetings were inevitably formal occasions and so a proposal in 1900 to hold an annual dinner and social was enthusiastically welcomed. On 22nd May that year one hundred Kewites dined at the Holborn Restaurant which was decorated with flowers donated by some of the leading nurseries. The Chairman, Sir William Thiselton-Dyer, proposed the toast to the Queen and subsequent toasts and responses were punctuated by solo renditions of "The Bandolero", "Queen of the Earth", "Three Chafers", "Who carried the gun" and other popular ballads.

At these early dinners it was the Director who took the Chair but Sir William declined to attend in 1905 in order to register his displeasure that the Guild was involving itself in "horticultural politics". At this dinner William Watson as President of the Guild urged that its influence should be "exerted on behalf of the less fortunate of professional gardeners, and in such a manner that their legitimate grievances might be remedied". He wanted the Guild to support the formation of an Association of Professional Gardeners. Sir William challenged this appeal believing it to be "little short of absurd for those who have been connected with one establishment to arrogate to themselves the task of taking charge of the interests of the gardening profession at large . . . I do not think it would be possible to bring the scattered units of the gardening profession

under the control of anything like a trades-union. If it were, I think anyone would be shy of engaging a gardener who had at his back an organisation proposing to interfere between employer and employee".

Sir William, now retired, most certainly would have disapproved of the article reporting the agitation regarding the low wages paid to Kew gardeners which appeared in the 1907 issue of the *Journal*. At the 1908 Annual General Meeting it was resolved that "the *Journal* should be open to communications from members respecting their conditions of employment both at home and abroad, provided they are considered suitable for its pages by the Committee. Also that the Guild should more actively associate itself with movements which have for their object the general advancement of members". This evidently displeased the Secretary, Treasurer and four members of the Committee who resigned, convinced that other means were already available to members for dealing with the status of gardeners. Fortunately, the opposition which threaten its legitimate role, wisely desisted.

Lack of funds presumably prevented the publication of the *Journal* in 1909 and necessitated the amalgamation of the issues for 1911 and 1912 into one number. The annual dinner lapsed for two years because, as the *Journal* cryptically reported, "it had been banned by the higher and lower staffs at Kew". It was revived in May 1911, the venue this time being the Tavistock Hotel, Covent Garden. At this function it was revealed that the number of former Kew members now exceeded that of serving staff and that nearly half of them resided in the colonies. The first Guild branch had been formed in Birmingham in 1903 and the first overseas branch was launched in North America in 1917, followed by Uganda in 1920. The 1914-18 War had a devastating effect on membership; a memorial plaque which was installed in the Temple of Arethusa in 1921 commemorated the deaths of 37 Kewites; 14 more names were added after the 1939-45 conflict.

Women gardeners who replaced the men at Kew from 1915 were allowed Guild membership after three months' service. By 1917 there were 31 women on the strength, including four sub-forewomen, carrying out a whole range of duties including the fumigation of glasshouses, done in those days with "tobacco paper and shreds". The Decorative Department, supervised by the Assistant Curator, John Coutts, was known as 'Coutts's harem' since it was staffed almost entirely by women. After the Second World War, women were accepted for the first time as student gardeners.

Eligibility for membership of the Guild was a matter of some dispute. Some of the original members had believed it should be confined strictly to gardeners; labourers and certain other categories were excluded to prevent such membership being used as a qualification for other posts. It now extends to liaison botanists and students from overseas attached to Kew for a minimum period of one year. Since the independence of former colonies overseas membership has inevitably declined except in Europe.

The *Journal* published its first coloured plate in 1962 with a reproduction of the new Arms of the Guild granted by the College of Arms. During the same year the Guild sought charity status in order to gain exemption from income tax. The first application was rejected but, on appeal, was accepted and the Guild was registered as an official charity in 1964.

Part of the financial resources of the Guild has always been deployed in creating prizes and awards, and in its early days in alleviating individual cases of hardship. An appeal for funds to establish an Award Scheme for botanical and horticultural travel and other projects was initiated in 1974-75. With its assistance, a number of fortunate Kewites have been able to further their studies by visits abroad. The Guild has always vigorously promoted the advancement of educational facilities at Kew, and the story of the progress made towards this objective is told elsewhere in this centenary number. In the annual issues of the *Journal* can be found articles and letters on students' education and much else besides. It is a rich repository of information that can be found in no other published source, certainly not in the standard histories of Kew Gardens — in the correspondence, for instance, of Kewites employed in botanical gardens and stations in almost every corner of the Empire. It chronicles the changes at Kew: the constant relandscaping of the grounds; the erection of new buildings and the demolition of or alterations to existing ones; the disastrous results of storms and droughts; not even the fauna is forgotten — the acquisition of exotic birds such as penguins and pelicans and the unwanted presence of indigenous creatures like badgers and grey squirrels. Startling events like an aircraft crashing in the Gardens or suffragettes burning down the tea room have been duly reported by grateful editors. But perhaps the compelling attraction of the *Journal* is its concern with personalities — the profile of every incoming President, the obituaries of distinguished members and the fond reminiscences of old Kewites.

W. Botting Hemsley who entered Kew as a young gardener of 17 in 1860, eventually becoming Keeper of the Herbarium, was the first of many who recollected their early days at Kew. He was "much struck by the leisurely, I might almost say dignified, movements of the workmen, many of whom were old men, some very old men. Nobody was in a hurry, and this seems to be in keeping with the traditions of the place." These gentle rhythms of working practice had disappeared when William Dallimore started at Kew in 1891. "I often wished I had the men with me who had informed me, before I entered Kew, that the gardeners there led an idle life and never did any real work." Inactivity and sloppy work were anathema to his Director. Sir William Thiselton-Dver, Gardeners were kept busy creating avenues and vistas, straightening paths and felling trees. Untidiness invariably invoked his wrath. He carried out regular inspections of green houses, messrooms and stables and, according to Dallimore, "often took his friends round the tool sheds on Sunday and there was trouble on Monday mornings should anything be found dirty or in the wrong place". When Sir William was asked about the possibility of a gardening post at Kew for a former cleric who had failed in a number of enterprises, his reply was typically forthright: "If I had acceded to all the applications made to me. Kew would now be something between a home for incurables and a reformatory. As it is, it is a place of strenuous work where no man who cannot do a competent day's labour has a chance." Sir William concluded: "I am tired of Kew being considered a dumping ground for men who can find no other employment."

A year before he died in 1895, John W. Thomson contributed an account of his gardening apprenticeship. He was 14 when he came to Kew from Shrewsbury in 1819 seeking employment. W. T. Aiton, the Director, sent him to the Royal Lodge at Windsor, transferring him to Kew the following year. One of his tasks was protecting the cherished South American Monkey Puzzle tree (Araucaria araucana) with matting during the winter since its hardiness had not then yet been established. He recalled that dismissal faced any gardener who accepted a tip from the public. He left Kew in 1830 to take up an appointment as Head Gardener to the Duke of Northumberland at Syon House. In those days promotion was usually found in the employ of the landed gentry. Although that avenue remained open until Edwardian times, more gardeners saw their future in public parks or in positions overseas.

There were, for instance, about 50 Kew-trained gardeners in 1870 working in India in botanical gardens, the gardens of agri-horticultural societies, public parks, princely estates or on tea and cinchona plantations. The Director, (Sir) David Prain, formerly in charge of the Calcutta Botanic Garden, talked to the Mutual Improvement Society in October 1906 about living conditions in India. He urged those considering applying for posts there to "see that your teeth are in a good state. Unless you have sound teeth you will not be able to masticate your food thoroughly; indigestion will follow, your health will go down, and you will be more liable to any infection that may be about". But as many Kewites who went to the tropics discovered, dental hygiene was no protection against malaria, dysentery, blackwater fever and other tropical diseases. Their letters convey a constant concern about health and a climate that was hostile not only to themselves but also to the crops they were attempting to cultivate. Kewites living on remote botanical stations or plantations often found the isolation intolerable. W. Trotter, in

charge of a tea estate at Ulipur in 1900 complained that the monthly visit of a doctor was his only contact with any Europeans. Mr. Chadwick, writing to the editor from Jamaica, had discovered that resourcefulness and self-sufficiency were required in addition to horticultural expertise. He needed "a knowledge of carpentry, blacksmithing, farrery and veterinary surgery". Sir William Thiselton-Dyer would have been proud of him! Of course those Kewites who secured appointments in North America, Australia or New Zealand congratulated themselves on their good fortune. A theme common to all these letters was a nostalgic affection for Kew; consequently the arrival of the *Journal* was always an important event in their lives.

At the inception of the Guild the publication of a journal was perceived to be essential; for many Kewites it is their only link with the Gardens, former colleagues and friends. That it has survived for a century is a tribute to a succession of capable editors. The first was William Watson who relinquished the post when he became Curator in 1901; William Jackson Bean, who succeeded him as editor and eventually as Curator was, like Watson, a prolific author; Herbert Cowley subsequently took the editorial skills he had acquired to *The Garden* and *Gardening Illustrated*; he and his successor, Arthur Osborn, combined the duties of both Editor and Secretary; A. D. Cotton, Keeper of the Herbarium, kept the journal going during the 1939-45 war; George Brown, Assistant Curator in the Arboretum, held the post for 17 years, a record that is about to be broken by the present incumbent, past Kew student, Richard Ward. This commemorative issue is not only a record of progess and achievements of the Kew Guild, but also an inspiration and a challenge during its second century.

ANNUAL GENERAL MEETING OF THE KEW GUILD

By Sandy Atkins, Honorary Secretary

On Saturday 12th September 1992, 34 members assembled in the Jodrell Lecture Theatre for the Annual General Meeting. The President, Mr. F. N. Hepper, was in the chair and the Secretary took the minutes.

Apologies for absence were read out.

A period of silence was observed while the names of the members whose recent death had been announced were read out. They were: W. Bridle, S. Goldsack, C. W. Rudd, B. R. Savage, P. Trevaskis, D. Zaidenberg.

The Minutes of the 1991 A.G.M., which had been printed in the Journal were approved as a true record.

Matters arising from the minutes: A question was raised about the progress of the Alumni Association as discussed at the last A.G.M. The President replied that as a result of great pressure resulting from organising the Centenary celebrations, very little progress had been made, but that it was still on the Committee's agenda.

The Secretary's Report: Mrs. S. Atkins reported that the Committee had met four times since the last A.G.M. Unfortunately Mr. M. Maunder had had to relinquish the position of Honorary Secretary because of pressure of work. Mrs. Atkins took over as Secretary at the meeting held in March, 1992, and thus had only attended two meetings. Much of the work of the Committee, especially the varied Centenary events planned for the coming year, was to be covered under following agenda headings.

The 1992 George Brown Memorial award recipient was Mr. Tony Schilling, and as he had been unable to attend either the Dinner or the A.G.M., his certificate would be forwarded to him.

Mr. W. Nelmes, a past President of the Guild, celebrated his 90th Birthday in July.

One of the major operations during the year had been to bring together all the archive material and all Kew Guild possessions into one place, (the Herbarium), from being scattered about in various places throughout the gardens.

Membership Secretary's Report: Mrs. J. Cowley reported that currently there were 10 Corporate, 52 Staff, 70 Life, 379 Standard and 22 Student members, 534 in all.

Some of these members were undersubscribed and others had not paid any subscription for some time. Mrs. Cowley had contacted all those who were undersubscribed and many of those who had not paid. There were still 44 people to contact and it was hoped that this would be completed by the end of September.

Those who had not paid more than the cost of the *Journal* had not received a copy of the last (1991) journal. A good response to the letters would improve the revenue.

- a) It was reported that all the records are now in a database in the Herbarium for easy access, apart from the subscription details which are now on a card system.
- b) As agreed at the last committee meeting the Membership Secretary then read out the eligibility rule:

Rule 3(a) Membership of the Guild shall be open to past and present staff members of the Royal Botanic Gardens, Kew, International Trainees and Research and Liaison scientists provided they have worked continuously at the Royal Botanic Gardens, Kew, for at least 12 months. Membership of the Guild shall be open to Horticultural students as from the commencement of their course of training.

(b) In addition, at the discretion of the Committee, any member of Kew staff outside the categories set out in 3(a) may be admitted to membership of the Guild.'

c) The principle of joint membership was agreed at the last Committee meeting, required ratification, and the following wording was put before the A.G.M.

'Where a couple living at the same address, who are both eligible for membership and who both wish to be members but wish to receive only one journal, a new category of membership shall be implemented known as Joint Membership.' Members in this position would pay £15 between them instead of £10 each as at present. After some discussion this amendment to the rules could not be agreed and the matter was referred back to the Committee.

- d) It was reported that the following members seemed to have changed address recently as their journals had been returned: Miss C. Buchanan, Mrs. D. Catling, H. Taylor, M.B.E., Miss C. Kernan. Members who might know the new addresses were asked to contact the Membership Secretary.
- e) It was hoped that, this being the Centenary year of the Guild, a recruitment drive to gain as many new members as possible would be held.

Treasurer's Report: Ms. R. Bower reported that the balance sheet for the year ending December 1991 was to be found on pages 68-69 of the current journal. The account had been boosted by the Dallimore legacy and the Edna Redmond Memorial Fund. These had been invested in the Charities Investment Fund to maintain the investment. The Interest had been maintained and this had been used as awards. The Annual Dinner had just broken even. Although the latest (1991) *Journal* had cost more to produce this year, there had been a good increase in the number of advertisements and in advertisement revenue. The subscriptions just covered the cost of producing the *Journal* and the balance sheet was in a healthy position. The Committee had agreed to underwrite the costs of producing the Centenary Anthology. The President thanked the Treasurer for all her hard work.

It was noted that Mr. J. Woodhams and Mr. L. Pemberton were listed as Auditors. It was agreed to nominate new auditors. Mr. J. Woodhams and Mr. I. Leese were proposed by Mr. M. Sands and seconded by Mr. L. Pemberton.

Editor's Report: Mr. R. Ward thanked all the contributors to the latest 1991 *Journal* as well as members of the Centenary Sub-Committee and especially those of the Centenary Journal working group. He reported that the printers had offered sponsorship towards the *Centenary Journal*. The Editor said it was important to get plenty of advertising. The Chairman thanked Mr. R. Ward.

Events Officer's Report: Mr. D. Breach reported that the Annual Dinner had been held on 20th May at Imperial College in the main Banqueting Suite with 95 diners attending, a slight increase on the previous year, although not many students had attended the event. There were

five overseas members with their families. The guest speaker was Anna Pavord, the Gardening Correspondent of the *Independent*. Derek Breach expressed his thanks to all those who had helped.

Award Scheme Report: Ms J. Evans reported that it had been a fruitful year for the Awards Scheme. The first Dallimore prize had been awarded and the new Edna Redman prize would be awarded for the first time next year. Applications had been received in March, but although of a very high standard, they had been rather few in number. Awards had been made for travel to Spain, China, for Conference attendance and for M.Sc. and M.Phil. course fees. In all £1,500 had been distributed. Ms Evans was now standing down as chairman. Her place would be taken by Mr. K. Pearson.

Centenary Sub-Committee: Mr. M. Sands (Chairman) began by apologising that dates and events for the core fortnight had had to be changed because Chelsea week had not fallen as anticipated. The Book launch would now be held on 15th May, the Dinner would be either 21st or 22nd and the final week-end would coincide with the end of Chelsea week. Confirmation of the presence of the Guild Patron, H.R.H. The Princess Alexandra, was still awaited. The caterer, venue and MC for the dinner were all fixed. Messrs. Breach and Sands were hoping to pay a visit to the B.M.N.H. while a function was in progress to assess the technicalities.

It was still hoped to hold an exhibition in the Tropics areas of the Princess of Wales Conservatory. There would be an audio-visual display about the Guild with a voice-over by Alan Titchmarsh. It was hoped to raise financial support from British Rail, Network South-East.

The Centenary Journal was well in hand. Dr. A. Lord was trying to draw in as much information as possible about past members.

Barry Phillips was planning a series of four to six lectures during the course of the year.

The publication "A Century of Kew Plantsmen" was now well advanced. Whitstable Press had agreed, and everything was more or less ready. If purchased before 1993 the cost per volume would be $\pounds12$, thereafter $\pounds15$.

The discussions for a Guild Room were also making progress. It had been agreed with the Keeper of the Herbarium that the Guild would use money to furnish the room, i.e. archival cupboards, free-standing furniture, plaque on the door, armorial bearings and possibly an oak board bearing the names of Past Presidents.

The Students would be involved in the bulb planting across Bird Cage Walk, Kew Green. The bulb firm, Parkers, had agreed to supply 10,000 bulbs of two kinds of Narcissus.

There would be a Veteran's Clog and Apron Race on the final weekend. Mr. M. Biggs was responsible for the publicity for special events, and there was to be an article published in the *Friends of Kew* magazine about the Guild and its Centenary. There were also to be some regional centennial activities. Colin Hindmarch, for example, had organised an event in Winchester on the theme of Biodiversity. There would be three speakers, a buffet lunch, all attended by the Mayoress of Winchester. This had been organised in association with the Wessex Branch of the Institute of Biology.

It was suggested from the floor, that possibly members who lived in London might be able to offer accommodation during the main events to members who lived outside London. Winifred Worth offered to co-ordinate a list.

Prize-giving: The annual Students' Prizegiving was held on 11th September. The prizes were awarded by Sir Leon Brittan, the British Commissioner at the European Commission. The theme of the day was Europe and especially Kew's links with Europe.

Election of officers: The recommendations of the Committee were unanimously agreed "en bloc" and their names appear at the beginning of the *Journal*.

Auditor's Report: Subject to auditing the meeting agreed to accept the annual accounts.

There was no other business.

Installation of new President: Following an address by the outgoing President, F. N. Hepper, he installed the Director of R.B.G. Kew, Professor I. Prance, as the new President of the Kew Guild.

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The date of the next Annual General Meeting: Saturday 11th September 1993.

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The meeting closed at 3.30 p.m. and members adjourned to the Common Room for tea. In the evening the Awards Committee had organised a tour of the Joseph Banks building followed by a buffet supper.

HONORARY SECRETARIES OF THE KEW GUILD

Compiled by Sandy Atkins

1893-1896	J. Aikman	1946-1951	Joint: W. M. Campbell/S. A. Pearce
1897-1901	W. Watson	1952-1959	W. M. Campbell
1902-1909	W. N. Winn	1960-1966	J. R. Sealy
1910-1913	H. Cowley	1967-1976	F. N. Hepper
1914-1921	A. Osborn	1977-1978	S. Owens
1922-1923	A. C. Bartlett	1978-1984	Dr. Margaret Y. Stant
1923-1939	E. G. Dunk	1984-1989	Mrs. W. Worth
1940-1941	W. M. Campbell	1989-1991	M. Maunder
1941-1946	A.D.Cotton	1991	Mrs. S. Atkins
NOTE to 4007 the east of Assistant Occurrence with remembility for taking the Minutes, was			

NOTE: In 1967 the post of Assistant Secretary, with responsibility for taking the Minutes, was created. From 1967 to 1987 this post was held by M. J. S. Sands. Thus so far, Mr. Sands is the longest serving Officer of the Guild.

EDITORS OF THE KEW GUILD JOURNAL

1893-1902	W. Watson	1941-1946	A. D. Cotton
1902-1907	W. J. Bean	1946-1951	Joint: S. A. Pearce/W. M. Campbell
1907-1910	Committee	1951-1956	E. Nelmes
1910-1913	H. Cowley	1956-1974	G.E.Brown
1913-1921	A. Osborn	1974-1976	M. J. Dawes with G. E. Brown and
1921-1922	A. C. Bartlett		F. N. Hepper. A. Hart and M. J. S.
1922-1939	E. G. Dunk		Sands as Sub-Committee
1939-1941	W. M. Campbell	1976-	R. C. Ward
NOTE: The	posts of Secretary and Editor we	re combined	in the following instances.
1897-1902	W. Watson	1921-1922	A. C. Bartlett
1910-1913	H. Cowley	1922-1939	E. G. Dunk
1913-1921	A. Osborn	1939-1941	W. M. Campbell

PRINTERS OF THE KEW GUILD JOURNAL FROM 1893

1893-1920 and 1922-1927	Taylor & Francis, Red Lion Court, Fleet Street, London
1921	Brentford Printers and Publishing Co. Ltd., Albany Works, Brentford, Middx.
1928-1932	Horties Printing Co. Ltd., Burnley and London
1933-1945	South East Essex Recorders Ltd., High Road, Ilford, Essex
1945-1951	Brentford Printers and Publishing Co. Ltd., Albany Works, Brentford, Middx.
1952-1967	H. J. Rowling & Sons Ltd., 36 York Road, Battersea, London S.W.11.
1968-1973	H. J. Rowling & Sons Ltd., 1-3 Haydons Road, Wimbledon, London S.W.19.
1974-1988	Rowling Printers Ltd., 144 South Street, Dorking RH4 2EU
1989-1993	Rowling Printers Ltd., 5 Horsham Road, Dorking, Surrey RH4 2JN

ROYAL BOTANIC GARDENS EDINBURGH

Jonathan Jones, one of the Student Editors of *The Botanics Guild News Sheet*, met up with Editor Richard Ward during the summer to exchange ideas and to improve their respective communication to members.

OUTGOING PRESIDENT'S REPORT 1991-1992 TO THE A.G.M.

F. Nigel Hepper

This is a very significant period for Kew Guild as we approach the Centenary in 1993, so it has been a double honour to hold the Presidency at this time. Our planning for the Centenary, as reported by Martin Sands, is crystallising into various activities, while the over-ambitious ideas have been abandoned with regret. We look forward to the Kew Green bulb display, the Centenary Dinner, the exhibition, and in a lighter vein the Kewites' Clog and Apron race. Personally this year I have been involved, together with Ray Desmond, in the preparation of our centenary book *A Century of Kew Plantsmen: a celebration of the Centenary of the Kew Guild*. Although mainly an anthology from our *Journal*, it is much more than a scissor-and-paste job. It has involved much more preparation than either of us envisaged (as is always the case in book writing!) but now the text is complete and the unconventional photos selected. I look forward to seeing some raised eyebrows and curling lips as purchasers scan the 96 black and white and eight colour illustrations. Printing is about to go ahead for publication in May in spite of our original publisher biting the dust in the present recession. This necessitated rapidly making alternative arrangements for it to appear in time under the Kew Guild imprint.

Apart from the Centenary, the Guild's affairs continued with regular committee meetings helping to keep Kewites in touch everywhere with one another. Mike Maunder retired as Honorary Secretary as he found it impossible to continue owing to his ever-growing Kew responsibilities, and I am grateful for all he did for the Guild until we could find his successor. We are delighted to welcome Sandy Atkins of the Herbarium, who has plunged into the Secretarial work with enthusiasm in her quiet, efficient manner. Together with Jill Cowley's immense work on the membership and the other officers, the Guild has a strong team. I cannot mention them all by name, but I greatly appreciate their skills and interest in the Guild. However, I must mention Derek Breach as the success of the Annual Dinner depended on his good arrangements. This was a great occasion for my wife and I when Anna Pavord was the excellent speaker — only the second time a woman has been the guest. She is the gardening correspondent for *The Independent*.

As my term of office ends, so does that of several committee members. Thank you for your interest and I give a warm welcome to the newcomers. I continue my work with the Guild as I have joined the Award Scheme Sub-Committee which now has a vastly increased capital, thanks to the Edna Redman Memorial Award and the Dallimore Award for the study of conifers, being administered by the Guild Award Scheme, with a capital of some £45,000. I should remind *all* members that these Awards are not only for students, but for any eligible member of the Guild. So, Grandma and Grandpa, what about that study of Japanese gardens, or Alpine meadows you always wanted to do, but had neither the money nor time? Don't let these opportunities go by as the money is there gaining interest to be used.

I am sure all members of the Guild have close to their hearts the welfare of Kew, not as a sentimental memory but as an active presence. The Kew Guild, together with the Friends of Kew and the Kew Foundation, support R.B.G. Kew as the world's foremost garden and botanical research institution. I envisage new ways that the Committee can collaborate with these newer organisations to ensure that the good name of Kew is enhanced by the Guild. It is very appropriate that for the Centenary year I hand over this President's collar to my friend, Professor Ghillean T. Prance, in whose good hands rest the Directorate of Kew and now also the Guild — 'Floreat Kew': ''May Kew flourish'.

COMMITTEE DISCUSSIONS

During 1992 your Committee discussed many items during four meetings. The most important things were: Students prizes amounts; general anticipated income and expenditure in the future; liaison with the Friends of Kew; Centenary celebrations generally; Award Scheme rules; Annual Dinner generally and possible different venues; archives; Kew Guild Room; bequests, bursaries, legacies and gifts to the Guild; Guild publicity and PR; subscriptions; membership qualifications; Past Presidents' badges and passes to Kew Gardens; Royal patronage; Trustees and Guild; membership; Alumni Assocation.

REPORT OF THE 1992 ANNUAL DINNER

By D. J. Breach, Events Officer

The Annual Dinner of the Kew Guild was held at the Imperial College of Science and Technology, South Kensington, on Wednesday 20th May 1992.

Guests were greeted by the President, Nigel Hepper, and his lady Helen at a pre-dinner gathering where Kewites and their Guests were able to relax before dining and catch up on events of the last year.

Ninety-five Kewites and Guests dined, including five students, and this year the President was able to welcome the following Old Kewites from overseas: John Aves (1939 — South Africa), James Mitchell and Mrs. Mitchell (1966 — New South Wales), Andrew Pierce (1960 — U.S.A.), Tom Riseley and Miss Riseley (1960 — Spain) and Kaspar Zwicky-Waber (1931 — Switzerland).

In his address the President said how much he had enjoyed his year in office, which he had found to be exciting and rewarding. He expressed his thanks to all those who had assisted him during his year. He also spoke of the Guild's Centenary Year which was fast approaching and of the various events planned in celebration of the Guild's Centenary.

The Guest Speaker was Anna Pavord, Gardening Correspondent with *The Independent* Newspaper, TV Gardening Programme Presenter and authoress.

'The Loyal' toast was proposed by the President, the toast to 'The President' was proposed by John Simmons and the toast to the 'Kew Guild' was proposed by the President. C. Kidd, as Student Guild Representative, proposed the toast to 'Our Guests' to which Mrs. Anna Pavord responded. The toast to 'Absent Friends' was proposed by Ian Leese.

Finally the Guild Committee wish to express their appreciation to Richard Ward for officiating as Toastmaster and to Tarja Ravenhall for creating the wonderful floral decorations.



Past Presidents, left to right: Arthur Woodward, John Simmons, Dr. Margaret Stant, Cyril 'Mitch' Mitchelmore, Edgar Milne-Redhead and Martin Sands.

KEW GUILD AWARD SCHEME REPORT FOR 1992

By Kenwyn Pearson

The interest in the Awards Scheme grows every year, and the support given to its activities ever increases.

In addition to the ever increasing capital figure, the interest from which supported many members over several years, the Awards Scheme has a greater role to play administering monies from other funds that have been given to the Kew Guild from legacies and by donation.

The Committee meets about three times a year, the first meeting of the year occuring in March, when we discuss and distribute awards, and this is followed by a summer meeting to plan the A.G.M. Evening and to review the finances of the Guild Awards Scheme. The Committee then meet in the autumn to review the whole year and plan for the following season.

The main bulk of awards are granted in the spring but, just occasionally, funding is held over to a later meeting. Sometimes, where funds have not all been expended in the spring, the Committee has supported projects worthy of special recognition through the year. The standard of applications and presentations and range of projects is high.

The Committee would like to encourage members to apply for support for their various ideas and schemes and projects. The Awards Scheme is a very creditable part of the Kew Guild's activities,, and support from the Scheme can encourage other funding bodies to support individuals. All requests for assistance will be examined and assistance given wherever possible.

In 1992 the following awards were made:

Phil Brewster	Funding for attending the Etno Botanica '92 in Cordoba, Spain.
Louise Bustard	To help with studies for an M.A. course in social anthropology at London University.
Charlie Butterworth	Funding for attending the Etno Botanica '92 in Cordoba, Spain.
Jill Cowley	Of the Herbarium at Kew; on a study trip to China to further research and discover roscoeas.
Sally Kelly	To assist in work studies at the Jerusalem Botanic Garden.
Sophie Piebenga	To assist in post graduate research on landscapes laid out by William Sawrey Gilpin.
Tim Upson	Supported on a field trip to Southern Spain as part of the work on the Genus Rosmarinus.

The A.G.M. evening proved a success which was greatly supported by members, and thanks go to all who make this an annual event. Members of the Guild and their guests enjoyed fascinating tours of the Sir Joseph Banks building. The Centenary year in 1993 will prove to be an eventful year and the Awards Scheme hopes to play a full part.

The Committee is comprised of the following:

Kenwyn Pearson — Chair David Barnes — Secretary, based at the School of Horticulture, R.B.G., Kew Hugh Flower Don McGuffog Nigel Hepper Sheelagh Kell — Student Representative

ETHNOBOTANY '92

By Phil Brewster

For Spain, 1992 has been one of the most significant dates of modern times throughout it's long and rich history. Barcelona staged the Olympic Games, Seville's Universal Exposition was stampeded by more than 36 million visitors between April and October, and Madrid standing proud in its central position of the country, took its turn as Europe's Capital of Culture.

The quincentenary celebrations of the Western World's "Discovery" of America didn't stop there however. At the heart of Spain's deep South, the magnificent ancient city of Córdoba found itself bubbling with botanical busy-bodies.

From the 20th to 26th September the five-year-old botanic garden of Córdoba hosted the first international ethnobotany congress. Attended by more than 800 people, it presented some 600 lectures and poster displays. They discussed the history, present day situation and future of plants used by mankind and the subsequent effects on economy, culture and religion following the exchange of such plants between the New World and the Old World since 1492.

This major gathering of botanists, anthropologists, horticulturists, pharmacists, sociologists and economists provided a golden opportunity to learn of the work being carried out in this field and to increase communication with those researchers of the 35 countries represented.

The varied selection of papers ranged from the more generalised broad outlined subjects such as "The Ethnobotany of the Amazon Indians as a tool for conservation of biological diversity" by Professor G. T. Prance, covering a wide range of species and introduced all aspects of ethnobotany, to a narrowed down, more concentrated one as in "The Potato in 16th Century Spain" by Hawkes and Francisco-Ortega.

Throughout the congress the importance of in-situ and ex-situ conservation was repeated. The latter being a major rôle for botanic gardens as part of implementing the World Conservation Strategy by carrying out ethnobotanical and medicinal plant research and germplasm conservation. The lecture relating to this was given by Professor V. H. Heywood and is of particular interest to Kew.

Botanic gardens have for centuries been the major force behind the collection, distribution and exchange of plant material and must now work harder than ever if we are to add to that list of functions, successful conservation.

Too many people regard conservation as an interest to a minority rather than instinct to everyone. We all practice ethnobotany in some form or another, a realisation lost to many through 'westernisation'. So we must therefore re-awaken our own 'natural' interest in order to act effectively upon the pressures put on those indigenous people from whom, as Professor R. E. Schultes 'Father of Ethnobotany' put it, "The time has come to salvage what is left of this knowledge before it is forever entombed with the culture that gave it birth".

SOME PLANTS USED BY THE QUIJOS-QUICHUA SHAMEN, NEAR TENA, AMAZONIAN ECUADOR

By Charlie Butterworth

I visited two Shamen (curanderos), both times accompanied by Magdalena Ponce-Martínez, a final year botany undergraduate of Universidad Católica, Quito. The first, Shahuaco or Sebastian Albarado, lives on a small island in the Río Napo close to the village of Ahuano. He does not speak English or Spanish, only Quichua. The canoe owner we had hired translated from the Quechua into Spanish.

Sebastian Albarado gave information on 11 plants, parts of which he used in his work. Most of the plant material is tree bark which he collects from primary and secondary forests and foraging trips and then stores. Of the 11 plants he gave information about, I have managed to positively identify four, one further is not a positive identification due to problems with the Quechua language plant nomenclature.

The Shaman Domingo Andi lives about six kilometres from Jatun Sacha Biological Reserve in the direction of Ahuano. He is apparently one of the more popular 'curanderos' in the area. Besides using plants for specific treatments, he brews a mixture of 10 plants; Chuchu-Huasha, Caballo-Caspi, Yana-Caspi, Yaguati-Caspi, Palta-Caspi, Pacai-Caspi, Sindicara, Cedro-Caspi, Chiri-Guayusa and Aya-Caspi, to produce a general, all-round health tonic. The following key refers to the list of plants below:

S.A. = Sebastian Albarado	Hal. = Halucinogenic
D.A. = Domingo Andi	Spi. = Spiritual use
Med. = Medicinal	F.P. = Fish poison

1. Virola elongata (?) Family Myristicaceae D.A. Med.

Quechua name: Huapa, Isla-huapa

Spanish name: Sangre de Gallina (translated Chicken Blood)

The milky sap is reputed to be good for itches. The resin produced by the tree may also be applied to the gums and tongue in cases of mouth ulcers.

2. Siparuna sp. Family Monimiaceae D.A. Med.

Quechua name: Huaira-Panga

Spanish name: Hoja de Viento, Mal Aire

The cortex of the stem is cooked and used as a cure for 'Chontarucu-Paju', possibly herpes.

In cases of 'Mal Aire' a sprig of leaves is passed to and fro over the ill person at the same time tobacco smoke is exhaled over him.

Collection: 032 QCNE.

3. Persea gratissima Family Lauraceae D.A. Med.

Quechua name: Palta-Cara

The leaves and bark are used in a general health tonic by Domingo Andi.

4. Sporattanthelium glabrum Family Hernandiaceae D.A. Med.

Quechua name: Dunduma Huasca

The cortex of the stem of this liana is boiled, the infushion is a cure for malaria, although it is also good for treating diarrhoea and head and stomach aches.

5. Potomomorphe peltata Family Piperaceae D.A. Med.

Quechua name: Maria panga

Spanish name: Santa Maria Panga

The leaves are heated in a small volume of water and applied to bruises and swellings.

6. Juglans neotropica Family Juglandaceae D.A. Med.

Quechua name: Cedro-Cara

The bark is boiled alongside other ingredients in a health tonic.

7. Cespedesia spathulata Family Ochnaceae D.A. Med.

Quechua name: Amaron-Caspi (translated 'Anaconda Tree') Chalua-Caspi by Sebastian Albarado

The bark of this tree is boiled and taken by mothers and new-born babies. It helps the mothers to pass milk and the babies, particularly those that are premature, to gain weight. Sebastian Albarado also uses it for colds and fevers. It must be stewed until the water becomes a deep red in colour (about one hour).

8. Sloanea Family Elaeocarpaceae S.A. Med.

Quechua name: Sindicara

The bark is boiled till the water becomes a deep red/brown colour. This is then drunk for treatment of diarrhoea, vomiting and serious dysentry. When the fresh bark is rubbed between the fingers, there is a smell of almonds, indicating that cyanogenic glycosides are probably present.

106

9. Ficus dendrocida (?) Family Moraceae D.A. Med.

Quechua name: Matapalo

Spanish name: Matapalo

The milky sap of this plant is cooked and drunk as a slimming aid. The whole plant may be crushed and applied to fractures to help immobilise them.

10. Saurauia sp. Family Actinidiaceae D.A. Med.

Quechua name: Lunchi-Panga

The thin bark covering the young wood is peeled and the inside surface is scraped with a knife to produce a pulp. The pulp may then be applied to cuts as an anti-coagulant. Collection: 026 QCNE

11. Neospruciea sp. Family Flacourtiaceae D.A. Med.

Quechua name: Chiriguayusa or Chirihuayusa

The bark and the leaves are crushed and used as a poultice in cases of swelling. The twigs may be cooked and leaves may be cooked and used to produce a compress useful in cases of bad cuts and lacerations. In cases of colds a teaspoonful may be taken.

12. Kalanchoe pinnatum Family Crassulaceae D.A. Med.

Quechua name: Chudri-Yuyu

The succulent leaves are made into an infusion which is said to be good for the kidneys and the stomach. It is also reputed good for sore throats.

Collection: 033 QCNE

13. Myroxylon balsamum Family Leguminosae D.A. Med.

Quechua name: Balsamo

The bark of this tree is boiled, often along with Maize. It is reputed to be good for spots and pimples.

14. Swartzia simplex Family Leguminosae D.A. Med.

Quechua name: Yana-Caspi (translated 'Black Tree')

The bark is boiled as a cure for intestinal parasites. The inner bark can also be boiled to make a tea which is good for muscle fatigue and broken bones.

15. Mimosa polydactyla Family Leguminosae D.A. Med. F.P.

Quechua name: Barbasco or Hambi-Barbasco

The leaves, branches and roots are crushed and added to streams, having the effect of killing fish.

Collection: 027 QCNE

16. Minquartia guianensis Aubl. Family: Olacaceae S.A. Med.

Quechua name: Huambula

The bark is removed and the remainder is crushed between stones prior to being soaked in water. The water is then used alongside tobacco in cases of tuberculosis.

The bark is boiled to make a strong infusion. Only a small amount of the infusion should be taken due to its toxicity. It can cause vomiting, but is good for curing intestinal parasites. Collection: 030 QCNE

17. Bejuco resonoso Family Celastraceae D.A. Med. F.P.

Quechua name: Bejuco or Barbasco

This is commonly used as a fish poison, but may also be used for treatment of intestinal parasites.

18. Maytenus chuchuhuasha S.A. Med. Family Celastraceae

Quechua name: Chuchu-Huasha

The bark is soaked in aguadiente (aniseed licor) and used in the treatment of headaches. It is also taken by mothers with new-born babies as a tonic. It is also said to be good for rhumatism.

19. Ilex guayusa Family Aquifoliaceae D.A. Med.

Quechua name: Huayusa or Guayusa

The properties of this plant are the theme of a popular Ecuadorian song 'Agua de Guayusa'. Domingo Andi uses the bark to prepare a beverage, having the effect of giving relief and relaxing people with headaches and other general aches and pains.

According to Neill and Wilbert (in 'Medical Ethnobotany of the Quijos-Quichua of the Upper Río Napo, Amazonian Ecuador' unpl.) the bark makes a stimulatory tea due to the high caffeine content and is used to treat the depressed.

20. Croton lechleri Muell. Arg. Family Euphorbiaceae S.A. Med.

Quechua name: Lan-Higui or Lanigui

Spanish name: Sangre de Drago

This tree is commonly found in secondary forest, especially on the river floodplain. The sap is a dark red. It is used mainly for skin problems such as bites and stings and should be applied neat and allowed to dry. According to Sebastian it can cause scarring if not used carefully. It can also be used for treatment of bleeding gums. Collection: 034 QCNE

21. Banisteriopsis caapi Family Malpighiaceae S.A. D.A. Hal.

Quechua name: Aya-Huasca

Spanish name: Soga de Muerto (translated 'rope of the dead')

This liana is used only by the Shaman or his apprentices. It is strongly hallucinogenic. It allows the Shaman to, in some cases, communicate with the spirit world, although Domingo Andi uses it to examine unborn babies. If there are minor problems, Domingo will employ the work of the local midwife. If problems are more complicated he will send the pregnant woman to the hospital in nearby Tena. The preparation of Aya-Huasca is time consuming involving hours of boiling the liana. It is usually drunk with Aguardiente (aniseed licor) or Chalipanga Psychotria viridis.

S.A. Med. 22. Guarea kunthiana A. Juss. Family Meliaceae

Quechua name: Tocota, Sacha Tocota

Sebastian gave information on Tocota, which may be synonymous with Sacha Tocota in Quichua plant nomenclature. Tocota bark is crushed, the juices collected and drunk as treatment for malaria. Sacha Tocota is reputed to be good for depression in mothers with new-born babies. It is also said to bring relief to asthma sufferers.

Family Solanaceae D.A. Med. 23. Brugmansia arborea

Quechua name: Guantu

Spanish name: Floripondio

The stem is ground and applied to aching teeth. This takes away the pain, although it slowly causes the tooth to fall out. It can also be used hallucinogenically, allowing the Shaman to trace the cause of certain illnesses.

D.A. Med. 24. Brunfelsia grandiflora Family Solanaceae

Quechua name: Chiri-Caspi

The leaves and bark are boiled in water to produce an infusion which is drunk as a cure for general aches and pains. A compress may also be made for clotting blood in serious cuts. Collection: 028 QCNE

108

25. Nicotiana tabacum Family Solanaceae D.A. Med. Spi.

Quechua name: Tahuaco Spanish name: Tabaco

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The dried leaves of the tobacco plant are rolled very tightly and covered in twine. This produces a large resinous block of leaves and oils, and is reputed to be one of the most important medicines in Quichua pharmacological practice.

In the treatment of snake bite tobacco is mixed with various species of **Aracea**. The leaves of tobacco are boiled to produce an infusion having the following uses. In gastritis, the infusion is drunk and treatment also consists of a meat-free diet for around one month. Infected spots and boils are washed with the infusion. The Shaman's apprentices also drink the infusion prior to practising for the first time.

The smoke of 'Tahuaco' is also thought to have a protective quality and is used to drive away evil spirits in the forests. The smoke is also used in the treatment of 'Mal Aire' and to kill flies in the cooking areas.

Domingo particularly uses tobacco to treat infected spots and boils as well as skin parasites such as maggots. He chews the tobacco and applies the pulp and saliva to the infected areas.

26. Verbena littoralis Family Verbenaceae D.A. Med.

Quechua name: Verbena Spanish name: Verbena

The leaves are used to prepare an infusion which cleanses the stomach and alleviates stomach pain. It can also kill intestinal parasites.

Collection: 035 QCNE

27. Drymonia sp. Family Gesneriaceae D.A. Med.

Quechua name: Chucchu-Huasca

This semi-hepiphytic vine has floral bracts which are used in a preparation which is used to bathe the breasts of mothers who have new-born babies. This has the effect of stimulating milk-flow.

28. Psychotria viridis Family Rubiaceae S.A. D.A. Med. Spi. Hal.?

Quechua name: Chalipanga

This is used in the preparation of 'Ayahuasca' and enhances the visions and helps to protect the Shaman from evil spirits. It can also be used in conjunction with 'Guayusa' in the treatment of depression.

29. Psychotria racemosa Family Rubiaceae D.A. Med.

The bark is used to produce a compress that is good for fungal infections and itching of the skin.

TO CHINA IN SEARCH OF ROSCOEAS

By Jill Cowley

At last I was to realise a dream — to see Roscoeas in flower in the wild. It is my intention to write a semi-popular book on the genus **Roscoea** (Zingiberaceae), for which it is vital to photograph and study the plant populations in the wild. The chance to join a botanical tour in areas of Sichuan and Yunnan provinces of China, in June 1992, seemed too good an opportunity to miss.

We flew to Hong Kong and were thrust into its steamy, skyscrapered, comparatively affluent atmosphere; a taste of luxury before travelling by train through to Guangzhou (Canton) and flying to Chengdu, the capital of Sichuan. Here we were to pick up guides and the bus in which we were to travel thousands of kilometres through towns and villages, along bumpy and at times somewhat dangerous, boulder strewn roads, through river valleys and over mountain passes, marvelling at the scenery and floristic wealth of this fascinating country.

Our botanical exploits in Sichuan were to be concentrated in the national reserves, in areas around the Min River on the Tibetan plateau. One of our first forays was near the Wolong Panda Reserve at Wu Yi Peng, in mixed deciduous temperate forest, after a brief visit to the WWF Panda Reserve itself. Unfortunately, we all felt sad and disheartened to see the unhappy animals and to hear that only one baby panda was alive at present, but not on view, and that transition to the wild was unlikely to be successful. Wu Yi Peng is at an altitude of 2,600 m. and here we were to see, amongst other gems, orchids such as **Cypripedium henryi** and **C. debile, Epipactis mairiei** and **Calanthe tricarinata.** In the forest undergrowth were to be found **Pyrola rotundifolia, Androsace henryi** and **Arisaema** species, while scrambling through the trees above our heads were species of **Schisandra, Clematis** and **Actinidia kolomikta**. The most exciting tree finds were a speciment value was the sighting of Panda droppings, like fat cigars, the nearest we were to get to seeing the animals in the wild.

It must have been at this point that I was unlucky enough to pick up a tick, which I discovered many hours later, being in a position on my body not easily seen by myself! With a lot of help from friends, I was eventually relieved of this unwelcome visitor and as compensation, like to think that maybe it was a Panda tick. The joys of plant-hunting!

We were to see many breathtaking plants in the lush moist valleys in this area, including **Rosa wilmottii**, **R. moyesii** and **Iris wilsonii**, but we had to travel to altitudes above the tree line, at around 4,000 m. to see the spectacular **Meconopsis** species on the Balangshan Pass. On open hillsides were colonies of the large, yellow flowered **M. integrifolia**, while bright red **M. punicea** was found in screes near streams, growing with dwarf **Rhododendron**, **Caltha** and the beautiful turquoise blue **Corydalis melanochiora**. Later on, in other localities we found the blue **Mecanopsis henricii** growing with **Incarvillea compacta**.

Trips were made in the Songpan area, where Ernest Wilson declared he would like to live. The flora was indeed awe inspiring, but as for the town's local inn, where we stayed, we could not escape quickly enough.

I had been patient, with plenty to experience botanically during the excursions in Sichuan, but one vital thing was missing — the Roscoeas. I had to wait until we were travelling south towards Lichiang and the Jade Dragon mountains in Yunnan before setting eyes on the first species. At an altitude of 1,920 m., on grassy banks under pine trees by the road, was a colony of **Roscoea praecox**. I was able to take photos, make notes on habitat and plant associations and to take measurements. A thrilling time, but frustrating in not being able to collect specimens, as this species is not yet in cultivation. It is a striking deep purple with white markings at the base of the lip, flowering without leaves, another reason for wanting to collect, as the leaves are unknown from studying herbarium specimens.

I had visited Lichiang in September/October 1990 and knew well that there were colonies of other species of Roscoeas in the Yulong Shan range, a haven for botanists. To the south of Lichiang town, between the two flanks of mountains, lies a vast open plain at 2,800 m., and it was here I was to find populations of the handsome species, **R. humeana**. I was surprised to find how pale the flowers were, white and very pale purple, as the form in cultivation is deep purple. We also found a few yellow forms of this species.

At the end of the plain is a high dry river valley, the Gang Ho Ba, enclosed by steep banks. Here was home to four species of **Roscoea**. On the east facing bank I found colonies of **R**. **cautleoides**, the yellow form, and on the west facing banks were more **R**. **humeana** being dwarfed in one place by a spectacular find, the yellow **Incarvillea lutea**. Higher up, on the scree area, was found **R**. **tibetica** in flower and the small plants covering areas of the white limestone soil of the valley also, I believe, were this species, but whose flowers were already over.

I had found, in the autumn of 1990, small colonies of **Roscoea schneideriana**, but sadly, on searching the same location I could find no evidence of these on this visit. The **Pinus**

yunnanensis under which they had flourished were already cut down for timber and therefore the habitat had changed. I was thankful that I had previously collected seed, and that the progeny were safely thriving at Kew. I had also hoped to see a copper coloured form of **R**. **cautleoides**, photographed on a previous trip by a vigilant plantsman, but no luck here either.

The following day, on visiting Baishu, the valley of white water, I encountered large colonies of the purple flowered **R. cautleoides**, growing in clearings under pines. Barrie Phillips, a Kewite, now Curator of Hillier Arboretum, was delighted to see **Cornus capitata** by the roadside here and further up the boulder strewn dry valley the banks were full of other delights. Here we saw the only flowering specimen of **Pleione bulbocodioides** and, under shady areas, two amazing large, spotted-leaved Cypripediums, **C. margaritaceum** and later, **C. daliense**.

The following day we were to see a colony of vivid orangy-pink hybrid Primulas and their parents, **P. bulleyana** and **P. poissonii**, and close by Arisaemas, **A. consanguinea** and **A. elephas**.

On leaving the Yulong Shan, we travelled south to Lake Erhai and the Cangshan mountain range, with the ancient town of Tali at its feet. Here I was to see, high up in the uppermost slopes, vast colonies of **Roscoea tibetica** in all its variability, under quite heavy shade of tall pines; a wonderful sight and well worth the strenuous climb under rather bad weather conditions.

Our trip was coming to an end; we had seen so many wonderful plants. I, for one, did not want to leave this plantsman's paradise. We made our way back to Tali, then a day's journey down the Burma road to Kunming to study herbarium collections and renew old acquaintances, followed by the flight back to Hong Kong and home.

I would like to thank the Kew Guild Award Scheme for help in funding my **Roscoea** study trip, which was invaluable towards my further understanding of the genus.

JERUSALEM UNIVERSITY BOTANIC GARDENS

By Sally Kelly

In February 1992 I had the pleasure of working in Givat-Ram Jerusalem University Botanic Gardens. A garden conceived by the late Professor Michael Zohory from the University Department of Botany which was established in 1964. On its present site the gardens are under the vision and zest of Dr. Michael Avishai (Scientific Director).

Israel is a small country on the land bridge of three continents and is the melting pot of temperate and tropical regions of the world.

The Jerusalem University Botanical Garden is situated at 750 metres above ordinance datum. With an unique geographical and ecological position on the outskirts of Jerusalem city.

The gardens concept is set out in a geographical order under the taxonomical system of Takhtajan, a diverse collection of plants, from the world's flora and vegetation belts. It has an active conservation role in its own native flora, which is used as an under cover story to the georgraphical planted areas. The native flora comprises of over 2,300 species, 7.1% of which are endemic and occur nowhere else in the world.

In my spare time my weekends were spent botanising this wondrous flora. Due to the extreme bad weather over the winter and excess rain the Dead Sea and the desert were a riot of blossom and bloom — the best in over 30 years. Over flive weeks I saw the desert turn from red with **Papaver** species, **Rumex cyprius** and **Rumex vesicarius**, to purple with **Linaria haelava** and yellow from **Forsskaolea tenacissima**. I saw **Cistanche tubulosa**, a parasite growing on the salt bushes (Chenopodiaceae species), rising yellow flowered from the stark sand to over 54 cm tall.

I saw many species of familiar common perennials and bulbs in the wild, such as **Tulip polycarpa**, **Iris atropurpurea**, **Cleome arabica**, **Linaria haelava** and **Lupinus varius**, to name just a few.

One of the highlights of the trip was to see the ancient cultures and historical architecture dating from pre-Christian times. Also seeing the world's lowest point at the Dead Sea where the desert is so alive with vegetation is something I shall never forget.

I would like to thank the Friends of Jerusalem Botanical Garden and also the Kew Guild for the generous donation that enabled me to experience Israel, a country full of horticultural gems.

POSTGRADUATE RESEARCH ON THE CONSERVATION OF LANDSCAPES LAID OUT BY WILLIAM SAWREY GILPIN (1762-1843)

By Sophieke Piebenga

In the autumn of 1984 I found myself in an 'in-between' phase; I had just finished the Kew Diploma Course and I was waiting for a visa to come through which would enable me to round off my study with some work in a tropical botanic garden.

I was very fortunate that in the circumstances the National Trust, my employer prior to coming to Kew (and dare I say, an organisation whose Gardens Advisory team then, as it is now, was infiltrated by co-members of the Kew Mafia!), was able to offer me some short-term research work at Beningbrough Hall in Yorkshire. It was there that I first came into contact with William Sawrey Gilpin.

No, William Sawrey Gilpin did not work for the National Trust, nor was he a member of the Kew Guild, come to that.

William Sawrey Gilpin (1762-1843) was in fact a Landscape Gardener who, in chronological terms at least, followed closely in the footsteps of the much better known Humphry Repton. Enjoying popularity especially in the 1820's and 1830's, Gilpin advocated the Picturesque style of landscaping. As such he was involved with the landscaping of the park at Beningbrough Hall.

However, back in 1984, could I find out more about W. S. Gilpin? No way — in fact, very little seemed to be known about him. Anyway, as it happened my visa came through shortly after and off I was, leaving the shadowy character of W. S. Gilpin much as I found him: little known, little understood and little appreciated.

Eight years later and eight years older (and eight years wiser?) I find myself in the very fortunate position to undertake some proper research on William Sawrey Gilpin as part of my D.Phil. degree in Conservation Studies at the University of York. This university, as so ably described in the 1991 Kew Guild Journal by yet another 'Kew Mafia' member, Sarah Fraser, runs a postgraduate programme on the Conservation of Historic Landscapes.

Supported by a Kew Guild Award, together with other supplies of begged, borrowed and stolen monies, I am now hoping to firstly identify the properties W. S. Gilipin worked at (and so far the list runs to over 70, including places like Windsor Castle, Sudbury Hall, Derbyshire and Wolterton Hall, Norfolk) and to establish his style and role in the landscape movement; secondly to determine how much of his work still survives today; and thirdly, and probably most importantly, suggest ways on how best his work could be looked after, given today's requirements and limitations. Quite a change from my previous job as Head Gardener, but certainly as enjoyable and stimulating!

Finally: remember East Sheen? Recall the Upper Richmond Road? Running due South off the Upper Richmond road is Gilpin avenue, named after, well, no, not after William Sawrey Gilpin but after a close member of his family. It was nevertheless in the immediate vicinity (at Painesfield House; cf Paynesfield Avenue) that William Sawrey Gilpin used to live and from where he conducted his Landscaping business. It is a comforting thought that today, on the corner of Gilpin Avenue and the Upper Richmond Road, a small garden centre seems to do thriving business in a similar field.

IN SEARCH OF ROSEMARY A FIELD TRIP TO SOUTHERN SPAIN

By Tim Upson, Conservation Unit, L.C.D., R.B.G. Kew

Fieldwork to study wild populations of a species is often an important part of any taxonomic or conservation work. As part of an M.Sc. in Pure and Applied Plant Taxonomy taken at the University of Reading, I undertook a revision of the genus **Rosmarinus**. The Guild kindly sponsored part of the fieldwork undertaken on the taxonomy and conservation of **Rosmarinus** in Southern Spain, during March and April of 1992. The fieldwork provided much new information on the genus and was an important element of the revision submitted for the M.Sc.

Rosmarinus is a small Mediterranean genus of aromatic shrubs. Present taxonomic accounts are both unsatisfactory and confused by the many different treatments which have been produced. This has resulted from the tremendous variation found within some of the species and hybridisation in the genus. As many as 14 specific names and over 50 subspecific combinations exist in the literature, which following my revision have been reduced to three species, two natural hybrids and a number of varieties.

One species, **R. officinalis**, the common rosemary is widely cultivated and a well known garden herb. It occurs throughout much of the Mediterranean basin and is also cultivated as a commercial crop for its essential oils used in the perfumery industry. Five distinct varieties are recognised and numerous cultivars grown, reflecting the great variation seen in the species. The genus also contains another two, less well known species and two natural hybrids.

Rosmarinus eriocalyx occurs in the Province of Almeria in Spain and across part of North Africa, differing principally from **R. officinalis** in having a hairy calyx, in its habit and in corolla characters. Closely related is **Rosmarinus tomentosus**, a narrow endemic confined to magnesium rich limestone sea cliffs in the province of Granada, Spain. Hybrids between the two latter species and **R. officinalis** occur with these populations. Therefore the opportunity to join the University of Reading, Botany Department field course which visits this part of Spain, offered a good opportunity to undertake fieldwork on all three species and the hybrids.

The principal aims of the fieldwork were to collect taxonomic data on the distribution of the species, corolla characters (which are badly preserved on herbarium specimens) and to establish the range of variation in and between populations and particularly the effects of introgression. Conservation data was gathered on the population sizes, edaphic requirements, general ecology and threats to the survival of each population. This information was recorded on draft field data sheets which had been developed by the Conservation Unit at Kew and the World Conservation Monitoring Centre (W.C.M.C.) and were being trialled on the field course. These sheets enabled detailed conservation information to be quickly recorded on a double sided sheet of A4. The information gathered has been sent to W.C.M.C. and appropriate Spanish conservation organisations and will hopefully be used in the active conservation of these species.

Rosmarinus officinalis was found to be common in the area, occurring from sea level to 1,000 m, forming a multi-stemmed upright shrub to about a metre. A prostrate variant, **R. officinalis** var. **prostratus** was found in distinct populations on exposed coastal sea cliffs while in contrast a very erect few-stemmed variant **R. officinalis** var. **erectus** was also observed.

Rosmarinus eriocalyx is a rare plant in Spain, occurring only on gypsum soils between the Sierra de los Filabres and Sierra de Alhamilla in the Province of Almeria. Here it forms a distinct vegetation type with **Stipa tenacissima** covering large tracts of land. It also occurs more sporadically on almost pure gypsum rock where the lack of competing vegetation allows it to form an extremely attractive domed shaped shrub with each stem arching to the ground. However, gypsum mining in the area is an immediate threat to some of the populations, while the expansion of market gardening under plastic greenhouses could be a future threat.

Rosmarinus tomentosus is a plant superbly adapted to its harsh coastal environment. The leaves borne in tight clusters are covered in a grey tomentose and are often wind pruned into a hummock adpressed to the cliff face. It grows principally on steep inaccessible coastal cliffs being confined to three principal sites along a short stretch of coastline in the Province of

Granada. Although the cliffs offer some natural protection, the dumping of rubbish, road widening, coastal development and over collecting are both present and potential threats. Although this species is now recognised in the Spanish Red Data Book, previous taxonomic treatments had placed it as a coastal subspecies of **R. eriocalyx**. As many conservation ratings recognised only species and not subspecific ranks, this plant was ignored despite being an obvious candidate for a conservation rating. This is an example of how taxonomy can effect the destiny of a species and underlines the need for good taxonomic work underwriting any conservation work and activity.

The hybrid, **R. mendizaballi**, (**R. tomentosus** and **R. officinalis**) was found to occur at the top and base of the cliffs, so fortunately does not seem to be a direct threat to the cliff niches occupied by **R. tomentosus**. However introgression, with a number of backcrosses to each parent makes the identification of the true species and hybrid extremely difficult in some cases, especially with some herbarium speciments.

The fieldwork has contributed much to understanding the taxonomy of this genus while the conservation data collected will hopefully help to formulate management plans to help conserve those populations threatened in Spain. A small amount of material was brought back so two new and attractive species to cultivation in the U.K., **R. eriocalyx**, **R. tomentosus** (and its hybrid), can now be seen in the Alpine House at Kew. The work on this genus, of which the fieldworth formed an important part, will hopefully result in the publication of a new revision of this genus in the near future.

LIST OF AWARDS GRANTED — 1977-1992

Compiled by Kenwyn Pearson

1977	Mr. T. Vaughan — Study tour of Canary Isles.
1979	Mr. I. Hodgson — Student Exchange to Munich, Heidelburg and Zurich Botanic gardens
1980	 Mr. T. Casey — Exchange to Glasnevin Botanic Garden. Mr. A. Henderson — Studies for degree in Specialist Taxonomic Botany at Royal Holloway College, London. Mr. N. Huck — Student Exchange to Les Cedres, Nice Botanic Garden. Mr. T. Rees — Student Exchange to Villa Toronto-Ente-Giardini Botanica, Italy. Miss S. Tasker — Student Exchange to Leiden Botanic Garden, Netherlands.
1981	Miss S. Gregory — Student Exchange working and redeveloping Claude Monets garden at Giverney, France. Miss P. Holt — Expedition to Southern Peru with collection of seed material for Kew. Mr. K. Sorwig — Expedition to China and plant collecting with Roy Lancaster.
1982	Miss E. Brentnall — Expedition to Sabah, Borneo.
1983	Miss C. Barker — Student Exchange to Jerusalem Botanic Garden. Mr. D. Jewell — Expedition to Tasmania. Mr. N. Taylor — Expedition to Baja, California and Monaco in search of ferocactus. Mr. C. Sombrero — Student Exchange to Canary Isles.
1984	Mr. M. Leppard — to South Africa. Mr. D. Lloyd — Snellgrove Travel Studies. Miss C. Barker — Thornton South Travel Scholarship.
1985	Andrew Jackson to go to Cameroons with Henry Idris Matthew prize. Louise Bustard — to study four major cactii varieties in Europe. Sophie Piebenga — Travel to Indonesia and West Java to study tropical vegetation.
1986	Robert Mitchell — to Solomon Islands. Michael Maunder — to Somalia. Sarah Rutherford — to Sri Lanka. Lester Searle — West Germany Travel Scholarship.

1987	Robyn Carter — Henry Idris Scholarship to Pyrenees. John Donovan — to Canaries. Sue Bell — Study of House Plants production in Denmark.
1987	Paul Cook — Studying Alpine Flora. Penny Hammond — Trip to Australia. Michael Maunder — M.Sc. Course in Plant Taxonomy.
1988	Graham Deer — To Sweden Botanic Garden. Tim Upson — To Canary Islands. Robyn Carter — To support Thornton-Smith Scholarship. Louise Bustard. Sarah Leadbetter — Student Exchange to Les Cedres. Jenny Farrell — To Canary Islands. Cathy Buchanan — To support trip to Bavarian Alps. Alison Bowles — To New Zealand. Mark Long — To Morocco on study trip. Phil Brewster — To Canary Islands.
1989	Simon Goodenough — To New Zealand. David Barnes — Vancouver. Mr. P. Hollet — Florida. Miss L. Perrins — Florida. Mr. R. Turnell — S. E. Asia. Chris Crowder — France. Miss C. Gohler — Spain. Mr. J. Langon — Ireland. Miss J. Spielberg — Study on English and French 17th century gardens.
1990	Mrs. S. Andrews — Netherlands. Caroline Kernan — M.A. Conservation work, University of York. Jenny Evans — Australia Study Trip. Graham Pattison — N.C.C.P.G. (Wisley) International Horticultural Congress, Firenze, Italy. Tim Upson — Limbe Botanic Garden, Cameroons. Richard Baines — Nepal and Kashmir Plant Expedition. Jon Allin — The Tom Arnold Bursary for Nursery Practice in Greece. Terry Sunderland — North America Botanics and Biosphere Study.
1991	Charlie Butterworth — Study Trip to Ecuador. Sarah Fraser — M.A. course in York. Madeline Groves — Study Trip. Terry Sunderland — Study Trip. Dusha Hayes — Study Trip. Peter O'Toole — The Islamic influence on garden design in Spain. Yong dan Wei — To support the Dalziel Travel Award. Madeline Groves — Awarded the Tom Arnold Bursary.
1992	Phil Brewster — Funding for attending Etnobotanica '92 in Cordoba, Spain. Louise Bustard — Study course for M.A. in Social Anthropology. Charlie Butterworth — Funding for attending Etnobotanica '92 in Cordoba, Spain. Jilly Cowley — Trip to China to research and discover Roscoea . Sally Kelly — To work at Jerusalem Botanic Garden. Sophie Piebenga — Postgraduate research on landscapes laid out by William Sawrey Gilpin. Tim Upson — Field Trip to Southern Spain as part of work on genus rosmarinus .

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SCHOOL OF HORTICULTURE KEW DIPLOMAS AND PRIZE-DAY 1992 (Course 27)

The Annual Presentations were made on Friday 11th September 1992. The Director, Professor Ghillean Prance, made the introduction and mentioned that he was particulary proud of this batch of students, who had arrived at Kew around the same time as him. He thanked all the Gardens staff and outsiders who provided a symbiosis for the student's education. He welcomed Sir Leon Brittan as Guest of Honour and mentioned that his support gave the occasion a European flavour and stressed Kew's aim to broaden its scope. The Director invited the Supervisor of Studies, lan Leese, to give his report:

"Sir Leon, Chairman, Director, Your Worship the Mayor, distinguished guests, ladies and gentlemen, we are highly privileged to have the Vice-President of the Commission of the European Communities as guest of honour today when we wished to have Europe as the main theme for our prize-giving. Whatever the results of the referendum in France or Denmark about the Maastricht Treaty, Sir Leon, I hope I can prove to you now that the School of Horticulture has several existing links with Europe which we intend to strengthen and broaden in the future.

During the past academic year, some of the prime movers for European contact have been our final year students who graduate today. They organised an overseas study tour to northern Spain in May. In the Peaks of Europe area, accompanied by staff member Phil Brewster, they were able to study the natural flora at first hand, as well as practise their Spanish language ability which Phil had been teaching to them in the weeks prior to the trip. This tour was part-funded by the Board of Trustees' Reserve Fund for which we are most grateful.

Earlier in the year some of our first year students undertook a French language course jointly with staff from the Herbarium. As yet, I do not know whether this will lead to them wanting to go to France on their final year study tour.

The External Assessors for the Kew Diploma course have remarked on the tremendous opportunities available to our students through travel scholarships. I shall be giving more details of these later on in the prize-giving ceremony, but out of the seven second year travel scholarships awarded this year two were to finance trips to Europe.

Another second year student, Mark Poswillo, has been responsible for the School of Horticulture's landscape design entry to an International Garden Festival being held at Chateau Chaumont in the Loire Valley, France. We are the only United Kingdom landscape school to enter the competition, and one of four international garden entries along with schools from the United States of America, Japan and Italy. Mark's design has been constructed at the Chateau.

A further successful event this summer has been the award of a Ph.D. by Reading University to a former Kew Diploma student, Carlos Sombrero, from Spain. Carlos is now a lecturer in horticulture at Hadlow College in Kent.

Besides the European activities of Kew Diploma students, the School of Horticulture provides a three-month work experience and study internship programme for overseas students. During the past year, European interns have included two from France, two from Spain, two from Germany and one from the former Yugoslavia. It is not widely know, Sir Leon, but I hope you will approve nevertheless, that for the past three years the Chelsea Show Exhibit of the British Bedding and Pot Plant Association has been planted up by Kew overseas intern students. This year's exhibit was planted by a Spaniard and a Yugoslav and was awarded a gold medal by the Royal Horticultural Society. I hope that our Chairman, Mr. Herbert, who is also President of the Royal Horticultural Society, will not disapprove of a British exhibit being planted by overseas people in this way. At least the plants are home grown, and the experience is a very valuable one for our interns.

School of Horticulture staff have hosted and co-ordinated visits by Dr. Zoltan Kereszty, Curator of the Institute of Ecology and Botany at Vacratot in Hungary. The annual visit of a group from the London International Youth Science Fortnight was well-received. The Director and lecturing staff of the Ecole du Breuile in Paris, funded by the city's Parks Department to provide horticultural training, visited the school with a view to establishing staff and student exchanges. Similar exchanges are being considered with Count and Countess Bernadotte, owners of the island of Mainau in Lake Constance. This is a major tourist attraction with a very high standard of horticultural maintenance.

The School of Horticulture is also co-ordinating the new International Dendrology Society Bursary which will be presented later. We are honoured to have Vicomte Philippe de Spoelberch, Vice-President of the Society, with us this afternoon.

Those are some of our European activities, but like the rest of the Royal Botanic Gardens, Kew, the School of Horticulture and our students have world-wide connections. Second year travel scholarship winners include trips to Hawaii, Belize, the east coast of the United States, Cameroon and the island of Reunion. Third year winners go to Jerusalem, Japan and the United States.

Apart from our European interns, we have also had interns from the United States, South Africa, Singapore, Japan and India. Dr. Yong-Shik Kim from South Korea is with us for one year to work in the Conservation Unit, funded by the Korean Academy of Science and the British Council.

Some Kew Diploma students who graduated last year have now returned from scholarships abroad. These are Terry Sunderland who went to Limbé, Cameroon, Madeleine Groves who worked at Atlanta Botanical Garden, Georgia, United States of America, and Paul Longden, winner of an International Farm Experience Programme Scholarship to Germany. David Gilbert, another of last year's group, who has been studying a Master of Science at Wye College, has been awarded the Martin McLaren Horticultural Scholarship by the English-Speaking Union, open to graduates in botany, landscape architecture and horticulture. From October, he will spend a year at Cornell University, studying a further Master of Science course.

Steve Gamble a former student of recent years has been appointed Estates Manager for a shipping magnate who has purchased a property in Mustique and is now developing the gardens. Again, this position was widely advertised amongst universities and colleges in the United Kingdom.

Out of the 15 new Kew Diploma students who start with us on 14th September, five are from overseas. One is American, another German, two are French and one is Italian. They will join our current overseas students from Spain, Singapore, Germany, United States and Australia.

Now, some words about matters nearer to home. The School of Horticulture co-ordinates staff training for the Living Collections Department with David Barnes, Staff Training Officer, who liaises with the Deputy Curator. Two staff, Fiona Dennis and Clive Foster, deserve special mention for their achievement this summer in obtaining the Master of Horticulture (Royal Horticultural Society) qualification. This is the highest professional award available in the industry.

We are most grateful for our many sponsors, some of whom are here today, who continue to support the work of the School of Horticulture. Several prizes are given by the Kew Guild, an association of past and present students and staff. We are grateful to them for substantially increasing the value of their awards this year on the eve of their centenary celebrations.

Two new bequests have been received directly this year. One is from Mr. John Scott Marshall, a former Editor of *Gardeners' Chronicle*. Another is from Mrs. Phyllis Leigh in memory of her husband, Emil. This money will be invested to finance future scholarships.

Thanks must also go to our lecturers and examiners and all connected with the School, whether as administrative staff, such as David Barnes and Hazel Hyde, who may be mentioned again later, members of the Independent Panel, External Assessors, the Curator, the Deputy Curator, who retired this week after 35 years at Kew, Assistant Curators and Supervisors who oversee students when they work in the Gardens. Support and encouragement from the Chairman and Board of Trustees, the Director and Deputy Directors should also be mentioned. The outstanding success of the School of Horticulture rests as much on your contribution, as it does on the quality of students we recruit.

Finally, and most importantly, to all of Course 27 who complete their three years with us today we offer our very best wishes for your future careers. Do not forget to keep in touch to tell us of your progress. You are rightfully proud of having studied here at the School of Horticulture, and we are confident that you will be worthy ambassadors of the Royal Botanic Gardens, Kew."

The Rt. Hon. Sir Leon Brittan, Vice-President, Commission of the European Communities, gave his address prior to presenting the prizes. He was, he said, impressed with the vigour with which the heritage of Kew is passed on! He was interested to hear about the Biosphere 2 Scholarship (see prizes detail — Ed.) and felt that the experience to be gained there may be similar to his own experience in the closed world of politics in Brussels! He noted that Horticulture may transcend political and national barriers and congratulated all at Kew.

Tim Pendlebury thanked Sir Leon on behalf of the guests and students.

PRESENTATION OF KEW DIPLOMAS AND PRIZES

Each person has also passed the B.T.E.C. Certificate in Computer Studies, and the Management and Administration module of the B.T.E.C. Certificate in Leisure Management:

MARK BRENT

The Kew Diploma

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

The Landsman's Bookshop Prize awarded for the best third year Landscape Design project.

MICHAEL EGAN

The Kew Diploma

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

The George Brown Prize donated by the Kew Guild in memory of a former Assistant Curator, to the runner-up in the Kew Mutual Improvement Society's Student Lecture Competition.

The Kew Guild Individual Study Prize presented to the student with the second highest mark for an individual study.

ANDREW FULLER

The Kew Diploma

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 Prize for the best vegetable plot, a practical first year project.

The Lecturer's Prize awarded by Drs. Phillip Cribb and Nicholas Hind of the Herbarium to the student obtaining the highest mark for their Systematic Botany project.

The Plant Identification Tests Prize awarded to the student attaining the highest marks.

DAVID GARDNER

The Kew Diploma

The Kew Guild Individual Study Prize presented to the student with the second highest mark for an individual study.

ANTONY HERWERTH



Kew Diploma and prize-winners photographed with Sir Leon Brittan. (Course 27)

SALLY KELLY

The Kew Diploma

The Ernest Thornton-Smith Travelling Scholarship presented by the Thornton-Smith Young People's Trust to allow a Kew Diploma graduate to travel overseas, in this case to study temperate and sub-tropical plants in the Shikoku region of western Japan.

The British Friends of Jerusalem Botanical Garden Scholarship for a five-week placement at that Botanical Garden undertaken earlier this year.

The Dummer Memorial Prize which is a Kew Guild Award for the best Herbarium Weed Collection project.

The C. P. Raffill Prize as winner of the Kew Mutual Student Lecture Competition.

JANE LAWSON

The Kew Diploma

The George Brown Prize as the joint runner-up in the Kew Mutual Student Lecture Competition.

AMANDA LIND

The Kew Diploma

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

The George Brown Prize as joint runner-up in the Kew Mutual Student Lecture Competition. *Life Membership of the Students' Union* for services rendered.

ANTONY LUNN The Kew Diploma

TIMOTHY PENDELBURY The Kew Diploma

IAN TURNER

The Kew Diploma

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

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

YONDAN WEI

The Kew Diploma

The Donald Dring Prize named after the late Dr. Dring of Jodrell Laboratory for the best crop protection project.

The Biosphere 2 Scholarship awarded for the first time this year by Space Biospheres Ventures to allow a three-month placement at their centre in Arizona, United States of America. Biosphere 2 is the largest experimental self-sustaining ecosystem ever built and is housed in a three-acre glass-domed complex. For two years all the air, water, plants, animals and humans in the system will feed upon and sustain one another.

Second year students awarded travel scholarships.

WAYNE PAGE

The Hendry Idris Matthews Scholarship. This is made by the Bentham-Moxon Trustees to allow a second year student the opportunity to work and visit overseas. This year's winner has just returned from Limbé Botanical Gardens in Cameroon.

JEFFREY STEPHENSON

The Hozelock Prize is donated by the manufacturers of garden irrigation equipment to fund a student to work abroad; in this case to join a conservation project in Belize.

LOUISE ALLEN

The David Dalziel Travel Scholarships are given by Mr. Dalziel who lives in Florida. This year's winners have travelled to: Botanical Gardens of the East Coast of the United States of America to study their community educational programmes.

CHRISTOPHER KIDD

Gothenburg Botanical Garden in Sweden to study alpine plants.

The Professor Keith Jones' Cup presented by a former Keeper of the Jodrell Laboratory to the student giving the best items of interest talks to the Kew Mutual.

MARK LAMEY

A Botanic Garden in Reunion.

Kew Mutual Improvement Society's Prize for his participation as Secretary of the Society.

ABIGAIL STREATOR

A study of the restoration and management of historic gardens in France.

SUNIA TEO

Botanical gardens and parks of Hawaii.

MATTHEW VINCENT

Another second year student has been awarded the *Sir Joseph Hooker Prize* which is presented by the Director, in memory of his famous predecessor, to the student who has done most for the Kew Mutual Improvement Society. The winner has been Chairman for the past year.

JANE REYNOLDS

Winner of the *Rotary Club of Kew Gardens Prize* is also a second year student. This is donated by the local club to the student doing the best work towards charity.

ROBYN CARTER

The John Gilbert Prize was established by the late John Gilbert of the Herbarium to encourage current and former Kew Diploma students to publish articles. This year's winner is a former student.

120



Course 28 Travel Scholarship winners photographed with (left to right) lan Leese (Supervisor of Studies), The Mayoress of Richmond's Consort, The Mayoress of Richmond, Sir Leon Brittan, Professor Prance (the Director), Mr. Robin Herbert (Chairman of the Trustees) and Mrs. Hazel Hyde (Administration Officer, School of Horticulture).

VIERA PAGANOVA

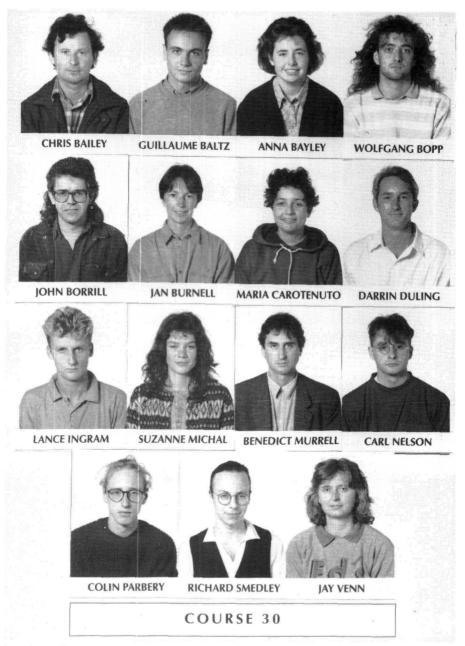
The School of Horticulture is co-ordinating *The International Dendrology Society Bursary*, awarded for the first time this year to mark the fortieth anniversary of the founding of the Society. The Bursary aims to help young dendrologists travel and study abroad. The winner comes from the Technical University, Zvolen in Czechoslovakia and is making a study of the Birch collections at Kew and Wakehurst Place.

The Chairman of the Board of Trustees, Mr. Robin Herbert, concluded by thanking lan Leese and the staff at Kew. He thanked Trusts and outside bodies who supported the students and thanked Sir Leon Brittan for his support. Finally he offered best wishes to outgoing students on behalf of the Trustees.

THE KEW STUDENTS' UNION ANNUAL REPORT

By Matthew Vincent, President 1992/93 (Course 28)

The year began back in August 1992 with the Annual General Meeting headed by our Past President, Ian Turner. At this meeting I was elected to the presidency in a closely fought contest. It was also unanimously voted at this meeting that the future Annual General Meetings would take place in late March or early April. The reason for this is that when the third years (of whom one is usually the President) go into their last lecture block they don't have much time to think about anything else.



Incoming students in 1992.

As usual with the outgoing third year students, the traditional "pranks night" continued in style as it has done for many years. One of the most imaginative was the strategic placement of plastic fluorescent flowers into the larger cacti in the Princess of Wales Conservatory, which left the Supervisor (Mr. John Hale) of Cacti and Succulents, scratching his head for one moment, maybe thinking he'd discovered some new species. Another prank was the laying out of sheets and pillows on the 'Broad Walk' to imitate the bedding of the Decorative Department. All pranks were taken in good humour and no damage was inflicted on the gardens.

The Prize Day ceremonies were held in a marquee in the Director's back garden, because of the continuing work on the Jodrell Laboratory extensions. There was some panic that the tent perhaps might not be big enough, but in the end all were seated comfortably. The guest of honour was none other than Sir Leon Brittan, Vice President of the European Commission. Top prizes were taken by Andrew Fuller for best academic student and best practical student was won by lan Turner. Sadly another era of students came to an end; but alas two days later a new, keener, hungrier and perhaps more naive batch of first years arrived, with their eyes wide open to anything that remotely photosynthesised.

So the big issues for 1992/93 that concern the Student Union were as follows:

A new contract was proposed to improve the career structure of the gardening staff which in turn affected the future career prospects of the students hoping to take up full time positions at R.B.G. Kew. One aspect which affected students greatly was the future phasing out of student superannuation for the new intake of students in September 1993. This was opposed with great energy, however to no avail.

The next aspect of the package that students felt they were to miss out on was the time constraints to study that the new contract would impose. The loss of walking time and the banking half-hour on a Friday would cease to exist, plus an earlier starting time. It was felt by students that this would increase pressure on the time available to meet with Herbarium staff, supervisors etc., and limit botanising time. It was proposed that students might be able to gain a project hour during working hours, so as to ensure contact with such specialist staff as mentioned above. This we are still presently working on.

We did, however, obtain some bicycles which are to be located in the Stable Yard to ensure time would not be lost covering distances to meet appointments on time.

We also managed to change the practical appraisal system, so that supervisors would meet students one to one to explain their weaknesses and strengths, and then later be given an overall assessment by the Supervisor of Studies.

Well it's now February 1993. Only four more months until exams and seven months until we leave. The second years are sweating it out in their second lecture block and the first years have ventured into the gardens as staff for the first time. When I first arrived I was told "value your time at Kew, it goes ever so quickly, blink and you'll be at Prize Day". Quickly is not the word, perhaps rapidly describes the situation better. We, like past and present students, love Kew. Quite frankly there is no better place in the world.

Congratulations to the Kew Guild in their centenary year and thank you for your on-going support of the School of Horticulture.

No Sports and Social Reports received from students this year!

THE KEW DIPLOMA IN HORTICULTURE GROWS STRONGER

By Ian Leese, Supervisor of Studies

In this year commemorating the 250th anniversary of the birth of Sir Joseph Banks (1743-1820) it can be said that the origins of the School of Horticulture lie in Banks' sending abroad young Kew staff as botanical collectors and managers of new colonial botanic gardens. The names of these men, such as Christopher Smith, James Wiles, Peter Good, George Caley, Alan Cunningham and David Lockhard, became part of botanical history. Over two centuries the course progressively evolved and formalised and other aspects of these changes can be found in an article by J. R. Sealy in the *Kew Guild Journal* for 1964, Volume VIII, number LXIX, pages 426-429.

From October 1963 the three year Kew Diploma course replaced the earlier two year programme and by September 1970 a system of block instruction had been introduced, which continues until the present. Within this basic framework several changes have taken place, which are the purpose of this article.

One of the most fundamental developments has been the establishment of the Independent Panel in 1990 to oversee the direction of the School of Horticulture. Representatives from professional institutions and organisations, such as the Institute of Leisure and Amenity Management, the Institute of Horticulture, the Landscape Institute, the Horticultural Trades Association and the Department of Education meet twice-yearly with a representative from the Board of Trustees, the Honourable Mrs. A. Lennox-Boyd, the Director and Deputy Director (Science), the Curator and Deputy Curator, the Principal of the School of Horticulture and student year-group representatives. Reports are submitted about the progress of the School curriculum developments, staff and student recruitment, student employment destinations and the Minutes of the Lecturers'/External Examiners' meetings for each trimester.

In this way the School of Horticulture gains professional advice about all developments, and the meetings provide a forum for open exchange about any subject. The move has helped with the strategic planning for the School, as well as provided a means for student input into the future of the Diploma course.

Consultation between the Curator, School of Horticulture staff and students exists also on a regular basis with bi-monthly meetings with student year-group representatives to consider all aspects of the running of the School. These exchanges take place in addition to more frequent contact between the Students' Union President and the Principal of the School of Horticulture.

Further consideration of trimesters occurs at the end of each lecture block, where students complete a course evaluation questionnaire for each taught subject. The results of these are analysed and produced as a report by the Principal, which is submitted to the Lecturers'/External Examiners' meeting for that trimester. Two student representatives attend that meeting so that further feed-back can be given by them.

While the system of block instruction can be traced back to 1970, an important addition to the method of instruction has occurred with the introduction of tutorial periods since 1989. For first and second year students these are held for half a day on a monthly basis. For third year students, they are held weekly. These sessions allow time for projects to be introduced and researched, visits to be made, and bringing in professionals who can describe details of their work, so aiding career development.

This academic year a series of management workshops have been held by staff of Agenda, the management training centre of the Agricultural Training Board. These have provided extra instruction in vital aspects of supervising management such as employment law, improving work methods, finance, leadership skills and communications.

While Kew Diploma students continue to fill managerial posts in a wide spectrum of the industry, another development in recent years has been the increase in students wishing to pursue higher education. The academic standing of the award of the Diploma at honours grade is now accepted as degree-equivalent by a number of universities at home and abroad. This means that such Kew Diploma graduates can proceed directly onto Master of Arts and Master of Science courses, and beyond.

The future of the Kew Diploma will continue along these lines to pursue both practical and academic excellence. On the practical side, links will be made with the development of National Vocational Qualifications in Amenity Horticulture to ensure that our students receive a structured training programme. Academically links will continue to be made with universities and professional organisations to ensure the high standing of the Kew Diploma gualification. A further advance

for the School of Horticulture this year has been the development of the International Diploma course in Botanic Garden Management. This has been offered to tropical and subtropical botanic gardens worldwide as a two-month summer school for their middle-manager horticultural staff.

Internally, also, the staff training side of the School of Horticulture is developing with the arrival of a new Deputy Curator, David Hardman. He has initiated a training audit of all staff conducted through the Staff Training Officer, David Barnes. Future training programmes will take account of the results of this audit.

The School of Horticulture, therefore, continues to be an important aspect of the work of the Living Collections Department and of the Royal Botanic Gardens, Kew as a whole. Its prestige and success depends on the support and work of many people too numerous to name. Reflectively however, mention should be made of Leo Pemberton, who established the three year programme in 1963, and gave 25 years' service to lay the firm foundations for its continuing development. Also Hazel Hyde, Administrative Officer since 1980, has provided dedicated and efficient support to all staff and students who have been associated with the School from that time. Her award of the Kew Medal in 1992 is a fitting tribute to the work she has achieved over the years.

In this centenary year for the Kew Guild, the School of Horticulture has never been healthier. The various scholarships help with career development and we are always looking to create other opportunities for students to widen their horizons through travel and advanced study. Three recent promised bequests will help materially in this respect, and one of these will soon be received and implemented. It is also opportune to thank the many Kewites who responded so well to the survey of post diploma career achievement, information that has been fed back into our planning for the course. The School is firmly integrated into the Living Collections Department under the inspiration of John Simmons, the Curator, and encouraged to maintain the highest standards by the Directorate, the Honourable Mrs. A. Lennox-Boyd, and Mr. Robin Herbert, the Chairman of Trustees. Our students have proved themselves as high achievers and we can confidently look forward to the next hundred years.

THE KEW MEDAL AWARD 1992



The Kew Medal is awarded annually to those whose achievement, contributions or services to the gardens at Kew and Wakehurst Place are considered of outstanding merit and deserving of special honour.

The Medal, struck in silver-gilt, was first awarded in 1980, and is inscribed **"FOR MERIT"**. The face design illustrates the Palm House (built 1844-48) with a spray of Oak (**Quercus robur**) and Para Rubber (**Hevea brasiliensis**) leaves above representing both the knowledge and work of the staff of the Royal Botanic Gardens.

The name of the recipient is engraved on the reverse of the medal, together with the year of the award, and is encircled with vine leaves and a crown signifying Kew's links around the world.

MRS. HAZEL M. HYDE

Her wide responsibilities have been undertaken with a very particular dedication and care. She has also supplemented her work with pastoral care of the Kew Diploma students through kindly understanding and support.



Mrs. Hazel Hyde, winner of the Kew Medal, photographed with Sir Leon Brittan (right) and Professor Prance.

THE KEW MUTUAL IMPROVEMENT SOCIETY 123 YEARS OF HISTORY

By Chris Kidd, Chairman

A word of note to the Kew Guild on your centenary. There has been a student body since 1858 and the Kew Mutual Improvement Society is now in its 123rd year. Most importantly, the Kew Guild was an offshoot of the Mutual in 1893. With that off my chest, lets examine the history of the 'Mutual'.

In 1871 Sir Joseph Hooker founded the Mutual after inspiration from Smiles' writings on mutual improvement. Many of the traditions of the Mutual began here, with prizes to the best speakers, most of which were students. Attendance was compulsory every Thursday night in the library. Lectures on average were two to three hours long with an audience of about 30. Transcripts of the best lectures were printed in the *Guild Journal* of 1893.

In 1904 the Mutual moved to the notorious 'Iron Room' which was the main venue until 1960 when it moved to Museum No. 2. Of the Iron Room the Secretary wrote it was "totally unsuitable"; bad ventilation and heating led to great temperature swings. The roof and sides were made of iron, thus acoustics were dreadful, particularly during storms. Subsequently membership dropped. By the time Hooker died in 1911 the Mutual seemed in crisis, reports being that "the Society is not what it was ten years ago". The situation did not improve, despite women being admitted to the Mutual in 1915, and after a period of being held fortnightly during World War I was suspended for a year in 1919.

Fortunes changed in 1922, membership was up and summer excursions sponsored by the Mutual made a reappearance (this tradition has only recently died out). Popular visits were the R.H.S. garden at Wisley and the John Innes Horticultural Institution at Merton. The Mutual had its own lantern (although slides were too expensive to prepare) and outsiders from Kew joined the ranks. Chairman J. Coutts was elected for the 17th consecutive year. The Society continued to peak and trough throughout the interwar period.

By the outbreak of war "colour lantern slides were the rule rather than the exception". The Society was called upon by the Kew Allotments Association for volunteer speakers for the 'Grow More Food Campaign'. Lack of membership stopped the Society during the blitz. The year after, the Society hosted its first horticultural quiz, and importantly the moniker 'Mutual' first appears in print in 1943.

Attitudes changed in the 1950's and so did the Mutual. Reports of slides shown upside down and backwards appear, as do stories of recitations of poetry about **Dahlias** by one Jim Heyworth. On one occasion the Chairman made short work of a bottle of beer on the platform. At this stage student lectures were still compulsory, few were willing but all admitted afterwards it was an experience not to be missed.

The 1960's saw the Mutual reduced in length to 1.5 to 1.75 hours. Because of this membership increased. Often over 100 people were present for debates. In 1966 the Society moved to its present location, the Jodrell Lecture Theatre. Lectures were now only on Mondays and attendance, although not crucial, was expected. This period onwards consolidated the Mutual into the creature we know today. Quizzes appeared and regular Items of Interest before the main speaker. Outside speakers became more than usual, and student participation tailed off until today where most members are outsiders or ex-Kewites.

As to the 1970's and 1980's — well Hooker probably turned in his grave. The Keith Jones Cup was won by Mr. Leppard for his talk on 'Alcohol' and Kew beat Wisley in a beer drinking competition. The highest membership ever was over 200 in 1977. This led to the Mutual gaining financial independence from the Ministry — up until that point it was subsidised. Inter-departmental quizzes flourished. The Mutual became more than ever an interesting Society and an important part of Kew life.

In retrospect, a great deal of the Mutual's success is directly attributable to its founders and subsequent ministrations of committees. Through their efforts the Mutual almost runs itself year to year with little attention. There are good years and bad, finances fluctuate, famous and infamous speakers appear.

One last note before I finish — Dear researcher in 2093, writing the article on the Mutual for the bicentenary *Guild Journal*: don't forget we celebrated our bicentenary before you.

KEW'S NEW DIPLOMA FOR OVERSEAS GARDEN STAFF COURSE IN BOTANIC GARDEN MANAGEMENT

The School or Horticulture of the Royal Botanic Gardens, Kew, in association with Botanic Garden Conservation International, is launching a new summer school for overseas botanic gardens. The International Diploma in Botanic Garden Management is being offered to tropical and sub-tropical gardens throughout the world. The course is targeted at middle managers who have responsibility for supervising the maintenance and development of their plant collections.

The course manager is Sue Macdonald, a Kew Diploma graduate and former supervisor of the Palm House. She is being assisted by Madeleine Groves, who graduated from Kew in 1991. Exphasis will be placed on plant collection management through the involvement of Kew's garden staff, but there will also be contributions from staff from other departments.

Depending on the response from 1,600 botanic gardens and arboreta world-wide, it is planned to hold the course in Kew's School of Horticulture from 12th July to 3rd September.

Commenting on the development, Ian Leese, Principal of the School of Horticulture, said "It is an exciting new venture for us. The need for such a Summer School has been identified by Kew staff in their dealings overseas and we have many requests from other botanic gardens for this type of course. It will have very positive benefits both for Kew and for those gardens who send their staff here".

THE DIRECTOR'S ACTIVITIES DURING 1992

The Director might best be described as globe-trotting during 1992. He went to the U.S.A. four times; to Washington twice, in May for an environmental conference and again in December for a meeting of the World Bank in connection with its Global Environment Fund. He also delivered lectures at the Marie Selby Botanic Garden, Florida in January, at Rochester, N.Y. in April and went on from there to take part in the symposium held in Baton Rouge to mark the publication of Margaret Stones's *Flora of Louisiana*.

In Europe, he spoke on conservation at the International Aluminium producers meeting in Vienna in May. In September, he attended the 250th anniversary of the Royal Danish Academy of Sciences in Copenhagen and an ethnobotanical congress at Cordoba, Spain, while in November he took part in a symposium in Ghent. From there he paid a lightning visit to the WWF International Congress in Buenos Aires. He visited R.B.G. projects in Brunei in February and in October, after the Botanic Gardens Conservation International meeting in Rio de Janeiro, he moved on to the north-east of Brazil to see the work R.B.G. is doing there. In between whiles, he went to Japan in June for the exhibition on the work of Kew, staged by the Tobu department store in Tokyo; to Indonesia in July for a botanical conference at Bogor and to Thailand in August to advise on the setting up of a national botanic garden.

In the U.K. he continued to lecture on the work of the Royal Botanic Gardens and on his South American interests to many and diverse bodies. He spoke at his old school, Malvern College, at Christ's Hospital, Horsham and to various VI form and church groups. He addressed the Royal Institution, the Friends of Glasgow Botanic Garden, the Institute of Biology, Bristol, an agroforestry course at Bangor, the Tropical Trees Conference at Edinburgh, the Manchester Literary and Philosophical Society, the Royal Institute and finished the year strongly by talking to the Ashmolean Natural History Society in Oxford on New Year's Eve.

Other highlights of the year were lunch with H.M. The Queen at Buckingham Palace and his appearance on Desert Island Discs!

The Director continued to serve on and attend meetings of various bodies: the Councils of the Royal Horticultural Society and WWF International, the Royal Botanic Garden, Edinburgh Scientific Advisory Group, as botanical adviser to the Commonwealth War Graves Commission, the management boards of the World Conservation Monitoring Centre and the Botanic Gardens Conservation International, as a trustee of the Margaret Mee Amazon Trust, the Horniman Museum and the Lovaine Trust, the Church of England Synod Board for Social Responsibility, the steering group for the proposed Welsh National Botanic Garden, the Review Group for Oxford University Department of Plant Sciences and various bodies connected with the review and promotion of taxonomy.

This demanding programme would not have been possible without the support of the two Deputy Directors, Mr. John Lavin (Operations) and Dr. Charles Stirton (Science), who took up their appointments at the beginning of the year.

Visitors

As usual, a steady stream of visitors, botanical and otherwise, called from time to time. President Albert Fujimori of Peru delivered the Third Kew Environmental Lecture in February; in March, Anita Roddick, the founder of the Body Shop, performed the opening ceremony for the Victoria Gate Visitor Centre, while in May the Gardens had the pleasure of welcoming the noted Russian botanist, Professor Tahktajan, at Wakehurst Place.

On the political front, Earl Howe, Lady Trumpington's successor as Parliamentary Secretary in the Lords, came in August to open the restored Waterlily House. Later that month Mr. Mark Lennox-Boyd, M.P., Parliamentary Under-Secretary for Foreign and Commonwealth Affairs and husband of one of our Trustees, came for a 'behind the scenes' visit, as did Mr. Michael Howard, M.P., Secretary of State for the Environment. During his visit in November, he announced that the government would be giving £6 million over three years towards the implementation of the Darwin Initiative, with which Kew is likely to be involved.

Mr. David Hunt, M.P., Secretary of State for Wales, came to dinner with the Director in connection with the proposed Welsh National Botanic Garden and Sir Leon Brittan, E.C. Commissioner, presented the students with their diplomas and prizes in September.

From time to time, the Director and Mrs. Prance invited various media figures to breakfast with the aim of educating them about the inner workings of the Gardens and many of the great and the good from all areas of the national life were lunched and/or dined at Kew.

Finally, with much regret, the Gardens had to accept the retirement of Sir David Attenborough from the Board of Trustees, owing to his many commitments. At the time of writing, no successor has yet been appointed.

THE DIRECTOR'S SECRETARY, PAULINE CHURCHER

I was educated at Reading University (B.A. Hons. in History) and Post Graduate Certificate in Education, King's College, London.

After some years I got fed up with teaching and took a Business Studies course at what was then Chiswick Polytechnic. I worked for two and a half years at Dixon Ward, the solicitors near Kew Gardens Station. One day I happened to see an advertisement in the local paper for a part-time secretary in Administration, which I applied for and was appointed, so I joined R.B.G. in April, 1978.

The job turned out to be mornings only for Stan Brookes, the then Secretary, and the (note singular) H.E.O. Another H.E.O. was then added to the strength.

In April, 1983, the Director's Secretary was suddenly offered a job in London, which she took as it was easier travelling for her. I filled the breach temporarily and was then appointed permanently, so I went back to full-time working. I was Arthur Bell's Secretary until he retired in 1988 when I was handed on, so to speak, to lain Prance. When the National Heritage Act transferred us to a Board of Trustees, I was asked to take the minutes at Board meetings on a temporary basis until someone was appointed specially for the purpose. That was in October 1983 and I have been doing it more or less ever since!

Other things being equal, I expect to remain until I retire, which will be due in September, 1994.

I am married to Bernard and we live in Kew.

KEW STUDENTS HELP NARCISSUS NATIONAL COLLECTION HOLDER

Some dozen students from the Royal Botanic Gardens, Kew have been helping Martin Harwood, the National Collection Holder of Narcissus, to clean up and plant new additions to this amazing Collection of over 2,500 different cultivars and species, which in total amount to over 60,000 bulbs.

The Collection is grown at Country Gardens, Gardens Centre, London Road, Windlesham, Surrey. Martin Harwood, Hope Cottage, Halebourne Lane, Chobham, Surrey GU24 8SL. Tel: 0276 857106.

LIVING COLLECTIONS DEPARTMENT REPORT 1992 TOGETHER WITH HISTORICAL NOTES, AND THE FUTURE

By John Simmons, Curator

Kew is ever changing, as an institute, and as a garden showing all the effects of time and season. As I compile these notes hoar frosted December mornings lift to a haze of Iow angled shafts of sunlight turning the trees to impressionist form. A reflective time, for the Guild a century and for Kew a history of famous gardens stretching back to the seventeenth century. Any study of Kew's complex history reveals the constancy of its change and, for those whose acquaintance with these gardens spans decades, there will always be the conflict of what it was, and what it is; for each is just a picture in time.

Looking back on just one year in one of Kew's departments is in itself a task, for so much happens. At least the ground is at last moistened by rain after four dry summers and winters. Next year should see prodigious growth on plants from the extensive root systems formed in their previous desperate search for moisture.

One of the most important changes this year will not be noticed by many, but yet the fundamentally changed structure and status of Kew's horticultural staff will, over time, prove especially significant. Over the last two decades, the quality of Kew's staff has advanced in line with the changing nature of work with its many new technologies and the greater scientific expectation of collection management; and this against the general background of reducing resources.

To meet the need for better staff retention and career development, gone are the old archaically demeaning industrial grades and, in their place, Kew's own new grade structure — Botanical Horticulturist, Higher Botanical Horticulturist and Senior Botanical Horticulturist, with performance related pay-scales and other new conditions by which staff can individually advance. Since the whole package had to be self-financing, saving, efficiency and flexibility agreements are part of the change. At this initial stage gains are limited but the changes have been accepted by the staff involved since they appreciate that they have been given a ladder that will lead to real improvement over time, making their work and training more rewarding, and giving continuity that will benefit Kew's plant collections. The measure of this change may be appreciated by the fact that the previous structure has been little altered for 150 years.

Quietly, too, the plant records system has been further advanced, offering a range of new facilities by changing its software to one that is easier to use and is relational with some of Kew's other data bases. For example ensuring instant validation of plant names. Most noticeable benefits are more readable printouts, direct input of information by collection managers, and improved data capture. It is also now possible to produce labels automatically; gone are the days of celluloid labels and etching ink. A further advance, under development, is a linking package between the plant records data base and a detailed ground survey loaded as a CAD (Computer Aided Design) system which enables data on a specimen to be pulled out from its location reference and vice versa with updating possible using a light-pen based portable electronic data gathering system.

The arboreta of Kew and Wakehurst have been remarkably enriched in recent years with authentic natural source specimens derived from ongoing expeditions to remote regions such as western Sichuan. This year, too, further successful expeditions were accomplished with Hans Fliegner and Martin Staniforth travelling with Lord Howick (Howick Arboretum) and Bill MacNamara (Quarry Hill Botanic Garden, California) to the rarely-visited Kingdom of Muli (on the border of China and Tibet) and Mark Flanagan and Tony Kirkham climbing the botanically rich mountains of Taiwan.

At Wakehurst, with the final storm clearance from the public area completed, and the first of a series of new wind breaks in place, new plantings are well under way. To celebrate this a special seminar was held in May and attended by the world famous Russian botanist, Professor Takhtajan. His system for the phytogeographic classification of the world's flora has been used as the theme for the new plantings, which as they mature, will become a walk through the temperate forests of the world.



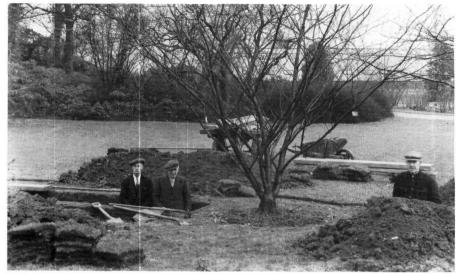
Rock Garden staff c. 1898, including two of Kew's first lady gardeners - Eleanor Morland and Alice Hutchings.

Another special seminar by Kew staff was given in Tokyo, as an accompaniment to a major exhibit about Kew at the Tobu Department Store — the largest store in S.E. Asia and reputedly the second largest in the world! This superb exhibit marked the first such overseas venture by Kew and it was organised with the support of the Japanese Association of Botanic Gardens. As Tobu and the Association were keen to promote a green message, both the exhibit and lectures had a strong conservation bias. Since the store is visited by around one hundred thousand customers daily, and the opening gained good media coverage, Kew's profile was raised in Japan. The exhibit was paid for by Tobu who also made a significant donation to Kew for future research in S.E. Asia. The horticultural staff made a major contribution to this exhibit — the away team being John Lonsdale, Laura Giuffrida (E & M), Jenny Evans, Dave Davies, Dave Marchant and Tarja Ravenhall.

Earlier in the year the Arboretum Section had to recover the landscape around the new Victoria Gate Centre using an amenity theme planting of winter-flowering shrubs underplanted with herbs and bulbs of similar season. From this they were then stretched (since the planting of a magnolia walk was already scheduled) to recover the landscape around the restored Waterlily House, also known affectionately as House 15 by Old Kewites. It proved possible to resite the services below ground to the rear of the building, and so the temporary messroom and shrubbery were cleared away, and the paths reinstated to their original plan allowing this beautiful temple-styled conservatory to be seen on a grassed mound and viewed from all angles as in the nineteenth century engraving.

Built in 1852 to grow the then newly introduced Amazon waterlily, it proved less than ideal for this purpose, and the giant waterlily was soon transferred to the old 'T' range. In its alternative use, as a home for the smaller tropical waterlilies and a range of climbers including many fruiting cucurbits, it gained great popularily with visitors who marvelled at the tropical luxuriance, albeit in oppressively hot conditions.

The restoration of Richard Turner's masterwork was detailed and painstaking, and one surprise was the frail foundation to the pond. Our consultants, Posford Duvivier, having gained



Moving a cherry tree with the Ice Well Mount and 'T' Range to the rear. Also, between the Cherry and the 'Range' is the aged **Buxus balearica**, still on the same site near what is now the south end of the Princess of Wales Conservatory.



Winter's work for students — house washing in No. 10 — the Waterlily house within the old 'T' range. Can you recognise any of the participants?

great experience from work on the Palm and Temperate Houses, managed to satisfactorily resolve all problems and with the excellent work of the contractors (Dorothea Restorations), this historic building is now recovered closer to its original form — even to the retention of 4" cast heating pipes and slate benches — with the 60's changes removed.

The Temperate Section staff worked hard to re-establish the Waterlily House plantings and subsequent growth has been impressive. Old Kewites who have cared for this house might like to know that the heating in the pool is no longer capable of cooking the fish overnight and, by forming the pipes into two arms, there is now a gap on the south side which eases the moving out of the waterlily containers when the pool is cleaned.

In 'do-it-yourself' mood the staff of the Temperate House have installed a new ground level irrigation system and I am pleased to report that it is working well. Also, and just before our capital grant disappeared, the Arboretum and Temperate Nursery Boiler House and main Propagation House have been rebuilt using updated greenhouse and heating technology.

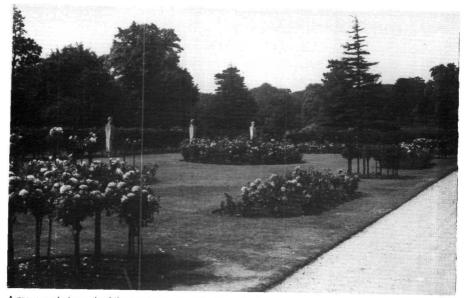


Snow clearing in the Arboretum.

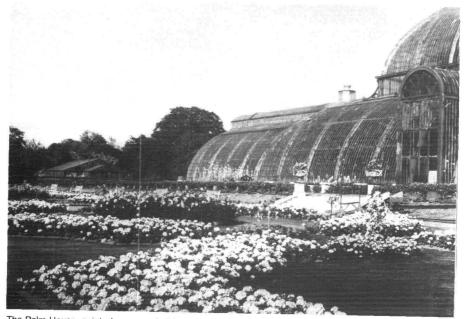
Because of a build-up of perennial weeds in parts of the Herbaceous Section and the longer term effects of staff reductions, some areas have been cleared and put down to grass. Most notable of these is the northern entrance border at Cumberland Gate; the consequently revealed view of the Order Beds is not however without its attractions. Nearby, the reconstruction of the northern part of the Rock Garden continues and is the particular task of Charles Shine with the assistance of Brian Richards and occasionally other Section staff. This large-scale development involves much larger rocks than used hitherto (some 300 tonnes in total) and features a bridging cascade over a large rock outcrop with a waterfall (rated at 20,000 gallons per hour), pool and bog area.

When complete the work will aesthetically enhance this part of the Rock Garden and also allows new phytogeographically themed plantings. The progressive re-organisation of the plantings into regions of the Temperate montane flora will allow greater educational opportunities as well as assisting specialists to locate plants of interest.

Of the many new activities generated by Foundation and Friends, a summer plant auction was run for a second year. Designed mainly as a benefit for Founders it has also raised funds. the proceeds from the first year were used to purchase some of the sandstone for the Rock Garden and last summer's effort will contribute to a Bee Garden in the area of the Queen's Garden. Some skeps and hives are already on site. The bees are derived from a passive strain



A pre-war photograph of the southern end of the Rose Garden with Prince Frederick's Herms (attributed to Peter Sheemakers) which are now in the Queen's Garden.



The Palm House, painted green and with chimneys in the wings, from the Rose Garden.

crossed with our local bees giving the educational opportunity to demonstrate plant animal interactions and the role of bees in pollination, but their behaviour is not constant since they mate at random and can quickly become aggressive when they re-Queen.

Many projects at Kew have benefited directly from sponsorship generated by Foundation activities. All of the new seasonally themed Arboretum plantings — some in progress, some in plan, i.e. flowering cherries, lilacs, azaleas, philadelphus and magnolia, are sponsored. These amenity plantings are obviously intended as visitor attractions and the cherries and magnolias will also act as floral ribbons linking together areas of the gardens in their season.

Conservation has also benefited with the latest grant going to fund a data base and the cryopreservation of tissue cultures. This new area of work, which will be developed to cover both Microprop's cultures and the seed embryos from the Seed Bank, promises to be an exciting new tool for the conservation of genetically important material. Much of the work of L.C.D.'s new Conservation Unit is in data gathering for which the sponsored data base will be a boon.

Beyond knowing more precisely the status of rare plants in the collections, programmes for the management of endangered species are being devised and moves made towards species recovery. Some joint programmes with English Nature are proving particularly rewarding and internationally the planned project for St. Helena, a sustainable development programme agreed by and for the Islanders, underpinned by conservation, looks a great prospect since it is supported by O.D.A.

Another aspect of conservation is the increasing training demand from staff of overseas botanic gardens — the North-South technology transfer — for which a new course is planned. Demonstrating our commitment in practice also involves domestic considerations. As most who read the horticultural press will know, the Gardens no longer purchase sphagnum peak — the main substitute, coir, proving very successful for a wide range of plants. Services Section is also now committed to full scale waste recycling — no more stump burning in the Stable Yard, where next year rather large and ferocious 'processing' machines will appear.

Under glass, biological control is well established and without chemicals it has also proved possible to introduce other insect eaters, particularly some lizards and geckos which actually arrived at Kew as seizures by Customs and Excise of illegally imported species. The Loder Valley Botanical Reserve at Wakehurst has also taken a further step in demonstrating sustainable woodland use by producing charcoal — a very good quality product that will be marketed next year in the Kew shops, noting that most other charcoal sold in the U.K. is derived from tropical hardwoods. I should also record the considerable storm recovery planting in the Reserve with native hardwoods.

Wakehurst and Kew have long undertaken native flora and fauna surveys but last summer a special survey by members of the fast-expanding organisation, Butterfly Conservation, is set to determine how the Gardens can be better managed for the benefit of butterflies.

Surveys of past Kew Diploma students have also been undertaken as part of the School of Horticulture's continuing development of the course programme. The quality of training has been improved in recent years, through a series of changes, including a new tutorial system, closer integration and progression of project and lecture subjects, and the formation of an Independent Panel of external representatives of industry, aimed at both monitoring the quality of the course and ensuring the relevance of its training.

While competition for the course is keener than ever, interest is also being taken in career development for all diplomates. The few post-diploma Master's scholarships are also keenly competed for. Currently Tim Upson is back at Kew having successfully completed his Masters degree in Taxonomy at Reading — the top student in his year. Carolin Gohler is at Newcastle taking a Masters degree in Landscape Architecture while Terry Sunderland has just completed the pre-course year prior to entry for a Masters at the prestigious University of Oxford's School of Forestry.

One very new aspect of work in L.C.D. is pharmaceutical screening contracts whereby dried, ground and sometimes extracted material is prepared at Kew for screening by pharmaceutical companies. This wide sampling of all types of plant material from the collections may eventually give rise to some valuable new products. These contracts also illustrate the increasing value of Kew's documented plant collections.

Alluaudia ascendens flowered for the first time since its introduction to Kew in 1957 — much about the time lan Beyer came to Kew as a student and where, save for a short post-graduate spell in commercial horticulture, he remained and most notably was Kew's Deputy Curator, for the past 20 years. His retirement last September leaves a gap in our lives now to be filled by David Hardman, also a Kew graduate, but with a Local Authority management background. And for the Guild, Ian's departure also meant the loss of their valued correspondent for these annual reports. Although some 200 Kew staff gathered to mark lan's retirement, I am sure it is also appropriate here for me to thank him and wish him well on behalf of all Old Kewites.

The history and development of Kew as a botanic garden is well documented and this history will be enriched by the Guild's Centenary publications. It is thus not appropriate to add further digest here, though in looking briefly both retrospectively and to the future, as asked by the Editor, there are some less well-known points of influence on the development of Kew that are worth highlighting.

While botanical Kew dates its inception from the formation in 1759 of a botanic garden within a Royal Garden, gardening at Kew of botanical significance goes back further to the previous century when the late 17th Century gardens of Lord Capel at Kew and Sir William Temple, the latter on what is now the Old Deer Park, were famous for their cultivation of exotic plants.

Between this time and 1759 the Georgians too had botanical interests. In 1714 George, Elector of Hanover, succeeded to the English throne and having a son (George Augustus) and grandson (Frederick) this appeared to secure Hanoverian succession. Frederick remained at the Electoral seat in Hannover-Herrenhausen, a very grand garden on the Versailles scale created for George I's father, Duke Ernst-August (1679-98) particularly by his mother, the Electress Sophie (a grand-daughter of King James I) with the help of the gardener Martin Charbonnier. When this garden was first laid out in 1666, a kitchen garden was established on its north side on the remains of a sandhill and this area became known as the Berggarten. The Royal family developed a botanical interest and by 1686 the Electress Sophie had the Berggarten's first tropical greenhouse constructed, and she also devoted large sums to the acquisition of plants. In the 18th Century the garden was used for experiments on tobacco and mulberries but by 1854 was used solely for botanical specimens with some 36 greenhouses. As a botanical garden the Berggarten became very important. In the 18th Century Friedrich Ehrhard and three generations of the Wendland family ensured the description of 829 new species of plants and in the 19th Century it had one of Europe's most comprehensive collections of orchids.

Growing up in this garden must have had its influence on the young Prince Frederick. Frederick (1707-1751) was summoned to London when, at 22, he attempted a clandestine marriage. Within a couple of years he had acquired Kew and was spending lavishly, with large bills recorded for the period 1732-34. At Kew, considered Frederick's most complete work, Kent converted a simple house into a graceful palace. Frederick's garden ran alongside his mother's even more famous garden. Queen Caroline's landscaped gem stretched from Richmond Green to Kew Green, part of it covering what is today the western half of Kew and the Old Deer Park, with its main buildings, which included a conservatory, centred on or near today's Queen's Cottage Grounds. Important as it was as a work of the evolving English landscape school, it was not botanically-oriented. Though almost totally annihilated by "Capability" Brown, some elements of this garden's land form remain, notably the mount for a temple in the far corner of the Cottage Grounds.

A further botanical influence of that time on the Prince and Princess of Wales came from the plant exploration of eastern North America by John Bartram (1699-1777) who, later in his



Princess Augusta's Temple of the Sun (with the Orangery in the background) prior to its destruction.

life, in 1765, became "His Majesty's (George III's) Botanist for North America". Bartram was a Quaker and his charmingly nostalgic farmhouse and garden are preserved in Philadelphia as the United States' first botanic garden. From there he explored many areas of eastern North America establishing plants in his garden and sending consignments to Europe where his main correspondent and 'agent' was Peter Collinson. A wealthy London cloth merchant and also a Quaker, Collinson (born 1693/94) had two gardens, first in Peckham and then, from 1749, Mill Hill. Collinson and other contacts linked to the Chelsea Physic Garden and Kew. Near to Kew, at Whitton, Archibald Campbell (1682-1761), third Duke of Argyll was part of the circle, and developed an elaborate landscape garden of nearly 30 acres from 1723. He raised many of his trees from Bartram's seed between 1747 and 1757. His nephew, John Stewart (1713-1792), Lord Bute, was much involved with this and collected plants not only for himself but also for Wales at Kew. Bute also later directed the transfer of many trees from Whitton to Kew after his uncle's death.

One later amusing story about Bartram concerns his sending the yellow American lotus (**Nelumbo lutea**) that he had collected to King George III via Fothergill. While packing them, a pair of bullfrogs came in to winter in his springhouse so he thought to send them for the King's interest and in a letter to Fothergill talks of the roaring noise they make, but adds "... if thay should increas in ye pond in St. James' park thay would surprise and divert all ye adjacent inhabitants of London but I think at present it would be better to turn them into ye pond at Kew garden as being more private".

Sadly the frogs, though mentioned to the King, never came to Kew and whilst the **Nelumbo** arrived, it remains to this day a rarely cultivated plant at Kew.

To return to Frederick and Augusta however, it seems that both were considered enthusiastic gardeners and even then their garden at Kew was becoming a Mecca for botanical gardeners. Collinson and his friends thought highly of the Prince for his love of plants and though after the Prince's death, Collinson and Bartram failed to interest his son (George III) in plants — for his taste was architecture — the seeds for Kew to become the greatest botanic garden were already established.

To draw on to the future one needs awareness of the forces that have shaped Kew's past success and failures. Kew has made its progress through periodic phases, almost brief interludes, of 'bold decisions'. It had the opportunity of empire and it has today the opportunity of becoming a world centre for the conservation and understanding of floral diversity.



"Floreat Kew" — the original Kew guild badge (prior to the Grant of Arms).

Above all, success has come through the tradition of quality in all that it undertakes, Kew 'expects' of its staff and they are under great pressure to respond — the forces of the past driving today.

In recent years, Kew has significantly expanded its science to make it one of the world's largest botanical institutes and certainly, in the context of the world's problems of environmental degradation, the requirement for sustainable development and the safeguarding of biodiversity, is unlimited. Thus, the concept of networks and other agreements between organisations nationally and internationally, for the wise use of scarce resources.

Now that the ownership of natural biological wealth has become a political issue, so these co-operative agreements are in greater demand by botanic gardens in the developing world along with the North-South transfer of technology. This in turn leads to the need for more effective training both for our own staff and for those with whom we co-operate.

Collections, it is a matter of changing balances, for while the need for well documented encyclopaedic collections grows so too does the need for targeted conservation programmes. Similarly, there has to be an emphasis on good garden displays to attract the visitor for the purposes of income, a constituency of support and Kew's ability to inform.

Increasing need means tighter decisions and a higher competance level for staff. Much of this change is in evidence, agreements with many overseas botanic gardens, new training courses being developed, joint conservation projects, as with English Nature for endangered plants in England, links to other collections (the Woody Plant Catalogue and the N.C.C.P.G.), the beginning of Population Viability Assessments (P.V.A.s) that will guide reintroduction and small population management programmes along with work towards sustainable development programmes underpinned by conservation, as will hopefully be modelled by the St. Helena project.

As our knowledge grows and taxonomy probes at the molecular level so we all face a spiral of need, of which only careful planning can make sense. 'Multi' multi-discipline projects, multi-science funding, multi-institute collaboration. Tomorrow will surely challenge and excite the next generation.

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The Minister of Agriculture, the Rt. Hon. John Gummer, M.P., visits the Seed Conservation Unit at Wakehurst Place. *Left to right:* Dr. Charles Stirton, Professor Ted Cocking (Trustee), Robin Herbert (Chairman), Minister and Simon Linnington.



Bulb Planting — Kew Green. Guild Centenary activity by R.B.G. staff volunteers. Foreground: Chris Kidd and Matthew Vincent, Kew Diploma in Horticulture students.



Wakehurst Place. Opening part of the new phytogeographic plantings. *Left to right:* Professor Prance, Dr. Charles Jeffrey, Dr. Alice Takhtajan, Professor Takhtajan, Sir David Attenborough and Mark Flanagan.



Re-opening the restored Waterlily House. Earl Howe with the Director of Kew.



The Curator, John Simmons, O.B.E., M.Hort.(R.H.S.), F.I.Hort., C.Biol., F.I.Biol., V.M.H.

KEW ADMISSION CHARGES

The cost of adult admission to Kew Gardens will go up by $20p - from \pounds 3.30$ to $\pounds 3.50 - from 1st$ January, but two adults and up to four children can spend a day in the 300 acres of gardens for $\pounds 9$ with the new daily family ticket.

Senior citizens, students and the unemployed will pay \pounds 1.80 for a day ticket, and children \pounds 1.30. The price for admission in the last hour before closing will be \pounds 1.20 for all categories.

An adult season ticket, which provides admission not only to Kew throughout the year, but to the Royal Botanic Gardens' other establishment at Wakehurst Place in West Sussex, will cost $\pounds 17$ (senior citizens $\pounds 14.50$).

A family season ticket will be £33 and a senior citizen family season ticket £28.

THE HISTORY OF THE CLOG AND APRON RACE

By Chris Kidd, Student

There is a standard press release for the annual Clog and Apron Race. It reads something like this: "Every September new students studying for the Kew Diploma at the Royal Botanic Gardens, Kew, take part in a bizarre initiation rite: the Clog and Apron Race. They charge down the 375 yard Broadwalk between the Palm House Pond and the Orangery wearing the clogs and aprons which were given to students in days of old. Clogs were generally recognised as better footwear on a wet glasshouse floor than leather boots, although these days rubber boots are preferred. This attire was recognised as a symbol of office for students in the gardens during the last century. The race is thought to originate in the 1920's but detailed records date only from the 1940's".

This seems an apt opportunity to reveal a little more history and a few anecdotes for the Clog and Apron Race buff.

The clogs are wooden soled with leather uppers with horse shoes nailed on the bottom. The dominant sizes available are a size 8 for the left foot and size 11 for the right. The aprons are blue, fastened with cotton tapes with a front pocket to carry a budding knife. Nowadays only new students participate, while they are eager to please, and before they realise how daft it is.

First records of the race come from the period before World War I. It was brought about to remedy the lack of social events by the now defunct running club. One Dr. Sid Hick seems to



Carl Nelson, winner of this year's Clog and Apron Race, held on the 1st October, is pictured being held aloft by fellow Course 30 members. Carl's time was 70 seconds. It was a fast race, but still the 60 second barrier has yet to be broken.

have been involved with its inception. The first runners were new staff to the gardens plus other gardeners with a sense of humour. It was never a regular event at the best of times. After a long lapse it was reintroduced in 1939, only to be beaten by World War II.

The race reared its ugly head again in 1951 "held in fine weather on Friday, May 25th. The field was so large as to be divided into two heats". The winner was P. Nutt in a time of 49 seconds. The chronicler of the time wrote that this time would be hard to beat, at this speed you could run a mile in 5 minutes.

No one had ever run the race faster. At this point the running club also organised the Pancake Race, Round the Gardens Race and Kew/Wisley Race — only the former two are still run.

The 1954 race again had a large field and was an inter-departmental challenge. The race was always run outside of public hours with an audience of staff only. Hence the starting time of 8.15 p.m. June 14th 1956. Prizes consisted of two quarts of ale and two quarts of cider to the winner, H. Hind.

It was a close race in 1957, only half a clog in it! Prizes were given at the "Newcomers Dance" indicating the field was largely new students. The first female winner was R. Caton in 1959. The race was largely sexist, giving female participants a head start of 50 to 150 yards.

First mention of any trophy appears in 1961, a miniature silver cup. Also noted in this race was the danger of flying clogs. The modern trophy, the Pearce Cup, was first awarded in 1967, engraved with winners names back to 1951.

In 1971 several spectators complained of deafness after the race. The races were run almost at night, "Cloggers" emerging from the gloom at the Orangery preceded by the roar of the clogs. In 1978 the Students' Union passed a motion that the race should be run in September, during open hours, for the public. In 1979 it was, Ian Leese (now Supervisor of Studies, then a new student) was interviewed by the BBC World Service en route, and consequently came last. In 1986 G. Leeson won in drag, several attempts at fancy dress have occurred since.

Thus ends the potted history of our great tradition. Having run the race myself (fourth in 1990) and organised the races since, it will be an honour, nay a privilege, to welcome the participants for this year's special race to celebrate the Guild centenary on May 29th. Rest assured, gentle reader, those clogs are very unaccommodating after sitting in a box in the Students' Union room for a year.

THE KEW GUILD COAT OF ARMS

Pictured on the front cover, the shield bears two crowns symbolising the two Royal Gardens that together form the Royal Botanic Gardens, Kew.

The silver flaunches on either side of the shield represent the new and old worlds and upon them are the flames of learning from which Guild members disperse to all parts of the world carrying knowledge gained at Kew.

The blue ground of the shield represents the seas which separate the new world from the old and also the sky above the gardens.

The silver band in the shield bears a vine stem symbolic of the Guild itself, linking its members wherever they may be. The crest, a hand holding a shoot of oak and a fruiting branch of **Cinchona** symbolises Kew's concern with plants from the tropical and temperate zones. The **Cinchona**, the source of quinine is a reminder of Kew's role in disseminating economic plants around the world.

EXCERPTS FROM KEW GUARDIAN --- OFFICIAL STAFF NEWSLETTER

With the kind permission of the Editor, Spence Gunn

MILLION POUND BOOST FOR BRAZIL PROJECTS

A one million pound donation to the Royal Botanic Gardens, Kew, will be used as funding towards an important project currently under way in Brazil.

Projeto Nordeste is a collaborative effort involving Kew botanists and their opposite numbers in Brazil to investigate the diversity and economic uses of plants in the semi-arid north-eastern region of the country.

The million pound donation has been made by the Weston family. It will be used to fund the economic botany programme within Projeto Nordeste, researching plant species which have the most immediate potential for local people and their environment. Emphasis will be given to medicinal and forage plants.

The Weston Family are well known in the food industry both in this country and abroad and, in recent years, have given generously to charities involved in education and health.

A spokesperson for the family told *Kew Guardian* that the Westons had been impressed with the work being carried out at Kew. "They wished to be associated with Projeto Nordeste after a meeting with the Director and Mr. Giles Coode Adams, Chief Executive of the R.B.G., Kew Foundation".

February 1992

WARNING FOR KEW PLANT COLLECTORS

Noel McGough and Phillip Eckersley of E.C.O.S., have warned Kew botanists and horticulturists of the legal dangers that can surround overseas plant collection expeditions, or collaborative projects that involve exchanges of plant material with overseas researchers.

"C.I.T.E.S., the international convention that controls the import and export of certain plant and animal species, applies to scientific research as much as to commercial trade," said Noel McGough. "Research botanists have been prosecuted for contravening the regulations — and ignorance of conservation controls by professional scientists is unlikely to be a successful defence."

Heads of Departments have been supplied with a revised staff notice on the C.I.T.E.S. regulations. To move plants, or plant material, listed by the regulations, you need a C.I.T.E.S. export permit from the source country, and a U.K. C.I.T.E.S. permit to bring it in to Kew. To distribute material from Kew, you need a U.K. C.I.T.E.S. export permit, and probably also an import permit for the country you send it to. Anyone working with the plants listed needs to be aware of the regulations.

"Make sure you prepare well in advance if you are going on a field trip, as the C.I.T.E.S. import and export documents can take a long time to come through." says Eckersley.

February 1992

DIPLOMA STUDENTS RAISE £850

Donations of £50 each have been given to four charities by students studying for the Diploma in Horticulture here at Kew.

The charities — Friends of the Earth, Greenpeace, Barrow Hospital League of Friends and the Kew Guild — were nominated by members of the 1991 Kew Students Fete Committee. Three further donations of £30 each were given to Kew societies.

The money was raised by Course 28 students, and included stalls at two fetes, a sponsored litter-pick, a cake sale and a wellington boot throwing competition.

An additional £550 raised is to be used by the students as part of the costs towards their third year study trip to Italy in 1993. Fund raising will be continued throughout the year, and the first such activity is the 'Escape from Kew' day. Four students will start off at Kew Gardens and find their way, by any means possible, as far from the gardens as they can in 24 hours.

They will be approaching British Rail and the airlines for free tickets to help them in their quest, and they will be asking Kew staff, family and friends to sponsor them by the mile.

February 1992

As Victoria Gate re-opened on Monday, January 20th, a character well known to Kew Gardens was the first to come through. Stanley Wolfe, of Ealing, has been visiting the gardens for 45 years, and now, since his retirement, uses his annual season ticket to come almost every day. The Director was at Victoria Gate to welcome the first visitor through and Mr. Wolfe was presented with two of Kew's publications and taken on a tour of the new Visitor's Interpretation Centre and Shop, which opens in March.



February 1992

KEW'S NEW TELEPHONE SYSTEM

This has, by all accounts, been installed relatively smoothly, although most users will have experienced a few teething troubles. One hapless lady living near the gardens thought she had been appointed editor of the friends magazine, as the regular incumbent of that post had told a number of his contact that his new 'phone number was 940 5906!

March 1992

KEW'S FIRST PRODUCT ENDORSEMENT

R.B.G., Kew has negotiated an agreement with ICI which will lead to the first use of the R.B.G. Kew name to endorse a commercial product.

ICI's Garden Products Division is to launch a multi-purpose compost based on coir, a waste product of coco-nut production. The message 'Coir grade as used at the Royal Botanic Gardens,



Mike Sinnott has been trialling coir.

Kew' will be part of the marketing campaign. In return for the use of the name, Kew will receive a royalty on each bag of compost sold.

"Some staff are bound to feel a certain unease about this kind of association," said John Lavin, Deputy Director (operations), "But I can assure them it is not something we have gone into lightly. We have taken a long time to make sure we are completely happy about the product.

"The deal means a welcome, although not massive, income but it has wider implications because it allows us to help promote the conservation message through sales of a compost that does not involve destruction of a natural resource. It is a waste product, there are almost endless supplies, and sales help the economy of the developing countries which produce it, in this case Sri Lanka. It obviously fits in well with our policy of using alternatives to peat wherever possible."

Any similar agreements in the future will have to be looked at on their merits, said Lavin. "It must be right for Kew, and right commercially, and in that order," he said.

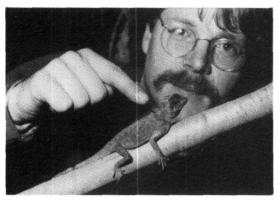
Mike Sinnot, Assistant Curator in the Herbaceous and Alpine Department of L.C.D. has been trialling the coir based compost mix for 15 months and has found it can be used instead of peat in about 90 per cent of cases.

"Kew's composts already had a low peat content, as mixes containing loam and bark were preferred," said Sinnott. "We have found the suply of coir to be constantly reliable and to the standard prescribed. There have been no problems with harmful pathogens or toxins, nor has there been any difficulty with handling or mixing."

March 1992

LIZARD MONITORS

Last week saw the release of some unusual biological control agents into the Princess of Wales Conservatory and the Palm House — three different species of lizard.



March 1992

They were made available to Kew by H.M. Customs and the animal quarantine unit at Heathrow after they were discovered being illegally imported. They were destined for the pet trade.

Two species of gecko (*Tropioca*lotes tripolitanus and Tarentola mauritanica), from North Africa or south west Asia were released into the semi arid zone of the P.o.W. The spiny backed Acanthosaura armota were released into the Palm House. All three species eat insects. The consignment included some dwarf African clawed frogs which will be released into the water lily house when it is completed.

KEW'S VOLUNTEER GUIDES



The first group of Kew's volunteer guides, ready to escort visitors around the gardens.

March 1992

ROOTING OUT THE ENGLISH TRUFFLE

Kew's mycologists have prepared a new semi-popular book on 'British Truffles' which will be published later in the year. Truffles are famous as a gourmet's delight, with the white Piedmont truffle from Italy and the Perigord from France representing the most expensive foods known to man.

But not all truffles are restricted to the Mediterranean, for the summer truffle, popular in Italy, is also found in the chalky soils of beech woods of southern England, where it is known as the English truffle.

Truffle is a loose term describing all the fungal species which produce large fruiting bodies underground — structures which protect the delicate fungal spores from drying out in a land environment.

In the new book Brian Spooner writes on the 'True truffles and their allies' — those related to the cup fungi; David Pegler describes the 'False Truffles' — underground species evolved from mushrooms and toadstools; and Dr. Tom Young, from Kings College, London, provides a chapter on the so-called 'pea truffles' which are related to pin moulds. Altogether there are over 80 species of British Truffle.

The book is illustrated with black and white photos and full colour watercolour paintings by artist Lorna Minton, who was awarded an R.H.S. silver gilt medal for her interpretations of these fungi.

March 1992

GOLD MEDAL FOR IRIS DISPLAY

A display of exquisite miniature irises have won a gold medal for Kew from the Royal Horticultural Society. The rare Juno Irises were in a display put together by Mike Sinnott, Tony Hall (pictured right) and the team from the Herbaceous and Alpine Section of L.C.D., at an R.H.S. show at the end of January.

Juno Irises come from the semi-arid steppes of western and central Asia. Some are only a few centimetres tall. Unusual weather conditions meant that many winter and spring flowering species flowered together for the first time this year, and 32 were on display at the R.H.S. show.

March 1992

PROFILE — CARL SHILLITO, KEW SHOP

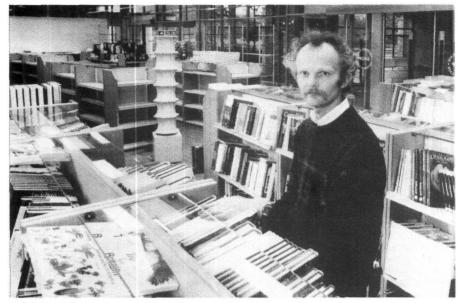
R.B.G. Kew's Retailing Activities are a million pound business making an increasing contribution to Kew's income.

Carl Shillito, Kew's Head of Retailing, has what must be almost unique qualifications for his job. After leaving school he worked in local government, before studying for a degree in public administration — but has spent the 10 years since then in retailing.

"I took a temporary job in a toy shop after leaving college, but I enjoyed it so much I decided to make retailing my career," he explained. Carl came to Kew four years ago after managing stores for companies such as Fine Fare and Tesco. "I liked retailing but was hankering

after something with a public service angle too. Running the Kew retail operation was an ideal combination." It is sometimes difficult for those with a commercial background to adjust to life in public service but Carl's local government background helped. "It is still difficult dealing with endless memos for things that would take a simple 'phone call in commercial businesses, and there are forms for everything! But I have to say that places like Kew seem much more professional in many ways, such as career progression and planning. And Kew is certainly not as bureaucratic as some places I know."





Carl Shillito: "We have to present the right image of Kew."

Carl manages a retail operation which consists of the two shops at Kew (in the Orangery and the Victoria Gate Centre), the shop at Wakehurst and a mail order business. The total takings have been running at over £1 million per year for the past two years. The business is expected to make a profit which contributes to Kew's self-generated income — so the shops' profits are an increasingly important part of Kew's finances. Strict targets for sales, cash flow, stock levels and profit are set by Kew's financial management team.

The shops are run by 12 permanent staff, and up to the same number of casuals depending on the time of year. The peak season runs, not surprisingly, from April to September, but there's also a peak in the run-up to Christmas. The Victoria Gate Shop has an entrance adjacent to the main road and will be able to open for Christmas shopping after the gardens have closed. Virtually all the extra business generated by the new shop will be handled by the existing staff. The only new appointment has been the new post of Assistant Manager, Phillipa Williams, who previously worked for Selfridges.

"I know it is a cliche but any business depends on team-work and I really value the support I have had from the shop staff," says Carl. "They have had to cope with no end of changes and fresh challenges over the past four years," The latest challenge has been getting the new Victoria Gate shop up and running in time for this week's opening. The work began in February, shifting huge quantities of stock from the Orangery. A new storage facility is planned as part of the new central warehouse development in the Shaft Yard, but until this is built Carl and his staff face considerable logistical problems shipping stock into the new shop.

"The staff mess room in the new shop is a great improvement over the cramped quarters in the Orangery though," says Carl. "Unfortunately our offices will be in a Portakabin, again awaiting the Shaft Yard development."

The shop at Wakehurst, supervised by Phoebe Turpin, has not been forgotten. It has been re-decorated over the winter and re-fitted with surplus shelving from the Orangery. With the expanded sales area offered by the new shop, and the improvements made to the Orangery and at Wakehurst Carl expects to 'substantially increase' the retail operation's contribution to Kew's income.

What are the best sellers? "It is difficult to pick one particular item, but as you might expect the small souvenir items are the most popular: pencils, mugs, soaps, that kind of thing. But we are also a major book retailer. Books account for 30 per cent of our turnover, much more than in similar shops attached to 'visitor attractions' elsewhere." Carl is responsible for deciding what lines to stock in the shop.

The mail order side of the business has been increasing too. This includes scientific books as well as the more obvious Christmas catalogue. "We sent consignments of botanical books to libraries, research institutes and individuals all over the world. Individual orders can be worth hundreds or even thousands of pounds" explains Carl.

Although he sees the shops as an increasingly important source of income for Kew, Carl is keen to emphasise that they are more than just a business. "Like the catering operation they are a high profile activity which can make or break the visitor's impression of Kew. So although we have to pursue business aims we also have to ensure this does not conflict with our ability to continue to present the right image of Kew to the public."

March 1992

RODDICK OPENS VICTORIA GATE

The Victoria Gate Visitor Centre was opened on March 18th by Annita Roddick of the Body Shop. "At the Body Shop we place great value in offering as much information as possible to our customers, and this is one area in which the Visitor Centre is going to be invaluable to

Kew," she said. "But I also love to trade and that is why I am a big fan of Kew's commercial development, of which this centre is a cornerstone."

Ms Roddick said she was particularly fascinated by Projeto Nordeste, as Body Shop had opened a research facility at Belem, in north east Brazil, to look for commercially useful plants in the region. "The great hope for the future is that we can uncover economic incentives that will render short term exploitation of such regions and their people a sorry fact of the bad old days.

"Projeto Nordeste is the kind



Anita Roddick of the Body Shop admires the Victoria Gate Storm Mural.

of project the Visitor Centre can play up for the public. Raised consciousness will eventually breed raised funds for further projects."

April 1992

NEWS FROM FOUNDATION AND FRIENDS

A special open evening in the Herbarium last month, for Founder Friends (who have each paid £1,000 for five years' membership) was attended by over 100 Founders and their guests, some of whom may now become founders themselves.

The tour of the Herbarium, guided by members of the staff, included a look at items from the Economic Botany collection, historic books and botanical art in the Library, and current research projects such as the computerised poisonous plants database and the use of pollen grain analysis in taxonomy.

■ A fourth organisation has become a corporate member of the Friends. Thames Water, which has previously been involved with Kew through water conservation publicity and sponsorship of the Christmas events, joins Courtaulds, E. D. & F. Mann, and Willis Corroun.

■ The Foundation is planning to host a special dinner for leaders of Britain's industrial and business communities at No. 11 Downing Street. *Kew Guardian* understands the event will not be affected by the outcome of the General Election.

■ Good progress is being made on establishing a United States arm of the Friends and Foundation, following a visit to the U.S. by Professor Lucas last month.

April 1992

PROFILE --- PERSONNEL SECTION

Kew spends over half its annual budget on wages, over £7.5 million last year. But staff are Kew's most important asset in more than purely financial terms. The breadth of experience and skill in every department, from Administration to the Herbarium, is what maintains Kew's reputation as one of the world's most important botanic gardens.



The Personnel people, Maureen Long with (clockwise from left): Qudsia Shaffiuddin, Jill Bloomfield, Shelley Rough, Wendy Muncey and David Green.

"People are a very expensive resource," says Maureen Long, Personnel Manager. "If you don't look after your people you might as well be throwing money down the drain." Getting the best out of its human resource is, of course, up to every supervisor and manager. Maureen Long and her staff of five are there to help them do just that.

Personnel is not such a large department when you remember that there are around 500 staff at Kew and Wakehurst. Maureen is assisted by Jill Bloomfield and Margaret Martindale, who each have two members of staff: Wendy Muncey and Shelly Rough work with Jill; Qudsia Shaffiuddin and David Green with Margaret.

"We are responsible for all aspects of the employment and conditions of service of Kew's staff, from their recruitment to retirement," explains Maureen. "Historically, our conditions have been linked to the Civil Service but the Treasury is now delegating authority to organisations who want to change to a more suitable system."

As head of the section, Maureen's main role is in assisting Kew's managers with just this kind of policy-making. But there is a more 'personal' side to Personnel too.

"We are the natural port of call for all sorts of enquiries from staff," she says. "No way do I want to stop people ringing for help — after all that's why we are here — but quite often I personally am not the best person to ask. For example, the staff in the General Personnel Office are far more in touch with things like rates of pay, hours and annual leave than I am!"

The section is currently working on a new, and much easier to use, staff manual that should answer most of these queries.

Maureen got involved in personnel almost by accident. She started her career in the Civil Service in the India Office Library, holding archives back to the old East India Company. It was part of the Foreign Office when Maureen joined, but then was taken over by the British Library. "I was told I was pleasant and got on well with people, so when the takeover happened I was transferred to the Personnel Department of the Library," she said. "I transferred to Kew in 1985 and became Personnel Manager on April Fools day five years ago."

As well as developing policy and advising managers how it should be implemented, one of Maureen's most important roles is what she calls counselling work, becoming a 'sounding board' for just about anyone who feels they are not being treated as they deserve. "Many people find it far easier to discuss problems with someone outside the immediate situation than with their immediate manager," she says. "And often, of course, it is easier from someone not directly involved to give impartial advice.

"The most common problems seem to relate to misunderstandings about annual staff reports, a consequence of not having a fully open system of staff appraisal. People are allowed to see their marks but not the comments that go with them, and they can conflict. A more open system, I believe would help both sides. I actually show my staff their full report, even though it is not officially allowed. If someone is not doing as well as they might you should discuss it. How else can you improve?

"Currently Kew sets aside very little money for training, and I think it shows. I am sure supervisors and managers in particular would find management training a terrific help. But then again it is not one of those things you can throw money at. We need to make time to analyse exactly what we need and develop a proper training policy."

Taking a leaf out of her own book, Maureen is taking a two year course, through open learning, towards the Institute of Personnel Management Diploma, the only recognised qualification in its field. Kew allows one day a fortnight working at home to study.

"Of course not all managers should manage in the same way but there are a few basics. We all feel better motivated if we are asked rather than ordered to do something, and we all like those above us to take account of our opinions — you never know, there might be a better way of doing a job. It is always easy to say you don't have time for dealing with people properly and there are a lot of pressures, but time spent with staff is a good investment."

R.B.G., Kew is going through a period of great change, and change is something people are naturally resistant to. The key, says Maureen, is making sure everyone has the information they need, and for no-one to feel they can't ask questions.

"You can never satisfy everyone but at least one can give time to listen. You'd be surprised how many of the problems I see are a result of people not taking the time to talk to each other."

April 1992

SPRING WINDFALL BOOSTS FUNDS

R.B.G., Kew has been able to purchase two major items of equipment following a successful bid for surplus Government funds at the end of the financial year.

Within these funds over £200,000 has been made available for a new electron microscope for the Jodrell Laboratory, and waste recycling equipment to produce compost for the Gardens.

"We were able to take advantage of these funds because of the improvements that have been made to Kew's management structure," said John Lavin, Deputy Director (operations). "We already had a contingency plan in case there was any surplus from M.A.F.F. When they rang and said the money might be available, I was able to spend time with staff to put together our case for this equipment. We were able to respond to M.A.F.F. within a day and I am sure that it was this greater professionalism towards planning that secured the money." 152

The Jodrell Laboratory gets a new Transmission Electron Microscope which will be used in the Anatomy Department, particularly to look at pollen grains and cells involved in plant breeding systems — research which will ultimately help Kew's plant conservation work. "The new microscope will be a more flexible tool than existing equipment, enabling us to use relatively low magnifications to look at whole pollen grains and whole cells," explained Dr. David Cutler of the Jodrell. "The present unit is powerful but can only be used at high magnifications."

The waste recycling equipment will help the Living Collections Department to make increasing use of waste material, by turning it into compost for use in the gardens and greenhouses. L.C.D. is already using leafmould from the Royal Parks and stable manure from the Household Cavalry, but Deputy Curator, Ian Beyer, would like to see trials on the use of material such as straw, which is going to be available in increasing amounts as anti-stubble burning legislation comes into force. "Machinery is now available that can produce a good quality growing medium from even coarse material such as straw or brushwood," he said. "I think Kew could pioneer the use of this kind of material and bring it to wider attention, as we have successfully done with biological control and coir compost."

May 1992

THE REFURBISHED PAVILION RESTAURANT

The Pavilion Restaurant has now re-opened. The Orangery Restaurant, which was closed temporarily to allow it to convert to its summer operation, re-opens just after the May Bank Holiday. The Bakery is now operational full time. *Kew Guardian* understands that a contract is about to be signed with caterers Ring and Brymer, part of the Trust House Forte group, to run until 1994. This follows the receivership of the previous contractors, Town and County.

May 1992

NEWS FROM FOUNDATION AND FRIENDS

Last month 10 members of the Friends of R.B.G., Kew joined students from the University of Reading botany course on their annual field study trip to Almeria, in south-east Spain. This was the first time the Friends has offered an overseas botanical study tour to its members and has been heralded as a success.

Mike Maunder, of L.C.D., was one of the group leaders, along with staff from Reading. Also on the course were three members of staff from Kew's Alpine and Herbaceous Unit, Fiona Denis, Richard Wilford, and David Hancock, aiming to experience at first hand the environments in which the plants they look after at Kew grow naturally.

"The group proved to be a good mix and students, staff and friends all seemed to benefit from each other," said Mike Maunder. "It is certainly the kind of thing we would consider running again."

May 1992

WALK THE MAGNOLIA WAY

The first plantings have been made to Kew's new Magnolia Walk. This is a new garden feature at Kew and planting will be completed over the next two planting seasons. The Magnolia Walk, which is sponsored by the Batsford Foundation Arboretum, in Moreton-in-Marsh, links the Main Gate to existing magnolia plantings near the Azalea Garden. Arboretum staff have planted around 60 trees this year, when complete there will be around 120 magnolias in the walk.

May 1992

PLANTS ON THE NETWORK

Eighteen months of redevelopment work on the Living Collections Database has been completed and the system went live at the beginning of April. "The system has been altered significantly," said Mark Jackson, of the Computer Section. "One of the major changes is that L.C.D. staff can now make updates to the records via their own computer terminals — a job which previously had to be done by staff in the plant records office."

The database contains around 120,000 records, representing past and present specimens in the Living Collections. Each record includes information on where the plant is in the gardens, it origin, notes made when it was collected, and general information about how the plant grows and its status in the wild.

May 1992

DIRECTOR PROMISES 'MORE STABLE TIMES AHEAD' TO STAFF MEETING

Kew is set for a period of greater financial security and management stability than has been experienced over the past two or three years, the Director has told staff.

Speaking at the latest of his six-monthly reports to staff, held in the Jodrell Lecture Theatre on April 22nd, he said "A budget has been agreed with the Heads of Department that, although still restrained, gives us more security than we have seen for a few years. Through good house-keeping essential vacancies can be filled and there will be provision to make merit-based pay rises.

I am also pleased to report that we have been successful in obtaining some end of year funding from the Ministry of Agriculture." He also thanked staff for their patience during the recent period of management restructuring. "We can now look forward to a period of relative stability and consolidation."

Professor Prance reported that the Friends organisation was set to break even in the coming financial year and would thereafter contribute to Kew's income. "I would particularly like to thank all those staff who have helped the work of the Friends and Foundation. I know it takes a great deal of time out of busy schedules but it has helped greatly." He said that successes such as the donations of £1 m and £450,000 made via the Foundation recently (see *Kew Guardian* February and March) were a direct result of this kind of collaboration right across the institution. He also made particular mention of the staff of L.C.D. "The gardens are looking really beautiful this spring and this again is a tremendous benefit to our profile."

Reporting on the campaign for improving the grading of the horticultural industrial staff, Professor Prance said that he was expecting approval from the Treasury 'within

the next few months". "This is a top priority and we are doing all we can to see it through without delay."

May 1992

PROFILE - WALK THROUGH THE WORLD'S WOODLANDS AT WAKEHURST

May 7th saw the official opening of the new phytogeographic planting arrangements at Wakehurst Place, which will allow the visitor to experience a 'walk through the temperate woodlands of the world'.

Wakehurst was, of course, badly affected by the storms of October 1987 and January 1990, and staff there have been working hard to secure the long term re-establishment of the collections. Rather than simply re-plant to the existing pattern, Mark Flanagan, Andrew Jackson and their team have taken the opportunity to give the botanical collections a greater definition making them more relevant and sympathetic to visitor interpretation. The horticultural features around the Mansion (apart from the Rhododendron Walk) were not affected as badly as the botanical collections.

The collections at Wakehurst were already arranged geogrphically but the new layouts will follow the ideas of the eminent Russian phytogeographer, Armen Takhtajan, who performed



Professor Prance: regrading is priority.



Wakehurst's Mark Flanagan (left) and Andrew Jackson

will hold collections from the Circumboreal, Mediterranean and Irano-Turanian regions not currently represented at Wakehurst; the temperate southern hemisphere collections in Coates Wood will be divided into their component parts — Chile-Patagonia, Neozeylandic and N.E. Australian Regions.

Some material for the plantings is already in the nurseries at Wakehurst. Additional material for the future will come from Kew and other expeditions, seed from other institutes and propagation material from plants already in cultivation. It is intended to use dominant species from each floristic province, particularly endemics, and plants with particular interpretive or conservation significance.

Interpretation for the visitor is to be given high priority by the Wakehurst team. "The basic concept of a walk through the temperate woodlands of the world would seem to provide an exciting and cogent way of making the botanical collections accessible to visitors," says Mark Flanagan. "It will have wider spin-offs and one can imagine school and other education groups being able to use the resource in many different ways.

May 1992

The plan builds on

WE HEAR

Charles Erskine and Sandra Bell, of L.C.D., provided a guided tour of Kew at a moments notice, when the Prime Minister of Malaysia and ten guests arrived unexpectedly at the Gardens on June 10th.

The Temperate and Tropical Sections of L.C.D., under Sandra Bell's leadership, provided an exhibit at the Royal Horticultural Society June Show, featuring rare and endangered plants, to encourage the amateur gardener to use propagated instead of wild collected plants.

The International Dendrology Society has launched a new arboricultural scholarship to enable tree specialists from Eastern Europe to study at Kew. The first recipient is Viera Paganova from the Department of Silviculture at Zvolen Technical University, Czechoslovakia, who will be at Kew until October. She will make a particular study of the birch collection at Kew and Wakehurst, and advise on future development plans for the collection. She will be working with Charles Erskine, Mark Flanagan and Andrew Jackson. July 1992

STANDARDS SET FOR YOU THE CUSTOMER

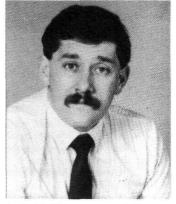
John Lavin, Kew's Deputy Director of Operations, and his team have launched the first of a set of guidelines for providers and users of internal services such as Building and Maintenance, Typing, Finance, and Media Resources.

"Developments such as the internal market in the health service, and the introduction of the Citizen's Charter, mean organisations like Kew are increasingly aware of the idea of 'internal customers'," said Lavin. "As Kew is becoming more independent we needed to look at our ability to provide internal services at a satisfactory level. These Services account for a considerable

proportion of Kew's annual budget, so it is vital that we are accountable for our performance, and that we have recognised performance targets against which we can be measured, in the same way that science, library and horticulture activities are looking at developing measurable targets."

Service Indicators have been set for the following operations: Buildings and Maintenance; Finance; Administration (including subsistence and expenses payments, personnel and typing) and Education & Marketing (including Enquiries Section, which provides a service outside Kew and Media Resources). The indicators are designed so that the providers of the service know the standards they should aim to meet, and internal customers know what to expect.

"The standards we have set take into account the resources — people, equipment and money — that are available; and represent what can be expected as a normal level of service," said Lavin. "Naturally, there will be



Lavin: it is vital we are acountable.

emergencies — replacing glass after gales will probably prevent B & M meeting their targets for routine work. The customer also has responsibilities, such as not overloading the systems with unnecessary requests for immediate or urgent work. Each of the indicators has been set in consultation with the heads of department concerned and I hope all the staff involved will see them as constructive targets."

Lavin said that he expected the indicators to be met '95 per cent of the time', but he would not be diverting resources to elaborate monitoring that would be better spent on actually providing the service. "I will be relying on feed-back from those using the services to tell me if they are being met. I don't want to be inundated with calls about typing being 10 minutes late but I will be wanting to follow up genuine and reasonable criticisms and cases where indicators are consistently failing.

"At the end of the day, this is just a first stage. This is the first time Kew has established formal benchmarks for its internal services in this way and I hope we will be able to use the results to provide appropriate levels of service as efficiently as possible. I am sure we will be revising the indicators as we gain experience, and drawing up indicators for an increasing number of internal services. In the future we will expand the concept to provide similar targets for the services we offer to the public and outside organisations, too.

"This is not a set of tomes cast in stone, I want to continue Kew's tradition of working flexibly and coping superbly with emergencies — these indicators will help us cope better with routine."

July 1992

MYCOLOGY LABORATORY

Mycologists in the Herbarium are celebrating the completion of a new laboratory in Wing D, which will allow a living reference collection of fungi to be built up at Kew for the first time.

Gill Butterfill, who was appointed to the section last year, has been responsible for planning, equipping and managing the new laboratory. She previously worked for the Commonwealth Mycological Institute at Kew, where she specialised in the production of fungal cultures, and last month she visited one of Holland's leading research institutes to learn some of the latest techniques.

Dr. David Pegler, Head of the Mycology Section, said: "Over the coming years we intend to build up a living collection of wood rotting basidiomycete fungi, including tropical species. We will be able to investigate the life cycles of these fungi for the first time, essential if we are to build up a full picture of the fungus we are looking at. It will quickly become an indispensible part of the Mycology Section."

July 1992

FIREWORK INJURES TECHNICIAN

Firework technician Nigel Village was injured in an horrific accident during the finale to Kew's three-night Summer Jazz Festival.

A firework is believed to have ignited prematurely while Mr. Village was setting it off, and he was hit in the face. The display was stopped immediately and St. Johns Ambulance medics, on duty for the concerts, rushed Mr. Village to West Middlesex Hospital. He was later transferred to the eye Unit of Ashford Hospital where surgeons operated to save his sight. He is reported to be very seriously ill.

A member of L.C.D. staff who went to the hospital was told that Mr. Village was likely to lose the sight in his left eye, but that surgeons were hopeful about saving the right.

Mr. Village has worked for Kimbolton, the pyrotechnic company which provides the firework display for Kew, for eight years. It has been in the business for 30 years and this was its first major accident. Tom Smith, the owner of the company, travelled from Huntingdon to see Mr. Village in hospital.

On the previous evening, a member of the Alan Price band, Don Weller, was rushed to hospital by St. Johns ambulance suffering from food poisoning. He was reported to be making a good recovery as *Kew Guardian* went to press.



The Syd Lawrence Band played to nearly 3,000 jazz buffs on the first night of the concert series.

In spite of these incidents the jazz concerts were a great success. In excess of 11,000 people attended over the three nights. The last night was a sell-out and ticket sales for the other performances were well-up on last year, said Valerie Walley. Corporate Hospitality, and special picnic hampers, innovations for this year, had got off to a 'promising' start. T-shirts and balloons also proved very popular.

Ms Walley, Kew Commercial Development Manager, paid tribute to the hard work of the staff who helped organise the concerts and to the way they coped with the emergencies.

August 1992

TRUST VISIT

The Wessex Regional Office of the National Trust visited Kew on one of their Training Days on June 5th. Sandra Bell gave a tour behind the scenes in the Lower Nursery, and Mike Marsh showed the group around the Princess of Wales Conservatory. "There were about 50 in the group; they showed a keen interest in Kew's work and thoroughly enjoyed their day here," said Mike Marsh.

August 1992

PLANT AUCTION RAISES £3,000

Over £3,000 was raised at the Plant Auction organised by L.C.D. and the Friends of R.B.G., Kew, and held last month.

Over 100 lots went under the hammer, including cacti, conservatory plants and hardy trees and shrubs. Also auctioned were a number of the old cast iron direction signs which have been replaced around the gardens, and decorative planted floral tubs. The most expensive bid was £60 for a rare Rhododendron; and one bidder spent a total of over £600.

Christies, the Auctioneers, once again donated their services free of charge and their staff thoroughly enjoyed the evening. An innovation this year was to sell plants at fixed prices before the auction and this proved popular with buyers.

The money raised will go towards the planting of a 'Bee Garden', near the Joseph Banks Building. The garden is likely to contain a display showing the history of beehives and information boards on pollination methods. Plants will be selected for their attractiveness to bees. Planning for the garden is in progress and planting will be underway as soon as possible.

August 1992

LEGUME EVOLUTION TOPS THE CONFERENCE BILL

Over 200 botanists from around the world exchanged the latest information on research into legumes — one of the most important plant families — during the Third International Legume Conference at Kew last month. During the week of the conference, over 60 of the visiting scientists made use of the facilities in the Legume Section of the Herbarium to further their research.

"The conference has been a great success and we have been able to swap ideas and information with many people working in the same field that we have not had a chance to meet before," said Gwil Lewis, one of the conference organisers. Brian Schrire added:"The topping on the conference was being able to swap ideas on legume evolution, and on the use of modern computerised techniques to sort information on the taxonomy of related groups of plants within the legumes."

Among the Kew botanists who made presentations at the conference were: Gwil Lewis, Keith Ferguson and Charles Stirton, who each spoke on different groups of leguminous tropical trees, and Brian Schrire, who spoke on the indigo legumes, a group of tropical dye producing herbs. Paul Cannon of the Commonwealth Mycological Institute spoke on the Phyllochoraceae — a group of fungi that specialise in parasitising legumes.

The Jodrell Laboratory was represented by Dr. Pete Gasson, who described his work on wood evolution in legumes; and by posters presented by Toby Pennington; Paula Rudall, Gillian Myers and Gwil Lewis; Geoffrey Kite and Gwil Lewis; John Dickie and Roger Smith; Markella Callimassia and Mike Bennett (in collaboration with Nigel Maxtead of Birmingham University). Topics included legume seed conservation; floral structures, biochemistry and taxonomy.

The Kew Bookshop shared in the conference's success, too. Over £2,000 worth of Legume related publications were sold to delegates. Kew's latest legume publication, '*Legume systematics*', was published only two weeks before the conference. The conference proceedings will be published as a series of volumes over the next 12 to 18 months.

August 1992

KEW'S NEW DEPUTY CURATORS

Mark Flanagan has been appointed Deputy Curator, responsible for L.C.D. at Wakehurst Place. He has been acting Deputy Curator since Tony Schilling retired.

Mark came to Kew in 1983, as Supervisor in what was then the Planning Unit in Aiton House. In 1987 he went to Wakehurst to take over the Supervisor's job from John Lonsdale. Before coming to Kew he was a student at Edinburgh Botanic Garden, then a lecturer at Houghall College in Durham.

As acting Deputy Curator, Mark has been responsible for continuing the redevelopment of Wakehurst following the storms of 1987 and 1990, culminating in the official opening of the Phytogeographic Plantings earlier this year.

Following Ian Beyer's retirement, the new Deputy Curator of L.C.D. at Kew will be David Hardman. He comes to Kew from Trafford Metropolitan Borough Council where he is currently Parks Services Manager, although he is no stranger to Kew, having completed the Horticulture Diploma Course in 1977.

September 1992

The Waterlily House was officially re-opened on August 3rd following the restoration last year. The official re-opening was performed by The Earl Howe, Parliamentary Secretary for the Ministry of Agriculture in the House of Lords. Also at the ceremony were (left to right) the Mayor of Richmond, Councillor Anne Summers, her consort, Mr. Leo Summers, and the Director of R.B.G., Kew, Professor G. T. Prance. The Glasshouse was built in 1852.



September 1992

KEW AND THE DARWIN INITIATIVE

The Royal Botanic Gardens, Kew, has teamed up with six other botanical and environmental institutions in the U.K. to recommend ways of carrying out the 'Darwin Initiative'.

The Darwin Initiative for the Survival of Species was announced by the Prime Minister, John Major, at the Earth Summit in June. It aims to support the Biodiversity Convention, which was signed by world leaders at the Summit, by making use of British expertise in conservation and the sustainable use of biological resources.

"We have teamed up with six other institutes in a group called the Consortium for the Darwin Initiative," said Dr. Charles Stirton, Deputy Director (Science). "We have submitted a proposal to the Department of the Environment recommending how the Government might implement the Darwin Initiative, and how it can support the Biodiversity Convention through carefully focused work by U.K. institutes."

"As a Consortium we would hope to form the core of Darwin Initiative activity, but in carrying out the work we would be working with a wide range of other institutes and individuals in Britain, Europe and the rest of the world — whoever has the required expertise."

Much of the focus of the Darwin Initiative will be on developing countries but attention will also be given to conservation in the U.K. and to opportunities in Eastern Europe. Emphasis will be on identification, conservation, research, training and education, and the consortium is underlining the need to build-up the capacity of the institutes involved to undertake this work, and the importance of strategic planning.

As well as Kew, the members of the Consortium are: Natural History Museum; Royal Botanic Gardens, Edinburgh (including the Edinburgh Centre for Tropical Forests); Natural Resources Institute, Chatham; Department of Biology, Imperial College, London (including the Centre for

Population Biology); Department of Plant Sciences, Oxford Institute (including the Oxford Forestry Institute); and the World Conservation Monitoring Centre, Cambridge.

The. Director, Professor Prance, the Keeper of the Herbarium, Professor Lucas, and Dr. Stirton are leading the consortium negotiations for Kew. Any enquiries about Kew's involvement should be put to Professor Lucas.

September 1992

JOURNALISTS AT KEW

A party of 30 journalists from national newspapers and broadcasting, and their guests, took part in an annual guided tour arranged by Christine Brandt of Education and Marketing, on August 1st.

Gren Lucas, Brian Stannard and Phillip Cribb put on a display of the work of Projeto Nordeste and the group was given a guided tour of the Herbarium, The Jodrell Laboratory — where they saw the scanning electron microscope and micropropagation techniques — and a brief tour of the gardens.

"We do not expect immediate press coverage from an event like this," explained Christine. "The intention is to ensure Kew stays in the forefront of the minds of the press and TV editors and producers who come, and hope that their future plans will include us. However *The Guardian* did an interview with the Director as a direct response to what they saw on the day."

September 1992



A recent burglary at a local solicitors' resulted in the above photograph coming into *Kew Guardian's* possession. But what can it mean? The Friends has been persuaded to donate a bottle of wine for the member of Kew staff who can come up with the wittiest caption or

PEOPLE IN FOCUS

David Cutler (pictured left) was interviewed on location for an item on tree roots in the BBC Gardener's World programme.

September 1992

CAPTION CONTEST



suggestion for what the two D.D.'s are saying to each other.

The winner was Gwill Lewis, Herbarium, with 'Ours are OK but I don't think much of the Director's'.

September 1992

NEWS FROM FOUNDATION AND FRIENDS

ADT, the financial services company which sponsors the London Marathon, has donated £20,000 towards the cost of a project to look for plant-based treatments for diabetes. Linda

Fellows is proposing to collaborate with researchers at Radcliffe Hospital, Oxford, Oxford University, and with The Herbal Medicine Centre in Rakai, Uganda and with a Ugandan M.D.

The incidence of diabetes is increasing, yet there are many reports of effective plant-based preparations being used in developing countries. The project hopes to evaluate these and to investigate any promising active ingredients for leads to new drugs.

● Founder Friend, Sir Kirby Laing, has donated £15,000 towards the P.L.A.T.O. (Plant Toxins) project of the Poisons Unit. P.L.A.T.O. is an interactive, image-based computer system which can be used by doctors to help identify the plants or fungi involved in suspected cases of poisoning. It is designed to help doctors arrive at a speedy diagnosis, and may help reduce the number of unnecessary treatments. A pilot project has already been completed in collaboration with the National Poisons Unit at Guy's Hospital. The new funding will allow the number of species covered to be increased, and the software to be improved, before being taken outside Kew for trials by doctors.

September 1992

WE HEAR

R.B.G., Kew will receive the first royalty cheque for the use of Kew's name to promote the grade of coir used in ICI Coir composts on October 1st. The cheque, for more than £4,000, represents the royalties on bags of compost sold since April and is almost as much as the predicted royalties for the whole year.

The Temperate House is now available for hire for major functions for a maximum of three occasions in the summer months each year. Applications should be made to the Commercial Development Manager, Valerie Walley, who will undertake the necessary consultations before any decision to proceed is reached.

Following the success of the Volunteer Guide Scheme at Kew, Volunteer Guides are to be recruited for Wakehurst Place, from this month.

Rebuilding work in the Arboretum and Temperate Section's Nursery is progressing, with the new above-ground boiler house functional and twin span replacement glasshouse erected, glazed and awaiting fitting out.

October 1992

PRINCE CHARLES BECOMES PATRON OF FRIENDS AND FOUNDATION

His Royal Highness the Prince of Wales has agreed to become Patron of the Foundation and Friends of R.B.G., Kew.

"The Royal Family's association with the Gardens from their very beginning, and Prince Charles' public support of the conservation work in which we are involved, gives his patronage more than the usual significance," says John Eccles, Chairman of the Foundation.

Michael Godfrey, Manager of the Friends, added, "It is now just over two years since the Friends was launched and total membership exceeds 13,000, in almost 10,000 households. The Prince's patronage will be of great value in maintaining this encouraging start."

The Prince's last visit to Kew was to give the Rainforest Lecture in 1990, in which he called for an international convention to safeguard tropical forests. Such a convention was to have been signed by world leaders at the Earth Summit in June but agreement was not reached.

A NEW AND

Prince Charles giving the 1990 lecture.

In his lecture, the Prince reminded us that 'we are literally the last generation which can save the rainforest from total destruction'. He stressed the need for rational, sustainable use for the rainforests, maintaining biodiversity while preserving the rights of the rainforest peoples; and the importance of involving, and learning from, forest dwellers — all very much in keeping with Kew's philosophy. October 1992

160

Over 200 mycologists attended the IX Congress of European Mycologists, held at Kew during the second week of September. The congress's discussions on environmental threats to fungi received wide coverage in national press and on TV. Our picture shows conference organiser, David Pegler, Head of Mycology in the Herbarium, Professor Leif Ryvarden, Vice President of Congress, Thomas Lassoe and Elsa Vellinga, from the Netherlands, returning with their trophies from one of the congress field study trips.



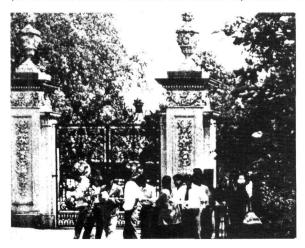
October 1992

SUMMER VISITOR SURVEY

The results of Kew's second visitor survey of 1992 have just been made available. It is pleasing to see that our key activities top the list of visitors perceptions of Kew. Around a third of visitors think our main role is in conservation and a quarter think we also undertake scientific research.

Over 400 visitors were interviewed, in two waves — the first on seven days in June and July and the second on seven days in August and September. The days covered weekends and Bank Holidays, as well as weekdays.

Overall, the level of satisfaction among Kew visitors remains extremely high. Ninety-seven per cent said that their visit had fulfilled their expectations and 87 per cent enjoyed their visit



(up from 75 per cent in the winter survey).

The survey revealed a dramatic improvement in catering during the summer. The numbers of people reporting satisfaction with all the catering establishments in August/September was almost twice as many as those interviewed in June/July. Eighty-nine per cent considered a visit to Kew to be good value.

Among the key differences between winter and summer visitors were:

 More summer visitors than winter visitors said they had come specifically for the plants.

Thirty-three per cent of

summer visitors live abroad, three times as many as in winter. Overseas visitors are most likely to have come from Europe (13 per cent) and North America (nine per cent). Three per cent of

overseas visitors came from Japan. Overseas visitors are younger than the average Kew visitor — a guarter were under 25. On average a half of Kew's visitors are over 55.

• Friends and Season Ticket holders are a lower proportion of summer visitors. Friends accounted for 30 per cent of winter visitors surveyed but only eight per cent of summer visitors. Season ticket holder figures were 17 per cent and eight per cent respectively. However, ticket holders are the most regular visitors — 43 per cent of them visit more than 10 times a year.

• A summer visitor is much more likely to be a first time visitor: they accounted for as much as a half of those surveyed over the summer. Only a fifth of winter visitors were first timers. First timers are most likely to be under 35 years old.

• Summer visits lasted much longer. Forty-four per cent stayed longer than three hours — almost twice the winter figure of 23 per cent.

• One third of the visitors had been to the Victoria Gate Visitor Centre, which had not been open at the time of the winter survey.

Attractions such as the Palm House and Princess of Wales Conservatory were visited much more by first time and occasional summer visitors than by winter regulars. Not surprisingly areas such as the Rock Garden were also more highly enjoyed.

• Summer visitors were more likely to buy refreshments than winter visitors. The bakery was the most popular source of refreshment — over a quarter of all visitors bought something there.

• More summer visitors said they had learned something from their visit than winter visitors (39 per cent compared with 25 per cent in winter), this was probably because of the higher number of first time visitors in the summer. Most visitors felt the amount of information boards and signage around Kew was about right.

Around a third of visitors are aware that Kew's primary roles are in plant conservation and scientific research. However, over two thirds of visitors think Kew's funding comes primarily from entrance fees and season tickets.

One question in the summer survey asked visitors if they would be prepared to contribute to the upkeep and work of Kew, in addition to the entrance fee, if there were collecting boxes at Kew.

Ten per cent said they definitely would, and almost 50 per cent said they probably would. Visitors over 55, Friends and Season Ticket Holders and the less well-off were most likely to make a donation.

November 1991

WE HEAR

Kew's Director, Professor Ghillean Prance, is to be cast away on Sue Lawley's Desert Island. He has been interviewed to feature in the Desert Island Discs programme which will be broadcast on Radio 4 in the next few weeks.

The Rotary Club of Kew Gardens has written to ask if any members of Kew staff would be interested in membership. It is one of six Rotary Clubs in the Richmond Borough, and the objectives of the organisation include 'The development of acquaintance as an opportunity for service; high ethical standards in business; the advancement of international understanding'. The Kew Gardens branch has 30 members who meet on Wednesday evenings at the Kings Arms, Kew Green. Richard Ward, a former Kew student, who is this year's Public Relations Officer for the Kew Branch, can be contacted at 27 Lower Mortlake Road, Tel. 081-948 2970, for further details.

November 1992

CELEBRATORY DAFFODILS

Some 10,000 daffodil bulbs will be planted this week (November 4th) along the 'Birdcage Walk', the footpath that runs across Kew Green from the Herbarium to the Administration Gates.

162

The bulbs will flower early next spring to celebrate the centenary of the Kew Guild, and the planting will be a lasting and colourful addition to the Green. Special signage adjacent to the planting will explain how bulb farming can help prevent the unnecessary exploitation of wild populations.

The bulbs are being donated by Parkers, a well-known bulb supplier. The varieties being used are 'Verger', and 'February Gold' which, despite its name, rarely makes it into flower before March. This combination of daffodil varieties will continue flowering well into May.

"The planting will be undertaken by volunteer teams and we will welcome volunteers from all departments." said Mike Sinnott, Assistant Curator, Living Collections Department.

November 1992

MORE MEDIA SUCCESS FOR KEW

Biological control at Kew hit the headlines in a big way last month with features on three national news programmes in one day.

James Wilson, BBC TV Science Editor had been invited to tour Kew to see the work in progress in both the Jodrell Laboratory and the Living Collections Department. "He found the work we were doing on biological control fascinating and decided to do a feature on it," said Christine Brandt, Public Relations Officer, who arranged the visit.

Wilson interviewed David Cooke, Supervisor of the Palm House and the result was broadcast on the three main national BBC TV news bulletins. The story was also picked up by the national press, where it received extensive coverage, and even appeared in a Japanese newspaper.

• Blue Peter recently featured an item by Claire Bradley about the **Victoria amazonica** waterlily in the Princess of Wales Conservatory. Kew's PR Department is now discussing the possibility of more regular items about the work of the Gardens to appear on the ever-popular childrens programme.

Two journalists from the German Natür Magazin spent 10 days last month shadowing a number of members of Kew staff as they went about their work. "They visited departments as diverse as the Jodrell, Herbarium, Library, L.C.D. and the Inspectors Office, to write a 'fly on the wall' article about our work," said Christine Brandt. "They were really grateful and I'd like to thank all the staff involved who were really helpful to them during their visit. The journalists told me the article would run to 18 or 20 pages of their magazine. To get an idea of how valuable that is, 20 pages of advertising would cost around £200,000 in Natür Magazin"

Andrew Jackson, Woodlands Supervisor at Wakehurst Place, and Matthew Ford, of L.C.D.'s Micropropagation Unit, have been taking part in a new Channel 4 TV series 'The Spirit of Trees'. Their work on the conservation of the Plymouth Pear, Britain's rarest woody plant, is featured in the sixth programme in the series, which is broadcast on November 27th at 9.00 p.m.

November 1992



PEOPLE IN FOCUS

Christine Brandt, (left) Kew's Public Relations Officer, has been awarded associate membership of the Institute of Public Relations in recognition of her success at increasing public awareness of Kew over the last five years. The award was made in February this year and is one of the few things Christine has not been publicising.

November 1992

A VOLUNTEERS CHRISTMAS

Over 100 volunteers — members of the Friends of R.B.G., Kew and the Volunteer Guides — are producing this year's special Christmas Event programme.

The volunteers, co-ordinated by Friends member, Bill Judge, are working on just about every aspect of the

events — making costumes, sending out publicity material to the local press, providing catering, and story-telling in the 'grotto'.

Overall co-ordination of the events is being handled by Roger Joiner, Kew's Marketing Manager, while Christine Brandt, Laura Giuffrida and members of E & M and L.C.D. staff who have worked on previous Christmas events are managing the programme.

"Our Christmas programme has been extremely popular with the local public over the past few years," said Christine Brandt, Public Relations Officer. "But this year there was simply not enough staff time to handle it. Without the volunteers, Christmas at Kew just would not have happened."

"I am so pleased Friends volunteers have had this opportunity to contribute to the Christmas programme," said Dianne Owens, of the Friends. "This will be the first project they have undertaken as a united group, providing each other with support and working for something they believe in — Kew. I also want to thank all the Kew staff who have given guidance and support to the volunteers, it has been a great team effort."

As in previous years, Kew is using its Christmas programme to meet its mission statement goals, by putting across botanical and ecological information to the children who come. This year, the 'theme' is Gold, Frankincense and Myrrh. The Tropical Display in the Princess of Wales Conservatory will be transformed into a desert with Bedouin tents.

Santa will take a back seat while volunteer story-tellers in middle-eastern costume will tell stories that weave in information about the importance and uses of the Frankinsence and Myrrh plants. the 'gold' will be the bag of chocolate coins Santa will give to the children, along with a copy of Kew's Thread of Life book.

December 1992/January 1993

EARLY CHRISTMAS FOR JODRELL STAFF

Staff of the Jodrell Laboratory are likely to be celebrating an early Christmas present this year, as the handover of the Laboratory Extension becomes imminent.



The Jodrell laboratory extension nears completion.

"It looks as if the builders will be ready to hand over to the P.S.A., which will in turn hand the building on to us, sometime in the first week in December," said Professor Mike Bennett, Keeper of the Jodrell.

"Hopefully, the first Jodrell staff will move into their new quarters during the last week before Christmas, with some others moving in early January."

Refurbishment work will then be carried out on some of the older parts of the building in the spring.

The new extension will house the molecular systematics team,

led by Dr. Mark Chase, who joined the staff this autumn. There will also be a preparation lab serving the whole of the Jodrell; a new Jodrell Library; open plan office space for Ph.D. students and long-term scientific visitors, and offices for senior Jodrell staff.

Jodrell scientists currently working in annexes housing biochemistry, and the electron microscope, will move into the main Laboratory building after the refurbishment programme.

"I hope other Kew staff will bear with us while the moves are under-way," said Professor Bennett. "Normal proceedings in the Jodrell will be seriously disrupted for several weeks in December and January for the various moves and re-arrangements. I hope people around the Gardens will understand if replies to requests for help or information take a little longer than usual during this time." December 1992/January 1993

MINISTERS VISIT KEW AND WAKEHURST

Environment Secretary, Michael Howard, M.P. pictured, took the opportunity of a visit to R.B.G., Kew on November 16th to make the first announcement of £6 million funding over the next three years for the 'Darwin Initiative'. The initiative was announced by Prime Minister, John Major, at the Earth Summit (see *Kew Guardian*, August 1992) and is intended to draw on the experience of organisations such as Kew in the conservation of the world's natural resources. However, so far little has been heard about the practical details of the Initiative.

Meanwhile John Gummer, M.P., Minister for Agriculture, visited Wakehurst in October to look at the work of the Seed Bank and to see the extensive restoration work following the storms of 1990 and 1987.

December 1992/January 1993





PEOPLE IN FOCUS

Mary Gregory, left, retired from the Jodrell Laboratory at the end of November. Mary was well-known throughout the gardens and had worked at Kew since 1961. Her main job was preparing scientific publications for the Laboratory, and using her extensive knowledge of languages to undertake translations. She also set up Kew's plant anatomy database and wrote a number of original research papers.

December 1992/January 1993

KEW PLAYS LEADING ROLE IN INTERNATIONAL CONSERVATION CONFERENCE

A delegation from R.B.G., Kew played a leading role at the third Botanic Gardens Conservation International Conference, held in Brazil recently. Papers were presented

by Mike Fay and Mike Maunder of L.C.D. and Gail Bromley of E & M. The three of them, along with Noel McGough of E.C.O.S., also led very successful workshops.

The theme of the conference was a discussion of how botanic gardens should be reacting to the pressures on plant conservation caused by global change.

Robin Herbert, the Chairman of the Board of Trustees, and the Director of R.B.G., Kew, attended the conference, and Professor Prance also delivered a paper. They, together with Simon Mayo, then went on a one week visit to North-east Brazil to look at progress on Projeto Nordeste.

"We were able to work on signing agreements with various colaborating institutions in Brazil, including the Brazilian National Research Council," said Professor Prance.

■ The Director and Mike Fay also attended an Ethnobotany Conference in Spain in October, where the Director gave a keynote address on the use of ethnobotany as a tool for conservation. Mike Fay led a highly successful workshop on 'in vitro' conservation techniques.

December 1992/January 1993

DAVID HARDMAN, DEPUTY CURATOR, L.C.D., KEW

David Hardman, the new Deputy Curator of the Living Collections at Kew, sounds like a man who is pleased to be 'home'. He comes to the job from a long and successful career in local authority parks in the north west of England but Kew is not new to him — he was a student of the School of Horticulture here, back in the mid 1970s.

"Even before then, as an apprentice, I started out with the intention that I would go to Kew," said David. "I was an apprentice at Stockport Parks, which had an excellent reputation for its floral displays, but left in 1974 to come to Kew as a student."

Horticulture runs in the Hardman family. His father worked in the Parks Department and his grandfather was an estate gardener — although David cannot now remember exactly where. "And I was always interested in gardening, even as a child," he added.

David completed his Kew course in 1977 and went back to Stockport, first as a nursery gardener, then Horticultural Assistant after three months. "I had always seen my career in amenity horticulture, and management," he said, "I do not really regard myself as a plantsman yet."

His career at Stockporet progressed to Horticultural Manager, the post he held when he eventually moved on in 1990.

"It was a good time to be there," said David. "We made a big impact on the quality of the environment of the borough with initiatives such as Daffodil Bonanza and Crocus Crusade, in which thousands of bulbs were planted in public areas. We then won Britain in Bloom in 1981, jointly with Bath — a city with a considerable head start on us in terms of appearance with its wonderful architectural heritage, so we did extremely well."

David's proudest achievement with Stockport was the development of its ultra-modern, award-winning new nursery during the late 1980s at a time when many parks departments were cutting back on producing their own plants as a way of saving money.

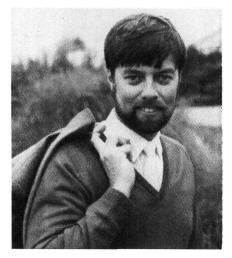
"I was able to get the idea rolling with the director on a coach on the way back from an official visit to Liverpool Garden Festival," said David. "The nursery was a three quarters of a million pound complex, using the latest energy saving techniques in plastic clad greenhouses. We were able to show that the nursery would pay for itself in seven years and that, overall, we would be able to produce plants more cheaply than by buying them from commercial growers, and enable us to maintain our very high standards of planting and floral displays.

The nursery incorporated many technical advances put together for the first time, and could even be controlled via a computer and phone link in David's home in emergencies.

With the advent of Compulsory Competitive Tendering, with parks departments having to obtain bids for maintenance work from private contractors as well as its own direct labour organisations, David decided to move to Trafford parks as a 'client officer', responsible for overseeing the contracts in 36 parks, 2,000 acres of urban 'green space', recreation grounds, golf courses and 150 public buildings.

Then, this year, the Deputy Curator's post at Kew came up and he applied. "I was a member of the Kew Guild and I had been back from time to time to give talks to students and so on — and I always enjoyed seeing Kew on television; but I can't say I had always planned to come back here to work. You don't know if jobs will come up.

But once you have worked at Kew it is very



difficult to get it out of your system, and I think that shows in the people you find here. There is a vitality that you do not necessarily find in other organisations. There is a sense of people wanting to achieve.

"Kew has a very complex organisation and structure but it does give people the opportunity to get on with things to a great extent, without the political difficulties you find in, for example, a local authority which can be a very frustrating place to work."

David reckons his first year here will be spent "Very much 'finding my feet' and getting to understand Kew's direction and how L.C.D. fits in with the rest of the organisation and the contributions we have to make".

"Clearly, the Living Collections play a central role both in Kew's science and for the visitor so maintaining their quality and scope will be an obvious priority. The people who are out there looking after the collections have one of the most important roles in the orgnisation — they are the ones in the firing line from the visitors and others if anything falls below standard. I also see L.C.D. as interrelating to all the various aspects of Kew's science, conservation and educational work."

"I am glad that the restructuring of the horticultural staffs grades early next year will give them the recognition they have always deserved."

"I am gradually managing to work my way round to see all the L.C.D. staff, as well as other staff at Kew, and I would like to thank all those I have seen so far for the help they have given me in getting to grips with the organisation. It has certainly been a less stressful experience than it would have been anywhere else without that kind of very generous support — it has made it very pleasant to be back."

There are certainly some familiar faces for David. All the Assistant Curators, except Mike Sinnott, were here in his student days, although he never actually worked with them. "I also remember several others from the arboretum and elsewhere in the gardens, as well as the Herbarium and Jodrell.

David is currently commuting back and forth to Stockport at weekends, where his wife and family are still living in the family home. "We were at a stage where it would have been difficult to uproot the children from school," he said. "Besides, the first 12 months in a job like this can be difficult on families. This way I can be single minded about Kew in the week and about the family at weekends."

"It is certainly an exciting time to be at Kew — there is nowhere else making such advances in science and conservation — and if you are going to make a change in your career, you might as well come to the best place. I reckon Kew is Britain's 'wonder of the world'."

December 1992/January 1993

VITAL STATISTICS

Visitors to Kew in 1992:

Kew 953,252 (down 4% on last year)

Wakehurst 203,293 (up 1.5% on last year)

Number of Friends 9,800. Number of Season Ticket holders 8,500. Number of Founder Friends 148.

EXCERPTS FROM KEW SCIENTIST

With the kind permission of the Editor, Professor M. Bennett

EDITORIAL

• Kew Scientist replaces two previous Kew publications (*Jodrell Newsletter* and *E.C.O.S* Newsletter). It will report and interpret science news from the Living Collections, the Herbarium, and the Laboratories at Kew and Wakehurst Place, biannually in April and October.

• Most visitors to R.B.G. Kew know it as a beautiful garden. Too many are unaware of its research work and mission. The prime purpose of this publication is to promote a wider knowledge of Kew's role as a major scientific institution.



Professor Michael Bennett, Keeper of the Jodrell Laboratory.

 Scientists from Kew have played an important part in world botany for well over 200 years. Many plant products are inextricably linked with Kew — rubber, quinine, viscose and rose-hip syrup.

•Kew's place in the history of science is secure, but Kew's current science programmes affect the lives of people around the world now, and are vital for their future.

• Our main science thrusts today are in plant systematics, conservation and economic botany — all strongly supported by appropriate experimental botany.

Kew scientists are world leaders in identifying, naming and classifying the world's plants, and hence can speak with authority about species diversity, discovery and loss.

About 25,000 (or 10%) of the Earth's flowering plant species are growing in the Gardens now, including 13 that are extinct in the wild. Kew is very active in conservation, shaping policy and practice, banking seeds, and reintroducing rare and endangered plants.

 Economic botanists list plant uses to promote and develop substainable forestry and agriculture (e.g. rattans), while biochemists screen for new chemicals for use as pesticides or drugs.

• Humanity depends on plants for food and for the very oxygen we breathe. *Kew Scientist* is concerned with plant science as a core activity for life and civilisation.

Professor Michael D. Bennett April 1992

TROPICAL FOREST RESOURCE GROUP LAUNCH

The Tropical Forest Resource Group is a consortium of 11 organisations from southern Britain that have come together to provide information and expertise to those concerned with project and policy development in the areas of forest management and conservation, agroforestry and related land use. It recognises the central importance of socio-economic and environmental

factors in sustainable development and aims for a balanced utilisation of complex tropical forest ecosystems. The aim is to exploit the resources of forests for financial gain without damaging them. Emphasis will be given to both wet rain forests and dry tropical and sub-tropical forests.

The Group was launched by Sir David Attenborough at Kew on 29th January. The consortium comprises the R.B.G. Kew, C.A.B. International, Agricultural Extension & Rural Development Department and the Department of Soil Science (University of Reading), Fountain Renewable Resources Ltd., Institute of Hydrology, Natural Resources Institute, Overseas Development Institute, Oxford Forestry Institute, School of Agriculture & Forest Sciences (University of Wales, Bangor), and Silsoe College.

Kew will be instrumental in supporting the Group in its special fields of taxonomic research on plants and fungi, with additional capabilities in experimental research, seed storage and horticulture. Its biodiversity research programmes are targeted on tropical and west Asia, tropical Africa, South America, the Pacific Islands and Madagascar. O.D.A. is supporting three projects at Kew: the completion of the flora of Sri Lanka, research on **Inga** (a group of multipurpose forest legume trees), and research on seed germination and storage of tropical Asian dipterocarps.

The Group will be active in seeking out contracts and instigating projects in tropical countries. Services will include research,



Sir David Attenborough after launching the Tropical Forest Resource Group with Dr. John Dransfield (behind), who spoke on the economic potential of rattans.

information, inventory, management, conservation, environmental impact assessment, surveying, monitoring and training.

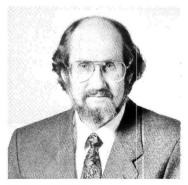
Contact: Dr. Phil Cribb (081-332 5245)

April 1992

DEPUTY DIRECTOR (SCIENCE) APPOINTED

Dr. Charles Howard Stirton was appointed in January as the first Deputy Director (Science) at Kew. This new post completes the restructuring of senior management and fulfils one of the recommendations of the Scientific Visiting Group which reviewed science at Kew in 1990.

Born in Pietermaritzburg, Natal, South Africa, Dr. Stirton was Kew's South African Liaison Botanist from 1978-1980 after working for the Botanical Research Institute in South Africa for a decade. He came to the U.K. in 1982 to take up a B.A. Krukoff Fellowship to study *neotropical* legumes for six years. This was followed by a two-year post as Associate Professor in Botany at the University of Natal, after which he returned to the U.K. to develop an economic botany programme for northeast Brazil — Projeto Nordeste.



Dr. Charles Stirton.

His scientific interests are wide, e.g. legume systematics and biology, taxonomy and microevolution of weeds, secondary plant products, conservation, breeding systems, biogeography, plant-insect interactions, petaloid monocotyledons and history of botany. He is the author of 85 papers, editor of three books and co-author of a fourth. His current research comprises cladistic studies of psoraleoid and sophoroid legumes, evolution of the **Lanta camara** (Verbenaceae) complex, and pearl gland distribution in the legumes. His future research will focus increasingly on the conservation biology of medicinal plants (particularly bulbous species), and the sustainable use of plants in arid and semi-arid regions (especially of legumes).

In assisting the Director to co-ordinate and develop the scientific research programme he will ensure that

major research projects are approached in a multi-disciplinary way. He hopes to further strengthen Kew's links with M.A.F.F., the Research Councils, O.D.A., The Royal Society, N.A.T.O. Science Division, U.N.E.P., the E.C. and other international and non-governmental organisations. He believes strongly that development programmes should be more equitable; based on partnerships with a focussed objective of building up local expertise and infrastructure and helping the needs of local people. Emphasis will also be given to raising funds for basic core research, as outlined in Kew's strategic plan, the development of long term information technology and project management strategies, and staff training. He sees science as a continuum of activities and will encourage a balance of fundamental and frontier research at Kew.

April 1992

ACTION FOR ENDANGERED PLANTS

The Living Collections Department maintains one of the largest plant collections in the world, including a number of critically endangered species. Recently, the conservation status of the total collection has been reviewed using data from the World Conservation Monitoring Centre and Botanic Garden Conservation International. In the collections are 13 species currently categorised by the I.U.C.N. as possessing 'Extinct' status, 327 with 'Endangered' status, 451 are 'Vulnerable' and 274 'Indeterminate'. From this daunting collection nine species have been targeted for priority action — namely propagation, distrubition and, where possible, repatriation — starting this season. This follows from exploratory work into the breeding systems of several endangered plants over recent years.

Sophora toromiro is the only surviving tree species from the Pacific island of Rapa Nui, also known as Easter Island. It is extinct in the wild with all the known stock in European collections originating from a single seed collection. Four species have been selected from Rodrigues Island in the Mascarenes: Ramosmania heterophylla with only one wild specimen surviving, Zanthoxylum paniculatum with two wild plants, Scyphochlamys revoluta, comparatively numerous at 30 surviving plants, and Hibiscus Illiifforus, also found on Réunion. These projects will be undertaken in collaboration with the conservation authorities in the Mascarenes. The St. Helena redwood, Trochetiopsis erythroxylon, has been the subject of collaboration with the Departments of Botany and Horticulture at the University of Reading. The species shows evidence of inbreeding depression and is in danger of genetic swamping through introgression with its more vigorous congener Trochetiopsis melanoxylon. The other priority species are: Impatiens gordonii from the Seychelles, Calandrinia feltonii from the Falkland Islands and the rare South African succulent Gasteria baylissiana.

These international projects will complement those for British native species being developed in collaboration with English Nature.

Contact: Mike Maunder (081-332 5514)

April 1992

RECOVERY PROGRAMME FOR THE PLYMOUTH PEAR

English Nature have initiated a Species Recovery Programme, which aims to rescue populations of animals and plants threatened with extinction in the U.K. and ultimately to ensure their long term, self-sustained survival. The first phase of the Programme began in 1991 and concentrates on six species (four plants and two animals) including the Plymouth pear, **Pyrus cordata**, for which Kew is taking a primary role in the recovery project.

Pyrus cordata, a western European endemic, is thought to be restricted in the wild in Britain to two populations and five transplants in Plymouth and four sites in Cornwall. Kew will ensure that the identity of each wild plant is verified, determine the ecological requirements of the species (and thereby select sites for reintroduction), develop protocols for propagation (both seed and micropropagation) and determine the breeding system in operation. In collaboration with the University of Reading, all the genotypes in the British populations will be identified, so that a propagation of Conservation Office, Plymouth County Council) has already reintroduced 13 plants propagated by root suckers using a tree planting specification devised at Wakehurst Place.

Other endangered species are not being neglected. English Nature have secured increased finances for the Programme in 1992 to support some 20 recovery projects and are funding Kew's Seed Bank to undertake a programme to collect and store seed of all plants protected by Schedule 8 of the Wildlife and Countryside Act.

Contact: Andy Jackson (0444 892701)

April 1992

For information on the Species Recovery Programme contact: Dr. Andrew Deadman, English Nature (0733 318347)

POLICY DOCUMENT FOR REINTRODUCTIONS

Kew and the Species Survival Commission's Reintroductions Specialist Group (of which Mike Maunder is currently Chair of the Plants Section) have drafted a policy document for the reintroduction and translocation of species.

The document was discussed at the recent IV World Congress on National Parks and Protected Areas (February 1992, Caracas, Venezuela). Here Mike Maunder was able to collate international experience and opinion from chairing two workshops on the problems of invasive introduced species and the reintroduction of extirpated species. He also presented a seminar paper.

It is anticipated that reintroduction will play an increasingly important part in species conservation projects. Kew is developing conservation strategies for a number of highly endangered species, several extinct in their native habitat, consequently reintroduction will be a part of the integrated conservation strategy.

Contact: Mike Maunder (081-332 5514)

April 1992

SEED COLLECTING IN THE S.A.D.C.C. COUNTRIES

The Seed Bank's latest trip to Africa was to the smallest member state of the Southern African Development Co-ordination Conference (S.A.D.C.C.), Swaziland. This March, as in 1991, Dr. Hew Prendergast collected with the Swaziland National Trust Commission, concentrating on rare and useful species.

Seed Bank links with S.A.D.C.C. go back to 1987 when Roger Smith was commissioned by the Nordic Council of Ministers to visit all nine (as it was then) S.A.D.C.C. countries, to advise on the establishment of national gene bank facilities and a regional centre near Lusaka. Since then Wakehurst staff have been on eight seed collecting expeditions to four of the countries.

Botswana has been visited most. Simon Linington and Janet Terry along with Frances Cook and David Field of E.C.O.S. have collected with colleagues from the International Board for Plant Genetic Resources (I.B.P.G.R.), the National Herbarium of Zimbabwe, the Botswana National Herbarium and Ministry of Agriculture, and the University of Botswana. Half of the 280 species collected are listed on the Survey of Economic Plants for Arid and Semi-Arid Lands database compiled by E.C.O.S. With I.B.P.G.R., Hew Prendergast spent five weeks in early 1990 in Namibia (soon after Namibia joined S.A.D.C.C.) in the Namib Desert. Its northern extension into Angola was one of a number of areas visited in 1991 by Dr. Mark Newman with the Universidade Agostinho Neto in Luanda. Mark was probably the first outside botanist for many years to collect officially in Angola.

Contact: Dr. Hew Prendergast (0444 892701)

April 1992

EIGHTH C.I.T.E.S. CONFERENCE

The Economic and Conservation Section (E.C.O.S.) co-ordinates Kew's statutory role as the U.K. Scientific Authority for Plants under C.I.T.E.S. The 8th C.I.T.E.S. Conference of the Parties met in Kyoto, Japan (2nd to 13th March 1992). Over 1,400 national delegates, non-governmental representatives and press attended the meeting, including Noel McGough (pictured below) from E.C.O.S.



There was a heated debate on trade in tropical timbers. Proposals concerning eight groups of timber species were put to Conference. Only one major timber in trade was listed — **Pericopsis elata**, proposed by the U.K. The debate did bring forward a strong recommendation for C.I.T.E.S. and I.T.T.O. to communicate and co-operate, hopefully in a constructive fashion.

Other important decisions included the exemption from control of all flasked seedlings of orchids, a commitment to revise the criteria for listing species on the Convention and the approval of funding for the preparation of an orchid checklist. These changes came into effect on 11th June 1992.

Contact: Noel McGough (081-332 5722)

April 1992

M.R.C. INCREASE FUNDING FOR AIDS RESEARCH AT KEW

During 1991, Dr. Linda Fellows and Dr. Rob Nash provided extracts of 226 species of plants and 22 fungi for anti-HIV testing, as part of a Medical Research Council (M.R.C.) funded project to find new chemical agents to combat AIDS. Working at the M.R.C.'s Collaborative Centre in Mill Hill, London, Dr. Naheed Mahmood, Sue Baker and Andy Burke found that 78 of these extracts showed activity thought to be worth further investigation. to help with pursuing the most promising leads, the M.R.C. has provided new funding for a contract Scientific Officer post, based at Kew. This was recently taken up by Elaine Porter.

The anti-HIV screening programme now involves collaboration with many botanists and herbalists worldwide in order to widen its scope. In March 1992, Dr. Fellows travelled to Uganda, at the invitation of the Ugandan Government, to look into the possibility of developing anti-HIV medicines from endogenous plant drugs. She visited scientists and herbalists in several areas, had long discussions with practitioners of traditional medicine, and returned feeling optimistic that at least



Elaine Porter.

some answers to the AIDS problem in Africa may be found in local plants. A number of Ugandan medicinal plants have already been screened for activity in the M.R.C. project and now it is hoped that a testing programme will be set up in Uganda. Kew staff are also liaising with herbalists who claim that their preparations are having a beneficial effect on AIDS patients.

Contact: Dr. Linda Fellows (081-332 5326)

April 1992

NEWS IN BRIEF

Donation for Research in Irian Jaya

The MacArthur Foundation, a major North American charity, has donated \$140,000, spread over three years, towards an investigation into the flora of Irian Jaya, the Indonesian half of New Guinea. Kew already collaborates closely with several institutions in southeast Asia. Using the MacArthur donation, Professor Bob Johns, Dr. John Dransfield and Mark Coode in the Herbarium will co-ordinate fieldwork with the aims of initiating a computerised database of the region's flora, collecting specimens for both the Herbarium and Living Collections, and producing reports on the ecology and ethnobotany of the area and specific plant groups, such as rattans, gingers, bamboos and ferns. **Contact: Dr. John Dransfield (081-332 5225)**

Mycology Goes Live

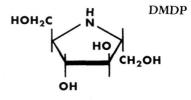
A new Mycology Laboratory in the basement of the Herbarium is in operation. This has three rooms: a culture and isolation room, a media preparation room and a work bench area. The long-term aim is to establish a culture collection of wood-decaying basidiomycetes, especially from the tropics. Hitherto, the opportunity to investigate living cultures has not been available at Kew. It will greatly aid the fuller description of fungi, allowing for the linkage between anamorphic and teleomorphic forms.

Contact: Dr. David Pegler (081-332 5257)

April 1992

LEGUME CHEMICAL HELPS REDUCE NEMATODE ATTACK ON PLANTS

A Chemical, DMDP, isolated at Kew as part of a chemotaxonomic study of the legume genera **Lonchocarpus**, **Derris** and **Millettia**, has been found to be translocated to the roots of several crop plants when sprayed onto the leaves and to increase resistance to nematode attack. This study was undertaken as part of a joint programme with the Scottish Crop Research Institute, funded by the British Technology Group (B.T.G.).



DMDP is the same size and shape as the sugar fructose, although it contains nitrogen. It is one of a series of 'sugar mimic' alkaloids under study at Kew for their varied biological effects. DMDP has little effect on nematodes *in vitro* and may act by inhibiting enzymes used by the nematodes when attacking the plant. Host plant resistance to nematodes is frequently only partial and DMDP treatment is likely to be most effective when used as part of an integrated control strategy. DMDP does have the advantage of being far more environmentally friendly than synthetic chemical nematicides.

Alison Watson (pictured left), a B.T.G.-funded staff member, undertaking controlled spraying of a tomato plant to monitor DMDP uptake.

Kew Advises Costa Rican Scientists on DMDP Extraction

Following the finding that a legume from Costa Rica is particularly rich in DMDP, Kew staff are now advising staff at the Costa Rican natural product research centre, INBio, on techniques of DMDP extraction. It is hoped that profits from the sale of DMDP will benefit conservation and substainable development projects in Costa Rica. This is part of Kew's ongoing commitment to sharing the fruits of its research with developing countries.

Contact: Dr. Linda Fellows (081-332 5326)

October 1992



EVOLUTION OF THE LEGUMINOSAE

The Third International Legume Conference, held at Kew from 12th-17th July 1992, involved 200 delegates from about 30 countries. These conferences aim to review topical research (pure and applied), assess current knowledge and stimulate further co-ordinated research. This meeting focussed on legume evolution and was divided into five interlinked sessions: 'Higher Level Systematics', 'Fossil Record', 'Structural Botany', 'Nitrogen Economy' and 'Evolution of certain Cultivated Legumes'.

An important shift in emphasis in recent years has been the use of molecular biology to provide new and exciting genetic data to complement other suites of information for systematic purposes. The results are extremely encouraging at all hierarchical levels. In particular, novel techniques to investigate genetic diversity in cultivated legumes and their wild relatives are yielding much new information with high expectations for future research.

The universal acceptance of cladistic methods has greatly improved the assessment of evolutionary relationships. Advances have been made in the taxonomy of a number of important tribes and the prospects elsewhere are very promising. Considerable emphasis is being given to basal groups in the family, predictably the most difficult to resolve taxonomically. It was clear from the data presented that substantial progress towards a new taxonomy for the Leguminosae can be expected from further multi-disciplinary systematic research in the period leading up to the next International Legume Conference.

Contact: Dr. Roger Polhill (081-332 5233)

October 1992

POISONOUS PLANTS IN HORTICULTURE

In Gardening from Which, November 1991, the Consumer's Association drew attention to potentially hazardous plants which are on sale in the U.K. without adequate precautionary labelling. To address this problem, the Horticultural Trade Association has asked Kew and the National Poisons Unit at London's Guy's Hospital to provide scientific information as a basis for developing a labelling scheme. Kew's botanical experise and wealth of poisonous plant literature make it ideally placed to provide such information. The Poisons Unit has first-hand experience of human poisoning and will provide the toxicological case data. The research and documentation will be done jointly by staff from Kew's Economic and Conservation Section, the National Poisons Unit and the Roval Horticultural Society.

Contact: Christine Leon (081-332 5702)

October 1992

BOOST FOR KEW'S FIGHT AGAINST DESERT ENCROACHMENT

A major boost to the fight against the spread of deserts in many parts of the world has been given by a donation of £561,000 to the research programme on plants in arid and semi-arid lands being carried out by the Royal Botanic Gardens, Kew.

The donation, from the Clothworkers' Foundation — the 'charitable arm' of the City of London livery company — will be paid over three years and will enable Kew to employ more field workers and expand and modernise the computer database of its S.E.P.A.S.A.L. programme through which information is provided for countries and organisations throughout the world. S.E.P.A.S.A.L. (Survey of Economic Plants for Arid and Semi-arid Lands) has been developed since 1981 with the help of grants from OXFAM, the Clothworkers' Foundation and the Bentham Moxon Trust.

One in six of the world's population live in arid and semi-arid lands, and, over the past 20 years, the population of these regions has more than doubled. Over-exploitation of plant resources and increasingly-frequent droughts have led to the degradation of many of these regions that were once capable of supporting sizeable populations. Many people have now moved into cities or into rainforests which in turn have been destroyed.

The aim of the programme is to provide Kew's expertise in a format which is readily accessible. The programme will move from a mainframe computer to a p.c. based system, increase the number of species carried and give additional information which will help identify plants which can support and, therefore, stabilise the populations of arid and semi-arid lands.

Kew's field research has concentrated on two major arid zones — tropical Africa and north-east Brazil, where its Projeto Nordeste initiative already attracts the support of the U.K.'s Overseas Development Administration and the Brazilian Government.

The S.E.P.A.S.A.L. programme has already provided much information to overseas organisations on such subjects as the commercial potential of plants, weed control and grasses to prevent soil erosion.

R. IAN BEYER, A.H.R.H.S., F.I.Hort.

After 32 years dedicated service to the Royal Botanic Gardens and to the national and international horticultural community, Ian Beyer retired on 10th September 1992.



lan Beyer, left, receiving farewell gifts from the Director.

lan was a horticultural student at Kew from 1955-1957 and, after a short time working in the commercial sector, he returned in 1960 as Supervisor of the Rock Garden and was involved in the major reconstruction of this area. 1968 saw his promotion to Assistant Curator of the Services Section, which gave him the opportunity to introduce modern mechanisation systems to the Gardens, and in 1972 he was appointed Deputy Curator of the Living Collections Department. During his period of office the restoration of the Temperate House and the Palm House, and the construction of the Princess of Wales Conservatory came under his general leadership.

Throughout his working life at Kew, lan worked hard to uphold the quality of professional staff within the Gardens, playing a major part in staff recruitment, training and career development. He took an active role in I.P.M.S. and the staff side of the Whitley Committee.

lan Beyer had a long association with Botanic Gardens Conservation International and represented R.B.G. Kew at many international conservation meetings. He also led a successful plant collecting expedition to Korea in 1985.

lan was responsible for organising the September 1991 Conservation Conference at Kew, which was attended by 220 delegates from 22 countries, and the aim of which was to focus attention on the role of Botanic Gardens in active conservation programmes throughout the world.

Externally, Ian Beyer played an active role in the conservation and education activities of the Surrey Nursery Training Group, the Chelsea Physic Garden Advisory Panel and the Bedgebury Pinetum Advisory Committee. He is also still Chairman of the National Collections Committee of the National Council for the Conservation of Plants and Gardens. Locally, Ian forged strong links with the Rotary Club of Kew Gardens, who have a strong affection for the Gardens and whose members have helped enormously with fund raising activities in recent years.

In 1989 Ian arranged the first Kew Christmas Event and the success of this led to it becoming a regular feature of the annual programme of events.

In 1992 lan's achievements were recognised by the Royal Horticultural Society's award of an Associate of Honour.

Kew has lost a well known and very capable horticulturist. To say goodbye to both lan and his wife Margaret (who also worked at Kew for many years) the staff of Kew and Wakehurst Place arranged a special farewell presentation.

lan and Margaret have now retired to Suffolk where lan is expected to play an active role in the horticulture of this region.



Tarja Ravenhall presenting a bouquet to Margaret Beyer.

176

THE HERBARIUM AND LIBRARY AT KEW IN THE AGE OF THE COMPUTER

By F. Nigel Hepper

Visitors to the Gardens who approach the Main Gate along the north side of Kew Green pass the Herbarium and Library. As they peer through the wrought iron gates some are heard to mutter that they are fond of herbs, others declare that this is where the herb garden lies! Few, it seems know that the Herbarium is a massive filing system of some six million dried plant specimens ranging from the smallest duckweed to the mightiest forest giant of the tropical rainforest.

Origins

The fine eighteenth century house — Hunter House, after John Hunter who occupied it in 1796 — now houses the Keeper's room and various offices, while the specimens and books are filed in attached buildings forming an in-filled quadrangle. It so happens that one of the rooms was being prepared to house Sir Joseph Banks' library when he died in 1820. From 1831 Hunter House and Hanover House next to it were the residence of the Duke and Duchess of Cumberland. However, Prince Ernest, the Duke of Cumberland, became the King of Hanover in 1837, but he died in 1852 leaving the house empty. Sir William Hooker, Kew's first official Director, seized the opportunity to use the building to house the herbarium and library of the Rev. William Arnold Bromfield, which had been presented the previous year by his sister. Hooker already had 13 rooms of his house encumbered with his own worldwide herbarium which remained until it was purchased two years after his death in 1865.

Hunter House rapidly filled with books and specimens from other important collections, such as those of Falconer and Griffith from India, Lindley's orchids, and Burchell's Brazilian and African collections. As early as 1854 George Bentham had presented his fine herbarium and library to Kew and Allan A. Black, who had curated Sir William's herbarium, was officially appointed Curator. Daniel Oliver, the librarian, became Keeper of the Herbarium and Library when Black resigned because of ill-health in 1864. He is commemorated by the tropical genus **Allanblackia**, described by Oliver in the family Guttiferae.

A herbarium and a library are essential companions to a good botanic garden. Indeed, the first official library at Kew was established for the gardeners, in 1847. A worldwide collection of living plants and Kew's involvement with the colonies and territories of the British Empire needed the employment of systematic botanists (taxonomists) in the Herbarium. From the 1860s the Government adopted a policy of producing 'colonial floras' that would name and describe the plants — and hence their potential products — of the colonies. Handbooks, or floras, of this kind had long been produced at Kew and the Natural History Museum. They were mainly the results of expeditions and the plant collections brought back, but now the colonial floras policy necessitated the inclusion of everything known to occur in the country or territory concerned. This in turn encouraged the collection and preservation at Kew of tens of thousands of specimens every year from mainly tropical areas, such as the Indian Peninsula and Africa.

Since other botanical institutions in Berlin, Paris and elsewhere were also publishing journals and books describing plants new to science, it was essential for these to be represented in the Kew Library for reference. Fortunately the early donations and acquisitions brought to Kew many important and valuable works which today are expensive and seldom available. Likewise the botanical journals of the world are held as complete sets. Many of the books are illustrated in colour.

There is a large collection of botanical prints and drawings, many of them by Kew's own artists. Perhaps surprisingly, most of the Kew drawings done by Francis Bauer for Sir Joseph Banks are not in Kew's library, but are in the Natural History Museum; this came about because when Banks died in 1820, there was no official library at Kew, and he therefore bequeathed his herbarium and drawings to the British Museum.

The Library also contains a rich archive of correspondence received at Kew, providing important background information for taxonomic research. A Paper Preservation Unit was set up in 1987, to make good the damage to collections incurred by heavy use and unsuitable binding materials. Although the Library and Archives now forms part of the Herbarium and Library Department, its role covers the needs of all departments at Kew. So there are branch libraries for the staff of the Jodrell Laboratory, the Studies Centre, the Economic Botany Centre and Wakehurst Place, and special collections on computing and construction.

New Buildings

In 1865 Sir Joseph Hooker had succeeded his father as Director of Kew. He set about enlarging the Herbarium by designing a wing (now known as C Wing) to be built at the rear of Hunter House. After unexpected opposition from various quarters the way was cleared for the extension to be built in 1376. Until 1904 no electricity or gas was laid on because of the risk of fire, so in winter an oil lamp was used by the Keeper and his few staff — when he returned home the place closed and the staff dispersed! It was therefore necessary for the herbarium wing to use daylight as much as possible by providing large windows between the blocks of cabinets housing the sheets of plant specimens. Narrow galleries around the walls left a large central space where light could fall on to more cabinets with tables in between them for sorting the specimens.

This design was followed for the next wing (B) built in 1901, and even the third one (Wing A) which was opened in 1932 long after electricity had been installed. However, the fourth wing (D) which completed the quadrangle in 1968 was built with four complete floors, the top one being entirley for herbarium cabinets. In practice, although it saves space, this has effectively reduced the amount of working space by increasing greatly the amount of material around each bay table.

The most recent building to be erected, in 1989 for the housing of a million more herbarium collections spans the space in the quadrangle. It is partly sunken in order not to obstruct the windows of the ground floors of the wings. Modern compactor units pack in material which is now known as the Reserve Collection, being the lesser used specimens of common species or other material for which there is no room in the main collection.

New Methods

The classification of plants has been called alpha taxonomy, implying the basics or fundamentals of systematic botany. This is still as true today as it ever was, only now it is possible to supplement it with other disciplines such as cytology, breeding mechanisms, plant anatomy, molecular biology and biochemistry. Kew boasts all of these aspects at the Jodrell Laboratory, while at the Herbarium the study of pollen grains (palynology) has its own laboratory and electron microscopes. Pollen, being very resistant to decay, lends itself to study and provides a clue to relationships between plants.

Three more laboratories are also housed at the Herbarium: one for the study of grass anatomy, which is very important for their classification, and the others are for ferns which possess reproductive spores and fungi that also need to be studied microscopically.

In the 1970s there was a change in organisation of staff responsibilities from a geographical area to one of plant groups. Thus the old sections dealing with tropical Africa, the Orient, Australasia and so on were reorganised in favour of a specialisation in a group of families or one family, such as grasses and orchids, across the world. Several Assistant Keepers were appointed under the Keeper to oversee the staff in the various sections which at present are known as Dicots I and II, Monocots and Mycology.

Another revolution that has taken place during the 1980s is the use of computers throughout Kew. It can be said that the Herbarium is a databank in itself, since it is filed in systematic order, and the specimen labels provide additional field data. However, all the holdings of the Museum of Economic Botany in the Banks Building are on a databank, especially plants and plant products of arid and semi-arid lands, compiled by staff of the Economic and Conservation

Section (E.C.O.S.) which comes under the Keeper of the Herbarium, Professor Grenville Lucas. Kew also contributes data to the International Legume Database and Information Service (I.L.D.I.S.), a co-operative database on the pea family. In fact, the economic and conservation aspects of taxonomy have assumed major importance in the work of Kew as a whole, and of the Herbarium in particular where studies are concentrating on certain families.

Kew's own index to new published plant names, *Index Kewensis*, is now fully searchable on computer, and is to be published in compact-disc format, and the current bibliography on the taxonomy of vascular plants, *Kew Record*, is also, from 1976 onwards. The Library has begun to computerise its activities, beginning with acquisitions and current cataloguing in April 1991, and the card catalogue is being converted to a computer format by O.C.L.C. Inc.; the whole system runs on the Sirsi-Unicorn Collection Management System. A network has been installed to link all departments to the databases they need.

At a time when public concern, nationally and internationally, has been awakened with renewed urgency for our environment, the staff of Kew Herbarium are well placed to take a lead in fundamental research into plant bio-diversity for the benefit of the world's environment, and the conservation of a most vital resource for mankind.

Note on further reading

In 1970 the *Journal of the Kew Guild* issued a supplement to Volume 8 to celebrate the royal opening of Wing D and the Queen's Garden, a fuller history of the 'Kew Herbarium and Library' by Ray Desmond appeared on pages 1071-1087. See also *Kew: Gardens for Science and Pleasure*, edited by F. Nigel Hepper, pages 145-160, 'The classification and naming of plants'. *The Herbarium Handbook*, edited by D. Bridson and L. L. Forman at Kew, provides details of how to organise and run a herbarium anywhere in the world.

RECORDS OF 100 YEARS AND MORE

By Sylvia FitzGerald

That the Guild should ask Kew's Library to look after its Archives is a tribute to all who made these records so significant, and to those who over 150 years have taken care of Kew's own papers, so that today we have such a rich record of work at Kew and around the world.

The Guild's Archives have now been examined and sorted, and a detailed list of them prepared by Andrew Gray, a student archivist. Copies of the detailed listing are available, on request, from Kew's Archivisit Mrs. Cheryl Piggott. A summary list is given here. These papers record the wide range of topics dealt with at committee meetings and by individual officers. The collection is not complete however: we know that some early papers are to be found on Kew's official files, but if any members know of the existence of other Guild papers, photographs, etc., do please let us know.

The Kew Guild archives are available for research in the same way as Kew's own archives; all one has to do is write to me, suggesting some dates for your visit; photocopies can be made for private study at the standard price;



Sylvia FitzGerald.

on behalf of the Guild, we can also deal with requests to reproduce material from the Archives in books and articles. (The copyright in these Archives belongs to the Guild.)

KEW GUILD ARCHIVES: SUMMARY OF CONTENTS

Award Scheme papers 1976-88 Events Officers' Records 1968-85, with some menu cards 1951-80 Membership Papers 1917-1989 Personalia Correspondence with editor and committee members 1976-1990 Correspondence and notes on individual Kewites 1964-1988 Photographic Collection (623 items) Secretary's Records 1911-1923, 1951-

with some papers on Kew Guild dinners 1939, 1948-76

Treasurer's Records 1896-

Miscellaneous Items 1921-

(incl. lecture notebooks of W. H. Barker)

The scope and use of Kew's own archives

Because of the close links between the Guild's work and that of Kew itself, some notes on Kew's archives may be of interest. Archives anywhere may look dull, but on close examination are often intriguing, stirring and very, very useful: indeed, all human life is there. In the Archives at Kew, are more than 250,000 letters recording discovery and wonder, struggle and success, personal details, and throughout, a constant love of plants and gardens. A letter dated November 22nd 1839 from John Smith at Kew (ref. 1) tells Sir William Hooker (then still in Glasgow) about his visit on Hooker's behalf to Francis Bauer, the great botanical artist trying, despite illness and old age, to complete the fern drawings for Hooker's book *Genera Filicum*, published 1838-42. The letter reflects quite clearly the characters of Smith and Bauer, and the kindly relationship between them. There is a letter from Dr. Thomas Taylor (ref. 2) in Co. Kerry, Ireland, written in 1848 during the Irish Famine; he tells how Hooker's letter, full of talk of botany and ferns, came as a tremendous relief to him, surrounded as he was by great distress (cholera had broken out in the area and the workhouse doctor has just succumbed); he said he would probably have to take over at the workhouse and therefore might not have time to write for a while. That brave man died of cholera himself a month later.

Kew has John Smith's set of maps and plans of the Gardens. On one of Nesfield's drawings for the layout of the area around the proposed Palm House, Smith wrote: "This was my idea but *he* got paid for it"! These maps and plans, and Smith's manuscript *History of Kew* (for which the Guild funded conservation work), are a unique record of his early days, and record the oral traditions he inherited. Sue Minter quotes from his History in her book *The Greatest Glasshouse* (H.M.S.O., 1990). These archives, and the papers of Sir William Hooker, the Commissioners of Works, and Decimus Burton's drawings, were important resources in planning the recent restoration of the Palm House.

From the same period, among the many volumes of Director's Correspondence, are other letters from William Purdie while collecting plants in Colombia; many of his discoveries were reported by Sir William Hooker and John Smith in Curtis's *Botanical Magazine*, illustrated with hand coloured plates drawn by Walter Fitch.

Going through the Purdie letters, one notices the writing becoming uneven and shaky; reading on, one discovers that he had had several bad bouts of malaria, and was also taken prisoner by warring local tribes.

We have Joseph Hooker's letters from his expedition to the Himalayas (1847-52), together with his original field notes and drawings. There are also his notebooks from the 'Erebus' and 'Terror' voyage to the Antarctic in 1839-42, and official correspondence asking his advice many years later (1872-87) for the H.M.S. Challenger's circumnavigation of the world.

Kew has over 1,136 letters from America's great Asa Gray of Harvard University, and letters from Ferdinand von Mueller at the Royal Botanic Garden, Melbourne, covering a wide range of botanical questions and gossip. There are Richard Spruce's notebooks and letters from his Amazon journeys, rich in detail on economic botany.

180

The more modern papers include Dr. Ronald Melville's researches during the Second World War, on U.K. sources of vitamin C. The letters and drawings from Mrs. E. M. Tweedie and Mrs. Faulkner in East Africa, together with the herbarium specimens they sent to Kew, are important for research on the Flora of Tropical East Africa.

In recent years, garden history has become a recognised research topic, and of particular value in the conservation and restoration of fine gardens. So Kew keeps its records for landscape conservation as well as for scientific purposes. Old plans, and old catalogues of plants grown are retained; and the original cards of Kew's modern Plant Records have been microfilmed to archival standards. The Plant Records are now computerised, but even in this form, the details of plants no longer grown at Kew are retained for the usefulness of their data.

Kew's Archives are protected by the Public Records Act of 1958; a very useful listing of them is given in the book *Natural history manuscript resources in the British Isles* (London, 1980), compiled by Gavin Bridson and others. Kew's own typed lists are gradually being added to the Library's Unicorn computer catalogue, to make it easier to identify relevant items, and the card-index of names of correspondents is in daily use.

We are happy to advise Kew Guild members on the management and use of botanical and horticultural archives. There are many important garden records in estate offices and County Record Offices in the U.K., and in archive repositories around the world, which deserve to be better known and used. Many are recorded in archive directories, or in national registers such as Britain's own National Register of Archives at Quality House, Quality Court, Chancery Lane, London WC2 1HP.

Of course, in the older files before copying methods improved, one finds only one side of the correspondence: there are thousands of Kew letters overseas, giving the other side of the story, housed in the archives of governments, universities and companies, and in private collections. Most satisfying of all, is that such old papers can be genuinely useful to the work of botanists and horticulturists today.

Ref. 1: R.B.G. Kew Archives. Director's Correspondence XIII, d. 119.

Ref. 2: R.B.G. Kew Archives. Director's Correspondence XXV, d. 504.

I hope members will find this article of particular use and interest. It was specially commissioned by the Editor who is most grateful to Sylvia FitzGerald for all the work she has put in to this presentation.

THE HISTORY OF THE JODRELL LABORATORY

By Professor Keith Jones

For almost 120 years there has been a Jodrell Laboratory at Kew. It is a building which has had varying impacts on student gardeners and staff during its long history. When it first appeared students received their lectures and practical demonstrations in an ancient corrugated-iron Nissen-hut left over from some government enterprise and known always as the 'Iron Room'. Although adjacent to the Jodrell no members of the Gardens departments were ever allowed to put a foot inside. It was a strange and awesome structure.



Right up to the 1960's when the same Iron Room was used for the same purposes, students rarely if ever entered the Jodrell and were probably as ignorant of its function as they were in the 1880's. All this was to change in 1964. The original Jodrell and the Iron Room had been demolished in 1963 and a new Jodrell Laboratory with a magnificent lecture theatre (Kew's first) arose on the site.

Provision had been made within the new building for student gardeners instruction in landscape drawing and for various types of practical work and all lectures took place in the large theatre.

In everyday contact with Jodrell scientists, many of whom gave lecture courses, students became at least aware of their anatomical, cytological, physiological and biochemical activities and some even found occasional opportunities to work at their benches. If they needed details of the research programmes these were on display at the annual Open Days (alas no longer with us). The Jodrell lost its mystery; it became almost as familiar as the Palm House. But in 1990 there was another fundamental change.

For some years Leo Pemberton and I had discussed the possibility of moving all student instruction into No. 2 Museum when it had been cleared of its priceless economic botany collection. With some modification the building proved an ideal home for the School of Horticulture and in 1990 students departed from the Jodrell leaving space for expansion of its scientific activities. Today, when a new generation of students gaze out on the large brown-brick extension which obscures the earlier building, they may remain in as much ignorance of its activities and purpose as those of a century earlier. For them and others this account of the history of the Jodrell is intended to make clear how and why the Laboratory was created and its changing functions over many years. In writing it I have abstracted a great deal of information on the early days from Metcalfe's account produced at the Jodrell in 1976.

The beginnings

In the 1850s in this country it was not possible to take a university degree in botany. It was not taught as a separate subject; external morphology and classification alone were dealt with and then only as an introduction to *materia medica* in medical courses. This contrasted with the situation in Germany where Sachs in particular, was renowned for his courses on plant structure, life-cycles and general physiology. It was to him that many botanists turned to obtain an understanding of plant form and function. But the situation in England underwent a revolution when T. H. Huxley commenced courses in botany for selected teachers at the Normal School of the Royal College of Science in South Kensington in 1872. In these a morning lecture was followed by laboratory studies in the afternoon under the guidance of distinguished demonstrators such as Thistledon-Dyer.

Doubtless impressed by this emergence of the importance of the investigative aspects of botany, a Government commission in 1874 recommended that opportunities for the pursuit of physiological botany be afforded at the Royal Botanic Gardens, Kew. It seems that they had been strongly influenced in this by Kew's Director, J. D. Hooker, and by his son-in-law, Thistleton-Dyer, who became Assistant Director in 1875. But despite its wise recommendation the Government would not provide funds to support it. Not to be daunted, Kew made an approach to the well known scientific philanthropist of the day, T. J. Phillips-Jodrell, who agreed to donate £1,500 for the erection and equipping of a modest laboratory within the Gardens. A single-storied cottage-like structure of brick with a tiled roof, measuring 40ft by 20ft and situated at the southern edge of the Melon Yard, was completed in 1876 and suitably named after its benefactor as 'The Jodrell Laboratory'. (Mr. Phillips-Jodrell was a descendant on the female side of the Jodrell family who had their ancient estates in Cheshire. A part of these known as 'Jodrell Bank' passed into the hands of Manchester University. After the Second World War a large radio-telescope was erected on the site and given the name of the plot on which it stood. The name of Jodrell is also perpetuated in several university Chairs in London and Oxford.)

Despite its small size the laboratory was very well equipped and can be claimed as the first in the country to provide experimental facilities for botanical investigation. But without any government funds it was impossible to employ staff to exploit its potential. It was therefore decided to make it available to distinguished scientists many of whom took advantage of this unique opportunity over succeeding years. The subjects studied in this early period were diverse including such matters as the electromotive properties of the sensitive leaves of the Venus Fly-trap, leaf disease of coffee, a chemical study of albinism, the structure of the embryo-sac, germination and seedling anatomy of Welwitschia, the relationship of protoplasm and cell walls. As early as 1883 Cross and Bevan studied the chemistry of cellulose there — investigations which were fundamental to their participation in the first spinning of viscose and the begining of the rayon industry in a building adjacent to Kew Gardens station in 1892. Until 1893 Thistleton-Dyer was responsible for the overall supervision of the affairs of the Jodrell but in that year one of the frequent users of the laboratory who had taken a doctorate with Sachs in Wurzburg, D. H. Scott, was made its Honorary Keeper. The son of the famous Victorian architect Sir Gilbert Scott, he was a man of independant means and thus able to accept a position for which he was never paid a penny. During the next 15 years, although visitors carried on a miscellaneous range of researches including many concerned with fungal pathogens, Scott concentrated more on plant anatomy, particularly the structure of fossil plants. He was also a man who was very interested in the researches of his colleagues, all of who found him to be an excellent and inspiring leader. It was Scott above all who gave the Jodrell an identity and cohesiveness and a reputation for excellence in plant anatomy.

The turn of the century

When Scott decided to relinquish his un-paid post in 1908, when only 52, responsibility for supervising the Jodrell passed to L. A. Boodle who for seven years had studied plant anatomy there. Some years later he was given the title of Assistant Keeper and a modest salary (the first paid employee for over 30 years). Boodle became a specialist in the anatomical identification of archaeological specimens from Egyptian tombs. We were reminded of this when a collection of specimens from the tomb of Tutenkhamon, sent to him by Sir Arthur Evans, came to light in 1988 when the collections in No. 2 Museum were being catalogued. Boodle therefore not only studied plant anatomy as a means of assisting knowledge of structure and its role in systematics, but used that science to determine the identity of plant fragments and artefacts. That service remains an important feature of the Anatomy Section to the present day.

The Metcalfe era

C. R. Metcalfe succeeded Boodle in 1930. Though trained as a plant pathologist he was persuaded to continue the tradition of anatomy and embarked on a major investigation to survey the anatomy of stem, root and leaf in the dicotyledons. From 1934 onwards he was supported by a single laboratory technician, F. R. Richardson, and together they amassed a great deal of information on plant structure and continued an identification service for plant material arriving at the laboratory in increasing quantities. Their normal activities were interrupted by the 1939 war. They accommodated several refugee scientists from Europe and set about attempting to support the war effort by investigating the rubber-producing potential of the Russian dandelion (*Taraxacum kog-saghyz*), and nettle as a source of useful fibres. When the war ended the anatomical studies resumed resulting in the publication established the Jodrell as a world centre for the study of plant anatomy. This reputation was enchanced by later publication of volumes on the anatomy of monocotyledons — a series which continues to this day. Happily more posts were created in the Jodrell in the period up to 1960 and when I first encountered the laboratory Metcalfe had a staff of three.

The Jodrell outgrows its walls

Following the report of a committee set up by the government in the 1950s, a decision was made to widen the activities of the Jodrell by setting up two new departments of Cytology and Physiology respectively. This required the construction of a new building on the site of the old and, in its planning, the opportunity was taken to include rooms for student gardeners education and a substantial lecture threatre to provide a much needed facility for Kew as a whole.

When I arrived in May 1960 to initiate a Cytology Section, I was confronted by the original building modified only by the addition of another room with space for Kew's photographer. In the dusty and often dirty Iron Room I began my series of courses in Genetics and Plant Breeding. When demolition of the old laboratory began in 1963 the anatomists and I moved to temporary quarters elsewhere in the Melon Yard. By the end of 1964, at a total cost of £90,000, the new structure was ready for occupation.

With the appointment of Peter Thompson to head the new Physiology Section and supporting staff recruited to each of the three disciplines there were soon around 20 permanent posts. Then the greenhouses were haunted by figures wanting buds and roots for chromosome study

or those needing cuttings or seeds for research into propagation and seed germination. Anatomy prospered and demands for its services increased. Most of the research at that time was concerned with evolution and systematics, often conducted in close collaboration with colleagues in the Herbarium.

In 1969 Metcalfe retired but was given space to continue his studies and his writing. I succeeded him as Keeper and David Cutler became Head of the Anatomy Section. Shortly afterwards, following an approach from the Agricultural Research Council, space was found in the Melon Yard for Tony Swain to set up a Biochemistry Unit under their aegis. Although independant from the Jodrell, it made its facilities available to all colleagues at Kew and so, without any major cost, a valuable new discipline had been added to Kew's scientific armament. When Swain left Kew in 1975 his laboratory passed into the Jodrell's hands and with the appointment of two staff to man it a fourth section was created and Tom Reynolds placed in charge. Today Biochemistry has established itself as a potent force in the exploitation of natural plant products in the search for compounds of value in pharmaceutical and plant protection fields.

There has been no space to describe the research activities of the Jodrell Laboratory in anything but a cursory way, but there are ample published reports for anyone who would like to know more. It is necessary, however, to explain two further scientific developments.

When Kew took over responsibility for the management of Wakehurst Place, the mansion became available for some type of use. At that time the Physiology Section had concentrated its attention on seed studies and had become responsible for seed collection and seed storage. This had resulted in a big increase in its staff by the re-allocation of several seed collectors from L.C.D. The need for more space resulted in its transference to Wakehurst. This was accomplished by 1975 and, under Thompson's leadership, a modern Seed Bank was established together with a programme of research on seed germination and storage methods. Recently renamed the Seed Conservation Section, it has established an excellent international reputation for its seed work under the leadership of Roger Smith.

The Jodrell further extended its range of activities when it became responsible for the transmission electron microscopy laboratory created by Heslop-Harrison in the Director's House. It passed to the Anatomy Section on his resignation and became complementary to existing scanning electron facilities.

Over the years the Jodrells complemented staff increased to 33 posts, supplemented by the employment of a dozen Sandwich course students and the researches of many visitors from all parts of the world. It developed close collaboration with a number of university departments, having a special relationship with Reading University acknowledged as it is today, by the appointment of the Keeper as a Visiting Professor. Studies are also conducted in association with a variety of institutions and commercial companies.

The Jodrell today

When I retired in 1987 I was replaced by Mike Bennett as Keeper. Soon steps were taken to ensure that all the equipment was of the most efficient and modern kind. Molecular methods were introduced to relevant areas and plans made for the establishment of a new Section of Molecular Systematics. But all this needed a substantial enlargement to the Laboratory and one big enough to bring under one roof the outlying biochemists in the Melon Yard and the electron microscopists in the Director's House. The envisaged extension is what we see today but as it nears completion substantial modifications are being made to the former students' rooms in the original building. When all is complete the Jodrell will be excellently equipped to step boldly into the 21st century.

From small but important beginnings in 1976, the Jodrell Laboratory has moved with the times, always seeking to be relevant to Kew's need and its purpose. It has never been inward-looking always anxious to assist the furtherance of botany in all possible ways. I am glad to have played a part in its evolution and regret only that we did not keep a single brick or tile of the original little building to remind us of the foresight of J. D. Hooker and Thistleton-Dyer and the generosity of T. J. Phillips-Jodrell.

THE BIRDS OF KEW, PAST AND PRESENT

By Rupert Hastings and Peter Gasson

The Gardens consist largely of parkland with trees, plenty of open grass, some secondary woodland and two small lakes. These habitats, and the adjacent River Thames, strongly influence the species that have been recorded at Kew over the years. There is also a good collection of captive wildfowl and pheasants. Although the list of birds having occurred at Kew is limited compared with those seen in the London area, it is an ideal place to watch species that in most places are difficult to approach. For some of the rarer species, the date seen or the number of records since 1978 is given.

Water birds

Great Crested Grebes nest at both the Pond and the Lake. Little Grebes bred up until the late 1970s, but are now mainly winter visitors along the river. There are two winter records of Red-necked Grebe. Mute Swans are seen annually along the river and there is a record of one Whooper Swan flying over, although there have been captive birds on the lake. Most of the species of northern hemisphere geese are kept in the wildfowl collection, and currently include Barnacle, Red-breasted, Greylag (some also fly in), Lesser White-fronted, Pink-footed, Snow, Bar-headed (including some unpinioned birds) and Emperor. Canada Geese are very conspicuous residents which form flocks for much of the year, and have to be controlled from time to time. They often fly low over all parts of the Gardens.

The large collection of ducks both attracts wild visitors and obscures their status. The only wild species that nest are *Mallard* and *Tufted Duck*. The status of *Pochard*, which are seen at all times of year is confused, but they are mainly winter visitors. *Wigeon, Gadwall, Teal* and *Shoveler* are all winter visitors, and there is one August record of a *Garganey. Goldeneye* occur irregularly in winter, mainly along the Thames. *Goosanders* also occasionally visit, and on 14th January 1987 there were six *Red-breasted Mergansers* at Kew Bridge. There are two records of *Shelduck*, one of a *Common Scoter* and one of a *Ruddy Duck*. A male *Scaup* was seen in October 1969. The status of *Mandarin Duck* is uncertain, since pinioned birds are kept on the lake and wild birds have crossed with them. The offspring are free-flying! In recent years *Shelduck, Mandarin* and *Ruddy Duck* have all become more common in the London area. There are also a few records of hybrid waterfowl. From late October to the end of 1985 there were two *Barnacle* x *Canada Geese*, and Kew Green Pond was host to a male *Ring-necked* x *Tufted Duck* for a few days in March and April 1992.

Grey Herons are resident. They nest at Syon Park and Brentford Ait and often hunt in the Gardens. *Cormorants* can also be seen all year but are commonest in winter. The occasional *Shag* is seen along the river.

Coots and Moorhens are common and conspicuous birds at Kew, and both species nest.

Game birds

Common, Golden and Lady Amherst's Pheasants can all be seen, particularly towards the southern end of the Gardens. All are introduced, and other species are sometimes kept. Their survival partly depends on how many foxes are roaming the Gardens! Grey Partridges were present on the golf course up until the mid 1960s. There are also old records of Red-legged Partridge.

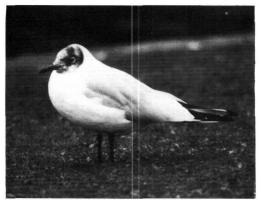
Raptors and Owls

Kestrels are conspicuous, often hunting over the open parts of the Gardens. Two or three pairs nest. A pair of *Sparrowhawks* now usually nests following a long absence in the 1960s and 70s. These are the only two species that most people see. *Hobbies* are migrants which have increased in recent years. There is one recent and one earlier record of a *Common Buzzard*, and two of *Red Kites*. A report of a *Red-footed Falcon* on 17th June 1992 is still under consideration by the British Birds Rarities Committee. There are several pairs of *Tawny Owls*, and *Little Owls* can very occasionally be seen by the golf course.

Waders

Not surprisingly, there are relatively few waders seen at Kew. *Snipe* winter on Syon Marsh and can be seen from the Gardens. *Common Sandpipers* are migrants frequently seen along the river, *Woodcock* are annual visitors, and *Lapwings* often fly over. Other species are much less frequent. There have been two records of *Oystercatcher* and *Greenshank*, and single records of *Little Ringed Plover, Golden Plover, Dunlin* (plus at least one prior to 1978), *Whimbrel, Curlew, Redshank* and *Green Sandpiper*. There are also old records of *Greenshank* and *Curlew*.

Gulls, Terns and other seabirds

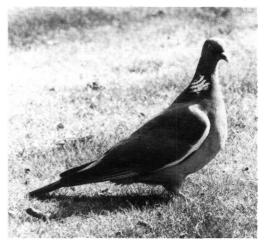


Black-headed Gulls (pictured left) are the commonest species, followed by Common Gulls. Herring Gulls, Lesser Black-backs and Great Black-backs are not uncommon from autumn through spring along the river, and there are occasionally Yellow-legged Herring Gulls in late summer, which have increased in the London area recently. There are four records of Kittiwakes and one of a Glaucous or Iceland Gull. Common Terns are summer visitors and migrants along the river. and there are two records of Sandwich Tern and one of a Little Tern. There are several records of Guillemots in autumn and winter, a long way upriver for a

seabird! There was an influx into the area in February and March 1986.

Pigeons etc.

Woodpigeons (pictured right) are quite conspicuous, particularly when they flock in winter. They are often quite approachable, which is certainly not the case in the countryside! Stock Doves are mainly summer visitors which have nested in the Queen's Cottage Grounds. Feral Rock Doves are common around the cafes. Collared Doves are uncommon migrants, which have bred once, and Turtle Doves are even rarer migrants. Swifts are brief summer visitors which arrive in May and have usually left by mid-August. House Martins stay longer, and both species nest in nearby house eaves. Sand Martins are less than annual migrants, and Swallows pass through, only having stopped to nest once. Ringnecked Parakeets seem to be increasing



around Kew. They are most often seen flying over in small flocks and are conspicuous in Chiswick House Grounds, Richmond Park and Ravenscourt Park.

Kingfishers

Kingfishers are annual visitors which last nested in the mid 1980s, but still breed in Brentford.

186

Woodpeckers

There are two or three pairs of *Green Woodpeckers*. These birds are often seen feeding on grassy areas. Much more arboreal are the several pairs of *Great Spotted Woodpeckers*. *Lesser Spotted Woodpeckers* are elusive but probably nest. There are still occasional London records of *Wrynecks*, but none has been seen at Kew in the last 40 years.

Larks, Pipits and Wagtails

Skylarks and Meadow Pipits occasionally fly over on passage or in winter. Both are common in nearby Richmond Park. Pied Wagtails are resident, and sometimes breed, and there are a

few resident *Grey Wagtails* which are more often seen in winter. There are three records of migrant *Yellow Wagtails*.

Mainly Thrushes

Wrens and Dunnocks are both resident nesters. Robins and Blackbirds nest commonly, and the numbers of the latter are supplemented in winter. Song Thrushes are less common, and Mistle Thrushes are resident in small numbers, and can usually be seen on Kew Green. Redwings and Fieldfares are winter visitors in variable numbers, increasing in hard weather. There are several records of migrant Wheatears and one April record of a Redstart (1986).



Song Thrush, Kew Gardens, June 1986.

Warblers

Chiffchaffs and Blackcaps nest in small numbers. A few also winter in the London area and could conceivable be found at Kew. Lesser Whitethroats have nested twice, and Reed Warblers nest at Syon Park. Willow Warblers are migrants which occasionally summer, and Sedge



Warblers, Garden Warblers and Whitethroats are less than annual migrants. Goldcrests are widespread residents, particularly in conifers, and there are three records of the closely related *Firecrest*.

Flycatchers

Spotted Flycatchers are declining summer visitors, but may still nest. There are four records of migrant *Pied Flycatchers*, and surprisingly one of a *Red-breasted Flycatcher*, which is a vagrant in Britain away from the coast, and one of the rarest birds ever seen at Kew (on 5th November 1989).

Male Blackbird, Kew.

Tits etc.

Long-tailed Tits are commonly seen, especially when they flock in winter. They also nest. The Blue Tit is an abundant resident, closely followed by the Great Tit. Coal Tits are mainly found around conifers, but like the Blue and Great Tits can be very tame, and some will take food from the hand. Treecreepers are resident nesters which can be hard to find, and Nuthatches are also resident, but have recently declined.

Crows

Carrion crows, Jays and *Magpies* are all common nesting birds which have increased in the last few decades. For example, *Magpies* first bred after a long gap in 1969, and there were at least two pairs in 1973. There are many more today. *Jackdaws* are rare annual visitors, although they are common nearby in Richmond Park. Unlike their relatives, *Rooks* are declining near urban areas and there is only one winter record.

Sparrows, Finches and Buntings

House Sparrows are common residents, but there are no recent records of *Tree Sparrows* which once bred. *Chaffinch, Greenfinch* and *Goldfinch* all nest, and are more conspicuous when they flock outside the breeding season. *Siskins* winter in variable numbers, and are most likely to be found in the alders around the lake, whereas *Redpolls*, which also winter, prefer birches. *Linnets* are uncommon, but have probably bred in recent years. *Bramblings* are less than annual migrants. Kew was once renowned as a good place to see *Hawfinches*. They probably last bred in 1971, when a young bird was watched being fed by its parents in the Queen's Cottage Grounds on 8th July. The last record was of a pair in April 1983. A flock of 14 *Crossbills* was present in February 1967, when a pair nested unsuccessfully. There are single records of *Yellowhammer* and *Reed Bunting*.

Other records

Since the Second World War there have been records of *Smew, Great Grey Shrike, Waxwing, Wood Warbler* and *Nightingale*. There are even older records of *Great Northern Diver, Bittern* and *Dartford Warbler*. Clearly anything could turn up to reward regular observers!

Literature consulted and recommended for further reading

Kew Guild Journals containing bird reports i.e. 1969, 1971-3, 1983-87, 1989-90. Kew Information Sheet K8, 1993, Birds at Kew. London Bird Reports. Many old Kew Bulletins include bird records.

Acknowledgements

Tim Lawrence has suggested numerous improvements to the manuscript. Many observers have provided the records on which this account is based.

NEWS OF KEWITES AT HOME AND ABROAD IN 1992 Compiled by HUGH FLOWER

Peter Addison (1957) has taken early retirement from his post with Liverpool Environmental Services Department. Peter began work in the Forestry Department of the Eaton Estate, Chester, later moving to horticulture, Kew and the N.D.H. Then followed the Diploma in Park Administration, which led him to various managerial positions in public parks and amenity horticulture. Peter is a Fellow of the Institute of Horticulture and is now enjoying being able to spend more time on practical horticulture and pursuing his natural history interest. We wish Peter a long and happy retirement.

Ari Armony, writing from Haifa, Israel, is Senior Landscape Architect and Head of the Design Team for the City Engineer Department and sends greetings to all.

Haydn Bell (1963) writes to tell us that he has taken early retirement as from 30th November. For 20 years he has been Senior Playing Fields Officer with Cheshire County Council, and for the last two years in a contract situation. During the coming year he hopes to find a part-time job, apart from anything to escape from under his wife's (Margaret) feet!! We are very pleased to know that the Scouting Association has awarded Haydn the Medal of Merit in recognition of his outstanding services.

Stephen Bristow (1980). From Kew, Stephen went to Bangor to study agricultural botany, after which he spent four years in the Sudan, working on development projects. He then spent three years as Overseas Director of a London based Sabelian development organisation. Since

188

January 1991 he and his wife Andrea and their three boys have lived in North Wales and are setting up an Environmental Education Centre on 16 acres of woods and grassland. The visitor centre will be about trees in our world, covering historical issues, tropical and temperate, biology, commercial projects and so on. They are in the process of constructing a brick framed building and plan to open in the spring of 1993. Any Kewites nearby will be most welcome.

Rupert Browning (1976) continues as Grounds Maintenance Manager for Mid Sussex District Council, where he has been for six years. He has four boys aged 16, 14, nine and five and now lives in Burgess Hill.

Graham Burgess received Christmas cards from old fellow. Mancunians Tony Connell and Alan Ketley, both of whom are in education in the West of England.

Graham and Richard Ward Landscaping and Artscapes Design combined forces again, this time at Hampton Court International Flower Show, where they sponsored and built the Save the Children Fund exhibit — a magical flying watering can raised money for the charity. **John Gaggini** helped with the exhibit by supplying plant material.

Graham Burgess travels to Bali, New Zealand and Singapore where he will visit Kewites during Centenary Year.

Dr. Peter Casson left at short notice to spend two weeks in September at the Fairchild Tropical Garden, Miami, following Hurricane Andrew, to collect wood and other botanical specimens.

Stephen Davis (1977) has been Co-ordinator of the I.U.C.N./WWF Centres of Plant Diversity (C.P.D.) project since 1989, and based at the I.U.C.N. Plant Conservation Office at Kew. The project has involved extensive collaboration with botanists worldwide to select sites of major botanical importance for conservation. During this time, Stephen has organised workshops in Africa and in the United States to select sites for inclusion in the project. Travels for the project have also taken him to Mauritius, Réunion, Indonesia (Java), Malaysia (including Mount Kinabalu, Gunung Mulu and Lambir Hills in Borneo), the rain forests of Queensland and to Mount Mulanje in Malawi. The results of the C.P.D. project are due to be published in 1993.

H. J. Eaton (1940-46) left Kew in 1940 to join the R.A.F. and returned in the spring of 1946 and left again in 1946. He was for two years Assistant to the Director, J. S. L. Gilmour, at R.H.S. Wisley. Between 1948 and 1977 he worked for A.D.A.S. and M.A.F.F., the last 15 years as Director of Rosewarne E.H.S. Camborne. Since retiring his main horticultural interests have been lily breeding and trying to propagate dahlias. In 1992 he was awarded the R.H.S. Lily Group Cup for his work on producing hybrid lilies.

Frank Eul, who is a Past President of the Guild, is now retired, widowed and enjoys good health, but sadly is unable to see well enough to weed his own garden.

Hugh Flower (1976) had a busy year after taking responsibility for the Parish in Epsom and, as it turned out for eight months, until a sick Parish Priest was replaced by a new man. As a result, Hugh too has now moved to a temporary home until a new parish becomes available to accompany his new work (part-time) as a chaplain in the teams at two prisons, High Down and Downview on Banstead Downs, overlooking Sutton and London. Between them both the two prisons have a capacity to house over 900 men, for sentences of varying length up to life. One Governor has ideas that Hugh, apart from spiritual welfare for the prisons, will become involved in the development of the land/gardens surrounding the house blocks and so enable some men to develop in gardening. Apart from that Hugh continues as a committee member and a member of the Council of the Gardeners' Royal Benevolent Society.

Betty French (1945) was stirred to write by our Editor and recounts something of her life. She spent four years on the Rock Garden in Kew and left to join the BBC External Services at Bush House in the French Services, where she stayed for 15 years. Occasionally Betty broadcast talks on plants and gardens and Gertrude Jekyll. After leaving the BBC they made two gardens for growing rhododendrons, which are no more, and she now only has a balcony with cliff views in Brighton. Until recently Betty was Secretary of the R.H.S. Rhododendron, Camellia and Magnolia Group. She still works at the Chelsea Physic Garden.

John Gaggini (1963), a committee member of the Guild, wrote reflecting on how easy it is to lose touch after leaving Kew and so included the following news:

Because he wished to gain as broad an experience as possible he entered, and successfully gained, the N.D.H. and was awarded the prize for the highest marks. In 1966 he moved from the National College of Agricultural Engineering, where he had been working, to a post in the U.S.A. on a Bowles Memorial Travel Scholarship for four months. He visited 39 states and travelled 20,000 miles. He then went to N.A.A.S./A.D.A.S. becoming a Ministry of Agriculture Horticultural Adviser for five years. It was at this time that John married and they had their first son. In 1971 he left A.D.A.S. as Regional Nursery Stock Adviser. John was finally employed by the Northampton Development Corporation as a Tree Nursery Manager.

Two more sons were born; the N.D. Arb. was passed and a Nuffield Scholarship gained in 1974, enabling John to study nursery production and research in Scandinavia. Then followed the setting up of his own nursery production business on a part-time basis and from home. Eventually in 1979, when all his spare time was occupied by this new venture he started working on it full-time. From then on there were numerous changes; the thriving 18 acre nursery employed 17 staff. In 1985 the business became Mears Ashby Nursery Ltd. and is a container production nursery. Three years ago a plant centre enterprise was successfully developed, in spite of the recession.

After the failure of his first marriage, John has happily remarried Janette four years ago. He leads a full life playing bridge and snooker in his spare time. He also maintains many links professionally with the N.F.U., H.T.A., I.P.P.A. (U.K. President 1983), I.O.H. (Fellow) for example. He is also a Governor of Moulton College, Northampton, and is Chairman of the Horticultural and Resources Committees there.

Sheila Gilmour (née Nelmes) (1951) was awarded an M.Phil. degree by Sheffield University for her research work on hybridisation in the genus Ulex L. Sheila and Neil have done sterling work on researching and helping up-date the *Journal* membership list.

David Hardman (1977) has, in the autumn, taken up the post of Deputy Curator at Kew. Previously he was working at Trafford Metropolitan Borough Council as Principal Environmental Services Manager. This post developed upon the re-organisation of Trafford to create an Environment and Leisure Department. His original appointment after Kew was as Park Services Manager for Stockport Metropolitan Borough Council.

Reg Harrison (1962) first worked as a garden apprentice at Barking with **T. G. Curry** (1938). Starting in the nursery uncler **P. Hugget** (1952) with a notable visitor being **S. Pearce**, then Assistant Curator at Kew. He had a period of time at Essex Farm Institute, and then worked briefly at llford in Valentines Park, which is the origin of the famous grape vine at Hampton Court.

There followed three years in the R.A.F. In 1960 he became a student gardener at Kew, starting in the Ferneries with **John Simmons**. Though predicted that Reg would not be an outstanding student, he passed the N.D.H. final and won the Kingdon Ward prize which at that time was worth £15. With this and the late **Noel Prockter's** help, he purchased a copy of the R.H.S. Dictionary which he still treasures. Like many students, Reg continued his studies at the I.P.R.A. College at the Grotto. From there he went to the Bournemouth Parks Department where **Roy Bee** (1953) had been before. There followed jobs in Walsall, West Bromwich and finally on to Croydon as Deputy Chief Officer of Parks. Reg notes that at that time nearly all the surrounding boroughs contained Kewites, notably the late **Edwin Cherry** at Sutton (1938). In 1988 he was appointed Borough Parks and Recreation Officer with a much wider field. The now closed Training Department enabled Reg to put their best students into Kew, notably **Tony Harvey** (1977), **Louis Philibert** (1974) and **M. Staniforth** from the *Kew Scientist*.

Allan Hart (1958) qualified as a landscape architect in 1968, after working with central government agencies in the interim and a private consultancy. He then started his own landscape

practice which will be 25 years old in 1993! Through these years he has worked in the U.K. and Middle and Far East. A job in Hong Kong gave him the opportunity to carry out research in Sri Lanka, staying with **Cyril Tennakoon**, who was Director of the Hakgala Botanic Garden, near to Kandy. Allan writes that, as with all Kewites, Cyril gave of his time and expertise freely. On the same visit he had a weekend visit to Bangkok, tracking down **Lawrence Mills**, a contemporary who is now a Buddhist priest and teacher of some renown and goes under the adopted name of Bhika Khantipalo. There are perhaps some 200 temples in the city and so the task of locating Lawrence was somewhat difficult.

Allan has worked with **Tom Riseley** on a hotel development in Spain and in the United Emirates. With an introduction by Tom, they carried out a garden restoration for Prince Khaled in Godstone. **John Sallis**, now lecturing at Kew, has been recruited to help with developments such as business parks, hospitals and domestic gardens. John was able to oversee the lifting and loading of many large trees from a German nursery for planting at Canary Wharf (Docklands) where Allan's company were the specialist consultants to the American landscape architects. This project gave them the opportunity to visit all the major tree producing nurseries in the U.K. and Europe.

In spite of the recession the firm continues with commercial and government projects. For example a scheme to introduce wild flowers at strategic locations on the A2, and a housing development in the South of France on a site abundant with oaks and truffles, not to be disturbed. Sheen has proved to be an ideal location for business and also to continue botanising in the gardens whilst maintaining friendships with the staff at Kew.

L. J. Hebden (1940), who has been retired for 20 years, first came to Kew in 1937. For 30 years he worked for the Commonwealth War Graves Commission from 1952-1982. Prior to that he worked in public parks in Paddington and Heston/Isleworth. Whilst with the War Graves Commission he was stationed at Cairo, Nicosia, Rome and New Delhi, and was concerned with landscaping and maintenance of war cemeteries in some 40 countries. Since retirement he has settled in Australia in the N.S.W. district of Blue Mountains.

Colin Hindmarch (1968) (Vice President) is a Principal Landscape Architect with Hampshire County Council. The bulk of his work is concerned with the strategic environmental role of the Planning Department. At present he is reviewing the County's Countryside Heritage Areas and is helping to establish a community based steering group for the Heritage Area in Ampfield. He is also Chairman of the M3 monitoring group. This deals with the sensitive issues emerging from the notorious Twyford Down/M3 Motorway controversy. This group has a lively combination of representative bodies, including English Nature, the Hampshire Wildlife Trust, the Department of Transport and various local authorities.

Outside the realm of work, Colin is a member of the British Ecological Society's Ecological Affairs Committee. He also serves on the Institute of Biology's National Council and is Chairman of its Wessex Branch. When he retires from Council in 1993 he will become Chairman of the Institute's Conference Co-ordinating Committee. Apart from being elected to the Vice Presidency of the Kew Guild, Colin's professional highlights in 1992 have included helping to organise the Institute of Biology's National Conference 'Biology in Europe' and chairing the 'Water of life' session at the British Association's Science Festival. Both events were held in Southampton.

Colin and his wife, Valerie, have four children, two of whom have grown up and left home. With all the extra time this has given them, they have resumed their interest in road running and have completed marathons in London, Paris, New York and Berlin. Colin's best time in recent years is a respectable three hours 32 minutes.

Antoine Hogg wrote from Amsterdam in September having received a form for the Guild, with a reminder to us all to keep in touch. Since 1981 she had helped her father in his own nursery which included packing and sending out plants, especially bulbs. After her father's sudden death in January, Antoine has taken over the nursery and founded a new business with a new partner in trade. The nursery includes some 900 species of bulbous plants and around 150 species of herbaceous material, following the modern botanical tradition of authentic place of origin. The new nursery was due to be completed by the close of the year.

Peter F. Hunt (1971) took early retirement in 1992 from the University of Greenwich where he had been Deputy Head of the School of Architecture and Landscape for the last six years. He and his wife, Doreen (1964), now 'telework' from their home in Somerset for the R.H.S. as the International Orchid Registrar. Peter is also Secretary of the International Orchid Commission.

Michael Jackson (1976) was in touch once again with a change of address and work. He is now on Merseyside, having purchased a nursery there and set up business with a partner. The nursery is dilapidated and will need much capital put into it, but in spite of that, they are pleased with their first season! He also tells us that he had seen **Martin Kay** (1976) before Martin went to Taiwan in 1991.

Roy Jones (1959) has now retired, but is working hard as a Training Consultant specialising in training, supervisory management, customer care, health and safety, COSSH, Play Ground Safety BS 5696, dog awareness and horticultural skills for client and contractor staff. At present he is working as a horticultural adviser to the Royal Parks, beginning in July 1992 on a 50 day contract. In his letter he writes "I am now about to start my third contract". He has an office in St. James' Park. Roy is responsible for special projects and assists with contract supervision, whilst **John Swithinbank** (1978) is the Contract Manager.

C. A. Joy (1937) wrote enclosing a photo of Roy Hudson and himself taken back in 1937 arriving for work at 6.30 a.m. During the year Charlie had a 14 day trip to Singapore and Malaysia, where he spent his 80th birthday. He had been there at the end of the war in 1945/46 in the R.A.F. During his recent visit he was able to return to two gardens that he had visited while there in the post-war period. It was at that time that Charlie met up with John Ewart with whom he had shared digs in Leybourne Park. During the war period he had also spent two years in Ceylon, including 11 months in the jungle at Vavunya, a naturalist's paradise. He had also returned there in 1983 with his wife. Because of his desire to explore, he became known as 'The Professor'. Charlie also gives us information about other members:

Frank Goldsack (1937) who died in 1992 just before his 80th birthday. They had shared a room at the Bothy at Cambridge Botanic Garden in 1934. They had often met, the last time being two years ago when Frank was far from well. However, Charlie had visited Frank's widow, Kathleen, and was looking forward to a return visit.

George Brown and Charlie were contemporaries at Kent Horticultural Institute in 1948/49 — George teaching in the classroom and Charlie giving the practical demonstrations. George's wife, Mary, was then a student.

Ernie Gale, with whom Charlie worked in Poole, has also died recently aged 85. Ernie gained notoriety by gaining his N.D.H. at the early age of 21.

Stan Rawlings (1972) lives near Charlie and occasionally they meet. They entered Kew at the same time.

Finally, Charlie recounts that he once had lan Beyer and Leo Pemberton on his staff!

Bert Klein (1989). On leaving Kew Bert went for a three month internship at the Marie-Selby Botanic Gardens, Sarasota, Florida. It was here that he discovered how to cope with the summer heat. Whilst in Florida he spent his time in the Eric Young Micropropagation Centre (Centre being spelt properly and not 'er' because the Centre was a gift from an Englishman). It was here that he learnt about in vitro propagation of orchids. After Florida he moved to a commercial nursery with 60,000 square metres under glass and worked with pot plants and roses for cut flowers and latterly changed to the orchid department, potting phalaenopsis for six weeks, eight hours a day! This nursery produced about 50,000 flowering phalaenopsis a year, mainly for the Christmas season and Mother's Day. After a year and a half, following an advertisement in an horticultural paper, he secured an Orchid Supervisor's post at Munich Botanic Garden. This garden has only been on its site for about 90 years. He has two other gardeners working with him, plus occasional apprentice or student help in a department of around 800 square metres, both reserve and display houses. Special collections are Paphiopedilums and Bulbophyllums. But looking to the future his interest will include Coryanthes, 'fan-orchids' - Keferstunia, Huntleya, Stanhopea, Acineta and, of course, Cymbidiums.

Ian Leese presented a paper entitled 'R.B.G. Kew and Horticultural Education' on the work of the School of Horticulture at the First International Conference on Education and Training in Horticulture held by the International Society for Horticultural Science.

Brendan Little (1987) wrote in the Irish Garden Plant Society journal of the restoration of the garden at Baronscourt Estate, the home of the Duke and Duchess of Abercorn, Co. Tyrone. The estate covers some 4,000 acres. The private garden is within the estate and divided into two areas, a formal area of mixed borders and the other a woodland garden which contains a fine collection of rhododendrons. Outside of the woodland garden, a flower meadow has been created. As yet the gardens are not generally open, but guided tours are arranged.

Mike Lycette recollects for us some of his experiences at Kew, for example gathering outside the Library in September 1958 to begin on the first day, meeting **Bill Campbell** and accompanied by BOR! as he was known, whose appearance was perhaps not as expected. During Mike's time at Kew, **Harry Ruck** (Storeman) retired. Mike on a visit to the stores was to ask Mr. Stenning if he were the packer! After leaving Kew, Mike took a P.G.C.E. at Worcester College of Education. After 31 years and seven schools he recently met up with **John Brookes**. At one time they were apprentices together in the central nurseries, Woodthorpe Grange for Nottingham Parks Department. Once retirement comes, Mike hopes to come to the dinner, when he is freed of the responsibility of G.C.S.E. exams, assessment and moderation.

John Maddox (1963) left Kew in the spring of '63 and joined Middlesex County Council and continued to re-organise. From there he worked for Hillingdon Borough Council for two and a half years. In 1967 he joined Luton Parks as Deputy Director and became Director prior to re-organisation. After this he was promoted to Director of Leisure and Amenities (Recreation Services) Officer. He has been in this job for many years. John has now completed 25 years with Luton and has started to prepare for yet more re-organisation when Luton bids for unitary status.

Mike Maunder has been Head of the Conservation Unit (L.C.D.) since January 1992. This work involves co-ordinating and developing L.C.D.'s conservation activities. Special attention has been paid to developing recovery programmes for endangered species from oceanic islands such as St. Helena and Mauritius. His work has involved conferences in Caracas, Jersey and Rio di Janeiro; teaching in Spain and field work establishing a new protected area in the Llanos of Venezuela.

Joan Noble (1989) retired from Kew in 1989 and since then has travelled to Australia twice, once in 1990 and also in 1992. On both visits she sailed from Southampton to Sydney on the S.S. Canberra. The voyage takes six weeks and combined times for relaxation, good company and visits to ports. Whilst on the journey, Joan visited botanic gardens in Madeira, Bermuda, St. Vincent, Melbourne and Singapore. She has also made repeated visits to R.B.G. Sydney. On both visits a month was spent in Australia. In 1990 she travelled on the Indian Pacific from Sydney to Perth. Before returning home Joan spent three days in Singapore.

Derek Parker (1978). On leaving Kew, Derek went to work for the Commonwealth War Graves Commission, starting as a Professional and Technology Officer in France, with responsibility for the maintenance of 650 items of machinery for the country. After two and a half years and with promotion he moved to Greece and a base in Athens. Derek was then responsible for war graves in Greece, the Balkans, Cyprus, Iran, Iraq, Syria, Turkey and Lebanon. This obviously led to much travel, often being away at weekends. It also gave opportunities to see the flora of many countries.

All good things come to an end, and after 18 months the area was closed following re-organisation and Derek was transferred to Egypt and placed in charge of horticultural maintenance in Egypt, Sudan, Libya, Tunisia and Algeria. Experiences in the arab world were similar, but cultures are very different. After another 18 months a further transfer brought Derek back home to Maidenhead, with promotion to S.E.O., joining the Management Services Department at head office. This was an administrative, non-horticultural post, giving him the opportunity to see how other departments functioned. After a further two years, he transferred to France as a senior P.T.O. and the area horticultural office responsible for maintenance of 800 cemeteries in France. This was the longest posting and lasted five years. Here he gained good experience in

man management as there were 320 manual and eight non-manual staff to supervise. The last move brought Derek back to Maidenhead to take up the post of Director of Horticulture. This job still entails much travelling around the world, so allowing him to continue to see other floras and cultures. Derek and family now hope to be static at home to enjoy their family life.

Frank Parker wrote in December 1992 from Georgia in the U.S.A. He has recently retired and says that his "horticultural activities are at the moment restricted to pottering around the garden". Frank comments that the rainfall in Georgia in 1992 exceeded 60", compared to a yearly average of 48". Also in his letter he mentions that in recent years Pansies have become an important bedding plant where he lives. "Unlike England most of the large bedding plant displays are on commercial property, particularly on the grounds of upscale apartment complexes ... The standard is quite high and compares favourably with the better displays found in England."

Graham Pattison (1981) was invited back to Mexico Botanic Garden to the Institute of Ecology twice in December '91 and July '92 to give lectures, horticultural demonstrations and continued advisory work to the garden. The visits were sponsored by the British Council and the Mexican Council for Science and Technology.

Kenwyn Pearson (1975) continues as Head Gardener to the Cadogan Estate in Chelsea and Horticultural Adviser to the Oakley Leisure Group. He was previously Landscape Supervisor to the Milton Keynes Development Corporation. He served his apprenticeship in horticulture at Norfolk School of Horticulture and worked for Laxton and Bunyard Nurseries 1969-70, staging the Chelsea Flower Show exhibits for the firm.

He has modernised, rnechanised and substantially developed Cadogan Estate Gardens, Chelsea, since 1978, following both Dutch Elm disease and the 1987 storm. He has also undertaken extensive tree planting of many species and extended the range of plants, particularly in Victorian planted squares, notably Cadogan Square. He has held high positions on many professional bodies such as Chairman of the Professional Gardeners' Guild 1985-89 and Vice President in 1992. He has also been Vice Chairman of the N.C.C.P.G. 1988-90, Chairman and Treasurer of N.C.C.P.G. London Group 1981-84 and President in 1990. He was Show Secretary of the Cyclamen Society 1980-83, a member of the Lead Industry Body of Horticulture Technical Working Party 1989, 1990 and 1991, Chairman of Kew Guild Award Scheme 1992, Council Member of Gardeners' Royal Benevolent Society, Council Member of Institute of Horticulture, External Assessor Merrist Wood College 1992, Editor of Old Cawstonians Association 1975-80 and Chairman of Old Cawstonians Association 1980-86. Kenwyn continues to lead a full and busy life!

Leo Pemberton writes: "After retiring in October 1988 I became Administrator of the Studley College Trust until June 1992. The Trust is a charity which provides assistance to those needing financial help for educational purposes in studying Agriculture, Horticulture and allied subjects. It was very nice during the four years to see some Kewites receiving aid , i.e. T. Upson, T. Sutherland, Caroline Kernan, Madeline Groves and Sarah Frazer (née Rutherford). The Trust also administers Horticultural Studentships, one which has been established for a long time is at Tresco Abbey Gardens (John Lanyon was a student there and can vouch for the attractions of the studentship). More recently I helped start a joint studentship with the Ryton Gardens (Henry Doubleday Research Association), concerned with organic gardening.

"I have continued to serve on the R.H.S. Examination Board as well as the M.Hort.(R.H.S.) and R.H.S. General Panels, and I am still the Supervising Examiner for the Professional Diploma in Arboriculture with the Royal Forestry Society of England, Wales and N. Ireland (Peter Bridgeman is the Senior Examiner). I also have a lecturing committment with the Inchbald School of Design (P. Thurman, T. Rees and Sue Macdonald are also involved), as well as being involved with assessments for the Society of Landscape and Garden Designers.

"In September 1992 I became Chairman of the Arboricultural Association, many notable Kewites have been prominent in the Associations affairs, G. Brown, D. Wells, N. Prockter, A. Dunball and Hubert Taylor A.H.R.H.S. come readily to mind, while Trevor Preston in addition to being an ex-chairman, still serves as a Trustee. Peter Bridgeman was elected to become Vice Chairman 1994 (which will mean him becoming Chairman in 1996!).

"More recently I have become a consultant for the Royal Parks, working with their apprentices in connection with their training and education. Still within the realms of education, I have been appointed as Moderator for the H.N.D. Horticulture Course at the University of Central England (formerly Birmingham Polytechnic). The pace of life does change but there is always plenty to do!"

Louis Philibert completed the student course at Kew in 1974 and then spent the next five years with the London Borough of Croydon. He took one year out to attend a Park Administration College, which involved training apprentices and general technical and horticultural work. Amalgamation within the London Borough of Croydon resulted in a change of job and direction, the next seven years being spent with Wates Built Homes as Landscape Manager, working mainly in the South East. Being in the private sector there was a different outlook working for Wates, with different pressures. Re-organisation within Wates Built Homes brought redundancy in 1986, so Louis decided to go out on his own and set up Philibert Horticultural Consultants. Clients have been mainly developers, including some of the larger companies within the South East, with the scope of work being broadly based with the emphasis on tree advice and landscape design. Some design work for the larger private garden has also been undertaken during the past six years. For some clients Louis's wife, Sandy, runs the construction side of the business along with running the general office side of the work. Full-time staff are just Louis and Sandy but there are many who are associated, including two construction teams.

Despite the recession of the past couple of years the lows have been weathered and Louis continues to operate as broad a base as possible, looking for openings and recently undertaking design work for Local Authorities.

Barry Phillips has spent the whole of June during the year in China on a botanical foray led by Dr. Phil Cribb. Jill Cowley, who is an expert on *Roscoeas*, was also on the trip, as well as Dr. Kerry Walter from the World Conservation Unit in Cambridge. They had a tremendous three and a half weeks, firstly in North West Sechuan, following the Min River to Songpan, in the steps of Ernest Wilson, and to Woolong and Julasigo. The final 10 days were spent in Yunnan in the Jade Dragon mountains above Lijiang, and the Kanshang mountains above Dahli. Both of these places were favourite hunting places of the Scottish collector, George Forrest. Barry also reports that visitor numbers were up by 19% last year at the Hillier Arboretum.

Brian F. Pitcher (1960). For four years Brian was apprentice gardener with Tottenham Borough Council from 1948-52. Then followed two years' National Service in the Army Catering Corps, stationed at S.H.A.P.E. Headquarters outside Paris, General Eisenhower being Supreme Commander and Field Marshal Montgomery his Deputy. After this he returned to Tottenham Parks as a gardener, then Foreman, before securing a post as gardener for 18 months in the Royal Household at Windsor. During this time he worked as an Assistant Flower Arranger on numerous State occasions at Windsor Castle and Buckingham Palace, also working in all departments of the Royal Gardens.

In 1958 he left Windsor for a two year Diploma Course at Kew, serving in the Palm House, House No. 15 under George Anderson, M.B.E., the Alpine House and Orchid House in the old 'T' Range. He then took a post working for the Austrian Consul in Lugano, Switzerland, for a period of one year enabling him to visit the many gardens on the Swiss and Italian Lakes.

Returning to England in 1961, he spent a short period with a landscape firm in South London, before going self-employed as a professional gardener working for selected clients, maintaining and growing plants for their large and small gardens. This he has been doing happily for over 30 years.

James Redman Again we were pleased to hear from James who still lives in Florida for the winter (November to April), and in Canada for the remainder of the year. At the time of the Centenary Dinner he would be travelling and so unable to attend. A postcard was also sent to the Editor in August from Lindsay, Ontario, where he enjoys his retirement.

Graham Rice continues to write regular articles for a number of gardening magazines, including BBC Gardeners' World. The more recent of his books include two titles in the Wisley Handbook series: Herbaceous Perennials and Bedding Plants, and The Gardener's Guide to

Growing Hellebores (with Elizabeth Stangman). He is a member of the R.H.S. Floral A Committee and has recently visited the United States to lecture on *hellebores*.

Tom Risely (1958) has a home in Hastings as well as Alicante, Spain, where he lives much of the time since 1988. He specialises in landscape construction, especially in the Mediterranean and middle-eastern countries. He has his own consultancy practice with emphasis on specification writing, technical drawings, landscape maintenance and project management. His landscape company undertakes work by negotiation/competitive tender. He spent the eight years between 1978 and 1986 mostly in the United Arab Emirates and Saudi Arabia, and was concerned with the design and construction of public parks, sportsfields, palace and other large private gardens, as well as schools, hotels, hospitals and military establishments. In the last year Tom has been Project Manager for a multi-million pound landscape in Barcelona associated with developments of the Olympic Games.

John Sales, who for 12 years lectured at Writtle College, was appointed by the National Trust as Gardens Adviser in 1971. From 1974 he became Chief Gardens Adviser, succeeding Graham Stuart Thomas. During this time John has been closely involved in the conservation and restoration of the Trust's important and historic gardens and landscape parks. He also serves on several committees for the R.H.S. and, with others, judges gardens at Chelsea. He is also involved with the N.C.C.P.G. and Garden History Society. Amongst other activities, John has lectured in many countries, including the U.S.A., Canada, Australia, New Zealand and in Europe, including Poland. In 1991 John was awarded the Europe Nostra/IBI (International Castles Certificate) Medal of Honour and also the R.H.S. Victoria Medal of Honour (V.M.H.) a year later. He lives with his wife, Lyn, outside Cirencester in a home with a large garden. Their three sons are thriving and they are delighted this last year to have two grandsons.

John Sandham continues to live in Australia and is now Curator of Conservatory Displays at Adelaide Botanic Garden.

Errol Scarr (1967). Errol's two-year term as President of the Institute of Park and Recreation Management (Southern Africa) has just come to an end. It was a challenging time as the Institute prepares itself to ensure that it remains relevant in the 'new' South Africa and grapples with issues such as its mission, extending of membership, etc.

Jenny (1967) and Errol have just returned from the East as he was a delegate to I.F.P.R.A. '92 Congress in Hong Kong. They had a week's holiday before going to Hong Kong visiting Singapore and Bangkok en route, basically looking at orchid nurseries/collections. Their host in Singapore was **Yong Fann Chin** (1968) who they had not seen since leaving Kew in 1967 and he took tremendous pride in showing them around Singapore's park system is an outstanding example of what can be achieved if funds are not a problem. At the Congress they met the following Kewites: **Neil** and **Sheila Gilmour** (1952).

As a result of restructuring, Errol is now purely Director of Parks, as the Recreation/Beach and Cemeteries Branches now have their own directorates. News of other Kewites in South Africa is as follows:

Gilbert Briscoe (1961). As a result of the restructuring of the Parks and Recreation Department in Johannesburg, Gilbert found matters not to his liking and so took an early retirement. He is now acting as Examiner and Moderator for Technikon R.S.A.

Mark Theron (1963) is Deputy Director, Parks and Recreation Department, Pretoria. **John Winter** (1964) is Curator of the National Botanic Gardens, Kirstenbosch.

Michael Bentall (1964) is Deputy Director, Parks and Recreation Department, East London.

A. Vernon Rippon (1958) is Verge and Arboriculture Officer with Durban Parks Department.

Hans van der Breggen heads the Landscape/Horticultural arm of the National Transport Commission.

Andrew Balfour (1968) and A. G. Hitchcock (1960) are in private practice.

J. R. Sieben (1952) and W. A. Gunn (1961) have entered the realm of the 'Retired'.

Tom Seager (1954) has now retired and lives in Devon, but in retirement is a member and judge of the S.W. Region Britain in Bloom Committee. He is also a judge for the flower show section for the Devon and Cornwall county shows.

Otto Sebeseri (1987). After an unforgettable year at Kew, Otto returned to Switzerland to work in an orchid nursery near Basel. At home he set up a small laboratory to propagate orchids from seed (just for him and friends). In May 1988 he got married to Ruth Kamber.

Early in 1989 a job came up at the Swiss Customs as Plant Health Inspector. Fortunately he was employed and since March '89 this has been one part of his work. As Switzerland imports about 80% of the cut flowers and pot plants, mostly from the Netherlands, Denmark, Germany, Belgium, France and the U.K. (bulbs), it is very interesting work. As this is only a part-time occupation, he was looking for something else to compensate for the time not spent working at the Customs, so he became a tram and bus driver in Basel. With these two jobs he is very happy and it gives him and his wife (also a gardener) a lot of time to travel and visit nurseries and Botanical Gardens.

His collection of orchid slides, which he started at Kew, has reached some 6,000. All data is stored on a computer database. Now he has started to scan orchid pictures to create a database with pictures and descriptions of different orchid genera. This is keeping him very busy. In September 1990 their first child, Stephen, was born and on 15th December 1992 his sister, Sandra, was born. All in all they keep well and are very happy.

Elizabeth Stevens (1968), now Mrs. Elizabeth Tite, is a Horticultural Consultant with A.D.A.S. at Harrogate and specialises in litigation work and preparation of compensation claims. She writes: "I have been in N.A.A.S. and A.D.A.S. since leaving Kew in 1969 and have previously been stationed at Luddington E.H.S., Cleppa Park (S. Wales), Sevenoaks, Guildford, Worcester and Headquarters in London." Travel has helped to broaden the mind and over the years she has been to the Far East (to see Yong Fann Chin), Australia (Tony Whitehill), South Africa (Jenny and Errol Scarr) and to North America on a Nuffield Farming Scholarship to look at aspects of vegetable production and marketing.

Elizabeth has 'done some time' as a trustee (with Leo Pemberton) on the Studley College Trust and was involved on the Steering Committee setting up the Institute of Horticulture (with John Simmons who was very active). She writes: "Life now is less hectic, living on the edge of the Yorkshire Dales at Ripon. My husband, Richard, is also a horticultural consultant in A.D.A.S. but specialises in mushrooms. We are thoroughly enjoying our three quarters of an acre patch and, as great fans of guru John Brookes, are trying to implement many of his landscape principles into our new country garden."

Ted Storey, Past Guild President, lives quietly at his home in Kingston. He suffered a stroke several years ago. Visitors during the year included John Woodhams (Assistant Curator) and Editor Richard Ward. Any members with time to spare would be welcome to visit Ted. Telephone 081-546 9087 prior to your visit please.

John Taylor. News was received in April from New Zealand from John, who included a photograph of the Kewites who had attended the Royal New Zealand Institute of Horticulture Annual Conference. The conference also marked the Centennial of the Wellington Botanic Garden. Michael Fay (from the Micropropagation Unit) attended and was one of the speakers. An important outcome of the conference was to establish a New Zealand network of botanic gardens and significant plant collections. This work will be co-ordinated by the Institute and will lead to closer co-operation between the Australian botanic gardens network. It will assist in the development of a regional approach between the South Pacific countries, particularly for the protection of rare and endangered species. Christchurch, John's home town, known as the garden city, had been awarded the International Rose Convention for November and plans were afoot for an ambitious horticultural exhibition to coincide with the event.

Jenny Wainright (1990) left in June 1990 to join Bert Klein in Germany. She soon started work as a gardener at Firma Munz, a wholesale nursery in Waibligen. Fortunately her immediate boss was English speaking. Through time and night school, she now feels competent to hold conversations in German. Jenny's first work was preparing geranium cuttings for six months of

the year and potting *phalaenopsis* for the other half. After two years she has moved to Munich and begun work in the Alpine unit of the Botanic Garden. She finds European temperatures take some getting used to and is delighted to pack and despatch seed when it's cold. Kewites will be welcome, if they are in Munich, to see Bert and Jenny.

John Walker (1986). From graduation with the Kew Diploma, John set about pursuing his long time ambition to enter horticultural education. He taught at Brackenhurst College in Nottinghamshire before studying for the Certificate in Education at Wolverhampton Polytechnic. This led to a Lecturing post at Otley College in Suffolk. In the spring of 1991 he took a change of direction to become a freelance writer, lecturer, photographer, editor, garden designer and consultant. Since 1989 he has been News Editor for the Institute of Horticulture, and has recently taken up a new full-time post as Features Editor on *Garden Answers* magazine, where he is playing a strong role in developing the title as "the only gardening magazine you need buy!".

Richard Ward (Hon. Editor) now encumbered with two and four year-old daughters and wife, Wiena, is hoping to build an 'earth sheltered house' on his plot of land near Cumberland Gate (outside the Gardens, not in)! for which planning permission was recently granted following five years of applications. Richard sold his Roundabout Cafe last year and now concentrates energies into his landscape contracting business. The Rotary Club of Kew Gardens, now in its ninth year, also takes up a lot of time and he will become President of that Club in July 1993. Kewite and other Rotarians and visitors welcome any Wednesday evening at the Kings Arms, Kew Green.

Hil Werner of South Africa is now retired but has had a noteworthy horticultural career beginning as a student of horticulture and forestry at the University of Stellenbosch, South Africa. Later he qualified in the student training courses at the John Innes Institute and then at Kew. Subsequently he joined Blackpool Parks Department, then Manchester and, before leaving England to return to South Africa, he married Myrtle Speake, also a Kewite. Back at home, he first was Superintendent of Gardens in Pretoria, then Curator of the National Botanic Gardens, Kirstenbosch, where he remained for 13 years. Since 1975 he has served on the advisory board of three nature reserves for the City of East London and adjoining area.

John Whitehead writes: "During 1991 I was lucky to see two species of *Rafflesia* in flower in Indonesia. Other plant exploration areas were Vietnam and Cambodia and in 1992 visits included a study tour of Ireland with Merrist Wood College arboricultural students, tree hunting in Greenland, Pakistan and six weeks without a guide in China and Mongolia, which proved to be an adventure in combating the language barrier and local transport problems. The highlights were to see *Davidia, Ginkgo* and *Metasequoia* growing in the wild.

FROM KEW GUARDIAN

Susan Andrews, holly expert, has been presented with the Holly Society of America's Wolf Fenton award for her work.

Marjorie Blamey, artist, has presented the Library with the complete original collection of her artwork for Chris Grey-Wilson's *The Illustrated Flora of Britain and Northern Europe*.

Ian Beyer now retired, has been made an Associate of Honour of the R.H.S. There are only ever 100 associates at any one time and the award is made to those who have rendered distinguished service to horticulture in the course of their employment.

Louise Bustard (former Membership Secretary) was to leave Kew to study for a masters degree in anthropology. She hopes to combine her botanical and horticultural background with the anthropology qualification to pursue a career in ethrobotany.

Mark Chase arrived at Kew on October 13th permanently as the Jodrell's new Head of Molecular Systematics.

David Cooke and Sarah Oldridge were married at the end of May.

Fiona Dennis and Clive Foster both have passed the final stage of the R.H.S. Master of Horticulture exam.

John Dickie has transferred from Wakehurst Seed Physiology Laboratory to the Anatomy Section, Kew.

Elizabeth Fitchett, Personal Secretary to the Keepers of the Herbarium for 11 years, retired at the close of 1991.

Roger Howard (Supervisor, Tree Unit) travelled to California during August to study tree surgery techniques.

John Lavin was appointed Deputy Director of Operations from 2nd December 1991.

Katherine Lloyd (Index Kewensis team) married Terrence Challis in Kingston during April.

Brian Matthew was awarded the Victoria Medal of Honour by the R.H.S. There are only 64 holders at any one time, the number of years Queen Victoria reigned.

Hugh Pritchard, Seed Physiology Section, Jodrell, was awarded a grant of nearly £13,000 from the American Orchid Society to fund a two year project on orchid seed conservation.

Charles Stirton, Deputy Director (Science) was to represent Kew at the U.N. Conference on Environment and Development (Earth Summit) in June.

Editor's Note: Preference has been given to members of the Kew Guild, although not everyone above is a member.

ONE HUNDRED YEARS OF KEWITES AROUND THE GLOBE

As part of the Centenary celebrations we decided to circulate various Kewites in main regions of the world. We asked them to summarise past and present achievements of fellow Kewites

- and these are the results.

Organised and collated by Dr. Tony Lord

The horticultural role of Kew has changed greatly since the founding of the Guild one hundred years ago: it has long ceased to be a school for the skilled horticulturists required to run the plantations and botanic gardens of the Empire, yet the training it provides is still valued in many countries around the globe. By asking Guild members to give some brief facts and opinions about the role of Kewites worldwide, past, present and future, we have hoped to show the extent to which Kew's role has evolved to become as relevant in 1993 as it was a century ago.

Of course, we would have liked to have received comments from every country where Kewites work today, and to have covered Kew's role in botany as well as horticulture. Nevertheless, the dozen replies we have been sent paint a clear picture of the important contribution of Kewites to horticulture and the extent to which they have enriched the lives and culture of many nations.

We can see through these reports how a strong horticultural tradition has evolved in countries such as Canada, Australia, South Africa and New Zealand, where little existed in 1893, and we can read how Kewites have been involved from then to the present day. In countries such as Nigeria, Zimbabwe and Saudi Arabia, horticulture is still in its infancy; yet it is clear that Kewites have been instrumental in establishing the profession and demonstrating its benefits, showing how valuable a Kew training is today in enhancing the living environment. There must be many other countries where Kewites could play a similar role.

What of the future? Perhaps it lies less with the Commonwealth, though the bonds of mutual affection and a shared past are still strong. In Europe, France is re-establishing its great horticultural tradition after all but losing it and gardening is gaining popularity as a hobby in virtually all the countries of the European Community; and it is now much easier to move jobs and plants around the Community; for all the worries of British horticulturists about standards in the public sector, the popularity of gardening at home has seldom been greater; this all bodes well for careers in horticulture.

Much of the success of Kew's training depends on the willingness of its gardeners to take full advantage of its collection of plants and the accumulation of botanical and horticultural knowledge of its staff, but as long as Kew continues to provide training which excels in both breadth and depth, Kewites will have a role to play in many countries. Floreat Kew!

Writing from Mechelen, Belgium, **John Norris** (President 1980-81) has written about his career with the Commonwealth War Graves Commission. To quote the Commission's information sheet, "In 1916 the Assistant Director of the Royal Botanic Gardens at Kew (Arthur [later Sir Arthur] Hill) was asked to visit cemeteries in France and to make recommendations about the plants that should be grown, thus beginning an association that has lasted to the present day with successive Directors at Kew acting as honorary botanical advisers to the Commission". Until recent years, Commission gardeners were often seconded to Kew for a period of three months to help widen their horticultural experience; the Commission has a Kewite, Derek Parker (1978), as its present Director. John Norris's long and fruitful service with the Commission is outlined in his account:

"When I first went to the C.W.G.C.'s Head Office, my interviewer pointed out to me that there were no Horticultural Superintendent vacancies, so I decided to accept the vacant post of Travelling Superintendent and started work in Belgium, June 1946.

"During six years of this service, I put in levels and was responsible for the layout and horticultural construction of such notable 1939/45 War Cemeteries as Brussels, Esquelmes, Geel, Heverlee, Hotton, Kasterlee, Leopoldsburg, Schoonselhof, Antwerp etc. and had two tours of duty in Holland including one tour in charge of the Area. During this period the War Cemeteries in Holland were being constructed and one of my principal tasks was to reduce the actual total area of the Canadian Cemetery at Groesbeek by some several acres.

"On promotion to Area Superintendent Estaires Area, France in 1952, my staff included 125½ gardeners and I gave horticultural lectures to the staff every Saturday morning for about a year. By the way the total of staff included five Pupil Gardeners who counted as a half man each!

"I was responsible for the construction of Calais Canadian, Pihen les Guines, Lestrum, Lille Cemeteries etc. and at the unveiling of the Dunkirk Memorial I was presented to H.M. The Queen Mother. I organised the first post war Flower Show for the Commission in France and constructed the first Crown Green Bowling Green in my garden at Estaires.

"Transferred to the U.K. in 1957 as Area Superintendent S.E. Area, I was in charge of the construction of the Brookwood Memorial. This was one of the last Memorials to the Missing constructed by the Commission and at the unveiling ceremony the Queen was accompanied by most members of the Royal Family.

"Also constructed was the Italian Plot at Brookwood and the Chelsea Pensioners Cemetery, the reconstruction of the Brookwood, Cambridge, Shorncliffe Cemeteries, the Runnymede and Tower Hill Memorials, just to mention a few of the most important sites.

"During this U.K. Tour, I worked in close co-operation with the Horticultural Department and its Director W. J. W. Harding, O.B.E., B.Sc., F.L.S., to achieve mechanisation and was responsible for the introduction of the Ryan turf cutting machine and modifications to the Atco mowers for gang mowing. For this latter exercise I sketched the various stages of the modifications on scale drawings during my leisure hours at home. These drawings were reproduced for general distribution abroad. I formulated a general purpose fertiliser later used in the whole of the C.W.G.C. European Area and produced plans for planting **ericas** in the Brookwood Cemetery to provide a continuous flowering period during the year.

"I was appointed Staff Officer Hort. Southern Region, Rome in October 1963 and was able to continue further modifications for the gang mowers used in Italy. From Rome I was sent on a six months tour of duty in Iraq and the Lebanon for the purpose of amalgamating the two Areas with H.Q. in Beirut. This proved to be quite a task and, although normal working hours in Baghdad were from 0700 until 1300, I worked continuously until 1800 every day in an effort to clear up the confusion that existed there. I closed the Area Office and accommodation, organised the new Baghdad Sub-Office in the Cemetery and after three months was able to go to Beirut and work the two old Areas from one Office.

"I could perhaps mention one incident that occurred during my stay at the old Baghdad Office: I had given notice of termination of service to a night watchman and several other members of my transport staff and apparently the old night watchman was made drunk by the others and came rushing into my office brandishing a wicked looking curved knife with the intention of killing me. The idea was that if I could be got rid of their jobs would be saved. I was much younger and very fit at that time and was able to send him packing with a flea in his ear.

"Back at Rome I was sent for the 25th Anniversary Ceremony of the Battle of Ancona as the Regional Director's representative. Present was the Chief of the Canadian Staff, General J. Allard, it was 20th September 1968. The Canadian contingent, including many V.C.'s, brought over a plaque for the Chief of Staff to unveil. When I visited the cemetery after motoring from Rome, I discovered that the plaque had not been installed! Later that night I had to motor to Ancona to make contact with the Canadian Veterans Party at their hotel. There I was given the plaque by a Canadian who told me that he was the Consul at Madrid. He said that he was very glad to get rid of the plaque!! At first light the following day I was in the cemetery with the necessary tools and plugged the bronze plaque to the wall in a small chapel near to the Moro River Cemetery and arranged the Canadian flag ready for the unveiling. The ceremony had already started when I eventually entered the cemetery and when I enquired where the General was, a person was pointed out to me who was dressed in Admiral's tropical uniform!!

"When I introduced myself to the General I noted that General Allard, as Chief of Canadian Staff, had in fact an Admiral's white uniform complete with his General's epaulettes and Air Force Wings.

"I accompanied the General in laying wreaths, signing the Visitors Book etc., and then walked with him through an Italian Army Guard of Honour to the Chapel where I asked him to unveil the plaque commemorating the 25th Anniversary of the Battle of Ancona. The General pulled the cord and the plaque was unveiled to my complete satisfaction. Then, for some unknown reason, he walked to the other side of the chapel and started to tug at the flag, which was lying draped down at the side of the wall. I stopped him in time, because he would have torn the Canadian flag to pieces as I had fixed the jack side to a large rag-bolt in the wall. If you have ever seen pictures of General Allard you will realise that because of his enormous physique he was quite capable of doing just that.

"In July 1969 I went to Head Office in London as H.E.O. Establishments Division. There I re-organised the Supplies, Transport, Touring and Organisation Sections, completed a revaluation of World Wide Insurance which had been neglected for a number of years, completed negotiations for U.K. Insurance for the vast amount of stonework shipped annually overseas from Italy and successfully negotiated travel and other insurance for Commission Staff etc."

Henry Cocker (1933) spent a year working for Sir Cecil and Lady Hanbury at La Mortola before moving to Villa Táranto on the shores of Lake Maggiore, where he was Director for 26 years. In his book *The English Garden Abroad*, Charles Quest-Ritson comments that in the great garden created there for Captain Neil McEacharn, "much of the design and planting . . . was in fact Cocker's rather than McEacharn's". No study of 20th century gardens is complete without reference to his achievements, many of them since he left Villa Táranto: in the words of Charles Quest-Ritson, "when Henry Cocker . . . set himself up in 1960 as a garden consultant, he reinvigorated many of the best gardens of the Italian Lakes". By bringing plantsmanship and flower colour to the gardens of a country where the formality and shades of green were all that was traditionally accepted, Henry Cocker has created works of individuality and lasting beauty. The book he has written describing his life's work will be eagerly awaited.

Henry Cocker has written to us from Venezia, stressing among other things, the immense value of student exchanges between Kew, Italy and South Africa. In his words, this exchange was:

"Actually something which introduced me to this country, with such good results. Whatever my modest efforts have produced all are due to this exchange and have, with other past exchanges, made such gardens as La Mortola, Villa Táranto etc. world famous.

"There should be ample possibilities for Kewites in this area as there is a shortage of labour (horticultural and botanical). Italy spends a fortune in importing cut flowers and pot plants from Holland, Germany, France etc., but nobody seems to bother. Italy stages magnificent Chelsealike flower shows every year which are always a success, but I have never seen a British participant (except when I organise smaller but euqally successful exhibits at a local show).

"To be quite honest, Italians are not enthusiastic gardeners, but the situation is improving thanks to a vast programme of house building, each with a small garden. Unfortunately the public does not understand what to plant or what is available; nurseries are not on the British scale and there is a terrible shortage of instruction. When making the Villa Táranto we had to import trainloads of plants from Gill of Falmouth etc.

"Even well-educated people use the word 'garden' to indicate the vegetable garden. Things are improving, but it is the old-fashioned, vast so-called 'gardens' which interest people — actually huge areas in the vicinity of old mansions etc., which in summer serve as drawing rooms for coolness, and consist of hedges, terraces, steps, trees, fountains etc. and not a single flowering shrub.

"As for other Kewites in Italy, I do not know of one. Officially I am retired from active work but am always swamped by correspondence. My book is finished as far as the actual writing but there is still a lot of work to do (revision/alterations, the Italian edition etc.)."

Malcolm Leppard (1971) of the National Botanic Garden, Harare, reports on the role of Kewites in Zimbabwe.

"Is the influence of Kew diplomats overseas waning? Dramatic changes during the last few decades, with the decline of colonialism, make it decidedly harder for Kewites to work abroad, more so when it comes to emigration. In the countries where they are most needed, such as Zimbabwe, there is a phobia of engaging 'expats' due to a number of factors. Basically it boils down to insufficient foreign exchange ever spiralling, local unemployment levels and a desire to be master of their own affairs. There is, however, a chink in this negative trend. The British Council funds many Zimbabweans in further studies in the U.K. every year, but primarily for second degrees. Perhaps a case can be made to the British Council to include institutes such as Kew?

"The Kew Diploma's high emphasis on practical work is imperative for countries like Zimbabwe. The paucity of professionals in all sectors of horticulture, and equally poor or non-existent facilities, ensures virtually no practical training of any note, with the dire consequences — the perpetuation of abysmal standards.

"There is only one other Kewite in Zimbabwe, Mr. T. Müller (1956), who is about to retire. The possibility of others joining us is bleak!

"A depressing story, but perhaps there is a future for Kewites — born and bred Zimbabweans offered places at Kew, financed by the British Council. Several students at Kew could be financed for the cost of one fully backed university student. As things stand, Zimbabwe would greatly benefit from such an arrangement! Would not Kew also benefit?

"Lastly, but not least, I personally believe, based on many years of experience, that the full three year course is by far the most valuable to the students and their country of origin as far as the developing countries are concerned."

Chris Bamkole (1967-71), now based in Lagos, tells us about his own career and gives some interesting insights into horticulture in Nigeria.

"I got to know about Kew in 1966 through an American member of the United States Aid Agency for International Development, my boss at the Horticulture Section of the Ministry of Agriculture and National Resources of the then Western Region of Nigeria. He discovered my special interest in plants after I had completed a two year Diploma Course in agriculture at a Nigerian School of Agriculture.

"I was privileged to be the first black African to be admitted to the full Kew Diploma Course, and the Diploma placed me in good stead to secure my exciting good job as the University Horticulturist of the Old University of Ife, now Ubafemi Awolowo University. Here, from October 1971, my challenges were to develop and maintain all the university parks and gardens, heading a new Parks and Gardens Unit of four sections: the University Nursery (ornamental); Grounds Maintenance Section; Flower Maintenance Section and, lastly, the office and workshop (machinery, stores, landscape studio, administration and staff training).

"I had as my assistants one nursery supervisor and three technical assistants. One of these was responsible for flower beds and all ornamental planting, trees and shrubs; another for the vast lawn areas, also overseeing lawn mower and tractor operators; the third was basically the store keeper in charge of fuel, chemicals, garden tools and implements, new stock and time-keeping etc.

"I headed the office, landscape design and construction section, directing and overseeing all the other sections in the Unit as well as training newly recruited garden staff. We had a lot of responsibility and within a space of five years we made the campus of 13,500 acres not only the best in Nigeria, but also in the whole of Africa, confirmed in the statement issued by the conference of all Commonwealth university vice-chancellors when they visited. The University also became a tourist attraction to all important government visitors to the country.

"Other Nigerian universities started taking a cue from our set up. Principal among them was the University of Ilorin, which also employed a Kewite to head the Parks and Gardens Unit, Lagos State University, also headed by a Kewite, and the University of Lagos where the grounds are run by a Ghanaian Kewite.

"In August 1976, the University of Ife Parks and Gardens, in collaboration with the Department of Continuing Education, sponsored the first four day workshop for horticulturists and landscape gardeners and this became an eye-opener to many Nigerians that horticulture can be a worthwhile profession.

"The history of garden development in Nigeria cannot be complete without the activities of Kewites — in fact, we Kewites introduced professional horticulture, as distinct from agriculture, to Nigeria, aided by Kew Gardens' admission of Nigerians on her training programme.

"In March 1989, Kewites in Nigeria grouped themselves together to establish the Nigerian Institute of Landscape Horticulturists, exclusively for those employed in ornamental horticulture and landscape technology. The membership is now over 50, with myself as current President, first Vice-President Mr. M. Adelowokan (1979) (Principal Horticulturist with the Nigerian Institute of Horticultural Research, Ibadan), and second Vice-President Mr. Solomon Tubosun (1978) (Chief Horticulturist, University of Ilorin), all Kewites. Another Kewite associate is Mr. James Osi (1980) of the Estate and Works Department, Federal University of Technology, PMB 1526, Owerri — Imo State, Nigeria. A number of Nigerian botanists at the country's universities have spent time at Kew Herbarium.

"If the Kew School of Horticulture will open her gates to take on more qualified Nigerian applicants, whom we can help to screen before recommending them for admission, the future of horticulture and of Kewites in Nigeria will be very bright.

"I retired voluntarily from government service in 1984 to establish Hortico Works Nigeria Ltd., Ipaja, in Lagos State, of which I am the Chief Executive. It is a company functioning as horticultural consultants, garden specialists and landscape contractors. In 1990 I was elected a Fellow of the Institute of Horticulture and in 1992 was conferred with a Chieftaincy, title Maiyegun of Ilewo — Abeokuta — Ogun State.

"We Kewites in Nigeria have created the awareness — Nigerians now seek professional guidance in the upliftment of their environment — but there have been no new Nigerian Kewites for some time now. We need at least a Nigerian Kewite a year as they are the only good horticulturists around."

Errol Scarr, Director of Parks, Recreation and Beaches Department for the City of Durban, writes about Kewites in Southern Africa:

"Brief research through the annals of Horticulture in Southern Africa has revealed that at least 28 Kewites have played an active part in horticulture in this area during the past 100 years.

In 1893 James Wylie was on the staff of the Durban Botanic Gardens under the curatorship of John Medley-Wood and, during the last decade of the 19th century, extensive collections of plants — both living and herbarium specimens — were sent to Kew. Among other Kewites who played a major role during the 20th century include Percy Robertshaw (1922), F. R. Long (1908), W. J. Newberry (1903), Walter Everitt (1928), Frank Cook (1921), Henry (Harry) Bruins-Lich (1928), Frank Thorns (1928), Bill Sheat (1939), Les Prosser (1938), Tom Arnold (1931), A. Finlay-Gunn (1932), Brian Till (1955), Cedric van Rynveld (1938) and Jimmy Aves (1939).

"Currently that tradition is being maintained by people such as Dr. D. J. B. Killick (1957), John Winter (Curator, Kirstenbosch) (1964), Mark Theron (Deputy Director, Pretoria) (1963), Mike Bentall (Deputy Director, East London) (1964), Gilbert Briscoe (recently retired Deputy Director, Johannesburg) (1961), Errol Scarr (Director, Durban) (1967), Hans van der Breggen (National Roads) (1961), and Vernon Rippon (Durban), while Andrew Balfour (1968), Tony Hitchock (1960) and Jennifer Scarr (1967) are in private practice.

"The political situation in South Africa is currently undergoing radical changes and one of the biggest tasks facing anyone in the profession will be to make horticulture/botany relevant to the millions who are battling to survive. Ethnobotany and urban agriculture will play a vital role in the next decade and any Kewite who has an interest in these fields will be able to make his/her mark and ensure that Kew continues to have an influence on the preservation of our environment into the 21st century."

John Taylor, writing from Christchurch, has provided a most thorough survey of the work of Guild members in New Zealand.

"New Zealand has been well served over the past hundred years by its own native-born Kewites and by many emigrants who have adopted to settle in our country. Because no reliable information has been kept and no formal organisation of Kewites has ever been formed, these notes may have some omissions for which an apology is extended.

"The first recorded Kewite to settle in New Zeland was a Scotsman, David Tannock, who left Kew in 1898 to take up the position of Superintendent of Reserves and Botanic Gardens in Dunedin. He became an early leader of horticulture in New Zealand and virtually formed the N.Z. Institute of Park and Recreation Administration. He was author of *Manual of Gardening in New Zealand* (two editions), a long-serving newspaper columnist and radio broadcaster on gardening, and a much sought after speaker to botanical and horticultural organisations. He was awarded the O.B.E., was an Honorary Life Member of the N.Z. Institute of Park and Recreation Administration and was an Associate of Honour of the Royal New Zealand Institute of Horticulture (A.H.R.I.H.). He passed away in 1952.

"It appears that three early Kewites entered the commercial nursery business at the turn of the century, namely George Mills (1900), C. Snow (1903) and W. Swan (1904).

"An outstanding Kewite was M. J. (Morris) Barnett who worked his passage on ship to England in 1912 to enter Kew. In 1914 he joined the army, was wounded at the Somme in France and returned to New Zealand in 1917. Before retirement he was Director of Parks, Reserves, Plantations and Botanic Gardens in Christchurch and he played a dominant role in horticultural administration and education, both locally and nationally. He was awarded the M.B.E., was an Associate of Honour, R.N.Z.I.H. and his most prized award was that of the A.H.R.H.S. The Barnett Memorial Lecture is conducted every two years by the prestigious Canterbury Horticultural Society in his honour.

"Following him was J. A. (Jim) McPherson (1924), who made a name for himself in New Zealand as Director of the Christchurch Botanic Gardens before taking up the appointment of Director, Parks and Reserves in Auckland. Many features were set up in the Christchurch Botanic Gardens by Jim McPherson, such as the vast daffodil woodlands in Hagley Park, the attractive rose garden and the extensive alpine and native plant garden.

"Brendan P. Mansfield left Kew in 1925 and at the time of his early death in 1950 he was Deputy Director, Parks and Gardens in Christchurch. "A well respected and knowledgeable Kewite who passed away recently was A. W. C. (Sandy) Anderson (1926). He retired from the position of Superintendent, Parks and Botanic Gardens, Timaru, and was an Associate of Honour, R.N.Z.I.H., an Honorary Life Member of the N.Z.I.P.R.A. and a holder of the Loder Cup. This Cup is a top award for the protection and preservation of N.Z. native flora. He wrote two books, *The Coming of the Flowers* and *Plants of the Bible.*

"C. H. (Clarry) Jones was at Kew in 1929-30 and upon returning to New Zealand he established the very successful Kowhai Nurseries in Christchurch. Clarry is now 84 but has suffered a serious stroke.

"D. H. (Dennis) Leigh (1933) passed away several years ago after retiring as Superintendent of Parks and Reserves, Nelson.

"J. G. (Jack) Mackenzie (1934) retired as Superintendend of Parks and Gardens, Hastings.

"A. G. Kennelly (1935) was with the Horticulture Division, Department of Agriculture, in Dunedin for many years.

"The *Kew Guild Journals* list three persons who left Kew in 1937. F. J. E. (Frank) Jollie, N.D.H.(N.Z.), Cockayne Gold Medalist, was Foreman, Christchurch Botanic Gardens, 1940-44, now deceased. George Dean, who became Director of Parks and Gardens, Auckland, now deceased. Also J. W. (John) Ewart, Taurange?

"R. E. Purrott (1938) was on the staff of Duncan and Davies Nurseries.

"Three New Zealanders left Kew in 1939. L. S. Lannie (Laurie), who retired as Superintendent, Parks and Gardens, Napier, now deceased. R. W. (Robert) Balch, N.D.H.(N.Z.), Cockayne Gold Medalist, retired as Deputy Director, Parks and Gardens, Dunedin, now deceased, and D. C. (Dugald) McKenzie who died suddenly before retirement as Superintendent, Parks and Gardens, Palmerston North.

"J. G. (Joe) Short (1940), now deceased, retired as Curator of Grounds, Victoria University, Wellington. J. Lewis (1941), whereabouts unknown.

"There are three names listed as leaving Kew in 1947. J. H. (John) Edwards, now deceased, who retired as Superintendent of Grounds, New Plymouth Hospital Board. L. F. (Len) McElroy, now deceased, who came to New Zealand on being appointed Lecturer in Horticulture at Lincoln College, now Lincoln University. J. O. (John) Taylor, M.B.E., who returned to the Christchurch Botanic Gardens, studied further in the United States and, upon his return, set up a wholesale nursery business. After selling the business he became Senior Lecturer, Department of Horticulture, Landscape and Parks at Lincoln University until retirement. He is currently President of the Royal N.Z. Institute of Horticulture and President Elect of the Kew Guild (1994).

"In 1952 I. D. (Ian) Galloway left Kew and rejoined the Wellington City Parks and Gardens Department. He subsequently became Director, a position he held with distinction. He was elected an Associate of Honour, R.N.Z.I.H. and an Honorary Life Fellow of the N.Z. Institute of Park and Recreation Administration. As Chairman of the Institute of Parks he steered this organisation through many years of Local Government reform, promoted the university training of parks students and set a high standard of horticulture in the Capital city until his sudden death in 1985.

"J. Appleby (1954) has been with the Plant Diseases division, D.S.I.R., Auckland.

"An Auckland Kewite, P. J. (Phil) Jew, M.B.E. (1955) has held the position of Parks Manager, Auckland Regional Council, since 1966 and will be retiring next year. He has been largely responsible for extending the regional parks of Auckland to some 33,600 ha and he was the driving force which brought about the establishment of New Zealand's newest and most extensive Botanic Gardens in 1982.

"Also leaving Kew in 1955 was D. D. (Des) Riach. For many years Des was Parks Superintendent in Masterton, before becoming Superintendent of Grounds for the North Canterbury Hospital Board. Now in retirement Des is Secretary of the N.Z. Alpine Society, a dedicated grower and an authority on alpine plants in New Zealand.

"After returning from Kew, W. M. (Bill) Rogers (1956) worked in the Christchurch Botanic Gardens and then moved to Auckland to pursue his horticultural interests.

"W. Dunnenberge (1959), whereabouts unknown.

"In 1960 C. I. (Ian) McDowell commenced work at the New Plymouth Parks Department, where he is now a Parks Officer. For several years he was an active committee member of the R.N.Z.I.H. and Chairman of the Taranaki Branch of the Institute.

J. J. D. (David) Low (1961) and his Kewite wife (1964) have been working and living in Napier since leaving Kew.

"A. Geddis (1961) is a landscape consultant in Auckland.

"G. M. (George) Fuller, M.B.E., now retired as Curator, Pukekura Park, New Plymouth, has done outstanding work with the cultivation of orchids. He is an accomplished writer and photographer on this subject.

"A. D. McArthur (1963), whereabouts unknown.

"R. E. (Ron) Lycette (1966) was Grounds Superintendent, Waikato University and is now at Sydney University?

"G. F. (George) Smith (1968), is Curator, Pukeiti Rhododendron Trust Gardens, New Plymouth. He has made two plant hunting trips to New Guinea collecting rhododendrons.

"P. J. (Pamela) Gibbons (1980), now married, is a part-time horticultural tutor at Lincoln University.

"C. W. (Chris) Close (1981) is Parks Manager, South for the Lower Hutt City Council."

Past President (1987-88) **Noel Lothian** has provided a comprehensive account of Kewites in Australia:

"Australia, like all 'colonial' and later Commonwealth countries has greatly benefited from having their young gardeners admitted to the Kew Gardens training scheme. The results have been beneficial through the entire gambit of horticultural activities — from private gardening, nursery trade to local and central government and onto educational establishments. Thus a wide influence through these activities to the general community has occurred.

"It is not known if any Australians are listed in Volumes 1-4 of the *Kew Guild Journal* (see note at end of entry — *Ed.*), but so far as can be discovered, the first Australians to enter Kew as students were John Boorman and Albert Green in 1885, two years before the Guild was established! On return both became involved in the land by farming and fruit growing. The next was William Leslie in 1899, and he also returned and set up a successful orchard in Queensland.

"Another who followed this calling was William Dearling who left Kew in 1891. He had a good orchard in Queensland.

"During the first decade of the present century, two Australians gained entry to Kew, W. H. Paine (1905) and H. E. Child (1911). The former established a successful nursery in Sydney, after many years as a Kings Messenger, and is commemorated by **Campanula garganica** 'W. H. Paine', named for him before his return to Australia. H. E. Child was in charge of the gardens surrounding a church convent in Melbourne.

"Two notables who made major contributions to horticulture and parks work were Jock Lawson and Perce Travaskis, both entering Kew in 1927. Lawson established a very fine Parks and Gardens Department in the coal mining town of Yallourn, eastern Victoria. Perce Travaskis had a very varied career covering local and central government work and later at Burnley Horticultural College, Melbourne. The latter passed away in 1991 and all the above died many years earlier.

"I. V. Thornicroft (1928) spent most of his working life, after leaving Kew, as Superintendent of the Hobart Botanic Gardens, Tasmania.

"Two Kewites about whom little is known are Mrs. N. L. Roberts (maiden name Watson) (1922) and H. Ryall (1913). Both lived in Victoria after completing their Kew training and may have been from England.

"G. H. Addison (1938) and L. A. Richardson (1931) have both migrated to Australia after each was a P.O.W. in Japanese hands during World War Two. The former was Superintendent of Singapore Botanic Gardens while Richardson was Superintendent of the Palace Gardens, Johore Bahru, Straits Settlements (Malaysia). Both now live in retirement in West Australia.

"A. S. Wilson (1936) was in India for several years after Kew and retired to West Australia where he died in 1985.

"Roy Rumsey (1932) returned from Kew to enter the family business of Herbert J. Rumsey and Sons Ltd. (later Rumsey Seeds P/L). In 1946 he left the family business and was Nursery Manager at Andersons and Co. P/L until 1950 when he and his wife Heather started their own nursery growing trees, shrubs and roses, later specialising in species and old cultivars of roses. Though his wife has now retired, at 83 Roy still looks after the office and does quite a lot of manual work in the nursery. He writes that 'there is a lot to be said about the Kew training. One learns a lot about plants, widens ones scope in thinking and gains great experience in how to live, work and have our being, with people of many different creeds and nationalities'.

"Noel Lothian (1940), after Army service in New Guinea, was a Lecturer in Horticulture at Lincoln University, Christchurch, New Zealand for a few years before being appointed Director of Adelaide Botanic Gardens, Australia, from which he retired in 1980. He is still active, lecturing and doing advisory work as well as contributing articles to botanical and horticultural journals both locally and overseas.

"Two women joined Kew during the 1940's. Miss P. Weston (1948) and Mrs. E. McCulloch (1944). The former married a Kew student, Arnold Himson, and now lives in Tasmania. After Kew Mrs. Himson worked in an alpine nursery in Geneva and later in various horticultural establishments in England before migrating to Tasmania. Arnold Himson worked with the Queensland Forestry Department, then with C.S.I.R.O. in the Northern Territiory and later to Papua New Guinea for the Department of Agriculture, where he was instrumental in introducing high yielding rubber clones. Then in 1959 he went to Tasmania and established an apple orchard. Arnold is well known for his initiative and carrying out the first and only crossing of Bass Strait in a balloon! Pauline and Arnold Himson are now retired to a five acre property outside Hobart where they are still both active in their 'hobby'! Mrs. McCulloch (1944) (née Thompson) migrated to Australia many years ago and now lives in Newcastle, N.S.W.

"Phil Wood (1950), after several years in England, came to Western Australia in 1978 and since that date has been involved with managing various nursery enterprises. He also grows, on his own property, long-stemmed roses for the florists' market.

"Rob M. Hardy (1954) has had an extensive career in many branches of horticulture. He started off in general horticulture, then for many years was in senior positions in charge of outside staffs at Adelaide Botanic Gardens. He then moved to Burnley Horticultural College, Melbourne, from which he retired several years ago and now lives outside Melbourne.

"During the 1960's a surge of Australians gained entrance to Kew and all have returned to their homeland, where in various fields they have made their mark. John Beswick (1967) is now the Landscape Officer with the State Highways Department, and R. E. Lycette is carrying on horticultural activities in Victoria. J. Mitchell (1966) is a senior partner with his firm of architects and consulting engineers in Sydney and Tony Whitehill (1962) has continued his work as Tree Advisory Officer with the Adelaide Botanic Gardens. One of his main activities is the establishing of experimental tree and shrub plots in low rainfall areas (less than 15 inches per year) to test their hardiness. Recently he has been instrumental in three to four new sites in country areas through the west and north of Adelaide.

"Three from Australia attended Kew training during the 1970's. Alan Wilton (1972) has a landscaping and advisory business in the Adelaide Hills. Nigel Sinnot (1970) returned to Australia and more recently he and his wife decided they had had enough of the dense metropolis and have obtained a slab of rural Victoria to which they have retired. Alexandra is near the great Eildon Weir, a popular tourist and boating venue in central Victoria. Ralph Jones continues to trade successfully in his nursery at Port Lincoln at the foot of Eyre Peninsular, South Australia.

this is a very important port for South Australia and in recent years has become the headquarters of various enterprises, therefore Ralph is kept busy supplying plants and advice to his numerous customers.

"There are several other Kewites living in Australia, having migrated either shortly after leaving Kew or retiring to it. Frank Hebden (1947), who after army service spent his working life with the War Graves Commission before coming with his wife to settle in the Blue Mountains just out of Sydney. (Clive and Julie Popham (née Hyde-Trutch), both past students in the 60s, are based in Melbourne where Clive is Superintendent of the University Gardens — *Ed.*)

"Others about whom it has not been possible to get any details include A. F. Pfeffer (19?) who lives in N.S.W., and R. L. Tomlin lives in Victoria.

"A recent letter from Lorraine Perrins (1990) says that after arriving back in Australia in 1990 she has been working at the Royal Botanic Gardens Sydney, first working in the Rose Garden and later being promoted to Leading Hand and transferring to the Nursery and Glasshouse Section where she is responsible for a wide range of plant material for display and research. She has now been granted six months leave to visit Indonesia and Malaysia to study tropical plants.

"She reports on meeting various Kewites who have been visiting either temporarily or for a work permit period. Jane Runicles is on holiday in Australia while Jon Allin is currently on a one year working permit. Russel Forbes is returning home after completing the Diploma course, and Penny Wood visited Australia for two months during her backpacking around the world."

(The following Kewites living in Australia are mentioned in the second edition of the Journal: Alex M. Cowan (1880), nurseryman, Brisbane; Bruce Ferguson (1886); Thomas Hanley (1885); Walter Hill (1851), ex-Curator, Brisbane Botanic Garden; Philip MacMahon (1882), Curator, Brisbane Botanic Garden; William McHardy (1886), Mooroopna, Victoria; Alexander Shaw (1888), Assistant Curator, Melbourne Botanic Garden; Robert Whittle (1882).)

In recent years, Arabia and the Persian Gulf have seemed to offer attractive career prospects to adventurous Kewites. As **Geoff Dykes** reports, salaries are no longer as generous as they were, though challenging and rewarding opportunities still exist.

"The wealth associated with the discovery of oil in the first half of this century has been the catalyst for urban development. With this urbanisation came the desire for beautification on a large scale, planting anything that would grow in the very variable and often hostile environment.

"Many areas in the fertile wadis and the cooler uplands have been farmed for generations, but the use of ornamental plants for landscaping is a new concept, and generally the desire is for landscaping in a Western style.

"Horticulture in a professional sense is really in its infancy in Saudi Arabia, much of the experience coming from the expatriates of many countries. Some of these expatriates have been British and many well known companies have had contracts in the Arabian Peninsular and Persian Gulf areas.

"It is possibly within the last 20 years that the movement towards city landscaping on a large scale has taken hold with the construction of large government funded projects, such as airports and Royal Commission industrial/residential cities.

"It is within this era that most Kewites would have ventured to this part of the Middle East. In search of a challenge, to gain experience, and often the lure of a larger salary.

"The challenge is still there, to grow plants in a difficult environment, to improve the quality of life with those plants, gaining an experience to be found in few countries, but alas the larger than life salaries are like the rain in the desert, fast disappearing! So too are the budgets associated with projects governmental and private.

"The move towards employing staff with lower salaries will prove to be a disincentive to British expatriates who soon will find no difference in salaries and have the added complication of leaving a secure position. They may come for the experience, but for only a short time if circumstances change in either country. Those Kewites that have been here and stayed long

208

enought to understand the country and climate have been able to make a contribution to the horticulture of this mostly desert kingdom.

"Those I have heard mention of over the years, Tom Riseley (1958), who had Leycaster Landscapes in Riyadh. Tony Monaghan (1978) who worked for V. E. B. Ltd. Riyadh.

"Another Kewite, Mr. Bill Bessler, is a Horticulturist in Jeddah at the International Airport Authority's extensively landscaped King Abdul Aziz International Airport. It is said to have the largest acreage of any airport in the world.

"The airport nursery is truly 21st century technology and produces all the internal and external plants required, as well as cut flowers. Bill has made an impact through his love of plants and the desire to improve the diversity of the narrow range of both genera and species available.

"I, in my small way am trying to achieve the same aims in the National Guards Medical Facility, The King Khalid National Guard Hospital, also in Jeddah. The landscaped gardens here are smaller scale, providing restful, recuperative surroundings for the patients and an environment suitable for the residents who live on site, in the Medical City.

"The future of horticulture here is a bright one. With the increase of gardens, both municipal and private, the interest may be passed on to the young, and should gain favour as a profession or vocation. The school leaver would then require training at technical school or at university. There are many universities here with extensive acreages surrounding them. Not one has yet incorporated any form of botanic garden in those acres, even though they are landscaped to a degree, and at least one supports a landscape design course within the Department of Engineering. There should be a niche in these three areas where the Kewite can play a role in passing on the values that Kewites have, their ability to adapt to the situation, their love of plants and the growing of them. This should put the Kewite in a position where they are as precious as water in this arid land."

Patrick Nutt (1953) has worked since 1957 at Longwood Gardens, Pennsylvania, a Mecca for visiting gardeners and a centre of the highest horticultural excellence. Here he has risen through the ranks from Gardener, to Section Head, to Foreman of Collections, to Display Foreman, to Floriculturist. In March 1992 he was promoted to the post of Assistant Horticulture Department Head, though he continues in his current post as Floriculturist with overall responsibility for Indoor Horticulture.

An early endeavour at Longwood was to start a waterlily collection. With Kew's present Director, Ghillean Prance, success in raising **Victoria** 'Longwood Hybrid' in 1960 was followed by further expansion of the waterlily collection through his collaboration with George H. Pring (1906), among the most eminent of Kewites to have worked in North America.

Patrick Nutt has brought to our attention the article in the *Missouri Botanical Garden Bulletin*, Vol. LI No. 2 (February 1963) devoted, on the occasion of his retirement, to George Pring's achievements in a lifetime in horticulture. Starting at Kew as a garden boy when he was 14, he was allowed to become a student at 19, two years younger than the official limit. Joining Missouri Botanical Garden after leaving Kew, he soon set about expanding the collection of tropical orchids there, starting with 300 plants, but within a few years "at least equaling the collection at Kew".

Pring's most famous work was in the breeding of waterlilies, a project he started in 1914. Among the famous and widely grown cultivars he raised are 'Mrs. George H. Pring', 'General Pershing', 'Aviator Pring', 'St. Louis Gold' and blue-flowered 'Henry Shaw', named for the founder of the Missouri Botanical Garden. No work on waterlilies is complete without reference to this important and successful project: a chapter on hybridisation devoted to Pring's carefully judged and meticulously recorded crosses is included in Philip Swindells' *Waterlilies* (1983).

Pring was President of the Kew Guild in 1950-51 and an obituary of this most eminent Kewite appears in the *Guild Journal* for 1974.

Allen Paterson, Director of the Royal Botanical Gardens, Hamilton, Ontario, writes:

"My obvious source of information on Kewites in Canada, east of the Rockies, has been Dr. Leslie Laking (Kew 1939/41), my predecessor as Director of Royal Botanical Gardens, Hamilton, Ontario. He was still at Kew when these Gardens, having grown out of the Hamilton Parks Board in the 1920's, became a Provincial Institution by Act of Parliament. Leslie Laking was first appointed Horticulturist at R.B.G. in 1946, thus serving the Gardens for 35 years. His late wife Barbara (née Tarver) was also a Kewite and James Redman (Kew 1939/41) joined R.B.G. as Superintendent in 1949. Thus with my own dozen years here Kewites have guided Canada's major botanic garden (we do have some 2,700 acres, including a stretch of the Niaqara Escarpment, a designated World Biosphere Reserve) for nearly half a century.

"Also impressive is the Kewite oversight of the Dominion Arboretum in Ottawa ('The Nation's Capital'). Arthur Buckley (dates ?) was appointed Curator in 1938 to be succeeded in 1967 by Trevor Cole. The latter, with his wife Brenda (née Briggs, Kew 1960), continue to be central to horticultural activity in that part of Canada. Just north of Toronto David Tomlinson (1959) has his own garden design practice and runs an enviable garden, Merlin's Hollow, as a demonstration of his ethos.

"Horticulture in Eastern Canada is obviously affected by the exigencies of a Continental climate. Even here in Hamilton at a latitude that is slightly to the *south* of Marseilles, winter temperatures can occasionally drop to -25°C. Few broadleaved evergreens enjoy these U.S.D.A. Zone 5/6 conditions and the garden palette becomes further reduced in the wide cross-country bands of Zones four and three. Practical horticulture as a career is similarly affected, being performed as a part-time occupation in many areas. Nonetheless the nursery trade flourishes as amateur gardening enjoys something of a renaissance and interior 'plantscaping' continues to be a growth industry. With a reduction in Government funding to research stations there has been a reduction in ornamental plant breeding projects in recent years.

"Roles for Kewites in terms of job prospects are very limited: emigration from U.K. is not easy unless a job position is assured while, in turn, prospective employers have to demonstrate that no Canadian can be found to fill the position in question. Nonetheless the type of training in plantsmanship that Kew, building upon a traditional British Garden background, provides has no comparison here."

Dan Campbell, Manager of the Berkeley Botanical Garden, University of California, writes:

"There is little information I can give you about the part played by Kewites in the western United States during the last 100 years. I have come across the name of James Douglas Bishop, who trained at Kew between 1900 and 1905. He settled in Pacific Grove near Carmel and started the Pine View Nursery. He was a pioneer breeder in tuberous begonias and produced a number of hybrids that are still in the trade (such as 'Marin Beautiful', an apricot coloured form). Mr. Bishop is also remembered for landscaping the newly renovated (1920's ?) Carmel Mission and, as a result, contributed to the romantic Spanish style of gardens now associated with mission architecture.

"As for the present, Mr. Jonathan Donchin (now Plant), who graduated from the Kew course the year I started, has made quite a name for himself as a landscape architect, practicing in the Napa Valley.

"After 14 years as manager at the U.C. Botanical Garden, I would say that my greatest achievement has been to survive. As with most managerial staff in the U.S. these days, I find that I spend most of my time processing paper. My only horticultural claim to fame is the discovery and introduction of **Zauschneria** 'Solidarity Pink' and **Fremontedendron** 'Margo'.

"Six years of drought have not turned the American public away from a seemingly endless love affair with English gardens. There will always be a place for future Kewites here, in the making of gardens and in the defining of taste.

Barry Phillips, now Curator of the Sir Harold Hillier Gardens and Arboretum, near Romsey, Hampshire, writes about Kewites in the Caribbean. Barry tells us that David Ralston (1963) has been Superintendent for the last 20 years in St. Georges at the Castle Harbour golf course, which he has developed into one of the finest of many in the small islands of Bermuda. Gordon Groves (1937) initially went to Bermuda to run the agricultural station for the Department of Agriculture. Under his influence it was developed into a botanical garden. He was eventually made Director of the Department until his retirement in the early 1970s. He is still alive and well and living in Bermuda with his wife Rosemary.

Barry goes on to describe his own work in Bermuda.

"In 1977 I left Merrist Wood College to begin a three year contract in the post of Horticulturist for the Department of Agriculture and Fisheries. The position involved landscaping of all Government building projects, developing an apprenticeship training scheme for young Bermudians in agriculture and horticulture, co-ordinating a tree development programme and developing research into the propagation of the Bermuda Juniper **Juniperus bermudiana**.

"During my time in Bermuda I was also able to engage in a number of plant collecting expeditions for Kew. The first of these was in 1979, when I joined Dr. David Phillcox on a five week expedition into the mountains of Trinidad and Tobago. our main aim was to search for **Bromeliaceae** and **Orchidaceae** for the flora of Trinidad and Tobago, which Dr. Phillcox was then writing. In 1983, four weeks were spent hunting for rare and unusual orchids in the mountains of San Domingo, with the Bermuda Conservation Officer, Dr. David Wingate, an ornithologist and keen botanist. Over 110 different wild source numbers were collected and sent back to R.B.G. Kew.

"From 1980-1988 I was able to conduct and co-ordinate activities and research into Bermuda's other threatened native and endemic plants. Linking with the I.U.C.N., I co-ordinated surveys and field studies into all Bermuda's rare and threatened species for the *Red Data Book*. In particular my work focused on the Bermuda Juniper, **Juniperus bermudiana**, an endemic species, once dominant throughout the islands. Tragically, in 1941, an accidentally introduced scale insect devastated virtually 90% of all Juniper populations. Despite setting up a number of special labs and introducing a range of over 100 different predators (of which only two were partly successful), by 1975 an estimated 95% of the mature junipers had been killed by the rampaging scale insects. On an island of just 21 miles long by two miles wide, the repercussions of this ecological disaster were very obvious.

"Little or nothing had been done in respect of propagating the ailing species in the years that followed. During the late 1970s a range of cuttings were taken from surviving trees with a view to propagating them vegetatively. Success was minimal in the early days, but in 1981, after attending an international tree conference in England and discussing the problem with former colleagues, new ideas emerged.

"John Whitehead had indicated that he had met with some success in propagating juniper at Merrist Wood, from soft tip cuttings. Using new media and new techniques, the method was introduced and tried in Bermuda with unthinkable success. Soft tip, young vegetative cuttings were rooting in a matter of six weeks. The cedar problem had to a degree been conquered. It however still remained to be seen whether these trees would grow on and form good specimens, which indeed they did. By the time I left the island in 1988 over 8,000 junipers had been introduced into the Bermuda landscape. It wasn't a question of concentrating all my eggs in one basket, a whole range of other endemic and native species, including the Bermuda palmetto, **Sabal bermudiana**, and the Bermuda Olive wood tree, **Cassine laneanum** were also propagated in some quantity.

"In 1987, shortly before leaving to return to the Sir Harold Hillier Gardens as Curator, I was made an Honorary Life Member of the Bermuda National Trust for my efforts in saving from extinction, Bermuda's much love **Juniperus bermudiana**.



Compiled by Graham Burgess

W. H. (BILL) BRIDLE (1912-1992)

Mr. W. H. Bridle, born in 1912, commenced work at a very early age, under the supervision of his father, who was Head Gardener to Lord and Lady Allington at Crichel Gardens in Dorset. Unfortunately his father died, but in spite of this Bill continued to work at Crichel with the new Head Gardener. A few years later Bill moved on, widening his horizons, taking a post with a Sweet Pea specialist in New Milton, Hampshire.

However, Bill pressed on feeling he must gain further experience, so he decided to cycle to London, hoping he would get the appointment he really wished for. He called at Frogmore



Bill in 1981, aged 69.

in Windsor, but no staff were required so he persevered, calling at the estate 'The Willows' just outside Windsor, owned by Sir Dhunjiboy Bomanji. Here he obtained a good situation gaining several more years of experience. Still wishing to gain further knowledge, he moved again to work for Sir Philip Sassoon at Trent Park, Middlesex, in 1933.

In 1937 Bill married Mary and took the post of Head Gardener at Mr. Murdoch's residence in Brenchley, Kent. This not being a happy and fruitful situation, he took an appointment as Head Gardener at the Ranelagh Club in Barnes, where he settled and enjoyed three and a half happy years gaining much experience. Regrettably the War then came along, changing his life completely. In the meantime, awaiting his call-up to the Forces, Bill was engaged by a Landscape Gardening firm in Wimbledon.

He spent four and a half years in the forces, travelling through the desert and many countries

with all the traumas of war. Eventually he arrived back in England and started looking for work. His mind turned to the Royal Botanic Gardens at Kew, where he obtained a position in 1946 as a Foreman Gardener working in the Temperate House pits, growing plants for the Temperate House. Then as Supervisor he worked in the Palm House and later in the Temperate House.

In addition to all the more general duties necessary for the effective maintenance of the Temperate Collection Bill made a special effort with the giant fuchsia baskets that used to hang over the central walkways of the Temperate House. Individual plants would be grown and shaped ready for installation in the great hanging baskets. Meticulous attention was given to watering and feeding throughout the summer, at the end of which it was difficult to find a space to get the water in. From 1964 Bill and his wife lived with their daughter Marjorie in a flat in the gardens.

Bill worked at Kew for 32 years. He retired in 1978, moving to Cranwell, Lincolnshire, and after 14 happy years in retirement, he died on 2nd September 1992.

FRANK GOLDSACK, F.G.A., N.D.H.

We sadly report that Frank Goldsack died one week before his 80th birthday.

Prior to his entering Kew he shared a bedroom in The Bothy with C. A. Joy, that was in 1934.

Both men eventually entered Kew. In 1937 Frank left for a career in education. In 1939 he was established as a horticultural instructor in Wimbledon.

Mr. Joy had been at Frank's wedding to Kathleen at Richmond and Frank used to call in on the Joys as he cycled through Wimbledon.

In 1944 he moved west to Weymouth to take up another educational appointment as Dorset County Organiser of School Gardens and Rural Sciences. He was released to go on a tour in Northern Germany where he lectured on Horticulture to the Naval Forces on behalf of the Central Advisory Bureau to H.M. Forces.

Frank continued to lecture after he retired from Public Service.

To his surviving relatives and friends we send our condolences.

A. E. HARPER

A. E. Harper passed away in September 1990, but the news did not reach us until September 1992.

He entered Kew on 1st June 1931 after working in the illustrious vegetable garden at the Cheadle Royal Hospital in Cheshire. There were 38 students at Kew at that time.

In Plant Physiology and Ecology he excelled. He and Hubert Parker both achieved Distinctions. Although he could not have had very much money he donated a shilling to the T. W. Taylor Memorial Fund. He was an active member of the British Botany Club.

In 1933 he left for the Parks Department in Warrington where he spent a lifelong career beautifying that northern city.

He passed away in September 1990 after 59 years continuous membership of the Kew Guild. The Guild offers its condolences to family and friends.

WILLIAM NELMES

We have had news that William Nelmes passed away on 5th January 1993. A full Obituary will appear in next year's Journal.

To his remaining family and friends we offer our condolences.

BRIAN PERKINS

Brian entered Kew on 4th May 1936 from Manchester Parks Department. In 1944 he could be found in the Ferneries where he was the Foreman. He moved to the Orchids Section in January 1949.

In January 1950 he left Kew for Nairobi, Kenya and in 1964, when H. P. Greensmith retired, Brian took over as Parks Superintendent.

He retired from Nairobi County Council in 1967 and moved to Mombasa to enjoy a quiet life with his extensive orchid collection. Unfortunately the dreaded inflation and devaluation hit his pension, so he took up work again, subsequently carrying out about 100 landscaping projects, including major hotel grounds.

He was Guild President 1981/82 and a Life Member of the Guild. Brian's photograph may be seen on page 863 of the 1980 Journal.

We offer our condolences to Brian's family and friends.

PETER W. RODDICK

Time separates the body from the bones and so it has been with information about the Roddicks.

The sparse information we have tells us that R. S. Roddick entered Kew from Liverpool on 9th April 1947. Roddick, Peter W., entered on 16th September 1946. Robert left in June 1948 and Peter followed in the December of the same year.

They both returned to 32 Briardale Road in Liverpool. Robert moved to Wolverhampton in 1959 but returned to Liverpool in 1970. Peter was in Harrogate in 1948 and in Wingerworth, Derbyshire in 1964.

Were they brothers, twins? One has passed away. To his remaining relatives we offer our sympathies.

CHARLES RUDD

We sadly report the death of Charles Rudd.

He entered Kew on the 27th June 1927 from Pylewell Park in Hampshire. In 1928 he was a Sub-Foreman in the Temperate House where he stayed until he left Kew in 1930.

In 1933 he was established in the Parks Department in Leeds. He returned to the South in 1949 to work in the Parks Department at Wood Green. During the years between 1961/70 he was awarded an A.H.R.H.S. and his Diploma in Parks Administration.

August 1970 found him touring Australia and New Zealand and attending the Parks Conference in Melbourne.

When he retired he moved back up North to Huby in Yorkshire where, still a bachelor, he lived with his sister. She died in 1987 leaving him alone, but he enjoyed periodic visits from his old friend and colleague Miller Goult from Potters Bar. The two had done a lot of judging together.

Towards the end his memory completely faded away. He passed on aged 88 years on 25th September 1991. To his nephew, Brian, his only relative, we send our condolences.

PERCY TREVASKIS

Percy died on 2nd December 1991 aged 88. He had suffered a prolonged illness.

He was born in England and served his early apprenticeship with Barr and Sons, Hardy Plant Nursery in Cornwall and Aldenham Home Garden, Elstree, Hertfordshire.

On 20th April 1925 he entered Kew. His Mutual Improvement lecture was Daffodils. He got high marks in Geology, Soils and Plant Pathology and was an active member of the British Botany Club.

He left Kew in 1927 and took a job with the Imperial Bureau of Entomology at Farnham Royal, Buckinghamshire. Two years later he married and honeymooned his way to Melbourne, Australia, where he worked for the Nicholas family (famous for their product 'Aspro'). Their garden, Burnham Beaches, became one of the most famous and beautiful gardens in Australia. It is now the Alfred Nicholas Memorial Garden at Sherborrk, Victoria.

In 1936 he was appointed lecturer at Burnley Horticultural College, Melbourne, where he played a key role in forming the early careers of many of Victoria's future Park and Garden Officers.

In 1944 he was appointed Superintendent of the Parks and Gardens Department of Brighton City Council. Six years later he became State Superintendent of Parks and Gardens for the Government Public Works Department. During his time there, and until his retirement in 1964, he was responsible for the landscaping around schools, government buildings and police stations in Victoria.

Retirement did not stop him continuing with his life's work. He held numerous honorary positions and constantly lectured for the Council of Adult Education. He was one of the first members of the Royal Institute of Parks and Recreation and was honoured with Honorary Life Membership in 1974.

Noel Lothian, who provided me with the information for this obituary, reminds us of Percy's quiet, unassuming and kindly ways. To his family and friends we offer our sympathy.

D. C. ZAIDENBERG

We have been sadly informed by his widow that David Zaidenberg died on 20th May 1990. He was a loyal member of the Guild, not once letting his membership lapse since leaving Kew to return to Israel.

He spent a lifetime in the Botanic Gardens. His final post was Director at the Botanical Garden at Mikve, Israel.

Our sympathy is extended to his wife and relations.

OBITUARIES

By Graham Burgess

There is no better place to distil something of the Nature of the Kewite than in the obituaries column. Thomas Hardy's poem 'Heredity' offers a fitting reflection on death.

HEREDITY

I am the family face; Flesh perishes, I live on, Projecting trait and trace through time to times anon, And leaping from place to place Over oblivion. The years-heired feature that can In curve and voice and eye Despite the human span Of durance — that is I; The eternal thing in man, That heeds no call to die.

Thomas Hardy

There are essential elements of the Kewite which constantly reappear. The key one is an interest in plants; curiosity ranging from the gentlest to the most energetic. A sense of adventure and tenacity whether it be at the end of a microscope or at the end of a jungle trail. The carrying of these simple enthusiasms into all parts of society, constantly trying to persuade everyone that there is a place for plants. Some have concentrated on selecting from the depths of professional knowledge and passing it on through the media in a language that millions of plant and garden novices can understand. Kewites are lodged deep in most of the key horticultural management organs of society.

When compiling the obituaries I set off on privileged journeys. Increasingly as time progresses I know the people of whom I write, a clue to the fact that someone else will write the obituary of the man I know best.

First I have the name of the person and search to see when he or she left Kew. Then I search in the journals two or three years before that date. Then I find the year they came to Kew and from whence they came. This reveals something of their first great step, the one that brought them to Kew.

There may be names alongside that I have seen before, Kewites living and dead. As I search through the journals I may discover they have been involved in the Societies and Clubs of Kew.

The indexing often picks up new information. Kewites are great writers and periodically grace the journal pages with comment. As we read we learn where they are and what they think.

Some live quiet, hard-working lives and hardly ever change their place of work. Others travel to different parts of the world and settle there. Some seem to be restless from the start and move frequently from one country to another. Others scale lofty career ladders pressing upon the incredulous ears of grey committees the joy of plants. Educationalists upgrade the quality of training and scientists explore their secret topics in the hope that they can add to world knowledge.

Wherever and however they work they may be watched by the small band at Kew, The Kew Guild Committee.

As the Obituaries are compiled and published in the *Journal* they celebrate the lives of individuals but more so, proclaim the essential goodness of our profession. It is true that I view living Kewites with a special eye and sometimes wish I could elicit their help in future Obituaries, their own. The work is not morbid, far from it. Any one person can only perform a limited role even if, like many Kewites, one lives to a great age. The profession is the result of the work of many and it is very good to have the opportunity to return time and time again to listen to the

echoes from the past. In not speaking ill of the dead one is reminded of the waste of speaking ill of the living. Our own efforts will not be forever our own so it is good to be reminded that it is what we really leave behind us for others that is important.

You, the living, can share in all this by sending news about yourself and any other Kewites to the Personalia Section. You can write your own Obituary or send in information about colleagues, friends who have died. *The Kew Guild Journal* is an historic record about a wide-ranging part of our profession. Your role is important to make up the picture.

Please help me in this task.

I hope that the final message that is put in the *Journal*, whilst being touched with some sadness and sense of loss, contributes to a celebration of a Kewite's life spent in the service of our noble profession.

FINANCES OF THE KEW GUILD OVER ONE HUNDRED YEARS

By Rebecca Bower

The Kew Guild has grown from an organisation with a subscription rate of one shilling and, in its first published accounts in the 1894 *Journal*, assets of £2 to one in 1992 with a subscription rate of £10 and assets of £88,720. The major growth has been in the last few years, when the Guild has been very fortunate to receive some substantial bequests and legacies, as can be seen by the following summary.

YEAR	ASSETS
	£
1893	2
1902	220
1912	334
1922	528
1932	776
1942	656
1952	1,514
1962	3,024
1 9 72	4,387
1982	10,275
1992	88,720

Pressure of increasing costs for producing and distributing the *Journal* has usually been the leading factor in bringing about subscription increases, the history of which is as follows.

STUDENT	LIFE	ANNUAL	YEAR
		1/-	1893
	£1	1/-	1894
	£2	2/6	1919
	£3/3/-	5/-	1943
	£5/5/-	7/6	1951
	Ceased	7/6	1952
10/-		15/	1961
10/-		£1	1965
£1		£2	1974
£1.50		£3	1981
£3		£7	1983
£5		£10	1988

Until 1964 the various accounts of the Guild were all shown separately and up to 11 separate accounts have been shown for any one year in the *Journal!* At first there was just the Capital Fund, but in 1911 a Benevolent Fund was created to help Kewites in need. Two years later there was an appeal to members to help provide a pension for William Crisp and this was kept in

216

a separate Fund. The First World War brought a Prisoners of War Fund and at the end of the War the balance from this was transferred to the Memorial Fund, for which £171 was raised in total and this was used to buy the commemorative tablets for the Temple of Arethusa.

The Dummer Memorial Prize Fund was started in 1925 and 1926 saw the creation of the Educational Fund. Matilda Smith left the Guild £50 in 1926 and this was used to found another Prize and the Proudlock Prize Fund commenced in 1936. All these accounts appeared regularly in the *Journal* along with separate accounts for the Annual Dinner and Annual Tea.

There was considerable concern about the financial security of the Guild and in 1943 the Jubilee Permanent Security Fund was set up to strengthen its position. Regular appeals to members enabled the Fund to reach its target of $\pounds1,000$ by 1959. Various other methods have been used to raise extra funds for the Guild over the years such as the sale of emblems, the sale of Christmas cards, the Wakehurst Place book and raffles.

In 1964 a major change occurred when the Kew Guild became a Registered Charity. The decision was made to bring together all the various investments held and put them into the Charities Official Investment Fund. As a result all the funds and accounts were amalgamated into one and it became much easier to actually see what the financial position of the Guild was!

The next change of note to the finances of the Guild came in 1974 with the creation of the Award Scheme. There was a very active fundraising effort for this and the assets of the Guild have been enhanced by it ever since and valuable awards have been made to a great many Guild members.

1989 saw the start of the substantial growth of the Guild's finances with the receipt of the Tom Arnold bequest, £2,867, and the George Catt legacy, £7,673. Then in 1991 came the Edna Redman Memorial Fund of £25,731 and the Dallimore legacy of £14,700. The majority of these are for the Award Scheme and will enable the Guild to continue the excellent work it does in this area.

Finally, we should record the 14 Treasurers who have served the Kew Guild over its 100 year history.

1893-1907 1908-1909 1910-1924 1925-1928 1929-1930 1931-1959 1960-1961 1962-1964 1965-1970 1971-1975 1976 1977-1980 1981-1984 1985-1988 1989William J. Bean Harry J. Thomas John Coutts Reginald F. Williams Charles P. Raffil Lewis Stenning N. Hickman Tony D. Schilling John B. Simmons A. J. Hale R. Hughes R. Rule C. P. Bailes Ted Storey Rebecca M. Bower

KEW GUILD INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st DECEMBER 1992

INCOME

INCOME	31.1	2.92	31.1	2.91
	£	£	£	£
Annual Subscriptions	5,361.82		4,172.79	
Donations — General	1,094.68		281.03	
- Award Scheme	20,00		130.00	
- Centenary	70.00		—	
Legacies	500.00		15,569.27	
Edna Redman Memorial Fund	_		25,731.49	
		7,046.50		45,884.58
Dividends from Charities Investment Fund				
- General Account	1,156.43		1,140.83	
- Award Scheme	1,970.82		427.11	
		2 107 05		1 567 04
Destation		3,127.25		1,567.94
Bank Interest	1 400 40		1 507 00	
— General	1,488.40		1,537.99 906.62	
	441.88 50.44		906.62	
— Centenary — Charities Deposit Fund	1,440.71		1,620.09	
- Chanties Deposit I und	1,440.71	a	1,020.03	
		3,421.43		4,064.70
Sale of Emblems	38.50		117.00	
Less: value of Stock	(29.27)		(92.40)	
		9.23		24.60
Annual Dinner Receipts	1,950.85		1,793.00	
Less: cost	(1,549.67)		(1,765.30)	
		401.18		27.70
Award Scheme Soirée	191.67	401.10	226.62	21.10
Journal Adverts	445.00		645.00	
Journal Adverts	445.00			
		636.67		871.62
TOTAL INCOME		14,642.26		52,441.14
EXPENDITURE				
Kew Guild Journal — Printing	4,084.00		4,530.00	
Prizes awarded by the Guild	380.00		190.00	
Printing, Postage, Stationery	656.14		331.53	
Award Scheme Awards	1,800.00		1,825.00	
Insurance	40.57		40.57	
Bank Charges	437.39		443.50	
Honorary Officer's expenses	90.00		50.00	
Centenary Expenses	319.60		682.12	
Legal Fees	_		325.25	
Sundry	62.20		40.00	
TOTAL EXPENDITURE		7,869.90		8,457.97
EXCESS OF INCOME		6,772.36		43,983.17

218

KEW GUILD BALANCE SHEET AS AT 31st DECEMBER 1992

	31.12.92		31.12.91	
	£	£	£	3
INVESTED ASSETS				
Charities Official Investment Fund				
— General Fund	4,000.00		4,000.00	
Award Scheme Fund	45,400.00		19,700.00	
Charities Deposit Fund	13,370.00		13.370.00	
		62,770.00		37,070.00
CURRENTASSETS				
Stock — Emblems	782.50		811.77	
- Past Presidents Jewel	350.00		400.00	
	1,132.50		1,211.77	
Bank — General High Interest Account	15,802.02		36,906.62	
 Award Scheme High Interest Account 	8,490.55		6,219.06	
— Centenary High Interest Account	4,788.14			
— Current Account	524.94		676.98	
	30,738.15		45,014.43	
LESS CURRENT LIABILITIES				
Life Subscriptions	(119.70)		(135.97)	
Prepayments Centenary Dinner and Book	(4,667.63)			
		25,950.82		44,878.46
NET ASSETS		88,720.82		81,948.46
FINANCED BY				
Capital Fund	*	81,948.46		37,965.29
Excess of Income Over Expenditure		6,772.36		43,983.17
		88,720.82		81,948.46

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Rebecca M. Bower Hon. Treasurer

Jahr 21 a

Audited and found correct

lan Leese 12th January 1993

219

John Woodhams

Laurel Farm Herbs

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Join the Friends

Kew Guild Members are particularly welcome as Friends of the Royal Botanic Gardens, Kew.

To encourage as many Members as possible to join a special Friends Family Membership rate is offered of £15 per annum (normally £40). This is the same rate that is offered to current members of staff at the the Royal Botanic Gardens, Kew.

All the Friends benefits will apply, amongst them are; free entry to the Gardens, free guest passes (6 per adult member), KEW (the Friends Magazine) currently 3 issues a year

To obtain further information about the Friends and an application form please write, mentioning your Kew Guild Membership, to:-Michael Godfrey, Manager, Friends of the Royal Botanic Gardens, Kew Richmond, Surrey TW9 3AB.

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Thanks for all your assistance to our Society over many years

We have been involved in the study and cultivation of ferns and their allies for over 100 years.

If you would like more information, please write to:

Mr. A. R. Busby, 16 Kirby Corner Road, Canley, Coventry CV4 8GD.

"Have you thought about leaving something to Kew in your will?" Anna Ford



If you are thinking of revising your will - or making one for the first time - you could help secure the future work of Kew Gardens as well. Even a small bequest can help this living legacy continue.....

As a member of the Kew Guild you

know that the Royal Botanic Gardens, Kew is at the forefront of the conservation movement, helping to ensure a world worth living in. A legacy to Kew is a gift to our children's children.

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Simply write to: Legacy Department, Royal Botanic Gardens, Kew, FREEPOST, Richmond, Surrey TW9 3AB. (If you prefer, you may telephone 081 332 5922)

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G. Cole, C. D. Hallsworth, R. Chandler, Anthony Harvey, C. Hilton, M. Leppard, Allen Maguire, D. Maguire, William Parkinson, J. Reed, J. Smith, Graham Watts, Mike Wilkinson, and Allen Wilton.

If by chance any of you visit this part of the world, my contact address is in the back of this *Journal* (Tel: 01-920303). I promise you a good outing with a free lunch or dinner, or both, in any Five Star Hotel of your choice in Lagos. My family and I are also wishing you and all yours Happy Centenary Anniversary. CHIEF CHRIS BAMKOLE, F.I. Hort.

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