GERTRUDE ELIZABETH LAURENCE

FORGOTTEN BOTANICAL ARTIST.

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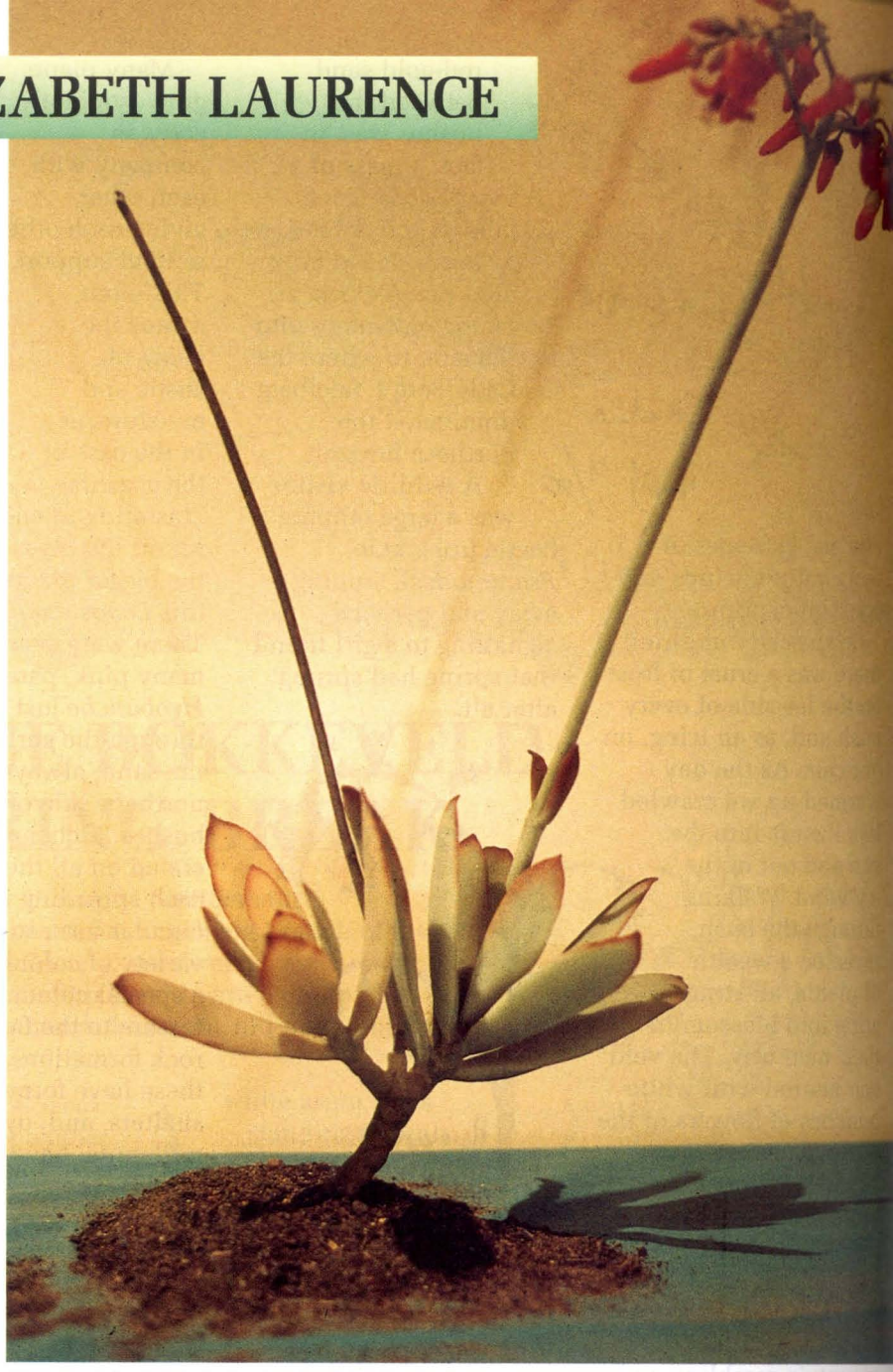

Wax model of *Cotyledon barbeyi* by Trudy Laurence. Photo: D. de Klerk.

My knowledge of grasses was broadened when writing a book on the grasses of the eastern Free State in 1997 and this led to an interest in Gertrude Laurence. However, no one in the botanical field seemed to know anything about her except that she married a physiotherapist named Jacobs, and I have the telephone directories to thank for eventually getting on the right track. The eighth Laurence I phoned remembered a cousin Trudy 'who was a bit of an artist' at Onderstepoort and it was another physiotherapist, Melanie Jacobs (no relation) of Pretoria, who gave me her husband, Steve Jacobs's address.

Trudy Laurence (or Tootie as she was known to her close family) was born on 27th September 1916, the third child of George and Bessie Laurence of the farm Lokenburg in the Calvinia District. Lokenburg, situated in an isolated valley south of Niewoudtville and Calvinia, was one of the earliest settler farms in what was then known as the Lower Bokkeveld. Famous early botanists and travellers who visited it included Thunberg, Barrow and Lichtenstein. Lichtenstein, who spent three days there in 1803, after getting lost in the northern Cederberg, wrote 'At length, towards evening, we reached Lokenburg, the dwelling of Jacob Adrian Louw.' Today it is still in the Louw family, with Mrs Willie Lock, whose husband farms it, being the sixth generation. Lichtenstein called the valley 'Uye or Bulb Valley, because of the many sorts of Iris and Ixia grow here, the bulbs of which the Hottentots eat'. The farm has a particularly rich and diverse plant-life, with fynbos in the west and karroid vegetation in the east, and still attracts students of botany from all over the world.

Growing up in this beautiful area must have had a profound effect on the young Trudy Laurence, and many years later she spoke to her husband of the great sense of enjoyment and wonderment of the coming of spring to Lokenburg, with the 'kalkoentjies' and silky maids, which she called eschscholzias (*Grielum* perhaps). All four children were taught at home by their mother, a qualified teacher until they went to high school, where on arrival they were each promoted to a higher grade. While at school in Paarl, Trudy studied art with Miss Edie Earp-Jones and later at Lokenburg did a correspondence course with an overseas international art school.

Drought and the depression took its toll and the farm was sold and the family moved in 1939 to Pretoria North. Trudy was employed as assistant artist at the Veterinary Institute at Onderstepoort, where her work was described as 'consisting mostly of drawing, painting, and reproduction of a

great variety of technical material and objects, either under the microscope or otherwise.' Most of her work at this time was unsigned, but can be seen in the Onderstepoort publications of that time. Trudy, perhaps prompted by a cleaner at Onderstepoort, who when watching her at work remarked, 'nou juffrou, van watter waarde is dit eintlik vir die volk', decided to do something more public spirited and volunteered for war service. She was one of two persons from Pretoria selected by the Red Cross, and left for Europe in 1944. After initial training in England she joined 3 B.A.D. Royal Army Ordinance Corps based at Torhout in Belgium, where she became an ambulance driver.

After the war, Trudy returned to Onderstepoort, where, besides the usual drawings, she and Mr C.G. Walker embarked on the huge task of making true-to-life wax models of those poisonous plants responsible for severe stock losses in South Africa. By 1949 they had made fifty of a projected 110 of these models. Thirty-five of her models are on display in the Arnold Theiler Museum of African Diseases at Onderstepoort today. (See box.)

The art of wax flower models arose as a teaching medium in certain European museums and reached its height in the late eighteenth century. In Italy, the Museo della Specola had a special office, the Officina di Ceroplastica, where hundreds of wax flowers were made, and 184 of these survive in the botanical museum of the University of Florence. As far as we know, the collection at Onderstepoort is unique in South Africa.

After mastering the technique, it took Trudy and Mr Walker about two weeks to complete a model. First, plaster-of-Paris imprints of the various parts were made, and filled with pure white beeswax. The framework was then made up of fine wire and the beeswax added to it. Various materials, such as cotton threads and glasswool were used for the more delicate parts, such as stamens. Apparently the most difficult part of the work was to accurately depict the colour shades, and for this oil paints and wax-soluble colour powders were used. Some flowers, such as *Scadoxus puniceus*, have hundreds of stamens and their completion required very delicate brushwork and testify to great craftsmanship.

It was at this time that Trudy was seconded to the Division of Botany and Plant Pathology. Here she began the work for which she is remembered by the botanical fraternity, and for which she is owed a huge debt of gratitude: illustrating the numerous grasses of South Africa. In this task she was guided by Lucy Chippendal, who was writing the first and major part of *The Grasses and Pastures of South Africa*, a book which came to be most sought after by botanists and farmers alike. The Chairman of the Board of Trustees of the Grasses and Pastures of South Africa Book Fund, John Voelcker, stated that 'The Board was fortunate in obtaining the services of Miss G. E. Laurence, who has been responsible for the majority of the black and white drawings and coloured plates. Her clear illustrations and artistic talent have added greatly to the value of the book.'

Plate 16 of *Grasses and Pastures of South Africa. Eulalia geniculata* (now *E. aurea)* and *Hyparrhenia cymbaria*. Water-colour by Trudy Laurence. Published with kind permission from the National Botanical Institute.

In Part 1, 'A Guide to the Identification of Grasses in South Africa', Lucy K. A. Chippendal stated: 'Anyone who can imagine this section of the book without illustrations will realise how greatly the artist's share in it is appreciated and valued. Miss Gertrude E. Laurence in particular has played an important part in helping to make the book what we hope will prove a practical and interesting contribution to our knowledge of grasses and pastures in South Africa; and I thank her most sincerely for the patience, competence and artistic skill with which she has carried out a long and arduous task.'

A brief enumeration of the illustrations in Part 1 emphasises the large part G.E.L. (which is how she usually signed her work) played in the book. To begin with, seven of the fifteen drawings illustrating the morphology of grasses in the introduction are initialled by G.E.L. (Judging by the style, some of the others are also probably by her, with a few by the author of the written work herself, Lucy Chippendal). There are 420 black and white figures of individual species, and of these, 287 have G.E.L.'s initials with another fifty-three unsigned (at least in the book plate), most of which were probably also done by her. The balance is made up of fifty-one by Cythna Letty, five by Betty Connell, three by Lucy Chippendal and twenty-one photographs. The photographs include commercialized species such as *Sorghum* and *Saccharum*, which were possibly too large to draw, and herbarium sheets of seven *Digitaria* species. There are also twenty-six colour plates of grass species. Twelve of these are by Trudy, four by John Acocks, five by Betty Connell, one by an anonymous artist represented by the initials CB? and four by Jean Murray. Working in most cases from dried herbarium specimens, her accuracy and use of colour testify to remarkable skill (see accompanying illustration). Many of the black and white drawings were subsequently also used in the next major book on South African grasses, *Grasses of southern Africa*, edited by G. E. Gibbs-Russell *et al.* Trudy's original colour drawings are in the possession of the National Botanical Institute, but the whereabouts of the black and white drawings remains a mystery.

In her file at the National Botanical Institute are a watercolour of *Protea gazensis*, drawn in 1951 and published in 1959 in *Flowering plants of Africa*, and an unsigned watercolour of a small mesemb. The protea, which according to Dr John Rourke of the Compton Herbarium is now regarded as a Zimbabwean subspecies of *Protea caffra*, is interesting in that it includes a small habit drawing initialled C L, perhaps Cythna Letty?

Having finished the grass project, Trudy decided on a complete change, and embarked on a career in physiotherapy. She studied at the Pretoria College of Physiotherapy, then worked at the Pretoria General Hospital, becoming Head of Physiotherapy in 1964. In 1965 she married Steve Jacobs, a blind physiotherapist and they moved to Orkney where he worked for the mines. During this time she did random illustrations for publications, including a book on nursing, and illustrated her husband's thesis on goldmine-related hand injuries. In 1971 they established a joint practice in Carletonville.

Gertrude Elizabeth Laurence.
(Photo in the possession of Mrs Pat Cilliers, Pretoria.)

In 1980 she underwent a major operation to remove a benign tumour from her brain, and this unfortunately left her with a speech, hearing and walking impediment. By 1990 she had made a splendid recovery, only to meet a tragic end at the hands of assailants who broke into their home on 27th July. Her ashes were interred in her parents' double grave at Pretoria North.

Acknowledgements
I am particularly grateful to those members of Trudy's family who so graciously responded to my requests for information. These included her husband, Steve Jacobs, now practising in Witbank, her sister Helen Young and sister-in-law Margie Laurence (both of Hermanus), her cousin Jean Lombard of Huguenot and her niece Pat Cilliers of Pretoria. Laura Brain of Irene and Helmien Lock of Lokenburg, Calvinia provided useful information. At Onderstepoort, Erna Klopper, Heloise Heyne and Danie de Klerk were most helpful. Gill Condy, resident artist at the National Botanical Institute, Pretoria, accompanied me to see the wax models and also provided me with information on the European models. She also provided the transparencies of the two grass paintings. The information on how the wax models were made was taken from an article by M.M.S. in *Die Huisgenoot* of 8th April, 1949.

Further reading

Beard, J.S. 1959. *Protea gazensis. Flowering Plants of Africa.* Plate 1299.

Chippendal, L. K. A. 1955. *A Guide to the Identification of Grasses in South Africa,* in Meredith, D.B.D. ed. *Grasses and Pastures of South Africa.* Central News Agency, Johannesburg.

Gibbs Russell, G. E. *et al.* 1990. Grasses of southern Africa. *Memoirs of the Botanical Survey of South Africa No.* 58.

Lichtenstein, H. 1812. *Travels in Southern Africa, in the years 1803, 1804, 1805 and 1806.* (Translation from the original German by Anne Plumptre.) Vol. 10, Van Riebeeck Society, Cape Town.

LIST OF WAX MODELS IN THE ARNOLD THEILER MUSEUM OF AFRICAN DISEASES, ONDERSTEPOORT VETERINARY INSTITUTE

Acokanthera oblongifolia
Acokanthera oppositifolia
Adenium boehmianum
Cestrum elegans
Chrysocoma tenuifolia
Cotyledon barbeyi
Cotyledon orbiculata
Cotyledon orbiculata var. *oblonga*
Crotalaria damarensis
Dimorphotheca ecklonis
Dimorphotheca zeyheri
Dipcadi glaucum
Dichapetalum cymosum
Equisetum ramosis simum
Geigeria aspera
Gloriosa superba
Homeria lilacina
Homeria miniata
Homeria pallida
Kalanchoe rotundifolia
Kalanchoe thyrsiflora
Melia azedarach
Moraea polystachya
Nerium oleander
Nicotiana glauca
Ornithogalum saundersiae
Ornithogalum tenuifolium
Ornithogalum thyrsoides
Pachystigma zeyheri
Scadoxus puniceus
Scilla sp.
Senecio latifolius
Senecio longiflorus
Senecio tamoides
Urginea burkei