

**South African Botanical Art:  
A Study of Nineteenth- and Twentieth-Century  
Imagery**

by

Tamlin Blake

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Supervisor: Dr Marion Arnold

Co-supervisor: Ms Paddy Bouma

## **Declaration**

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I, the undersigned, hereby declare that the work contained in this thesis is my own original work and has not previously in its entirety or in part been submitted at any university for a degree.

## Abstract

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Botanical art consists of a complex combination of scientific fact and aesthetic awareness, and is concerned with more than the realistic representation of a plant and its flowers. It goes beyond the visual description of scientific information and speaks about the contributions artists have made through history to the conventions of both art and science. It contains a unique visual language, conventions which we read intelligently and an evolved tradition, and it is this language and the development of these conventions within the genre of South African botanical art, which this thesis investigates.

In South Africa botanical art developed as a direct result of European interest in the flora and the colonisation of this country by the West. A brief history of responses to South African plants is discussed in the Introduction in order to begin to establish an understanding of this tradition and to contextualise the contributions made by 19<sup>th</sup>- and 20<sup>th</sup>-century South African botanical artists.

Now that postmodernity has called for the reassessment and questioning of 'given truths', alternative ways of assessing botanical art are slowly evolving. Through study and the comparison of botanical art and artists of South Africa their evaluation as artists is re-considered. This issue of defining art and artists is the subject of Chapter One of this study. Some of the factors that have a bearing on this include: relationships between text and image; art and science; art and illustration; and how society's expectations of gender roles affect the production of botanical art.

In order to establish a context from which to discuss plant imagery in South Africa, it is important to study the history and development of botanical art in this country. Chapter Two discusses the emergence and development of this art form and its artists, starting with a short description of people and events from the 1600s and then takes a comprehensive look at developments in the 19<sup>th</sup> and 20<sup>th</sup> centuries.

For the artists working within the genre of botanical art, the conventions and inventions are often explicitly formulated. It is an art based on the logic, scrutiny and informative tradition of science, where the main objective is to represent a plant's structural essence. Fundamental to our response to botanical art, however, is the style and technique employed by the artist. Chapter Three is devoted to a detailed discussion of the work of selected contemporary South African botanical art and artists. By comparing their work it is possible to establish trends and developments in representation and the role played by mediums and techniques in this highly skilled art form.

Since this research has both a theoretical and a practical component, Chapter Four is devoted to discussion of my own work within the botanical art genre. I describe and illustrate several related series of paintings and explore established conventions and ways of developing my own stylistic identity as a botanical artist.

## Opsomming

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Botaniese kuns bestaan uit 'n komplekse kombinasie van wetenskaplike feite en estetiese bewustheid, en is gemoeid met baie meer as net die realistiese voorstelling van 'n plant en sy blomme. Dit gaan verder as net die blote visuele uitbeelding van wetenskaplike informasie, en behels die bydraes wat kunstenaars deur die geskiedenis tot die konvensies van beide kuns en die wetenskap gemaak het. Botaniese kuns besit 'n unieke visuele taal, konvensies wat intelligent gelees word, en 'n ontwikkelde tradisie. Hierdie tesis ondersoek juis hierdie spesiale taal en ontwikkeling van konvensies binne die genre van Suid-Afrikaanse botaniese kuns.

Botaniese kuns in Suid-Afrika het ontwikkel as 'n direkte gevolg van Europese belangstelling in die flora, en Westerse kolonialisering van hierdie land. In die Inleiding word daar kortliks gezyk na die geskiedenis van die hantering van Suid-Afrikaanse plante, en het ten doel om eerstens 'n begrip van hierdie tradisie daar te stel, en tweedens om die bydraes van 19de en 20ste eeuse Suid-Afrikaanse botaniese kunstenaars te kontekstualiseer.

Sedert Postmodernisme die herevaluering en bevraagtekening van gegewe waarhede aangewakker het, is die ontwikkeling van alternatiewe maniere van kyk na botaniese kuns stadig besig om plaas te vind. Deur die bestudering en vergelyking van botaniese kuns en kunstenaars van Suid-Afrika, word die botaniese kunstenaar se status as kunstenaar uitgelig. Hierdie kwessie oor die definieëring van kuns en kunstenaars is die onderwerp van Hoofstuk 1 van hierdie werkstuk. 'n Paar van die faktore wat 'n invloed op laasgenoemde het, sluit in: verhoudinge tussen beeld en teks; kuns en wetenskap; kuns en illustrasie; en hoe kwessies van geslag soos waargeneem deur die samelewing die produsering van botaniese kuns beïnvloed.

Dit is belangrik om die geskiedenis en ontwikkeling van botaniese kuns in Suid-Afrika te bestudeer, sodat daar 'n konteks geskep kan word waarbinne die afbeelding van plante in hierdie land bespreek kan word. Hoofstuk 2 behandel die totstandkoming en ontwikkeling van hierdie kunsvorm en sy kunstenaars, en begin met 'n kort beskrywing van mense en gebeurtenisse van die 1600s wat gevolg word deur 'n uitgebreide kyk na ontwikkelinge gedurende die 19de en 20ste eeue.

Vir die kunstenaars wat werk binne die genre van botaniese kuns, is die konvensies en bevindings van die medium dikwels breedvoerig geformuleer. Dit is 'n kunsvorm gebaseer op die logiese, navorsbare en insiggewende tradisie van die wetenskap, waar die hoofdoel die voorstelling van 'n plant se strukturele essensie is. Fundamenteel in die benadering tot botaniese kuns is die styl en tegniek wat deur die kunstenaar gebruik word. Hoofstuk 3 word gewy aan 'n gedetailleerde bespreking van die werk van geselekteerde kontemporêre Suid-Afrikaanse botaniese kuns en kunstenaars. Deur hul werk te vergelyk is dit moontlik om tendense en ontwikkelings in die voorstelling en aanbieding van botaniese kuns te bepaal, en wat die rol van verskillende mediums en tegnieke in hierdie hoogs geskoolde kunsvorm behels.

Weens die feit dat hierdie navorsing uit 'n teoretiese en praktiese komponent bestaan, word Hoofstuk 4 gewy aan 'n bespreking van my praktiese werk binne die genre van botaniese kuns. Ek beskryf en illustreer verskeie verwante reekse werke en kyk na bestaande konvensies en die maniere hoe my eie stilistiese identiteit as botaniese kunstenaar kan ontwikkel binne die medium.

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## INTRODUCTION

The Flowers, which grace their native beds,  
Awhile put forth their blushing heads,  
But, e'er the close of parting day,  
They wither, shrink and die away:  
But THESE which mimic skill hath made,  
Nor scorched by suns, nor killed by shade,  
Shall blush with less inconstant hue,  
Which ART at pleasure can renew.

Signed 'Lloyd', Curtis Botanical Magazine (1826) vol.53, title page.

Botanical art has an enthusiastic, but specialised following from artists who concern themselves with this genre, and from collectors. The general public has always supported flower painting and hence botanical prints and reproductions have acquired considerable popularity. Plant imagery has always received much support and encouragement from the world of science although, until recently, the botanist has received the credit often denied to the artist. Within the 'High Art' world botanical art has not enjoyed much academic study or art historical research and it is only now that Postmodernism has called for the revaluation and questioning of 'given truths', that a new way of looking at botanical art is slowly evolving.

## *I n t r o d u c t i o n*

For the most part, the world of 'High Art' seems to expect nothing more from botanical art than the 'simple' art of imitation. This view originates in western attitudes to realism, and it revolves around the generally held, vague, common-sense conception of the image as the resurrection of life as constituted in the concept of 'natural attitude' (Bryson 1983: 1-3). This is by no means the only view imposed on botanical art, and the concepts of 'mere' illustration and 'superficial sentiment' will also be examined. However, it is a useful example to illustrate what I believe botanical art is *not* and therefore opening up space for a discussion on what it can be.

Within the concept of the 'natural attitude', the world exists *out there* and all the image is required to do is to approximate as closely as possible the appearances of the plenary origin, with no interference from the artist. Norman Bryson explains further in *Vision and Painting* (1983: 6) that:

The painter, in this project, is passive before experience and his existence can be described as an arc extending between two, and only two, points: the retina and the brush. A binary epistemology defines the world as anterior and masterful, and the painter's function before it as the secondary instrument of its stenographic transcription.

In its perfect state, painting approaches a point where it sheds everything that interferes with its reduplicative mission; what painting depicts is 'universal visual experience'. The struggle towards perfection is recognised as long and arduous: the 'essential copy', if it were ever achieved, would possess no stylistic features, since the simulacrum would at last have purged away all traces of the productive process. Bryson maintains that the 'natural attitude' has no way to legitimate style except by way of the limited tolerance it extends to inevitable human weakness. Style is defined as personal deviation: idiosyncrasies of the palette, habitual deformation of the subject matter, the characteristic signature of brushwork, those reflexes that spring from the body and from the past history of the painter. Style is credited as the 'tax which must be paid to human fallibility' (Bryson 1983: 7).

In this thesis I will demonstrate why botanical art does not conform to the ideals of the 'natural attitude' and analyse how complex and engaging an art form it actually is. Never in botanical art do we see nature on a page, we see art on a page and understanding and intellectual challenge come only through study, research and enthusiasm (Arnold, lecture 16.01.1998).

## *Introduction*

My primary objective is to study the botanical art and artists of South Africa and to re-consider their evaluation as artists. They have to be contextualized within botanical art as a genre. It is concerned with more than the realistic representation of a plant and its flowers. It goes beyond the visual description of scientific information and speaks about the contributions artists have made through history to the conventions of both art and science.

Botanical art contains a unique visual language, conventions which we read intelligently and an evolved tradition. In order to begin to establish an understanding of this tradition and to contextualise the contributions made by 19<sup>th</sup>- and 20<sup>th</sup>-century South African botanical artists, a brief history of responses to South African plants is relevant.

In South Africa, botanical art developed as a direct result of European interest in the flora of South Africa and the colonisation of this country by the West. The illustration of South African plants, however, only began in the early-17<sup>th</sup> century, and along with the explorers and illustrators, came their conventions and traditions in botanical art.

Early African travellers were usually keenly interested in natural history, and in spite of many difficulties, made extensive collections on their expeditions. The earliest collections went to Holland, where the botanical gardens at Leyden and Amsterdam were in friendly rivalry. During this time the development of printing with moveable type became well established and discoveries of new plants could be described in print and even illustrated for the benefit of an ever increasing and appreciative audience. Through the maintenance and expansion of the tradition of the herbal<sup>1</sup> by the eminent physician-botanists Carolus Clusius (1520-1609) and Matthias Lobelius (1538-1616), the first two illustrations of South African plants found their way to the European public in 1605. This is a surprisingly late introduction as the Cape had been used as a half way stop for English, Dutch and Portuguese ships sailing to the East ever since Bartholomew Dias rounded the Cape, while opening up the sea-route to India, in 1488.

The first Western painters and botanists on South African soil were visitors attracted by the call of adventure, discovery and the exotic – sailors, explorers, chroniclers and topographical reporters who endured the discomfort of months at sea. For these discoverers of the ‘New World’ who sketched their finds, ‘painting was usually a useful, incidental accomplishment rather than a creative medium of

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expression' (Berman 1983: 1). However, specimens were often taken back to Europe and it is a dried inflorescence of *Protea neriifolia* (Fig. 1) which has the distinction of being the first botanical object to have reached Europe from South Africa. It was illustrated and described by Clusius in his *Exoticorum libri decem*<sup>2</sup> printed in Antwerp in 1605. He referred to it as 'an elegant thistle' and reported that it had been collected at Antongil Bay on the north-east coast of Madagascar during a Dutch trading expedition to Java in 1597. This locality is clearly incorrect and it was undoubtedly picked up during a call for fresh water along the Cape coast (Gunn and Codd 1981: 23).

Lobelius included a page of illustrations of Cape bulbs grown in Europe (Fig. 2) in his herbal *G. Rondelletii... methodicam pharmaceuticam officinam animadversiones* (London 1605). The bulbs in this illustration have been closely observed and can be identified with some certainty as *Haemanthus coccineus* and *H. rotundifolius*. His text also contains the first known mention of a plant collector at the Cape, Gourarus de Keyser, who dug up some bulbs in 1603 for his brother, Jacobus de Keyser of Weisbaden, a wealthy merchant and plant lover.

Owing to a keen and developing interest in foreign flora and the free interchange of plants between gardeners in Europe in the early-17<sup>th</sup> century there was a rapid expansion of knowledge and an ever-increasing demand for descriptions and illustrations of Cape plants. Soon after the publication of Clusius' and Lobelius' herbals there were many publications throughout Germany, England, Italy and France which contained illustrations of Cape plants and, by 1644, at least twelve Cape species had been illustrated by Cornut, Ferrari<sup>3</sup> and others.

In 17<sup>th</sup>-century Europe it was socially desirable to possess collections of natural history specimens or portfolios of paintings depicting plants and animals from foreign lands (Rourke in Arnold forthcoming 2001). Often, sketches of strange fauna, flora, landscapes and 'beestlie savages' were sent back to Europe by artists working at the Cape, for publication in the form of engravings, and later, lithographs. Many of these earliest pictures were used to illustrate books of travel and shipwrecks (Gordon-Brown 1952: 13) and, in recording their adventures for European eyes, these artists also produced a wealth of *Africana*. The person credited to have made the first permanent record of plants on Cape soil itself is Justus Heurnius (1587-c.1653)<sup>4</sup>. He spent some time at the Cape in 1624 and made sketches and descriptions of some of the flora in the field, which he sent back with plant specimens to his brother, a

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professor at Leyden, Holland. These illustrations were later published in Johannes Bodaens Stapelius' *Theophrasti Eresii De Historia Plantarum Libri Decem*, Amsterdam 1644, in the form of woodcut prints.

Ships travelling to Europe or the East Indies stopped to collect fresh water and supplies, and to refresh crews suffering from scurvy, a disease which caused serious debilitation and loss of life (Gunn and Codd 1981: 23). However, botanical research proper on the South African flora commenced with the arrival of Jan van Riebeeck<sup>5</sup> on 6 April 1652. The floral kingdom of the Cape is distinctive and unique and '(the) colourful and diverse array of flowers and plant forms... must have caught the attention of the early Dutch and Huguenot settlers at the Cape of Good Hope, where the Dutch East India Company or Vereenigde Oost-indische Compagnie (V.O.C.) established a victualling station for its ships'<sup>6</sup> (Blunt and Stearn 1994: 308).

The V.O.C directors in Amsterdam were unambiguous about the kind of settlement they planned for Table Bay: it was to supply fresh food and be a defensive post against natives – the V.O.C settlement lay directly in the path of the Khoi grazing routes. In its initial stages, however, the early Cape settlement was completely dependent on food supplies shipped from Amsterdam and Batavia for its survival.

These early Dutch settlers came from a society based on the austere doctrines of Calvinism, which recognised the virtue of worldly success achieved through hard work, sobriety and ethical behaviour. They were prepared to attempt to sustain an existence off the land for a chance at a new beginning and a new future, but they were simple, practical people whose pioneering way of life left little time for intellectual or artistic development. Artists at the Cape were normally of humble origin and featured low down on the social scale. The explorer, Colonel Robert Jacob Gordon (1743-1795), accompanied by other adventurous and curious men such as the plant collector William Paterson (1755-1810)<sup>7</sup>, referred to the illustrator who accompanied them as 'de skilder' or 'mijn skilder' and never used his name. This was the case even though their homeland at the time was enjoying a wave of great prosperity in trade and the growth of an industrious and stable middle-class, which provided a new source of patronage for art.

This pattern of failing to acknowledge the artists who produced these early images of South African flora persisted throughout the 18<sup>th</sup> century, with one notable exception – Colonel Gordon himself.

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Gordon was commander of the Dutch garrison at the Cape from 1780-1785 and was himself an accomplished artist. Social status was clearly a prerequisite for an artist's recognition in the strict hierarchical order that prevailed throughout this period of Dutch administration. Although Gordon's high social standing ensured that his own work was correctly acknowledged, his soldier-artist assistants remained humble, largely anonymous servants of the mighty Dutch East India Company (Rourke in Arnold forthcoming 2001).

After the development of the station at the Cape, South African plants were increasingly introduced to Europe by adventurous travellers, soldiers, missionaries, V.O.C. officials and master gardeners, naturalists and professional collectors all of whom were attracted by its floral diversity, and such plants were continually illustrated. Jan van Riebeeck himself was a collector of plants and made a close study of the indigenous trees and shrubs and other plants. He developed the Company's garden for growing fruit and vegetables and a section was also set aside for the cultivation of indigenous plants with useful or unusual qualities. Worden describes the gardens as follows (1998: 44):

Dominating the upper reaches of the town were the company gardens, designed in the seventeenth century for profit rather than pleasure. Because of increasing Dutch interest in botanical specimens the gardens acquired a key role from the late seventeenth century as a point of collection of local plants for scientific purposes; this gradually came to replace its original purpose of growing basic food stuffs as the colony became more self-sufficient. By the mid- to later eighteenth century, as Company dependence on its own produce decreased, it did become more of a pleasure garden.

In 1680 the V.O.C sent the artist, Hendrik Claudius (c.1655-c.1697), from Batavia to collect and illustrate medicinal and other useful plants at the Cape. He was to work under Simon van der Stel<sup>8</sup> (1639-1712) who arrived as commander at the Cape on 12 October 1679, initiating a period of greater exploration and expansion, accompanied by a significant increase in scientific knowledge on indigenous flora and fauna.

An expedition to the Copper Mountains on the west coast, to search for copper deposits in Namaqualand, departed in August 1685. Simon van der Stel was instructed, amongst other things, to

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give a description of 'the country, mountains, rivers, roads, and the people, and also of timber and forests... This was almost certainly the reason for the inclusion of Claudius, (who [was] assumed to have joined the expedition), whose knowledge of medical botany and artistic ability would have been an asset' (Van Reede in Wijnands, Wilson and Toussaint 1996: 15). His work was much appreciated in Holland and some of his illustrations formed part of a collection known as the *Codex Witsenii* (1692) which forms one of the best known sets of 17<sup>th</sup>-century illustration of plant and animal life at the Cape. The drawings were assembled by Nicholaas Witsen (1641-1717), a director of the V.O.C from 1693. It was often consulted and the images copied several times by Claudius himself and copyists in Holland<sup>9</sup>.

The movement of objects to and from exotic lands had a profound influence on both sides of the ocean. One of the results of this was an increasing interest in ornamental plants by the landed gentry and the growing number of rich merchants in Europe. This encouraged the establishment of nurseries to cater for the demand and this, in turn, resulted in the new use for botanical illustrations in the form of nursery catalogues and florilegia<sup>10</sup>. These books were designed for the garden-lover who grew flowers for their beauty rather than their medicinal utility. Many South African plants were cultivated in these nurseries and, as a result, many illustrations were made of them. Later in the 18<sup>th</sup> century the Kew gardener and collector, Francis Masson (1741-1805)<sup>11</sup> published his *Stapeliae novae* (1796-97) for which he made illustrations while living at the Cape from 1786 to 1795 (Blunt and Stearn 1994: 194).

At the economic and political centre of the settlement at the Cape was Cape Town which, by the middle of the 18<sup>th</sup> century was beginning to emerge as a distinctive urban community with physical, social and cultural features that clearly demarcated it from the rest of the colony. By the mid-18<sup>th</sup> century, both visitors and locals were beginning to call the settlement Kaapstad. However, by the end of that century the V.O.C was losing its trading position in the Indian Ocean and great changes were in store for the Colony as the British were to take over occupation permanently in 1806, after a first occupation from 1795 to 1803 during the Napoleonic war.

For science and botany the early illustrations made during the V.O.C period are seen as significant steps towards greater discovery and learning. The difficult conditions under which the artists worked and the status afforded art at the time did not encourage the development of skills which could lead to

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more challenging art, and thus much of this early work has been viewed as rather insignificant aesthetically.

However, these early developments in both science and art and the growing sense of inquiry and curiosity spurred on further developments. Interest in the collecting and recording of the flora of South Africa, for example, encouraged the growth and development of nurseries and collections in Amsterdam and other areas of Europe. This in turn publicised the vastness of the unexplored world and further encouraged exploration and the desire for colonisation – with the aim to own and exploit the exotic. The explorer's desire to record all things foreign set the tone for early botanical illustration, laying the ground work for 19<sup>th</sup>- and 20<sup>th</sup>-century artists.

A serious study of botanical art in 19<sup>th</sup>- and 20<sup>th</sup>- century South African art helps to reinstate women within the history of cultural production, as there have been many significant South African women botanical artists. An unsettling combination of ignorance and purposeful distortion of history has made the act of historical recovery difficult. Chadwick (1996: 10) suggests that the reassessment of the feminine aesthetic in art and its history, is a necessary process by which women can be moved out of the margins and their value to history re-established. In *Old Mistresses* (1981: 3) Parker and Pollock describe the situation as follows:

To discover the history of women and art is in part to account for the way art history is written. To expose its underlying values, its assumptions, its silences and prejudices is also to understand that the way women artists are recorded and described is crucial to the definition of art and artists in our society.

This issue of defining art and artists is the subject of chapter one of this study of 19<sup>th</sup>- and 20<sup>th</sup>-century botanical art. Some of the factors that have a bearing on this include: relationships between text and image; art and science; art and illustration; and how society's expectations of gender roles affect the production of botanical art.

To establish a context from which to discuss plant imagery in South Africa it is important to study the history and development of botanical art in this country. For this reason Chapter Two discusses the emergence and development of this art form and its artists, starting with a short description of people

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and events from the 1600s and then taking a comprehensive look at developments in the 19<sup>th</sup> and 20<sup>th</sup> centuries.

Chapter Three is devoted to a detailed discussion of contemporary botanical art and artists, their styles and techniques. By comparing the work of selected South African artists it is possible to establish trends and development in representation and the role played by mediums and techniques in this highly skilled art form. Since there is very little written documentation on the artists I discuss – Cythna Letty, Mary Maud Page, Ethel May Dixie, Auriol Batten, Thalia Lincoln, Ellaphie Ward-Hilhorst, Gillian Condy and Claire Linder-Smith - my information has been collected through interviews and questionnaires.

Finally, since this research has both a theoretical and a practical component, Chapter Four is devoted to discussion on my own work within the botanical art genre, where I explore established conventions and ways of developing my own stylistic identity as a botanical artist.

My thesis aims to contribute to the reassessment, re-evaluation, and repositioning of botanical art within the main stream of South African art history, and to convince the reader that botanical art is a unique genre, worth pursuing for its own sake.

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<sup>1</sup> The herbal started as an alphabetical compilation of names and description of herbs, or plants in general, setting out their properties and uses, and usually supplied line drawings as an aid to identification, (Gunn 1981: 9). Herbals often contained original graphic prints produced in limited series and these were sometimes hand-coloured.

<sup>2</sup> This publication deals mainly with non-European plants and was a supplementary volume to his best known publication *Rariorum plantarum historia*, Antwerp 1601.

<sup>3</sup> Jacques-Philippe Cornut was a French physician who published a book entitled *Canadensium plantarum, aliarumque nondum editarum historia*, Paris 1635. The plants used for the illustrations were obtained purely from royal and private gardens and nurseries in Paris and the book includes five South African bulb plants. Giovanni Battista Ferrari (1584-1655) was a Jesuit priest, botanist and student of oriental languages, who came from Sienna and published his *De florum cultura libri IV*, Rome 1633. It contained four illustrations of Cape plants, one of which was named after the author, *Ferraria crispa*.

<sup>4</sup> Heurnius was a clergyman who called at the Cape on his way to the Dutch East Indies. He was one of the earliest botanical collectors at the Cape and during his visit he first collected *Stapelia variegata*, on which Linnaeus founded the genus *Stapelia*, named after Stapel, who reproduced Heurnius' drawings and descriptions.

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- <sup>5</sup> Jan van Riebeeck and his wife, Maria de la Queillerie, arrived at the Cape in 1652 as part of the Dutch contingent of some 90 men, women and children. The intention of the Dutch was to facilitate trade between Holland and its empire in the East Indies.
- <sup>6</sup> In 1615 the English sent ten convicts to the Cape to start a settlement. They were put ashore by Walter Peyton but on his return to Europe in 1617 he found no trace of the convicts and he concluded that they were either murdered or, more likely, picked up by passing ships (Gunn and Codd 1981: 23).
- <sup>7</sup> Lieutenant Paterson noted that along the foot of Table Mountain towards Constantia, the whole country abounded in *Protea argentea* (*Leucadendron argenteum*), the Silver Tree, and other species of *Leucadendron*, *Ericas* and *Gnaphalium*. In Houwhoek, through which he and his team travelled by ox and cart to collect plants, 'there were still lions plentiful' (Hutchinson 1946: 620-623).
- <sup>8</sup> Johannes Burman (1738: vii) described Van der Stel in his monograph on Cape flora (the most extensive early work on the subject) as 'the distinguished botanophile' (Wijnands 1996:7). 'He concerned himself with the development of agriculture and viticulture and, although on his arrival he found the Company's Garden in a state of considerable neglect, by 1685 he had so improved it that (it was) praised as the finest and most remarkable ever seen' (Wijnands 1996: 9).
- <sup>9</sup> Holdings of Claudius' work are housed at the South African Library, Cape Town.
- <sup>10</sup> These books were also often intended to supply ideas for embroidery to the ladies of the court and to designers of metal work, ceramics and textiles. They were devoted entirely to pictures of ornamental plants, often illustrating flowers from a single garden.
- <sup>11</sup> Masson was Kew's first official plant hunter and joined Cook on his second circumnavigation. They entered Table Bay at Cape Town on the 30 October 1772. Masson sent home a regular supply of plants, living and dried, together with plates made by a soldier-artist supposedly named D. Oldenberg.

*Chapter One*

## DEFINING BOTANICAL ART

Art is obviously, in part, a matter of communication and botanical art is *essentially* a matter of the communication of scientific data. Art and science co-exist in a relationship where botany dictates the terms of art, where the text is supplied by the scientist, and the image by the artist. The role of botanical illustration is to support verbal classification with visual evidence (Arnold 1998: 3). The botanical artist, Henry Andrews (c.1799-1828), comments in the introduction to his florilegium on *Ericas* (1794-1798: 2) that 'The botanical artist differs from the flower painter in many ways. His task is to serve science and art in equal measure if he is to appeal to our aesthetic senses as well as to our inquiring mind'. Marion Arnold (1996: 72) explains botanical art further as follows:

To a large extent botanical art is an exploration of relationships. Visual information, presented in a series of naturalistic fragments and diagrammatical details, empowers the scientist to make logical connections and morphological comparisons and to identify species. Inasmuch as the particularities of structure constitute the essence of plant taxonomy, artists are tasked with producing analytical descriptions of plant reproductive organs as well as the growth pattern and appearance of stems, leaves, flowers and fruit. Each element relates to the other, playing its part in the process of identification and in determining the name (species, genus and family) of plants.

A successful botanical illustration will not merely be the direct translation of the plant into two dimensions. It is an art of objective observation, a means of translating and highlighting important and informative details to facilitate plant identification. The power of the image to convey information must not be underestimated. Good botanical art is about exactness and its images need to be understood as a type of language, as signs that present deceptive appearances of naturalness and transparency and convey information. The artist is employed to represent the subject as a typical

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example of the species. Often, however, the specimen provided is atypical, one that is not suitable compositionally or one that may be tired and withering. Through skill and knowledge the artist manipulates information by placing leaves and flowers into positions that look naturalistic but which are at the same time compositionally pleasing and convey the correct botanical information. While needing to render convincingly the actual and factual, botanical artists still need to take into consideration the formal elements of the image - spatial qualities, composition, line and colour etc. This process of art making is not a pure reduplicative mission trying to depict the 'universal visual experience', as the 'natural attitude' would have us believe. It involves conscious stylisation and choice and the painter is not passive before the experience. How much naturalism the artist employs entirely depends upon the nature and the character of the information the artist wishes to convey. Since botanical art needs to convey much precise information, the natural inclination is to employ much realism.

Arnold notes further that 'the requirements of botanical art do not necessarily impose creative restrictions. Close perceptions of nature enable talented artists in fact to develop personal styles, which are immediately identifiable.' Lincoln (pers. comm. May 1998) comments, 'Some people create very competent illustrations but these lack the intensity and design of an art piece'. An artwork produced by a highly talented and skilled illustrator transcends the limitations of illustration. A botanical artwork may happen to relate to the text it is illustrating but, as an image, it can be regarded as an entity in its own right.

Traditionally botanical illustrations have been commissioned by botanists to illuminate a text and, until recently, have not been considered to stand as autonomous objects. Today, many are still never intended for public view but are kept rather as reference material and intricate sketches and paintings, together with notes, envelopes of pressed flowers and fruits, seeds and now, even photographs, are still used to create specimen sheets viewed only by searching botanists.

Botanical art stands on some undefined middle ground between art and science and, for many decades now, finding no support or acceptance from the world of 'Fine Art' where it is often defined as decorative, self-indulgent or escapist, it continues to enjoy support within the world of science. Art and science are usually assumed to be distinct aspects of culture, with differing aims and results, requiring contrasting talents, skills and personal characteristics for their successful pursuit. Art and

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science have, however, long coalesced in the region of botanical (and zoological) illustration as the artist can be taught what to see by the scientist. Botany has always accepted art as a useful tool to illustrate and record plants and their flowers, life cycles, the differences between species etc.

In the 18<sup>th</sup> century, Carolus Linnaeus (Carl Linné, 1707-1778), a Swedish naturalist and professor of medicine and botany, developed a system of taxonomy which greatly improved on previous methods of ranking and classifying organisms. During the age of exploration and discovery a system was needed to control all the new information on plants that was being brought back from the 'new worlds'. Linnaeus brought order and clarity to botany with a workable terminology and an empirical method of classification, through binomial nomenclature<sup>1</sup> and a sexual system of plant classification. The sexual system was based on the number, form and arrangement of plant reproductive organs, the plant's class being determined by its stamens (male organs) and its order by its pistils (female organs)<sup>2</sup>. As Arnold (forthcoming 2001) states, 'This tradition of plant description spread everywhere until taxonomists around the globe worked from the same set of terms, speaking a common botanical language'.

Shifts in scientific thinking directly affected changes in conventions within plant representation (Arnold forthcoming 2001). Linnaeus's system had a great impact on the development of botanical art as he maintained that plant identification rests upon intimate scrutiny of flower structure and a close observation of form. His theories re-focused the requirements of botanical art and extended its conventions because illustrations were now required to be of actual size and show the parts of the plants. As the Linnaean system provided a method to classify information on the extensive number of new plants entering Europe at this time, accurate descriptions of new species were also required to record their likenesses and identifiable properties. Even plants that had been previously illustrated hundreds of times, needed to be illustrated according to this new method. The western mind became increasingly systematic in its approach to knowledge. Where Linnaeus postulated a static classificatory system, Charles Darwin (1808-1882) completely altered evolutionary concepts in the 19<sup>th</sup> century by proposing continuous evolution<sup>3</sup>. Besides providing a scientific function, as botany became more technical and alien to amateur plant enthusiasts, curiosity in plants was kept alive mainly through botanical art (Arnold forthcoming 2001).

A set of conventions has developed within botanical illustration which we read intelligently. As a result of these conventions it is possible to define some of the differences between flower painting and

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botanical art. By its very nature botanical art relies on detailed, realistic, descriptive images to convey information. When the expressive aspect of imagery becomes a dominant presence which overrides or obscures scientific details the image falls outside the realm of scientific illustration. The subject becomes an abstracted ornamental base for the presentation of formal elements rather than the main focus of representation.

Still-life painting shows many of the same concerns about detail and representation as botanical art. Here too, plants and their flowers are clearly defined and described through a high level of attentiveness on the part of the artist. The difference between the two art forms lies in the intentions of the images. The term 'still-life' did not appear in the Netherlands until about 1650, where it became particularly favoured in the north of Europe, especially Holland and Flanders. Up till then these works were more commonly identified by type: 'flower piece', 'little banquet' etc. After the Reformation, when religious painting virtually disappeared from the Protestant North, still-life painting grew in popularity and was practised on occasion by many painters, if only as a technical exercise. It was developed along various lines. Paintings either featured interiors or collections of objects which speak an immediate and universal language, or, as with the *vanitas* paintings, were filled with religious symbolism. The chosen objects were to remind the spectator of the transience and uncertainty of mortal life. In every case the paintings were intended to show off the artists' virtuosity, skill and talent. Total command over medium was essential.

Still-life paintings containing flowers as their subjects, otherwise known as flower pieces, were intended to be decorative and/or symbolic. Many are merely luxuriant bouquets, though many are also composite works containing flowers blooming at different times of the year, thus suggesting Time or the Seasons. Many of the flowers may have religious or even erotic meanings, but never were they made with species classification in mind. Botanical art then, in a broad sense, can be viewed as still-life, in which a high degree of realism is required and objects are carefully selected and placed within the picture format. By definition though, the artist's skills and abilities in rendering fine detail accurately are essential for scientific record.

Within botanical illustration there is also an essential link between the image, provided by the artist, and the text, provided by the botanist. The artist's interaction with the botanist and with the material at hand is essential to the function of the image within social expectations, since good botanical

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illustration cannot be created in a 'social void'. Botanical illustration's strong relationship with text has in fact been partly responsible for the marginalisation of this art form. It has caused botanical art works to be viewed mostly as 'illustrations': to illuminate a text and not to stand as autonomous objects. The illustrator, or image-maker, if acknowledged at all, is ranked below the scientist, an assistant and not a collaborator of equal stature (Arnold 1998: 2). Many botanical artists, past and the present, live under the legacy of the marginalisation of 'lower' art forms during the Victorian age and, later, Modernism, and see themselves as 'merely' botanical illustrators: artists in the service of science.

The history of culture is in part the struggle for dominance between pictorial and linguistic signs. Each claims a certain 'nature', a particular means of describing the world around us. Mitchell (1986: 42) comments that 'The dialectic of word and image seems to be a constant in the fabric of signs that a culture weaves around itself. What varies is the precise nature of the weave, the relation of warp and woof'. A very concise language of describing natural forms and growth habits of plants has developed through the course of botany's history. Snijman quotes Arber in the beginning of her article *The Mind and the Eye* (Arnold forthcoming 2001)<sup>4</sup>:

The arts can be conveyed from generation to generation, and from nation to nation, without the use of words, but though biological understanding can, to a certain extent, be communicated through direct visual channels, it is kept alive and transmitted essentially by means of language.

Ultimately, however, words still prove to be insufficient and botanists still turn to images for further clarification of information, for a more comprehensive representation of the forms, and their relationships to one another. Successful botanical illustration is often the result of some kind of co-ordination, simultaneous perception and shared consciousness between artist and scientist, and the skills and talents of each. Working from the same material they improvise together, to create different representations which create a rich whole together.

Both text and image represent the same subject matter, work with the same source material and are intent on highlighting the same important aspects. The relationship between text and image, however, need not be absolutely direct. Botany may dictate the terms of art but the text itself, written by the botanist, does not necessarily dictate the terms of the image. Through visual signs the image provides

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its own description, definition and personality of the subject by relating directly to the subject and not to the text.

Botanical images need to be recognised for their informative qualities separately and *then* in relation to their accompanying text. The relationship between image and text is, therefore, a powerful asset to botanical art and is used to create a clearer understanding of the re-presented subject. Mitchell, in *Iconology: Image, Text, Ideology* (1986: 46), writes:

Perhaps the redemption of the imagination lies in accepting the fact that we create much of our world out of the dialogue between verbal and pictorial representations, and that our task is not to renounce this dialogue in favour of a direct assault on nature but to see that nature already informs both sides of the conversation.

Derrida (in Mitchell 1986: 30) sees the image as nothing but another kind of writing, a type of graphic sign that dissembles itself as a direct transcript of that which it represents, or of the way things look, or of what they essentially are. Within this argument then, botanical images, like all other types of imagery need to be read, and read within context. We should not suppose that, because botanical imagery is based on naturalism and realism, that it can 'simply' be understood as two dimensional translations of the visible world. For an educated audience botanical images hold a wealth of information.

Within individual examples of text-image relationships it is important to notice to what extent either the image or the text is given more importance over the other, and what this union is intended to impart to the viewer. In some instances the illustrations of a text are extreme reductions of a complex narrative – a mere emblem of a description or definition, as in the case of simple line drawings. Here the text is often privileged, and the images are marginalised or subordinated and act merely as codifications of existing knowledge about the plant described. A good example of this sort of relationship can be found in the history of the herbal. During the Middle Ages the printed image was a relatively recent invention<sup>5</sup> and although it was to transform ways of seeing, it was not yet a primary carrier of knowledge about the world, nor was the audience for these publications experienced in the 'reading' and interpretation of visual imagery (Saunders 1995: 9). Images were therefore simple and appreciated for their design and pattern qualities rather than for their informative value. The same image was often used to illustrate various different species for example, but clearly it does not fulfil the primary function of exemplifying the specific data of a written text.

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Then there are images that enlarge on the text by adding details which are not necessarily described in the text. If these added details are the result of careful study of the subject, and its habitat, for example, they may help to create a more comprehensive description of the subject. While the text may need to remain very specific, the artist may still explore the personality of the plant in the illustration. At the other extreme there are artists who add a detail or two, suggesting ideas that were not part of the traditional exegesis and even at times in flagrant deviation of the text or habits of the plant, for example adding in a fictitious habitat or landscape.

It is equally valuable to determine the function of the text. Florilegia – 18<sup>th</sup>-century flower books - for example, were used to illustrate cultivated plants, mostly ornamental, and valued for the decorative character of their flowers, fruit or foliage. They had no scientific purpose, no intent to analyse, classify or otherwise explore their subjects and no argument. Text amounted to no more than captions. The images were large and the composition and design of the plates fulfilled decorative effect. These books were primarily a statement of possession and ownership (Saunders 1995: 49).

So far text and image have been discussed as separate, contained forms of representation but within botanical illustration text and image often appear together on the same page. Black and white line drawings, describing dissections, will often appear in the text and within full page colour images, numbers and labels will be added to certain structures. Figure 3 is an example of black and white illustrations appearing within the text. As can be seen here, this often creates little discrepancy. Gillian Condy's (b.1952) illustrations are designed to be signs without any pretensions to represent 'real life'. They are diagrams to be read as text is.

When written words are introduced into colour illustrations, however, we sense a discrepancy of script and image, a difference between reading and viewing, no matter how the two types of signs are integrated and harmonised. The numbers present in Cythna Letty's (1895- c.1978) illustration of *Momordica clematidea* (Fig. 4) are subtle and relatively unobtrusive, but they do still lead to anomalies of space and composition and challenge the viewer's perception of the illusion.

Condy and Letty are two examples of the host of women practising botanical art, and throughout recent history women have made a useful contribution to the development of botanical illustration and flower art. In the 17<sup>th</sup> century their position, as artists working with developing ideas in science, was

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highly esteemed and in many cases women were well suited to the occupation of botanical art. The task of describing nature on a small scale required the same qualities of diligence, patience and manual dexterity that they had learnt in other fields of 'women's work', such as lace making and embroidery. By the end of the 18<sup>th</sup> century and well into the 19<sup>th</sup> century botany too was a subject in which women participated with high visibility. Agnes Ibbetson, Maria Jacson and Elizabeth Kent had successful careers as botanical authors (Warner and Rourke 1998: 86, 87) and in Britain the subject thrived. Blunt (Blunt 1950: 209, 210) observes:

Botany...had become a popular recreation; now accorded a place among the elegant accomplishments of every young lady of fashion, created a demand for manuals and instruction; and the cult of the language of flowers provided a ready market for sentimental flower books. Floricultural periodicals sprung up on all sides, and though some were deservedly ephemeral, many had a long and useful existence. New flowers from all parts of the world – heaths and pelargoniums from South Africa...stimulated horticulturists and gardeners alike.

Warner points out though, that by 1830 botany started to take on aspects of a modern science, rather than a purely taxonomic and descriptive subject. To strengthen their claims as scientists some professional botanists – John Lindley, Prof. of Botany at the University of London, in particular – determined to distinguish between 'polite botany' which he called 'amusement for ladies' and 'botanical science' which he called 'an occupation for the serious thoughts of man'.<sup>6</sup> Botany began to assume the gender definitions as defined during that age as appropriate for the sciences, which included the exclusion of women from any serious investigation and discovery. These same definitions denied women access to 'High Art', for example, while it allowed them to write poetry and novels<sup>7</sup> and to paint flowers.

The development of these gender perceptions was a direct result of the new scientific spirit of the time and the need people felt to classify and order the world around them. When Linnaeus supposed a fixed order of creation and classified the fauna and flora of the world according to a hierarchical system of classification, so too were the men and women of different cultures classified. This system was even applied to Western society and women were classified as a lower species to men. Victorian writers attributed natural explanations to what was in fact the result of ideological attitudes, and women's values and concerns had to give way to the more 'advanced' concerns of men. The

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development of the ideology of femininity, that is a social definition of women and their role, intersected in the 18<sup>th</sup> and 19<sup>th</sup> centuries with the emergence of a clearly defined separation of art and craft (Parker and Pollock 1981: 58). Thus, botanical art, produced mainly by the 'lower' sex, became devalued and seen as a 'lower' form of art. Botanical art was regarded as an amusement for ladies.

In the 18<sup>th</sup> century a concern with identifying and defining a 'feminine sensibility' in the arts began. Lairesse, writing on flower painting in his *Het Groot Schilderboek* (1707), commented that 'it is remarkable that amidst the various choices in art, none is more feminine or proper for a women than this'. Chadwick, in *Women, Art and Society* (1996: 38) comments:

The eighteenth century opened with the Rococo period and a courtly, elegant style in which artifice and pleasure dominated the concerns of aristocratic men and women. By the second half of the century, philosophical enquiries into the nature of sexual difference had begun to reshape gender identity. A transition took place from older forms of public life to the modern division between public and private that underlies the formation of the modern family. In parallel, a modern notion of gender was built around the opposition between a public sphere of male activity and a private and female domestic realm.

During this age the European art world characterised women's art as both biologically determined and as an extension of their domestic and refining role in society. This characterisation reached its apogee in the 19<sup>th</sup> century when women were identified with nature and with the domestic, private life where motherhood and the virtues of the 'cult of domesticity' were extolled. The view that women's 'natural' roles and capabilities were inferior transformed the image of women into one of possession and consumption, hence women had no place amongst the conversation of artists who thought only in terms of 'masters' and 'masterpieces'. The 19<sup>th</sup>-century concept of art was that of a learned discourse. Artists were male and white and women's place was as an object of contemplation and inspiration for the male artist. Where women did paint or sculpt, their work was presented in a negative relation to creativity and high culture and 'femininity' was related to 'decorative', 'precious', 'miniature', 'sentimental', 'amateur', etc. It provided a convenient set of negative characteristics against which to measure male art, or 'High Art', and an opposite against which the male artist could find meaning and sustain his dominance (Parker and Pollock 1981: 80).

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This positioning of women to the private sphere of the family made scenes of family life seem particularly appropriate for women artists. 'It may be that in the more heroic and epic works of art the hand of man is best fitted to excel; nevertheless there remain gentle scenes of home interest, and domestic care, delineations of refined feeling and subtle touches of tender emotion, with which the woman artist is eminently entitled to deal,' noted the *Englishwoman's Review* in 1857. By the late-18<sup>th</sup> century flower and still-life painting had become common genres for women artists. These types of subjects were seen as suitable for women to paint as they related to their ability to copy nature's forms, in other words to imitate rather than to use creative imagination.

Arnold (1996: 65) comments that:

Women – denied access to art institutions and figure-drawing classes – were seldom considered 'professional artists', however competent their work. By choice or necessity women have chosen plants as their subjects. Their apparent preference for nature seemed to endorse the premises of Enlightenment philosophy, which associated women with nature (instinctual existence) rather than culture (acquired, systematised knowledge).

The belief was strengthened that women had a 'natural' aptitude for rendering nature's forms and 'thus a circle of interconnected issues created the impression that studies of nature are the products of amateurism and lesser talents' (Arnold 1996: 65). Floral painting was considered to make few demands and was therefore ideally suited to the limited talents of women amateurs.

The demand that women artists restrict their activities to what was perceived as naturally feminine intensified during the second half of the century. 'Male genius has nothing to fear from female taste,' wrote Léon Legrange in the *Gazette des Beaux-Arts* in 1860 (in Parker and Pollock 1981: 13):

Let men conceive the great architectural projects, monumental sculpture, and elevated forms of painting. In a word, let men busy themselves with all that has to do with great art. Let women occupy themselves with those types of art they have always preferred, such as pastels, portraits, and miniatures. Or the painting of flowers, those prodigies of grace and freshness which alone can compete with the grace and freshness of women themselves.

This attitude was often reflected in the small scale of the works produced. Scale is often a product of studio space and few women had their own studios or even access to one. They worked instead in

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dining or living rooms on small tables and often restricted themselves to watercolour as these paints were clean to work with and could quickly be tidied away.

The fact that there are so many women 'botanical' artists can be seen as a legacy, but also as evidence that women – throughout the 19<sup>th</sup> and most of the 20<sup>th</sup> centuries – were not prominent in business and were not expected to be the breadwinners. In their attempts to juggle domestic responsibilities with artistic production, the resulting bodies of work are often smaller. Although plant and flower paintings remained visible on exhibitions in Britain and South Africa, and these traditions had many followers, they were not highly regarded as significant art.

The wholesale rewriting of the history of art as separate and distinct lineages for men and women laid the ground-work for 20<sup>th</sup>-century accounts in which, once separated, women and their art could easily be omitted altogether. The necessity to resituate women within the history of cultural production has led to an important focus on female creativity, though this hasn't been without its problems. Chadwick (1996: 10) comments that:

...the isolation in which many women artists have worked, and their exclusion from the major movements through which the course of Western art has been plotted by historians, insurmountable barriers to reinscribing them into art history as it is conventionally understood. Again and again, attempts to re-evaluate the work of women artists, and to re-assess the actual historical conditions under which they worked, have come into conflict with the fundamental construction – by and for men – of traditional art history: an identification of art with the wealth, power, and privilege of individuals and groups who commissioned or purchased it.

This unsettling combination of ignorance and purposeful distortion of history has made the act of historical recovery, the reassessment of the feminine aesthetic in art and its history, a necessary process, by which the 'others' can be moved out of the margins and their value to history re-established. Since art, both by women and men, was so socially controlled it is strikingly apparent that the creative process, and its results, can not be viewed as androgynous or genderless. Sexual difference has been shown to be inscribed in both the objects of art history's inquiry and in the terms in which they are interpreted and discussed.

The notion that floral art should simply be written off as a hand maiden to science is finally being challenged and there is an awakening of interest in botanical art in the late 20<sup>th</sup> century by the public

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and the art community alike. The results of this interest are reflected in the large number of women botanical artists working today.<sup>8</sup> Within the Fine Art world few women have been able to bequeath their talent and experience to subsequent generations for the simple reason that they haven't been given recognition for their talent and achievements from male art colleagues and art historians. Perhaps botanical artists have the dubious advantage of having worked within an art form which was itself marginalised - and not only in terms of individuals. The members of this art form or group, such that it was, have then been able to bond with each other on the basis of shared strengths and resources, and give support and pass down knowledge and experience relatively freely.

Botanical artists today have to deal with the added legacy of the Modernist era which was unsympathetic to realist imagery. Through the development of Modernism, expressionism, abstraction and the theory that 'less is more', naturalistic art was relegated to the ranks of 'low art' and labelled as contrived and decorative. During the 1960s Modernist criticism was generally written in defence of abstract painting and sculpture. Nature became the impetus for ideas rather than direct subject matter (if nature was referred to at all) and the constructed rift between 'serious' 'high' art and a 'light weight' 'low' art became even broader. 'Modern art is no longer the copy of concrete objects ... Artistic technique [has] developed to an extraordinary level of refinement ... crystallised into the conditioned repetition of ready-made forms. And in this soil the putrid flowers of imitation thrive' (Rozanova in Harrison and Wood 1997: 199, 202). With the development of modern technology such as black and white, and later colour, photography and the motion picture, artists questioned their purpose and function in society. They were no longer required to record likenesses as the photograph could do that quicker, cheaper and more exactly. This invention helped to end the authority of painting to reproduce reality and indeed the doctrine of realism itself was questioned.

Botanical art was seen to be the 'mere' description of external scenes, as opposed to the spirit, feeling or 'poetry' of the scene. Under the aegis of 'imagination', in other words, the notion of imagery is split into two, and a distinction is made between the pictorial or graphic image which is a lower form – external, mechanical, dead, and often associated with the empiricist model of perception – and a 'higher' image which is internal, organic, and living. Imagery is refined and abstracted and only the non-representational image of 'pure form' is seen as transcendental (Mitchell 1986: 25).

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Wilfrid Blunt, however, makes a valuable observation regarding flower artists in his *Art of Botanical Illustration* (1994: 26, 27):

The greatest flower artists have been those who have found beauty in truth; who have understood plants scientifically, but who have yet seen and described them with the eye and the hand of the artist... A great botanical artist must have a passion for flowers... A draughtsman can make... a careful and precise study of a plant before him. But unless he loves what he is drawing, unless he knows the flower in all its moods, in all the stages of its development, there will be something lacking in his work... To those, therefore, who would study flower painting: first study flowers.

Where Modernism was unsympathetic to realist imagery, Postmodernism *is* however sympathetic to both realism and illustration. It also calls for the re-evaluation of marginalised art genres and it is through this process that acknowledgement needs to be given to the history of this art form and its artists. Within the relationship between art and science the matter of communication is essential and scientific thinking will always directly affect changes within plant representation. The image-text relationship is also essential to botanical art and it is only through the understanding of these complex relationships that the parameters of botanical art can be redefined, and this art form re-established as a valuable genre.

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- <sup>1</sup> Binomial nomenclature: one Latin name for the genus (the generic name) and another for the species (the specific name which Linnaeus called the 'trivial name'), (Arnold 1998: 2).
- <sup>2</sup> Five ranks of classification are recognised: class, order, genus, species and variety.
- <sup>3</sup> In his influential publication *On the Origin of Species by Means of Natural Selection* (London, 1859) he argued for the change of biological species over time, and for natural variations passed on by heredity. In his conceptual scheme, the evolution of species is related to changing environmental conditions, and is a gradual and continuous process (Arnold forthcoming 2001).
- <sup>4</sup> Original source given as Agnes Arber, *The Mind and the Eye: a Study of the Biologist's Standpoint* (Cambridge, 1964), p. 45.
- <sup>5</sup> William Ivins, in *Prints and Visual Communication*, Cambridge, Mass. and London, 1953, suggests a date of around 1400, although there is no evidence for the regular use of prints in books until the 1460s (Saunders 1995: 9).
- <sup>6</sup> Warner (1998: 87). Original source given as: A. B. Shteir, *Cultivating Women, Cultivating Science*, p. 5.
- <sup>7</sup> One finds a developing and eventually flourishing tradition of women's writing from 1660. Women writers had access to major publishers as well as editors of widely circulated magazines...their work was published frequently and it included poetry and prose, formal and informal works. 'It was not limited to the "familiar letters" and tales for children often regarded as women's major literary contribution during this period...This canon has been largely lost to modern readers, but it was well known to many 18<sup>th</sup> -Century readers – male and female' (Uphaus and Foster 1991: 1, 16). It would, however, be misleading to imply that women were able to sustain themselves economically.

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<sup>8</sup> It is important to note, however, that although many women are enjoying the growing support offered to botanical art many are probably ignorant of the history of women artists, and would not see themselves as challenging paradigms. Few, too, would present themselves as feminists or see their art as possessing any quality of political agency.

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## **NINETEENTH-CENTURY CAPETONIAN SOCIETY AND PLANT IMAGERY**

Art history as an academic discipline categorises cultural artefacts, privileging some forms of production over others and continually returning the focus to certain kinds of objects and the individuals who have produced them (Chadwick 1990: 12). In order to reassess botanical art and its artists in South Africa, it is necessary to take a look into the history and development of this art form in South Africa, and especially the Cape, taking into account how society functioned during the 19<sup>th</sup> century and how it responded to art.

By the end of the 1700s South Africa was still very much a land of pioneers. Settlement was confined largely to the coastal areas and only the interior of the Cape had any long-established, though still small, towns. Cape Town was the main centre of urban activity and at this point was experiencing major political, social and economic changes. From being a backwater of the V.O.C empire, it became the capital of an expanding British colony. As the British assumed control of the Cape in 1795 (apart from a brief return to Dutch rule between 1803 and 1806), they ushered in new styles of political and cultural leadership. For the first time Cape Town was recognised as the 'founding city' of the colony, and as more than a mere headquarters of government or a market for farm produce. The British established new garrisons and administrations and encouraged immigration. This was done partly to alleviate the poverty and unemployment in Britain, and partly to set up a barrier of settlers between the Xhosa and the Colony. The British government painted a picture of milk and honey for the emigrants. No less than 90 000 people wanted desperately to join the settler scheme of 1820, but there was only room for about 4 000 on the first major wave of settler ships (Bryer 1986: 4).

Although most of the settlers moved to the Eastern Frontier of the Colony there were many who stayed in Cape Town. These immigrants, and other European settlers, made a marked impression on Cape Town, altering the character of the town's population and its social and cultural diversity. English

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became the lingua franca and the Dutch-speaking community - those that hadn't joined the Great Trek<sup>1</sup> - seemed to remain generally amicable and accommodating towards their English, Scottish and German neighbours, although by 1827 Dutch/English tensions were once again growing in the town as the Burgher State was abolished and English was made the sole language of administration. 'If there was snobbery at all, it was practised by the English who jealously sought to retain the manners and customs of their country in a rude and comfortless land' (Gutsche 1966: 5). They failed to see South Africa as a country with a history and had insufficient understanding of either its Boer or its black inhabitants, or of their respective pasts. It was commonly thought that '...the best, perhaps the only hope for [South Africa's] future lay in colonising it with British settlers "picked men ... and breeding women," who would bring with them their own traditions' (Kipling in Durbach 1988: 89).

Already widely differing identities divided Cape Town's population by class, wealth, religion, gender and ethnicity (Worden, van Heyningen and Bickford-Smith 1998: 88). The astronomer, Thomas Maclear, wrote of Cape Town in 1834 (Warner 1984: 31):

Judging from the harbour view, a stranger might estimate the population of Cape Town at 2000. But on landing I was agreeably taken by surprise at finding a regularly built populous town. The streets exhibiting a mixture [of] bustle and idledness! (sic)...English-Dutch-Germans, French – people apparently of all nations bestirring themselves in their respective avocations.

In 1834 the population of Cape Town was officially estimated as over 19 000, of whom 8 800 were of European descent, some 6 700 were slaves and the remainder were free persons of colour, largely of Khoi-San origin – then referred to as Hottentots and Bushmen (Warner and Rourke 1998: 29). A comment, by a German visitor in 1838, reflects that 'there are probably few cities in the world, within so narrow a space, [that] could show a greater variety of nations than Cape Town does' (quoted in Warner and Rourke 1998: 29)<sup>2</sup>. By the 19<sup>th</sup> century the divide between a very wealthy elite and a permanently impoverished sector of the urban population started to become apparent.

The immigrants came from all sectors of European communities, from poor carpenters, to gentlemen down on their luck. The greatest number, however, were desperate people escaping the poverty of their existence in England, Scotland or Ireland but, in the early-19<sup>th</sup> century, Cape Town did not offer

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poor immigrants many opportunities for enrichment. Besides the town itself, much of the Cape in 1818 was little else but desolate, open country, 'woeste veld' as a contemporary title deed most tersely puts it with regards to Sea Point (Murray 1964: 1). British immigrants with some capital could set themselves up in the ever-lucrative occupation of innkeeper or at least hire out rooms, and immigrants with particular skills could establish themselves as bakers, coopers, blacksmiths and saddlemakers, though in competition with local artisans. However, this was still a town of small-scale craft workshops, service and retail, without large-scale manufacturing or industry and those without skills or capital disappeared into the alleys and byways of the already overpopulated poor districts of the town.

The town saw a recovery of trading prosperity and experienced an economic upturn in the mid-1830s, but this benefited mainly the traders and retailers. The impetus for this upturn was provided in part by the ending of slavery in 1834, which not only brought compensation money from Britain, but also turned slaves into wage-earning artisans and hence direct consumers.<sup>3</sup>

Meanwhile, the British colonising spirit flourished and South Africa, along with its fauna and 'rich indigenous flora was seen as part of the great imperial treasure chest - an asset that had to be discovered, documented, preferably illustrated and, wherever possible, developed or commercialised' (Rourke in Arnold forthcoming 2001). Cape Town and the enticing and mostly unexplored interior attracted many scientifically minded, scholarly and curious people from all over Europe; botanists, zoologists, astronomers and other scientists and their wives who came to South Africa to savour its extraordinary natural richness. Many traveller's sketchbooks testify to the impact this country left on its visitors, and museums and herbaria, the world over, house the collections of botanists and naturalists who came to collect, sketch and preserve almost anything they could find. Astronomers, too, came to study the strange constellations in the sky and military artists and officers often made topographical drawings of the land.

There were also numerous anonymous artists who mechanically recorded information, which was then sent to England to be 'photo' copied by other disinterested draughtsmen and printers (Rourke, pers. comm. June 1998). However, talented amateur artists started to join Capetonian society. These people often came in the guise of some other profession, mainly because it was almost impossible to make a living from art at the Cape, but also because the known world was then so small that any, and almost every profession required versatility rather than extreme specialisation.

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One of the most important early-nineteenth century explorers to visit South Africa was William J. Burchell (1781-1863). He not only travelled to areas previously unexplored by Europeans but he also had a passionate interest in natural history, as well as in the collecting and recording thereof. He sent large collections of curiosities and dried plant specimens to England and many of the new species he came across he named, being mindful of Linnaeus' new system of classification. He spent four years, between 1811 and 1815, travelling in an ox wagon through South Africa's rugged terrain with a band of Hottentots for company and help. It would seem that he learnt much from his travel companions as he often named plants he found according to the uses or beliefs of the local people. Burchell was also a competent draughtsman and to complement his extensive collections he made nearly 500 drawings; landscapes, portraits, costume, zoological, botanical etc. though, being a man of science his drawings have a strong scientific content rather than an artistic one.<sup>4</sup>

Raby points out that scientific explorers catalogued the natural world and its history as inexorably as the naval chart-makers surveyed the oceans. Their aim was to track down every living thing and to take specimens back to Europe for the edification of 'less adventurous members of the tribe' (Raby 1996: 8).

Apart from professional explorers and collectors, many amateur botanists and naturalists made large contributions to the science of botany. From the earliest times of the colony, the general sense of inquiry and curiosity extended to even the smallest and most distant towns and farms and the enthusiasm of these observers and collectors was kept alive by a financial lifeline to the South African Museum in Cape Town. Officials at the museum arranged for all letters and specimens sent by collectors to travel without cost. Later, an even more exciting facility was developed whereby the Union Steam Company carried all the curator's "little zoological parcels" to England free of charge. In this way the names of naturalists in the remotest parts of the colony, many of whom added their observations to the professional accounts of scientists, came to be known and acclaimed in high quarters and even published in the most prestigious European scientific journals (Gutsche 1966: 10).

The Victorian scientific travellers took with them their attitudes and value systems and travelled, for the most part, as orthodox Christians, representatives of one of the most rigid and regimented societies in Europe: white European males, class conscious, racist and chauvinistic (Raby 1996: 18). Part of the exploratory zeal and world-wide trade in plants stemmed from the European belief that the

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rest of the world, or at least its most fertile areas, was an extended farm, and they were constantly looking for useful and financially viable species to transplant (Raby 1996: 124). Sir Joseph Banks (1742-1820) was an avid plant collector and, once back in England, established the Royal Botanic Gardens at Kew. He was the first to develop a policy of organised plant hunting and his single-handed establishment of economic plant transfers played a vital role in Britain's emergence as a world power. It also led directly to the exploration of human and natural resources in the colonies (Musgrave, Gardener and Musgrave 1998: 31, 34).

Few women overcame the prejudices of the time to become successful explorers, needing enormous personal wealth and willpower to do so, but a woman who contributed greatly to collections of the time was Mary Elizabeth Barber (1818-1899). She didn't have the wealth to travel, but she was a dynamic and resourceful woman who came to the Cape as a child with the 1820 settlers. Besides being a skilled artist she had a fascination with science and natural history and through this interest developed close collaboration with naturalists in South Africa and overseas, and supplied botanical specimens to Kew Gardens in England. She wrote scientific papers and through these communicated her observations to Charles Darwin, whose *Origin of Species* (1859) she is said to have influenced. She also provided observations on pollination and pollinators for William Henry Harvey's publication *Genera of South African Plants*, which was published in Cape Town in 1838. She achieved all this while trying to raise a family during the frontier wars of the mid-19<sup>th</sup> century, as well as coping with life at the Kimberly diamond fields where conditions were primitive (Arnold 1996: 67-68). Barber writes of her experience in early South Africa (Gutsche 1966: 9):

Often when we have been driven away from our homes and had them burned by savages and have had nothing to shelter us but a wagon for months together, then botany (and the *Genera of South African Plants*) has been my sovereign remedy to drive away care.

This was an age of skilled amateurism and although Barber was a self-taught artist, her work shows a keen eye for detail and precise rendering of form. In figure 5, her treatment of *Burchellia capensis* (now *Burchellia bubalina*) is stylised rather than naturalistic, due to the emphasis on line. The design shows a quiet impulse towards symmetry and the overall effect is rather decorative, but the forms and informative detail reflect a convincing study and understanding of the plant and manifest Barber's respect for its innate structure.

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The low social standing afforded the arts in the Cape and the fact that there was not a large enough, or interested enough, public to support artists financially meant that art as a profession was not attractive. For the determined, one way of generating an income as an artist was to turn out low-priced drawings, as curios, for sale in the shops of Cape Town and in as early as 1807 the *Cape Town Gazette* offered views of the Cape for sale (Gordon-Brown 1952: 65). Popular topics for sale to passing sailors, visitors and the military trade were the tourist scenes of Cape Town, Table Mountain and the coastline, shipwrecks, and later imaginary scenes of the southern African war. As the modern post card was not yet in vogue it was also often customary to have some interesting view printed at the top of a sheet of letter paper, to be sent by post for the benefit of 'absent friends' (Gordon-Brown 1952: 43). A tradition of painting miniatures also began, in preference to canvasses, due to the fact that a heavy duty was imposed on the importation of pictures to England, dependant on their size (Gordon-Brown 1952: 24). For many, the only way of being able to take home a memory of a landscape or a loved one was in miniature.

Some artists sent their work to Europe for publication and sale. There was a percentage of European 'armchair travellers' and adventurers, unable to explore the 'new worlds' themselves, who were growing increasingly interested in the exotic, the mythical and the strange and were eager to purchase illustrations and information. Artwork made for this market often exhibited a measure of idealisation and the heightened atmospheric effect characteristic of Romanticism. However, there was a concern to document rather than to simply idealise pre-colonial societies and the exotic flora and fauna of this distant outpost of the British Empire. Throughout the 19<sup>th</sup> century artists were encouraged in their tendency to record the exotic and the extraordinary, in an attempt both to ensure their own commercial success and to highlight the 'otherness' of their subjects<sup>5</sup>. Jean Villet (1817-1877) is largely considered to be one of the first resident professional artists at the Cape. He was a self-taught artist who joined his father's business, C. M. Villet and Son<sup>6</sup>, in 1836, dealing in natural curiosities. Visitors to 19<sup>th</sup>-century Cape Town, themselves unable to paint, were able to purchase flower paintings as momentos as Villet offered 'Drawings of Cape Flowers' for sale and would also draw specific species on request.

From the early days of British occupation until the mid-19<sup>th</sup> century the 'Indians' were a distinctive group who made their presence felt in the art scene and in society at the Cape at large. These people were British officers and administrators who served with the East India Company and, until the

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opening of the overland route via Cairo in the 1840s, passed through Cape Town on their way to and from India (Worden, Van Heyningen and Bickford-Smith 1998: 96). Initially these visitors made a great contribution to financing the arts by buying the above-mentioned 'curios'. However their support, like their visits, was seasonal and, unlike Villet, who had the security of a shop behind him, many artists often battled to survive during the winter months when fewer ships stopped at the Cape. The situation worsened after the opening of the Suez Canal in 1869 as Cape Town was now deprived of most of the traffic travelling from the East all year round. It is not surprising, therefore, that professional artists who strove to make a living at the Cape abandoned this pursuit to become shop assistants, wagon builders, clerks or labourers. As Cowper Rose comments in his book *Four Years in Southern Africa* (1829: 46), 'Africa affords no encouragement to art; (the artist) lives in a mud-hovel, hawks about his drawings in vain, and his pencil (even) fails to keep him in Cape brandy'.

With the influx of visitors and settlers Cape Town's culture became more and more predominantly English and the new arrivals held onto their culture. Some British settlers went to great lengths to reshape their houses into a more British form, with the British Regency style in architecture having a marked influence on Cape Town houses<sup>7</sup>. The growth of cultural institutions like the South African Public Library (1818), South African College (1829) and the South African Museum (1825) reflects the interest and growing support for literacy, learning and scientific endeavour. During the 19<sup>th</sup> century, however, women and men in Cape Town slowly began to define themselves as distinct, both from Europe and from the surrounding rural districts and in 1840 Cape Town obtained its own municipality. It is evident that, along with these institutions and a sprinkling of plays, concerts, public lectures, dances and balls Cape Town could provide considerable stimulus to the cultured resident.

On closer inspection, however, Cape Town itself was not a healthy or particularly convenient place to live. The canals in the streets, used to carry off water in winter, 'stank abominably' in the dry season. Even the 'Gentleman's Canal' or Heerengracht, fed by spring water from Table Mountain and often described by travellers as a fine wide street, with a deep water-course and a double row of tall and thick fir-trees in the centre, became the focus of complaint (Hattersley 1969: 177). Washerwomen frequented its upper reaches and in its city passage it received the effluent of the populace, including the remains of dead cats, rats and dogs. The street was also mostly unsurfaced, feeding red dust into the blasting south easterly winds in the summer and turning to mud during the heavy rain and gales of the winter months. As a result, those that did not have businesses in the town or were members of the

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aristocracy, like the 'Indians', often moved out to Wynberg and Claremont where they enjoyed better living conditions and milder weather.

The second half of the century, however, saw much development and reform. By 1899 Cape Town had many of the amenities of a modern city and its middle-class citizens had more time and money to indulge in art and learning (Worden, Van Heyningen and Bickford-Smith 1998: 226, 227). For many decades financial instability had been a concern to all middle-class Capetonians, but progressive reforms in financial management within Cape Town eventually made the Cape a more attractive field for investment. This was also the age of a global revolution in communications, which meant the establishment of a regular mail service to and from Britain in 1857, the installation of the first telegraph lines and the revolutionary introduction of the railway.

This more accommodating and prosperous environment stands in sharp contrast to the harsh, often cruel lifestyle in the northern territories. At the gold and diamond fields<sup>8</sup> living standards were difficult and often dangerous and tensions between the Dutch and the Uitlanders (foreigners), most of them British subjects who had flocked to the gold-fields, grew until they culminated in the outbreak of the Anglo-Boer War<sup>9</sup> in 1899. The Cape's relative prosperity during the war years did not really extend into the field of art. With the inclusion of women and children at the Cape the development of social skills and the entrenchment of the Victorian gender roles and expectations already prevalent in Britain were promoted. These became a part of Cape society and, as in Europe, activities for women and men became strictly defined. Instruction in painting, drawing, music and dance was part of the education of every middle-class person, especially ladies.

Even though art came to be considered a social activity, Cape Town's small fraternity of permanent artists, like the colonial schoolmasters at that time, were accorded only a lowly status. This situation stands in sharp contrast to the social standing and support artists were afforded in Europe, where botanical artists, men like P. J. Redouté and the Bauer brothers – Ferdinand and Franz – were well paid and could make a good living from their work. They were also held in high esteem. In the Cape, however, art was considered useful only as a means of recording discoveries, geographical or botanical for example, or as an activity with which ladies could keep themselves busy. Both the settlers and the wives of the British civil servants from India brought their skills with them to southern Africa. On the whole these women, who had the basic training to keep themselves busy during their 'leisure' hours by

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working on portfolios of paintings and drawings, added to the wealth of Africana we have today. They signify, too, the popularity of amateur botanising prevalent during this period, as we have already witnessed with Barber. Some of these women produced good quality work, but few received any serious acknowledgement.

Arabella Elizabeth Roupell (1817-1914) visited the Cape in 1842 with her husband, Thomas Boone Roupell, an East India Company official on sick leave from India. A woman typical of her time, Roupell made flower studies while on her visit. Her work is notable for its strength and accuracy and her book *Specimens of the flora of South Africa* 'by a lady', published in 1849, stands testament to her talent and dedication. *Protea mellifera* (Fig. 6) is a good example of Roupell's decorative though convincing handling of this boldly assertive plant. Though there are no botanical details, through a keen observation of detail the habit, structure and character of the plant is clearly shown without sacrificing the balance of the design or Roupell's evident delight in pattern and symmetry. Unlike the work of most 19<sup>th</sup>-century women, Roupell's work was published. As a married woman, however, it was not proper that she overshadow the importance, success and social standing of her husband and as a result, such was the strength of Victorian conventions, Roupell's book appeared anonymously. In her preface she mentions that her paintings 'were solely for the amusement of leisure hours' and painted 'under the critical eye of Dr. Walich' (Roupell 1849).

One of the most original Victorian ladies to visit South Africa was Marianne North (1830-1890). North is an extraordinary example of the Victorian pioneering spirit. She travelled extensively and completed eight hundred and thirty two paintings in oil in thirteen years of travel around the world. Many of her works depict tropical plants or flowers and many were barely known botanically or horticulturally when she painted them. She made many intricate and luscious paintings of South African flora when she visited the country in 1882. Though she worked in oil paints and did not adhere to botanical conventions as such, her work is a remarkable and accurate record of many interesting plants and flowers shown in their habitats, the regions of the world that at that time were being explored by the West. Most of her paintings were painted in oils on prepared paper with the minimum of facilities and sometimes in a single day.

Botanically, the Cape was a wholly unfamiliar world to the new arrivals from Europe and the most striking characteristic was the fact that there was no real dormant season. As well as an overwhelming

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diversity of plant species, every week of the year brought forth different species in flower. One couple who found the flora bountiful, and irresistible to record on paper, was John<sup>10</sup> (1792-1871) and Margaret Herschel (1810-1884). The Herschels were immediately taken by the natural fauna and flora around them and as John probed the skies Margaret Herschel started to collect. She commented, 'The Heavens are indeed beautiful & promise a rich harvest to Herschel, & I will try & bring home as much information & as many specimens as I can of the flowers & insects of the place' (Warner 1991: 26). Rourke (Warner and Rourke 1998:70) suggests that it was Margaret who instigated the plan to form a collection of paintings and that her husband encouraged her.

Sir John's diary entry, for 30 August 1835 reads: 'A splendid day. All the beautiful flowers coming out in such glory that M&I in a pure rapture seized on them and neglecting all other duties & occupations set to work I outlining & she colouring them' (Warner and Rourke 1998: 2). In nearly all cases, these drawings were executed in watercolour over a pencil drawing produced with the aid of a camera lucida<sup>11</sup> and together the Hershels created a portfolio of 131 mainly coloured images.

As with all educated people at the time, John and Margaret Herschel had received some formal instruction in drawing and painting, but when Margaret arrived in South Africa she had little or no experience as a flower painter. Her painting techniques matured quickly, however, and as Warner (Warner and Rourke 1998: 4) observes, despite her daily preoccupation with child rearing and 'the mundane distractions of this and household management she succeeded in completing over one hundred and twenty colour paintings in the space of four years'. Rourke (in Arnold forthcoming 2001) comments:

Although their portfolio of exquisite paintings was originally intended as a personal family record, it achieved far more than other comparable contemporary collections of botanical mementoes. For the most part these paintings lack floral dissections, yet sir John's scientific influence nevertheless ensured a degree of accuracy in the Herschel collection never before achieved by any other resident botanical artist.

John's confident use of line in the image of *Kniphofia uvaria* (Fig. 7) belies the use of the camera lucida. Images made with this device show a very firm continuous line made with a very distinctly pointed pencil (Lack 1998: 269). Margaret's confident handling of watercolour captures the play of light off

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individual flowers as these sit in their proper place within the composite whole. Tonality is achieved through the use of darker shades of colour, rather than through the use of blacks, creating forms that seem to stand out from the page. Her use of light and clarity and attention to detail, especially evident in the anthers and stamens of the flowers, reflects a strong awareness of inter-related forms and three-dimensions.

As a profession, art in early South Africa seems to have been restrained and subdued, as the society in which it was to function was conservative and practical. The idealisation of simplicity, the widespread philosophical concern with the nature of reality and the doctrine that only that which can be observed and recorded is real led to naturalism in European art. The contemporary obsession with factual recording was accompanied by rapid developments in the optical sciences, which eventually led to the development of the camera. By the mid-19<sup>th</sup> century photography<sup>12</sup> was well established, and images could be made cheaply and quickly. John Hershel printed his own images, and experimented with light sensitive chemicals and different substances to print on. He was the first to print pictures on glass (Bensusan 1966: 1), these experiments proving hugely beneficial to the development of photography. Within South Africa the first photographic process was advertised for sale in the *S.A. Commercial Advertiser* in September 1843, under 'PHOTOGRAPHIE'. However, there was little photographic activity in the Cape for the next couple of decades, even though there seems to have been interest in this field in other centres in the country<sup>13</sup>. An interesting situation, pertinent to botanical investigations, was the discovery of a glass plate negative of *Mimetes stokoei* (Fig. 9) dating from 1922. This is one of the few surviving examples of early photography used to record botanical subjects at the Cape. This plate is one of only two known photographs of this species in flower and the specimens depicted have been proclaimed types of this now extinct species.

Artists in South Africa were expected to do no more than record facts. The more realistically they executed this task the better they were considered to be as artists. There was little demand for the fine and pictorial arts, and more useful disciplines like furniture design, architecture and the manufacture of silverware enjoyed more patronage. Even so, by the middle of the 19<sup>th</sup> century there was a small fraternity of artists who resided permanently or temporarily at the Cape, amongst whom were Thomas Baines (1820-1875) and Thomas Bowler (1813-1869).

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Baines arrived in South Africa in 1842 and on his periodic returns to England published accounts of his travels in written and pictorial form (Carruthers and Arnold 1995: 12). He left a wealth of images, realistically painted, of travels in Botswana, Namibia and Zimbabwe and, according to Arnold (Stevenson 1999: 77), 'undertook many projects that required visual imagery, but some of his finest paintings are interpretations of the African landscape and its floral covering'. He was also a keen collector and would regularly send back collections of specimens to the botanists at Kew Gardens in London, with whom he kept close contact. When not able to collect specimens, he painted the vegetation which he thought would interest the Kew botanists, adding inscriptions of unusual facts at the base of the painting. His landscapes too form part of Baines' significant contribution of floral imagery as they are accurate and descriptive, and are in botanical terminology, habitat sketches. His work can therefore be seen as a valuable source for understanding the botany of the countries which he visited.

Bowler came to the Cape as a servant of the doctor and astronomer Thomas Maclear. He was one of the first artists to work professionally at the Cape and to become successful, and he opened the first art school in the country, in Cape Town, which was called the Roeland Street School of Art and Evening Classes. He published prints from his sketches and - like Baines - contributed drawings to the *Illustrated London News*. He complained of the lack of interest in art in South Africa and wrote to a friend in London (Bradlow 1955: 35), 'Art in this place is at a discount, particularly among the Dutch and education is generally not appreciated. Drawing material is of the worst kind and remarkably dear'.

During the high Victorian age a circle of women flower-painters developed at the Cape, inspired by the wealth of natural flora and encouraged by the belief at the time that women had a 'natural' aptitude for copying nature's forms. Emily Thwaites (c. 1860-1906) was one of the stronger artists in this group and produced a magnificent collection of watercolours, now housed in the Compton Herbarium at Kirstenbosch, in Cape Town. Her paintings were greatly appreciated by her contemporaries, to the extent that in 1880 the South African Fine Arts Association awarded her a medal for the best watercolour paintings shown that year. Her images are richly coloured with fine brush strokes and have an intensity which evokes the essence of the species. This can be clearly seen in *Carpobrotus saueriae* (c. 1890) (Fig. 8). Thwaites also made use of background shadows to produce a visual illusion of greater space and depth, and to enhance an overall impression of solidity of the plants. Although Thwaites

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worked mainly with plants and flowers as her subject matter she was not strictly a botanical artist as she painted for the pure joy of painting and with no scientific guidance.

Art received a boost when the South African Fine Artists Association was established and in 1851 the citizens of Cape Town arranged their first formal exhibition of Fine Art. This was composed largely of European exhibits borrowed from the homes of the more wealthy residents with only a few locals included like Thomas Bowler. For the most part, however, the Colonists who painted at the time were hobbyists and they translated their experiences and interpretations into tried and tested conventions which had been current earlier in Europe.

The small community of professional and semi-professional painters active in the Cape by the end of the 19<sup>th</sup> century founded the South African Society of Artists in 1902. Not long afterwards societies of arts and crafts began to appear in other regions, and exhibitions, organised by these organisations, were well supported by artists though there was very little critical selectivity. The decision as to what constituted art was governed largely by conformity to accepted conventions, the presence of some technical skill and a certain verisimilitude to the appearance of nature. South African Society of Artists membership was extended to other regions and areas like the Transvaal<sup>14</sup> and Natal developed into art centres in their own right. In Johannesburg Lady Florence Phillips (1863-1940) directed the acquisition of a collection of European art and by 1913 it was hanging in the new halls of the Johannesburg Art Gallery. Natal also developed an artistic awareness and the short-lived South African Institute of Art, centred in Durban, enjoyed unprecedented prominence in South African art affairs.

A lack of external stimulation has always been a dominant issue in the history and development of South African art. During the first thirty years of the 20<sup>th</sup> century there were few art schools and those which existed followed the teachings of overseas academic traditions. International travel was limited and illustrated literature on art almost non-existent. Few urban citizens had ever been inside an art gallery and the general tastes of the public, even those with an interest in art, were cautious and conservative in the extreme. As far as the artists were concerned it was tempting to fall in with such conservative ideals, especially when their livelihood depended on it.

By sharp contrast to late-19<sup>th</sup>-century South Africa, Europe had been affected by the emergence of Modernism and growing urbanisation, mechanisation, and speed. The speed at which science and

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technology was developing was unprecedented and Western civilisation started to question its own foundations. Within art, artists started to rebel against all that was normative or traditional and to call attention to the processes and mediums of art making. Within painting, their main concern was a preoccupation with surface and with the consequences of loosening colour and structure from depiction (Harrison and Wood 1992: 126). The subject of art no longer needed to be recognised as existing in the world out there and as Burgin (Harrison and Wood 1992: 912) explains it, ‘Modernism [became] typically defined in opposition to Realism’.

Most of what occurred in Europe had little effect on art in South Africa until the 1920s. Many of the artists working at the Cape delighted in picturesque scenery, mountains and the wealth of natural flora. Many lived on farms or in small villages far away from the relative vitality of urban Cape Town and landscape painting became a particularly popular genre. J. Volschenk (1853-1936) and Hugo Naudé (1869-1941) were both born at the Cape and were the first in a long line of South African landscapists in the academic tradition. Naudé’s enjoyment of the landscape extended to the plants that grew in it and when Hutchinson met the artist at his home in Worcester he wrote (1946: 55):

...There I met a well known South African artist, Mr Naudé and saw his ...garden...Mr Naudé was keenly interested in plants, and in the evening he showed us some beautiful paintings of the Namaqualand scenery and flowers, which he had visited in the year 1925, during a good season.

By the early 20<sup>th</sup> century opportunities started to open up for artists to work professionally as botanical artists. South African botany had received a boost with the appointment of Dr C. W. L. Pappe as first Cape colonial botanist in 1856 and thereafter there was a demand for botanical illustrations for publications and research. This was a significant development as the increased demand for botanical images enabled artists to work professionally, and this in turn gave them the time to further develop their skills and techniques without the worry of day-to-day survival. As a result, production increased and the general quality of illustrations improved.

A significant early South African publication is Rudolf Marloth’s<sup>15</sup> *Flora of South Africa* published from 1913 to 1932. It contains 180 colour plates and it far exceeds the original expectations of it being a collection of illustrations with accompanying text. Lady Florence Phillips first conceived the idea for

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this botanical Africana, her intention being the production of a richly illustrated guide to the flora of the two territories that were later to be united to form the Union of South Africa. It was to be in full colour and aimed at a broad readership, rather than only scientists. Marloth employed several artists to prepare the plates, all of them living in South Africa. Here at last was a chance for local botanical artists to parade their talents in a book on southern African plants. Among these artists were Ethel Dixie, Esther Smith, Florence Thwaites (sister of Emily), Millicent Franks and Peter McManus. It is interesting to note that as the financial benefits were so meagre, men having to support families as well as themselves could seldom afford to work as botanical artists. In most cases the only people who were available to fill this role were women.

As soon as Marloth was aware of the project he requested the artistic services of Ethel May Dixie (1876-1973), a self-trained artist whose botanical paintings were already well known in Cape Town. Dixie contributed the major portion of the art-work, using freshly collected specimens as her subjects, and the *Flora* occupied her intermittently for nearly two decades. The First World War disrupted the project since most of the colour printing was done in Germany. Dixie painted with gouache, the solid quality of which printed well but which also often failed to represent the bright reflective sparkle inherent in some of the indigenous floras.

‘In a very real sense, Marloth’s team consisted of the first truly professional botanical artists in southern Africa, their work having been specifically commissioned and paid for’ (Rourke in Arnold forthcoming 2001). It paved the way for an upsurge of popular interest in the country’s native plant life, becoming the forerunner of a steadily increasing flow of well-illustrated accessible botanical books that appeared in the post Second World War period.

Besides the work opportunities now available in publishing, the growth of research institutions also increased employment opportunities available for botanical artists. Besides contributing plates for Marloth’s *Flora of South Africa*, Millicent Franks (1886-1961) worked as a botanical artist at the Natal Herbarium from 1901. From 1915-1925 Mary Maud Page<sup>16</sup> worked at the Bolus Herbarium<sup>17</sup> at the University of Cape Town, where she produced work of remarkable quality and faithfulness to her subjects.

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The head of the Bolus Herbarium, Mrs. Louisa Bolus<sup>18</sup>, was an avid supporter of botanical art and when she first saw Page's work she was enthusiastic, 'struck by the beauty of the flower paintings she showed (her)' (Bolus 1926: 60). With Bolus' support Page learnt 'to paint from the botanical point of view' (Bolus 1926: 60), to paint as a botanical illustrator and to be aware of and to illuminate the scientifically significant differences between species. She learnt to discern more of the minute differences between the various species and to do her own dissections. She became the official botanical artist at the Bolus Herbarium in 1915 where she worked enthusiastically for the next ten years. At the time of her death more than three hundred watercolour drawings remained unpublished, but fortunately since then many have appeared in various publications, including *Flowering Plants of South Africa* and Marloth's *Flora of South Africa* (1913-32). Roughly two hundred of Page's plates were dedicated to the family *Mesembryanthemaceae*<sup>19</sup>, and as Mrs. Bolus wrote in Page's obituary (Bolus 1926: 60), 'constitute an invaluable contribution to our knowledge of that difficult group.'<sup>20</sup> Page's work has been so greatly appreciated that ten new plant discoveries have been named after her including the genus *Pagella* (Crassulaceae).<sup>21</sup>

Another journal which was to have a tremendous influence on botanical art in South Africa, and which still publishes the work of South African artists, is the *Flowering Plants of Africa*<sup>22</sup>. Dr. I. B. Pole Evans (1879-1968) intended this publication to have an even broader scope than Marloth's *Flora*. It would be a full-colour serial that would serve as a showcase for southern African botanical art for decades to come. The first 29 volumes were printed in England and bound with hand-coloured lithographs but in the 1940s, during the war when there were fewer colourists and when the development of colour printing became available, South Africa took over the printing of *Flowering Plants of Africa* (Condy pers. comm. Feb 2000). This publication has been running since 1921 and, to date, contains over 2 000 colour plates, the work of 87 different artists. The artists on the staff of the NBI are still mostly responsible for the preparation of the plates for this publication, but freelance artists do also make contributions<sup>23</sup>. Although the print run is small (about 500) the journal continues to be a valuable source of specialist information and an outlet for the work of botanical artists.

Despite the fact that Pretoria, home to the Botanical National Institute, assumed a significant position in the 20<sup>th</sup> century, Cape Town gave South African botany a secure place within science. The circumstances relating to the growth and development of Cape Town through the 19<sup>th</sup> century, especially those relating to its socio-economic prosperity, played a powerful role in the development of

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the botanical art scene. By the end of the century botanical art had developed from a field of skilled amateurism into one which could offer paid employment for botanical artists. In addition, the wealth of plant imagery produced during this period provided a solid base for the further development of this art form in the 20<sup>th</sup> century in South Africa as a whole.

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- <sup>1</sup> When the British conquerors came to safeguard the strategically vital Cape, they made even less effort than the Dutch to win the loyalty of the colonists. In 1836, in search of freedom from British rule, over twelve thousand Boers started the Great Trek up to what was later to be known as the Transvaal.
- <sup>2</sup> Original source given as: Ferdinand Krauss, 'A description of Cape Town and its way of life, 1838-40', *Quarterly Bulletin of the South African Library*, 21 (1966-7), 43.
- <sup>3</sup> It is interesting to note that with the abolition of slavery previously used categories of 'free blacks', 'slaves', 'prize negroes' etc. fell away and instead, the census records after 1836 started classifying Capetonians as 'white' and 'coloured' (Worden; Van Heyningen and Bickford-Smith 1998: 102).
- <sup>4</sup> Being an avid collector of plant specimens, which were to be pressed and dried for storage in herbariums, Burchell was painfully aware of the limitations, especially when it came to collecting succulents. He remarked (Hutchinson 1946: 630) that
- An object very desirable for botany, would be obtained, if a good draughtsman were to pass three or four years in travelling about the Cape colony, with the sole view of drawing, on their native spot all those plants...which, from their fleshy nature or delicate substance, cannot well be preserved in an herbarium.
- <sup>5</sup> For example, with reference to George French Angas' *The Kaffirs Illustrated*, 'Kafirs' were considered 'good business' in mid-nineteenth century England as they were strange and exotic (Altick in Klopper 1989: 69).
- <sup>6</sup> In response to the era's new sentiments and broadened interests, which stressed observation and the quest for greater knowledge, Monsieur Villet not only kept a shop, which pandered to the desires of an age of curiosity and collecting, but also kept a kind of private zoo in Sea Point.
- <sup>7</sup> In fact the British presence was so strong that Captain Mundy, returning from an extended trip in India, was delighted to stop over at a town which at least approximated to those of his origins (quoted in Warner and Rourke 1998: 31). He wrote 'The town is most picturesquely, but not stiflingly situated under the curving flanks of the Table Mountain and Lion's Hill: the houses are of dazzling whiteness; and the church spires, wind mills, and turn pikes carried me in imagination to England...'
- <sup>8</sup> On a national level the late 19<sup>th</sup> century was alive with 'mineral fever'. In 1880 Cecil Rhodes founded De Beers Mining Co. at the diamond fields of Kimberly and six years later gold was discovered at the Witwatersrand.
- <sup>9</sup> Also known as the Second South African War.
- <sup>10</sup> Sir John Herschel was one of those men of science who came to the Cape in 1834 to study the astronomy of the Southern Hemisphere. By this time he was the best known astronomer in England and ranked amongst the most distinguished scientists in Europe. A man of many talents, he was also a strong draughtsman. He would have known of, and had access to, any new scientific inventions and one of these inventions included the camera lucida.
- <sup>11</sup> The camera lucida was a diminutive sketching aid consisting of a special prism. It was easy to transport and was a wonderful tool for recording new worlds and through its use meticulous accuracy in drawing and recording detail could be achieved. It is said to have been invented by William Hyde Wollaston (1766-1828), one of the last great natural philosophers, in the very early 1800s and was commercially available by 1807 (Lack 1998: 266-267). Although it was

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seldom acknowledged, this instrument enjoyed much popularity among amateur and professional artists and scientists throughout the 19<sup>th</sup> century. There was however some negative sentiment and it was by no means popular with all artists. In an age when drawing skills were socially advantageous there was 'a desire among many of the artistically inclined for assistance to elevate often meagre talents towards more masterly productions' (Warner 1998: 77). The instrument was, therefore, seen by some as an excuse for bad draughtsmanship and a departure from subjective impressions. The distortion caused by the use of lenses, and the particular difficulty in use of the Wollaston design, were also factors which stood against the camera lucida. Later it was to fade from the art world all together, but it has remained useful to science where it has found particular application in the adaptations to the microscope.

- <sup>12</sup> The official announcement describing the technical details of Daguerre's process – the images from which came to be known as daguerreotypes – was made in Paris on the 19 August 1839. It was soon generally known and freely available for all to practice throughout the world, except in Britain where it was restricted by patent. This announcement was made shortly after Sir John Herschel and his wife Margaret had left the Cape.
- <sup>13</sup> Jules Léger, a French daguerreotypist visited Port Elizabeth in 1846 and made 'COLOURED DAGEURREOTYPE PORTRAITS. Copies of paintings, portraits, bronzes, medallions, views, landscapes, etc...' (Bull 1970: 33).
- <sup>14</sup> Ernst Lezard, a key figure in the formation of the Johannesburg Sketch Club was the first dealer to attempt a sale of South African artists' works by auction in 1915. It was a great success and his example was followed a few years later by dealers in Cape Town.
- <sup>15</sup> Rudolf Marloth (1855-1931) was a pharmacist, analytical chemist and botanist who, amongst many other things, created his own herbarium in South Africa, founded the Mountain Club of South Africa and had General Smuts as one of his students. He was an educated and energetic man and by the late 1920s several universities had conferred honorary doctorates upon him. He came to South Africa and began his herbarium of 20 000 species, which was eventually incorporated into the National Herbarium, Pretoria.
- <sup>16</sup> She was a highly revered South African botanical artist and her work is still admired by artists and botanists alike. She was a prolific artist who dedicated the last ten years of her life, from 1915 to 1925, to drawing and painting plant portraits at the Bolus Herbarium, a department of the University of Cape Town. Page travelled much throughout southern Africa, delighting in the "wilderness" and the people. In 1915 she travelled to the Cape Peninsula and it was here that she first met Mrs. Louisa Bolus (1877-1970).
- <sup>17</sup> Harry Bolus (1834-1911) arrived in South Africa from England at the age of sixteen and rose to be a wealthy man; his hobbies included studying and drawing South African plants, particularly orchids. He published his *Icones Orchidearum austro-africanum* between 1893 and 1913, containing three hundred colour plates and established the Bolus Herbarium.
- <sup>18</sup> Mrs. Bolus, curator of the Bolus Herbarium, then housed at Kirstenbosch. Harry Bolus, her uncle appointed her in 1903. She retained her post when the herbarium was bequeathed to the University of Cape Town in 1911.
- <sup>19</sup> Page painted mainly *Oxalidaceae*, *Iridaceae*, *Orchidaceae* and *Mesembryanthemaceae* with the latter making up the largest part of her collection.
- <sup>20</sup> According to Dr. Inez Verdoon who met her at the Bolus Herbarium in 1919, Mary Page was alert and vigorous, irrepressibly humorous and hospitable. She would issue an invitation to tea at a nearby cafe with a: "Come, dear children, let us away to the Mermaid." On one occasion when Dr. Verdoon's enormous wooden packing case of specimens-to-be-named followed her to Cape Town, Miss Page informed her "My dear, your hat box has arrived" (Note by Cythna Letty from NBI files).
- <sup>21</sup> Other plants named after her include *Gladiolus pageae* and *Erica Pageana*.
- <sup>22</sup> From 1921 to 1944 the Journal was known as the *Flowering Plants of South Africa* but in 1945 the name was changed to include a far wider spectrum of plants.
- <sup>23</sup> The artist currently filling this position is Gillian Condy and to date she has prepared over one hundred plates for the journal. Cythna Letty and Rosemary Holcroft also made large contributions in the past.

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**BOTANICAL ART IN TWENTIETH-CENTURY  
SOUTH AFRICA**

The publication of Albert Einstein's Special Theory of relativity in 1905 coincided with the early Cubist experiments by Pablo Picasso (1881-1973) and Georges Braque (1882-1963). Both, in their way, shattered the belief of a fixed viewpoint of the observer, a belief which had been central to much of Western thinking since the Renaissance. At the turn of the century the South African art scene was far less charged and stimulating than that in Europe. When Edouard Manet's *Déjeuner sur l'herbe* was rejected by the Salon of 1863 and created a major scandal at the Salon des Refusés, Thomas Bowler was establishing the first art school in Cape Town. It took nearly thirty years after Monet first exhibited his *Impression, Sunrise (Le Havre)* in France in 1874, for the concept of Impressionism to reach the southern tip of Africa. However, slowly but surely the minds of artists in South Africa became progressively more focused on the age of Modernism.

By its very nature the belief of a fixed viewpoint of the observer was central to the realistic representation of plants and botanical art. It was, therefore, inevitable that with the progress of Modernist ideals, botanical art would remain on the margins of 'fine art' and, through its isolation, develop conventions and paradigms of its own, trespassing little on the subsequent development of the 'fine art' world.

It is only in the last thirty years that botanical art (as opposed to plant or flower painting) has been taken out of the private, intimate space of the book or journal and placed, as art work in its own right, into gallery spaces for open, public viewing. Interest in botanical art and illustration has grown noticeably ever since the Hunt Institute for Botanical Documentation in Pittsburgh, USA held the first of their now famous quadrennial exhibitions of botanical art and illustration in 1964. In South Africa botanical art only began to be exhibited in a South African art museum in the early 1970s, when an International Exhibition of Botanical Art was brought to this country by the Botanical Society of South Africa in 1973 and toured the

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major centres. In the same year the Botanical Research Institute collaborated with the Pretoria Art Museum in staging an exhibition of work from their own collection in Pretoria (Rourke 1988: 2). Exhibitions like these have been few and far between, but their influence on the development of botanical art in South Africa has been significant and will be discussed in more depth later in this chapter.

In order to understand botanical art more completely it is necessary to look beyond the content of the portrayed subject. Fundamental to our response to the artwork is the style and technique employed by the artist. A sense of style in art, together with the viewer's recognition of style, provides the foundation upon which understanding, appreciation and the evaluation of art rests (Meyer in Lang 1987: 23). Style is visual identity or the use of a visual language and, in the case of botanical imagery, the distinctive language used to describe botanical subjects. It is the visual artist's personal 'handwriting' and this results from a series of choices made by the artist: choice of medium and materials and how they are used, manipulation of visual language, composition etc. These choices are made according to the thoughts and (conscious or subconscious) beliefs of the artist and within a set of constraints, historical or social. In each artist's style, therefore, we are able to distinguish a specific imprint of history and human nature.

According to Meyer, in his paper 'Toward a Theory of Style' (Lang 1987: 35), the traits or characteristics of a work or set of works that can be described and counted are essentially the symptoms of the presence of a set of interrelated constraints that determine the style of the artist. The constraints include *laws*, *rules* and *strategies* and can be related to one another in the following hierarchic fashion.

*Laws* are transcultural constraints or universals. On this high stylistic level the distinct subject matter and purpose (i.e.: the representation of plants to illustrate the science of botany), are the constraints which make the universal style of botanical art recognisable as a genre of art distinguishable from that of landscape or History Painting for example.

Also intrinsic to this category of style is the intended final purpose of the image. A botanical artist is subject to the constraints imposed by the techniques used in the technological reproduction, or printing, of images. This is because the finished product is often considered to be the printed image which appears in a book or journal, and therefore the medium and technique must be capable of yielding a consistent edition of prints, such as engravings for a florilegium.

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*Rules* are transpersonal, but intercultural constraints. Such constraints would include the theory and practice of the science or botany prevalent in a specific culture, and artists' intentions and objectives. *What* the artist is illustrating can be judged against the background of the science of the day and culture. The artist may be working on systematic or ecological plates, may have to show the life cycle of a species, or illustrate a newly discovered species, and will often have the problems of depicting a species from, perhaps, a single tatty individual. One of the main conflicts every artist has to overcome is that between where they stand in relation to the science of the object being represented and the aesthetic employed to do this.

*Strategies* are choices made by the individual artists within the possibilities established by the rules of the style. The persuasively natural images of botanical art are far more than the art of imitation, but rather their success lies in the way in which the artists disguise selection, suppression, exaggeration, and illogical fusions to create these images (Arnold 1997: 5). Differences in manner distinguish the styles of individual artists. However, though individual personalities and preferences are able to come to the fore, these are only condoned so long as the laws and rules, and social or historical conventions of the style are still represented. Style must be acknowledged to be a set of learned representational conventions that have a relationship to perceived reality, and which produce meaning. Individual preferences which come to the fore include the manner in which the image is made and the act of creating it.

When dealing with realist imagery it is important to understand how realism operates. One is asked to believe and accept that it mirrors reality, whereas it is actually a set of conventions that persuade us to accept a relationship between the image and the three dimensional world. The naturalistic artist who is working to create the 'reality' of the image conceals or discloses the persuasive language of illusionism. The botanical image is 'true to life' and yet, as a result of definite intentions on the part of the artist, it differs from nature. Through the relative rigidity of set conventions, individual styles claim uniqueness and 'authorship'. Every artist translates the world of nature through their own knowledge, skill, vision and temperament and their work therefore takes on a particular visual identity.

This mixture of universal, intercultural and personal constraints and influences combine to create a rich tapestry of images of the natural world. Here I would like to look at Goldblatt and Manning's publication *Gladiolus in Southern Africa* (1998). *Gladiolus* is the family being represented and certain conventions and visual symbols have been used to make *Gladiolus* recognisable and to convey information about the plants. To this the *rules*, or constraints, of the style apply, for example the representation of the flower's definitive shape,

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structure and placement on the stem and the cut off depictions of long, thin leaves. The underground parts of the plants are always shown and often fruit and seed pods. One must also keep in mind that these images were produced with the specific intent of appearing in a certain book and, therefore, the artists had to follow further constraints or guidelines which are sympathetic to the design, format and overall identity of the publication.

The individual language or style of the artists, Fay Anderson (b.1931) and Auriol Batten (b.1918), is apparent in their personal strategies or conventions: their particular use of watercolour, tone, line, etc. Originality of style at this level therefore involves discerning new strategies for realising the rules. If we compare Anderson's *Gladiolus pappei* (Fig. 10) and Batten's *Gladiolus geardii* (Fig. 11), though the subjects represented are very similar, the personal styles of the artists are clearly distinct from each other. Batten makes use of more descriptive colours and light and dark contrasts, which give the flowers and stems depth and definition. Anderson uses fewer highlights and only a small range of colours within the strongly delineated image.

Botanical art in South Africa owes its traditions and conventions to the development of this art form in England and Europe, to the development of flower painters such as P.J. Redouté, and botanical artists working with the Linnaean system, such as Francis and Ferdinand Bauer. It was this tradition which South African botanical artists were introduced to, either through the influences of other artists, but more often through contact with scientists and botanists.

Part of this tradition, which persists today, is that when drawing a botanical portrait the artist must be sure to measure everything: leaf size, spaces between nodes, petals, anthers, stamens etc., and a thorough visual study of the plant must be made to ensure an awareness of the finest details. In the leaf for example, its colour, margins, venation, textures, joins, its apex and how it grows etc. must be noted. This information is then translated into two dimensions through the artist's specific choice of technique and medium, two of the initial and most problematic issues a botanical artist has to deal with. Artists strive for clear, naturalistic representation of plants and flowers and for a picture to appear lifelike, it has to be carefully made. The end goal is that the viewer will see the image, the plant, before they see the medium it has been rendered in. Close consideration has to be given to many different combinations of paper, pigment and brush before an artist comes across a material formula which is sympathetic to their personality and way of working. The medium an artist chooses is a strategy which becomes a fundamental part of their style. Even once this has

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all been determined, however, it is constantly under scrutiny, criticised and re-evaluated by the artist and viewers.

In the 1950s there was a resurgence of interest in botanical art in South Africa with artists such as Ethel May Dixie<sup>1</sup>, Cythna Letty, Barbara Jeppe, Auriol Batten, and Ellaphie Ward-Hilhorst, setting themselves up as professional artists. By this stage there was money at the Bolus Herbarium to employ Mary Page and Beatrice Carter, who had been trained in England. This resurgence of interest in botanical art was a Post War phenomenon encouraged by the increase in prosperity in the country and the development of colour printing for reproduction. Doubtless it was due to advances in the quality and techniques of colour printing that the work of the post-war artists had been brought to the attention of a wider audience, and that there was an increasing demand among collectors for original examples of this specialised form of plant portraiture. The work of these early 20<sup>th</sup>-century botanical artists helped to set the foundations for botanical art as it was to develop in later decades.

Mary Page worked mainly in watercolour and she kept strictly to the conventions of botanical illustration: the placement of the plant on a white background with line drawings of dissections underneath which are read by botanists in relation to the complex plant above. The importance of establishing the identity of each species was fundamental. Her luminous *Mesembryanthemaceae* and *Oxalis* were painted using a limited number of washes as she would mix her colours on her palette as correctly as possible before laying down fresh but controlled areas of colour. She achieved luminosity by allowing the bright white of the paper to glow through the carefully placed pigment. The petals of the *Drosanthemum speciosum* in figure 12, for example, were painted with clear conscious strokes, in clean, bright pigment. Each petal, leaf and branch, and their relationships to one another are completely realised and the resulting effect is a lively presentation of a fleshy leafed plant with flowers containing layers of brilliant petals. The clarity and definition of the petals and stamens testify to Page's ability to describe even the finest details with her brush.

True to the conventions of botanical illustration there has been no attempt to present any illusion of space and the objects represented are felt to exist on the surface of the picture plane. The plant is also presented in all its rugged originality. For botanical purposes an artist needs to choose a specimen from the wild, a weathered plant that comes from the right environment. By comparison, specimens for gardeners need to be drawn in their full glory, as lush and cared for garden 'ornaments'. It is, in other words, important to realise the purpose of the image.

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Page's illustrations were made with the express purpose of recording scientific details and preserving this information for future use. Figure 13 shows the full herbarium sheet of *Leipoldtia calandra*, containing Page's painting of that particular species. Figure 14 shows the dried specimen of the same species, and the original plant Page used as her subject for figure 13 is in the top right hand corner of the page. Where the basic structure of the plant can still be deduced from the specimen, Page's painting expresses its living characteristics and personality.

Page's interpretation of the plant is sensitive and accurate and, as Arnold states (1996: 72): 'Technically correct though it may be, Page's work transcends a mere scientific presentation: it shows alertness to relationships between part and whole, and the balance between drawn and painted forms, diagram and illustration'. She could not take liberties with expression but her confident use of colour, close scrutiny and her fine and detailed watercolour technique all combine to evoke the essence of the species. Page's sensitive watercolours were supported by strong and delicate line drawings. Often these drawings were copied by lithographers and included in publications. This translation from drawing to lithograph often meant the loss of quality, but *Leipoldtia constricta* (Fig. 15) for example still reflects the confident and descriptive nature of her line work. Dr. Shirley Pierce Cowling, a *Mesembryanthemaceae* expert, says of Page, 'when you compare the live plant with the illustration you realise how extraordinarily observant she was. She had the artistic insight to bring out the important characters which enable the identification of the plant' (Arnold 1996: 72).

By taking a look at Page's contemporaries it is possible to highlight certain stylistic conventions of the time. Ethel May Dixie was one of the most prominent artists working for Marloth on his *Flora of South Africa* and was acutely aware of the scientific content of her drawings. In many of her illustrations she included the pollinators of the different plants such as insects, butterflies, birds and spiders. Dixie worked mainly in gouache, however she finished delicate and hairy details with coloured ink and pen. Her work also shows the influence of Victorian conventions practised by many artists at the time: the creation of shadows and the scattering of images and plant parts on the page (Fig. 16). These shadows can be best seen in *Dipidax triquetra* (Fig. 17), where they are perhaps excessive, but clearly illustrate the point. They have been placed behind the white flowers and their stems in order to further define the plant from the background. This helps to create a greater illusion of space and three dimensionality and the complexity of this image is held together by its blue-grey support. It is interesting to note that Thwaites, working during an earlier stage of the Victorian age, also often favoured this device (see figure 8).

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The quality of Dixie's work was strongly influenced by her use of gouache instead of watercolour. These paints are opaque and even though many of Dixie's paintings are well executed, the flowers lack the luminosity and brilliance that has been achieved by other artists using watercolour. This medium has also not stored well and some of her extant works have large areas where the paint is flaking off. Her style was further influenced by her rather interesting manner of working: she kept a master set of four volumes of illustrations from which she made copies as required. When working on Marloth's plates, for example, she worked in conjunction with other artists and, in order to create the plates needed, she would cut up pages and repaste bits of re-painted images, showing little respect to any previous composition or layout. This cutting and pasting can be clearly seen in figure 16, where cut out images have been fitted together with pieces of clean watercolour paper placed between them so that the tops of chopped leaves and flowers could be repainted. The development of growing public appreciation for botanical art also influences the quality of the final products. When artists were working within the framework which constituted the printed page as the final product, they were not very precious about the original. As botanical art developed and the option of selling original botanical plates became possible, artists began to work more carefully, planning their compositions and taking more pride in their technique.

It must be remembered that art works are susceptible to time and change, and that many of the botanical paintings or hand coloured prints look different to how they were originally intended to be viewed. Paper, if not carefully stored, deteriorates and foxes (develops blotchy stains) and often becomes fragile and brittle. In the beginning of the 17<sup>th</sup> century new technological processes became obtainable for the manufacture of pigments. However, these pigments were not tested for stability or light sensitivity. Artists' palettes were also very limited and this must be taken into consideration when viewing or criticising botanical art works from these earlier periods.

Many botanical artists, such as Page and Dixie – and indeed many artists working today – saw themselves as 'merely' botanical illustrators: artists in the service of science and lacked confidence regarding the title 'botanical artist'. Ellaphie Ward-Hilhorst however, considered herself to be a botanical artist and neither a flower painter nor 'merely' an illustrator, and she took great care when designing a plate, keeping in mind the detailed scientific information and composition. Most of her images are painted with the intention of being published in journals and botanical books and therefore she worked as part of a collaborative team effort, enjoying both the company of colleagues, who shared her interest in the subjects she drew, and the collaboration between the art and science. Pollock mentions in *Common Denominators Between Art and Science*

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(1983: 185) that 'There is a sharing between artists and scientists. This is their common need ... to express – albeit in very different ways – their own particular sense of *reality* in the world around them'. A common denominator can also be found in 'the aesthetic pleasure that each give ... There is a rightness and a properness about the best of scientific work that transcends academic correctness' (Pollock 1983: 186).

In *Haemanthus canaliculatus* and *Cyrtanthus leucanthus* (1993) (Fig. 18) Ward-Hilhorst exhibits her awareness of the different elements of the image and their placement on the page. Her dedication to perfection and strict discipline can be seen through her use of high naturalism and she descriptively interprets her specimen in fine detail. It is only by looking closely at the image that one becomes aware of the artifice of the image i.e. how it is made. The strong red flowers are carefully balanced within the composition and even though many different elements overlap, there is no feature of either plant emphasised at the expense of any other. It is also apparent that the artist has resisted the opportunities for symmetry inherent in the natural form of the plant.

It is interesting to note how the demands of science and the professional nature of the botanical artists just discussed influenced the rules of the style within botanical art. The paintings of Thwaites (Fig. 8) and Roupell (Fig. 6), for example, were made as art works with the added interest of recording the flora of a new world. The work of Page, Dixie and Ward-Hilhorst, however, was clearly designed to fulfil the role of supplying scientific information. These images are not simply descriptions of the plants found in the veld, but are essays on form and function.

One important characteristic which most, if not all, botanical artists have in common is that they love and are fascinated by plants. These artists do more than merely replicate factual knowledge of reality, they allow their intuitive feeling for their subjects to manifest itself in convincing images of living, growing plants. Thalia Lincoln - Ward-Hilhorst's contemporary - is passionate about the plants she draws and is interested in the spiritual quality of her subjects as much as their physical beauty. She considers the relationship between her and the plants to be a very important one, treating them with care and respect from the moment she notices them, to cutting them, and all through the drawing process.

Lincoln is an artist who does not limit herself to the conventions of botanical art and draws South African flora with passion and energy. She bends the laws of this style by introducing landscape and by intending the images to stand as unique works of art. Once again the intention of the image dictates its final

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appearance. Page's works, by comparison to Lincoln's, are made with the intention of being viewed as botanical illustrations stored in herbariums or perhaps published in the format of a book. The page size and layout, the composition etc. are all influenced by these criteria, with the artist having to keep in mind the final product and the purpose of the image. An image that will be hung on a wall will be treated very differently from diagrams needed in a journal, for example, and Lincoln's intention is that her drawings should be viewed as art works. Instead of seeing herself as an artist-botanist, she sees herself as an artist interested in botanical subjects, possibly more as a flower painter than a botanical illustrator, yet her work is just as botanically correct. As Arnold writes 'Lincoln's work is iconoclastic. It is not strictly speaking, 'botanical art' although it has as its primary objective the description of plants. But Lincoln challenges the paradigms of representation within natural history' (Arnold 1996: 73).

The work of Lincoln and Page is also completely different in medium, size and content. In stark contrast to Page's use of brushes and washes of water and pigment, Lincoln works confidently and successfully with a less traditional medium: coloured pencils. It is a time consuming and painstaking medium which Lincoln handles with the utmost confidence and refined technique. She works with Derwent Artists colour pencils and her range now exceeds seventy-two different colours. She applies layer after layer of dry colour to her paper, burnishing down worked areas with a hard white pencil to help blend the colours and to prepare the surface for more colour and detail, and she works until she achieves the colour, tone and density that she desires. When discussing her layering of colour she points out that she uses pencils the way Ward-Hilhorst used watercolour, layer upon layer, wash after wash. Colour pencils are clean and allow her to apply her self-control and discipline. Her acutely sharp points can be placed on precisely the right area. Her opinion on watercolour is that it simply has a mind of its own, especially when one is working in washes. In the detail of *Mimetes hottentoticus* (Fig. 20) one can clearly see Lincoln's careful rendering of tone, a fine and detailed technique with a bold use of colour.

Lincoln also has a remarkable sense of design. Her representation of *Zantedeschia aethiopica* (Fig. 21) is an example of her strong sense of line and composition, which displays her awareness of aesthetic meaning, transcending mere descriptions. With precision and sensitivity her design moves up and through the picture format, breaking through the borders of the image, and setting off the colours of the leaves and flowers, the dark and light. Full treatment is given only to the focal points, the surrounding or background areas being developed with less complexity and detail. Strong contrasting lines or tonal relationships confer brightness, but also serve to differentiate one shape from another.

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All Lincoln's *Mimetes*, which she drew for John Rourke in the 1980s, were portrayed life-size. The drawings are non-sentimental statements devoid of the personal gestures of brushmarks and characterised by a classical restraint (Arnold 1996: 73). The drawing *Mimetes hottentoticus* shows assured technique and a strong consciousness of shapes and their relationship to one another. There is an intensity emanating from close scrutiny and the establishment of successive planes of depth has created a reference to deep space. The craft and skill of the image is, however, unassertive and does not call attention to itself, allowing the subject the main focus. As Alpers (1983: 30) describes realist painting 'it is as if the visual phenomena are captured and made present without the intervention of a human maker'.

As mentioned earlier, Lincoln subverts tradition further by representing her subjects in their habitats. Many of the *Mimetes*, such as *Mimetes hottentoticus* (Fig. 19), only grow in a small area and Lincoln felt that the colour of the plant was relative to this area and that therefore it must be drawn in its habitat. This is not a new invention in botanical art as artists in the late 18<sup>th</sup> and 19<sup>th</sup> centuries had already started to push the universal laws of this art form by bringing the background into their plant images. For example Thornton's plates for *Temple of Flora*<sup>2</sup> (1799-1807) all have lavish backgrounds, though the scenery in these images had little if no association to the plants represented. More recently, artists such as Ward-Hilhorst and Batten have also investigated the value of including habitat sketches in their images.

Ward-Hilhorst includes habitat sketches on a small scale. In her representation of *Tylecodon sulphureus* (Fig. 22), for example, she combines different drawings of the same species, in flower and in leaf. Unlike photographs that have one plane of focus and include every detail within the picture frame, botanical artists can select only necessary informative details and then construct a clear and concise image, which is both illustrative and contains a strong sense of aesthetic. In this plate Ward-Hilhorst uses subtle nuances of tone and hue to distinguish different shape relationships and with these images she augments, as a personal stylistic strategy, a habitat sketch into the combination of painted illusion and diagrammatical dissections to explain a more complex understanding of the plant. Her images comply with the conventions of botanical art and illustration and are much smaller than Lincoln's large images.

Auriol Batten also believes strongly in the informative value of habitat sketches and treats this aspect of her compositions more strongly than Ward-Hilhorst, but less colourfully or naturalistically than Lincoln, choosing to execute these sketches in graphite pencil. In *Ceropegia ampliata* (Fig. 23) Batten adds to her character and personality description of this species by including a pencil sketch of the rugged terrain in

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which this delicate-looking plant lives. It fills the whole background area of the image instead of being allocated a defined area of the composition as Ward-Hillhorst has done in figure 22. Batten contrasts the forms and suppleness of this strange plant, the soft white and purples in the flowers and the round, curling shapes of both stem and flowers to its dry, harsh and unusual-looking habitat by placing the softly glowing watercolour of the plant in front of a loose but accurate pencil sketch.

Watercolour has long been the dominant and traditional medium used in coloured botanical illustration. It is a medium which takes much skill and practice to perfect but once an artist has the water, pigments and brush at her command, painted results can attain striking realism and the medium's particular qualities do justice to the translucency of flowers. Every successful watercolourist believes that they know the true and correct way of working with this medium but in truth, for every watercolourist, there is another way of applying the pigment. It is a demanding medium which requires skill to make the plants and flowers rendered in it reflect the luminosity they own in their three dimensional state.

Cythna Letty and Auriol Batten's plant images were created by using few and quickly applied layers of colour washes. Letty's *Momordica clematidea* (Fig. 4) shows this artist's particular concern with applying as few layers of paint as possible, preferably no more than one, and as quickly and precisely as possible. She allows strong contrasts of light and dark to dictate the three-dimensional form and shape of the leaves and flowers.

Batten too uses as few washes as possible, believing that one should apply no more than three washes to any area of an image. These washes are administered very quickly and are never touched up. Paler colours always precede dark colours and flowers or leaves are never completed one at a time, as each one must always be considered in relation to the others. This all entails much planning and foresight but often results in works that are fresh and alive. Batten's flowers and plant structures seems to want to jump from the page, as in *Gladiolus cruentus* (Fig. 24) where the bright red flowers seem to lie on top of the page with vivid luminosity. The confident and precise manner in which she handles her medium can be clearly seen in figure 25. The washes of red paint lie next to each other rather than blending into one another, allowing the freshness of each colour to shine through. It is interesting to note that Batten relies on her precise handling of watercolour to define white flowers as well. To return to *Ceropegia ampliata* (Fig. 23), for example, the subtle greys and purples help to define the structure of the flowers, while allowing the white of the page to inform their true colour, rather than making use of the Victorian device of shadows.

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Batten's attitude to careful planning is visible in her technique, but extends into all aspects of her work. She says 'I always study the subjects very carefully, read the formal description and dissect the flowers as well if there is sufficient material and I make a point of showing the diagnostic points so that at least the work is accurate. I consider this very important in botanical illustration' (pers. com. Jan 1998). She adds further that in order to understand the subject properly it is worth talking to the botanist before one begins drawing. In return, the information the artist picks up through careful observation can be invaluable to the botanist, and she encourages artists to make notes of the things they notice. This care and precision is reflected in the quality and composition of her paintings and in figure 24, for example, the eye is led convincingly from one area of the image to the next, even though the various aspects of the plant seem unusually placed.

It is important to stress that there is no one true way to apply watercolour, and in stark contrast to Letty and Batten's techniques, Claire Linder-Smith works meticulously and painstakingly in watercolours. *Lachenalia violacea* (Fig. 26) for example reflects a keen eye for detail and a precise and delicate rendering of form. It is a persuasive image, skilfully made and it testifies to the artist's acute observation of the source. Her botanical images are painted cleanly and in this image the detailed flowers and leaves make a stark contrast to the white space of the page. She paints with tiny brushes on very small areas, layering many layers of paint to finally achieve her solid and clear surfaces.

Besides having differing techniques many artists develop very particular palettes of colours. A problem many artists face when publishing their work is that the colour of the print seldom matches the painstakingly chosen colours of the original. Some artists have attempted to minimise this problem by choosing to work in colours which closely resemble those of the printing process. Vicki Thomas has recently started to work with a total of only six colours: Cadmium Red (magenta in the printing process), Permanent Rose, Cadmium Lemon (yellow), Cadmium Yellow, Cerulean Blue (blue) and French Ultramarine. Her work has become crisp and clean and in *Mimetes birtus* (Fig. 27) the freshness of using such a limited palette is visible. Batten too believes in using a limited palette, arguing that too many colours complicate colour selection and mixing, encouraging muddy colours. Her choice of colours, however, is completely different and more extensive than that of Thomas: Windsor Red, Vermilion, Alizarin Crimson, Yellow Ochre, Gamboge, Lemon Yellow / Windsor Yellow, Ultramarine, Prussian Blue/Windsor Blue and Rowney's Magenta for painting *Mesembrathemacea*.

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It is interesting to note that, in the field of botanical illustration, photography has never superseded drawing or watercolour painting because an artist can, with greater economy and precision, combine all necessary plant features, or highlight or focus on those of particular value for the process of identification. Since cameras were first invented they have often been used as an aid to establishing perspective and detail. The development of photography has to a large extent allowed botanical illustration to follow its own more specialised course, focusing on specific scientific details of individual species. Photography has, however, become an important part of botany and botanical image making. Many books and field guides use photographs rather than illustrations, the former being a cheaper option, and many scientists feel that it is a better means of representing plants for quick identification by people on field trips.

Black and white illustration also offers clear identification, and a cheaper option to watercolour plates. Linder-Smith has spent much of her time working in black and white. This is a very different technique to watercolour and its purpose is strictly defined within botanical art for the drawing of scientific illustrations for botanical papers and publications. Ink is currently the medium most commonly used to illustrate professional or 'serious' botanical publications, owing to tradition and to a belief that black and white images convey more, and more accurate and readable information than watercolours. It is seldom thought that watercolours improve on the botanical information provided in the text, and it is easier to 'fudge' or gloss over information, whereas the two-dimensional signs used to represent form and three-dimensions in black and white are a system of simplification and a thrifty use of line. Line is not decorative and the language is, therefore, precise.

Each stroke of the pen, every dot and dash become important. As a former editor of *American Artist*, Ernest Watson once wrote 'an artist reveals his strength or weakness in a pen drawing. There is merciless finality about a black line or a spot, which cannot hide under a camouflage of colour or tonal charm. The test of an ink drawing lies in what is left out, fully as much as in what is put in' (Werth 1986: 6). Black and white images have a greater chance of clarifying what is in the text. Even in watercolour plates, botanical images of dissections are conventionally drawn in line to make sure that as much information is conveyed as possible.

Linder-Smith's pen and ink drawing of *Hypodiscus procurrens* (Fig. 29) is based on close scrutiny and the careful and precise application of line and stipple shading. The use of stippling moves this image towards realism by defining the solid sculptural forms of the plant parts, their moulding and texture, and it suggests pigmentation. Shading should always be employed with a particular artistic or botanical aim, and not simply

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to fill in blank spaces. It should be done discreetly so that relevant forms are not obscured. The solid forms create a pleasing contrast with the long slender lines of the plant stems. In Linder-Smith's work the images are clear and informative while still creating an aesthetic and convincing whole.

An ink drawing may not necessarily be enhanced by tone but may concentrate on pure line, using the quality of the lines to describe the forms and their relationships. In *Cyrtorchis arcuata* (Fig. 30) Linder-Smith uses line with minimal tone. Thicker lines have been used to describe the outer boundaries of the image, the basic shape of the plant, while thinner lines reveal informative details and volume. By contrast to Ward-Hillhorst, Linder-Smith's line drawings show linear economy and decisiveness. Ward-Hillhorst's *Serruria altiscapa* (Fig. 31) is a convincing and aesthetic image that attempts to render painting in monotone rather than concentrating on images of pure line, as Linder-Smith does in *Cyrtorchis arcuata*.

Figures 29 and 30 are shown here the same size as the original drawings. This is significant as ink drawings are often intended mainly to be seen as reproductions, reduced normally by about two thirds of the original size. The editors of *Bothalia* state that 'line drawings, including graphs and diagrams, should be in jet-black Indian ink, preferably on Bristol-board or tracing film. Lines should be bold enough to stand reduction'. Appropriate reduction helps to minimise irregularities and to sharpen up the image and often the printed images work better than the originals. If an ink drawing is too greatly reduced, however, lines disappear and tonal effects achieved by stippling etc. tend to clog into black splodges in the darker parts, and to burn out altogether in the lighter areas. As the originals are not considered to be the final product it is easy to remove mistakes with the use of corrective paint, as this will not be visible in the final product. The original is spoiled by these corrections, however, and pristine quality is often a just question of pride in the integrity of the work.

In 1986 seventy five percent of the artwork done in the National Botanical Institute in South Africa was in the form of pen-and-ink line drawings. Today, however, there is a lack of black and white illustrators in South Africa, mainly for various financial reasons. On the scientific side, scientific papers are becoming shorter and more simplified due to expensive page charge in journals. The direct result is that many botanists do their own drawings rather than incurring additional finance through paying artists. There is, therefore, a diminished aesthetic element in the journals.

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Black and white originals do not have much public appeal either, owing to their intended purpose as printed images and, where a watercolourist could exhibit and sell a colour image, this is very seldom the case with ink drawings. There is, therefore, an even more limited facet of botanical art where artistic appreciation or sale is concerned. As thicker lines are used to ensure the strength of the image after reproduction, black and white originals often seem coarser than their coloured counterparts, and artists are dependent on the publication of the images to show the intended delicacy and detail not often apparent in the originals. These images are included in publications for their informative value, whereas watercolour plates are used to sell science, to make it attractive to the buying public rather than necessarily to provide visual information.

I would like to restate the basis of this discussion before going further: a botanical artist has more to consider than 'merely' the illustration of a plant and its flowers. The artist must react, whether consciously or subconsciously, to the laws, rules and strategies of botanical art, and must be aware of its many conventions and inventions. From these, choices must be made which will allow personal technical strengths, ideals and design skills to come to the fore.

Earlier I argued that botanical art in South Africa received a boost when it became possible for artists to be employed professionally, as illustrators for publications or in botanical research centres. Most of the contemporary artists we have looked at so far, such as Thalia Lincoln, Claire Linder-Smith and Auriol Batten all work on a free-lance basis and contribute to publications, both journals and books, or sell their work as art objects in art galleries. Other artists, for instance Mary Page and Cythna Letty, took a different option, and joined research centres as resident botanical artists. It is necessary to make this distinction between free-lance and formally employed artists as this closely affects the style of their work, the rules by which they have to abide, and the choices they are required to make within those rules.

For the last seventeen years the National Botanical Institute in Pretoria has employed Gillian Condy as their full-time, resident botanical artist. To a large extent, free-lance artists are able to regulate how much and what type of work they take on and therefore they have a greater range of strategies to choose from. Artists working within the confines of a research centre, however, have to fill very specific requirements. Condy has to work to publication deadlines but work comes in constantly, irrespective of what she is already expected to complete, and in addition to the administration work she is required to do. Much of the work she does consists of black and white illustrations destined for botanical publications like *Bothalia* and *Strelitzia*, although she is largely responsible for the colour illustrations which accompany the publication,

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*Flowering Plants of Africa*, for which she has already done about two hundred plates. At any one time she has a pile of ten unfinished colour illustrations and another pile of unfinished black and white illustrations on her desk (pers. com. February 2000).

Free-lance artists might commit themselves to producing the plates for a book and to working within the rules and confines this entails, but it is often still possible to negotiate the size, style and general feel of the publication. When working for a journal the artist has to stick to the already entrenched style and set format of the publication. Conditions are established relating to the size of the plate, what sort of information must be included and its positioning within the format of the page.

The pressure Condy has to work under obviously affects the type of work she produces and this in turn reflects the methods she has adopted to better manage her time, complete her assignments and fill the requirements of the publication. *Aloe pruinoso* (Fig. 28) conforms to the requirements of the botanical journal, *Flowering Plants of Africa*, i.e. the set format. (A general feel for the style of the journal can be gained by comparing figures 15 and 22, images by Page and Ward-Hillhorst, with Condy's *Aloe*.) To save time Condy draws her preparation sketch directly onto her final piece of paper using clean light lines. This also ensures that she maintains the spontaneity of the first image, a quality artists sometimes lose when transferring an image from one piece of paper to another. *Aloe pruinoso* illustrates her thrifty, though accurate use of colour and line and the fine detail of the individual flowers acknowledges her training in scientific illustration. By separating the flowers from the plant, i.e. creating a composite plate, Condy is able to illustrate and draw attention to various aspects of the plant.

When working for the NBI, Condy works mainly from dried specimens and bits and pieces supplied by the botanist, not having time to go into the field. But when she gets the opportunity to produce private work, she goes into the field to make detailed studies of her subjects. She feels it is important for artists to understand how the plant grows in its environment if they are to represent it accurately.

For all botanical artists there are two ways of becoming known as botanical artists - through the publication of one's work, and by showing work at exhibitions. Many artists rely on both methods, although due to the more illustrative nature of botanical art and the fact that botany dictates the terms of art, and the relationship botanical art has with the fine art world, most artists still rely mainly on their work being published to gain attention.

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Since the development of printing it has been through the publication of their work that botanical artists have become known and acknowledged, but one of the major disadvantages for illustrators and publishers of journals and books was the poor quality of most colour printing. Until the last twenty years or so, colour distortion and blurring of the image have often characterised reproduction.

Throughout the history of botanical art, printing has played an important part in defining the reproduced nature of appearances, thereby being responsible for how the world at large understands botanical art. The industrial revolution and mass production fostered a desire for perfection, precision, clear-cut forms and standardisation. The printing process allowed text and images to be reproduced in large quantities and during the age of Enlightenment the desire to acquire information from all parts of the globe further encouraged developments in this field.

During the earlier part of the 20<sup>th</sup> century the quality of colour printing in South Africa was not sufficiently advanced for the requirements of reproduction of botanical art, and South African publishers often sent their colour plates to Europe for printing, which was a slow and laborious process. Marloth sent his plates for *Flora of South Africa* to printers in Europe. There the proofs were prepared and returned to Marloth in Cape Town who then sent instructions to the printers on what to add or change in the proofs. Often he would ask for the arrangement of the plate to be changed or for colour to be improved or corrected. Further proofs were then often prepared and sent to South Africa and only then were they finally printed. But even with this improved European quality it is sadly clear how poorly printing replicates the strength and beauty of original works.

Though Mary Page did not work for Marloth she had some of her work published in *The Flowering Plants of South Africa* and this too suffered at the hands of printers during this time. The first 26 volumes of this journal carry hand-coloured lithographs in which much of the luminosity and clarity of Page's original painting is lost. Figures 32 and 33 show the same representation of *Watsonia galpinii* by Mary Page in two different states. Figure 32 shows the original watercolour plate with its layering of colour washes and detail. Figure 33 shows the lithographic printed version. In the reproduction the range of colours and tones have been simplified and much of the fine detail has been lost. Fortunately we still have access to most of Page's originals, which are housed in the Bolus Herbarium. It wasn't until 1948 that full colour printing was first introduced into the journal, resulting in very unclear and pale results for the first number of years. Ward-Hillhorst also considered her paintings, and not the printed page, to be the end product as there is an

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inevitable loss of quality through the mechanical reproduction, and the placement of the illustration in a book also tends to suppress its aesthetic quality (Arnold 1996:73).

By comparison, prints of Thalia Lincoln's work (see figure 19 for example) are a magnificent improvement from prints made in the early-20<sup>th</sup> century. Computerised colour printing today is refined and precise and, though a print will never completely capture the energy of original art, with patience and care they can come close. Even with the remarkable progress that has been made it is still often difficult to please an artist. Lincoln has been particularly demanding with the printers who have done work for her, sending proofs back to them many times in order that they find exactly the right hue or tone.

With the development of printing, artists and critics became concerned that the resulting accessibility of the printed image would lower the value of the original. On the contrary, in this age of mass production, the original now grows in status as the prints become more popular. The more reproductions that are sold, often the more valuable the original becomes.

As mentioned earlier in this chapter it is only in the last thirty years that botanical art has been reconsidered as art work in its own right and taken into gallery spaces for public viewing. Exhibitions are becoming more regular and more professional, and artists are beginning to consider these to be an important part of their annual calendar. Since the inception of the quadrennial Hunt Institution Botanical Art Exhibition in America interest in botanical art has grown steadily, with the first major botanical art exhibitions appearing in South Africa in the early 1970s.

A few exhibitions were held after this and in the catalogue to the 1986 Botanical Art Exhibition, held by the Botanical Research Institute in the Pretoria Art Museum, the then director of the museum, Albert Werth (1986:1) wrote: 'Today there is no doubt in anybody's mind that the "painters of plants" [sic] is a pure form of art in its own right, a form of art built on a proud tradition to which famous artists like Durer and Da Vinci belong. We are privileged in South Africa to have quite a number of artists of standing able to continue with great competence in this proud tradition.' Since these initial stirrings, public awareness and appreciation of this specialised art form has increased.

The next notable botanical art exhibition to be held in South Africa was a touring exhibition curated by Marion Arnold, initially for the Standard Bank National Arts Festival held in Grahamstown, 1992. This exhibition was called 'Art Meets Science: Flowers as Images' and it purposefully called for a re-evaluation of

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botanical art within 'fine art' circles. The work of fine artists and botanical artists was exhibited together and through comparison and contrast of the different works the technical skill, visual and aesthetic awareness of those artists following conventions within botanical illustration could be appreciated and reassessed within the realms of art and science.

Kirstenbosch held its first biennial Botanical Art Exhibition, from February to April 2000. This exhibition reflected the current interest in botanical art, aided by the patronage of a few wealthy collectors and the development of societies and other formal structures for the promotion and teaching of botanical art, overseas and in South Africa. Many contemporary artists, such as Batten, Lincoln, Ward-Hilhorst, Linder-Smith, Condy and Thomas exhibited at this exhibition and were pleased at the professionalism and exposure offered by such an event. The new Kirstenbosch medal was awarded for the first time at this event with mixed reactions from the artists and critics. This medal is based on the Royal Horticultural Society's Grenfell Medal<sup>3</sup> and is intended to encourage and award artists for quality, clarity and dedication. Many feel that this is a positive attribute, but others feel that a more creative means of supporting artists and showing appreciation could have been found. This type of award system could breed jealousy and negative competition in a community which up till now has always been open to sharing ideas and information.

Condy comments that she 'hopes that a high standard will be set (for the exhibition) and that international artists will be encouraged to exhibit, providing greater competition for artists here' (pers. com. February 2000). She suspects, however, that the awarding of medals will get tougher. Batten points out that the strength of such an event 'lies in that such an exhibition allows artists to display and sell their work; it also allows them to see what other artists are producing and allows them to compare their work with that of others' (pers. com. June 2000). She adds that she has noticed a tremendous improvement in the standard of botanical art in South Africa in recent years although she is dubious about the benefit a medal will provide.

This exhibition, inaugurated at the beginning of the 21<sup>st</sup> century, builds on the considerable achievements of 20<sup>th</sup> century artists. By comparing the work of a selection of these artists it has been possible to establish trends within this highly skilled art form and at present it is possible to detect a growing self-awareness amongst the artists working in South Africa. There is a tremendous enthusiasm to learn from each other and generally improve personal botanical art standards. South African artists are also one of the many groups benefiting from the growth of the 'global village', and are currently receiving considerably more international exposure than they have in the past. Better training is improving the confidence of many

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artists, who are tending to be bolder with their use of colour and manipulation of compositions. More of them are starting to establish their own identities within a supportive domain, and are hoping to challenge the genre's standing within broader art circles. This is certain to influence the stylistic development of South African artists in the 21<sup>st</sup> century.

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<sup>1</sup> See Appendix A: Biographies of Artists for dates of the major artists discussed.

<sup>2</sup> Blunt (1994: 236) commented that this 'is probably the most famous of all florilegia... although, judged by modern standards, it has little botanical value... No pains and no expense were spared to make it the most sumptuous botanical publication that had ever been produced...?'

<sup>3</sup> Instituted in 1919 in commemoration of Field Marshal Lord Grenfell, President of the RHS 1913-1919, the Grenfell Medals are highly sought after by botanical artists world wide. In judging work, credit is given for botanical accuracy, exact colour reproduction and attention to detail. Gold medals are only awarded to exhibits of outstanding and consistent excellence.

*Chapter Four*

**A PERSONAL EXPLORATION OF BOTANICAL ART  
PRACTICE**

Realistic painting carries with it the whole history of illusionism, with all its inherent baggage, and when working with botanical subjects the image refers also to the history of botanical art. This need not be an historical bind, but can be to the artist's advantage if consciously considered and manipulated.

Within botanical illustration a set of conventions has developed which we read intelligently. These conventions are specific, forming their own language and holding a wealth of information for an educated audience. It is not my intention to challenge these conventions in order to come up with an 'avant-garde' solution to repositioning botanical art within the realm of 'high art'. Through study and research I have developed a great respect for these established traditions and for the artists that abide by them. It is from this stance that I have approached my own botanical art practice, at first abiding by rules and conventions and exploring the parameters of botanical art and illustration, and then later pushing these parameters in order to further develop my own stylistic identity as a botanical artist.

The process of researching texts on both the science and the art of botanical illustration, and studying the work of past and contemporary artists, has provided me with structures of thinking regarding the portrayal of botanical subject matter. Theory and practice inevitably influence each other and, where the theoretical research has directly influenced practical explorations, practising botanical art has provided me with a greater understanding of the theory and philosophy of this genre.

As an initial step towards understanding botanical art and establishing the parameters of my practical research, I found it necessary to develop a thorough understanding of the conventions and inventions of botanical illustration. This included investigating the relationships inherent between art and science,

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and text and image, and largely abiding by the rules of this genre. In other words I concerned myself with placing the plant subject on a white background, working within a set format, adding dissections, illustrating the plants life-size and being particularly careful to highlight characteristic details of each species.

Botanical artists are often called upon to illustrate a particular genus of plants, or part thereof, emphasising the difference between species. I was given the opportunity to explore this avenue when asked to do illustrations for botanist Dr Elizabeth Marais (University of Stellenbosch). Dr Marais is currently working on the genus *Pelargonium* and asked me to illustrate two species which have been renamed (Cat. Figs 2 and 3). Throughout the history of botanical art shifts in scientific thinking have directly affected changes in conventions within plant representation. This is the same today, where many plants are being reclassified according to DNA testing and classification. This reclassification requires botanists to rename the plants affected and often requires them to be illustrated for publication.

Illustrating these *Pelargoniums* was an interesting project for a number of reasons. My plates were to complete a collection of illustrations done by the artist Ellaphie Ward-Hilhorst. As these illustrations are intended for a book it was necessary for my plates to have a similar style to those already done by Ward-Hilhorst, especially in terms of format and composition, as well as the manner in which the composite plates were put together. The rules I had to abide by were therefore very clearly defined. Working so closely with Ward-Hilhorst's images provided me with an opportunity to develop a deep appreciation for her style and an understanding of the strategies she chose to create her images.

The particular species I needed to illustrate were tuberous plants with a particular life-cycle, for example *Pelargonium flavidum* (Cat. Fig. 2). The bulb lies dormant through the winter months with leaves appearing in the spring. The leaves then die back to allow the flowers unobstructed space to bloom in the summer, with the fruits and seeds maturing towards the end of the season. The plate needed to represent all phases of this life-cycle making it necessary to create a carefully designed composite plate, allowing space for further information to be added later. This became complicated as I had to work from the botanist's written description of the plant to judge how tall the flower stalks would become, how large the flowers would be or how many might appear. It is interesting to note how fictional these plates actually are and how much of a conceptual process was necessary in

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producing them. The botanical artist has to build hybrid images through time. It was also interesting to note how much the final image relied on the information supplied by the text. Illustrating such plants becomes a waiting game and the time span can stretch to over a couple of years if one of the phases fails to occur for some reason, making it necessary for the artist to wait for the next season. I almost encountered such a situation when illustrating *Pelargonium karoopoort* (Cat. Fig. 3) (my studio journal):

*Pelargonium karoopoort*: 3.3.2000

Completed the leaves some time ago, and filled in the flowers in January. Before the flowers developed it was necessary to treat mould (or fungus) with sulfur to prevent it from reaching the tuber and thereby killing the plant. This turned out to be detrimental to the development of the flowers and the flower head wasn't fantastic. There were three or four flowers that had intended to develop but didn't, so I used a little artistic license and added another flower to the head in the illustration. Today I filled in the dissections and drew in the tuber.

In order to create my own uniform body of work it became necessary to look at a collection of plants which are related to each other in some way, and to do a study of a certain genus or habitat specific group of plants. While the *Pelargonium* studies were interesting to work on, this genus has already been extensively illustrated. I chose, instead, to study an indigenous habitat-specific group of plants as part of a larger project and my practical work is therefore largely determined by the fact that most of the plants belong to a group called cremnophytes, or cliff-hanging plants. These plants have adapted to harsh and awkward environments, living on often rocky cliff faces in extreme weather conditions. It is also a group consisting of a wide range of plant types, including bulbs, shrubs and succulents. Catalogue figures 4 - 14 constitute this body of work.

Scientifically this project has been supported and informed by Ernst van Jaarsveld (Kirstenbosch). Van Jaarsveld intends to publish a book on cremnophytes, so as part of this project I produced illustrations that would conform to a certain format and fall strictly within the conventions of botanical art. This project, however, is very much in its infancy and the design and look of the final publication has not been finalised. This has been fortunate. While working hypothetically within the parameters a

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publication provides, for example a set format for the artwork, I have had the freedom to explore various compositions and ways of manipulating the information needed in each image.

Although many of these plates would probably have to be redone if they were to be included in a publication, working loosely within these parameters has been a very beneficial and interesting exploration into the various ways of constructing botanical images. Where a publication would require the artist to treat all the material in much the same way, I have had the freedom to represent each plant as I feel is most appropriate and effective. For example, reversing the direction of the flower stalk in the representation of *Haworthia viscosa* (Cat. Fig. 6), helps contain the composition, but allowing both flower stalks in *Gasteria glomerata* (Cat. Fig. 4) to fall in the same direction suggests that the stalk in full bloom could be part of the same plant, making the image easier to read (excerpts from studio journal):

*Haworthia viscosa*: 29.11.1999

I started this image some time ago and have almost completed it. The composition and feel of the image is very similar to that of the *Gasteria glomerata* especially in relation to the placement of the flowers, but I still feel that there is something lacking, some colour perhaps. I have finished drawing some stones and soil. Finally, the plant does not look like it is taking flying lessons within the composition.

*Gasteria glomerata*: 14.10.1999

I enjoy the colours in this plant and have also had fun with its three-dimensionality and compactness. I struggled with the flowers but they seem to have turned out rather clear in the end. I intend to leave the watercolour washes used to describe the rock the plant is sitting on but still intend to add the seed pods and seeds.

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29.11.1999

Ernst gave me some seed pods a few weeks ago and these have been sitting on my windowsill maturing. Today I included these into the image, but only after much debating about where they should be placed on the page. When I originally set out the composition I had intended to place the seed pods at the top of the page with the flowers but when I actually got around to trying to fit them into this space, things wouldn't work out very well. I am not completely satisfied with their final positioning either, but ...'twill have to do.

The main intention of these plates is that they would form part of an ecological study, where the plants are viewed more holistically in relation to their habitat. The intention of the image is therefore not to illustrate the species according to the dissections of the flowers, but rather identification lies in the plant's structure and growth habit, and each plant's particular adaptation to its habitat. In *Crassula badpoortense* (Cat. Fig. 8) for example, the habitat sketch in the background emphasises where this plant is likely to grow and the growth habit of this particular species, the way it hangs down over the rocks and how the flower head is placed right at the end to best aid pollination. However, occasionally it is necessary to add dissections to the plate of a particular species to help aid its identification. This was the case concerning *Crassula cremnophila* (Cat. Fig. 7). As many *Crassula* plants look very similar, it is often though the dissections of the flowers that identification is possible. The leaves of this species have a very particular growth pattern, lying one on top of the other like the scales of an armadillo, making it easily identifiable.

Having the opportunity to illustrate newly discovered species is a rewarding experience. These are plants that still need to be described and recorded and which, as yet, do not have names. *Crassula badpoortense* is an example of this (and is due to be published in *Aloe* magazine early in 2001), as are *Crassula cremnophila* and *Albucca* sp. (Cat. Fig. 16). These plants are rare and in order to lessen the risk of their survival plates like these are often used as reference material, to stand in the place of the specimen itself.

This project has also been a fascinating exploration into the striking sculptural quality of succulents, many of which one does not normally come into contact with. One of the most unusual examples is

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*Stapelia leendertzia* (Cat. Figs 13 and 14). Owing to my interest in the unusual structure and colouring of this plant and its flowers, I took the opportunity to explore two different compositions using the same plant. The eye tends to read the composition of catalogue figure 13 in a clockwise direction with the open flower facing towards the light source. This worked well when it came to illustrating the detail of the anthers and stamens in the centre of the flower, but it made it more difficult to capture the truly dark colour of the inside of the flower. In catalogue figure 14 I wanted to include the strangely-shaped closed buds and chose to reverse the direction of the flow in the composition. This meant that I had to place the open flower facing away from the light source enabling me to attempt to represent the maroon-black of its interior.

Throughout this practical research I have had very comfortable and constructive relationships with the botanists I have worked with. Working with Van Jaarsveld has been a collaborative team effort, where I have suggested solutions to aesthetic questions and he has given me descriptive lectures on each plant, explaining its particular significance and characteristics. Botany does to a large extent dictate the term of the art, but then it is also the intention of the artist to be as accurate as possible. This is simply the basic nature of botanical art, as opposed to flower painting for example, and the nature of the art-science relationship in botanical art. The nature of the science would also influence the manner in which an artist composed a plate, but once again this comes down to the type of information the plate is to communicate to the reader. As far as portraying that information is concerned, the artist is able to dictate a large part of the process.

It is the purpose and intent of the image which is crucial and which ultimately imposes restrictions. Firstly, the reproduction of the image, or the print, is considered to be the final image and not the artwork. Secondly, where the image is needed for publication in a book or journal, printing methods, possible reduction in size, format and the necessity to relate to the specific information in the text all determine the nature of the image and therefore present certain limitations or conventions. These conventions have developed out of the need to represent plant species as clearly and as scientifically accurate as possible, within the limitations of the format.

Recognising the limitations placed on the image by the requirements of publishing, I chose to work on a second body of work in which I changed the objective of the image. The intention of these images is that they were created specifically for exhibition. This allowed me to change the format and size of the

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images and to take the opportunity to explore concepts of botanical representation that I felt I could not include in the smaller plates, for example the possibility of working with larger plants and the inclusion of shadows and landscape. Catalogue figures 15 -18 form this body of work. Whereas the smaller plates fall within the confines of botanical illustration and science, by the very nature of their size, these larger images no longer lie comfortably as illustration. They may be rooted in botanical illustration, but they are starting to ask for interpretation beyond this genre.

As I commented earlier in this thesis, botanical art is essentially a matter of the communication of scientific data, but it is also concerned with the representation of the character of particular species, and the creation of a botanical portrait. As with the smaller plate the representations of the plants in catalogue figures 15 - 18 are still scientifically correct, except for the size of the plants in the images. Important characteristics have still been highlighted and individual plants can be accurately identified. However, in the larger images I have had more freedom to play with the conventions of botanical art and to push its parameters.

Botanical portraits intending to portray character need not represent the original plant same-size as one does in botanical plates. As in human portraiture it is necessary for all the parts of the subject to relate to one another to form a representational whole, but it is not necessary for the human portrait to be portrayed life-size. This body of plant portraiture enabled me to explore the concept of depth and space within the picture format more thoroughly. I have done this by adding background structures like shadows and habitat or landscape.

The character of botanical illustration is to take the subject out of its natural context and to focus solely on its structure and composite parts. The plant and its flowers need to be represented three-dimensionally, but the artist need not try to present any illusion to space. In *Scilla natalensis* (Cat. Fig. 17), however, the shadows add to the information in the image and contextualise the space. The rendering of the image has been tightly worked, but the blue-grey shadow further defines the solidity of the plant and helps to create a greater illusion of space and three-dimensionality. It also helps to link the two main elements of the image together, the bulb and the flower head. In this image the shadow, like every other aspect, forms part of a conceptualised construction. The following excerpts from my studio journal helps to emphasise this constructed nature of the image, in particular reference to *Scilla natalensis*.

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Scilla natalensis: 24.10.1999

There is a profusion of these beautiful and unusual blue flowered plants growing in the rockery at Kirstenbosch at the moment. I feel that I would really like to draw one of them. Ernst tells me that they are in fact cremnophytes and that they will fit in very well with the work I am doing. Common names for this plant include 'Bloubergjelle and Bloulangkop'.

16.11.1999

Stretched a piece of Cartgidge 300gsm over a sheet of acetate onto one of the three new drawing boards I now possess, due to a successful visit to Lumber City a few days ago.

17.11.1999

I received a *Scilla* from Ernst today. He grabbed a spade, went into the rockery in the gardens and simply dug up one of the flowering plants. Unfortunately the flower head broke off, but that shouldn't be too much of a problem as I have quite a few slides to use as reference material. At least from the live flower I will now be able to paint in its true colour, the ones in the slides being too purple. It is quite a large plant and I might have to reduce it slightly in order to fit it all into the format of my page.

22.11.1999

I planned to begin drawing today and set up the slide projector, the mattress to block out the light, placed pencil, feather and pencil eraser within reach etc. But, after almost an hour of pondering possible compositions and going through all nine slides over and over again, I finally came to the conclusion that I did not have the slides I needed. I have decided that I would like to draw the whole plant, roots and all as if it were lying on the page, with shadows etc.

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So, for the rest of the day I worked on the *Crassula* and peered out at the weather every now and then to see if there was a short break in the clouds during which I could quickly take the slides I need. This only happened at three this afternoon. The slides will be ready tomorrow morning.

23.11.1999

I now have six extra slides to choose from and have landed up using three for the final image. At the end of a long day I now have the whole plant drawn up and most of it filled in with watercolour. It has been tricky trying to piece together the leaves, stem and flower head from the different slides, using the live specimen as a guide.

29.11.1999

I think that for this image I would actually like to work the plant to a high realism. For the challenge maybe, but also because I have an image of the final painting in my head where the plant is seen to rest on the paper, with its shadow adding to its description. I feel that the illusion of shadow describing form will work better if the plant is highly defined. But then, would it not be interesting to use the shadow, to give it more focus and importance. What about leaving the image of the plant itself not fully complete, or even quite incomplete, the necessary information and description being supplied by the shadow?

30.11.1999

Put in hours and hours of work on the *Scilla* today. At first using the slide in the darkened passage and then squashed up against the balcony wall with the plant in the sun, in an attempt to add in some realistic-looking shadows. The shadows are proving to be quite a challenge as I am having to improvise, not having one stationary example to follow. ... Back at my desk I am now trying to pull all the various pieces together: stem, leaves, flower and shadow.

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While keeping in mind the main focus of this work, the representation of cremnophytes, I also took liberties to paint and draw plants I had simply fallen in love with. One such plant is *Pachypodium namaquanum* (Cat. Fig. 18) (excerpt from studio journal):

*Pachypodium namaquanum*: October 1999

Common name: Halfmens

I have been wanting to draw this species of *Pachypodium* since Ernst first took me into the hot houses to view his collection of cremnophytes. Its striking colours of crimson, green and pale beige with spines all over stand in sharp contrast to the *Welwichias* and the deep red soil they are all growing in. It is a fascinating plant.

I intend to leave some areas of line and to work up others. I feel that the image may become too solid and heavy if I fill in all the detail. Many of the spines for example may be better left uncoloured or shaded and perhaps I should shade some areas in graphite and not in colour. Fortunately some of the watercolour areas work very well on their own and I intend to bring only a few areas to a crisp finish with the coloured pencils.

5.11.1999

I worked mainly on the stem today, filling in detail with graphite pencil, working slowly and deliberately. Every so often I checked my progress so as not to overdo the graphite on any one area so that it might become too dominant.

By adding shadows or backgrounds to my images I am utilising artistic conventions which have a history of their own, both within fine art and botanical art. It is necessary to assess what meaning these histories bring to the image, and if they perhaps interfere with the image and its intended meaning. A shadow is not simply the two-dimensional representation of a thing, but rather a summary of the whole. Both the illustration of the plant and the shadow are representations of what is absent - the actual plant. Both illuminate and contain information.

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The inclusion of the background in *Albucca sp.* (Cat.Fig. 16) started out as a ploy to help balance the composition and ground the main subject within the image. I soon realised that I was dealing with the complex concept of landscape and, although much of the information was pertinent to the subject, it also became weighted with other meanings and significance. The image has been pushed beyond the parameters of botanical art and the primary description of the main subject. Concepts and connotations regarding the South African landscape, colonisation and human habitat, endangered habitats and environmental concerns, for example, all begin to intersect with the plant image.

Many botanical artists have included the habitat of the plant they are representing as a stylistic strategy. It often forms part of the combination of painted illusion and diagrammatic dissections used to explain a more complex understanding of the plant.

This practical research has been as much about discovering medium and technique as it has been about studying the conventions and tradition of composition and concepts within botanical art. For a picture to appear lifelike, it has to be carefully made. The end goal is that the viewer will see the image, the plant, before they see the medium it has been rendered in. Through close scrutiny one becomes aware of the finest detail and it is these details one wants to capture in the clearest way possible.

When talking about botanical art it is inevitable that one will have to discuss technique and medium. As mentioned earlier, each artist has to find just the right combination of paper, paint, brush and manner in order to work at their fullest potential. This is an ongoing, important and complicated process as the medium an artist chooses is a strategy that becomes a fundamental part of their style.

During my Honours research I discovered that I could control dry colour pencil (Derwent Artists) far more easily than I could watercolour (Windsor and Newton Artists). This was the point from which I started my Masters practical research, but over the years I have become more confident with watercolour and find that a large portion of my work is now done in this medium. Most of my work (Cat. Figs 1-18) consists of a combination of dry colour pencil and watercolour, starting with a watercolour base and then working over the under-painting in pencil and then again employing watercolour to achieve the detail and precision I desire. Each image requires many hours of painstaking and time-consuming work. For this reason I work on a couple of images at the same time, preventing myself from becoming bored with any one plate.

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After much experimentation I settled on two papers which respond well to the necessity of having to accommodate two very different mediums: Cartridge and Arches Satiné. I have used Arches for all the small plates (Cat. Figs 1-14) and Cartridge for the larger images (Cat. Figs 15-18). Arches is by far the more superior paper and, in retrospect, catalogue figures 15- 18 would have been more effective on this more sympathetic, cream paper. As I my work progressed I began to use more watercolour than pencil and have found that Cartridge has a limit to which it will hold watercolour pigment.

All the plant representations for the small plates were drawn from life in full daylight. In other words I had the live specimens in the studio with me and always worked under natural lighting. The larger works (Cat. Figs 15-18), however, were traced and copied from a selection of slides and photographs, using the live specimen as reference when needed. Photographs and slides have enabled me to draw up my images much more quickly and have provided me with unusual angles from which to work. The camera automatically translates the three-dimensional object into two-dimensions. This can be a limiting factor as a sense of depth is easily lost. However, through the translation of the plant by the camera lens, different angles and details are made apparent and when one works from a number of slides, once again creating composite images, depth and three-dimensional solidity can be restructured.

Ever since photography was first invented it has provided us with other ways of seeing our world. In fact, all sorts of lenses have constantly come in between the world and how we perceive it, providing us with filters through which we reconstruct 'reality'. In *The Art of Describing* (1983) Alpers comments that, 'In describing what animal or insect eyes see, [Leeuwenhoek<sup>1</sup>, a Dutch microscopist of the 1700s] repeatedly calls attention to the fact that the world is known not through being visible, but through the particular instruments that mediate what is seen. Size, for example, is relative and dependent on the seer.' The following excerpt from my studio journal reflects this use of the camera in my work (Cat. Fig. 18):

*Pachypodium namaquanum*: 10.1999

I took two rounds of slides on different days. The first round comprised of slides of various specimens in the glasshouse.

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I was careful to capture as much detail as possible and since the lighting was awkward on the one side of the house, where the larger specimens stood, I took slides of the smaller ones on the other side as colour and lighting references. It was afternoon, full sun.

These slides came out ever so slightly under exposed, which I found irritating as valuable information is now lost in the darker areas. So I went back to take some more slides. It was morning, full sun, but the sun was in no better a position. This time, however, I placed a sheet of white paper behind the plants, stuck to the glass, to block out some of the glare. The plants were no longer in such a good condition though, as most of the flowers had died and the leaves too had started to wither and yellow. Thank goodness I'd taken slides earlier.

Once again I am working on Cartridge 200gsm. For this image most of my information has been taken from one slide, projected onto the paper and then traced, though two other slides have been helpful with reference to flowers and the shading of the leaves.

This next excerpt from my studio journal gives a more complete picture of the way in which I have explored the process of working on the larger images, in this case *Gasteria croucheri* (Cat. Fig. 15):

*Gasteria croucheri*: 7.10.1999

Paper: 200gsm Cartridge stretched over a sheet of acetate on a masonite board. The acetate helps to prevent the paper from becoming stained by the board.

While at Kirstenbosch I mentioned to Ernst that I would like to draw the *Gasteria*. We were standing in the nursery and he simply picked a specimen off the top of a wall (where it had been waiting to be planted), roots and all. It is now sitting on a tray in my studio looking like it would much rather be back on its wall.

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This species of *Gasteria* is a strange creature. It appears that its greatest desire is to hang out of and over things. The couple of specimens I saw growing in pots purposefully grew towards one side of their containers, sending their leaves over the edge. It seems that this is a typical characteristic of some of the cremnophytes. The weeping Aloe does this as well.

I took slides of the specimen from various angles, keeping composition in mind for some and detail in mind for others. The plant was in full sunlight, although it was late afternoon, so the shadows were long and distinct, coming from a low angle. I was also careful to take slides of the wall on which it was to be planted, as reference for background areas.

The final composition of the plant and its flowers is based on one slide, which I projected onto the paper and traced. This technique has saved me about a week of measuring and drawing up and the resulting lines are clean and precise, with non-image areas left clean and unaffected. To fill in colour light and shadow I projected a series of four slides next to the area to be worked and selected areas of the projected images, fusing them together in watercolour washes on the paper. Some of the colour pencil areas were filled in in this manner as well. Me on the floor, in the dark, with a torch and materials. When one of these slides provided a clearer view of a leaf, for example, I would simply rub out the relating part of the original drawing and add in this new detail.

Back at my desk, in the light, and using what was now on my paper I worked directly from the plant, filling in the subtleties of darker areas – flattened by the photographic process and therefore not available from the slides. Details could now be reassessed, areas of importance highlighted and others pushed back.

I have decided not to work my images to death anymore and intend leaving some of the watercolour, even perhaps some line work, 'unfinished'. Deciding what to leave is proving challenging.

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The rock wall in this drawing is a fusion of areas from three different slides, the lines, basic shadows and colouring being done in the dark passage once again. At the moment the highlights and details of these rocks are competing with more important subject areas and will need to be pushed back, greyed or blued slightly.

To further illustrate this work process and how the image has been translated from slide reference, I have included prints of the slides I used to construct the final image (see catalogue figures 15b-h). Initially, however, I used catalogue figure 15b, a black and white photograph of this species growing in its natural habitat taken by Van Jaarsveld, to inform the placement of my specimen for the slides. As I mentioned in the diary excerpt this plant was not in any soil and therefore would sit at awkward and unrealistic angles. This reference allowed me to reconstruct the natural placement of this plant.

Catalogue figure 15c is the slide I used for the main composition of the image. The lighting in this slide, however, is awkward and much of the structure and three-dimensionality of the plant is lost in dark shadowy areas. In conjunction with working from the live specimen in my studio, catalogue figure 15d and e provided some of the highlights I needed. Catalogue figure 15f and g show the flowers, the slides of which were taken about a week or so apart so that I could capture them in just the right state of bloom. The drooping of the mature flower stalk is a distinctive characteristic of some *Gasteria* species. The young flower stalk starts by growing upwards, but unlike many other *Gasteria* species whose flower stalks remain upright, this species' droop as they reach maturity. This ensures that the flowers reach out over the edge of its cliff habitat making them more accessible to insects and birds for pollination. Finally, the main reference for the rocks in the image is catalogue figure 15h. This is one of three slide references I used for the rocks, but I also worked from two smaller rocks in my studio.

The third body of work I have produced (Cat. Figs 19 - 21) is a direct result of the explorations and findings of the previous two areas. I started to question how one could represent very large plants, like bushes and trees without chopping them up to fit into a small format. I wanted to play with the idea of breaking out of the frame, or extending the frame by creating composite images using numerous sheets of paper.

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In the second body of work (Cat. Figs 15-18) I began to explore the idea of not 'finishing' my drawings, that is, not using the same amount of realism throughout the image, as I had done in the smaller plates. In *Pachypodium namaquanum* (Cat. Fig. 18) for example, I want the viewer to be reminded through the visibility of pencil lines and watercolour marks that these images are drawings and paintings and involve particular processes.

In *Aloe dicotoma* (Cat. Fig. 19) I extended this concept to the process of watercolour painting. For the first time I did not rely on colour pencil to help define or highlight any area of the image, but worked solely in watercolour. This image has been created largely through the use of a limited number of colour washes. These were administered quickly and never touched up, thereby retaining their freshness and feeling of spontaneity.

Eight sheets of Arches Satiné complete the format of this composition, and although I have kept the final composition and feel of the image in mind, I have treated each sheet as a separate image adjusting each only slightly when all eight have been viewed together. Whereas the smaller plates are concerned with an obsession about detail, these multiple images are primarily concerned with capturing the character and personality of that particular plant, as one would in a loose portrait sketch of a person. In this image I have also reconsidered the concept of the landscape, but without actually representing it. The plant has been still taken out of context and placed on a white page, but its size places it in our environment, the gallery space. At the same time the landscape format of each piece of paper and the large white spaces in the composition start to refer to environmental space, landscape and scenery. The bleached brightness of the leaves and trunk speak too of bright light and the outdoors.

The strength of the smaller images (Cat. Figs 1 - 14), or the first body of work referred to, lies in their obsession with detail. They are tight and precise and this creates tension and interest. The multiple-page images have a more mysterious quality to them and rely more on the description of character than the definition of detail. However, the smaller plates have informed the larger ones. All, however, are constructed, or manufactured images. This is simply more apparent in the larger works. All are plant portraits. The parameters between fine art and botanical art have become negligible, yet at the same time remain distinct in terms of the acknowledged characteristics of each genre.

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Although I have explored ways of manipulating the image in order to push the parameters of botanical art, it is not always necessary to alter the context of the image. I believe that there is nothing inherently 'wrong' with considering traditional botanical artworks as objects in their own right. Botanical art and illustration have much historical baggage, which need not limit the artist but can in fact be used to further inform the artwork.

Realism has been employed to describe the object and the high level of illusion distances the viewer from the manner in which the image is made. However, I have wanted to emphasise the fact that these are artworks on paper, are themselves objects. Often these images are created to represent the ideal plant, to record and describe, and ultimately to be objective and impartial. I would like to suggest that these images are not objective, or impartial, but are composite constructions of conceptual choices made by myself as artist. They are constructed images that reflect a false reality. They contain and communicate specific information but reflect a manipulated way of looking. To further emphasise this 'unreality' and to make visible the layering of information within botanical art, and the inherent relationship between text and image, I have labelled the images with the names of the plants on the glass of the framed image.

My presentation will emphasise that botanical art works are art objects, and not 'merely' illustrations. However, I also wish to value the history and conventions of this genre. Traditionally botanical illustrations are used to create specimen sheets to be used as text, along with photographs and dried specimens, to describe and record a specific species. This information is then stored away in folders and cabinets in herbariums for the specific use of botanists. I first considered presenting my work in folders to reflect this convention, but felt that this would then be negating my attempts to present botanical art in terms of its aesthetic qualities. This would restrict the images to the narrow parameters of science and illustration.

By using box frames, I have called instead upon the Victorian convention of specimen or display cases. These cabinets of curiosity were used to house the collections of amateur scientists, collectors and explorers, and they mirrored the newly discovered world in miniature form. This shift from the science folder to the display cabinet emphasises the fact that the subject is chosen, manipulated, recorded, but that the painting is itself a specimen, an object of curiosity. By floating the paper away from the

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mountboard, the physical nature of the image is further emphasised. Catalogue figure 22a and b are installation shots shown here to emphasise these presentational decisions.

This research is the synthesis of my long standing fascination with the plant world and with the art of drawing. Although this research has been mainly cerebral, my latest work is personal rather than strictly scientific and with it I consider that I have finally found a home within the realm of botanical art and begun to form my own stylistic identity within this genre.

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<sup>1</sup> For general studies of Leewenhoek, see Clifford Dobell, *Anthony van Leeuwenhoek and his "Little Animals"* (New York: Dover Publications, 1960) and A. Schierbeek, *Measuring the Invisible World* (London and New York: Abelard Schuman, 1959).

## CONCLUSION

By comparing and contrasting various artists working in the genre of botanical art, it is clear that this genre consists of a complex combination of scientific fact and aesthetic awareness. It is a demanding art requiring patience, skill, talent and understanding, and an awareness of artistic methods, techniques and styles. Like other art genres, however, it also requires a support base from which to function and there are many factors that may adversely affect the future of botanical art in South Africa.

Pressures of 'development' in a third world economy do not favour the arts or sciences such as botany and zoology. While funding for technology and engineering is sustained by the private sector, other disciplines are subject to diminishing funding, especially from the State, although research expenses keep increasing. Less emphasis is now placed on art education than in the past, resulting in less appreciation for art in society as a whole. The 'brain drain' too adds additional pressure as the constant outflow of skilled and educated people means less support for the people who remain actively working as specialist artists and scientists in South Africa. There are also fewer botanists who are able to publish illustrated books and journals, and fewer botanical art supporters able to afford these publications. These factors all result in a dwindling number of botanical art buyers and therefore a smaller art market.

Out of necessity, therefore, artists look for opportunities to sell their work overseas, either through agents or through the Internet. The latter may prove to be vital to the survival of many botanical artists in South Africa. Whereas the local market is diminishing, the global market, helped along by the information revolution and specifically the Internet, is growing and becoming increasingly accessible to local businesses, with local commodities becoming more available to overseas markets.

### *Conclusion*

Ironically the development of computer technology is also having a global impact on the production of all illustrated material. Within the world of botany, improved scanning techniques enable scientists to scan in high quality photographs, or even fresh material, creating highly detailed and accurate computer images. These can then be manipulated at will, unnecessary information can be edited out and more important areas highlighted, thus creating detailed and accurate impressions of the information the scientist wants to convey. This can also be done quickly, while costing significantly less than it does to commission painted botanical images.

Another adverse affect is the ageing of South African botanical artists together with a noticeable lack of young artists entering this field. Owing to botanical art not having been viewed as an art form in its own right and the fact that artists have not received adequate recognition or appreciation in the past, young artists do not feel encouraged to train as botanical artists. Many do not even recognise it as an option. There is a move on the part of the recently formed Botanical Artists' Association of South Africa (BAASA) to publicise botanical art by making it more visible to the public, and by giving lectures and workshops at schools and other public meeting places. It is hoped that through BAASA young artists will be attracted and encouraged to participate in this genre and thus strengthen the base, and the future prospects, of botanical art in South Africa.

It is also hoped that greater publicity will help to increase awareness and appreciation of botanical art, thereby improving the possibilities for artists to sell their work, even during these difficult times. Greater publicity, and the competition it creates amongst artists, will encourage artists to improve their own standards of botanical art practice.

Our South African flora is a unique and precious asset, which has always sparked interest and awe from people who have come into contact with it. The fynbos at the Cape is, in area, the smallest of the world's six floral kingdoms, yet one of the richest in diversity. It still holds particular interest to botanists all over the world as new species and varieties are constantly being discovered. But for every one that is discovered, there are many that are in danger of becoming extinct. Many of our fynbos species grow in very small habitats, on a particular slope of Table Mountain or in a small kloof, for example. With the disturbance and destruction of these habitats many species now exist only in the form of images. Plants are often unable to survive removal from their habitats, and when dried, lose much that is essential to their character. For this reason, perhaps more than any other discipline,

### *Conclusion*

botany has been dependant on illustrations for its development since the image stands as a substitute for the specimen itself. Through the power of the image, botanical art has the ability to inform, educate and increase awareness and can thereby help to save our endangered botanical heritage.

The botanical artist's existence cannot be described as 'an arc extending between two, and only two points: the retina and the brush', as the 'natural attitude' would have us believe. Convincing botanical art relies on the artist's passion for plants as well as technical proficiency and a realistic interpretation of three dimensions into two-dimensional design. Accuracy and detail are required so that positive identification can result, yet an understanding of the essence and personality of the subject are essential for true portrayal of the species.

Arnold (forthcoming 2001) comments that:

Just as people have personalities, so do plants. Just as people have personal and social histories, so do plants. A portrait, like a biography, describes likenesses through facts, and evokes personality through manipulation of facts. It is a mistake to assume that portraits are 'truth' or facsimiles of 'reality'; information observable in human faces, or flowering plants, is translated into images. As interpretations, images portray – but cannot replicate – reality and in becoming portraits, they explore identity.

The field of botanical art and illustration is worthy of far more study and art historical research than is currently available and in progress. Both botanists and artists locate meaning in the visual representation of plants and flowers. For botanists this includes identification of species and scientific or taxonomic information, and for artists it also represents aesthetic concerns. However, for all viewers botanical images involve issues related to the environment and society. The imaging of plants draws attention to them and, therefore, increases general awareness of their existence or, in some cases, extinction. This increase in awareness then spreads to environmental, medicinal and even socially relevant issues surrounding these particular plants.

There is, perhaps, an uncertain future for botanical art in the world of science and botany, and in the illustration of journals, papers and publications. However, if botanical art is acknowledged as an art form in its own right, its ability to express the beauty and abundance of South African flora could be utilised and enjoyed internationally.

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**INTERVIEWS CONDUCTED**

BATTEN, Auriol.....	June 2000
CONDY, Gillian.....	February 2000
GOLDSWAIN, Susan.....	May 2000
LINCOLN, Thalia.....	May 1998, June 1998 and July 2000
LINDER-SMITH, Claire.....	June 1998
LINDER, Peter.....	May 2000
PATTERSON-JONES, Colin.....	May 2000
MANNING, John.....	June 1998
ROURKE, John.....	June 1998 and May 2000
THOMAS, Vicky.....	June 1998

## APPENDIX: BIOGRAPHIES OF ARTISTS

### LISTING OF THE MAJOR ARTISTS DISCUSSED IN THE TEXT

This biographical listing has been collated from sources listed in the Bibliography, and from personal interviews with artists.

ANDERSON, Fay (b. 1931) Born in Lahore, Pakistan and educated in India, in England and later at the Michaelis School of Art, University of Cape Town, where she took a diploma in Fine Arts in 1955. Has exhibited extensively throughout South Africa as well as in London and at the Hunt Botanical Library, Pittsburgh, USA. She has contributed nearly 60 plates to *Flowering Plants of Africa* and her illustrations have appeared in numerous well-known botanical publications, including *The Proteas of Southern Africa* (1980), *The Moraeas of South Africa* (1987) and *Gladiolus of Southern Africa* (1998).

BARBER, Mary Elizabeth (née Bowker) (1818-1899) Born in England, elder daughter of Miles Bowker, 1820 settler. Grew up in the Eastern Cape. Married Frederick William Barber in 1845. During 1870-1879 she lived at Kimberley, where her husband worked a diamond claim. No formal art training. Painted natural history and landscape subjects, made significant contributions to science in written papers and specimen collection, and wrote and published poetry. The largest body of her work is in the Albany Museum, Grahamstown.

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BATTEN, Auriol (b. 1918) Born in Pietermaritzburg. Majored in geography and botany at the University of Natal, and studied art at the Natal Technical College as well as privately. She has taught in KwaZulu Natal high schools and at the East London Technical College, and is a widely published author and botanical illustrator. Is the author of *Flowers of Southern Africa* (1986), for which she produced 100 plates, and the illustrator and co-author of *Wild Flowers of the Eastern Cape* (1966), *Dieramas, the Hairbells of Southern Africa* (1991) and *Gladiolus in Southern Africa* (1998). Has exhibited throughout South Africa, and in London, where her paintings were awarded Gold Medals from the Royal Horticultural Society in 1984, 1986 and 1999. In 1986 she received the Gold Medal of the Botanical Society of South Africa for her contribution to botanical art in South Africa. Was awarded an honorary doctoral degree in Philosophy by Rhodes University, in 1994.

CONDY, Gillian (b. 1952) Born in Nairobi, Kenya and educated in Uganda and England. Trained in scientific illustration at Middlesex Polytechnic and at the Royal College of Art in London, where she received a Masters in 1976. Worked in Botswana before becoming resident botanical artist at the NBI in Pretoria in 1983, since when she has contributed extensively to *Flowering Plants of Africa*. Has participated in over 50 group exhibitions world wide, including the Hunt Institute, USA and the Royal Horticultural Society in London, where she was awarded six gold and three silver gilt medals. Designed 13 sets of stamps for the Botswana Post Office, has organised two major workshops for botanical artists and is one of the founding members of the Botanical Artists' Association of South Africa.

DIXIE, Ethel May (1876-1973) Born in Cape Town. Self-taught botanical artist who contributed many illustrations to *The Flora of South Africa* (1913-1932). A portfolio of four works was published as *Wild Flowers of the Cape of Good Hope* (1953). She kept a master set of volumes from which she made copies as required. Is well represented in the Africana Museum, Johannesburg.

HERSCHEL, Margaret (1810-1884) and HERSCHEL, John (1792-1871) Visited the Cape from 1834 - 1838 during which time John worked as an astronomer and Margaret ran a large household and collected plants. Together they created numerous paintings of Cape plants. John produce drawings produced with the aid of a camera lucida and Margaret

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developed the studies in watercolour. Together the Hershels created a portfolio of 131 mainly coloured images.

LETTY, Cythna (1895-1985) (later Mrs Forssman) Born in what was formally known as the Transvaal. Worked as an artist at the Veterinary Division, Onderstepoort, until 1927 when she was transferred to the Division of Plant Industry. Contributed to the Division's botanical publications, particularly *Flowering Plants of Africa* for which she produced most of the illustrations for 22 volumes, from 1927 to 1955. Is the author of *Wild Flowers of the Transvaal* (1962). With the introduction of decimal currency, she was commissioned to design the floral motifs on the 10, 20 and 50c coins. She was invited to take part in the international exposition of botanical art by the Hunt Library, Philadelphia, in 1966; obtained a silver medal for paintings exhibited at the Royal Horticultural Society in London, 1970. In 1975 she was awarded an honorary LL.D. by Witwatersrand University.

LINCOLN, Thalia (b. 1924) Studied art at the Michaelis School of Art, University of Cape Town, for a year before working in advertising and at the Olifantsfontein Pottery Studio. Started drawing flowers in 1964 and evolved a unique method of drawing in dry coloured pencils. Her major botanical study undertaken with John Rourke, is *Mimetes* (1982). She produced a portfolio for the Sappi Conservation Project in 1995. Has exhibited extensively, both nationally and internationally. Her works have been published in *South African Botanical Literature 1600 to 1988*, *Vision* (1994 and 1996), *Contemporary Botanical Artists* (1996) by Shirley Shirwood

LINDER-SMITH, Claire (b. 1954) Born and educated in Pretoria. Graduated with a B.A. at Natal University. A self-taught, free-lance artist she worked at the National Botanical Institute and then at the Royal Botanic Gardens, Kew, from 1982 to 1984. Has published works in numerous journals and books, including *Flowering Plants of Africa*, a book on the genus of *Cymbidium* and *Curtis Botanical Magazine*. Has exhibited widely in South Africa as well as in the United States at the Hunt Institute, and at the Royal Horticultural Society's Annual Exhibition in London, where she was awarded a Gold Medal in 1985 for her *Cymbidium* paintings and another gold in 1999 for her painting of *Welwitschia mirabilis*. Most recently, her works have been featured in the *Veld Collection*, an exclusive range of fine

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china and printed matter focussing on South African flora. She is one of the founding members of the Botanical Artists' Association of Southern Africa.

PAGE, Mary Maud (1867-1925) Studied painting at art school, took courses in wood carving, metal and enamel work, and was excellent in needlework, embroidery and lace-making. Came to South Africa in 1911 for health reasons and lived in the Free State. Visited Botswana and Zimbabwe and settled in 1915 in Cape Town, where she was employed as a botanical artist at the Bolus Herbarium, University of Cape Town. Her work was published in *The Flowering Plants of South Africa*, now *Flowering Plants of Africa*. Over 1000 of her paintings are housed in the Bolus Herbarium. In addition to botanical studies, she produced watercolour landscapes.

ROUPELL, Arabella (1817-1914) Born in Newport, Shropshire, England, and married Thomas Roupell, an official of the English East India Company. In the Cape on leave between 1843 and 1845, she painted studies of Cape Flowers subsequently published as *Specimens of the Flora of South Africa* 'by a Lady' (1849) and *More Cape Flowers* 'by a Lady' (1864).

THOMAS, Vicki (b.1951) Has published extensively, in *Flowering Plants of Africa*, in *Aloe*, the South African journal of succulent plants, and in the *Cactus Journal* of the United Kingdom. Produced works for the University of the Western Cape calendar. In 1993 she was awarded a Gold Medal from the Royal Horticultural Society. Her book on *Plectranthus* is awaiting publication and she is one of the founding members of the Botanical Artists' Association of Southern Africa.

THWAITS, Emily (c. 1860-1906) Her grandfather, Thomas Thwaits, came to Cape Town from England to become art master at the Rev. James Beck's school in Roeland Street, Cape Town. She produced flower paintings and landscapes. Participated in exhibitions in Cape Town and in Port Elizabeth in 1885, when her work was selected for exhibition at the Indian and Colonial Exhibition. Married Harry Ford in 1905.

WARD-HILHORST, Ellaphie (1920-1994) Studied art at Pretoria Girls' High School and worked as a map maker and in advertising before becoming a free-lance botanical artist in

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1973. Her major project was the plates for the three volume *Pelargoniums of Southern Africa* (1977). Her 314 watercolours and 160 pencil habitat sketches were acquired by the Brenthurst Library in 1989. Awarded the Cythna Letty Gold Medal by the Botanical Society of South Africa in 1988, and a Gold Medal at the Royal Horticultural Society's exhibition in London in 1990 for her *Haemanthus* paintings. She also illustrated *Gasterias of South Africa* (1994). Cited in Stearn's 1994 revision of Blunt's *The Art of Botanical Illustration*. In her 24-year career as a botanical artist, she produced almost 800 paintings of a consistently high quality.

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Fig. 1. *Protea neriifolia*, published in De L'Ecluse (1605) *Exoticorum libri decem*, Antwerp.

503 *Aduersariorum altera pars,*  
tenos tantum laxavit, cui caulis & bulbi latere prodit. Foliorum & bulbi fusci similitudo & parilitas quodammodo Pancreatii Monspeliaci.

*E floris colore Varietates.*

**A** Nnis elapsis floris fusci Caryophyllo aromatico concoloris variam alebat Medio-Castris Zelandorum in horto honestissimus vir & mercator Michaelus de Lamoy affinis meus. Varias aliorum colorum differentias reperiri audio.

*Narcissus Africanus, sive Narc: exoticus.*      *Narcissus Africanus folio rotundiore.*

*Narcissus Africanus bifolius, sive Narc: exotius.*

**E** Crassia lataque, utrinque compressa squamola, veluti nucleis compacta radice, bina tantum edite folia, vncias duas lata, laetioraque; & vncias quinque longa, viridia laetiaque; sub talare tamen alijs duobus foliorum rudimentis praeditus, hic peregrinus bulbos, paruum pugnum magnitudine aequans: cuius mihi copiam fecit praclarus vir D. Iacobus de Keyser Meliopolii Mattiacorum negotiator, huius peramantem studij amantissimus. Frater eius *Genarus de Keyser* bulbos eruit locis vicinis Porti sive *Capo bonae Spei* & primus in Belgium detulit. Anno alpso 1603. eandem rarissimam elegantem plantam, inter exoticas delicias Hortuli D. *L. Kubij* Mediocastri Zelandiae conspexi, quae postea hyemis saevitia periit. Flos autem Anemones floris pleni, sed colore Phaeiceus: etiamque insuetudinis: canaliculus egregie varijs coloribus, carulis, & rubris amantissimis punctulis, variegatus ornatusque. Narcissum exoticum appellauimus, cui propior esse videtur, quoad nomen magis conueniens nobis innotescat. Praefatus D. de *Keyser* nobis exactiorem iconem pollicetur.

*Varietas.*

**F**olio rotundiore & complicato, apud eundem D. de *Keyser* variis.

Fig. 2. Page of illustrations of Cape bulbs grown in Europe, published in De L'Obel (1605) *G. Rondelletii... methodicam pharmaceuticam officinam animadversiones*, London.

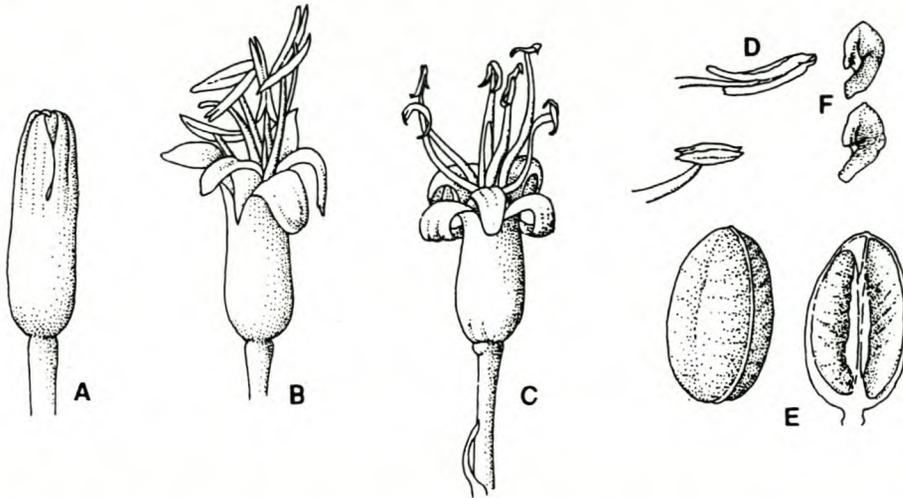


FIGURE 3.—A, bud; B, young flower; C, older flower; D, anthers; E, young fruit, external view and longitudinal section; F, seed. All  $\times 0.8$ .

*Aloe suzannae* is named after Mlle Suzanne Decary, daughter of the discoverer of this remarkable plant. The type and earliest cited specimen of this species was collected by M. Raymond Decary in July 1924. On the same expedition he discovered *A. helenae* (this journal, 49: t. 1934), which he named after his wife.

**Description.**—Plants solitary, caulescent, erect, unbranched, 3–4 m tall. *Leaves* 60–100, rosulate or in a 5-ranked spiral, erect to arcuate, 1000  $\times$  80–90 mm, glaucous and deep green, surface unspotted, without surface prickles, rough as coarse sandpaper, margins dentate, teeth triangular,  $\pm 5$  mm long, 5–15 mm apart, apices rounded, sap deep brown-orange; surface cells irregular to obscure, surface with a single projection and bowed, vertical walls narrow to moderate in thickness, straight to curved; stomata rectangular, accessory cells raised (Figure 2). *Inflorescence* simple, erect, up to 3 m tall; raceme dense, cylindrical; pedicels 28–30 mm long; bracts narrowly deltoid to linear-filiform, acuminate to cirrhous, 15  $\times$  2 mm, so fleshy that venation cannot be observed, shorter than pedicels. *Perianth* with a slight basal swelling, petals reflexed, pink to white, 33–40 mm long, free for  $\pm 16$  mm (Figure 3). *Anthers* exserted 15–20 mm. *Style* exserted up to 10 mm. *Ovary* 8  $\times$  6 mm. *Capsule* deep brown, ovoid to cylindrical-trigonous, 28–40  $\times$  18–20 mm. *Seeds* grey, winged,  $\pm 11 \times 5 \times 2$  mm. Plate 2122.

H.F. GLEN\*, D.S. HARDY\*\* and GILLIAN CONDY\*

\* National Botanical Institute, Private Bag X101, Pretoria, 0001 South Africa.

\*\* P.O. Box 16201, Pretoria North, 0116 South Africa.



Fig. 4. LETTY, Cythna, *Momordica clematidea*, watercolour, 25.5 x 19.5cm. Published in *Flowering Plants of Africa* (1959), vol. 33, pl. 1296.



Fig. 5. BARBER, Mary Elizabeth, *Burchellia capensis* (now *Burchellia bubalina*) (c. 1860s) watercolour, 41 x 30 cm. Collection: Albany Museum, Grahamstown



Fig. 6. ROUPELL, Arabella Elizabeth, *Protea mellifera* (published in 1849), hand-coloured lithograph 456mm x 577mm. Collection: Bolus Library, University of Cape Town



Fig. 7. Outlined by HERSCHEL, John and painted by HERSCHEL, Margaret, *Kniphofia uvaria* (signed: No. 56. Tritom Uvaria)(1836), pencil and watercolour, 327x238mm. Published in Warner and Rourke (1998) *Flora Herscheliana: Sir John and Lady Herschel at the Cape, 1834-1838*. Houghton: Brenthurst Press . p. 9.



Fig. 8. THWAITES, Emily, *Carpobrotus saueriae* (c. 1890) Watercolour with guraabic glaze, 376 x 303mm. Collection Compton Herbarium, Kirstenbosch.

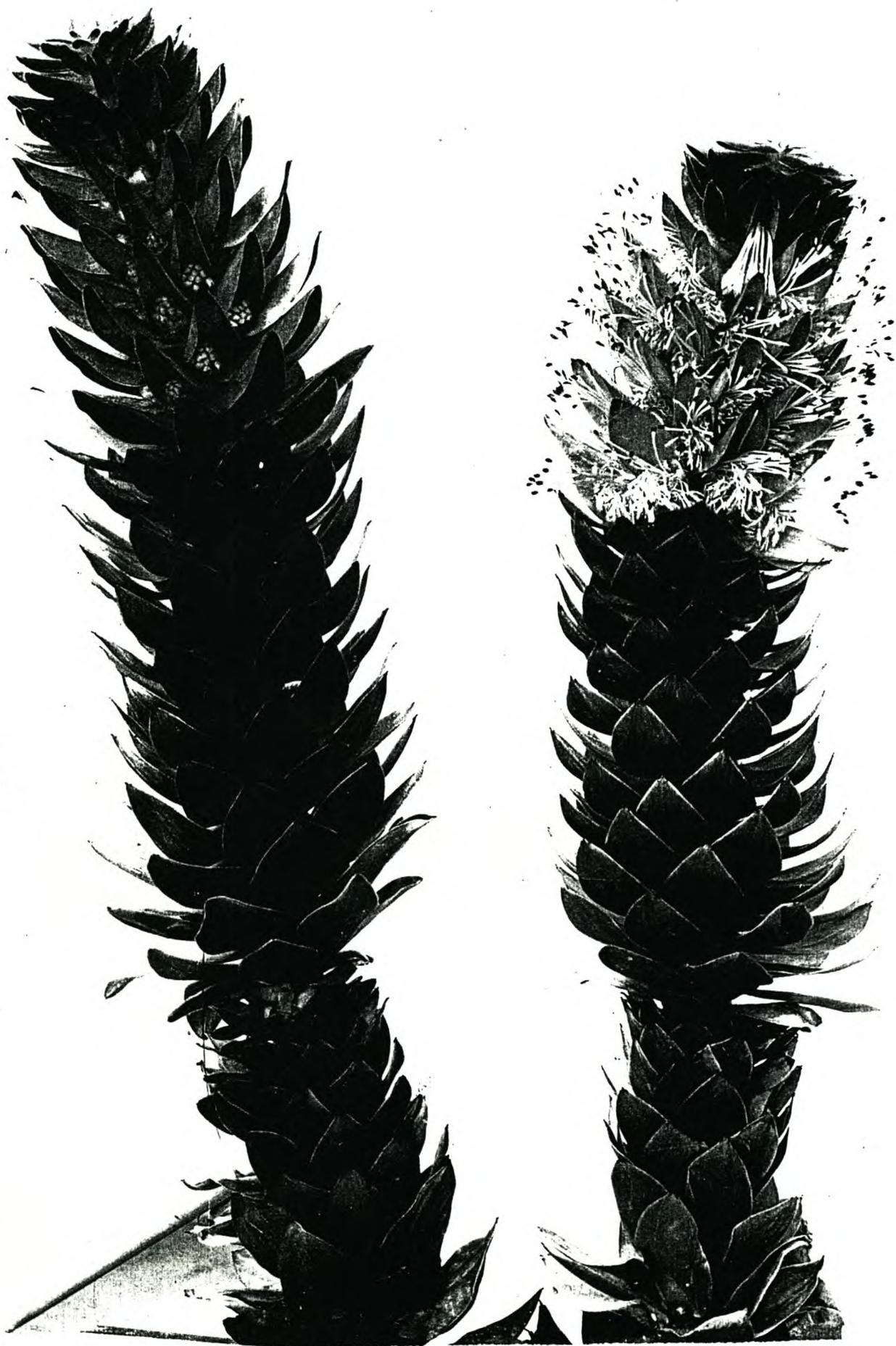


Fig. 9. *Mimetes stokoei*, photographic print from a glass plate negative, (negative photographed in 1922, 107x 82 mm). Collection: Compton Herbarium, Kirstenbosch.



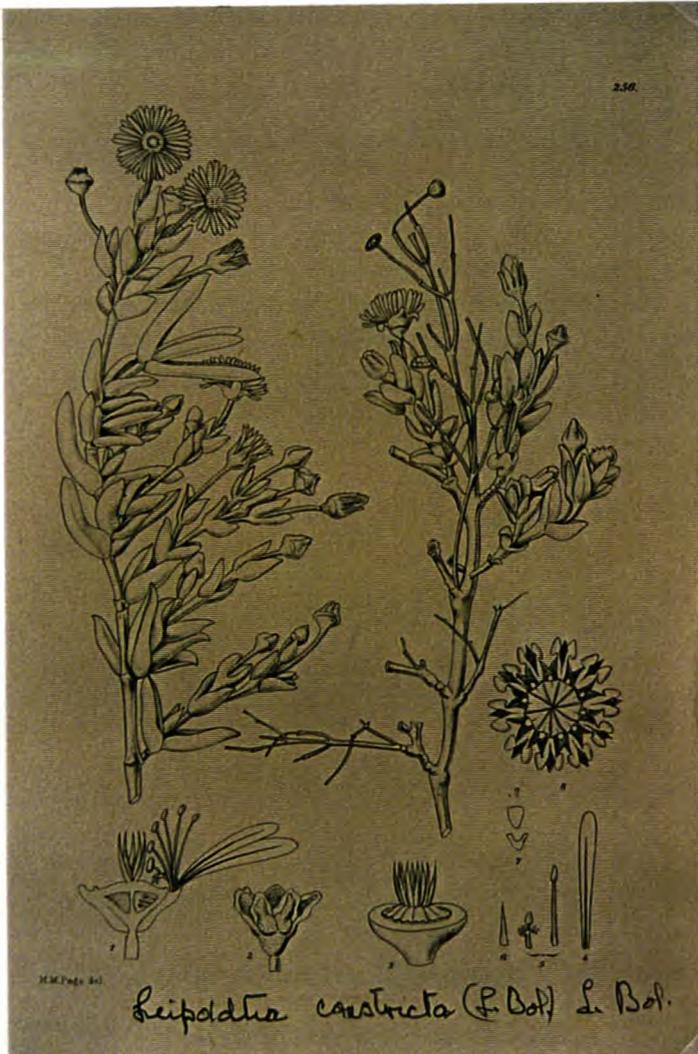
Fig. 10. ANDERSON, Fay, *Gladiolus pappei*. Published in Goldblatt and Manning (1998) *Gladiolus in Southern Africa*. Vlaeberg: Fernwood. pl. 34.



Fig. 11. BATTEN, Auriol, *Gladiolus geardii*, Published in Goldblatt and Manning (1998) *Gladiolus in Southern Africa*. Vlaeberg: Fernwood. pl. 35.



Fig. 12. PAGE, Mary, *Drosanthemum speciosum* (1922), original watercolour plate, 245 x 150mm. Collection: Bolus Herbarium, University of Cape Town. Published in Herre (1971) *The Genera of Mesembryanthemaceae*. Cape Town: Tafelberg. p. 143.



(Top Left) Fig. 13. PAGE, Mary, *Leipoldtia calandra*, herbarium sheet with watercolour illustration, c.400 x 290mm. Collection: Bolus Herbarium, University of Cape Town.

(Top Right) Fig. 14. *Leipoldtia calandra*, herbarium specimen sheet, c.400 x 290mm. Collection: Bolus Herbarium, University of Cape Town.

(Left) Fig. 15. PAGE, Mary, *Leipoldtia constricta* (c. 1924), lithograph, 255 x 190mm. Collection: Bolus Herbarium. Copied from the original watercolour plate.



Fig. 16. DIXIE, Ethel May, and SMITH, Esther, Combination Plate including C: *Leonotis leonurus*, original watercolour plate c.260 x 140mm. Collection: JS Gerike Library, University of Stellenbosch. Published in *Flora of South Africa* (1799-1808), vol. 3, sec. 2, pl. 47.



Fig. 17. DIXIE, Ethel May, *Dipidax triquetra*, gouache and watercolour plate 300 x 232mm. Collection: Compton Herbarium, Kirstenbosch.



Fig. 18. WARD-HILHORST, Ellaphie, *Haemanthus canaliculatus* and *Cyrtanthus leucanthus* (1993), watercolour. Collection: Dr. Shirley Shirwood.



Fig. 19. LINCOLN, Thalia, *Mimetes hottentoticus* (1975), colour pencil.

Collection: First National Bank. Published in Rourke, J. (1982), *Mimetes*. Cape Town: Tiyen Publishers.



Fig. 20. LINCOLN, Thalia, *Mimetes hottentoticus* (1975), detail.



Fig. 21. LINCOLN, Thalia, *Zantedeschia aethiopica* (1973), colour pencil. Collection:



Fig. 22. WARD-HILHORST, Ellaphie, *Tylecodon sulphureus* (1983), watercolour and pencil, 25.5 x 19cm. Published in *Flowering Plants of Africa* (1989), vol. 50, pl. 1984.

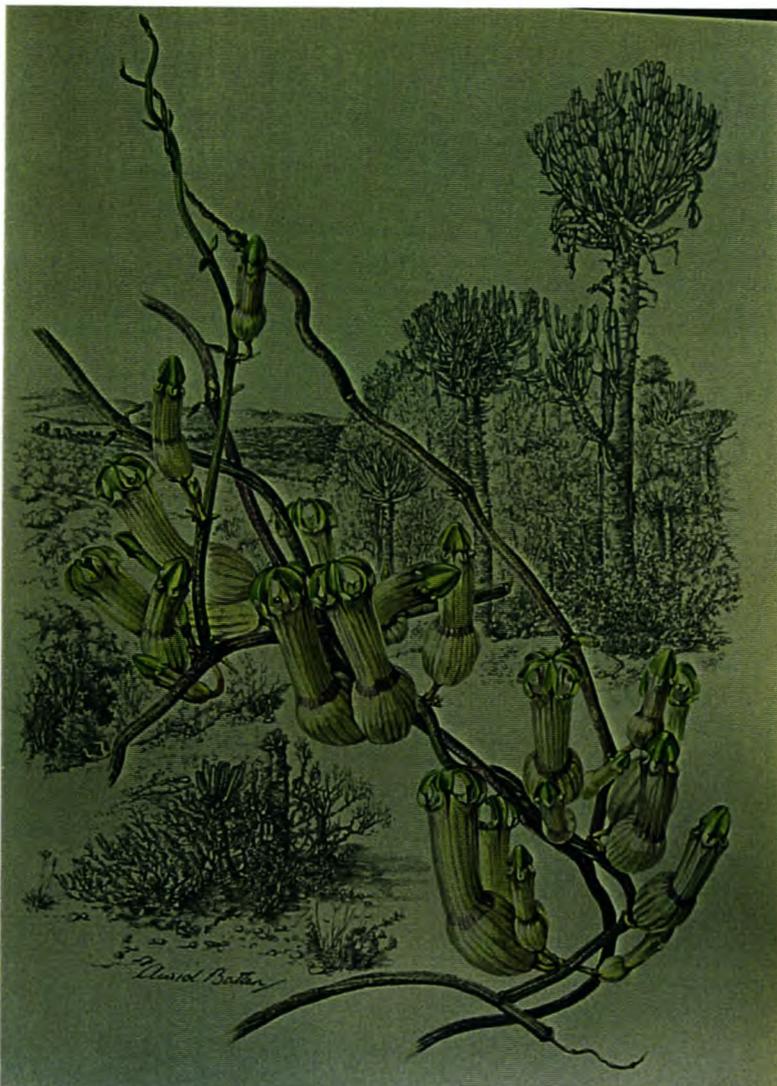


Fig. 23. BATTEN, Auriol, *Ceropegia ampliata*, watercolour and pencil. Published in Batten (1986) *Flowers of Southern Africa*, Sandton: Fraudsens. p.



Fig. 24. BATTEN, Auriol, *Gladiolus cruentus*, watercolour. Published in Goldblatt and Manning (1998) *Gladiolus in Southern Africa*. Vlaeberg: Fernwood. pl. 29.



Fig. 25. BATTEN, Auriol, *Gladiolus cruentus*, detail.



*Lachenalia violacea*

CLAIRE LINDER SMITH



*Mimetes hirtus*

V. Thomas

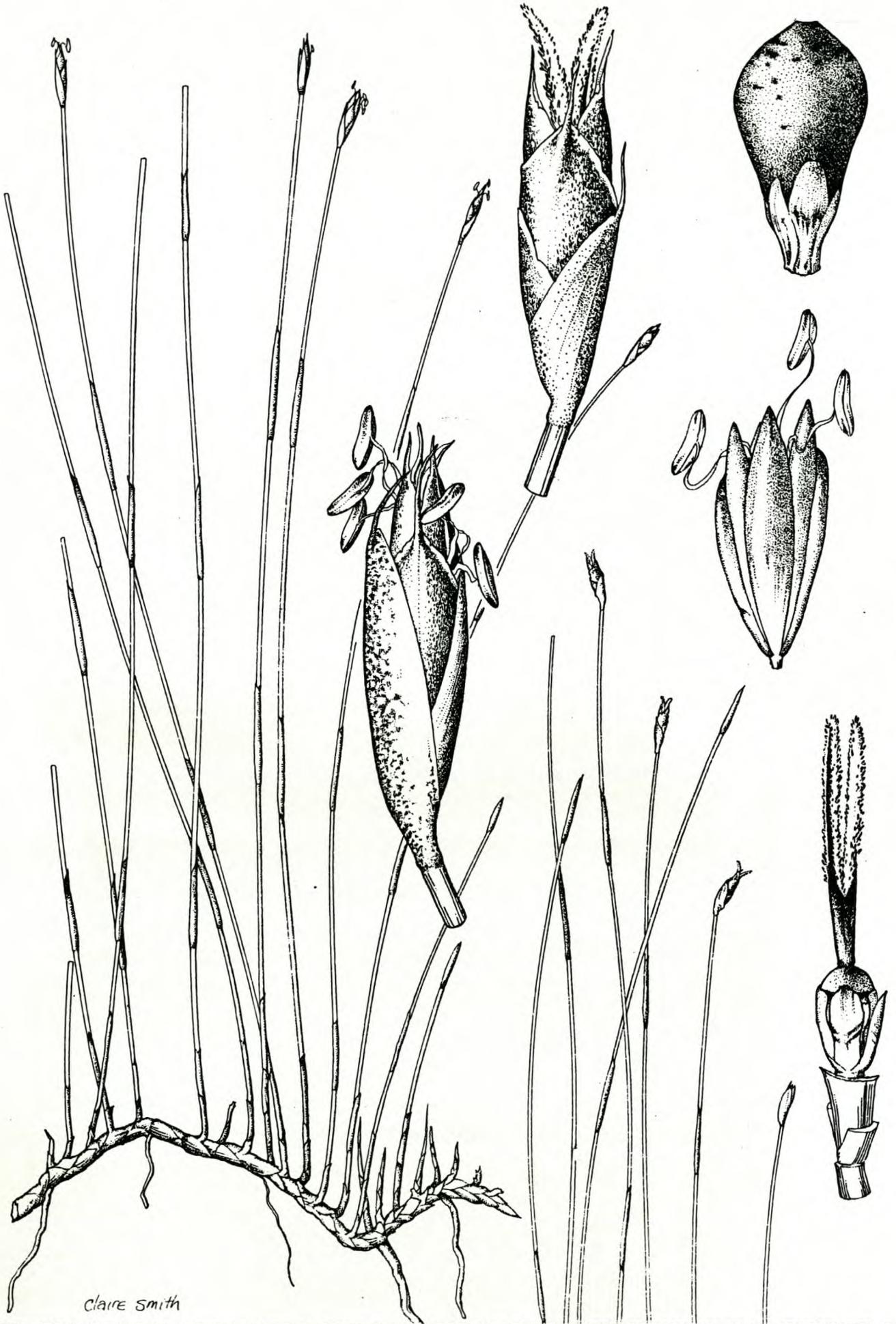


Plate 2141. *Aloe pruinosa*

(Top Left) Fig. 26. LINDER-SMITH, Claire, *Lachenalia violacea* (c. 1999), watercolour. Collection: Kew Botanical Gardens, London. Published in *Curtis Botanical Magazine* (1999), vol. 16, pt. 4, p. 253.

(Top Right) Fig. 27. THOMAS, Vicky, *Mimetes hirtus* (1999), watercolour. Collection: Dr. Shirley Shirwood.

(Left) Fig. 28. CONDY, Gillian, *Aloe pruinosa*, watercolour, 25.5 x 19cm. Page from *Flowering Plants of Africa* (1999), vol. 56, pl. 2141.



Claire Smith

Fig. 29. LINDER-SMITH, Claire, *Hypodiscus procurrus* (c. 1981-1984) pen and ink.

Published in Bot. J. 15, 2-14 (1985), 1-10

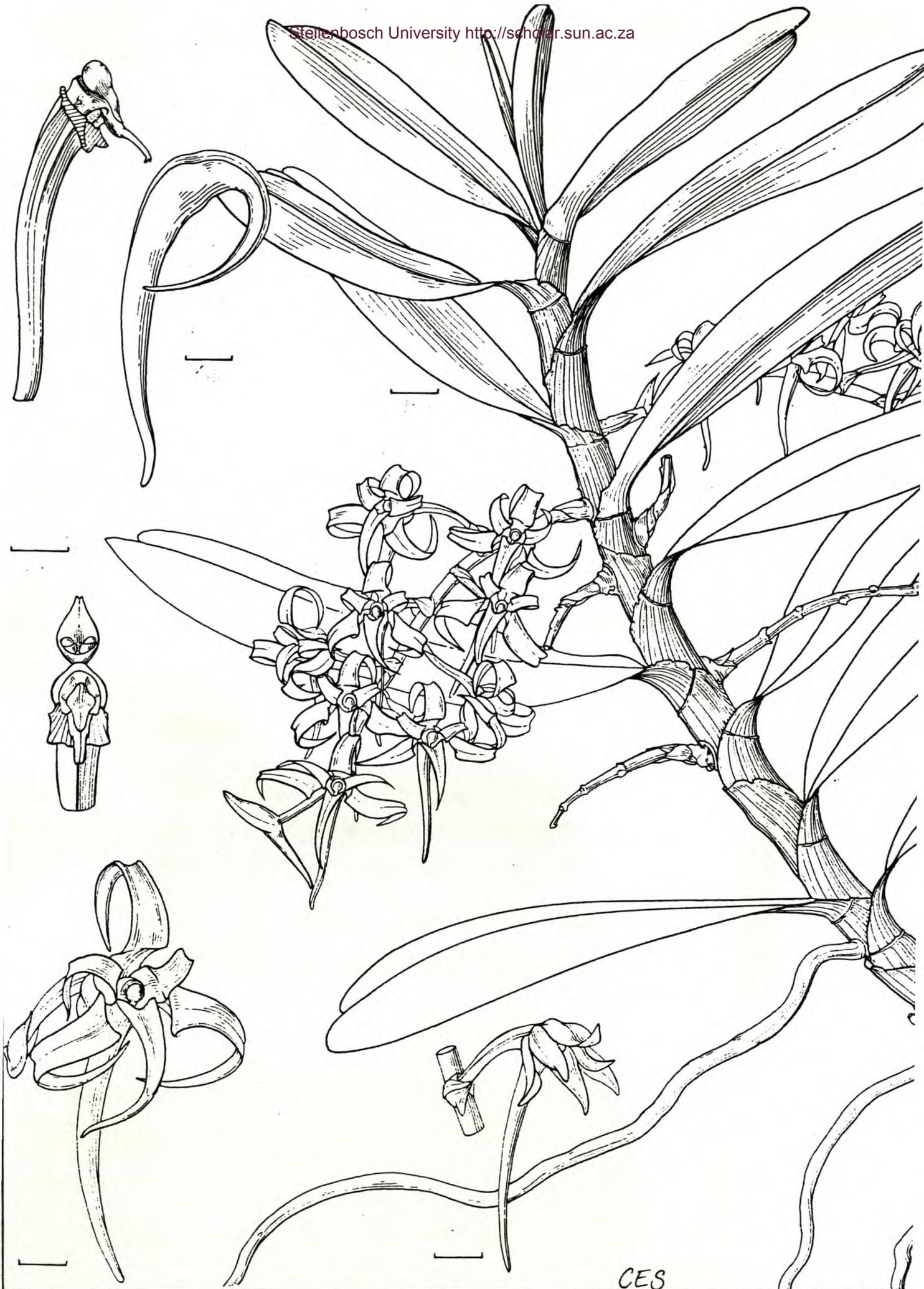


Fig. 30. LINDER-SMITH, Claire, *Cyrtorchis arcuata* (c. 1994-1996) pen and ink.

Published in Linder and Kurzweil (1999) *Orchids of Southern Africa*. Rotterdam: Balkema.

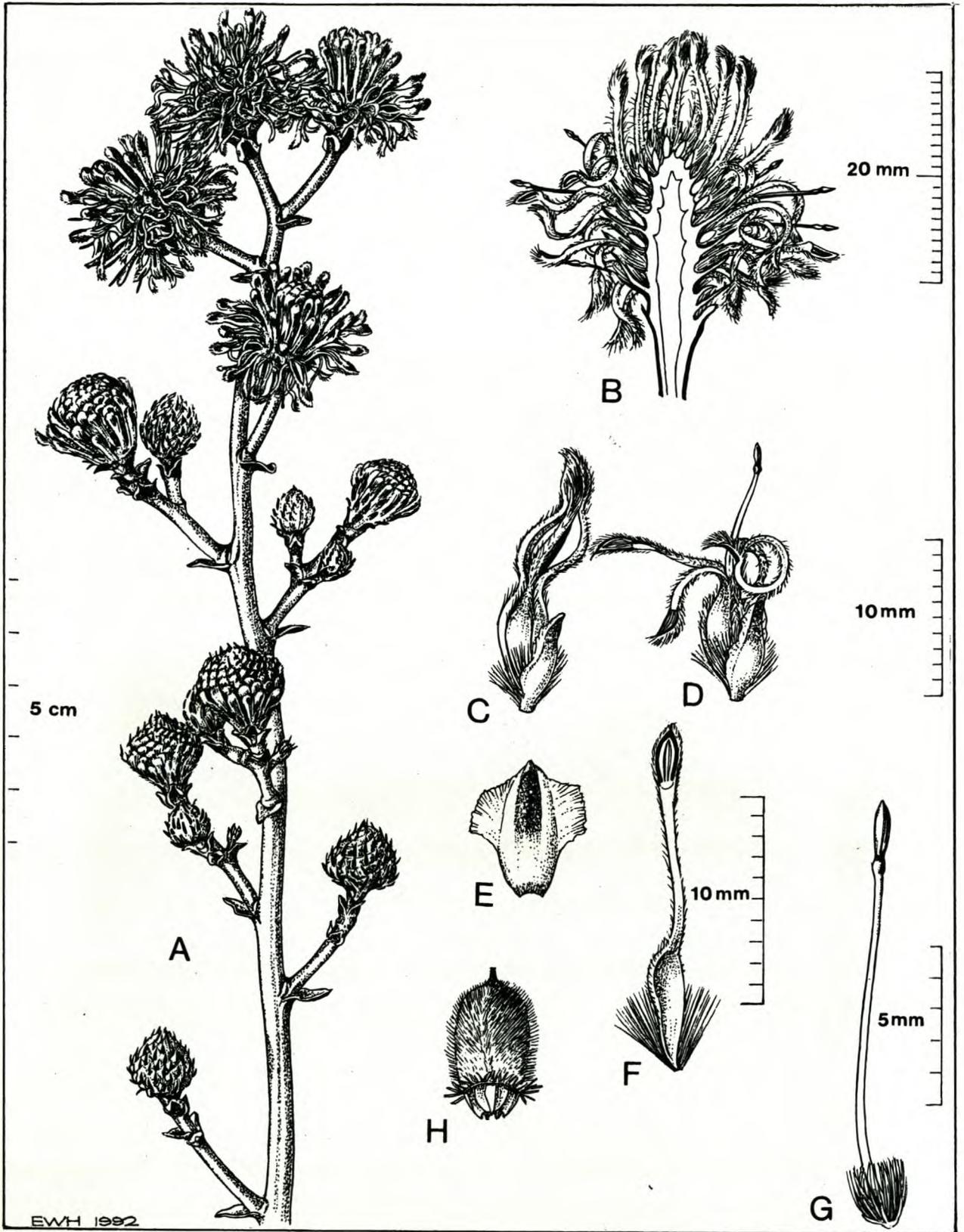


Fig. 31. WARD-HILHORST, Ellaphie, *Serruria altiscapa* (1992) pen and ink. Published in *Bothalia* 24 1 (1994)



Fig. 32. PAGE, Mary, *Watsonia galpinii*, original watercolour plate, 245 x 150mm. Collection: Bolus Herbarium, University of Cape Town.



Fig. 33. PAGE, Mary, *Watsonia galpinii*, hand-coloured lithograph, 255 x 190mm. Collection: Bolus Herbarium, University of Cape Town. Published in *Flowering Plants of Africa* (1922), vol. 2, pl. 45.



PELARGONIUM

Fig. 1. *Pelargonium* cv. *Arctic Star* (1999) watercolour and colour pencil, 310x230mm.





GASTERIA GLOMERATA



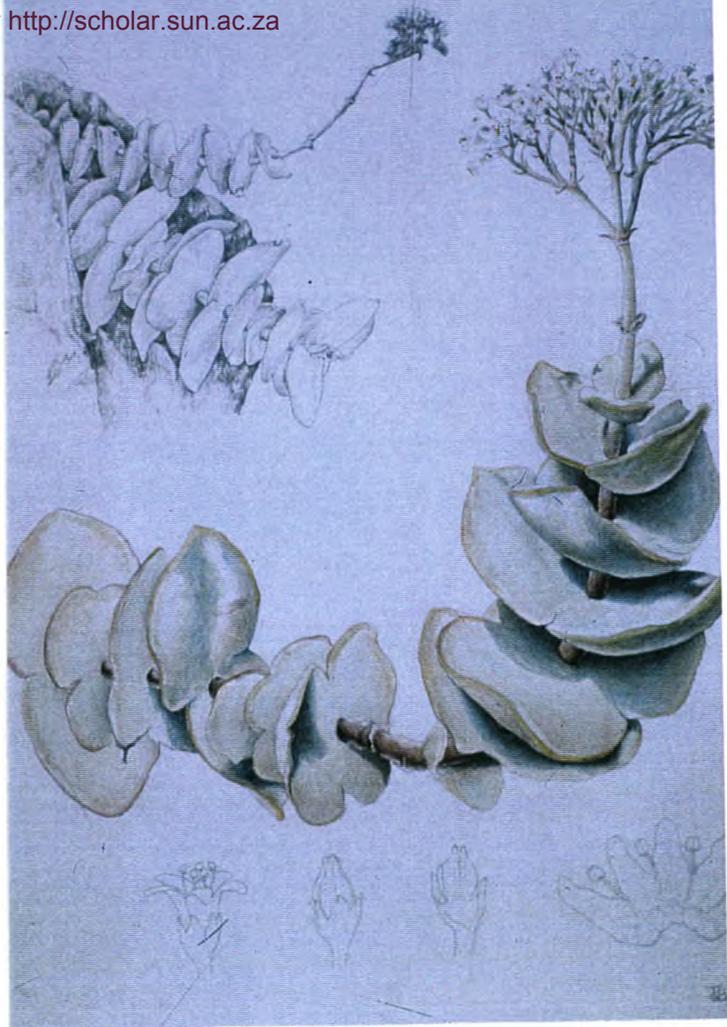
Fig. 5. *Aloe pictifolia* (1999) watercolour and colour pencil, 310x230mm.



Fig. 6. *Haworthia viscosa* (1999) watercolour and colour pencil, 310x230mm.



Blake 99



CRASSULA PERFOLIATA  
Blake 2000

(Top Left) Fig. 7. *Crassula cremnophila* (1999) watercolour and colour pencil, 310x230mm.

(Top Left) Fig. 8. *Crassula badspootense* (2000) watercolour and colour pencil, 310x230mm.

(Left) Fig. 9. *Crassula perfoliata* var. *minor* (2000) watercolour and colour pencil, 310x230mm.



(Top Left) Fig. 10. *Bulbine cremnophila*  
(2000) watercolour, 310x230mm.

(Top Right) Fig. 11. *Ledebouria concolor*  
(2000) watercolour, 310x230mm.

(Left) Fig. 12. *Cyrtanthus thorcroftii*  
(2000) watercolour and colour pencil,  
310x230mm.



Fig. 13. *Stapelia leendertziae* I (2000)  
watercolour and colour pencil,  
300x220mm.



Fig. 14. *Stapelia leendertziae* II (2000)  
watercolour and colour pencil,  
310x230mm.



Fig. 15. *Gasteria croucheri* (1999) watercolour and colour pencil. 770x510mm



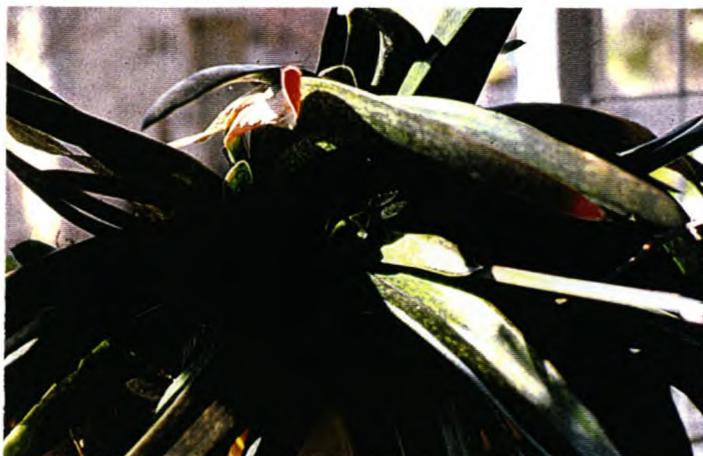
Fig. 15b. *Gasteria croucheri* growing in its natural habitat, black and white photograph, E. Van Jaarsveld.



15c



15d



15e



15f



15g



15h

Fig. 15c - h. Slide references of *Gasteria croucheri*, colour slides.



Fig. 16. *Albuca sp.* (2000) watercolour and colour pencil, 780x545mm.



Fig. 17. *Scilla natalensis* (2000) watercolour and colour pencil, 802x458mm.

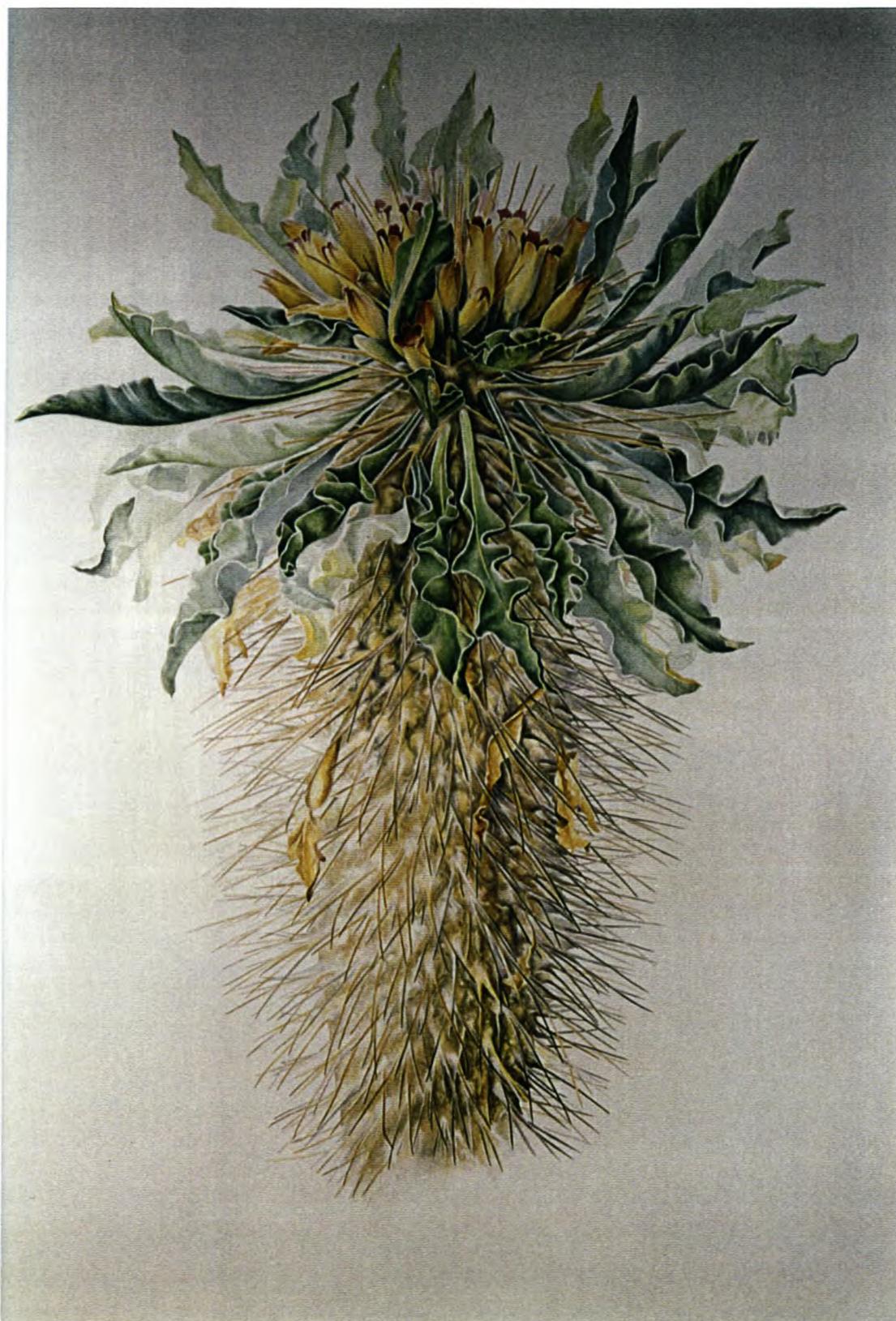


Fig 18. *Pachypodium namaquanum* (2000) watercolour and colour pencil, 800x570mm.



Fig. 19. *Aloe dichotoma* (2000) watercolour, 2240x1520mm.



Fig. 20. *Erythrina lysistemon* (2000) watercolour, 1680x1520mm.

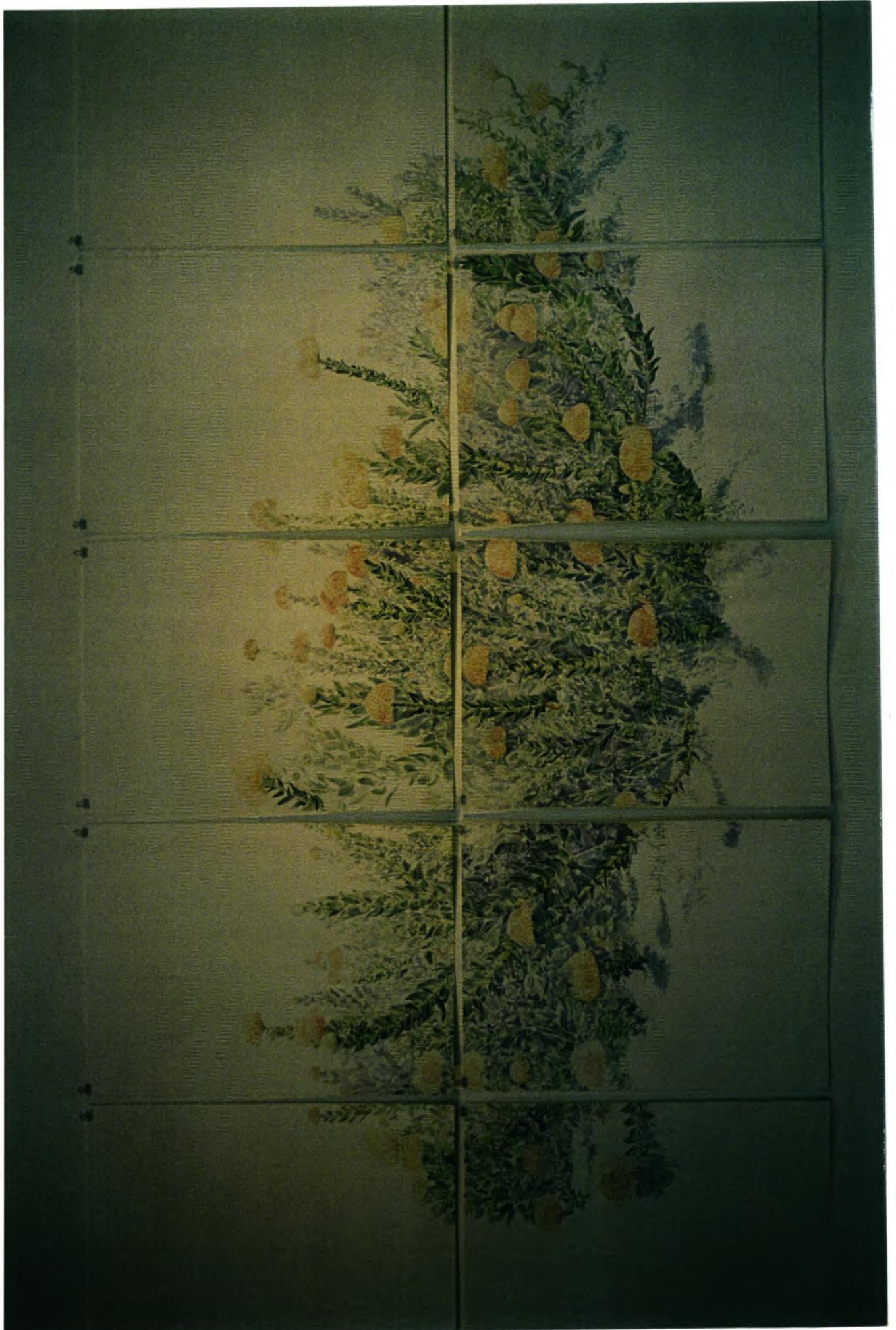


Fig. 21. *Leucospermum cordifolium* (2000) watercolour, 2800x1520mm.



Fig. 22a and b. Installation shots to illustrate presentational decisions.