

MEDICINE AND THE ENVIRONMENT

A sensory garden

C Ellis

Town Hill Psychiatric Hospital in Pietermaritzburg was built in the late 1870s and opened in 1880. It was designed and built in the grand fashion of Victorian mental institutions; most of its buildings are now listed historical monuments as examples of Victorian colonial architecture. At the beginning of the 20th century, it was almost a self-sufficient community, with vegetable gardens, a piggery, quarry and permanent residences for many of the staff, gardeners and workmen. The first medical superintendent, Dr James Hyslop, planted the trees, many of which still remain and must be up to 100 years old. There are groves of bamboo, yellowwood, cycads, enormous azaleas and avenues lined with jacaranda and London planes in the grounds, which give it the atmosphere of an English country estate in a condition of mild decaying colonial splendour.

In 2009, we decided to design and plant a sensory garden in a spare patch of ground outside Peacehaven ward, which houses long-term female patients and some younger patients who are awaiting placement in the community. Sensory or therapeutic gardens are used to provide a healing and nutritional environment for patients, staff and visitors. The garden consists of exotic and indigenous shrubs and herbs that are visually pleasing to the eye and stimulating to the senses of smell, touch and taste. It provides a relaxing atmosphere and therapy in the form of gardening, watering and empowerment activities for patients. Obviously, poisonous or toxic plants are avoided, as well as shrubs with thorns.

We collected our shrubs and plants from local nurseries and had an opening ceremony where shrubs were planted by individual patients. We also put up a bird bath and bird feeder. The garden is kept by the patients and a sense of ownership is encouraged by keeping the bird bath full, feeding the birds and watering the plants. Shrubs were selected that are fragrant or have medicinal or therapeutic properties, and also some that attract butterflies and birds.

The indigenous medicinal shrubs include African Wormwood (*Artemisia afra*) which is a popular local shrub and is known in isiZulu as *mhlonyane* and recognised for its use against coughs and colds and drunk as a tea or used as an inhalation. Its leaves have a disinfectant camphor-like smell and can be put in socks for the treatment of sweaty feet (but remember to take them out before putting them in the washing machine).

At the entrance of the garden is a wild African sage (*Orthosiphon labiatus*), which comes out in profuse pink long-stemmed flowers in the summer; the crushed leaves have a rich herby smell. Behind this is a Sacred Basil plant known to Indians as Tulsi; this has pungent aromatic leaves that smell a bit like Vicks ointment. It is cultivated both for Hindu religious purposes as well as for use in Ayurvedic medicine, and can also be hung over doorways as a protective talisman.

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On the other side of the garden is a young South African jasmine (*Jasminum angulare*) which is indigenous to KwaZulu-Natal and has an exquisite fragrance throughout the summer. At the side is a small tree with very pungent aromatic leaves. In Afrikaans it is called *perdepisboom* but it has the more elegant name of Horsewood (*Clausena anisata*) in English. It is a natural habitat for the Swallowtail butterfly. There is also the Natal ginger bush, known in isiZulu as *iboza*, which was donated to us by the botany department of the university, and is also known as the misty plume bush; it is one of the few shrubs that flower during the winter months. The aromatic leaves are crushed and the scent is inhaled for the treatment of chest complaints and headaches.

The shrub we planted to attract birds is called Lion's Tail (*Leonotis leonurus*) which, in isiZulu, goes by the appropriate name of *utshwala bezinyoni*, which translated means 'the beer of the birds'. A Buddleia bush at the back attracts butterflies, and a lemon verbena produces fragrant leaves that can be used in summer drinks. The signs and labels for the plants and bushes were made by the patients in the Occupational Therapy Unit, which is very active at Town Hill.

It is interesting to see the eyes of the patients and staff light up when they recognise the smells of the herbs from the crushed leaves. This is known as 'bright eyes' therapy used by occupational health workers to aid in connecting with patients with intermediate and advanced dementia. It is a sort of Proustian nostalgic journey, *à la recherche du temps perdu* [Remembrance of things past].

We still don't understand all the sensory pathways of taste and smell. There appears to be some crossover, as the sensations that we consider being taste can actually be conveyed by smell, and vice versa. Smell is also tied up (via the limbic system) with memory, and hence the nostalgia induced by certain smells. Emotion is also enmeshed with this system, so that events, places or people who are emotionally significant, are likely to be remembered. These are ancient primaevial pathways that began to evolve in our forebears' forebears over 400 million years ago (*Homo sapiens* does not seem to be in a hurry over these matters).

Patients may also use the herbs from the culinary section, such as parsley, basil, mint and thyme, to spice up their normal diets. We plan to map out trails so that patients and staff from the other wards can visit as part of therapeutic exercises. This is all part of a strategy to create a healing, natural environment to aid the recovery of our patients.

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