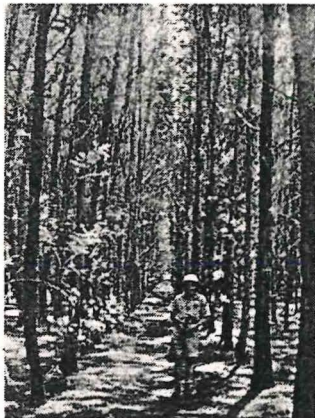


Vegetation Mapping Dr J S Beard

On 16th October 2006, some 85 members, guest and the public, with standing room only, attended the Ordinary Meeting of the Royal Society of Western Australia to hear Dr John Beard deliver his illustrated presentation on "Vegetation Mapping – how it all happened". It was largely an autobiographical excursion into the history of how John commenced vegetation mapping, and his work in plant science in Western Australia.

John commenced his presentation with how, from the School of Forestry at Oxford, he ended up in Trinidad and Tobago in the West Indies in 1940, to carry out landuse mapping, from which he developed the first of his vegetation maps and a description of the natural vegetation of Trinidad. These formed the basis of his BSc at Oxford, and later his doctorate (in 1945). From Trinidad he ventured to Windward and Leeward Islands and Barbados where he was involved securing forest reservation, constructing land-use maps and vegetation maps, compiling a herbarium of trees and shrubs, and conducting surveys of forest resources, leading to the publication of *The Natural Vegetation of the Windward and Leeward Islands*. Continuing work on vegetation in the American tropics, John developed a physiognomic system of classification of climax communities. After the war, John went to South Africa, taking up a position as a silviculturist with the Natal Tanning Extract Company working in the wattle industry (pictured below).



Additionally, while in South Africa, John worked on the genus *Protea*, and published *The Proteas of Tropical Africa*. At this time, he also developed an interest in the botanic gardens, such as those by the Botanic Society of Natal. This interest paved the way for him to apply for the post of Director for the new botanic garden at Kings Park, Perth, where he took up the position in 1961.

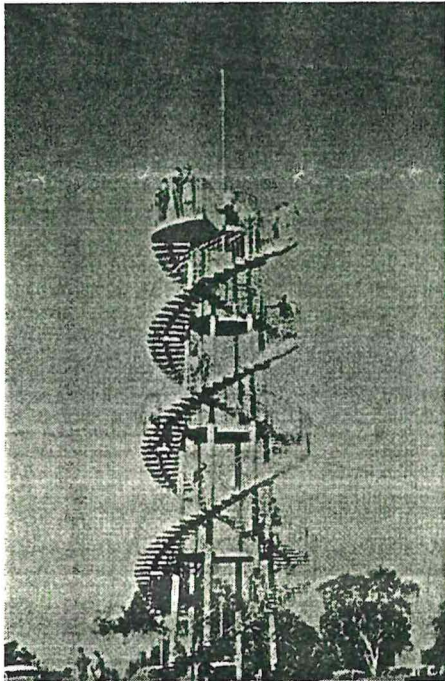


Illustrated book on *The Proteas of Tropical Africa*

When in Perth, John organised the new Garden at Kings Park to specialize in the study, cultivation, and display of Western Australian native plants. But a lack of information on native flora was a problem, so John began to compile an inventory of plant species and plant communities, resulting in what became popularly known as the "The Beard catalogue", which indicated for each species what kind of plant it was, height, flower colour, flowering time and what district it was found.

With difficulties in obtaining suitably experienced local staff, the first gardeners and nurserymen in fact were horticulturists from overseas institutions. To further the botanic gardens in Kings Park along international principles, John recruited Arthur Fairall, the Park Superintendent from the Botanic of Park in Pietermaritzburg, Ernst Wittwer, a Swiss who had also trained at Kew Gardens, as the Nurseryman, and a local wildflower nurseryman, Fred Lullfitz, as Seed Collector.

The Botanic Garden was officially opened in 1965. During his tenure there, John also was involved in the design and construction of some of the landmarks around Kings Park, such as the Pioneer Women's Memorial Fountain and the spiral tower (the 'DNA Tower' pictured below).



In regards to vegetation mapping, John had to traverse much of Western Australia, including remote areas such as the Great Sandy Desert. At the time, at the initiation of this project, in the 1960s, there were few maps, even basic topographic maps, and while aerial photography was available, access tracks into remote areas infrequent. The mapping necessitated field work to record plant species, soil associations and vegetation types, codifying this information and translating it onto aerial photographs to be later transferred to 1:250,000 topographic maps. Various individuals, from seed collectors to professional botanists accompanied John on his field surveys: these included George Lullfitz, Alex George, and Paul Wilson, amongst others.

With political problems looming in relation to his vegetation mapping, and after nine years as Director of Kings Park, John took up the Directorship of the Royal Botanic Gardens in Sydney in late 1970. Retiring from the Royal Botanic Gardens in 1973, John returned to Perth to continue with the task producing vegetation maps of Western Australia. In this endeavour, this time he collaborated with Professor Martin Webb, the new head of the Geography Department at the University of W.A., producing maps at 1:1,000,000 covering the whole State, and at 1:250,000 covering the southwest. The vegetation mapping was completed in 1981 in time for a map display at the International Botanical Congress in Sydney. In his work of mapping, John traversed some 150,000 km of roads within Western Australia, recorded in 1100 pages of longhand notes, collected some 6870 botanical specimens, and took 1000 photographs. The area mapped amounts to the western third of Australia, about 2,500,000 square kilometres. Later, John was to publish a book *Plant Life of Western Australia* in 1990 to illustrate some 500 of the photographs he had taken in the field.



Crest of a red sand dune in the Great Sandy Desert

As a finale, John introduced the audience to a range of vegetation maps arranged around the wall of the lecture theatre, showing his work in Trinidad, the Windward and Leeward Islands, Dominica, and those of Western Australia.