

### Turning an Honours Thesis into a Career

**Conan O'Brien**, GGG grandson of the original Patrick, brings bubbles to life in a swirl of music and colour - smoke bubbles, fire bubbles, square bubbles, dancing bubbles, really big bubbles and lots of bubble, with laser effects and illumined by a range of specialised lighting techniques. All combine to create a visually spectacular performance.

Necessity, they say, is the mother of invention. Granted First Class Honours for his research on surface chemistry at the Australian National University, Conan, needing to find a job, turned necessity to opportunity. He is making a name for himself at Festivals in Australia and overseas. He has appeared in the National Folk Festival, Australia, the Festival International de Theatre de Rue in Aurillac, France, the 22nd European Juggling Convention, the Avignon Theatre Festival, France and the Montreaux Jazz Festival.

Several family members took the opportunity to enjoy Conan's performance during his three-week season at the Fringe Comedy Festival in North Melbourne last October. Those who attended had never seen anything like it before!

Conan performed at the National Circus Festival in Tasmania over the long weekend in March and is planning a trip to Western Victoria in late June and early July including appearances at Warrnambool Fun4kids in early July.

He is currently based in Canberra and Melbourne and may be contacted by phone 02 6230 4749: Mobile 0413 604 441 International +61 413 604 441 or e-mail: [bubbleman@conanthebubbleman.com.au](mailto:bubbleman@conanthebubbleman.com.au) or via internet at [www.conanthebubbleman.com.au](http://www.conanthebubbleman.com.au).

Some comments from the audience:

"I have never seen a performer capture the audience's attention so completely."

"A powerful performance, commanding rapt attention."

"... a journey of a whimsical and beautiful nature".

"Original and highly entertaining"

"I don't have the words to describe how incredible Conan's bubbles are."

"I have never seen such an enthusiastic response to a performance in eleven years of teaching."

...and from seven year olds

"He can make the most enormous bubbles you have ever seen. It is really cool."

"Your show was fantastic. My brother and I went home and tried to make some of your bubbles."

## Where have all the flies gone?

As the forebears wrested their living from the stony Burren, composting tons of seaweed nutrients to enrich their sparse soils, so today, two of their descendants are pioneers in securing Australia's vital soils.

### Bernard Doube <sup>1</sup>

Visitors to Australia, in the past, were often mystified by the great Aussie salute of a hand nonchalantly sweeping the face and forehead...but not so often today! Have you wondered why there are no longer so many bush flies around?

Carrucan descendant, Bernard Doube has played an important rôle in bringing about this minor, but critically important environmental revolution.

Bernard studied Zoology, with a speciality in Entomology, (the study of insects) at the University of Adelaide. He joined CSIRO <sup>2</sup> and commenced a lifetime of research, initially studying cattle tick, the paralysis tick and the buffalo fly, all curses in the northern Australian cattle industry.

Australia's problems with cattle dung began with the First Fleet. In January 1788, the first English colonists brought with them five cows, two bulls, seven horses and 44 sheep; but they had made a huge mistake. They didn't bring with them the beetles from Europe that ate the dung of these European animals.

The dung beetle has a fabled history. The Egyptians even worshipped them! The sacred scarab, the mystical religious symbol of the ancient Egyptians, is a dung beetle. The Egyptians saw a strong similarity between the Sun rolling across the sky one day, to rise again the following day, and the dung beetle rolling the balls of dung across the ground, burying them in the soil, and emerging from the soil the next day to search for more dung. So they actually represented the Sun god, their most important god, as a scarab. <sup>3</sup>

Imagine each day, 350 - 400 million cattle dung pats are dropped onto Australian soil, so each year, the 30 million cattle in Australia cover over 1.5 million hectares of grazing land with their dung. These pats lock up nutrients and inhibit pasture growth. In turn the buffalo fly, which was introduced from Timor in the 1890's, and the native the bush fly laid their eggs in cowpats and soon after, thousands of little flies buzzed away from the dung, causing serious animal and human health problems.

Entomologists knew that the dung beetle in Africa and Europe breaks up the dung, buries it, and eats it. He buries it in tunnels in the soil, feeding on its juices, and laying eggs in dung packed into underground tunnels: he simply adores it. An active dung beetle population means that there is less dung lying around for flies to breed in, the soil is improved by the tunnels and buried organic matter, the pasture prosper and disease levels are reduced.

CSIRO turned its attention to a possible solution in biological control of these interrelated concerns. Some success had been achieved in control by the early 1900's in introducing dung beetles to Hawaii from Mexico.

A small research station was established in South Africa to study the beetle (of which there are over 2000 species south of the Sahara) to determine whether it could be safely established in Australia. Beetles were exported to Australia but more species were needed.

In the early 1980's, Bernard Doube, at the age of 35, volunteered to take his young family to lead this research in Africa. There he found that the dung beetles would head for the hot steaming cow pat even as it hit the ground.

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<sup>1</sup> Bernard Michael Doube, grandson of Bridget [ne Carrucan] and John Doube, founders of the South Australian line. Bridget was the daughter of Dennis and Mary [ne Sexton] Carrucan. See article on the South Australian Branch, p. 7 above.

<sup>2</sup> CSIRO ~ Commonwealth Scientific and Industrial Research Organisation.

<sup>3</sup> Quoted from an ABC radio talk by Karl Kruszynski, date unknown.

Within minutes, the beetles were already burrowing into the warm dung. Within a few days the cow pat has vanished. All that is left is tunnels, freshly turned-over soil and a thin, dry crust of dung. Researchers have counted more than 7,000 dung beetles in a single mass of fresh elephant dung!

Bernard's research in Africa and continuing work following his return to Australia, eight years later, helped to put the CSIRO programme in the forefront of Australia's agricultural research. Later for 10 years in Adelaide, Bernard turned his attention to that other soil conditioner, the earthworm. During that time he produced two international books on the biological basis of soil health. More recently, he has been engaged in spreading dung beetles into the South Australian water catchment regions so that they might reduce the levels of dung-derived nutrients, organic matter and *Cryptosporidium*, (a dangerous human gut parasite that lives in cattle and infects catchment water through dung) in reservoir waters.

**Peter Carrucan**<sup>4</sup> wondered about his retirement future when he bought a humble acre of land at Woodford, in Victoria's Western District. Little did he realise that becoming a Friend of nearby Pallister's Reserve would absorb his interest and much of his time in a ground-breaking project. As it turned out, his kindled interest has borne a rich harvest in the development of a seedbank for seed of rarer native under-storey species, which are used for revegetating degraded and overstocked farmland.

"Most of the understorey species in the district have been cleared or grazed out by livestock. Remaining seed sources for many species is now limited," Peter said.

The group developed a plan for a small area within the reserve, then sought assistance from the Alcoa Landcare Project to fence the site for protection from rabbit and hare damage.

"After the site was fenced, we used a bobcat to scalp away the top few centimetres of soil - firstly to remove any weed seed (the area had once been under pasture species) and secondly to remove some of the nutrients in the soil", Peter said:

Today, the project is distributing seed across southern Australia to Landcare groups and local authorities, while Peter has revegetated his home block of revegetated bushland, now grown to ten acres!

Pallister's Reserve had been endowed as a privately founded Trust to preserve wetlands for brolga breeding.

Brolga flocks in the region during the early days of European settlement were estimated to be in the thousands. The number of brolgas found throughout Victoria is estimated at 400 to 450, stamping it solidly as an endangered species in this State.

Each pair might lay two eggs, in the period from July to November, which hatch after 31 days of incubation shared by the parents.

A swamp near the centre of Pallister's forest has a brolga nesting-mound but it had not been used since the swamp dried up following the abnormally dry winters being experienced in the south-west

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<sup>4</sup> Peter Kevin Carrucan, Grandson of Peter and Hannah [ne Woods] Carrucan many of whose descendants now live in New Zealand.