

# Welcome to the essentialARB Magazine

**Andrew Cowan, founder of ArborEcology, has a passion for trees, ecology and the pursuit of knowledge, which has helped him to carve out his own career path. Returning from a successful debut as an Australian ISA seminar speaker, he talks to Caroline Locher about his career and how he hopes to help others in his new role, as the editor of essentialARB magazine, redesigned and planned for re-launch in September.**

Rather than meet at his offices near Sevenoaks, we sit under a tree near the Evolution House in Kew Gardens, where the sound of laughing school children and the constant drone of the Heathrow flight path disturb our conversation. Could this be intentional, since he would be the first to admit that if asked about himself for any purpose other than for this feature, he would run a mile?

Andrew laughs. "I chose Kew because it is an inspirational place with an internationally important tree collection. Later I am meeting with Tony Kirkham who is Head of the Arboretum and Horticultural Services at Kew, to talk about contributing future articles to the magazine. I am interested to find out how he has managed the growing population of Oak Processionary Moth (*Thaumetopoea processionea*)."

For Andrew, the link between trees, ecology and publishing was established in his early teens. "My father, a field mycologist, ran courses for the Field Studies Council. On a 'fungi foray' on Hosey Common near Westerham I found a parasitic *Cordyceps* Sp. (looks like a small black candlestick) growing on a truffle whilst 'foraging' amongst tree roots." His father sent the sample to Kew for identification and the herbarium still holds the specimens as part of their reference collection. This was a rare find and Andrew is immortalised forever with fungus, in the pages of a scholarly tome.

He left school in 1986 with an A level in art and a desire to work outdoors, just as arboriculture was gaining acceptance as an industry in its own right. "I went to college to ensure that I could have a career beyond practical tree work. At that time only two colleges offered courses in arboriculture and I opted

On the tree top walk at Kew Andrew explained how he considers one of the biggest issues with society today is that people living in 'western' civilisation have become increasingly detached from their natural environment, "this is a situation that has influenced our relationship with risk and the progressive development of a 'risk-adverse' society, which seeks to reduce the 'liability' of hazardous situations, rather than seeing them as opportunities to engage with risk. Such situations are a natural part of the learning process and enable us to understand the world in which we live." He hopes the opportunity to experience a walk through the tree canopies at Kew Gardens will enable more people to challenge their perception of our natural environment and reconnect with it.



In Australia Andrew was inspired by the structural forms created by fig trees that produce aerial roots that can be creatively cultivated to form natural props.



Following the ISA Asian Pacific conference in Brisbane, Australia, where Andrew and friends David Lonsdale, Jill Butler and Ted Green, had shared their knowledge with over 400 candidates from across the southern hemisphere, the group visited the rain forests around the volcanic mountains along the Gold Coast. "I found these areas of remnant rain forest ore inspiring and the scale of the trees was mind boggling. These areas of wilderness were trees are growing in their natural habitat are an incredible source of reference and natural context for the Australian arborist, something that I think we are missing in the UK." He described the experience as like visiting a cathedral of trees with an amazing ethereal atmosphere. Andrew could not resist the temptation to climb into the creviced buttresses of a strangler fig,

As a teenager Andrew drew his inspirations from painting ancient trees and considers this to be something that has influenced his professional development in arboriculture. "I still draw trees today, although rarely getting a chance to paint, most remain as pencil sketches. However, I find the exercise of drawing trees incredibly valuable, because the process involves taking time to look in great detail at the subject and I start to see things that would otherwise have been overlooked or lost in a photograph. I now consider this an invaluable tool when undertaking a visual tree assessment (VTA), because it offers an opportunity to really observe the reactive force flow form of the tree, and the fantastic structural shapes that are naturally created as the tree grows over time." Andrew painted the two trees in the image above while studying for his art A level, and the other sketches are some of his more recent pencil drawings.

for the three-year National Diploma at Merrist Wood. They insisted on a year's work experience before joining the course so I worked as a groundsman with private contractor AN Rowland."

For his college 'year in industry' he chose to work for Berkshire County Council, a very different experience to private contracting. "There was no impetus to get the job done - clients would pay regardless. If we did not finish the work, we would return the next day, sometimes with less than an hour's work to complete on the other side of the county." His frustration soon abated when, in the third year, he climbed to the top of his highest tree (140ft cedar) and took in the view "Standing on the upper branches, above the canopy, it was like being on top of a green cloud looking out over the landscape below". He realised then that he had chosen the right career.

In 1990, Andrew left Merrist Wood as a qualified arborist and climber. Rather than join a local 'ladder brigade' to fund his weekend addiction to 4WD off-road racing, he set up his own contracting business, Tree Craft, working in suburban back gardens, using a Land Rover and trailer to remove the debris. In 1993, he invested in an additional truck

and an Entec 150 (now Timberwolf) chipper and took on two more employees in 1994.

After four years of running his expanding business, Andrew was restless. "I felt a need to progress beyond practical arb work and, as fate would have it, change was forced on me. Under pressure, pollarding a willow tree, I put a chainsaw into my knee and was out of action for three months. I used this opportunity to take on a fourth employee (a climber) and underwent training on subsidence issues with OCA (O'Callaghan Associates). I joined the Association of Mortgages Insurance User Group (AMIUG) and started a second business, ACC, consulting on subsidence issues for the insurance industry."

Initially excited by his new business, Andrew found that by the late 1990's his consultancy had become negative. "I was looking purely at the hazards and risks of trees. I condemned them for causing damage to buildings and produced reports for builders who, once they were granted planning permission, went on to wreck the trees anyway." "In 1999, we advised Berkeley Homes on a hospital development in Wallingham, Surrey. They had taken out a bat roost, despite



bats being a European Protected Species. English Nature insisted on the installation of roost boxes as compensation for the bats and Berkeley Homes asked me to help. I knew nothing about bats and neither did any other arb colleagues I consulted. I joined the Kent Bat Group, underwent volunteer training and researched how bats used trees and how their legal protection affected our contracts."

The Countryside and Rights of Way Act of 2000 (CroW) increased the importance of European Protected Species. "This legal weight gave consultants greater opportunity to have a positive impact on construction sites. I recommended fitting bat boxes and wrote my first article to inform the industry on the subject for essentialARB in January 2001. The most notable response came from the Arboriculture Association who asked me to rewrite their guidance notes on 'Bats and Trees'."

"I was relearning something that I had forgotten from my childhood, that trees are an ecosystem supported by many different organisms. To look at them simply as an individual species and to manage them in isolation is fundamentally flawed. I realised how little we understand of the living process of trees and how much there is to learn. I also realised how important it was to discuss my ideas with others and to share new discoveries."

Andrew's increasing awareness of ecology influenced the ethos behind ACC, shifting its focus to the positive relationship between trees and their growing environment within an arboreal ecosystem. He renamed the company 'ArborEcology'. He also realised how narrow the focus of his college education was. Without a major shift in industry thinking, there seemed no way to bridge the gap between his practical arboriculture

skills and his consultant's physical impartiality (no legal remit to enforce consultancy recommendations) on construction sites.

Once again, he sought to address this imbalance by writing method statements for working with European Designated Species. "A method statement is a working tool which goes beyond an initial impact assessment. The statement supports the development through planning and provides a framework outlining how tasks will be carried out, including site supervision as a means of actually policing the implementation of the works."

In 2005, the 'British Standard for Trees in Relation to Construction' (BS 5837:2005) incorporated Arboricultural Method Statements into a more comprehensive consultation process to support the retention of trees throughout the progress of development, through planning and into completion. "The new BS provides a bridge between contracting and consulting in all forms of tree consultancy. It gives us the ability to implement site supervision and apply robust operational procedures, ensuring a consultants report is not just a piece of paper. It offers new work opportunities. Arborists can now come into a development site scenario and implement a method statement produced by the consultant getting actively involved in the sustainable retention of trees."



*Drawing root systems has helped Andrew to understand the physiological and morphological development of trees and presented a realisation that arboriculture has overlooked some natural growth processes, which are integrated with the co-evolution of decay fungi as an integral part of a complex survival strategy.*

*Ancient and veteran trees have always been a big influence on Andrew's arboricultural passion and he considers them to be "our most important educational resource and with so much more to learn we must not underestimate their value as a source of knowledge and wisdom." He has recently been exploring the history of man's spiritual association with trees and considers them to be a central part of society's relationship with nature and our living environment. "I believe that soon arboriculture will be one of the most important professions on earth, because the quality of the air we breathe is dependant on trees, which are in effect the lungs of the planet." Andrew sits beneath an ancient oak in Bradgate Park, Leicestershire, writing notes for an article.*

They are integrated into the system and become part of the process."

Andrew has always attended lectures in the pursuit of knowledge. A seminar organised by Treework Environment Practice (TEP) included speakers from the USA and the Czech Republic investigating tree roots offered him the opportunity for something new. Further research resulted in two additional employees and a new business enterprise 'RhizoEcology' whose focus is the sustainable retention of trees on construction sites by ensuring the rooting environment is maintained undisturbed. The practical focus of this type of arboriculture is under the ground. They are one of the first consultancies in the UK to harness compressed air with an AirKnife unit (since replaced with an AirSpade) as an excavation tool on development sites, latterly promoting the integrations of trees with porous hard surfaces and water management systems.

"In early 2006 we worked with a council tree officer on a small private development in Barnet, North London. There were substantial trees in the front garden and many arboricultural constraints to identify, deal with and resolve. Using our practical experience working with tree root systems, a detailed arboricultural method statement and our work with associate design companies, we resolved all the issues. For the foundation design we recommended using pile-and-above-ground beam foundations. For the drive we incorporated CellWeb, a cellular confinement system, which provides the ability to put in a no-dig hard surface and allows the installation of the hard surfaces within the root protection area of trees. This contract helped us refine our method statements under the new British Standard and RhizoEcology now offer the practical implementation of method statements as a service to other consultants."

Andrew's latest business venture 'ThermoEcology' is still in its early stages, working with Dr Marcus Bellett-Travers (a research scientist) who has developed thermal imaging as a positive tree assessment

*Cars and Land Rovers particularly are a life style choice for Andrew, who has spent many weekends rebuilding his various projects "ever since I rebuilt my first Series 2 Land Rover, with a Nissan diesel engine and Range Rover axles, I have always modified the cars I own."*

tool. While Andrew is no longer actively involved in Tree Craft, he will maintain his involvement in ArborEcology and partner companies, because this is where he gets his practical understanding of the industry and has provided information on some of the topics essentialARB will be covering. It also offers him the opportunity to maintain practical research projects inspired by an ever-increasing thirst for knowledge.

He does not belong to any arb industry organisations, and he feels that the current education system in the UK is actually depleting the quality of training in arboriculture as a whole, and regrets that colleges have stopped asking for practical experience before hand. He believes that ancient and veteran trees are probably the industry's greatest ecological learning resource and that local authorities are not providing enough resources for trees and ecology generally. He feels that the over-regulation of risk assessment and risk management has produced a generation of people who do not understand risk, and exclude it from their lives by not engaging with the natural environment. He wonders if the BSI Tree Risk standard is premature considering the work of the National Tree Safety Group (NTSG), which is lead by the Forestry Commission.

Before Andrew goes to meet Tony Kirkham to talk about a feature on the Oak Processionary Moth, we walk the swaying Treetop Walk. Andrew muses, "Most people have a very narrow view of life, seeing straight ahead, 1.75 metres above

the ground. This walkway brings them into the canopy, giving them a chance to engage with risk and the natural environment. As an arborist, I engage with the natural environment every day. This industry is my life. I am driven by how much we still have to learn about trees, their ecology and our relationship to them within the natural environment. I am committed in the distribution of knowledge, the developing of new ideas, not only for myself but sharing with others, because that is how we learn more and broaden our knowledge."

Ultimately, if there is a cause that Andrew supports and believes it could be argued better, he will personally take it on board and show how he thinks it should be done. "I took on my first editorship of the magazine 'Total Arb' because of what I saw as the fragmentation and dilution of the editorial available to industry readers. Content was often contradictory and out of date. essentialARB will be current and produce editorial not accessible elsewhere. It will offer an open forum for new ideas, opinions and research, presented by individuals, businesses and organisations from all backgrounds within arboriculture and related disciplines." All this and a 'Readers Letter's Page'. Welcome back essentialARB.

essentialArb is a stand-alone quarterly publication. A supplement version will be available within Forestry Journal each month to allow the continuity of ongoing topics.