EARTH FRIENDS

Prepared by Bobbie Woodward

Nick and Anita’s organic garden

Nick Bagnall lives with his wife Anita in Tauranga. They emigrated to New Zealand three years ago from the UK where Nick had been a member of the Ecology Party (now the Green Party UK) since 1978, the same year that he put a solar panel on his roof. He had already embraced the movement for organic gardening several years earlier. So I was interested to visit the couple and see what progress they had made in a little over two years since they bought their average-sized section on the side of a hill on the outskirts of Tauranga.

What I found amazed me. How could so much have been achieved in such a short time? A few weeks after the sale the builders had started on the house and Nick and Anita were able to move in a few months later, to set about building, mainly with their own hands, retaining walls at both front and back of the house, and laying the drive, part of which is grass growing through concrete blocks, partly to allow more rain to soak in rather than run off, and partly to give more grass cuttings for compost.

Built on a hillside with a view across a wide valley to a range of low mountains the house is designed for maximum solar gain; standing on a concrete pad which absorbs and stores heat, it has a solar heated hot-water system, a heat pump for space heating, insulation in walls and ceiling, and double glazing. And of course low energy light bulbs throughout. It is a very comfortable and pleasing dwelling.

I spent a comfortable night in one of the two guest bedrooms and was woken by the sun shining through the ranch sliders which give on to a lawn at the back of the house.

What I saw made me impatient to be out there exploring the back garden. It was a terraced bank with three levels of vegetation, cleverly utilising the flat areas for low growing edibles accessible from narrow paths, and the warm walls against which to grow a huge range of climbing plants and espaliered fruit trees.

All I had heard of progress over those two years was that a war was being fought against the kikuyu grass which had smothered the whole section when the Bagnalls bought it. Topsoil had been removed before the building was started and piled into two vast heaps filled with kikuyu several feet deep. That all had to be gradually cleared of weeds and then spread, by hand. Now the only sign of kikuyu was a huge pile of composting grass that had been cut into one inch pieces so that they would not sprout. Miraculously the kikuyu problem had been turned into an advantage, as the resulting compost was responsible for the incredible growth which I witnessed on all sides.

Nick, the keen gardener, had wasted no time. He had planted the first six citrus trees the very day they took over the land! Now they have five grape vines, three apple trees, two each of grapefuit, peach, almond, feijoa and mandarin, and one each of fig, orange, lemon, lime, nectarine, olive, macadamia, mulberry and avocado. They also have seven different soft fruits, two healthy passionfruit, several vegetable patches and a herb garden. This garden is a great example of the core ecological gardening principle of variety.

But food for the birds has not been overlooked; there are kowhai, kakabeak, kanuka, jacaranda and the deciduous tabebuia, spectacular for its blossoms, all planted where they will not block out the sun or annoy the neighbours, as well as areas for flowering shrubs to attract the bees, and an open area of mown lawn which contributes to the compost which Nick claims is the very heart of his garden.

The whole project is already spectacular after hardly more than two years, an inspiration to those of us struggling with the basics of permaculture, a lesson on what can be achieved with hard work and know-how.

Albie Burgers

Albie has always had a passion for the environment. As a student he kept snakes in his bedroom in a hall of residence at the university where he was studying botany and zoology, and enjoying many field trips around Southern Africa, where he grew up.

As a teacher he helped organise the formation of an adventure group, taking groups of schoolboys into the African bush, teaching them much about the environment and themselves along the way.

He taught Science for some years, but was needed in the Maths Department, and as computers arrived in schools, became the computing teacher. Great memories of Albie and a bunch of school kids biking over the mighty Takaka Hill and back to raise money for Golden Bay High School's first computer. (No driving along behind in the car as a backup, he biked along with them).

On early retirement he has had more time to pursue many of his interests and passions, and an extraordinary list of achievements in the area of conservation. Installing a pelton wheel (micro hydro scheme) to power some of the lights in our house.

Making a large solar hot water collector, so that almost all of our water is heated by the sun, and helping various friends do the same.

Belonging to a biofuels group starting up in Golden Bay. They have a large parabolic dish, which Albie helped line with mirrors and then used his electronic wizardry to make it track the sun. It produces steam, which can be used in the biofuel process, saving heaps of electricity.

Setting up a small business recycling old computers - keeping the system very simple, and selling them, at times to 80 plus year olds! He hates to see anything thrown away.

Winning the Individual section of the Tasman District Council 2008 Environment Awards as a result of the carpooling website he set up for Golden Bay. Other remote areas hearing about the website wanted one too, so Albie has set up two more and expects more to follow as the word gets about. And all done voluntarily.

Setting up a web-based ‘buy sell swap’ system for Golden Bay which is proving very popular.

Reviving an old washing machine whose electronic controls were dead and hooking it up to an old computer to control it.

Building a four wheel bike from two old bikes from the tip, and adding an electric motor from an old mobility scooter. Work is still in progress, but it will be powered by solar panels as well as pedal-powered.

Organising and running workshops for U3A on alternative energy and as part of the TDC eco-homes project giving a tour of our property.

Belonging to a U3A Climate Change study group, involving much reading, discussion and anguish for the future of our planet.

Belonging to a number of volunteer organisations, including Friends of Cobb which helps maintain a stat trapline of 40 traps along the Asbestos Cottage Track. Helping with planting trees and track development on 50 hectares alongside the Rameka Track.

Assisting with winter feeding of the kakapo in the wild during two fortnightly stints on Codfish Island.

This is a man who is always very willing to share knowledge and ideas with others, and always keen to learn something new.

He and Felicity have for the past 30 years set aside about 30 hectares of their property to regenerate back to native bush, and set traps for stoats

and rats. They have planted some small blocks of timber trees for the future and when asked why plant oak trees which would not be milled in their lifetime, explain that they are planting for the future, and for the present joy of watching trees grow. It is no surprise that they also grow their own vegetables. Their home is an old house that was due to be demolished in Collingwood. They bought it, cut it in half, moved it to the present site and nailed it back together again-with a new roof, verandah and foundations, a worthy recycling effort.

In Albie's words "I know that one or two people can't personally make much of a difference to the damage we as a species are doing to the planet. However, I also know that that's not a reason to do nothing. Now that I'm retired, I'm able to spend time trying out some of my own alternative energy and recycling ideas. And if in doing so, I can get a few people to start to think in a different way about how we treat our precious home world, then that's a bonus."

Peter Creevey

In the current literature on global warming and climate change, reforestation and the preservation of rain forest is high on the list of the most useful contributions any one individual, group or nation can make. This is well ahead of the potential benefits of carbon credit trading, which may run the risk of becoming another form of stock market trading, as did water rights in Australia. From this viewpoint Peter Creevey can feel justified in the choice he has made to use his time and energy in 'rescuing' trees wherever he has happened to be during his rather peripatetic existence of recent decades.

It started when he went to live in Queensland in 1997 seeking a warmer climate for a neurological parasitic infestation which he had contracted while serving in Bougainville, training trainees in community development and reconciliation. There he learned to live happily in a Toyota campervan and take opportunities to house-sit, in order to see Northern Australia in a leisurely way. Thus he became used to living without the clutter of household possessions, and realised that much of the 'stuff' that we humans spend our lives accumulating is simply not needed. His one regret is perhaps the lack of his valued books. He sees 'living simply' as more than a statement of faith and piety, for it reduces the drain on the world's resources, cuts consumerism and, in Peter's view, improves physical and mental health and life expectancy.

While in Australia he joined the Society for Growing Australian Plants, an activity which gave great contentment, and he has continued his interest in trees during the last few years, back in New Zealand, mainly Christchurch, while again dividing his time between house-sitting and living in a campervan. Wherever he settled for a time he found native trees and plants growing in situations where they could not possibly thrive; he would put them in pots if they were small enough, and transplant them into old milk cartons, then seek out better situations for them, encouraged by the thought that they would probably outlive him, possibly by many centuries, and help to maintain genetic and biological diversity and increase the oxygen supply for animal life. Without his own land on which to rehabilitate the tress, he donated them to Trees for Canterbury, and took part in planting days organised for reforestation projects. On a long term house-sit in Golden Bay, and another in Takapuna, he planted native bush, as also at the Quaker Settlement while taking part in Rosemary Morrow's permaculture seminars. He has recently joined the Summit Road Trust in Christchurch, and the Quail Island Trust where he is helping to reforest some 31 hectares out of an 81 hectare total area of the island, as part of the overall development by the Department of Conservation. It is said that Parihaka rangatira Te Whiti was kept captive on Quail Island in the Lyttleton Harbour, which has served as a leper colony and quarantine station - for humans as well as the teams of huskies used in Antarctic

expeditions. Now it is to revert to native forest and a destination for local residents, an inspiring transformation.

Since his teens Peter has been reading the scientific warnings about the impact of humankind on the planet, including the morbid Club of Rome report back in the 70s, and the writings of Schumacher, Lovelock, David Suzuki and others - all pointing to a growing crisis, but virtually ignored by the power elite of the world- politicians, masters of industry, bankers, manufacturers, merchants and retailers. It was his conviction that these writers were telling an unpalatable truth that led him to move away from his roots and explore widely, living alongside 'third world' cultures, spending many of his early working years as a journalist and editor in Samoa, and raising his children in the tropics, forgoing the trend of his contemporaries to settle down as professors and businessman, and to buy homes in tree-shaded suburbs, the ultimate target of those living in what the botanist Hugh Wilson calls 'the car-infested swamp' of Christchurch.

Peter's more recent experience is that the impetus behind the warnings has begun to build up, with people like Michael Moore and Al Gore being given a little limelight and prime time. Even so, with a mass media trained in 'balance', every scientific pronouncement has been matched by an opposing message, negating the effect of the warning.

Now it seems that the facts about climate change, global warming, species extinction, peak oil, and the need for alternative methods of producing energy have gained a global momentum, and politicians are being forced by public opinion to take notice of the 'smart cars', house insulation, wind-power or tidal generation of electricity, even though such 'green 'energy generation depends on oil.

Peter sees two enormous difficulties ahead, the tendency of us humans to resist change until it is forced on us, and our refusal to recognise or address the glaring problem of over-population. When eco-refugees are saved as the oceans rise over-population is almost celebrated, while in countries without social security large families are vaunted as a possible guarantee of support for aging parents. We face a paradox in a society where the Hippocratic oath is respected, and resources and energy are directed into preserving and maintaining existing human life. The answers lie in permaculture and family planning.

Meanwhile Peter will go on rescuing and planting his trees, living very simply indeed, using his Gold Card for public transport on buses, ferries and trains, a most freeing experience, although he admits to finding cycling in a Christchurch winter harrowing in the extreme! He is also living without reliance on either car or campervan. His motivation sends a clear message to others.

Gael Howell

Gael is not a birthright Quaker, but her father attended a Quaker school and her parents decided that the Friends School in Hobart would provide the sort of education they wanted for their daughter. Gael chose to become a Quaker after leaving school. Trained as a nurse, she attended a YF camp in New Zealand in 1967 and became involved in planning and running a camp at Whanganui for intellectually handicapped children.

After gaining a degree in education and psychology she worked in the Department of Social Welfare, and later the State Services Commission. In 1969 came marriage to Robert, suburban life in Wellington and the advent of two children, Mark and Stephanie.

Gael reacted against the idea of the isolated nuclear family and sought community living, teaming up with couples with children willing to share a home, with the advantage that shared child- minding could lead to freedom for activities outside the home, in Gael's case training and working in Marriage Guidance. The Howells found the ideal set-up over an eight year period when they shared facilities with another

couple in two con-joined homes. This was an ideal situation for the children, and during this time Gael and Robert adopted son James.

When Robert's work took him to Napier, Gael worked as Counselling Co-ordinator in the Hastings Family Court. The establishment of the first English language school in Hawkes Bay, a joint endeavour by the Howells with a partner, was an exciting project for fostering intercultural understanding in a community, especially through the system of home-stays. With few models to follow they had to be creative, 'nothing was impossible'. Involvement in an agricultural college offering one- or two-year courses for Japanese students meant that the Howell's lives were very involved with Japan over those years.

By 1996 the Howell family had settled in Auckland where Gael worked for a time in English language tuition to migrants while studying for a Post Graduate Diploma in International Communication at Unitec. Somehow she fitted in a stint as Monthly Meeting Clerk. Gael admits to getting bored with the same job after about five years, so moved into several different positions including Teaching English to refugee and migrant classes, Counselling Co-ordinator at the Waitakere City District Court, and working with Relationship Services to start settlement programmes for migrants. Over a decade Gael's focus was on assisting migrants to gain the tools to help them adapt to life in New Zealand. Her present position is Programme Co-ordinator for American Study Abroad Students at the University of Auckland providing pastoral care and field trips.

Throughout the years in Auckland Gael's great joy has been in the Quaker community and giving her children a Quaker upbringing, as far as possible, through attendance at YF camps and Summer Gatherings. Now it is the grandchildren's turn to enjoy Summer Gatherings with their grandparents in attendance.

Five years ago the Howells decided to move from their home at Westharbour to the inner city, one reason being to cut down the time and energy-output involved in travelling from an outer suburb. They see close knit community living as the sensible alternative to suburban sprawl and isolation, and Gael, always a conservationist, looks forward to a future where she can work in a communal vegetable garden, be useful in developing community resilience to the changes occurring because of climate change, and be an active participant in her grandchildren's development.

In 2005 the Howells bought a pleasant house in a tree-lined street in Mt Eden, but it was cold, and the sun was always shining into the wrong spaces. After living in it for several years, they decided to consult architects Jette and Neal de Jong from Heritage Design about preparing the house for the time when oil is no longer freely available as a source of the energy required to run a home.

As a result most of Gael's free time at present is absorbed by the work involved in converting this early 1900s villa into a comfortable energy-efficient home. The original part of the house which contains the bedrooms is undergoing few changes, though Robert's study is being moved to a room which has all day sun. A later addition of a large area across the back section on the north of the original house, with glazed doors opening on to a big deck, is being insulated, and redesigned so that the kitchen area gets sun while the bathroom/laundry is moved to the south side, replacing a small sitting room which was too small to be useful, its fireplace inefficient. Double glazing and wall insulation, blanket insulation under the floor, and a heat pump for winter use will make this open area of kitchen, dining and living space very comfortable in all seasons.

The heritage design architects follow a strongly environmental philosophy; no MDF toxic board is being used and all finishes are sustainable- no polyurethane! Cost cutting measures are confined to items like the pure wool carpet (in pieces needing to be joined). There

will be no halogen lights requiring holes in the ceiling; light fittings will take eco bulbs.

Two solar panels for water heating are being installed and provision made for photovoltaic generation to be installed when new developments come on the market, so that the owners will generate their own power and feed excess on to the grid. Although gas was laid on the Howells will not be using this non-renewable energy, for they want the house to be ecologically sustainable for whoever lives there in the future. The new washing machine and dishwasher selected are the most energy efficient available. There will be no freezer or clothes drier; clothes are dried out of doors on a clothes line and aired on a rack, though an old-fashioned ceiling clothes rack which can be lowered and raised may be found necessary ultimately.

A composting toilet was considered but not chosen as the architect advised that the Auckland sewage system is well managed ecologically. His recommendation is for just one toilet for the house with the top model Corona flushing system. Roof water will be saved in under-floor bladders which, along with recycled domestic water, will be used in toilet, laundry and garden. Big trees in the garden will need severe pruning to allow enough sun for a successful vegetable garden. Fortunately a recent storm felled the biggest tree on the section opening up a valuable space for future planting. This home, like its owners, will be an inspiration to others wanting to change to more sustainable ways.

Robert Howell

By any standards Robert's life story so far is an outstanding one. As a highly experienced university teacher, business manager, consultant, as well as contributing author of an important book, he is not one to be put in a box!

Although his early study of philosophy was not to bear fruit till his later work as part author of the book Right Relation, Building a Whole Earth Economy, over the period from the late 1960s through to the early 80s Robert was steadily gaining an impressive list of degrees culminating in a PH D. After working in the health sector in the 70s, as City Manager at Napier City Council in the early 80s he was able to implement a number of reforms that later became standard practice in local government.

Early study of the work of Quaker philosopher Adam Curl on peace making had set him on a 20 - 30 -year period of growing respect for Quakerism, and he finally became a Quaker in the years after marriage to Gael Bowling in 1969.

In 1988 he and Gael set up in Napier an English language school for Japanese students. When Robert left the Council he was able to use the contacts in Japan to establish an agricultural college providing practical experience for overseas students. In the mid 1990's the couple moved to Auckland and Robert worked as a consultant on multiple projects for NGOs on policy setting and organisational design and implementation, as well as teaching in local government and business.

The move to Auckland enabled him to explore his interest in peace making. This led to a 12 year project in Indonesia, working with the Center for Peace and Security Studies at Gadjah Mada University, on the introduction of non-violent conflict resolution training with the Indonesian police.

By 1998 Robert was representing Quakers on the committee of the Combined Churches of Aotearoa New Zealand (CCANZ) and chairing a committee on church financial investments, and looking at the ethical criteria used for investment. This was to lead eventually to Robert's work on the environment and climate change, and was also part of the journey that led to the setting up of the Council for Socially Responsible Investment (CSRI) in 2003.

At overseas conferences Robert became aware of the problems involved in the choice of investment of huge pension funds, in light of the dawning understanding of climate change and the need for risk management on the part of insurance companies. He learned of an organisation called the Quaker Institute for the Future and at a meeting at Pendle Hill in 2003 the idea for a book on a moral economy was born and Robert became involved in the writing of the book Right Relationship, a task for which he was fitted by his early experience in management, strategy and organisational change, his 'public policy perspective'. Writing the book was a multi- disciplinary activity and Robert had to learn much about economics, and return to his study of ethics, especially a wide reading of modern philosophy which had not been part of the curriculum during his university days.

Since the book has been published in early 2009 Robert has embarked on a course of lectures on the implications of a moral economy. He is the Asia West Pacific Section representative of the QUNO Geneva Committee, and a member of the Global Change Committee of the Asia West Pacific Section. Integrity is the word that comes to mind when I think of Robert; everything holds together. But life is not all serious work; Robert sings with the Auckland Choral Society and enjoys Highland dancing! In terms of his own lifestyle, he and Gael have embarked on an ambitious project to minimize their carbon footprints, which is covered in Gael Howell's story.

Helen Hughes

If we are to remain a successful living species on this planet we need to live within the limits of the resources around us. I don't think I thought a lot about this as either a University student or as a young mother. But I did acquire the right training.

I did Botany at University and got interested in Ecology so it was no surprise that I did my Masters thesis on a plant ecology topic. Then I went to the States on a Fulbright and did some plant physiology and biochemistry, also very useful. However the College was just starting a brand new subject called Conservation (this was in 1952) and I was persuaded to take it, to make up the numbers. My knowledge of Conservation at that point was strictly soil conservation so it was an eye opener to study conservation of living species.

My first summer I went to a summer school in Montana and just for fun, learnt about aquatic macrophytes – mainly because we went out in a boat on Flathead Lake which is in the Glacier National Park.. On returning to my College in the Fall, I was informed the NY Fish and Wildlife Service were having problems with water weeds (aquatic macrophytes) and needed some research done, which I did. So when I completed this second lot of University training, I was an ecologist, with an appreciation of conservation and how to try and manage the problems (such as water weeds) caused by humans interfering with natural ecosystems. It was a good basis for learning about environmental management.

Several years later I started my career in the NZ Public Service, first with the Freshwater Section of DSIR and then with the Commission for the Environment which was established after the 1972 Stockholm Environmental Conference. My years with the Freshwater Section and in DSIR had me once again dealing with the effects of human activity on ecosytems. During this time it was more a matter of advising how to

control the adverse effects rather than adjusting human activity to minimize the effects.

A milestone was reached when I was put in charge of an interdepartmental group to write a New Zealand Conservation strategy. There was a World Conservation Strategy put out by the International Union for the Conservation of Nature which we largely followed but we did add a couple of new principles , cultural concerns and the use of non-renewable resources. Then came the 1984 snap election and a surprise to see much of the NZ Conservation strategy incorporated in the Environment manifesto. This was followed by the same words appearing in the Environment Act and then the Resource Management Act.

When I was appointed Parliamentary Commissioner for the Environment (PCE), I was familiar with the legislation under which we operated but when asked by members of the public what did sustainable management actually mean, it was rather hard to find a comprehensive and meaningful answer. We did a lot of reading of overseas literature and read about such problems as desertification and disappearing cod stocks in the North Atlantic as well as threatened large African animals but none of the issues seemed to directly apply to New Zealand.

Our first PCE investigations changed that picture. There was a proposal to introduce myxomatosis to control a rabbit plague in Central Otago. We went down to see for ourselves the damage caused by too much grazing pressure from sheep and rabbits. That was when I realized we were looking at a completely unsustainable system. Central Otago was fast becoming a dust bowl and we were viewing insipient desertification. This was a process I had believed could never happen in New Zealand.

Two reports later we were recommending a change in land use, farming to the limits of the climate, soil and vegetation conditions - NOT the market price for merino wool, and an integrated land management programme. The rabbits taught us that when land management is unsustainable, the ecosystem is unsustainable, the economy of the area is unsustainable and the human habitation becomes socially unsustainable as people walk off the land.

Because the rabbits and merinos grazed a tussock landscape we also recognized that we humans are very bad at managing long lived species. Tussocks like rimu and totara can live for over a hundred years, so do orange roughy. When a species is longlived its reproductive cycle starts at a late age – a cycle which does not fit with the human life span and human use of resources. Knowing the life cycle, knowing the limits of every species' well being is a prerequisite for sustainable management. When we add a variable in the form of climate change we have a long way to go to understand how humans and other species can exist long term on planet earth.

The fact that we are causing climate change is recognized and that is half the battle. We also know what should be done. We humans have a habit of waiting until tragedy has struck before dealing comprehensively with the issue. With human demands on political systems to act, we can get there. We can learn to live sustainably on the planet within the natural limits of our environment and resources and we need to start now.

Rachel Jackson

ROUGH AS GUTS
(A REAL MESS)
Not for the Fainthearted

Not a very attractive advertisement for 15 acres of cut-over ex-forestry land some distance from Waimauku, near Auckland's west coast beach Muriwai!

What could ever have persuaded Rachel Jackson and her partner Brian to give up a lovely home on the outskirts of Waimauku with its glorious five acre garden after they had poured so much love into it, so much in labour, time and money?

Rachel is a 'city' girl, brought up in Auckland's Three Kings in a Quaker family with roots and connections in several lines going back to George Fox. Her father was a keen gardener on the family's half-acre property, but Rachel, an MA in French and Geography with a long teaching career at Tauranga Girls College and later Auckland Girls Grammar behind her, had never had any thoughts of going rural until she met her partner.

The living was pleasant at Waimauku until subdivision threatened the couples' privacy. What to do? The 'rough as guts' description of property that they looked at as a possible answer to their problem was no exaggeration, and Rachel had to suffer chiding from a friend who considered she was far too old at 61 to even contemplate such a project. However their experience of achieving marvels on their 10 acre block at Waimauku gave them the confidence to go ahead, and in the end adventurous living won out over comfort, and the pair moved into a near-by rental cottage while they began to clear the debris left after the recent removal of 617 Pinus radiata trees.

When loggers move in they fell, trim and remove the logs, often creating slides which rip up anything in their path. Then the loggers move out, leaving the cut stumps, unusable logs and all the branches and leafy tops, an unimaginable amount of debris which one has to climb over and fight one's way through. Such debris takes years to break down into compost, the alternative being to try to consolidate it and then burn it.

And burn they did, having offered it to anyone willing to take firewood away. At last, after many months, they could walk over the property, see the lay of the land and plan.

It is a mid-winter day and I have come to see what they are making of it.

Not far from Gisborne the Eastwoodhill Arboretum is a long established 135 hectare property containing over 18,000 trees and shrubs mainly from the northern hemisphere, the largest collection south of the Equator, where natives are combined with deciduous trees to create a stunningly beautiful landscape through the use of colour and form, just as a painter might do.

Inspired by Eastwoodhill, Rachel and Brian began planting trees, often in large groups, as with the many varieties of oaks that they grew from acorns, but also often selecting a stand-alone specimen tree such as the magnificent melia (an ebony from Australia), the liriodendron (tulip tree), the English flowering chestnut, or the albizia (silk tree from the Middle East), to mark a feature of the land form; or planting trios, such as the tupelo with its almost black foliage as contrast; or a broken row for a special colour effect, such as with the many paulownias which will in time reflect the pale mauve flowers of the jacaranda high on the hill above.

Of course these are all just bare sticks at present but I made a mental note for a visit in ten years time, when the huge variety of plants and the sensitivity of the landscaping will be manifest.

A good sized pond complete with boat for clearing the weed infestation feeds a stream which runs along the valley floor, bridged in several places, and along its edge established poplars mingle with a profusion of regenerating tree ferns, and other natives; puahou (five finger), totara, kanuka, horoeka (lancewood) and rewarewa (honeysuckle tree), and one magnificent rimu which somehow escaped the fate of the pines. In places poplar trunks have fallen at right angles to the stream but are now sprouting branches which are beginning to form hedges of young trees, thus creating separate alcoves for specialised development, one such area being Rachel's camellia garden.

Groups of ginkgos, liquidambars and flowering cherries are placed to the north to bring shade in summer where needed, and much thought has been given to planning how to combine evergreen and deciduous trees so that winter sun will not be blocked. Nestling into the side of a hill where the sun would never be blocked is an incipient grove of about 30 kauri seedlings as yet only knee high, grown from seed from a giant tree on a reserve nearby. At the southern end of the property a grove of long-living redwoods begins a lifetime of what may be many centuries.

Of course coming up between the new plantings are many small radiata seedlings which Rachel gives to friends and family as Christmas trees. It is heart-warming to see how nothing needs to be wasted.

The land is a paradise for birds, 'a birds' supermarket', says Rachel. It lacked flax originally, but now dozens of flax stud the wetlands, and surround the pond, while Rachel is examining her six little kowhai trees for signs of flowering this spring. A shade house is filled with ferns in pots waiting for the right time to be planted along the creek and round the pond, and another shade house holds precious cuttings from all over. Rachel says her garden is 'full of people', and every gardener knows the pleasure of reminiscing about 'who gave us this plant, where did that one come from?'

Areas set apart for growing vegetables are mostly fallow at present but already almost all of the extensive variety of fruit trees planted in the last three or four years have borne fruit. The nuts are taking a bit longer. Fortunately the soil is good valley loam, profiting from ash from the fires, and sheep manure from the third of the property in pasture where the neighbours' sheep graze. But Rachel works tirelessly at improving the soil, laying newspaper down and covering it with mulch, or compost from a labour-saving compost bin.

A lot of work goes into countering the unwanted invaders from surrounding properties, such as gorse, blackberry, tobacco weed, onion flowers and those seductive climbers- honeysuckle and convolvulus- with their pretty flowers and damaging habits. A watchful eye must be kept out for kikuyu too because that is present on neighbouring land.

When it's absolutely too wet to work outside Rachel and Brian read. No time is wasted on third rate television entertainment. There is a television set in the loft of the shed, a space for visitors to bed down, but as yet it can only be accessed by a high and very steep ladder. One would have to be very keen.

One of the beauties of this property is that its owners can go off on their travels and have few cares about maintenance; the property can look after itself in all but dry spells when watering is necessary, and the Lockwood home they chose, with certain changes to the layout, is low maintenance. This is important for Rachel as travel has been part of her life, from the time she went on a UNESCO Youth Travel Grant which took her to Friends' work camps and Young Friends gatherings in Japan, Korea, Hong Kong and India, till her years of teaching in London when she took every opportunity to explore, from Russia to North Africa and all countries in between; all helpful experience for a geography teacher.

Nowadays Rachel and Brian take their bicycles and ride, a way of getting close to the land and culture of a country impossible for the

ordinary tourist. To begin with Rachel ‘got into gear’ on a few days cycling in the Bay of Plenty, but has now had four trips away with Brian on extensive cycling trips in Europe, Scandinavia and North America, perhaps the most exciting being the trip down the Great Divide from Canada to Mexico, on a now famous mountain bike trail that follows at times old rail tracks and sections of sealed road, through ranch land, forestry and mining areas and many national forests and parks, with camping grounds well stocked with firewood and safes to protect food from bears. And with eight mountain passes over 10,000 feet! Rachel thinks she may be the first New Zealand woman to ride that trail, aided by her ‘granny’ gear.

Meeting fellow cyclists on the trails in every country they have visited has led to wonderful friendships worldwide, so that adventures will always beckon for this extraordinary couple. Rachel describes her present life as ‘having fun’ but also recognises that because some of her forebears cleared the land for farming in this country she feels it a privilege to be able to give something back in return for the forests previously destroyed.

It is a gift that will grow in beauty and significance for a very long time.

Katherine Knight

Our mother Kath (1913-2001) was surely one who trod lightly on the Earth.

Kath was born into a family of gardeners. Her parents grew flowers for florists and also from necessity produced most of their own food on their acre section in Mt Albert, Auckland. Her maternal family came from Denmark and a respect and love of nature was evident in the lifestyle of Danish relatives both those who immigrated to New Zealand and those living in Denmark.

Kath chose to study plants and graduated with a degree in Botany, from Auckland University. She was a fabulous gardener and could give the Latin name of just about any plant in gardens or the bush. Daughter Tess recalled: ’An amusing thing happened in her later years while I was staying. A lady phoned her by mistake, intending to call a nursery with a question about a plant. She said, "Ask me anyway!" and was able to answer the query perfectly. ‘

Kath inspired many others to be gardeners including her son and three daughters, all of whom share her passion to grow much of their own food.

Kath was a founding member of Forest and Bird in Auckland and appreciated the New Zealand flora and fauna. She loved tramping in the Waitakere Ranges, and when she needed a break from the work of raising her family of four, our father would drive her to the Waitakeres, with books and lunch, and then pick her up again late in the day, refreshed by time spent by herself in the forest.

In the 1950’s, our mother was a volunteer for Corso. Large boxes of clothes and shoes that people no longer wanted would clutter our house. Kath would sort and wash these clothes and then once a week she would work at the Corso office packing to send overseas. It was hard dirty work. The family would tease one another about our attire. “Where did you get that jacket? Out of the corso box?”

In her seventies, Kath began a new hobby, painting flowers and landscapes In watercolour, which enabled her to express her delight in the beauty of nature.

When she received New Zealand Superannuation, she felt very well off and she regularly donated a tenth to causes and charities. She never took shortcuts which might have saved her time but would have been harder on the earth. I can see her on one of those foul winter days in Auckland and it was time for lunch for our family of six, usually

increased by one or two others; she would don oilskin and gumboots, go down to the garden to pull carrots and silverbeet, come back to clean the vegetables and make soup in the pressure cooker. No takeaways, no quick meals of convenience foods.

Kath was a recycler before the term was invented. She carried the grey water to her garden. She set up a tank to use the roof water. She wrote on both sides of pieces of paper and refused to buy paper towels or tissues in an effort to do her bit to save trees.

Her youngest daughter Ana puts her mother at No1 as an Earth Friend in her description of Kath's washing ritual.

To run hot water to the tap in the bathroom from the hot water cylinder in the laundry (four metres away) was a cause for concern. So much water was wasted as she waited for the hot to arrive. So every night she took a container and facecloth to the laundry and ran off a litre of hot water at the laundry sink, thereby saving three litres of heated water. Then she carried the container and facecloth back to a comfortable chair where she washed her face with obvious pleasure, knowing that once more she had foiled a foolish, wasteful and indulgent system. She served the virtuous No Waste God with diligence.

Ana wishes she was still here to make known her views about over-consumption and waste and the damage "indulgence" is doing to the Planet, particularly in Western developed countries.

There were times when the family wished Kath would relax her recycling ways for the sake of her own health. Son Paul decided to issue the following tongue in cheek proclamation. It was framed and hung on the wall.

To Whom It May Concern:

This will serve to confirm that the hereinafter named, one Katherine Mary Knight of 35 Morvern Road, (or for that matter of where-ever) has already sufficiently recycled. From this time forward, the above mentioned Katherine Mary Knight is not only not required to recycle, she is hereby specifically commanded not to recycle, unless with my express permission. This is a divine order signed personally??? by God on the 20th day of January in the year 2000 .

Paul and Kath also chuckled many times over the story which dealt with the death of an elderly English Quaker. Those who undertook the task of dealing with her household possessions reported respectfully that they had found a row of shoe boxes filled with string, all carefully labelled:

String:over 3 ft. String:less than 3 feet.(and finally) String: too short to be useful.

Kath, who no doubt had boxes like that, appreciated the joke.

For many years, Kath was Secretary of the NZ Christian Pacifist Society and later of the Women's International League for Peace and Freedom. She believed strongly in peace and non-violence and never shirked from the unpopularity that her beliefs brought her. Kath joined the Society of Friends when we four children were quite young. The Society was an important focus throughout her life, providing direction and support. Being a member of Friends reinforced her belief in the good in all people, and encouraged her to seek for simplicity in her life.

Kath cared deeply about people and her community. She was a great support to her family. Her care for the earth arose naturally from her philosophy of life which was that all of life deserved love and respect.

Post script

'Catching fish and living humbly' wrote Kath, of time spent with the university tramping club at the Anawhata student hut named The Shack. Her study of botany at Auckland University College led Kath into association with a group of students who loved to tramp in the

Waitakeres, an activity which cost them nothing and brought great pleasure. It is interesting to learn that time spent in that environment remained a source of solace and strength for Kath throughout her life.

The account of Kath's attempts to keep her use of electricity low reveals the habit of frugality born of the times. As a young student she became part of a group of friends and colleagues whose early years had been affected by the great depression of 1928-1933, when many families had suffered penury and grinding hardship. Kath's family were not immune but they always had trees and flowers on the property which would have encouraged Kath's lifelong interest in all plants. Though the depression was tailing off by the time Kath joined the university the cohort of students of which Kath was one were a socially aware and politically active group, appalled by the inequities they saw in society. Many of them became known nationwide as they went on to make names for themselves in politics, literature and academia. Kath was to make her name mainly as an activist for peace.

Disturbing memories of World War One may have been an early trigger but it was Kath's underlying belief in the value of every human being that made her see war as insane. Her interest in non-violence was to develop into activism in virtually every area, especially in the field of education. She was one of the founders of the NZ Foundation for Peace Studies, and her book Learning Peaceful Relationships, published in 1979, has gone into 10 editions and is still in print.

The recently published book In Search of Peace by Don Smart (Wordsell Press, 2009) is 'a chapter in her life' as it follows her career as a peace activist. The book largely consists of her own writings which reveal a deep thinker and a very wise human being.

A poem written for Kath's family by Claudia Fox is so beautiful that it must be included.

Death, be my friend

Death came to Katherine Knight

They met on a leafy easy road
where, on a fine clear morning
she chose to walk under trees
(each of which she could name)
and past garden plants she knew intimately
(seeds, shoots, leaves, flowers, and seeds again)
in a neighbourhood that knew her,
and what she had become:
Katherine Knight (frail, perhaps)
full of years and honour.

But again (considerately)
Death deferred, withdrew a few days,
in order that she could move into the next world
with many voices around her:
murmuring, whispering, consulting,
encouraging, promising;
sometimes singing, sometimes sobbing;
most of all, reassuring….

So many voices, in harmony
her family, her gentle hospital helpers,
her day to day friends (and Friends) and neighbours,
and her lifelong fellow workers for peace in this world.

Auckland
17th July 2001

(From Judy, Kath's daughter)

Philip and Phoebe Macdiarmid

Thirty years ago, we decided to give up our urban life style for a simpler, rural one. Our four oldest children had left home, our youngest, Hilary, was fourteen. First the three of us spent a year on a belated/premature Great O.E., then we came back to the land we owned in the country. We had thirteen beautiful acres, part grass, part bush, with a river on the eastern boundary, and a creek, with a spectacular waterfall, to the north. We had a small bach, which we then turned into a house. The carpenter we employed to do this turned out to be oh, so slooooow, and for a year we lived in total chaos, with outside walls missing, and worst of all, no proper water supply. The pipes, even the hot water cylinder from the wood stove were all in place, but the water came from a tank at ground level, and there was no simple way to get it up to the header tank. Cold water was okay, we had a hose coming in the bathroom window, but hot was a problem. So every couple of days Phil would climb on the roof with a rope, Hilary and I would fill the bucket, Phil would haul it up and pour the water into the header tank. After I think thirteen buckets full, Hilary would go inside and have a bath. Phil and I would go on filling the tank until there was enough water up there for us to share a bath after Hilary had finished.

However, when the carpenter finally finished, we had a huge water tank brought in by helicopter, and a header tank up the hill, and we were civilised again. We had solar water heating too, a very primitive system compared with the ones available now, but it worked, and we got a certain amount of electricity from solar panels on the roof, enough to run the water pump, and lights.

We never got a fridge, and I didn't really miss it. By then we had stopped eating meat, and had limited dairy products, They're the things you really need a fridge for. I think I missed a freezer more. But no washing machine was a bore. I've always hated hand washing. One day when I was driving through town, I saw a man putting up a great sign saying, "Laundromat". It was one of the best days of my life. After that, we brought a couple of bags of washing into town each week. We had a great garden, and grew our own fruit and vegetables. And we had unlimited free firewood, kanuka and wattle mainly. We still have, actually, owing to the kindness of our son-in-law.

Hilary lived there for the rest of her high schooling. I don't think she minded the austerity, but you'd have to ask her. Having her own horse was a great compensation.

Then five years ago age caught up with us, and we've moved into town. Now we have mains electricity, and all the appliances. Another of our daughters has taken over our old place, and they still haven't got on the grid. Here we've still got solar hot water, a much more sophisticated system, but no room for a vegetable garden. Instead, on Thursday mornings we walk down to the community garden down the road. Anyone can go there on a Thursday, put in a few hours work, and go home with a bag of vegetables. Younger limbs than ours do the heavy work, we get the easy jobs like watering and supplying the morning tea. It's great.

What made us choose a simple life-style and a semi-vegetarian diet (we eat fish, limited dairy products, no meat)? Because we preferred it. It wasn't a matter of principle really, though the testimony to simplicity has always appealed to us. Perhaps we choose our principles to fit our tastes. We eat well, and enjoy our food. Our diet is for health reasons, but after all these years we're used to it. I tried a piece of cold roast beef the other day. I didn't like it. I gave the rest to the cat. I feel rather strongly that using land to grow animals for food is a squandering of the planet's resources, but perhaps if I enjoyed meat I wouldn't be so sure. I don't know that I'm actually sure of anything, really, these days.

Donald Mead, Scientist

Don Mead has had a long-life interest in sustainable forest management. After he left high school Don joined the NZ Forest Service and after gaining a B.Sc at Victoria University was sent to Edinburgh to study forestry. He became a forester, but later he obtained a PhD in forest soils at the University of Florida and was a scientist in Rotorua and Christchurch. Half way through his career he began teaching silviculture, forest ecology and agroforestry at Canterbury and Lincoln Universities, while continuing his research.

His interest in forest sustainability began as scientist in the Soils and Tree Nutrition Section of the Forest Research Institute in Rotorua in the 1960s. Initially the focus was on improving the growth of plantations planted on degraded soils, particularly in the North Auckland, Nelson and Westland regions. These areas had often been degraded by human activities which resulted in severe nutrient deficiencies or compacted soils. This research developed into studies of how to ensure long-term sustainability of plantations, the impact of various management practices, and ways to monitor their nutritional health. From 1990 his research has focused on understanding how pastures and trees interact in agroforestry systems and on the nutrient sustainability of forest bioenergy.

Planting native or introduced trees on farms (agroforestry or farm forestry) is a major way of farm diversification, reducing soil erosion, providing shelter, protecting waterways, improving the landscape, farm living conditions and animal welfare, increasing biodiversity and storing additional CO2. In short integrating trees into farming assists with agricultural sustainability. Don has stressed the need to protect native remnants on farms and planning on a farm, catchment or landscape scale. In 2009 he was invited to talk on agroforestry at the 1st National Silvopastoral Congress in Argentina and at the 13th World Forestry Congress.

For forest bioenergy, Don has described how this may alter forest silvicultural practices, and will increase the need for improved nutrient management, particularly where more tree-crown biomass is removed. He has argued that decision making must take into account long-term sustainability. Economic tools need to be supplemented by energy analysis to ensure optimum use is made of fossil fuels. Adaptive forest management is critical when entering into new, often more intensive, silviculture and harvesting practices. Don is currently technical editor for an international book being written on criteria and indicators for sustainable woodfuel production.

In the area of basic research, using stable isotopes, Don and his colleagues have made significant contributions to understanding how applied nitrogen moves in the tree-soil ecosystem over time. This research has highlighted that a pulse of nitrogen applied to forest stands only briefly boosts the nitrogen status of the trees although this uptake, generally less than 10% of the amount applied, is subsequently recycled within the tree and through litter to the soil. A large proportion of the nitrogen becomes incorporated into the soil. However, isotope balance indicates that considerable applied nitrogen is lost from forest ecosystems.

Don is concerned about where the world is headed, with its ever increasing population and use of resources, the looming impacts of reducing fossil fuels, water shortages and the damage already done to terrestrial and oceanic ecosystems. He believes it is essential that everyone keeps long-term sustainability to the forefront of what they do, so that life is as good and exciting for our grandchildren's, grandchildren. He sees that the Quaker urging to live simply as an important part of this, as is the need to truly value the world we live in.

John and Muriel Morrison

Rosemary Tredgold wrote the following paragraphs about the few years when John and Muriel were living in a caravan and cottage on some land at Le Bons Bay on Banks Peninsular.

‘Arsonist! Arsonist!’ The words rang round my ears as I sought to burn a large pile of greenery in a paddock at Le Bons Bay. Muriel’s words followed me round the large bonfire. The fact that the branches, thick and strong, would take many years to breakdown, made no difference to her core belief that all greenery should return to the soil, not as ashes, but as compost to enrich the earth, a view she held well before it became politically correct to do so. She and John had a ‘mulcher’ into which they put all the green waste from their garden in Christchurch, using it as mulch if it could not be dug in immediately. If our memories are right, there was an elderly mangle from John’s family they used to soften some of the garden debris, before putting it on the garden.

Muriel loved her garden, particularly the flowers. John was in charge of the spray- free vegetable garden, providing them with fresh vegetables for most of the year. Dandelion roots were harvested from Muriel’s garden, together with any others she could find, then cleaned, roasted and ground for coffee.

Everything possible was recycled and reused. This came not only from her strong Quaker belief in the Testimony of Simplicity, but from her regard for the Earth.

Muriel (nee Ockenden) taught at Friends School where the man who became her husband was also a teacher, and both were principals of the school. The Peace Testimony was held with great tenacity by the couple, John Morrison having been a conscientious objector in World War 2. Both were very involved in non-violent action, for nuclear disarmament and in opposition to the Springbok tour of 1981, and Rosemary remembers joining them behind the Quaker Peace banner on Saturday marches against the tour. They also led workshops on communication and personal growth and worked with children over many years, their home perpetually open to anyone needing friendship and care. John expressed his desire to love every person even those with few loveable features. (See the chapter in You Are my Darling Zita by Glenn Busch, published by Godwit Press 1991.)

Rosemary, who met the Morrisons on her arrival in New Zealand in 1970, owes her knowledge of Quakers to them, and misses their companionship, warmth and stimulation greatly - even though she continues to burn macrocarpa branches in another paddock!

Neil Mountier wrote about Muriel Morrison in her capacity as Yearly Meeting Clerk.

"I attended my first Yearly Meeting in Dunedin in the mid-1970s, which was the first of Muriel’s three as YM Clerk. Muriel had arranged small home- groups for all participants. These met for 15 or 20 minutes before breakfast, and were a place where each person could speak about their experience, of what they enjoyed and what they had difficulties with. Fortunately, I was an early riser in those days, but I know that some Friends found the early start a problem. As a new Friend, I found this very rewarding as I got to know some other Friends from other Meetings. She arranged such groups at all the YMs she was responsible for. Muriel always saw the personal relationships among Friends as being just as important as the business to be done."

(late members of Christchurch Meeting)

Rosemary Morrow, a Good Way to Live

Growing up in Perth, Western Australia, in a family of four children among other big families, was a time of great freedom for Rowe, who remembers that 'we were away from early morning till late and no-one needed to know where we were….there was safety in numbers and we looked after each other'. The children's playground was the Australian bush behind their home garden, and the Swan River. Until the family left Perth for Sydney when Rowe was about 11 she was always either 'outside or in a book'.

As she grew to adulthood Rowe's time was spent 'informally learning around the edges of the earth', a mix of the practical (having run away from home to cattle stations in the Kimberleys and Northern Territory which she loved), and later the academic when she went back to school and then to Sydney University with a Commonwealth scholarship to study agricultural science.

A stint of working for the Department of Primary Industries in south-east Queensland was frustrating. What exactly was their policy? Was she there to keep small farming viable and productive, or to shift the farmers out? She loved the small mixed farms and farmers with a few hundred acres living traditional lives; the diversity of fruit trees and crops, dogs, the pet lamb, the vegie garden and sheds, all destined to disappear through being swallowed up by large companies, city suburbs or coastal development. Much later, after studying the pattern of small farms in France and Viet Nam, Rowe came to understand that every country needs a hinterland patterned with mixed small farms around its cities, for their food, and their pride in their produce and culture. And this pattern is more urgent now.

Time was spent on scholarships at the Sorbonne in Paris studying rural sociology, and at Reading UK studying development. From here Rowe was invited by Michael Young of the Open University to work in Africa. When she went to work in Lesotho her inability to use her agriculture training from Sydney University was a huge shock; she had never grown seedlings or vegetables nor had any answers for dealing with erosion and hunger. 'I was agriculturally useless and lost in a country where malnutrition was dominant. Instead, I worked in non-formal education which I loved, on a project which taught herd boys how to read and write through games printed on their traditional scarves. In the evenings they brought a candle to a rondavel where we gathered for school. When the boys later went to the mines in South Africa they could read their payslips and contracts.' This literacy project was picked up and offered by a South African newspaper until it was banned.

In Lesotho Rowe was politicised by apartheid and chose to live in the Basotho part of town away from the expatriate quarter of development agencies where people lived in big houses with high fences and dogs. She joined in the marches against apartheid and in the singing and dancing at nights. She was now making links between food and water security, poverty and development.

Nearly a decade after leaving Australia she returned to study horticulture at TAFE learning ideas about landscape design as well as how to grow seedlings and plant trees. Appalled by the destruction of the Australian bush which she loved passionately Rowe picked up environmental studies. 'But it was permaculture which linked it all together for me. It was the integrating applied science which fitted like a glove. I love the design aspects based on the fit of the land. Especially the restoration aspects appealed to me because of some deep and apparently inborn repugnance for destruction of ecosystems.'

In permaculture humans create consciously designed landscapes which mimic nature in that they have the stability and resilience (sustainability) of natural ecosystems in regard to their productivity of food and energy, their diversity of plants and animals, and the absence

of waste products. On the other hand modern agriculture, seeking short term results, destroys diversity and the natural cycle of regeneration, produces waste, and leads eventually to degradation of the land for further productivity; it is unsustainable.

When Rowe was introduced to permaculture through a course in Sydney there wasn't a lot that was new, because agriculture, horticulture and environmental studies had supplied much natural science for her. However the interconnection of all the disciplines and the interactive approach enchanted her, while she found the introduction of ethics intriguing. 'None of my other studies had ever mentioned the word.'

Having become a Quaker in 1978 Rowe realised that there was a correspondence between Quakerism and permaculture. They had in common: care for people, simplicity, community, ethical use of money and right livelihood. They both render infinite positive outcomes when practiced.

Initially she wasn't sure permaculture would work. She bought a small house not far from Sydney and built her first garden – by design. And it worked. Later she moved to a couple of acres on the edge of Katoomba and there satisfied herself that permaculture does indeed work. During this time she was offered work in Viet Nam and Cambodia to teach their first permaculture design courses, and, when in Australia, taught locally. She sees her future always as 'a leaf that just goes with the wind', blown to wherever the land is abused, the people are very poor, and the demand is for the knowledge and uses of permaculture.

At the time of this interview in 2009 she was planning to be in Malawi, Zambia, Uganda and Ethiopia after returning from East Timor where she had taught permaculture to the teachers of the East Timor Coffee Academy. 'They were hungry for information.'

Rowe's motivation to work on permaculture comes from her deep grief over the degradation of the earth from unwise practices and her concern for people struggling with hunger and poverty in difficult, often post-conflict, situations, as also for the loss of species and the waste of human potential. Her Quaker belief in seeing 'that of God in everyone' takes a step further with her statement that 'if you don't live as if there is that of God...., if people are dispensable or simply an object, then the repercussions are often very terrible. I am not unhappy but I carry a vast and terrible grief for the destruction of this beautiful opportunity we had to make paradise here, and for the inability of humans to find their niche, to see the future and change behaviours and attitudes.'

She does not believe that humanity can stop the irrevocable climate change which, when past its tipping point, will simply spiral down, but envisages the possibility that there will be pockets of people who survive because they have developed the necessary social, spiritual and physical skills, people like the Whanganui Quaker Settlers, with whom she lived for a time while teaching permaculture to Quakers. Rowe sees what she teaches as risk management for a very uncertain future and also a good way to live.

Joseph Short

There can be few Quakers whose background and work experience gave him a greater insight into, and appreciation for, the world of Nature than Joe Short. The Testimony to his life includes the following passage.

His approach to life was a spiritual one; everything fitted together and was seen as a part of the integrated wholeness of life. Trees, plants and all living things concerned him, and he felt himself and all of us linked to natural growth and development.

Joe was born in 1916 and brought up on a Taranaki dairy farm where he helped his mother in the large garden while his elder brothers worked the farm. After school he was apprenticed to Duncan and Davies Nursery in New Plymouth and at the age of 20 went on a student exchange to Kew Gardens and from there to a student exchange arrangement Kew had with the State Botanical Gardens of Berlin, where he worked until the outbreak of war. It was in Berlin that his language teacher introduced Joe to Quakers (he was from a Presbyterian family) when he revealed his feelings for pacifism. Joe joined a Quaker centre in Berlin where an English couple were supporting the German Quakers and helping Jewish people to flee.

On his return to England Joe spoke to Friends Service Council personnel about his wish to work in India for he had been inspired by two Quaker women who had recently been visiting Gandhi. After some time at Woodbrooke where he met his future wife Phyllis, who was also called to do Quakers' work overseas, he left for India, to be joined by Phyll on completion of her teacher training. In West Bengal at the ashram of the poet Rabindranath Tagore there was an Indian cultural centre and model farm with plant nursery and dairy which Joe was appointed to run.

After furlough back in England at war's end Joe returned to run the horticultural nursery at the Agricultural Institute at Allahabad in Uttar Pradesh where he was able to impart his knowledge and experience to students from all over India. Phyll also was able to teach Domestic Science part time, with two small sons in tow.

By 1953, when decisions about the schooling for the family of four had to be taken, the Shorts arrived in New Zealand where Joe, after working in the Parnell Rose garden in Auckland for several years, was appointed in 1960 to a position in the Botany Department of Victoria University in Wellington where Phyll joined the staff of the Correspondence School.

Never having had time to develop his own garden during his working years, Joe's plan on retirement was to buy land for his own nursery, but sadly death intervened in 1982. However he is remembered for the many gardens throughout Wellington for which he had been responsible, such as the Rose Garden of Wellington of which he was President. We remember him too when we walk in the Peace Garden at the Settlement for he was the one who initiated this project.

Joe's horticultural work in four countries gave him a wide understanding of different problems in land use and the methods of combating them, knowledge which he was able to pass on to his many pupils over the years in India. Later his students at Victoria would have benefited from his teaching, enlivened as it was by his appreciation of the glories of the natural world. A scientist who inspires others through his own enthusiasm is a priceless gift to society and Joe's students were greatly privileged. This quality, of being able to pass on his own excitement, was never more obvious than when he took groups out into the bush on memorable excursions during Summer Gatherings. He is remembered with great affection and respect.

Joe and Phyll's four children have all followed their parents into caring professions; Michael in medicine, Murray in the administration of justice, Annabel in social work and Jan in family therapy.

Isobel Thompson

Isobel Thompson's contribution to nurturing the Earth has been through activism over a long life. She links her wide-ranging concerns and freedom of thought to her upbringing.

Her first years were spent mainly under canvas in Public Works Camps with her family where her father, an engineer just returned from World War One, was employed in designing and building a railway line from north of Napier to Nuhaka and then on to Waikokopu where a wharf was built for transporting the local farmers' produce, a wharf where Isobel and her siblings enjoyed catching crayfish.

Later in a settled home in Wairoa there was still great freedom of movement for Isobel and her brothers and sisters; near home, at Lake Waikaremoana, and at Opoutama on their many family outings. Hardships during the depression of the 1920s-30s left a lasting impression on the family.

Isobel's two years at Whanganui Friends School, where she went due to her father's antipathy towards war, also helped form the person she became.

Some years later, having completed various fields of nursing training, Isobel responded to a call to Corso (Council of Organisations for Relief Service Overseas) from China for helpers, including nurses. This was soon after the end of the Japanese occupation of parts of China. There she lived and worked from 1947 to 1950, travelling by mule cart through the civil war area and at times sharing the kind of deprivation that she saw in the surrounding villages, hardships such as eating only two meals of millet gruel a day, and occasional nights sleeping in rat infested huts. But overall memories were of a challenging but congenial environment with friendly helpful Chinese colleagues in a hospital established in ex-Japanese military barracks.

In 2002 Isobel published a memoir of her experiences in a book, Yellow River, Mules and Mountains- a New Zealand nurse in China 1947-1950. This book has now been translated into Chinese and published in 2009 by China Welfare Institute, Shanghai.

Much of Isobel's interest has centred round the conservation of the environment, leading her to work for many years with the Royal Forest and Bird Protection Society. Her environmental work involved many areas, such as writing submissions on a variety of issues, arranging camps and lectures and leading outings, starting a Junior Naturalist club for secondary school students, and on one occasion rescuing young kiwi from bush prior to it being turned into farmland. With other F & B members she was instrumental in arranging land grants to the Society from private individuals in Waiheke and in Piha and, almost in her own backyard, she saved a wetland area from being drained for tennis courts. It is now a popular bird wetland area.

Her work, with others, on the Miranda Naturalist Trust helped preserve an area of shoreline of worldwide renown due to its nutrient value for many species of mainly wading birds.

Isobel has spent many years involved with the National Council of Women as Friends representative, and has been especially active in the environmental field. This, with Forest and Bird support, led to her government appointment to work with NZ Forest Service as a member of the Coromandel State Forest Advisory Committee with which, for a period of seven years, she travelled to many parts of the Coromandel for meetings and gatherings. During this time she learnt a great deal about the adverse effects on land and water of mining (particularly gold mining), as issuing permits in response to mining applications was part of the brief.

If any of these organisations thought they were getting an 'older woman' who would be very quiet they were soon disabused. Isobel is an outspoken and articulate activist for what she believes in, and has

addressed many audiences over the years. Through her wide circle of connections with knowledgeable people she has always been able to suggest the right person to progress a concern, to lead a trip or to advise on a matter needing attention.

With all these interesting involvements Isobel together with her husband Eric raised four children, three boys and a girl, maintaining a busy home, sewing the children's clothes, growing vegetables, providing encouragement in outside activities for the family, taking them on family holidays, and much more.

Isobel is not far off her ninetieth year and still takes an active role in what goes on around her.

Isobel's children are Ian, a researcher in theoretical astro-nuclear physics, Peter, a film cameraman who specialises in environmental photography, Bruce, a designer in marine engineering, and Jean, a law librarian

David and Anne Wicks

Our Eco-friendly House

When we designed our house to be built 2002, we based our plans on the inspiration we had from seeing Viola and Phil Palmer's house in Waikanae. We did not have a lot of money so had to choose carefully how to spend it.

Our section is long and narrow and this dictated a long narrow building with all the main living areas facing due north and the lounge on the western end to get the evening sun. The living areas (family room, kitchen and dining areas) are tiled so that in winter when the sun comes in, the floor absorbs the heat and this radiates out at night. In summer, the angle of the sun means there is no sun in those rooms by day and, with plenty of windows and doors to open, the house is always cool.

We investigated insulation and heard that Pink Batts 'could be the asbestos of the future'. We therefore decided on Novatherm Polyester Insulation (recommended by BRANZ) which is a blanket thermal material. It looks like cotton wool and is easy to cut up and be stapled into wall cavities as well as rolled out in the ceiling/roof area.

We were committed to solar power for water heating and were recommended a system by our plumber. The manufacturers have since gone out of business but we are very pleased with results. We did have a problem after a couple of years – the rubber coating on the piping on the roof perished because of the intense sunlight. The plumber covered it in silver foil and while it does not look particularly attractive, no one sees it on the roof, and the foil has increased the efficiency of the system.

We need extra heating on cold nights in winter and on sunless days, and initially used electric heaters. We have now replaced these with a heat pump and have been delighted at the reduced power costs. Another change could be to have double glazing in the south-facing guest bedrooms as they are the coldest part of the house.

We pay well under $1000 a year for our power and that includes the cost of cooking as well as indulging in electric blankets in winter.

Another feature we chose to install was old wine barrels to collect the rain water off the iron roof. The plumber installed the downpipes so that the water flows straight into the barrels and there is an overflow system for excess water to flow back into the drains. We use watering cans to water the garden and this has proved very useful in some of the very dry spells we get in summer. If we just use a couple of cans a day, a night of heavy dew will refill the barrels.

Jack Woodward

Micro hydro project in Papua New Guinea

During the 1970s Jack and Mary Woodward were working at the University of Technology in Lae, Papua New Guinea, Jack as Head of the new Department of Electrical Engineering, charged with the training of graduates to meet the needs of the modern sector. There they got to know an inspirational Papua New Guinean named Johannicus Yang and joined him in developing a micro hydro scheme in Baindoang in 1975. But after returning to New Zealand the Woodwards never forgot the pressing and largely unmet needs of the rural sector, which became the driving force behind a dream, shared with Yang, to build a micro hydro in Yang's home village of Faseu. When Yang moved back to Faseu to teach at the nearby Gububang Primary School in 2000 it seemed time to put Jack's feasibility study from1984 into practical application, though the final work visit did not take place until 2005.

The beneficiaries of the scheme are the inhabitants of an area of approximately one kilometre radius, with a Primary School serving a number of villages in the general area, with a student roll of 250 and six teachers, and an Elementary School for the first two years of schooling. Those of us who turn on a light switch without a thought may find it difficult to understand the vast change electric light can make to village life in terms of the potential, especially in education. Faseu made it clear from the beginning that its number one priority was electricity, ahead of water, another vital need, though there is the spin-off that the micro hyrdro water intake will also serve as a source for a gravity water supply system.

Funding came from significant contributions from Friends of Faseu, an international group of 30 donors (mainly those who had worked with Jack and Mary in PNGUT), the NZ Society of Friends, NZAid and the Community Development Scheme (AusAid), while up to 10 % of the total cost was borne by the local community, with the provision of local materials as well as both skilled and unskilled labour wherever possible, the work teams and tasks for the next day being organised each night by the local committee.

The project involved Jack in five visits to PNG over an 11 year period, some of them hair-raising, such as the time Jack's driver on a pot-holed road between Lae and the airport had to take evasive action to avoid ambush by a rascal wielding a shotgun.

Access, in a country with almost no roads, and those poorly maintained in this high rainfall environment, was a huge problem. Building materials such as pipes and cement, arriving by sea at Finschafen from Lae, took one day to be transported inland to Sattelberg and thence manually on difficult tracks through the mountainous terrain to Faseu taking at least another day. Jack was also able to take basic medical supplies such as analgesics and 'expired' antibiotics donated by Medical Aid Abroad NZ for use in the village. He came near to needing some medical help himself when he encountered a snake on the track when coming back from a shower in the village spring clad only in a towel and jandals!

Without the means of transport by road, two cargo flights, at $2,500 a time, had to be chartered into Masa airstrip, high on the shoulder of the mountain above Faseu, whence the villagers used their great ingenuity to transport 500 kg drums of cable down the bush tracks to the village. One way or another they managed to get the materials on site, eliciting amazement and respect from Jack.

The lack of any sort of communication between Faseu and New Zealand made for inevitable and lengthy time delays, Yang's post box three or four days' journey away in Lae being visited perhaps only once a term. Imagine if you can the difficulty of managing all aspects of the project remotely from Auckland, in the absence of any NGO in Papua New Guinea capable of handling them.

Jack had the support of a young Civil Engineering friend Andrew Duncan in the construction and commissioning of the scheme in 2005, and again to assess the damage after a violent cyclonic storm caused a landslide and flooding in the stream above the micro hydro head-works making the scheme non-operational.

This hydro scheme has an intake weir, a 220m pipeline carried for almost half its length on a rock ledge excavated by hand, and a single phase 50Hz 8kW Turbine and Generator set in a small Power House.

A 1000 volt underground cable 800m long transmits power to a Switching Centre, thence an underground cable supplies power to three communal buildings, the Elementary School, the Meeting House and the Church, and to a number of outdoor lanterns. The provision of domestic lighting through rechargeable lanterns or battery systems is a possible development.

Communication with Faseu is still far from perfect but at least Yang now has a cell-phone, though it is usually out of range or Yang has it turned off to save the battery.

The Faseu community understands that what has been achieved so far is only one step along the development path. Their self-confidence has been boosted by their part in a relatively complex undertaking, both is terms of mastering technical tasks and in working together in planning and decision-making. A Trust, set up by Jack's nephew Fergus, who was able to visit Faseu at one point with Jack, is set up to include the fostering and implementation of development activities in the general Faseu area, and has as trustees Jack, Andrew and Fergus. Fundraising to complete the restoration of the micro hydro scheme and completion of a water supply is about to begin, while a new classroom block at Gubabang Primary School carries the signage Pro. J Woodward Building in acknowledgement of funds made towards the roofing iron.

The success of Faseu has ignited the interest of other rural communities and their hope for something similar, yet without support from their government and the will of one man with the relevant expertise to turn a dream into reality, little change can be expected.

Rob and Heather List

How do people like Rob and Heather List get to a point where they put their money where their mouths are and try to walk lightly as well as cheerfully upon the earth? It starts a long way back with the attitudes and actions of parents. Heather's Dad was from a tramping and mountaineering family and was a very active member of the Tararua Tramping Club. He passed on that enthusiasm to his daughter. Rob's family tooking their fishing and hunting seriously, with most holidays spent under canvas in the beech forest of Southland. They were active in the Save Manapouri campaign, back when the vocabulary of environmental activism was just an egg. It's not surprising then that the Lists have hatched into Green Party members.

They both grew up in the Presbyterian Church, where the integrated oneness of the earth, e.g. Romans 8:18-25, and human responsibility for the earth's well-being were basic tenets. The understanding that the Creation speaks to us profoundly of the nature of God, if we are willing to look and listen, has never left them. Those foundations were ready to be built upon when Rob and Heather came to Friends in the 1960s. The testimonies of the sacramental nature of life, simplicity, peace making and answering to that of God in everyone fitted well, like the second hand clothes the Lists favour. In August 2010 they became inspired to reduce their landfill contribution to one bag a year. Looks like they'll get there without bursting the bag. Really, it's not that hard to do. Think about what you buy, especially how much packaging is involved and be conscientious about composting and recycling.

Currently they live in a house that is a development of the bush huts they have enjoyed. It is clad with green colorsteel, insulated with recycled wool and lined with plantation grown timber. The tiled floor absorbs the warmth of the sun in winter, but the verandah keeps out the higher summer sun, allowing the floor to cool the house. Double glazing stabilises the indoor temperature year round. On the roof solar panels heat the water and generate over 90% of the electricity used by the highly efficient appliances and lighting. In the kitchen a modern version of the ancient hay box does the slow cooking. A woodburner in the very centre of the house spreads extra heat in winter and provides additional cooking capacity. This is the sort of house you must learn to drive, looking forward to plan extra energy use in relation to the weather forecast.

The lanscaping recreates a bush clearing which the birds enjoy as much as the human residents. Off to one side raised beds provide organically grown vegetables. Both the Lists work part-time and Rob sees his vegetable gardening as income, though some crops can provide the promise and the bankruptcy of a flashy finance company.

The garage is home to a Honda Jazz, low on fuel use and emissions, three bikes and a tandem which get a lot more use since a mid-winter trip to Cambridge and its multifareous cyclists revealed how soft Kiwis have become. That has inevitably led to advocating for improved cycling facilities.

Beside the woodshed is the bird hospital. For some years the Lists have nursed injured and sick native birds for the local DoC office, which is just down the road. While kahu (harriers), tui and kereru are the usual suspects, there have been amongst others, kotare (kingfishers), ruru (morepork), a mottled petrel taking a rest on its way to the Aleutians, a Giant Southern Petrel and a huge Shy Mollymawk (think albatross). To hold birds like these is a beautiful privilege. To be held in turn by a hawk, even through a glove, can remind the holdee that we are frail creatures. This work can be a heartache too, as the survival rate is only about 50%.

For variation Rob has taken to spending Tuesday mornings (morning being an elastic word) working in a Forest and Bird restoration project. Amongst other things he has inherited the task of monitoring the health, and hopefully growth, of a population of mudfish. Part of the inheritance is a pair of thigh waders. Conservation work is very glamorous. And then there are the monitors to discover the presence of long tailed bats, which involves bungee strapping hi tech lunch boxes up trees. It's all fun and it builds great friendships.

No lifestyle is ever completed and finished. The Lists have more projects on the go. A worm farm, a solar oven and a pulley clothes airer to mention three. All use recycled bits and bobs. Replacing a flush toilet with a composting one is under way. The big thing the Lists would want you to know is that their life is not a grim self-sacrifice to a politically correct duty. It is interesting, mentally stimulating, building of friendships, deeply satisfying and most definitely joyful.