Robert Hart revisited

By Jon Kean and Tomas Remiarz

The purpose of is article is two-fold: To pay hommage to Robert Hart, a humble man whose experimental foret garden in the Shropshire Hills has inspired a movement that has spread across the temperate parts of the world, and to assess the lessons that the story of his garden holds for forest gardeners today.

To produce this report we referred to Robert Hart's original writings. Additional source material were plant lists supplied by Rowena Stone and Mike Feingold, and Robert Hart's visitors book from the 1990s. Our own observations are based on two site visits that were arranged with the current site owners as one-off, not to be repeated events through the Shropshire and Edges Permaculture Network (SEPNet).

In addition, we referred to Dave Jacke and Eric Toensmeier's case study in "Edible Forest gardens" Vol 1. Their text provides a detailed assessment of the garden from their perspective in 1997, and it may be instructional to compare their conclusions with our own.

Site history

Robert Hart came from a farming family and had farms in Norfolk and Somerset before moving with his brother to the site at Wenlock Edge. He had gained previous experience of commercial orchards and blackcurrant growing before he moved to the site in the 1970s and began planting the forest garden in 1979. As co-author of "Forest Farming: a way to end world hunger and poverty" together with Sholto Douglas he had a theoretical understanding of the newly emerging discipline of agroforestry. He always acknowledged the origin of the temperate forest garden concept to the tropical home gardens of Kerala and elsewhere around the world.

Figure 1: map of Highwood Hill and its surrounding area (from OS map/ Google Earth?)

Fig 2: aerial photo (Google Earth)

Hart's vision was for the site to act as a model for urban home gardens in temperate climates. In his own words, he had "a vision of mini-forests in millions of *urban* back gardens. To demonstrate what I had in mind, with my gardener and partner Garnet Jones, I converted a small orchard of apples and pears into a forest garden" (RH 1996, p2). Robert Hart said of Garnet Jones that "the creation of the project has been a partnership between us" (RH 1996, p48).

The forest garden area sits within large, now mature orchards surrounded by paddocks. This indicates that Robert was aware that his forest garden was experimental within a context of economic land use from the orchards and grazing, and he refers to this context in his writing.

Robert Hart added a range of plantings close to the farm buildings and in the "motte and bailey" part of his land. This is where the two original forest garden areas are located. They were two rather small patches of land, each approximately 30m square. These two patches were surrounded by two mature hedges, one as one side of an ancient packhorse trail. Between them other plantings and social areas included an arboretum, dancing ground, tree nursery, rose mound, vegetable areas bog garden, osier coppice.

Figure 3: site plan from "Forest Gardening" (1996)

Robert Hart stated that the forest garden was established within “a small orchard of apples and pears” (RH 1996, p2). This indicates that some of the forest garden canopy predates the rest of the planting and will have had an effect on lower layers from the beginning. Hart added further trees among them, creating an even denser stand. Following Hart’s theory, the planting consisted of a “canopy” of half-standards, under-storey dwarf trees and fruit bushes, shrubs and herbs (RH 1996, p51). It is worth noting that Robert Hart’s original description of the seven layers of his forest garden did not include any trees that would reach forest canopy height – this is an aspect in which later interpretations of forest gardening in practice and literature diverge from Hart’s initial concept.

Figure 4: Photo of the garden during Robert’s time

The inclusion of the dancing ground (local people remember going to the garden for circle dancing events), tree nursery and vegetable plots suggest that the original concept was to include open areas within the forest garden. Today the dancing ground is completely covered by the canopy of the arboretum, which also overshadows parts of the original forest garden.

From original writings it seems that the boundaries of the forest garden were fluid in Robert Hart’s mind. While he makes specific mention of two forest garden areas as well as the ante-forest garden, much of his books treat them and their adjacent plantings as a whole entity. This probably reflects his own holistic view of his efforts which was widely appreciated by observers.

Management history

The management regime consisted of a daily round of harvesting, pulling weeds and reigning in any vegetation that threatened to overtake its neighbours. “To suppress unwanted weeds I spread straw thickly between the plants ... as soon as possible after the perennial herbs reappear in spring.” Apart from that, “the main tasks are cutting back plants that are encroaching on their neighbours and pruning, so far as this is necessary.” (RH 1996, p76) He used wood ash, sea weed and lime as occasional soil additives. (RH 1996, p72)

As he aged Robert Hart was helped by a succession of volunteers and regularly supported by carers, and it is also known that Robert himself acted as a carer for his brother in the early years of the forest garden, and that the therapeutic value of gardening was not lost on him. The ever increasing number of visitors throughout the 1990s may have been a distraction from the day to day management of the garden, but served to make his ideas known to a wide and grateful audience and resulted in the spread of the forest garden concept.

The more knowledgeable visitors during the 1990s noted the effects that Robert Hart’s declining health had on the state of the garden. In their respectful reflections on their visit in 1997 Dave Jacke and Eric Toensmeier wrote. “Robert Hart was eighty-four and increasingly frail. ... The garden had gotten minimal attention from him for the previous three years. It was in surprisingly good shape for having had little management for so long, but we were certainly not seeing the garden in its prime.” (Jacke p111)

Figure: Photo of the garden in the late 1990s

J/T drew attention to the dense and informal nature of the planting “We saw no defined access to the garden interior, or that there had ever been any. Vegetation hung into the paths ... potentially spreading disease.” (Jacke p112) They identified three main vegetation layers with a canopy of

fruit trees, a shrub layer dominated by currants and gooseberries but including a range of other species, and a herb layer that was only partly recorded.

After Robert Hart's death the site passed into further neglect. Ownership of the site changed several times during this period and there was, and still is, no public access. None of the subsequent owners actively engaged in management of the forest garden. Apart form clearing the pathways the site was effectively left to nature for 20 years.

Site visits 2017

As a favour to a friend, the current owners of Robert Hart's garden allowed 2 exceptional visits in 2017, one in May for members of the local Permaculture network, and a second, in late September for a few expert forest gardeners to help identify plant species and to see what could be learnt. The visits were exceptional in that the current owners want privacy and the garden is behind their house in the centre of their holding. We have drawn up this report to share what we found and to share that the garden is in caring hands, but want to respect the current owners' wishes not to be disturbed further.

We visited the site twice, on 14th May and 30th September 2017, armed with site plans copied from "Edible Forest Gardens" by Dave Jacke and Eric Toensmeier, as well as a list of plants drawn up by Rowena Stone and Mike Feingold and others just after Robert Hart's death. We also had the visitor's books kept by Robert Hart himself. The personal memories of those of us visiting added another layer of depth of both insight and connnection.

Following our visits we collated a list of plant species identified by visitors during both visits, with the intention of comparing them with lists made by previous visitors and Robert Hart's own notes. Due to limitations discussed below we can only draw limited conclusions from this comparison, but we feel it still shines a light on what happens to a forest garden when you "let go".

Our observations

Ecological succession has taken place in an unmanaged way. The trees in surrounding hedges and the experimental arboretum now form the canopy for the original forest garden areas. In addition, saplings of woodland succession trees have become established within the areas themselves.

Figure: Photo of the tree canopy

Hedgerows containing hawthorn, ash, holly, elder and other species have a shading effect on both forest garden patches, while the maturing tall trees in the arboretum such as oaks, maples, hickory, pine, Southern beech mostly affect the northerly patch, with a lesser effect on the southerly area. The southerly forest garden area contains greater diversity and density within the shrub and herb layer, which seems to bear out the importance of light for these layers.

The larger area of the motte and bailey has progressed towards woodland, with several stands of different character. The Southerly forest garden area remains the most densely vegetated part. In the centre, the arboretum forms a tall canopy with very few shrubs and a less diverse herb layer, while the Northerly part of the site (previously willow coppice, bog garden and forest garden patch 2) has a sparser canopy with a somewhat denser herb layer.

Figure: Photo of area 1 and 2

Plant species have followed a number of different trajectories. These can be summarised as:-

Fading out: There was no sign during the 2017 surveys of any annuals mentioned in previous surveys, and a number of light-loving ground cover plants were also not in evidence, including cardoon, borage, chives, Hamburg parsley, sea kale and tree onion.

Hanging on: Many of the fruiting shrubs and some perennial ground covers fall into this category. While many species of *Ribes* (currants, goose berries etc) and *Rubus* (raspberry, blackberry etc) are able to survive in shade they will not be as productive as in sunny conditions and may not fruit at all.

Broaden out or move on up and dominate in the quest for sunlight: These are plants that benefit from site abandonment in the short and medium term, as they take over the niches previously maintained for crop plants. They are likely to be adapted to shade and rich soil. On this site they include nutrient-hungry opportunists such as nettle and comfrey; woodland edge plants like greater and lesser celandine and mid-succession species like hogweed.

Moving in: Woodland specialists such as dogs mercury, sanicle, lords-and-ladies and wood speedwell have become established in parts of the site. None of them were mentioned by surveys before. It is of course possible that they were present but not spotted, or deemed irrelevant to the purpose of that survey.

Productivity has declined

Productivity appeared to be low during our visits – there were few signs of flowering or fruit set during the May visit, and little evidence of fruit in September. This was not surprising given the unfavourable light conditions.

No doubt for a time, productivity continues to increase with neglect but in the long run it will decline as some plants dominate, others disappear or fail to fruit or ripen.

Appendix: *Plant surveys compared – literature (RH and DJ 1997), Rowena & Mike'2000, Sepnet 2017*

Limitations of this survey

The boundaries of the forest garden were not completely clear in RH's original writings. This in turn made it harder for us and others to decide where to set the boundaries.

Robert Hart never produced a definite list of plants in his garden. The list produced by Mike Feingold and typed up by Rowena Stone was given mostly in English common names, which together with some spelling mistakes of Latin names made it difficult to ascertain the identity of some plants. Where possible we made assumptions based on other sources or species that are still present.

Dave Jacke and Eric Toensmeier surveyed the garden in September 1997. Their 4-day visit only gave them a brief snapshot of the garden, and they were probably hindered by their unfamiliarity with many plants native to Britain. As a result their list of ground cover plants is patchy.

Our own sureys in June and October were limited to a few hours each. Although we had a range of plant experts with us it is likely that we overlooked plants that were listed in the other sources and may still be present now.

Reflections

On design

Canopy spacing

Fruit tree expert Wade Muggleton “I had a conversation once in which everyone we knew who had attempted a Forest garden had in hindsight over planted it and ended up ripping stuff out as shading and congestion became an issue, clearly left to its own devices RH's garden suffered from this. Lesson perhaps being don't over plant to start with ! Just plan it right and nurture what you have planted.”

Chris Evans, forest gardener with experience in the UK and Nepal, offers a different perspective. “There are two ways of achieving optimum light conditions. One is to plant less densely than for a woodland and wait for the canopy to fill out. The alternative is to plant densely to start with and then take trees out as they mature. This has the advantage that woodland conditions are reached sooner, which should be beneficial to many forest garden plants and help to make grass less competitive.”

To Martin Crawford the return visit highlighted “the importance of good design. All gardens or agriculture - forest gardens included - will revert to woodland here [in Britain] if you do nothing. However all human agricultural / horticultural systems are aiming to slow down succession so it is under our control. I don't think Robert's garden had good design, or possibly any design very much. In particular, he did not have good ground cover in many places. Thick intentional growth of low plants can delay succession considerably by preventing trees or shrubs seeding. And obviously he planted the trees far too closely, so now the trees are large there is intense shade and few of his low perennials remain. So overall I was not surprised by how it appeared now.”

Importance of context

The shade cast by trees surrounding the forest garden patches has had a major effect on the development of all forest garden layers. Fruit trees are now overshadowed to the extent that they hardly bear fruit and their health is affected, in some cases badly. The cumulative effect of dense plantings within the forest garden and shade cast by surrounding trees has made conditions for under-storey plants more difficult. In summary, this planting shows how important it is to consider the future effects of existing and newly planted trees.

On maintenance and succession

Visiting fruit expert Wade Muggleton summarised that “it proves my theory that there is no such thing as a low / no-maintenance garden. Weeding and considerable intervention will always be the major part of any system.” Similarly Martin Crawford observed that “the current state of Robert’s garden shows that Forest Gardens do need work to remain productive.”
Local forest gardener, Jon Kean, stated, "“I have noticed that my management of my Forest Garden is changing – no longer am I carefully nurturing the growth of plants, I am pruning to manage light. The current state of Robert’s garden shows that Forest Gardens do need work to remain productive. It also shows that in design and subsequent management plans we have to be asking questions of what a plant might be like in 5, 10 or even 20 years and what impact will it have on its neighbours.”

Robert Hart’s reduced capacity for maintenance and controlled disturbance during his final years, followed by more than a decade of complete neglect, has resulted in a complete loss of light-

demanding species and a general decline in groundcover species. A process of substitution of species with woodland and shade specialists has taken place. During this process the health and productivity of the designed system has declined.

Arrival and spread of woodland species
As the site was an orchard within a landscape containing ancient woodland sites, before it was turned into a forest garden there are four methods by which woodland specialists may have arrived on the site: they may have been present in the existing hedgerows; been introduced by Robert Hart or one of his helpers; appeared from a dormant seedbank once conditions were right; or moved in from nearby ancient woodland sites. Whichever method (or combination of them) it was, this category of plants was and is most likely to benefit from abandoned management in the long run.

People succession

The lack of detailed site plans and records, together with the unique and experimental nature of the garden meant it would have been difficult for anyone other than Robert to maintain its productivity in his absence. In Wade Muggleton's words, "from a few local people I have spoken to who knew RH, they say the flaw in it was perhaps only he truly understood it, with it's complex mix of species, patterns etc and so its continuation beyond him was perhaps always questionable." Apart from showing the value of stringent record keeping, this highlights the fact that a private forest garden is almost inevitably tailored to the needs of its current users, and a handover will most likely involve a degree of redesigning by following owners.

Robert Hart's initial "succession plan" was to create an intentional community on his land. When this failed, he signed over the management of the land to Rowena Stone, a member of the nearby Earthworm Housing Co-operative who had been looking after him in his final years. Unfortunately this didn't include access rights over the rest of the land, and so the management became practically impossible. This demonstrates that secure tenure agreements are vital for such long-lived systems like forest gardens.

The importance of this forest garden

There is no doubt that Robet Hart's garden was as influential as his writings in the early spread of the forest garden idea.

As the first forest garden in the temperate world explicitly created as such, the site was a focal point for the emerging UK permaculture community and much visited by other people. Permaculture pioneer Bill Mollison visited the site in the 1980s and presented it in his "Global Gardener" TV series.

Patrick Whitefield, one of the most prominent of the first generation of UK permaculture teachers and authors, took successive courses on site visits and readily acknowledged the scope and impact of Robert Hart's vision. "He was the creative person who came up with the idea of forest gardening in a European context. I have huge admiration for his vision and the fact that he put it in place. Whoever came to see him and his garden went away inspired and often enthusiastic– partly that was because a lot of people were not experienced gardeners, but it was also largely due to his personality. Robert was a man of enormous dignity, and people were inspired by that." At the same time Whitefield had the understanding to point out some of the limitation of the pilot site. "He was no plantsman, no gardener, he didn't really understand design and the limits that light places on plant growth in this climate. Already at the time I could see that the trees were planted too closely. Still, the garden was growing and he harvested a lot of fruit." Despite being ambivalent about the forest garden concept himself he produced "How to make a forest garden",

a practical companion to Hart's visionary books that went on to become the standard text on the subject for the next decade.

During this year's visit Martin Crawford, the foremost authority on forest gardening in the UK, acknowledges that "Robert's efforts were an important inspiration for me and helped move my focus from organic market gardening to agroforestry." Dave Jacke, his US counterpart says in "Edible Forest Gardens" that "those few square feet of ground spurred a worldwide movement"(Jacke p118).

The visitor's books from the 1990s read like a "who's who" of permaculture. The UK permaculture convergence 1996 was held at nearby Earthworm Housing Co-operative, and many people seem to have taken the opportunity to visit the forest garden around the same time. A lot of these are known to have been crucially involved in forest gardens in the years that followed.

Many local names were recognised too and the impact was known on their gardening practice. Local people and other visitors also remember Robert and the farm as a very spiritually nourishing place to visit. Robert is no longer there, but this dimension is rippled out into all those forest gardens that followed and to those who visit and beyond.

From comments by many of those visiting as well as others in the permaculture community it is clear that Robert Hart's work still holds great symbolic value for practitioners in the UK and beyond. Scarlett Penn, coordinator of Wwoof UK, says "I'm reminded what an important site this is in our permaculture heritage when WWOOFers arrive at my place and announce they selected me because I'm close to Robert Hart's forest garden and a visit is on their itinerary! The last one was an organic farming student from Germany. He was very disappointed to learn it's not an open or even a continuing site."

Another visitor expressed her "deep sense of gratitude & humility that such a quiet, gentle and humble person was able to pioneer an approach as interesting and useful as this."

He was as much part of the garden as any of the plants and in truth, without him the garden ceases to be.

However the last word is that this was, "the garden that changed gardening", inspiring gardens that in turn inspired a global movement developing a new agroecology practice.

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