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Treating the Maniacs?

Horticulture as Therapy: from *Benjamin Rush* to the present day

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Benjamin Rush

Most people who have an interest in *therapeutic horticulture*, and we will say what we mean by *therapeutic horticulture* in a while, will have come upon Dr Benjamin Rush. Benjamin Rush was an American physician of the late eighteenth and early nineteenth century. He was an interesting man. In addition to his medical interests he was involved in the politics of his day and is a signatory of the American Declaration of Independence. However, it is his comments on gardening and mental health that have been seized upon.

In his book *Medical Inquiries upon Diseases of the Mind* published in 1812 Rush wrote:

“It has been remarked, that the maniacs of the male sex in all hospitals, who assist in cutting wood, making fires, and digging in a garden, and the females who are employed in washing, ironing, and scrubbing floors, often recover, while persons, whose rank exempts them from performing such services, languish away their lives within the walls of the hospital”.

This sentence has appeared in hundreds of articles on the benefits of horticulture, especially for people who are suffering from mental health problems. Dr Rush has also been proposed as *the father of therapeutic horticulture* for supposedly bringing to the attention of the world the fact that gardening has the potential to treat people who are suffering from some forms of illness. In reality the truth is rather more prosaic. The sentence has been taken largely out of context by the many authors who have quoted it. Although Rush does recount the story of a man who’s mental health improved after he worked on the harvest there is little more about gardening in his book. In fact Rush’s medical ideas were a little old fashioned (too say the least) at the time. He believed that madness was caused by inflammation of the blood vessels of the brain and that this could be cured by blood-letting and leaches. He was also fond of prescribing emetics and purges and suggested that episodes of ‘terror’ could be beneficial. However, he did advocate the humane treatment of mental patients at a time when in many cases they were viewed as legitimate forms of entertainment.

The importance of Rush's remarks lies in the fact that they represent a step in the search for a causal and scientific explanation of the benefits of horticulture and gardening. People have 'known' for centuries that gardens can be places of peace and healing but now there appears to be some foundation for those beliefs. Although the legitimacy of Rush's observations may be questionable they have inspired people to believe that it is *possible* to find evidence of benefit and consequently researchers have turned their attention to this field.

Hospital Gardens

Until recently many hospitals, particularly mental hospitals had gardens which produced food for the patients and staff and provided a distraction for those patients working in them. This type of garden has now all but disappeared but hospital gardens have started to reappear in different forms. Ornamental gardens, memorial gardens and even small vegetable gardens. There is a sense that the space provided by gardens and the activity provided by gardening are beneficial and even therapeutic. Gardens are both important to look at and to work in. Even the design of some new hospitals has changed to incorporate this sense of nature. But what is the foundation and evidence that supports such therapeutic notions of horticulture? Especially for the '*maniacs*' - those suffering from mental health problems.

Rehabilitation

Gardening has been used as an activity for people recovering from physical injury or disability since it can provide activities which require a regular and structured set of movements. These improve muscle strength and coordination. But also they are purposeful and can engage and distract the patient. In his book, *The Rehabilitation of the Injured*, Colson (1944) describes different gardening activities that may be used as therapy in the process of recovery. He lists "only those gardening activities which have been found of value as therapy" (p 185) so, although evidence is not presented as to the effectiveness of these activities, it is clear that they have been selected as a result of experience with patients. As *occupational therapy* developed as a medical discipline then so were gardening activities included in its practice and described in the textbooks. However, no evidence appears to have been built up as to its effectiveness. Given how essentially straightforward it would be to test the benefits of gardening in physical rehabilitation it is surprising that there have been (to our knowledge) no such studies. Perhaps this is due to the provenance of gardening and horticulture in early occupational therapy and therefore its acceptance as an effective form of therapy.

Horticultural Therapy and Therapeutic Horticulture

Gardening is now one of many different *specific activities* in occupational therapy. It is not known how many occupational therapists use it at present as its popularity changes according to the availability of facilities and changing attitudes. However, gardening has become the chief activity of *horticultural therapy* and *therapeutic*

horticulture. These are disciplines which have developed from rehabilitation and occupational therapy and have been defined as follows:

“Horticultural therapy is the use of plants by a trained professional as a medium through which certain clinically defined goals may be met”.

“Therapeutic horticulture is the process by which individuals may develop well-being using plants and horticulture. This is achieved by active or passive involvement” (Growth Point, 1999, p. 4).

The distinction being that horticultural therapy has a pre-defined clinical goal similar to that found in occupational therapy whilst therapeutic horticulture is directed towards improving the well-being of the individual in a more generalised way. The favoured term in the UK is *social and therapeutic horticulture* because it recognises also the importance of social aspects of the horticulture activities. Both of these approaches have been used with people with a wide range of disabilities and disadvantage, including those with mental health problems, learning difficulties, physical disabilities, victims of torture, ethnic minorities and so on. In fact virtually all groups and individuals are represented.

In general social and therapeutic horticulture is practised through organised projects with a clearly identifiable client group. Some of these projects have been studied and some data on outcomes is available.

The Research Project

As part of a three year study of *social and therapeutic horticulture* we have examined the literature which shows that horticulture and gardening, in many different forms, can promote health, well-being and possibly also social inclusion. We have also undertaken an in-depth study of 25 projects across the UK; data is now available from 20 projects. Although in this presentation we will confine ourselves to the projects that deal mainly with clients who have mental health problems.

The literature is diverse - starting with Dr Rush and encompassing the fields of medical practice, occupational therapy, horticultural therapy - which produces a small but identifiable body of work and environmental psychology.

An Example from the Medical Literature

As an example of a report from the medical literature (of almost fifty years ago) it is worth mentioning a study carried out by O'Reilly and Handforth (1955) and reported in the *American Journal of Psychiatry*. They evaluated the efficacy of a horticultural programme for 14 women patients with serious mental health problems who had been considered as refractory to all forms of treatment. 11 had been diagnosed as schizophrenic. O'Reilly and Handforth presented brief case studies of all 14 patients and noted that:

“Of the 14 patients who participated in our pilot project, only one has failed to show a striking degree of improvement. The other 13 are still mentally ill, but in relinquishing their positions of isolation, they have become better adapted to the hospital environment” (O’Reilly and Handforth, 1955, p. 766).

They recorded an improvement in the personal appearance and hygiene of the patients, reduced violent outbursts, increased communication and reduced isolation. The patients also became interested in the social functions of the hospital and were willing to participate in them. Modern drugs for the treatment of mental illness are so effective that one would suppose that nowadays gardening could never be a ‘front line’ treatment. Yet we did encounter a young man with serious mental health problems who was working on a garden project and had decided to avoid all medication. He had negotiated that position with his consultant who was prepared to support him. Although gardening is not used as the sole form of treatment for people with mental health problems they make up the largest client group of those who participate in organised therapeutic horticulture projects.

Environmental Psychology

Environmental psychology provides clues to the mechanisms and processes which appear to be at work. It is the study of behaviour and responses to the natural (and built) environment. This field of research has had a major involvement with research and practice in social and therapeutic horticulture. One significant piece of work from this field is that of Roger Ulrich who showed that patients recovering from cholecystectomy (gall bladder surgery) fared better if they had a view of trees from their hospital bed than if that view was of a brick wall (Ulrich 1984). The group which had the view of trees from their window spent significantly less time in hospital, required fewer doses of analgesics and received fewer “negative evaluative comments in nurses’ notes” than the group which had a view of a brick wall from their beds. This observation has changed the way that many architects view the design of hospitals. The therapeutic processes are not confined to the activities of the medical staff and technologies but extend to the building itself and its surroundings.

Findings from environmental psychology underpin the activities of social and therapeutic horticulture. They may explain why people wish to be involved in gardening and why they wish to have ‘nearby nature’. Recovery from stress has been reported to be improved when viewing natural settings as opposed to the built environment and the hypothesis of ‘biophilia’ has been advanced to explain people’s inherent attraction to nature.

The Restorative Environment

Another concept that has emerged from environmental psychology is that of the ‘*restorative environment*’. Kaplan and Kaplan (1989) argue that mental fatigue arises as a result of the effort involved in inhibiting competing influences when attention is directed towards a specific task. The view or experience of nature which is inherently interesting or stimulating invokes involuntary attention which requires no effort and is

therefore restorative. This idea is generally referred to as ‘Attention Restoration Theory’.

They suggest that four dimensions are involved a restorative environment *being away, fascination, extent and compatibility*.

Being away is the sense of escape from a part of life that is ordinarily present and not always preferred. This involves a conceptual change and not necessarily a physical change:

“Being away, at least in principle, frees one from mental activity that requires directed attention support to keep going...A new or different environment, while potentially helpful, is not essential. A change in the direction of one’s gaze, or even an old environment viewed in a new way can provide the necessary conceptual shift” (Kaplan, 1995, p. 173).

Fascination is the ability for something to hold attention without the use of effort and whilst this is in play directed attention should be able to rest. Fascination can be derived from process - the act of carrying out an activity; or from content - the intrinsic substance of what is experienced (for example the landscape itself).

Extent refers to the aspect of an environment that provides the feeling of being “in a whole other world” that is meaningful and well-ordered.

Compatibility is an affinity with the environment or activity so that a great directed attention is not required in order to engage with it.

Attention restoration theory has been used to explain the benefits associated with social and therapeutic horticulture and hospital gardens.

Therapeutic Landscapes

A part of research which overlaps with environmental psychology is the study of therapeutic and healing landscapes. Yet, curiously, workers involved in this field of geography have not turned their attention to horticulture or gardening as a therapeutic activity and practitioners of social and therapeutic horticulture have all but ignored this part of the literature. Perhaps this has been due in part to the ability of environmental psychology to deliver quantitative data on people’s preference for different landscapes and their responses to it. A developing discipline such as therapeutic horticulture requires hard evidence in support of its effectiveness. Environmental psychology appears to provide some of that evidence whilst therapeutic geography may seem too esoteric for some practitioners of therapeutic horticulture.

Four Strands of Thought

In order to understand the effects of the projects on social inclusion we need to combine four strands of thought: the concept of the restorative environment, the themes that we obtained from the interviews with project participants, the activities that are carried out on the projects and the individual dimensions of social inclusion. It is necessary to examine the components and activities of the projects themselves. What do people do at the projects? Perhaps the central core of the question is this - *what exactly is gardening* in this context? Then we can examine why it is beneficial or therapeutic and how it may promote social inclusion.

Social Inclusion

In our study of projects we have used the framework of social inclusion. In order to explore themes related to social inclusion we started with the following definition of social *exclusion*:

“An individual is socially excluded if he or she does not participate in key activities of the society in which he or she lives” (Burchardt *et al*, 2002, p. 30).

The dimensions which form the ‘key activities’ for people living in Britain in the 1990s have been identified by Burchardt *et al* (2002) as *consumption, production, political engagement* and *social interaction*. These dimensions have been explored through questionnaires, interviews and observations at the projects.

Organisation of the Projects

The projects that we visited all had a formal or ordered structure. They were not loose gatherings of acquaintances who came together in an *ad hoc* manner to participate in some gardening but organised groups with an existing leadership or management structure. Many of the projects received funding from local authorities and health trusts and were active in applying for grants from many different bodies and were successful in that. So, in general, they were well-versed in that aspect of bureaucracy. They had an identifiable client group. Although there was some mixing of disabilities in general most projects catered for a specific group of vulnerable people. For example, those with mental health problems or learning difficulties. However, what was apparent was that the distinction between who was a client and who was a volunteer-helper at the projects frequently became blurred. People who volunteered as ‘helpers’ were often seeking some form of help themselves. In some instances people who started on the projects as clients, became helpers and then became organisers on the payroll.

Homemaking

Some sociologists, Mark Bhatti (see: Bhatti and Church, 2001) for example, argue that urban gardening is a part of homemaking. Project gardening is also a form of homemaking - playing at houses outdoors. We do not use ‘play’ in any derogatory sense but in that sense that it is an enjoyable activity. Whereas in an evolutionary

sense creating shelter and finding food were necessities - being able to re-enact those activities in a modern setting when there is no strict need for them is play. Some of those who take part in gardening projects do not have homes of their own, they live in institutions, care homes and hostels and so this form of gardening may provide access to homemaking that is normally denied them.

Personalised Space - the Walled Garden

This form of gardening, therefore, involves the creation of a personalised outdoor space, away from the home, which is planted according to the wishes of the project members and decorated with objects of art and craft made by them. The gardens enable people to work together and to socialise. To people with mental health problems it is a place of refuge and safety. The feeling of safety is particularly apparent in a walled garden. A walled garden clearly defines its space and shelters those within it. Indeed, surrounding walls or enclosures are a specific feature of gardens that have been designed especially for patients with Alzheimer's disease and other forms of dementia. Some have been referred to as '*paradise gardens*' because the word '*paradise*' is a transliteration of the Persian word *Pairidaez*: *pai-*-, meaning around and *-daeza* meaning wall (Beckwith and Gilster, 1997).

Shelters and structures

Part of the process of personalising space involves the creation of structures and shelters and many different sorts are observed at project gardens. Some are reminiscent of 'scout huts', or larger versions of allotment sheds - cosy places to relax in, brew tea, have lunch and talk to friends. We also see other structures - workshops for arts and crafts, shelters made from willow, cellars and even 'stone age' mud huts and wood henges. They are adorned and decorated in many different ways and they are an expression of the creative needs of the project members - both clients and staff - and are part of the garden and their construction and decoration are part of the process of gardening (as we have observed it).

Art and Craft

Art and craft are a feature of most projects. We have observed painting, pottery, mosaics and ceramics, stone carving, woodcarving, bodging, woodcarving with chainsaws, various other forms of woodwork, blacksmithery, wheelwrighting and more. Sometimes these items are made specifically for sale but mostly for the satisfaction of the clients and the decoration of the garden. Many of the projects that we visited have small sales or commercial outlets. This not only provides a small income but more importantly it brings 'normal' people onto the project site and helps to dispel the myth that all those with mental health problems are dangerous. Projects acquire regular customers and make links with local communities.

Alongside art and craft activities there are construction tasks to be performed - hard landscaping - making paths and patios and creating the structures mentioned before. Some project members confine themselves entirely to these activities and tell us that

they do not do any ‘gardening’, that is they do not have anything to do with the planting of the garden. Yet all of these activities shape the space of the garden and make it what it is. The debate that is now gaining momentum within the field of social and therapeutic horticulture is how to define ‘gardening’ and ‘horticulture’ - which activities constitute gardening and horticulture and which lie outside.

Themes from Interviews

But why do people do it? There is not enough time to discuss all of the themes that we collected and identified in our interviews but the main ones can be summarised as follows:

- being outside – ‘nature’ and ‘freedom’
- sanctuary, safety
- socialising
- work and employment
- nurture
- organic gardening and sustainability

We have already considered sanctuary and safety

Being Outside - Freedom

Most of those we interviewed said that they enjoyed ‘*being outside*’ or ‘*in the fresh air*’. But what does that actually mean? One of the people we interviewed was a Big Issue vendor who worked on a busy street corner. One day a week he attended a garden project where he tended his own little plot on which he grew mostly herbs - coriander was his favourite. He too attended the project because he liked being outside. But he spent his working day outside! No, the project was different, it was not just outside, it had plants and trees and birds and peace and quiet. Tranquillity! He could work on his plot in the peace and quiet and let his mind wander.

To some, being outside was synonymous with freedom. Freedom from the constraints of a home or residential centre or incarceration. One participant described the allotment site on which his project was based as a “blue sky hospital”. This man was a refugee who had been tortured. One can think of few better metaphors for freedom than ‘blue sky’.

Some also felt ‘outside’ even when they worked in the greenhouse or polytunnel. It is interesting that the sense of ‘being outside’ can extend to the enclosed structures within a garden. Perhaps their transparency allows them to be a part of the ‘outside’ or perhaps their lightweight physical construction differentiates them from ‘buildings’. Or perhaps they are part of our construct of ‘garden’ and hence for us naturally belong to the outside.

Social Interaction, Cooperation

Whilst gardening is frequently a solitary activity it represents one of the opportunities to develop new social contacts and activities or extend established networks. The projects also offer clients the chance to mix with new acquaintances with whom they share common interests and who often also have the same or similar health problems or vulnerabilities. In our experience this does not appear to be a chance to sit and complain about mutual woes but a genuine exchange of help and advice.

The desire for regular contact with others and the opportunity to make new friends is also a key factor in clients' attendance at projects. Most of the respondents said that they had made a number of friendships at projects and many also reported that they had made friends who had become particularly important to them.

It is clear that friendships that are formed through gardening and attendance at projects become important or significant in clients' lives and they often come to rely on the regular contact with these new friends.

The friendships that are established through gardening may extend beyond the gardening activity clients are engaged in at projects, although the number of clients who socialised with other clients outside project hours wasn't high. Just under half of respondents said that they socialised 'sometimes' or 'quite often' with fellow project members. However, the other half 'rarely' socialised or not at all, for these respondents the horticultural projects may represent the main, if not the only opportunity for social contact:

“And it's helped tremendously, just getting me out of myself and, mixing with other people, because apart from that, I don't socialise at all. I don't have any friends and these are the only people that I mix with.” Arthur, RWG.

It might be useful to point out here the work of the late Professor Argyle who spent his working life 'measuring' happiness and analysing what was responsible for promoting it. He and his colleagues devised the Oxford Happiness Inventory, and his work suggests that the use of social skills (among others) is associated with happiness. And particularly *cooperation in joint activities* is one factor which best predicts later happiness (see: Argyle, Martin and Lu, 1995). It is interesting to note that the cooperative labour - all project participants working for the good of *their* project was one of the valued aspects of the project members. In many cases projects members - clients, organisers and volunteers had been together, working on the projects since their inception. Transforming often derelict land into sumptuous gardens.

The literature also shows that cooperative working appears to take place spontaneously on such projects even if not organised by the project workers or designed into the project activities. One project worker suggested that this occurred because of the lack of competition among the project members. There was no need for any competitive behaviour since the common goal was the continued improvement of the garden and not individual advancement. Such cooperativity appears to be particularly highly valued among people with mental health problems.

Work and Employment

When we asked project participants whether their work on the projects felt like the work of paid employment we found a degree of ambivalence in the perception of project activities as *work*. Many clients (and some staff) did not see their activities as work because they did not feel under pressure to perform and also because the gardening and other activities were enjoyable to them. They are activities which are also hobbies in many cases and for some project workers receiving a wage was almost a bonus, i.e. "I'm being *paid* to do *this*".

Some clients, however, liked to think of themselves as *workers* as this elevated their status both in terms of self-perception and how they may be perceived by others. Some received small amounts of money as expenses or attendance allowance - no more than £20 per week. The act of receiving pay was regarded with significance and importance - in one project the allowances were distributed every Friday in brown 'pay packet style' envelopes and payday was eagerly awaited. Clients referred to the project as *their work*. In some cases this had caused problems. One client who was in receipt of benefit had spoken about 'going to work' and the project manager had to explain to the Benefits Agency that the client was not being paid a wage but only a small sum to cover expenses. It is interesting that in comparison to their benefits the *pay* was tiny but of much greater significance. There was discussion about *pay* at tea breaks but not about benefit. Pay was seen as *earned* and *deserved* income. However small the reward may have been, pay at the project lifted the status of the participant from that of *client* to that of *worker*.

Whether project work is seen as work or not those who attend projects on a regular basis derive what have been called in the literature the '*latent*' benefits of employment (see: Jahoda, 1992) - daily structure, social contact, shared experience, goals and purposes, personal status and identity. Project work does not necessarily need to feel like employment to provide benefit but for some the identification with work is clearly important.

Nurture

The concept of gaining benefit through the nurturing of plants appears in many places in popular writings on social and therapeutic horticulture. Because many project workers, and also the clients, are familiar with this argument it needs to be approached carefully in any interview. Two examples from a rather unusual form of gardening give some evidence that looking after plants and watching things grow really are important to those who attend the gardening projects. Both of the examples come from a cooperative that was involved in growing mushrooms for a small commercial market. Mushrooms are grown on this scale in a fairly large polytunnel which has a controlled temperature and humidity. Not only that, the tunnel is made of opaque material and has electric lighting. When the batch of mushroom culture is ready it is extremely productive and the mushrooms need to be picked as they appear. Such a task could easily be viewed as one that equates with work in a factory. Yet, even under such intensive conditions one interviewee recounted how fascinating it was to see the mushrooms grow. And when asked about his hobbies the man replied

that he was developing his own mushroom growing system at home! Even nurturing mushrooms is rewarding.

And secondly: both managers of the project believed that the aim of the project was preparation for employment and eventual employment and so the activities on the project were unimportant. They could be making double-glazed units and be just as happy. None of the clients who worked in the mushroom tunnel shared their views.

Organic Gardening and Sustainability as nurture

Most of the projects we visited were run on organic lines and many were involved in sustainable environmental practices - recycling, community composting, solar and wind power, composting toilets and so on. The environmental ethic and lifestyle was a serious consideration of project organisers. We cannot say that all projects involved with social and therapeutic horticulture are run on similar lines but the environmental philosophy is strong in this area. Clients spoke of “looking after the planet” and “not damaging their environment”. It was clear that environmental awareness and knowledge of sustainable practice were high. Perhaps this is another example of the need to nurture, and the benefits it produces among vulnerable people. Perhaps it is a case of vulnerable people identifying with a vulnerable planet and attempting to take care it.

Dimensions of Social Inclusion

The themes and observations given above are consistent with the elements of a ‘restorative experience’ within the meaning suggested by Kaplan and Kaplan. For example feelings of freedom described by interviewees can be equated to the dimension of *being away*. If we now look at the key dimensions of social inclusion - social interaction, production, consumption, and engagement in the political process we can see that the themes and observations which we have just described support these dimensions. It is clear that the projects provide an opportunity for social contact - for some the only opportunity. The structure of the projects in the context of the latent benefits of employment and the perception of participants as *workers*, and the fact that they produce useful and valued items - from fruit and vegetables through to art and crafts - fulfils the criterion of production. Whilst social and therapeutic horticulture does not contribute to engagement in any *party political system*, project clients are generally involved in a real and meaningful way in the running of their projects. Quite often through formal meetings, councils and committees. For some this is the first time that their voices have been heard and this leads to a building of self-confidence, independence, self-esteem and empowerment. This we suggest is a form of political engagement consistent with social inclusion. Finally, if we look at the clients as consumers - does participation promote consumption? The ability to take home fresh food may seem as a form of consumption, however, in our experience not a great deal of food is taken. This is because of the lifestyles of the participants and their opportunities and abilities to prepare the food. And also because food production is not the central aim of most of the projects and actual productivity can be low. However, the projects do provide the opportunity to participate in art, craft and leisure activities that have a real cost which in many cases would be unaffordable as

many of those who attend the projects are on benefits and on very low income. The small allowances that some project participants receive appear to have a particular importance. This money enables small luxuries such as cigarettes, magazines and sweets to be purchased

Is Gardening Different?

The question that is frequently asked is whether other activities, unconnected with gardening, could provide the benefits seen with social and therapeutic horticulture - social interaction, daily structure and so on. Is gardening different? Surely many other recreations and diversions have the ability to promote social inclusion and attention restoration.

There are many activities that make up the process of gardening and we have alluded to some of these in this presentation. These are not a random, unconnected set of procedures but an interrelated set of activities that take place within the garden space that has been created and defined. They have coherence. It is possibly this that makes gardening different.

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