

An exploration of the viability and associated issues of constructing a garden community

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TITLE: **Landscape garden community**

*Shaun Aldred
shaunaldred@yahoo.com
MSc Building Surveying
student (2009)*

ABSTRACT

The dissertation reviews current green architecture and landscape design around the world with specific reference to the UK market. The review forms the basis of a case study which explores a new development proposal for a small-scale landscaped community set in a rural location on green field land.

A wide range of people were contacted across the housing industry and beyond. Conversations with senior executives of many of the volume house builders in the UK together with some of the more innovative small and mid-size developers identified key differences in the importance they attach to design, corporate brand and their view of the housing market as well as their comments on the viability of such a landscaped community.

The chapters include a survey of architects who are seeking to change the relationship between buildings and the environment dealing with such issues as environmental technology, energy conservation, sustainability and the conversion of all these elements into architecture as art.

Chapter 4 focuses on landscaped gardens and reviews some of the more innovative designers and their influence on the built environment.

Other stakeholder's views about the development proposal are considered including those of architects, financiers, local planning authorities and landscape designers. To ascertain potential demand for the development, estate agents and journalists who write for various broadsheet papers were also contacted.

Given the dynamics of bringing together a disparate group of people to design, build and maintain landscaped gardens, insights from a rural anthropologist are considered together with related marketing issues in how to target potential residents and the key communications that would be required to generate interest.

Keywords: *Trends in green / sustainable housing, communities, housing design in the UK, earth structures, importance of brand*

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Chapter 1

‘Introduction’

Abstract

1.0 Introduction

The dissertation reviews current green architecture and landscape design around the world with specific reference to the UK market. The review forms the basis of a case study which explores a new development proposal for a small-scale landscaped community set in a rural location on green field land.

A wide range of people were contacted across the housing industry and beyond. Conversations with senior executives of many of the volume house builders in the UK together with some of the more innovative small and mid-size developers identified key differences in the importance they attach to design, corporate brand and their view of the housing market as well as their comments on the viability of such a landscaped community.

The chapters include a survey of architects who are seeking to change the relationship between buildings and the environment dealing with such issues as environmental technology, energy conservation, sustainability and the conversion of all these elements into architecture as art.

Chapter 4 focuses on landscaped gardens and reviews some of the more innovative designers and their influence on the built environment.

Other stakeholder's views about the development proposal are considered including those of architects, financiers, local planning authorities and landscape designers. To ascertain potential demand for the development, estate agents and journalists who write for various broadsheet papers were also contacted.

Given the dynamics of bringing together a disparate group of people to design, build and maintain landscaped gardens, insights from a rural anthropologist are considered together with related marketing issues in how to target potential residents and the key communications that would be required to generate interest.

1.1 Aim

To explore the viability and associated issues of constructing a landscape garden community in Northamptonshire.

1.11 Objectives

To investigate:

1. Trends in green / sustainable housing
2. Communities
3. Housing design in the UK
4. Earth structures
5. The importance of brand

1.12 Further objectives

To understand whether the large developers build communities or houses and the implications of this on roads, paths, site drainage and choices regarding recreational facilities, lighting, landscape and security.

To define what is ‘good design’ in terms of its use, image, social and environmental value and the extent to which it is likely to feature in housing design going forward; to assess contemporary design approaches in landscape architecture and construction as well as review the dynamic between the industry as a manufacturer and their often-conflicting role as designers.

1.13 Hypothesis

It is possible to build a garden centred community.

The dissertation explores the issues associated with such a scheme. There was a time in the 60’s where innovative firms like SPAN built communities, but there have been few developments since.

There are medium size developers today, firms like Baylight, which seek to continue this tradition. Their focus is on architecture, with an eye on build quality and orientation, but they are not interested in public realm..... and I am.

The dissertation explores a type of community, which does not exist in the UK today, and asks whether there is a garden loving public (15 couples) who have the time, money and passion to commit to such a scheme.

1.2 Research methodology

The methodology incorporates a cross-disciplinary literature review on the housing industry, green architecture, innovative landscape design and group psychology, supported by communication with key building industry figures.

There are two categories of secondary sources: (i) articles published on trends in architecture and landscaping, and (ii) up-to-date studies from books and publications relating to planning, sociology, anthropology and environmental psychology in order to better understand the concepts involved.

The primary sources on which this dissertation are based include interviews with senior executives at the volume house builders, who in many cases were board members. In the interviews I asked about design and its importance in marketing, brand, whether you can uniquely position a firm, the importance of landscaping and topology to their overall schemes as well as their views on my development proposals.

I believe interviews to be a more effective way to gather information than the use of questionnaires with the associated problems of low return rates and the 'disconnect' between those who are typically charged with crafting such responses (junior PR types) and those who run the businesses.

1.21 Research strategy

The aim of the research surrounding this dissertation has been to gain qualitative information on the general issues.

An attempt has been made to gain information from senior executives within the housing industry. 17 firms were targeted including the top 10 house builders. Despite numerous attempts I have been able to speak to executives at only 8 of these.

It is hoped however that an overall and up to date picture can be gained and a satisfactory answer given to the research problem.

Research techniques

a) Primary research: numerous conversations with key industry figures within the building industry and beyond were used in the preparation of the dissertation.

b) Literature review: text books have also been used.

c) Secondary data: surveys and forecasts by various trade journals as well as quality newspapers have been of particular use. These illustrate and provide back up for the arguments put forward.

The homes at the proposed development will be a mixture of sizes and the project will also include farm shops where all manner of fresh produce may be bought, galleries, patisserie / cafe, and over time a children's nursery and possibly a number of show homes within the confines of an eco-center.

For the development proposal to work it needs to be commercial and it needs scale. Chapter 6 outlines the possibility of developing a number of businesses to bolt onto the themed garden attractions including consultancy, publishing and tourism, educational and over time our own weekly television show. To this end the concept of 'brand' is explored

in chapter 7 together with its importance as a platform for building an enduring and profitable business.

Approach

Conversations with planning authorities, communities and local government who oversee the authorities, an architect, senior executives at the volume house builders and other small and mid-sized developers have all contributed, as have a landscape architect, journalists who write for two of the broadsheet papers, various trade bodies, a financier, estate agent and a leading writer of fiction who has an interest in the ‘rural idyll’ as well as a cultural anthropologist; all contributing what I believe to be a broad and rounded perspective on the viability of constructing such a landscape community. In all, 29 people have contributed to the dissertation, across 15 categories of professions.

Statement of the research problem

The dissertation discusses the various and often irreconcilable concepts of ecological architecture and pleads for a design that not only calls for technological solutions but also longs to reconcile man and nature by aesthetic means.

The dissertation is intended as a general exploration of one of the most complex and problematic issues facing humanity over the next century – that is, how to construct a human habitat in harmony with nature.

The text is really more about opening up ideas and issues for investigation and identifying new directions in green design.

Background to the research problem

Does the customer care that much if the housing stock in this country is bland, boxy and ‘me too’? Throughout the dissertation, I attempt to define and rationally deduce what good design in housing means.

Along the way I seek to garner information from a number of house builders where 'design' is a key part of their marketing strategy and compare and contrast this to the volume house builders that offer only limited elevational treatments and floor plans. I also seek to understand why the main house builders construct such houses.

There are many questions I attempt to answer: Who benefits from such designs? What do the planners have to say and do they care what gets built in the UK? Does anyone particularly care? Where are the architects and why are they silent or are they part of the problem?

Who is the ultimate authority on what gets built? Is it the Chief Financial Officers in the volume house builders? If so, should we send them off to design school?

So, we can blame the banks for financing these houses, the planners, designers, contractors and developers who contribute to the uniformity in housing design, but isn't there something missing..... customers? What do they have to say about this? Don't they care what they live in?

Much has been written about building technology, particularly the need to shift towards carbon neutral housing which is more energy efficient but there has been very little empirical research into the process of housing design in the private sector, which I explore in this chapter.

Design is both a noun and a verb. It can either be the end product or the process. For the purpose of this dissertation both are reviewed.

Great design is well established at the exclusive end of the market, but it is the volume players in the mass housing market that needs most inspiration and it is this mass market as well as the more innovative niche end that form the focus of the dissertation.

1.22 Significance of the research problem (originality value)

My research indicates that no such landscape community along the lines of what I am proposing exists in the UK, the continent or anywhere in the US and I have reviewed over 1,000 examples of what could be described as ‘intentional communities’ around the world, principally centred on these three geographical locations but also further afield to the Oceanic region, including Australia and New Zealand and parts of Asia.

The review covered a broad spectrum of groups including developments that are set up with the expressed purpose of bringing together like-minded people to form a community, communities based around restoring the human tradition of cooperative living and sharing resources, cooperative housing groups, eco villages, community networks and support organizations. No such groups where the end creation is ‘innovative’ landscaped gardens, designed, built and maintained by the residents were identified.

1.3 Literature review

Very little of the available literature deals with design and that which does exist is often dated and is outside the remit of the aim and objectives of the dissertation. Prior to Hooper and Nicol (1999), the most extensive empirical study (Leopold and Bishop, 1983) was based on a 0.5 percent sample of private sector dwelling starts in the South East of England and related to the period 1975 – 1980.

Overall, research on design has tended to focus upon the monumental rather than the everyday, and upon commercial and industrial design rather than the design of dwellings (Punter and Carmona, 1997). Chapter 7 explores the mass-produced housing market, while chapters 2 and 3 review innovative housing and commercial building design around the world.

Hooper and Nicol’ research found that 90 percent of the largest house building firms utilize standard house designs, whereas the figure is close to 69 percent for those producing 501 – 2000 units. Of firms building in excess of 500 dwellings a year, over 75

percent utilized 20 or more standardized designs, the percentage rising to 89 percent for firms building in excess of 2,000 units (Hooper and Nicol, 1999).

This of course has major implications for ‘curb appeal’ (front and side elevations) and the urban design of properties, and for me, what I hope over time will be a shift away from standardised housing towards more use of designer front doors, more variations in window styling, guttering, down pipes, front gardens and on the inside more varied use of lighting, timber trims, internal doors, flooring and variations in kitchen and bathroom design.

Most research into residential design in the private sector has tended to focus upon the external aesthetic appearance of dwellings (Beer and Booth, 1981). What seems almost entirely absent from the research is any detailed analysis of the interrelationship of the whole building design process, so that the private speculative house building industry is blamed uncritically for adopting an overly conservative and populist attitude towards residential design. Developers have been criticized for their overall approach to design, and for their commitment to house building as a manufacturing, rather than a design process (Black, 1997).

Other dissertations emphasized air quality (Oseland, 1996). Clements-Croome (2005) drew attention to the characteristics and importance of the ‘environmental feel good factor’, while Hertzberg *et al* (1993) said that improving comfort beyond a certain level does not raise productivity.

A widely acknowledged difficulty with many of the benefits associated with good design is that they are hard to measure, or intangible, and this makes it difficult for those who procure buildings to assess how much it is worth investing in design and construction (Rouse, 2004). Rouse says that a number of corporate clients tried to measure architectural value to justify their investment. He argues that if the benefits of architectural quality and value can be demonstrated and quantified, then additional investment into the built environment can be released.

1.4 Development overview

The dissertation reviews the possibility of building a small-scale development (around 15 houses) set in around 500 acres of landscaped gardens; probably built on green field land, in a rural setting which over time could become a tourist attraction. The gardens would be designed, built and maintained by the residents.

The architecture will be bold and every effort will be made to blend the houses and themed gardens into one design feature.

People will be able to experience firsthand how the diversion of agricultural produce from human consumption to generate bio fuel impacts on society. There will be acres of different crop including, rape seed, wheat, oil palm, soy bean, algae, sugar cane, switch grass, hemp and others, all of which can be converted into bio ethanol or bio diesel and used to power transport, heat our buildings and generate electricity.

They will come to understand how soaring corn prices have sparked tortilla riots in Mexico City and sky rocketing flour prices have destabilised Pakistan. They will be able to learn about the basic problem with most biofuels, which has been largely ignored until now: using land to grow fuel leads to the destruction of forest, wetlands and grasslands that store enormous amounts of carbon (Gilbertson *et al.*,2008).

You read this in newspapers but when you engage with it and run your hands through the corn and know this could be made into bread, or what is increasingly becoming a more lucrative output for the farmers, bio fuel, then the debate starts to become more personal.

1.5 Findings

Some volume house builders construct houses while others build communities. According to a number of the developers I interviewed, Barrett's are house builders, while others like Urban Splash are perceived to go beyond.

Urban Splash' schemes frequently incorporate innovative architecture and site layout, attractive public spaces with a focus on developing on-site businesses. These are some of the qualities proposed in my scheme which are outlined in Chapter 6.

There is equally division among the major house builders as to whether you can 'build brand'. Many of those interviewed believe it is possible at a local level, though doubt was expressed as to whether this is possible nationally unless you have 30 to 40 percent market share. These ideas are outlined in Chapter 7.

Some developers focus on elevational treatments where you have a relatively small portfolio of housing types from which customers select different cladding, windows and guttering, internal features and in some cases house layout, while a select few recognise the attraction of good landscaping and the importance of having house and landscape as one design feature. While specific executives at the major builders were interested in my proposals, none were willing to embrace the concept as it falls outside their strategic plans.

1.6 Practical implications

There is a presumption against developing green field and it is up to the developer to make a case. This is certainly true across most of the country including the village of 'Cottesbrooke' in Northamptonshire which is the subject of the case study. The view of senior planners at Northampton Borough Council on obtaining planning permission to build on green field "slim to no chance" though there are precedents of green field sites obtaining permission which are explored in chapter 7.

APPENDIX

For further information refer to **APPENDIX 3** for a schematic of the three house types proposed for the development, **APPENDIX 5** for images of Cottesbrooke, **APPENDIX 1 & 4** for some of the architectural and landscape concepts which have influenced my designs, **APPENDIX 2** for images of the architects I profile in chapter 2 and **APPENDIX 6** for further information on subterranean houses.

Chapter 2

‘Green architecture’

Man can hardly recognise the devil of his own creation

Albert Schweitzer

What makes a green house? Are ecological materials and solar panels on roof tops the only signs of environmental architecture? Or were the designs of Antoni Gaudi and Frank Lloyd Wright even “greener” than the buildings of most contemporary architects, whose energy efficient houses do not differ visibly from traditional modernist architecture?

The text which follows explores how a heightened awareness of earth-centric information has influenced architecture. It is a preface for revised thinking about the relationships between construction and the environment, an exploration of new sources of form and content, and a confirmation that the building arts are in the early stage of a radical transformation that will ultimately change the way we live.

Too often the problem with so-called green architecture is the conflict between having a strong sense of mission and an admirable commitment to ecological design principles, versus an overly righteous moral posturing and a failure to convert noble objectives into an equivalent artistic expression (Frampton, K, 2007). For example, there is much talk of 'sustainable architecture' as an alternative to the industrialised societies' wasteful legacy of short-term construction. However, without art, the whole idea of sustainability fails. People will never want to keep an aesthetically inferior building around, no matter how well stocked it is with cutting-edge thermal glass, photovoltaic cells and zero emission carpeting.

The building of shelter consumes one-sixth of the world's fresh water supply, one-quarter of its wood harvest and two-fifths of its fossil fuels and manufactured materials (Energy Saving Trust, 2009). As a result, architecture has become one of the primary targets of ecological reform. Oblivious to these sobering statistics, the majority of architects continue to design buildings rooted in the style, spirit, and industrial technology identified with Le Corbusier's once prophetic “new epoch” (Cohan, J, 2004).

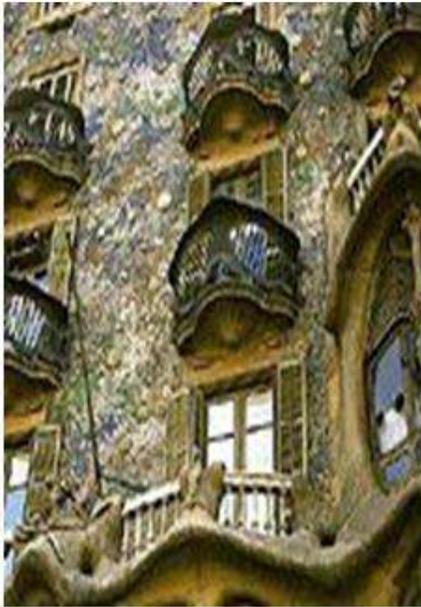
Whereas Le Corbusier referred to the house as 'a machine for living in', there is a new generation of architects who regard the earth itself as the ultimate 'machine' and the human habitat as an extension of the concept of Gaia, or the earth as a living organism (Jencks, C, 2002).



Le Corbusier – la chapelle



Antoni Gaudi – Casa Mila



Antoni Gaudi – Casa Batlló



Le Corbusier – the Villa Savoye

Figure 1: famous work of the architects Le Corbusier & Antoni Gaudi (Google images, 2009)

The challenges ahead

Compared to the environmental crisis, all other social, political, economic and scientific issues pale into insignificance. Obviously if humanity expires from global warming, over-population, pollution, starvation, and a lack of water, it will matter very little whether civil rights have been achieved, the Middle East is at peace or the current debt crisis is resolved. All of these threats to our survival are directly or indirectly related to environmental destruction.

In many ways this dissertation could be considered both too early and too late. Where there is inspired work being done today that qualifies as 'green' and 'sustainable', most architects' actual choices of visual interpretation are still locked into well-worn 20th century stylistic designs which tend to confuse, rather than reinforce, a progressive image of earth friendly architecture (Jodidio, P, 1999). On the other hand, from the stand point of advocating some much-needed environmental reforms in the building arts, this dissertation is too late.

The goal of sustainable living can be strengthened by such environmentally progressive innovations as the use of recycled materials, thermal (smart) glass, energy efficient construction methods and photovoltaic solar collectors.

There is frequently some justifiable solar energy, resource conservation and air quality related rationales for the continued use of technological features – for example, expansive plate glass walls, skeletal steel construction and exposed duct systems. But there also remains a lot of stylistic baggage that needs to be discarded – or at the very least, seriously re-evaluated to accommodate the development of a new ecology-based architectural language (Harbison, R, 1997).

As long as buildings are conceived as isolated 'big events', as monumental statements by their designers, all the same mistakes will be compounded over and over again.

Studies within the rapidly growing field of eco-psychology confirm that mental disorders, like schizophrenia, are frequently the consequence of humanity's alienation from nature. In a similar way, architecture, as a fundamental part of the matrix for human survival, can hardly remain separated from the larger environmental picture (Hertzberg, *et al*, 1993).

As an outcome, architecture should have one primary mission – to progress from 'ego-centric' to 'eco-centric' (Kim, *et al*, 1998). Architectural luminaries like Charles Jencks advocated a 'nature first' policy in the search for ideas, though he also advocated that formalist design and architectural innovation should be measured primarily by the familiar shape making, space making criteria identified with traditional space making art (Jencks, C, 2002).

Jencks favourite structures, as evidenced by his associations with other architects such as Rem Koolhaas, Peter Eisenman and Frank O. Gehry, are too often fabricated in such ecologically offensive materials as stainless steel and endangered wood products, or sheathed in obscenely toxic waste producing metals like titanium, copper and aluminium (Fisher, T, 2008). Frank Gehry's Guggenheim Museum in Bilbao is a case in point.



Figure 2: Guggenheim Museum, Bilbao, Spain (Great Buildings, 2009)

Rarely did the architects of early Modernism ever consider such issues as environmental impact, or the related psychological effect of their work on city dwellers as a consequence of this loss of contact with nature (Hertzberg, *et al*, 1993).

By insisting on a set of design standards divorced from ecological responsibility, architecture has forfeited its richest source of ideas, caused incalculable environmental damage and failed to communicate with the very community it is obligated to serve.

A major factor contributing to the longevity of buildings that have survived from the past is their fusion of nature and art. They had to be both earth friendly and beautiful to be worthy of preservation in the first place.

A good demonstration would be certain Italian hill towns with their century old buildings. These picturesque villages were ideally situated for defensive security when originally constructed. Their thermally efficient walls were built of regionally available materials; though the main key to the hill town's continued success has been an artistic value worth preserving (Harbison, R, 1997).



Figure 3: Castel del Monte, Southern Italy built in the 13th century (Google images, 2009)

In contrast, there are many admirable examples of contemporary green buildings, crammed with cutting edge environmentally favourable features that have neither met the test of time nor demonstrated much aesthetic value.

It is a normal experience to visit a well-publicised ‘ecological building’ and be handed a checklist brochure of its earth friendly virtues, while there is no visible evidence of any attempt on the part of the designer to resolve these contributions in terms of art. It may be green but it is boring architecture, such is the uniform look of the rammed earth houses at Hockerton, which feature five subterranean houses with a 19m frontage, near a village outside Nottingham.





Figure 4: house at Hockerton, Nottingham (Author, 2008)

According to Kim, *et al* (1998), sustainable architecture basically comes down to three purposes – first, to advance the purely selfish motive of survival by cooperation with nature; second, to build shelter in concert with ecological principles as part of this objective; and third, to address the deeper philosophical conflicts surrounding the issue of whether we really deserve the luxury of this existence given our appalling track record of environmental abuse.

New Technologies

Although people are rather fascinated by end-of-the-world scenarios, there is nothing particularly compelling about technical reports on photo voltaic cells, solar panels and thermal glass, all of their admirable green intentions notwithstanding.

Ecologically favourable hardware like thermal glass, solar collectors, photo voltaic panels, air filtering systems and recycled construction materials, which could all be used to enhance the final building-as-art-statement, are usually treated indifferently as 'installed' rather than 'expressed' elements of design, with no clues to their sources in nature or contributions to the expanded life of buildings (Atkinson, G, 2008).

This was borne out in a conversation I had with Alison Brooks of Alison Brooks Architects, one of three practices that designed the winner of last year's RIBA Stirling Prize (Accordia in Cambridge). A structured interview with Alison indicated a lack of awareness on the shortcomings of micro renewables and in particular, photo voltaics (PVs). Details of her comments together with those of others I spoke to are explored in chapter 7.

Like the confusion surrounding sustainability, the whole environment issue suffers from problems of definition, terminology and treatment in media exposure. The word 'green' itself is in danger of becoming as over-publicised and meaningless as passé terms like 'post-modernist' and 'deconstructivist' became years ago (Frampton, K, 2007).

Modern architecture is merely something – anything – which may be built today, but organic architecture is architecture from within outward (Hawken, P, 1993). Organic means intrinsic, in the philosophical sense, entity – wherever the whole is to the part as the part is to the whole and where the nature of materials, the nature of the purpose, the nature of entire performance becomes clear as necessity. For reasons that can only be explained by the inconsistency and superficiality of stylistic trends, Frank Lloyd Wright's ideas fell out of favour when modernism gained ascendancy (Frampton, K, 2007).

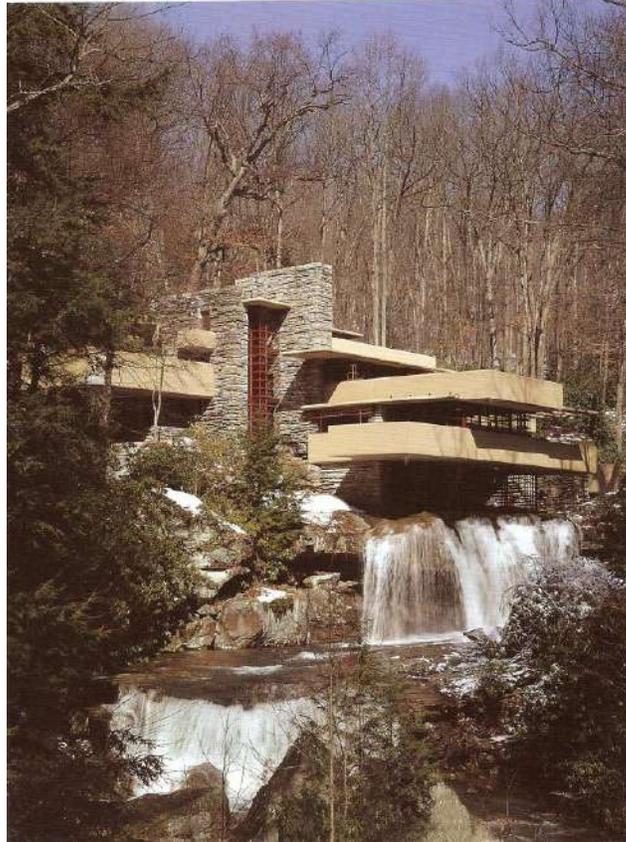


Figure 5: “Falling Water”, Frank Lloyd Wright, Bear Run, Pennsylvania, USA (Google Images, 2009)

Eco friendly construction

Cottesbrooke will seek to be different. Its very existence is just thatdifferent. There is nothing like it anywhere in the world. It will be outstanding and have the capacity to encourage greatness, in part because of the very nature of the architecture. Every effort will be made to incorporate many of the features which Harbison, R (1997) sets out in his standard eco-friendly checklist (which follows):

The construction of modestly scaled architecture as a logical alternative to mega-structure assaults on land and resources

The looming problem of global over population and the need for mass housing throws this solution into question. In any event, the preferred choice is clustered, low rise (fewer than six story dwellings) that maintain the close-knit integrity of the cityscape and do not bleed endlessly into suburban sprawl.



Figure 6: “El Mirador de Sanchinarro, Madrid, architect: Blanca Lleó Asociados (MIMOA, 2009)

This 22-level building, called Mirador, located in Sanchinarro, a residential suburb on the north east edge of Madrid is such an exception. Tower blocks can work and can provide a refreshing aesthetic experience according to the architects who designed the building, MIMOA, mi modern architecture (MIMOA, 2009).

Use of recycled and renewable materials

This directive proposes that a great deal of attention should be paid to the original selection of construction materials; guaranteeing intelligent choices which have recycling potential as a result of their production technology and thereby assuring a built-in potential to be used over and over again.

Use of low-embodied energy materials

The objective here is to select construction materials with attention to the entire biography of their production. While, for example, a certain choice of masonry product may appear to be environmentally friendly from a manufacturing standpoint, it may still fail in its ecological standards when further research shows that it contains harmful chemicals, deposits toxic wastes during production and requires energy-consuming cross-country transport to get a supply.

Vast amounts of energy are used in the production of building products. One product's 'embodied energy' sometimes involves a complex series of processes that contribute heavily to the pollution of our environment, the depletion of natural resources and the degradation of earth. This embodied energy includes the energy it takes to extract minerals and raw materials, the fuel it takes to transport the material to the manufacturing site and the energy used at the plant to make the product. Also included is the energy it takes to use and later dispose of the product (Atkinson, G, 2008).

Some natural resources, like wood, have low embodied energy, because they can be processed in a relatively simple form from tree to 2x4. Aluminum window frames, on the other hand, require the extraction of minerals from the earth and the complexity of aluminum production, adding up to an embodied energy many times than that of wood. Use of products with low embodied energies can begin to slow harmful effects of industrial production (DTI.gov, 2007).

Raw materials:

- What and how many kinds of raw materials were used in the manufacture of this product?
- Are any of these raw materials renewables?
- Where do they come from and how are they shipped to the manufacture site?

Manmade products:

- What kind of manmade products, such as molds or templates, are used in the manufacture of this product?

- What means of reuse or disposal are available for these products?

Process:

- What is the process of manufacture for this product?
- How is the product transported to distributors?
- How is waste from the manufacturing process handled and is any of it recycled or reused?
- What is the packaging made up of? Is it recyclable?
- Can the product be reused or recycled after its first use? (Heartland, 2009)

Use of harvested timber

Every effort will be made at Cottesbrooke to use only harvested timber in construction and furnishings and avoid all imported exotic woods as much as possible.

Water catchment systems

While water is essential to all life on earth, it is also the most mindlessly wasted resource. Responsibility should also include the recycling of grey water and a commitment by cities and individuals to building-by-building catchment facilities, as insurance against extended droughts (an increasing possibility with the advance of global warming) and normal short-term shortages.

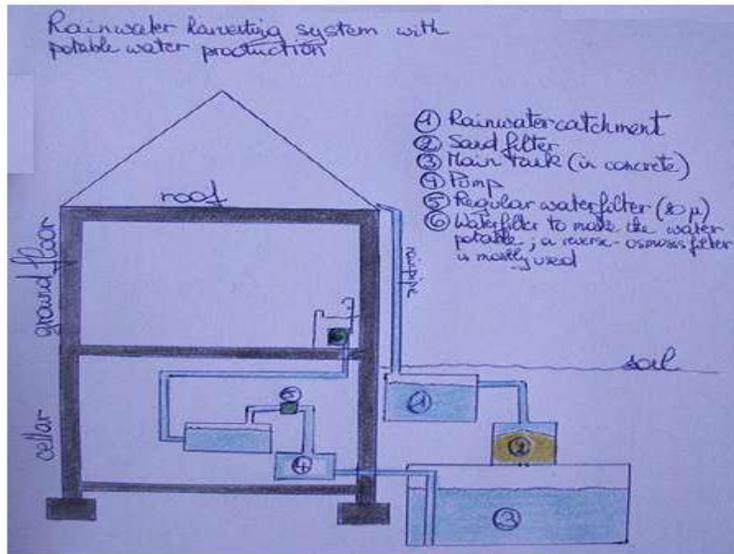


Figure 7: example of a rainwater harvesting system (Jacob Aldred, 2008 – my 11 year old nephew in Australia)

Low maintenance

This is a self-explanatory advantage in any form of shelter, since it encourages a cost-effective upkeep and a reduction in the use of fossil fuels for heating and cooking.

Preservation of the natural environment

Essentially the presence of one tree means four people can breathe.

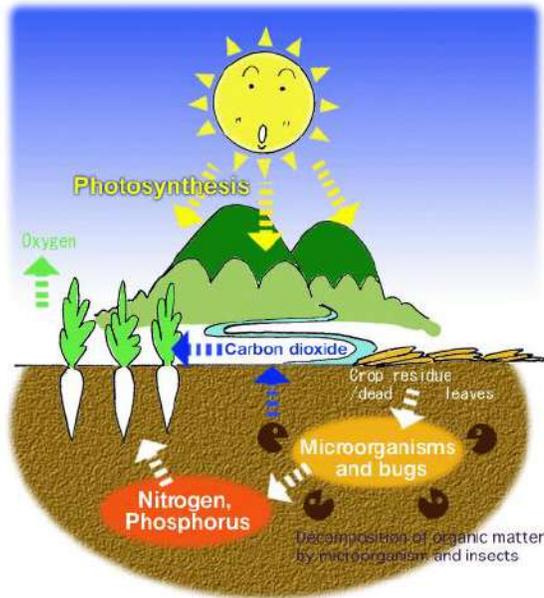


Figure 8: the natural environment at work (MAFF, 2009)

Recycling of building materials

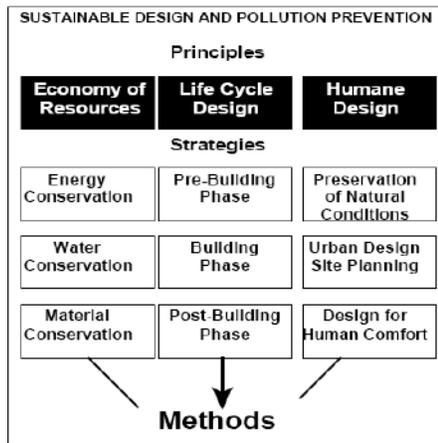


Figure 9: conceptual framework for Sustainable Design and Pollution Prevention in Architecture (Kim, J and Rigdon, B, 1998)

Energy efficiency

This refers to an increased use of diverse sources of energy (passive solar, wind power, water power etc).

Solar orientation

This is an extension of energy efficiency and prescribes that all buildings should be situated to take full seasonal advantage of the sun's position and its energy generating potential (DTI.gov, 2007).

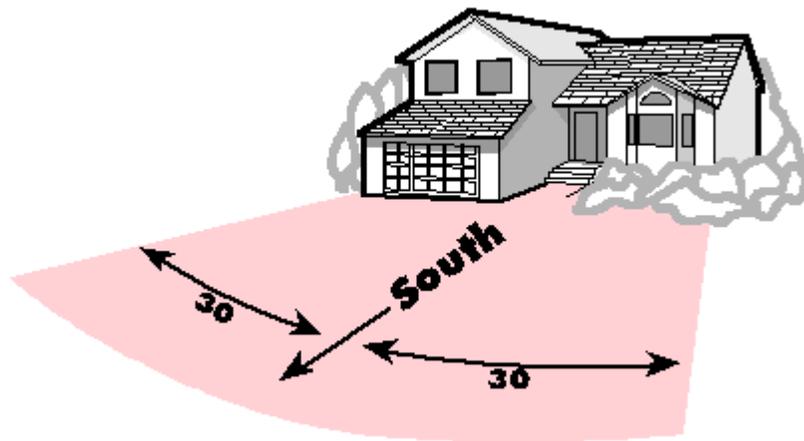


Figure 10: illustrates solar orientation and the most effective way to site a building (OIKOS, 2009)

Access to public transportation

While not a direct architectural design issue, the reduction of private vehicle transportation in favour of buses and trains is one of the bottom-line opportunities for energy savings and the improvement of air quality. This is one of the key negatives of Cottesbrooke, given its rural and isolated location, as far as any planning application is concerned.

2.0 The challenge for architects

According to Leopold, *et al* (1983), it should be noted, that however commendable these conservation measures, they represent various forms of expedient action – much of it too little, too late – and are put into practice only infrequently by those societies with the worst environmental track records.

Increasing numbers of talented architects internationally are exploring a range of approaches and definitions for a new ecological architecture.

For certain designers, the latest advances in engineering and environmental technology are central to their objectives; while for others it is important to return to the lessons of history and the use of indigenous methods and materials. For another group, the resources and topography, vegetation, solar energy and the earth itself are the means to achieve an expanded vision of organic buildings (Punter, *et al*, 1997).

For the purpose of this review architects are examined from the standpoint of the most distinctive features of their buildings and their own stated objectives in the larger environmental cause. From a list of over 100 architects, I identified 12 practices, which in my view, embody a unique design philosophy.

Architects like Emilio Ambasz fit most of the admirable characteristics of green architecture including fusion with context and innovative use of landscape. Ambasz is a visionary. In Japan his work is revered but here in the UK, Europe and across most of the US, his designs are treated with indifference.

Peter Vetsch is another pioneer whose work I admire. He has built a successful practice in Switzerland designing earth sheltered houses. His philosophy is about ‘not living *under* or *in* the ground, but *with* it’ (Vetsch Architektur, 2009).

His architecture stands out, in my view, because of its closeness to nature which allows an experience beyond the usual four walls and right angles.....such an experience is

also reflected in the work of architects like Thomas Herzog and Renzo Piano and Cambridge educated David Lea who continue to challenge the establishment.

These are some of the ideas I would like to embody in the designs at Cottesbrooke as well as many of the concepts and philosophies which follow:

The integration of architecture and landscape, the fusion of buildings with context, and using the elements of earth and vegetation in such a way that they seem to be part of the raw material of construction.

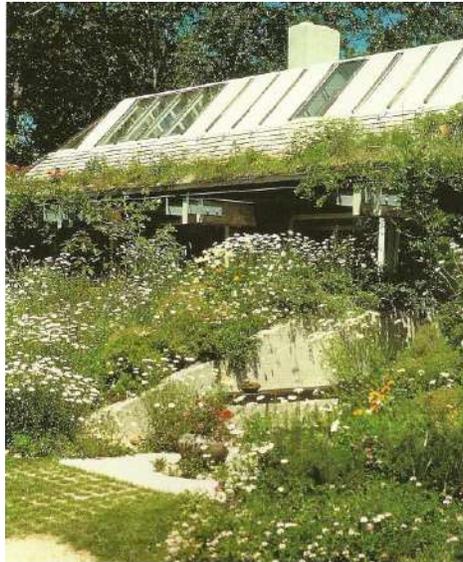


Figure 11: Malcolm Wells Brewster's earth shelter house, Massachusetts, USA, 1980 (Giambarba, 2009)

The combination of shelter and garden space, created as microcosms of real or imagined environments (like the Japanese concept of 'borrowed scenery').



Figure 12: garden at the Royal Palace of Katsura, Kyoto, Japan 1625 – 50 (JNTO, 2009)

Other philosophies and concepts:

- The use of nature related symbolism as a means of connecting architecture to its cultural context and to an earth centred imagery.
- A translation of the most advanced environmental and construction technology and their related materials and processes into aesthetic terms.
- Visionary and conceptual ideas in architecture and urban planning that offer prophetic visions for the future.

The question is always the same in architecture – just how much idealism can the field support? To be prophetic has its price and the history books are filled with non-building missionaries like Etienne Boullée, Antonio Sant’ Elia, Hugh Ferriss, Frederick Kiesler and Iakov Chernikhov who pursued their visions with great integrity, but rarely constructed anything (Fisher, T, 2008).

‘City of the future’

Architect: Iakov Georgievich
Chernikhov



Figure 13: Water tower of the cable-making workshop for the Krasniy Gvozdilshchik factory, St Petersburg, Russia, 1930-31 (ICIF, 2009)

‘Railway station and airport’

Architect: Antonio Sant’ Elia

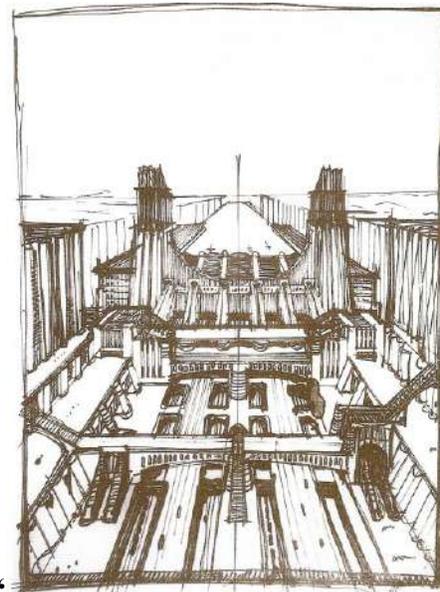


Figure 14: Perspective drawing from *La Citta Nuova*, 1914 (Archinform, 2009)

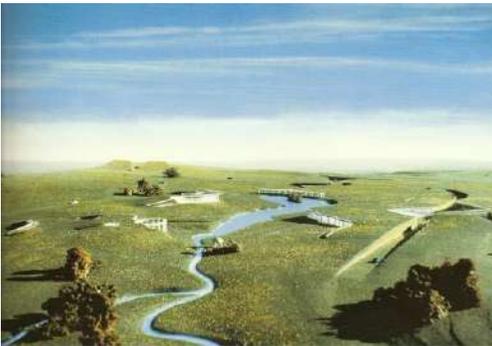
Some architects have constructed or conceptualised buildings which represent impressive models of architectural principles, yet in many ways remain as remote in appearance from the image of nature as their non-environmental counterparts. Instead of capturing a true sense of connectedness, or visually reflecting a broad-based earth centric philosophy

many environmental architectures demonstrates a rather moralising and showcase like approach (Hawken, P, 1993).

2.1 Critical appraisal of architects

Emilio Ambasz

His work is central to any discussion of environmental architecture and he has played an influential role in the integration of vegetation and terrain into buildings since the 1970s. Born in Argentina, he was educated at Princeton University, served as a former curator at the Museum of Modern Art and has been a major innovator in industrial design, as well as architecture and theoretical writing.



In the fullest sense of the word, his work is pivotal to the green architecture movement and he is among the very few practitioners whose ideas embrace the full range of ecological, urbanistic, philosophical, poetic, and aesthetic components.

He has had to endure client and community indifference to the ecological cause, resign himself to numerous cancelled projects and confront a wall of resistance from commerce and government to any ideas that question the supremacy of technocentrism.

**Schlumberger Research Laboratories,
Austin, Texas, USA, 1983**

Ambasz's conceptual direction fits most of the admirable characteristics of green architecture; the fusion with context, innovative uses of landscape, symbolism, environmental technology and visionary theory. His work owes a great debt to Frank Lloyd Wright.



Ambasz has said, "my work is a search for primal things: being born, being in love and dying" (Ambasz, E, 2006).

Lucille Halsell Conservatory, San Antonio, Texas, USA 1981 - 83

Figure 15: two examples of his work (Ambasz, 2009)



Figure 16: ACROS Building, Fukuoka, Japan, 1989 – 95 (Ambasz, 2009)

Oddly, although this structure is acclaimed in Japan, it has not yet received much attention in the Western design reviews and press (Jencks, C, 2002).

It is the peculiar fate of Ambasz's work to generate intense interest in those parts of the world where progressive industrialists, civic leaders and young designers have understood the importance of greening the cityscape, but then receive only moderate appreciation, indifference and sometimes even hostility in places still committed exclusively to technocentric glass and urban centres – or as Ambasz observed, cities that continue to make inhumane choice of "gray over green" (Richardson A, 2009).

The ACROS Building represents one of the most important examples of architecture *as the garden*, versus merely *sitting in the garden* (Jencks, C, 2002).

Ambasz says, "there is a philosophical question here: we have to redefine what nature is and what is man-made nature." In a situation such as the global one, certainly exacerbated in Japan, a tree exists either because someone planted it or because someone decided to leave it there (World Architecture, 2009).

Peter Noever

Noever has been periodically working on a major earthwork and underground / over ground dwelling since 1971. He recycled a 200-year-old abandoned wine cellar and adjacent quarry in Breitenbrunn, Austria. A series of earth berms and several wing-like concrete slabs, transformed the entire area. The Pit also relates to the earthwork's movement of the 1970s, which included artists like Robert Smithson, Michael Heizer, Robert Morris and Dennis Oppenheim (Hawken, P, 1993).

It is said that Noever's work "tests not the edge of sculpture but the edge of architecture" (Noever, P, 2005).

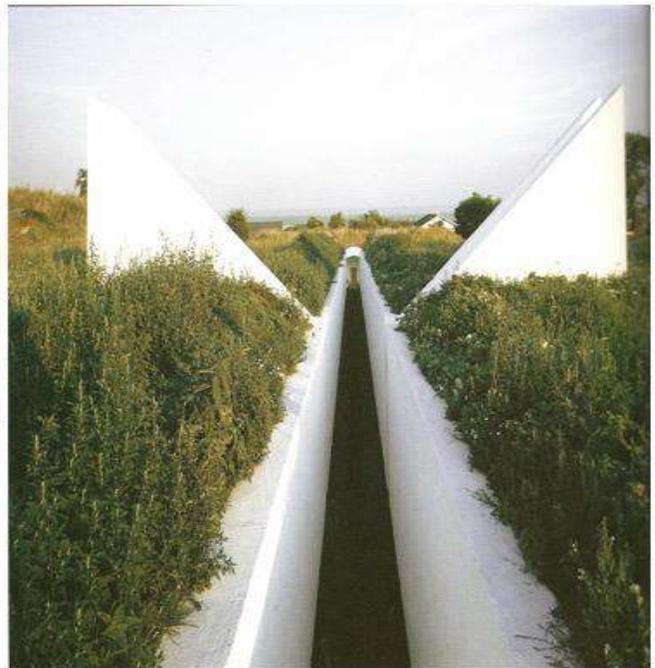
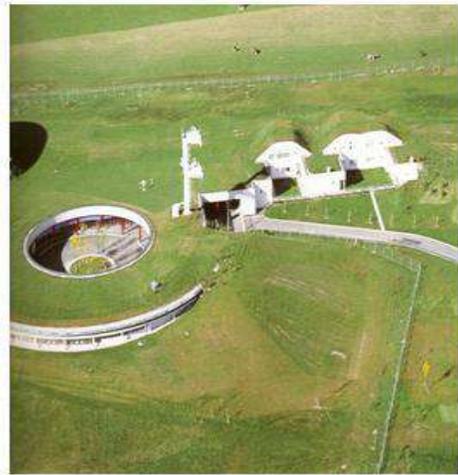
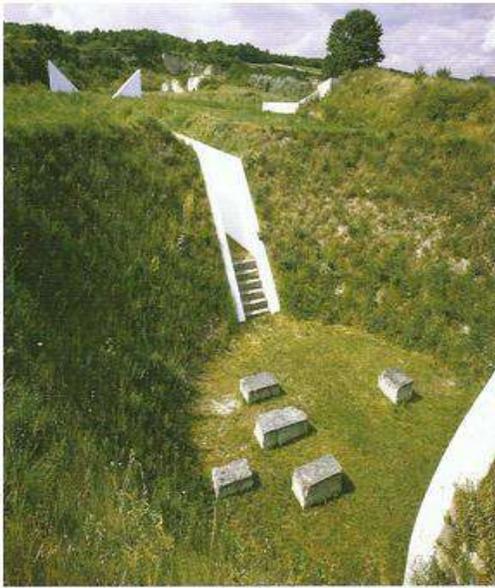


Figure 17: The Pit, Breitenbrunn, Austria, 1971 - present (Noever, 2009)

Jersey Devil

A group of architects came together in the 70s and called themselves Jersey Devil a reference to a satanic reference they associated their work with. They functioned like a green architectural 'hit-squad', basically camping out on a site to connect more intimately with its special peculiarities. One of the team, John Ringel explains. "A designer has to be in touch with the site...you might as well ignore gravity (Piedmont-Palladino, S, and Alden Branch, M, 1998).

From the perspective of an integration with context and the inclusion of regional terrain and vegetation, the partners, Badannes, Adamson and Ringel share many common ideas with Ambasz. The difference lies in their spontaneous, theory free, and anti-formalist attitude towards building with nature (Scott, B, 2003).

In their famous Hill House of 1977 – 79, near San Francisco, they combined what they call "hands on craftsmanship" with a sensitivity to site orientation (Scott, B, 2003).

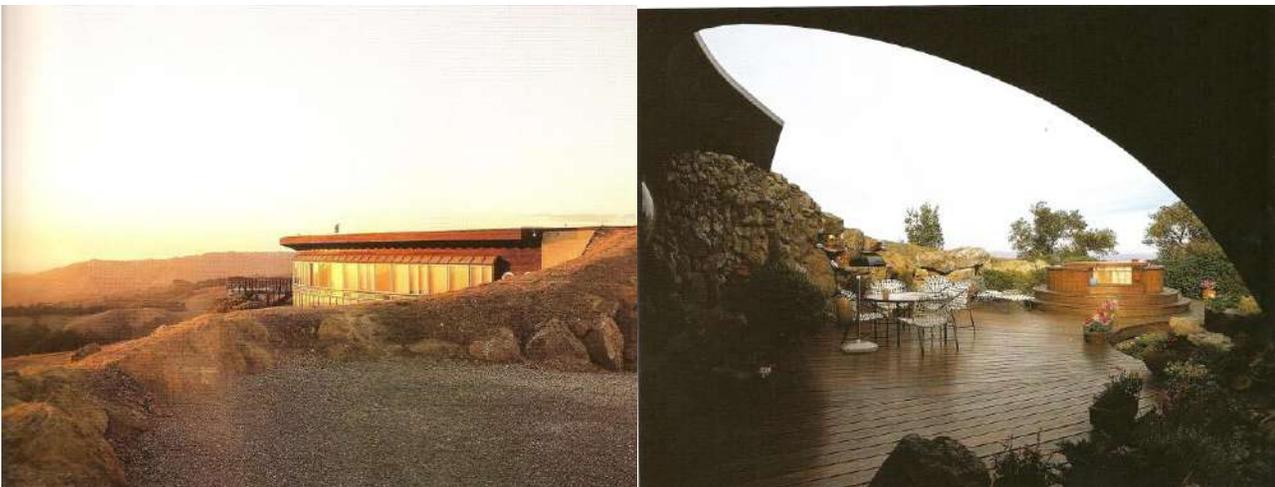


Figure 18: Hill House, La Honda, California, USA (Yestermorrowschool, 2009)

Arthur Quarmby

Quarmby has concentrated on rural sites and the promotion of a type of earth-sheltered structure he has identified as 'geostructure' (Jodidio, P, 1999).

His pioneering work in earth shelters started more than thirty years ago and as a result he has led the way by focusing on the most obvious difficulties involved with underground construction referring to severe temperature changes, excessive rain or snow and high humidity, all characteristics of rural England, where he has built most of his structures.

He embraces one of the most progressive aspects of carving into the land to create "invisible architecture" (Fisher, T, 2008). The purpose is to develop a complete fusion of habitat with existing topography, so that it becomes difficult to discern where building separates from landscape.

He sees that "blending into the landscape is by now too limited an aim" and proposes a greater readiness "to use the over-the-top landscaping...in order to create a striking or even startling feature in the landscape – but with the use of vegetation" (Quarmby, 1974).

He has built his structures with skilful attention to technical detail, set up monitoring systems to test results, and committed himself to living in an earth sheltered house. In pursuing his "zero energy – zero land use" goals, he has become a leading innovator in excavation, insulation, prevention of leakage, humidity control and interior illumination (Fisher, T, 2008).

The family home featured over the page, is built into the sloping hillside to a maximum of 4.8 metres. By means of skylights and reflection from an internal pool, the interior is flooded with light and as a result of the deep sod and vegetation covering the roof, the living spaces are said to be comfortable (Hawken, P, 1993).



Figure 19 Underhill, Arthur Quarmby, Yorkshire, England (Quarmby, 1974)

Peter Vetsch

Like all green architects today, Vetsch's work asks disturbing questions concerning what hope exists for slowing the growth of irresponsible mega structures that endanger all the principles of the Age of Ecology. The widespread competition for the "world's tallest towers" is based on the short-term economics of inflated land values, the profits to be gained from stacked-up real estate, which has been manifesting in record breaking high rises in the name of gain (Harbison, R, 1997).



Figure 20: Nine houses, Peter Vetsch, Dietikon, Switzerland (Vetsch Architektur, 2009)

The prospect, therefore, for any kind of widespread commitment to a technologically difficult and financially costly earth shelter of the kind suggested by architects like Quarmby and Vetsch, seems relatively futile (Hawken, P, 1993).



Figure 21: Earth house estate, residential house, Arni Switzerland, (Vetsch Architektur, 2009)

In her 1990 article entitled *Cave Dwellers in the Age of Plastics*, Kirsten Fuchs pointed out that Vetsch's iron armatures "deflect natural earth radiation and cause damage to human health due to unnatural bundling or redirection of such radiations. Also, the polyurethane that was used for insulation has been medically identified as a possible cause of allergies."



Figure 22: residential house, Madetswil,, Switzerland (Vetsch Architektur, 2009)

These criticisms suggest that Vetsch's earth sheltered architecture must substitute current materials with more natural choices, although this also increases costs and creates a further chasm between the motivations of profit focused property developers and the acceptance of green architecture.



Figure 23: residential house, Busslingen, Switzerland (Vetsch Architektur, 2009)

Designers like Quarmby and Vetsch with the help of environmental scientists, will undoubtedly come up with the answers to most eco-tech and eco-cost questions over the next decade, although this does not assure a marketplace for their services. There is a profound risk that only a handful of the converted (presently a miniscule percentage of the world's population) will even begin to think about underground architecture as a serious alternative to 'traditional' construction.

The work of Vetsch and Quarmby is based on the interpretation of environmental design as a condition of moral responsibility, where decisions about form are driven by an earth centric conscience and a conservationist view of humanity's role in nature (Hawken, P, 1993). Their use of locally available materials and fusions of structure with topography are as much a reflection of ethical standards as aesthetic choice. As a result, their buildings are purposely rural.

Charles Jencks

Jencks is primarily known as an architectural theoretician and advocate of Postmodernism. He has proven to be a leading voice in the environmental design movement. It is said that his critical texts have probably influenced the 1980s generation of designers more extensively than any living architectural writer since Robert Venturi published *Complexity and Contradiction in Architecture* during the 1960s (Frampton, K, 2007).

Jencks stepped away from his comfortable chair and sharp-edged pen to become a developer. One thinks of the decisions of certain art and theatre critics to exhibit their own paintings and stage their own plays. The move was particularly risky because he is vulnerable to attack on every level from those disgruntled practitioners he may have trashed or ignored altogether, during his many years of critical writing.



Figure 24: The garden of cosmic speculation, Scotland, 1989 – present (Jencks, 2009)

The main park areas were created with a thoughtful design program, composed of interlocking earth mounds, water basins and plant materials. Jencks wife was a leading scholar of Chinese gardens and brought to the project knowledge of Buddhist meditation environments and the Japanese Zen concept of "borrowed scenery" (Keswick, M and Jencks, C, 1978).

Jenck's and his wife Maggie Keswick's plan for the estate garden in Scotland incorporates a series of existing hills and the remains of an old marsh. The rains of the region tended to aggressively wash away their artificial earth formations; because of this they decided to keep the mounding process fairly primitive and develop the final earthwork into a composition of site-specific twists and folds.

For all their good intentions and the environmental merits of their work, architects like Ambasz, Quarmby, Vetsch and Jencks/Keswick are still elitist and produce work that is exclusively available to affluent individuals who can afford to clear their consciences with an occasional gesture in the direction of ecological design.



Figure 25: The garden of cosmic speculation, Scotland, 1989 – present (Jencks, 2009)

What the green cause desperately needs is a universal commitment by governments to research and sponsor economically affordable green habitats and a grass-roots movement of hands-on builders who want to set an example of sane living at a reasonable price (Harbison, R, 1997).

While hardly representing the start of a global movement, the work of David Lea in North Wales and Gianni Pettena on the island of Elba shows what is possible with a low budget, a practical use of resources and a lot of inventiveness.

David Lea

Lea is an architect educated at Cambridge. Driven by a philosophy that "architecture cannot be divorced from nature", he describes it as a means "to recreate a corner of paradise" (Lea, D, 2002). His viewpoint sounds almost naïve in its simplicity; however, his observations are fully supported by psychologist Theodore Rosnak and a growing number of his colleagues, who have concluded that nature deprivation is a major cause of mental maladjustment. Lea's convictions are said to be profoundly felt and he believes that 90 percent of practicing architects in the world today could not care less about humanity's connections to nature and seem bent on maintaining this complacent state of detachment (Lea, D, 2002).



Figure 26: Studio in the West Country, 1985 (Lea, D, 2002)

The hut was constructed for £3,300 using bent saplings, chicken wire, cement reinforced with cow hair, straw insulation and reflective ceramic tiles (Lea, D, 2002). The dwelling was built by Lea and his artist client.



Figure 27: interior of ‘Studio in the West Country’, 1985 (Lea, D, 2002)

Gianni Pettena's house on Elba is even more primitive and low budget than Studio West.

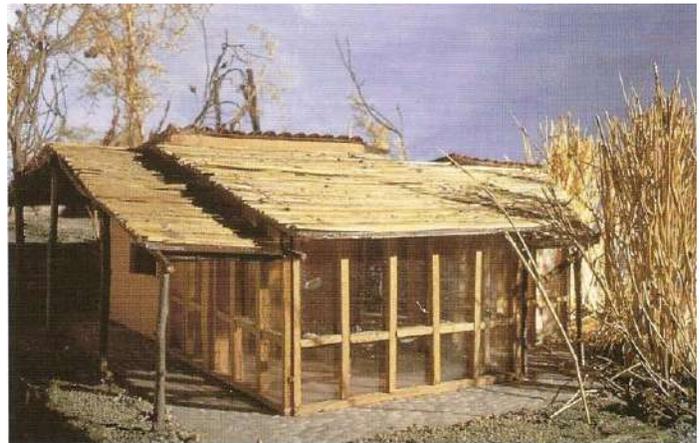
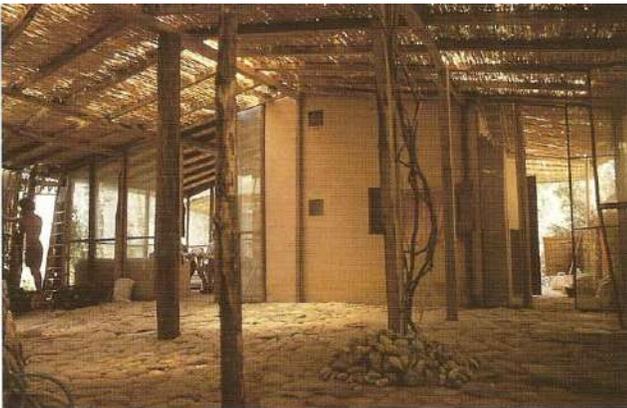


Figure 28: ‘House on the Elba’, Elba, Italy, 1982 – 85 (Pettena, G, 1999)

SITE

The architectural practice called SITE undermined the established aesthetic values of "real architecture", which were then (and still are) seen exclusively as a mission of form, shape and space making. A first-time viewer of one of the showrooms they created commented, "you know, I never thought about a building before I saw this one" (Frampton, K, 2007).

SITE decided that the iconography of these structures should grow out of a conscientious preservation of the natural environment by fusing the context into the buildings (Jodidio, P, 1999).



Figure 29: Forest Building, Richmond, Virginia, USA, 1980 (Jodidio, P, 1999)

David Arkin

Mary Star of the Sea Church in California (1995) incorporates green construction technology with aesthetic approaches. The building utilises grey water, converts organic waste into humus for the enrichment of soil and expands the uses of solar energy (Arkin Tilt Architects, 2009). Arkin has taught, written books, lectured globally and developed architectural projects to demonstrate his theories. As with many innovative voices, he has been resisted by the politically threatened, marginalized by the establishment and frequently denied access to design commissions (Frampton, K, 2007).

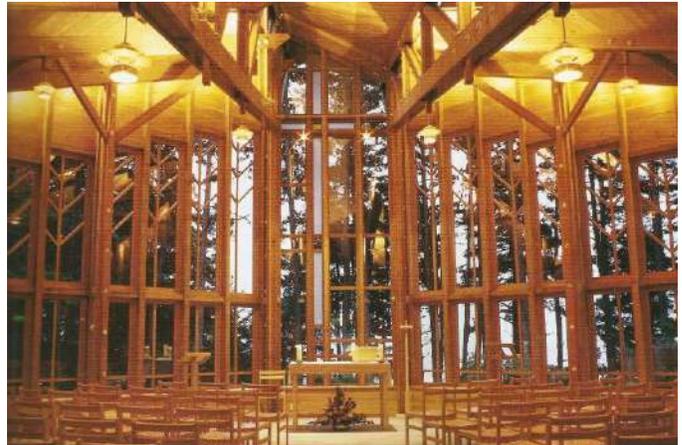


Figure 30: Mary Star of the Sea Church, Gualala, California, USA, 1995 (Weber, C, 2005)

Temperature sensitive hydraulic arms open the windows and prevent over heating; the heat from the sun is stored in the concrete floor. The chapel has a consistently comfortable interior temperature in all seasons, side walls that open up completely and allow parishioners to experience services in the open air, and a site orientation that enhances its combined environmental and religious experience (Arkin Tilt Architects, 2009).

Renzo Piano

Piano' Jean Marie Tjibaou Cultural Center in New Caledonia, located approximately 1,000 miles east of Sydney is a tribute to its sensitivity to the environment. From a green design and climate control perspective, Piano utilised weatherproofed bamboo – the world's most easily erected and rapidly regenerated raw material – as vertical elements that capture and control wind through adjustable ventilators (Frampton, K, 2007).

Borne out in the work of Quarmby, Ambasz, Noever and Piano, has been a greater sensitivity to site and the increased use of terrestrial materials and vegetation. Their work is admirable as regards the artistic outcomes however they fall short given their use of transformative manufactured metal, chemical and digital product steel (Jodidio, P, 1999).

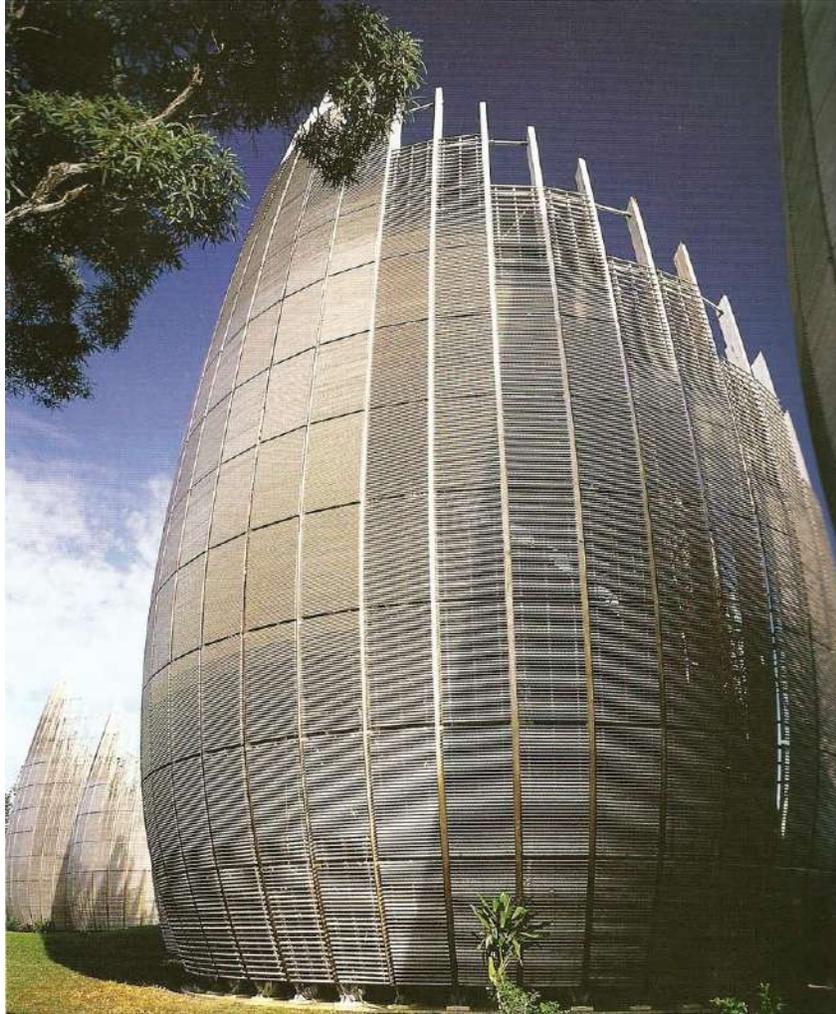


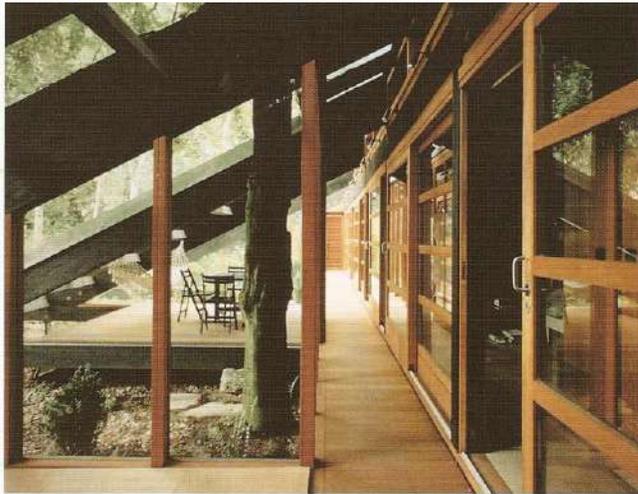
Figure 31: Jean-Marie Tjibaou Cultural Centre, Noumea, New Caledonia, 1992 - 98 (Jodidio, P, 2008).

The physician can bury his mistakes, but the architect can only advise his clients to plant vines.

Frank Lloyd Wright

Thomas Herzog

Is a practical man. His focus is on "constructional physics". He interprets technology as a response to such issues as zoning, natural infrastructure, economics, site restraints, solar energy and the thermal value of different materials (Harbison, R, 1997).



He says he is "not interested in being provocative; but in view of the all too familiar picture one has of the built environment - with the wretched structures of the past few decades - I don't feel obligated to conform." (Herzog, T *et al.*, 2008).

Figure 32: House in Regensburg, Germany (Herzog *et al.*, 2008).

Herzog believes in "less exhibitionism" and views architecture as "large, expensive objects with long term effects. For short term impressions they are the wrong objects, the wrong medium; but his argument is flawed by the fact that some of the most grand "exhibitionist" buildings in history have also been among the most enduring (for example the excesses of the Italian Baroque) and even a few extravagant indulgences planned for the short term (the Eiffel Tower and the Barcelona



Pavilion) have a secure place in today's world
(Harbison, R, 1997).

Figure 33: House in Regensburg, Germany (Herzog *et al.*, 2008).

His house in Regensburg (Germany) is high tech, but it is also comfortably integrated as a result of the use of lean-to timber beams and the feeling that it grows (plant like) out of its surroundings. All of the technology is visible. It has a glazed southern face, sloping roof for passive solar heat gains, natural limestone floor tiles for radiant heating, stilts to raise the building above the high ground water level and protect the beech trees and the general light weight construction materials that blend with nature (Herzog *et al.*, 2008).

The basic principle is to place the rooms requiring the highest indoor temperature, bathrooms for example, in the centre of the house, surrounded by rooms where the temperatures decrease proportionally as they get nearer the exterior. Heating comes from hot water under the floors. It is constructed using laminated timber; Mylar foil sunscreens are used on the interior while the planted roof and vertical trellis structure shade the east and west elevations (Herzog *et al.*, 2008).

LOG ID

Among the architectural teams most directly associated with progressive research is the German firm LOG ID. They are an interdisciplinary group composed of architects, engineers, medical doctors, botanists, physicists and communications technologists. Founded by Dieter Schempp, the firm has become a world class contributor to solar energy research and the economics of green technology (Harbison, R, 1997).



Figure 34: Glasshouse, Herten, Germany (Schempp, D, 1997).

In a similar way to Thomas Herzog's 'thermal onion' theory, the Schempp team created a series of buildings within a building construction using layers of wall that collect the sun's rays efficiently, allowing for a flow of controlled air temperature throughout the interior, making it possible to incorporate vegetation for air cleansing. Most of their work has focused on the office interior since it has traditionally been the most culpable villain in terms of its obscene violations of air quality and resource conservation in the working environment (Harbison, R, 1997).

They also understand the equation between the presence of light and its conversion to human energy – an ideal model where the maximum productive return is generated for the minimum of energy input.

Their research is based on the belief that inhabitants have the right to breathe clean air and enjoy a sense of well-being in the work place, as well as the client's right to lower fuel costs and build economically. They are about experiential as well as building a functional green environment (Frampton, K, 2007).

Architectural influences at Cottesbrooke

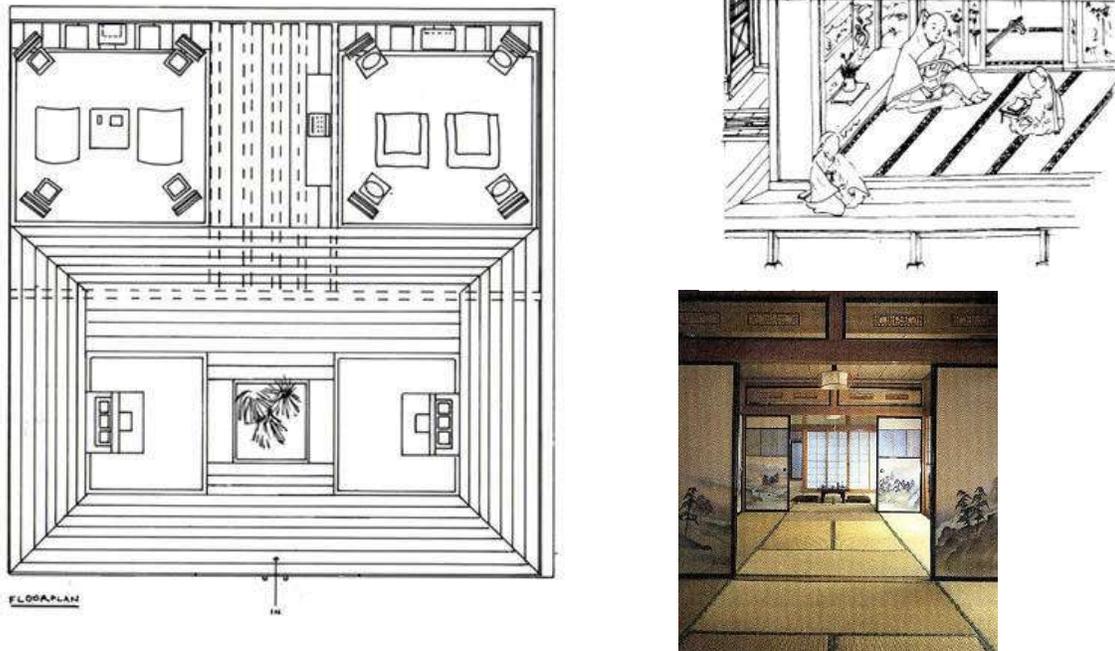


Figure 35: illustration of open plan spaces, simple interiors and high ceilings (Google images, 2009)

The space organisation of the traditional Japanese house reflects the theology of dual realms and is designed as a constant flow from interior to exterior. Just as the interior is like a garden, the exterior is like a living room (Young, *et al*, 2007).

**If you have ever walked through
a traditional Japanese room,
what stands out in your mind?**

- ❑ 1 Tatami mats under your stocking feet
- ❑ 2. Shoji panels filtering the outside light
- ❑ 3. A flower arrangement and a painted scroll exhibited in the small alcove framed by natural pillars.

Answer

All of these are elements of the traditional Japanese room.

Chapter 3

‘Green architecture at work’

3.0 Cost: green vs. traditional

The 'Real Goods, Solar Living Centre' in California includes straw bale insulation covered with several inches of pneumatically applied earth and cement mixture, a glu-lam support structure, cement columns, a sprayed-on membrane roof made out of recycled vehicle tyres and a re-used redwood trellis. The final cost per square foot is US\$90. Although this number is around 12 years old, at the time of completion in 1996, it compared favourably with conventional building budgets confirming that ecological design can compete (Frampton, K, 2007).

The Hockerton Housing Project, completed in 1998, is a development of five single storey earth-sheltered dwellings. Each house is 6m deep with a 19m south-facing conservatory running the full width of each dwelling. The cost of the homes was approximately £90,000 (£485/square metre) (Haywood, A, 2008).

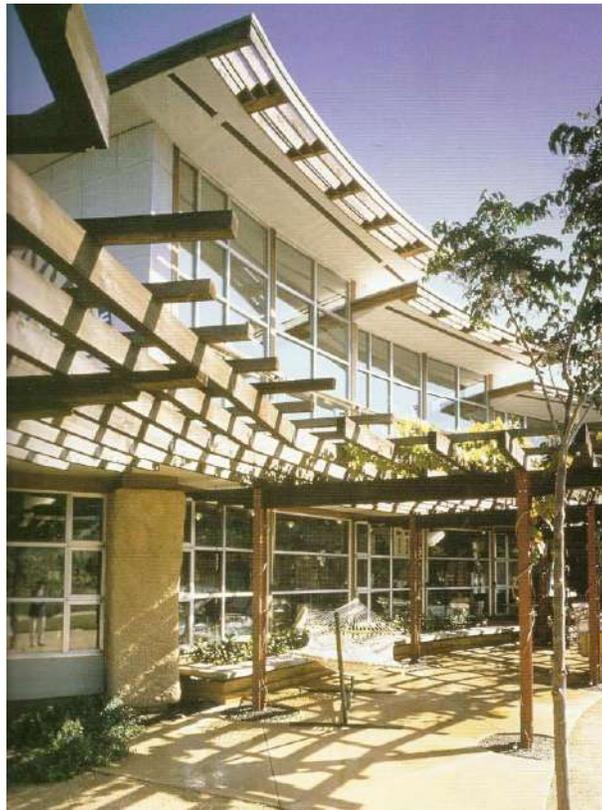
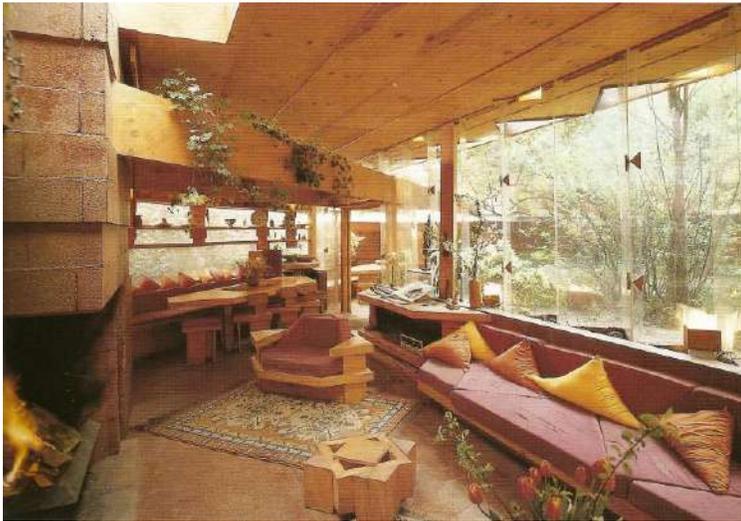


Figure 36: Real Goods, Solar Living Centre, Hopland, California, USA (CA.gov, 2009)

Experimental = extra cost

The experimental is frequently interpreted as a code word for cost overruns and a positioning of the client in the psychological uncomfortable role of seeming like a test case. Part of the game of selling ecological design lies in the ability of the architect to generate feelings of confidence. This marketing process usually means camouflaging the riskier aspects of green technology and its inevitable increased costs (Fisher, T, 2008).

Association Sens Espace



Association Sens Espace set up in 1969 in a Paris studio. The group is composed of architects, artists and engineers who support the currently held view of most environmental psychologists that nature deprivation is at the root of an increasing number of mental disorders (Frampton, K, 2007).

Figure 37: Sens Espace, Paris, France, 1988 (Google images, 2009)



The houses include familiar components of green construction including rammed earth, raw wood support systems, fabric coverings and passive solar energy. They believe in the ‘science of relationships’ (Architecture Week, 2001)

Figure 38: Sens Espace, Herault, France, 1990 - 96 (Google images, 2009)

Olson / Sundberg

They engage client input on a highly personal level – even providing illustrative collages to determine image preferences in the interests of making connections between architecture, nature and the residents preferred lifestyles. Their checklist of environmental features includes a total fusion with surroundings, sod roofs, recycled materials and solar orientated construction (Olsen, 2009).

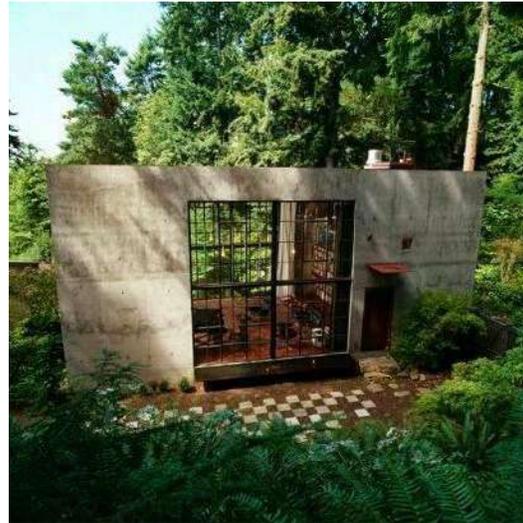
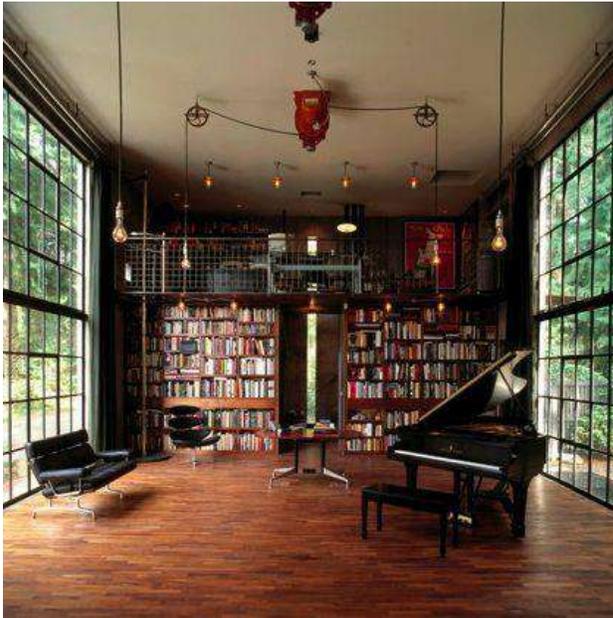


Figure 39: Chicken Point Cabin, Seattle, USA. Architects: Olsen Sundberg Kundig Allen (Google images, 2009)

Arizona Public Service Environmental Showcase Home

In 1992 the home was developed as ‘a shopping centre of green ideas’, with more than 150 available technologies, strategies and materials that can be readily used by the average home builder. The entire purpose of the structure has been to increase public awareness of the value of thinking environmentally and explaining the social, economic and quality of life advantages of green architecture (Jones, 2009).



Figure 40: Arizona Public Service Environmental Showcase Home, Pheonix, Arizona, USA, 1992. Architects: Jones Studio (Google images, 2009)

Australian House of the Future

Located in the Swan Valley Australia, the house uses 60 percent less fossil fuel and water than a normal regional dwelling. Its insulation is fabricated out of compressed newspapers, a carpeting made of soft drink bottles, floor and wall tiles using 70 percent recycled glass, cement blocks made with fly ash aggregate (a residual of burned coal, usually regarded as waste) and virtually all interior furnishings constructed out of harvested pinewood (Waymark, J, 2003).



Figure 41: Australian House of the Future, Swan Valley, West Australia, 1992. Architects: Kimberley Ackert and Robert Dawson-Browne (Google images, 2009)

The house has 8-inch concrete walls, shaded windows for heat deflection, thermal glass, passive solar heating system for water that uses no electricity or gas. The solar collector panels are filled with non-toxic liquids and mounted flush to the roof to avoid the typically unsightly appearance of such devices. About one half of the home's electricity is derived from photovoltaic cells with a southern exposure on the roof (Ackert Architecture, 2009).



Figure 42: Australian House of the Future, Swan Valley, West Australia, 1992. Architects: Kimberley Ackert and Robert Dawson-Browne (Google images, 2009)

Like the homes at Hockerton, one of the inherent problems with the Australian House of the Future is the impression that it demonstrates too little home and too much technology. In this sense it seems removed from the realities of everyday life.

The south facing elevation is the cooler elevation and protected by a rammed earth wall composed of an iron rich soil mixed with 4 percent cement (Ackert Architecture, 2009).

Toxic materials

Most accommodation (houses and commercial) have high levels of toxicity. The development at Cottesbrooke in Northamptonshire (profiled in chapter 6) is likely to have as standard some of the features set out in *Building Green: A Complete How-to Guide to Alternative Building Methods* (Snell, et al, 2006) including unpainted wood, water based colours, concrete block construction, non-toxic grout, natural stone, special glues, wall insulation with two sets of vapour barriers and a charcoal filtered air purification system to free the air of dust particles and formaldehyde residues.

Green advocacy

The three 'R's: reduce, reuse and recycle will be at the heart of the 'Cottesbrooke' community: promotion of passive and active solar energy, preserving virgin landscape, encouraging a more productive and economical use of water and demonstrating the option for low-maintenance architecture, as espoused by Roszak (1995) in his book, *Ecopsychology: Restoring the Earth, Healing the Mind*.

3.1 Nature first, architecture second philosophy

James Cutler (west coast, US, architect) believes that the entire act of construction should be approached in cautious regard to landscape because architecture is always an insult to the environment and therefore any building should expand upon and pay respect to the ecological demands and physical features that already exist in natural situations (Cutler, J, 2009).



Figure 43: example of James Cutler Architects work (Google images, 2009)

3.2 Criteria for assessing Cottesbrooke

The development should educate the public about the value of conservation. The merits should be credited in terms of realistic budget constraints, buildability, fragmented and uncontrollable elements of nature and the city. The purpose is to help bind the community together through a combination of unifying symbols and surprise interventions. The site will be built for walking. Future orientated issues of neighborhood preservation, social responsibility and the application of pluralistic values in architecture will also be considered.

A work of architecture, if it is a true product of environmental thinking, cannot be removed from a particular location without sacrificing its essential meaning. There are no clear-cut rules or guidelines that specify which ambient features a building must

include to meet these standards of contextual assimilation according to Hawken (1993), although it is probably safe to say that most viewers can tell the difference between a structure designed as an abstract sculptural object with no relation to anything but itself, versus one that responds to its surroundings through symbiotic relationships (Frampton, K, 2007).

Environmental thinking means that walls, facades, interior spaces and the general materiality of a building outside of their obvious contributions to architectural function can be seen as much more than physical components in the manipulation of form and space (Harbison, R, ,1997).

The ‘pedestal criterion’, which considers the relevance of a supported 3D architectural model to its environment, proposes that good buildings in replica form, particularly those with proclaimed environmental ambitions, can be weeded out from the bad examples based on whether they look more convincing installed on their intended sites or mounted on exhibition plinths. The pedestal test can throw new light on the ‘art versus design’ debate. Since the central purpose of architecture is serviceable shelter, its ‘art quality’ is usually assessed in terms of its degree of submission to or escape from functional restraints (Hawken, P, 1993).

Sociological aspects of green architecture

Troy West, in his role as a professor of architecture at the New Jersey Institute of Technology, often starts neighborhood recovery projects through the mechanism of class assignments and student intern programs. He has been able to advance environmental education by giving young people a unique opportunity to learn about construction and community values through hands on experience (Roszak, T, 1995).

Critique of utopia

Donna Goodman' floating city project (1983 – 1995) is based on a recognition that land deprived countries like Japan need to think about extending construction into the sea. Around 60 artificial islands have been built for housing and general urban expansion

during the past decade. Goodman's island would float at 40 feet above water level on large air filtered pontoons. The specific ecological features include water-based sources of energy, solar operated desalination facilities for water energy and kelp and algae farming for phytoremediation and toxin control.

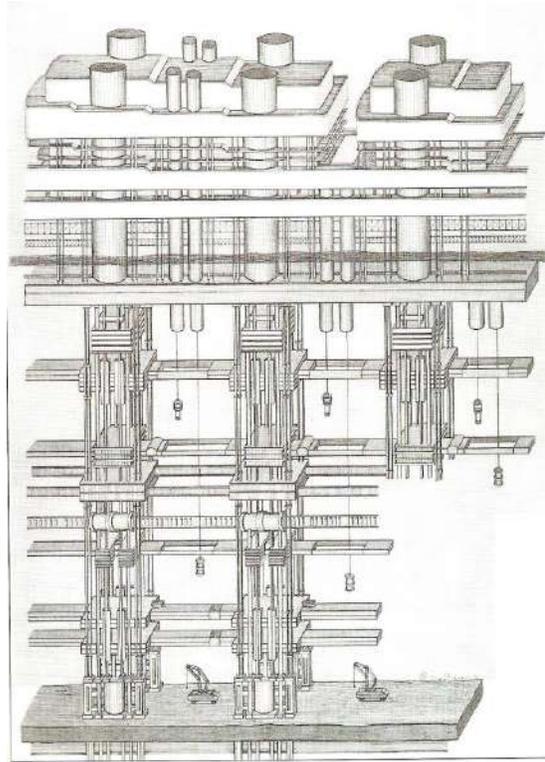


Figure 44: Donna Goodman' floating city project - 1983 to 1995 (Goodman, D, 2008).

Her various texts on the proposal provide a critique of the evils of past utopian plans and their authoritarian prescriptions for community life.

Architects delusion

Many of today's best designers fall prey to the same delusion that somehow the answer lies in leveling the land, laying down a rigorous grid and then erecting a plethora of glass and steel towers (Hawken, P, 1993).

3.3 Radical architecture often fails (historical journey)

There have been many outstandingly innovative buildings constructed during the past two decades based on the pioneering legacies of Modernism, Constructivism and De Stijl;

particularly those by Frank O Gehry, Zaha Hadid, Peter Eisenman, Richard Rogers, Rem Kool-haas, Eric Own Moss, Morphosis and Jean Nouvel (Stiegler, B, 2007).

In the 1970s we witnessed the intense and mostly un-built explosion of radical architecture, which often became a mission of social protest and performance art than a basis for viable habitat. During this period, we had the nomadic isolationism of Drop City communes, with their green guerrilla dome structures and Gaia inspired style, which lost its momentum for a lack of realistic objectives (Jodidio, P, 1999).

Postmodernism was succeeded by a resurrected neo constructivism which unleashed an explosion of sculptural excess in architecture and even the green movement in recent decades is already in danger of producing a fashionable glut of vine covered thermal houses with trees on the roof and a climate of environmental elitism seemingly destined to alienate, more than attract, potential friends of the earth (Stiegler, B, 2007).

The most blatant evidence of this conservative drift in the architecture of the 1990s is the ascendancy of the art museum as a preeminent cultural icon. The art museum is air tight, elitist, accessible around the world by paid admission (though generally free in the UK), obscenely expensive to build and its primary mission is to isolate art objects from public life (Hawken, P, 1993). While architects pursue museum jobs, rarely do the sponsors of art institutions demonstrate even a shred of environmental conscience.

Museum enthusiasts counter such criticism by pointing out that the unprecedented attendance in art institutions today is proof of a valuable community function – although clearly not from an environmental perspective. Museums seem to be a kind of culturally enlightening alternative to the enclosed shopping centre. Art is obviously deemed better for people's intellectual health than a glut of chain stores (Hawken, P, 1993).

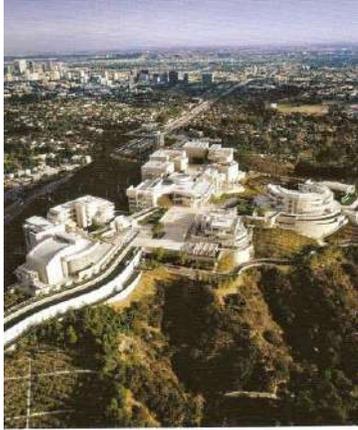
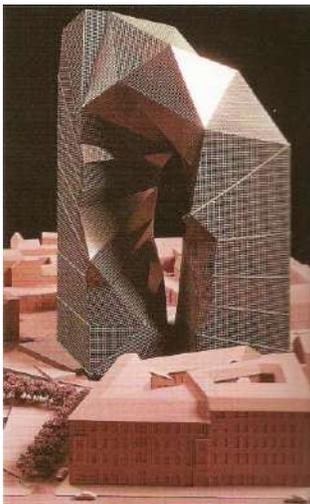


Figure 45: Guggenheim museum and Getty Center (Google images, 2009)

Most post structuralist philosophy in architecture today is turning away from references to deconstruction and chaos theory, in favour of ideas that could be considered more in concert with both the information highway and the ecology movement. One recent direction, referred to as “folding”, is being described with such terms as “pliancy”, “continuous and heterogeneous systems”, “fluid transformations” and “smooth mixtures of disparate elements”. Such architecture can usually be photographed apart from its context without a loss of meaning (Stiegler, B, 2007).



While some of the propositions of folding in architecture appear to be in accord with the new eco-sensibility, there is no real earth awareness or intent to fuse structure with context implied in its objectives; also there are no references to even the most elementary responsibilities of conservation technology and sustainable design.

The general interpretation of folding is that a building must always be some form of abstract sculpture in this comparable to a kind of architectural origami (Fisher, T, 2008)

Figure 46: Max Reinhardt House, Berlin, Germany, 1994. Architect: Peter Eisenman (Google images, 2009)

While much of this discussion seems to suggest a renewed sympathy for the organic architecture of Frank Lloyd Wright, the actual manifestations in built and model form (unlike Wright) tend to treat the surrounding environment especially landscape as a strange territory, typically populated by random grids of lollipop trees bearing little or no reference to the centrepiece building (Hawken, P, 1993).

Architecture is being interpreted as a system of “passages” (a design approach used in SITE’ Qatar Museum of Islamic Art). It is a concept that links buildings, landscape and elements of social, contextual and environmental communication. Some practical and conceptual problems occur in trying to apply the theory of passages to a standard formula for high rise architecture. When the cost of real estate becomes the determining factor in ecological and aesthetic decision making, the vision of an office tower as an example of “indeterminate and disparate elements” is difficult to sell (Stiegler, B, 2007).

There is now a fundamental question concerning their continued viability, especially since skyscrapers are increasingly conceded to be ecologically problematic as a result of their unreasonable demands on resources and questionable choices of construction technology. In fact, environmental protection laws in the future may ultimately prohibit all high-rise development in favour of low height and clustered buildings or of mostly underground architecture, as land surface becomes more precious and the need for urban agriculture increases.

New environmental architecture

The challenge is conceptually complex (Hawken, P, 1993). It means continuing to offer the essential standards of usefulness in buildings, preserving the most familiar characteristics of an archetypal imagery embracing the concepts of indeterminacy and the chance that dominate today’s philosophical communication (Fisher, T, 2008).

3.4 Green technology

It should be emphasized that virtually no form of shelter constructed today (with the exception of habitat built by a few remaining aboriginal cultures) can be credited as authentically green.



Figure 47: example of aboriginal shelter (Google images, 2009)

Every absorber plate and foil insulation required to build a solar collector, every chemical detergent used in a waste composting plant, every ream of paper needed to spread the ecological message and every drop of jet fuel consumed in transporting environmentalists to international conferences places an additional drain on these sources. In the larger picture, green architecture is still nothing more than band aid treatment where major surgery is required (Hawken, P, 1993).

In a majority of recent ecological buildings, green belief is measured primarily by the degree of investment in energy saving systems, the durability of construction materials, and the number of recycled products used in fabrication (Harbison, R, 1997).

Conferences on green technology, politics, aesthetics and theory abound these days and the older generation of designers is gradually being forced into the recognition that major changes are at hand.

Green architecture will work because it is cost effective, functional, aesthetically challenging and responsive to nature's demands (Frampton, K, 2007).

The entrenched systems controlling every aspect of human survival and its interaction with the environment are such that escape is virtually impossible without rejecting (or at least radically modifying) most of the high energy demand conveniences associated with food supply, disposable products, temperature control, vehicular mobility and communication technology (Fisher, T, 2008).

Skeptics

Thomas Lovejoy observed: “I fail to see that there’s any conclusion to draw from all of this other than there will be massive extinction no matter what we do in the way of conservation. Therefore, the only logical conclusion is to prevent as much of the climate change as possible” (Hawken, P, 1993). The specific villain in this final scenario is still speculative – global drought, massive crop failures, nuclear waste pollution, atomic explosion, lethal viruses, but some unprecedented catastrophic event is deemed inevitable.

Frampton (2007) asks, why have 20th century philosophy and linguistic studies produced so few persuasive voices whose sources of signs and symbols have been drawn from the natural environment?

Let the architect be educated. Skillful with the pencil, instructed in geometry, know much history, have followed the philosophers with attention, understand music, have some knowledge of medicine, know the opinions of the jurists and be acquainted with astronomy and the theory of heavens.

Marcus Vitruvius Pollio

“Let us beware of saying there are laws in nature”, Friedrich Nietzsche observed. “There are only necessities: there is no one in command, no one to obey, no one to transgress. When you realize there are no goals or objectives, then you realize, too, that there is no chance: for only in a world of objectives does the word ‘chance’ have any meaning” (Roszak, T, 1995).

3.5 Architects still have to operate in the world

The history books are filled with non-building missionaries and messiahs – Etienne Boullée, Antonio Sant’ Elia, Hugh Ferriss, Frederick Kiesler, Lakov Chernikhov, John Hejduk, Peter Cook, Cedric Price who pursued their visions with great integrity, but rarely constructed anything. The day to day survival mechanisms of architecture still require the designer to get up in the morning and make a living. This usually means one of two choices: resigning oneself to a teaching job in academia or taking on the next available commission for some dreary commercial shopping centre or anonymous office tower (Harbison, R, 1997).

3.6 Architects link with nature

Two of the most astute observers of natural phenomena in the early 20th century were Antoni Gaudi and Frank Lloyd Wright (Fell, D, 2009). In both cases they studied how plants grow, analysed land surfaces, evaluated seasonal change, researched geology and learned from the interconnected processes through which nature achieves its miraculous states of evolution and perpetuity. They watched, learned and created from the most subtle levels of earth centered cause and effect. It is well known that Gaudi studied the intricate physiology of leaves, flower stems and tree trunks as models for the structural systems used in his buildings.

Wright, for his part, contemplated soil erosion, rock formations and climatic influences as sources in determining the formal structure of his architecture and the way it established a dialogue with context.



Figure 48: example of Gaudi' work (Google images, 2009)

We know that the white man does not understand our ways. He is a stranger who comes in the night and takes from the land whatever he needs. The earth is not his friend, but his enemy, and when he's conquered it he moves on.

American Indian Chief, Seattle

Refrigeration

The 'Advanced Green Builder Demonstration' in Austin Texas is looking at new ways of refrigeration. One idea incorporates a natural mineral called zeolite, originally used by Sioux Indians. It is a mineral that absorbs and desorbs moisture and can be used as the basis of a refrigeration system (Mumpton, F, 2009).



Figure 49: Laredo demonstration blueprint farm, Austin, Texas, USA (Google images, 2009)

The building (previous page) seeks to demonstrate the need for solar energy, sensitivity to land and water preservation and a desire to connect to the surrounding context.

Farming

There is the classic absurdity of vast one-crop agricultural communities in places like the Mid-West in the US. They are plagued by equally specialised plant diseases and insects but deprived of these pests' natural enemies because the predators are overwhelmingly out numbered (Filson, C, 2005).

The blue print farm offers an alternative to this kind of one-crop operation and has the additional advantage of setting the stage for diversified farming which could reduce the need for energy-consuming long-distance transportation in bringing food to supermarkets (Filson, C, 2005).

3.7 Summary

The age of ecology is a critical point of transition and connection. It has arrived for some architects, threatening their beliefs, stylistic preferences and routine work methods. For others it has become the revolutionary and resource saving opportunity to develop a new technology (Harbison, R, 1997). For more thoughtful architects it has been seen as the beginning of a deeper awareness of the earth and a cause for re-thinking the foundations of architecture by blending art, philosophy, technology and nature's integrated systems.

20th century societies universally lost contact with the earth on a level unprecedented in history. The opportunities for a reversal of this catastrophic trend are usually lost to political expedience, popular ignorance, and environmental programs biased in favour of economic advantage (Roszak, T, 1995).

Now that the issue of global warming is a confirmed fact (and not just a controversial theory), the international business and government communities are holding a series of urgent conferences to seek global remedies. The bottom line is always focused on adjusting environmental reform to accommodate the insular objectives of profit margins, share values, interest rates, employment levels, gross national product, etc.

National economic success can no longer be measured purely on productivity and monetary growth. Instead, progress must be evaluated in terms of ecological impact. In this way the costs of environmental restoration resulting from the depletion of resources, quantity of pollution produced and other forms of damage must appear as deduction from profits on all balance sheets as both an immediate deficit and a long-term liability (Fisher, T, 2008).

The earth is erroneously seen as an endowed bank account (Hawken, P, 1993). There seems to be a universal illusion that resources can be infinitely withdrawn without re-investment and usually without even paying the interest rates.

An earth-centric approach is the only option for the human habitat to regain its iconographic and functional relevance.

The election of President Obama may in some way fundamentally change the entire structure of economic values and the re-training of large segments of the work force in preparation for growth industries like waste management and environmental technology though that may change given the substantial investment earmarked for capital projects, public transport and investment in green technologies.

The fact is that people need and value human interaction more than ever because of computer technology. At 'art at the farm' in Cottesbrooke, people will be able to walk, talk, sit in doorways, tend their gardens and breathe cleaner air. Preserving this desirable reality is the basic goal of sustainability and the primary urban design challenge of the future.

Chapter 4

‘Landscape architecture’

4.0 Key definitions

It would be helpful to provide some definitions to assist with the discussion that follows, thus:

Garden

- An architectural and horticultural composition of interest to the public from the historical or artistic point of view (International Council on Monuments and Sites, 1981)
- The term 'garden' could equally well apply to landscaped parkland, cemeteries, allotments, cultivated and managed green areas in an urban context

Garden design and landscape architecture

- They are sometimes used interchangeably although scale may be used as a dividing point
- The division also relates to the growth of professional training during the 20th century which allocated the design of green spaces in urban settings to landscape designers and private gardens to garden designers
- The emergence of 'land art' reversed the separation of garden and landscape and added sculptural element to them both

Land Art

- Land art, environmental art or earth works, are terms which have been applied to a form of land sculpture which emerged in the US in the late 1960's
- The concept has been accepted in a variety of forms and scales in landscapes and gardens
- Some are temporary, when there is an underlying theme of process, others are permanent

Source: 'Modern Garden Design – innovation since 1900' (Janet Waymark, 2003)

'One must be suspicious of open gardens that allow the possibility of discovery at first sight. I love the beautiful gardens of the east, divided by arcades and hedges that form enchanting enclosures that value spaces and transform nature into a true home'.

Luis Barragan (1902 – 88)

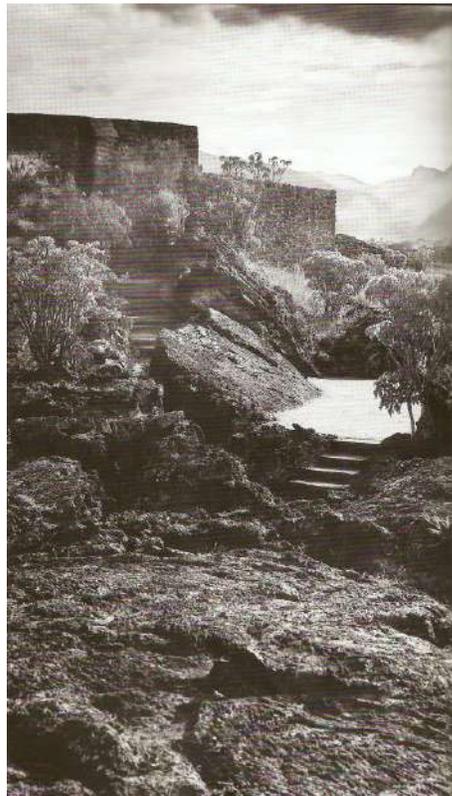


Figure 50: 'El Pedregal', designed by Barragan, is part of a development made on a lava field, 1945, Mexico (Waymark, J, 2003)

4.1 Gardens

Garden design has been a very conservative art form, constantly looking backwards, taking its lead from art and architecture.

In her book *Modern Garden Design – innovation since 1900*, Janet Waymark writes, ‘if you can't understand the cultural context you cannot understand the garden’.

There are many different types of gardens including gardens of philosophers, landscaped parkland, cemeteries, allotments, cultivated and managed green areas, which she advocates should be studied in relation to the surrounding buildings and both in relation to the landscape.

Such gardens are governed by their physical backgrounds – climate, soil and aspect; but it is the gardener, shaped by his cultural background, who shapes the garden (Mawson, T, 2008).

The history of gardens is a synthesis of different disciplines: the concerns of botanists, criminologists and soil scientists need to interact with the concerns of geographers, historians and economists to produce a coherent picture of the landscape (Roszak, T, 1995).

Edith Wharton (1862 – 1937) supports Waymark’s (2003) idea that the garden 'must be adapted to the architectural lines of the house it adjoins'. She espouses the Roman principles of utility of purpose and the designing of house and garden together.

4.2 Key influences on gardens

Arts and Crafts Movement



The movement reacted against the advance of industry, mechanization and urbanization, looking to the values of medieval craftsmanship and vernacular materials.

The Arts and Crafts philosophy embraced

by a country as varied in its climatic zones and immigrant populations as the US, resulted in different styles of gardens (McCarthy, F, 2003).



Revivalism was not a British invention, but the Arts and Crafts movement certainly was (McCarthy, F, 2003).

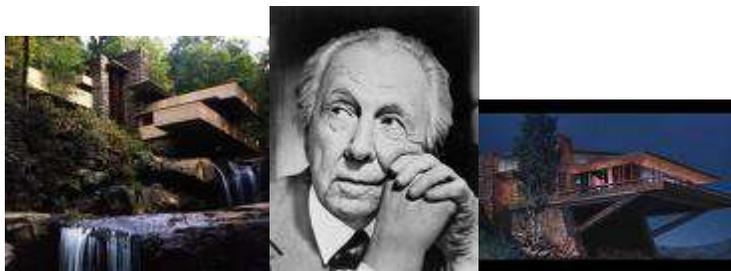
Figure 51: various images from the ‘arts and crafts movement’ (Google images, 2009)

Architects like Hermann Muthesius (1861 – 1927) and Frank Lloyd Wright (1867 – 1959)



Muthesius helped to spread distinctive German and American concepts of Arts and Crafts building and landscaping (Muthesius, H, 2007).

Figure 52: examples of Hermann Muthesius’ work (Google images, 2009)



Gradually the adoption of new materials such as concrete for hard landscaping and a recognition of the healthy outside lifestyle with its new requirements in gardens, announced the arrival of the Modern Movement (Fell, D, 2009).

Figure 53: examples of Frank Lloyd Wright’ work (Google images, 2009)

Cubism



Cubists wanted to experience all sides of an object, to question its boundaries and even the concept of boundaries and as a consequence artist experimented with different planes in their depictions of landscape, still life and portraits which readily lent itself to architecture.



Cubism emerged from a productive relationship between Pablo Picasso (1881 – 1973) and Georges Braque (1882 - 1963) (Frampton, K, 2007).

Figure 54: examples of cubism (Google images, 2009)

Art Nouveau



Modern landscape designers failed to explore Art Nouveau, despite its appeal being apparently so closely connected with the 'natural'.

Austria and Germany's own versions of Art Nouveau show close connections with the British Arts and Crafts Movement. The movement disappeared with the 1st world war (Frampton, K, 2007).

Figure 55: examples of art nouveau (Google images, 2009)

German village



The physical expression of Nazi planned settlements was a return to the traditional German Village, with its roots in agricultural society, based in the eastern provinces as towns were required also elsewhere to build the industry needed for world domination.

Allotments became part of the process, as they were seen to bring about 'direct attachment to the soil'. The model for resettlement was provided by the geographer Walter Christaller (1893 – 1969) (Waymark, J, 2003).

His Central Place Theory was extended by the Nazis, to determine where country towns, railway stations and villages would be built on land cleared of undesirables and 'Germanized' by the inward movement of more suitable populations (Waymark, J, 2003).

Figure 56: examples of German villages (Google images, 2009)

European landscapes



Sculpture became an active, instead of passive, element in outdoor design. Following the war, European garden design found national styles of its own. The Beaux-Arts tradition which was followed by modernism faded, as did the English Landscape movement and Arts and Crafts. The rediscovery of national identity was as important as the move towards naturalism

(Hill, P, 2004).

Figure 57: examples of European landscapes (Google images, 2009)

English gardens



Post war made the roles of garden and landscape designers respectable. It was no longer possible for one person to carry through a whole enterprise alone.

The landscape architect, it was argued, should be 'more than a mere planner of gardens'. He should be involved with the integration of existing features such as trees and streams into the overall open space pattern, linking houses, shopping centres, parks, playgrounds, and 'all the planting problems involved in the building layouts, the verges, the street trees, house gardens and so on (Buchan, U, 2006).

Figure 58: examples of English gardens (Google images, 2009)

The early thinking on the New Towns was influenced by Ebenezer Howard and the Garden City movement, with its aim for a balanced community which owned its own settlement and was provided with work within the town.

4.3 Land settlement and history in other countries

It was promoted again in 1945, extolling the nineteenth century values of self-help, character building and stabilising the countryside. According to Waymark (2003), Americans studied the English experiments closely, because their experience of overcrowding was similar. Waymark (2003) goes onto say:

In **Paris** the high-rise superblock *cite-jardin*, with space in the centre for allotments, continued to be built in the 1930s.

In **Russia** there was much pre-Revolution interest in 'garden villages' and 'garden suburbs', the garden settlement having some connection with Russian village life. Moscow's general plan of 1971, projected to 2000, encompassed a green belt and better protection for the forest it contained.

The **Australians** took principles of housing, town planning and regional development from the Garden City and the garden suburb is still considered an ideal environment in a spacious country.

In **Japan**, neither government, academics nor architects fully engaged with the meaning of the garden city in Howard's terms, and it was variously translated as the 'flower garden city' or the 'vegetable growing city', ignoring the social considerations and interconnections of both town and village.

The pressure of population growth underlined the inevitability of large cities and planners abandoned the garden city in favour of the garden suburb.

In **Sweden**, people perceived that gardens should be made for everyone, not the elite estate owner. 'All gardens are nature' they would say. The Swedes appear to have returned to their 'natural' roots and in this, they may have been further encouraged by a period of isolation during the Second World War. Thin topsoil in many places has restricted the range of plants which will grow. The climate offers long, cold winters and hot summers which encourage the population to make the best of a short period of outside living. They are about empathy with the site. A garden is designed by understanding and emphasising existing qualities, not by imposing what did not belong.

The **Danes** seemed not to have had the severe social problems associated with high rise in America and other parts of Europe. This may be because overcrowding seemed less severe in Denmark and because all stages of their housing, including recreational and green space facilities, were completed together (Waymark, J, 2003).

4.4 Garden designers

William Morris (1834 – 96) – Arts and Crafts Movement

It was perhaps his concern which encouraged the evolution of the philosophy known as the Arts and Crafts Movement. He was influenced by John Ruskin's *The Stones of Venice*. Ruskin's philosophy condemned the industrialists' drive towards capitalism, mass production and machine-made goods, with its implied rejection of the value of craftsmanship (Howard, E, 2008).

Both Ruskin and Morris believed this led to poor quality products and the loss of the ennobling character of work lovingly produced by hand. All products should be beautiful as well as having functional application and decoration should be based on natural forms (Buchan, U, 2006). This philosophy led to expensive goods which only a few could afford and a further encouragement to their mass production.

Morris employed local craftsmen, local materials and local methods of construction and the house and garden were expressly designed as one. He had a preference for the enclosed garden, given his early interests in the church and medievalism.

He was concerned about preserving wild flowers from the invasion of exotics. His legacy for the Arts and Crafts garden may be seen in his use of craft skills, local materials and local plants (McCarthy, F, 2003).



Figure 59: examples of William Morris' work (Google images, 2009)

Claude Monet (1840 – 1926) - Impressionism

His circle included like-minded painters: Alfred Sisley (1839-99), Pierre-Auguste Renoir (1841 – 1919), Gustave Courbet (1819-77), Camille Pissarro (1830 – 1903). He searched for 'the personal experience of nature' (Conrad, C., *et al*, 2006). This he achieved by concentrating not on the subject itself, but on the light and atmosphere around it, which were constantly changing. This was to mark the end of formality in planting which opened up new ways of using colourful plants, and they underlined the value of middle-class gardens in a world that had been dominated by images of grand estates.

Plants which he used included the Asiatic varieties of lily, penstemon, the deep blue *Salvia patens*, Japanese anemones, sweet peas, gladioli, asters, and larkspur. He preferred single forms of flower for their more natural effect. It is said that Monet appears to have created and planted his garden with painting in mind (Conrad, C., *et al*, 2006).



Figure 60: examples of Claude Monet' work (Google images, 2009)

Gertrude Jekyll (1843 – 1932) - Arts and Crafts Movement

She was a very motivated person, gaining craft skills herself, learning carpentry, embroidery, carving and metalwork. Her influences were varied. She met Monet and Morris. In the US, Jekyll's influence was strong among the many wealthy middle-class women who wanted to make gardens (McCarthy, F, 2003). As her books became widely available in the US in the first part of the 20th century, English flower gardens began to supersede the French parterres and Italian green gardens which had been the accepted style until then.

In her gardens she used drift planting of perennials. She massed the hottest reds and oranges towards the centre, grading through blues to grey at the ends with white being used to ease a change of colour sequence. Bulbs were planted along some paths, ferns encouraged along others and perennials such as lilies and lupins emerged on the woodland edges. These were high maintenance gardens.

Her drift planting with its colour sequences pleased English tastes and was copied widely in Europe and America. She used the full spectrum of the colour wheel.



Figure 61: examples of Gertrude Jekyll' work (Google images, 2009)

Other designers

Sir Reginald Blomfield (1856 – 1942)

Blomfield the architect argued that gardeners knew nothing about plants and should leave garden designing to those who did. He said that architects who knew nothing about plants should also leave garden designing to those who did (Waymark, J, 2003). The harmonious relationship of house and garden achieved by Jekyll speaks for itself.

Thomas Mawson (1861 – 1933) – steps towards modernism

He possessed the rare combination of architectural and horticultural skills and could take them forward towards modernist designs using new materials. He bridges old and new. His early designs are adaptations of 16th and 17th century gardens and relate to the

contemporary charm of 'Olde England' (Mawson, T, 2008). He was one of the first to use concrete and asphalt in hard landscaping.

He campaigned tirelessly for the education of town planners and for the university education of landscape gardeners. He admired the work of Edward Kemp (1817 – 91), who had said: 'It is much to be regretted that architects and landscape gardeners do not more usually work together, in complete unison.' He regarded garden making as both fine art and craft (Muthesius, H, 2007).

The US reinforced his recognition of the modern gardens as an outside room, with its lawns for entertainment and sport and its purpose as a provider of fresh air for healthy living (Mawson, T, 2008).



Figure 62: examples of Thomas Mawson' work (Google images, 2009)

William Robinson (1838 – 1935)

He rose from poverty through the ranks by hard work and self-education. His books were influential in the US and Europe, especially in Germany, where they resonated with the ideas expressed by Hermann Jaeger (Waymark, J, 2003). Frederick Law Olmstead acknowledged his influence in the making of Central Park, New York.

He felt that English gardeners were wasting areas of their gardens by overlooking the value of wild plants and hardy plants from other countries which would adapt very well to the English climate. He favoured lily of the valley, bluebells, foxgloves, anemones and violets.

Jens Jenson (1860 – 1951)

Jens believed that creating gardens was a skill borne of man's combination of art and nature, where natural landscapes should be appreciated for what they were and where planting should reflect the indigenous plants of the region.

‘Art must come from within’, he said. He recognised the importance of community and the health giving and spiritual values of parks in urban areas. His deep sense of democracy and history is a repeated feature of his work (Hill, P, 2004).

He said, ‘those with a real understanding of landscaping are very, very, few’ (Eaton, K, 1964).

Jensen's influence is said to have waned after his death in 1951, despite his involvement in some 700 commissions. His reputation had spread little until a chance discovery of records in 1987 in the vaults of the Chicago Park District rekindled interest and led to conservation of his work (Hill, P, 2004).



Figure 63: examples of Jen Jenson’ work (Google images, 2009)

Charles-Edouard Jeanneret (1887 – 1965) – known as Le Corbusier

He later adopted the pseudonym Le Corbusier and was raised in Switzerland. His architecture was derived from Cubism and advances in building methods which accompanied the use of new materials in particular pre stressed concrete and the ability to make large sheets of glass (Cohen, J, 2004).

He was educated at the Ecole d'Art in La Chaux-de-Fonds in art, architecture and sculpture and took issue with the architectural curriculum of over decorated buildings with little attention to the landscape in which they were placed, which were slow to erect and which he related to elitism in the form of the titled and powerful classes. He set down a number of rules in 1927 (Cohen, J, 2004).

These amounted to the use of a simple load-bearing framework of slim concrete-encased metal pillars to support pre-stressed concrete floors, leaving the outside walls free to accept ribbon windows extending all-round the building allowing uniform daylight to the interior.

However, he had no rules to offer for the landscape around the houses, other than it should be treated as natural, undisturbed and 'virgilian' (Waymark, J, 2003). He considered that a house should be placed in grass and trees, with no design which evoked the pastoral landscape of the Roman poet.

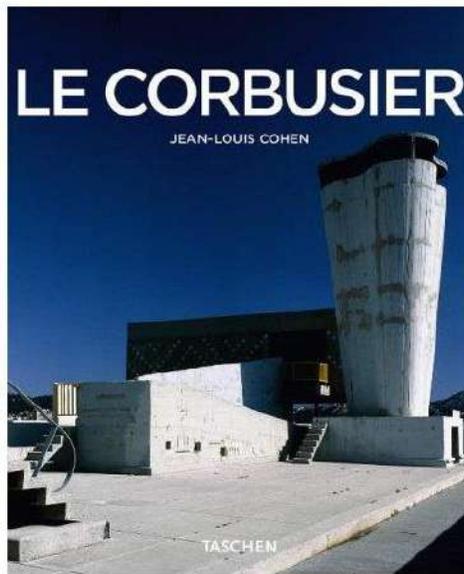


Figure 64: example of Le Corbusier's work (Cohen, J, 2004).

'The house will be placed on grass, like an object, disturbing nothing' (Cohen, J, 2004), which clearly does not apply in the illustration on the previous page but does in his most famous work below.



Figure 65: Villa Savoye, Paris. Architect: Le Corbusier (Cohen, J, 2004).

Recent commentators have questioned his ambiguous definitions of 'nature' and whether or not man controlled it. How 'nature' could remain 'undisturbed' by the placing of a man-made object within it and the minimal amounts of vegetation on the roof garden; such minimalist vegetation on the roof gardens may reflect a token relationship with the greenery outside and the practical problems of maintenance in sun and wind (Cohen, J, 2004).

More justified would be criticism of the lack of 'efficiency' and 'functional' skills which the architect showed in constructing a building which was leaking along the ramp by 1931, in need of restoration two years after building began, and was uncomfortable enough for its inhabitants to desert it soon afterwards (Cohen, J, 2004).

His ideas on gardens were to spread earth and leave the birds and the wind to do the rest, an idea I will embrace at Cottesbrooke. He was also known for the use of tower blocks, grouped with space between them, which he described as garden cities in the sky, claiming they released ground level space, removed people from traffic and formed high rise communities.

The reality and countless bleak imitations, failed the inhabitants they were designed to serve and their ideal gardens, above and below, never developed.

Frank Lloyd Wright (1867 – 1959)

Had an organic approach to house and landscape which he saw as indivisible. He painted out the vertical mortar joints in many of his designs to accentuate the long planes of the walls. All these features were in sympathy with the vernacular shapes of the prairie (Frampton, K, 2007).

Writing of his country estate at Taliesin at Spring Green Wisconsin where he moved in 1909, he said 'no house should ever be on any hill or on anything. It should be of the hill, belonging to it. Hill and house should live together' (Fell, D, 2009). The Kaufmann House, made at Bear Run Pennsylvania, 1936, was built on a rocky ledge above a waterfall as a series of interlocking horizontal planes. It needs no landscape, for garden landscape and house are one.

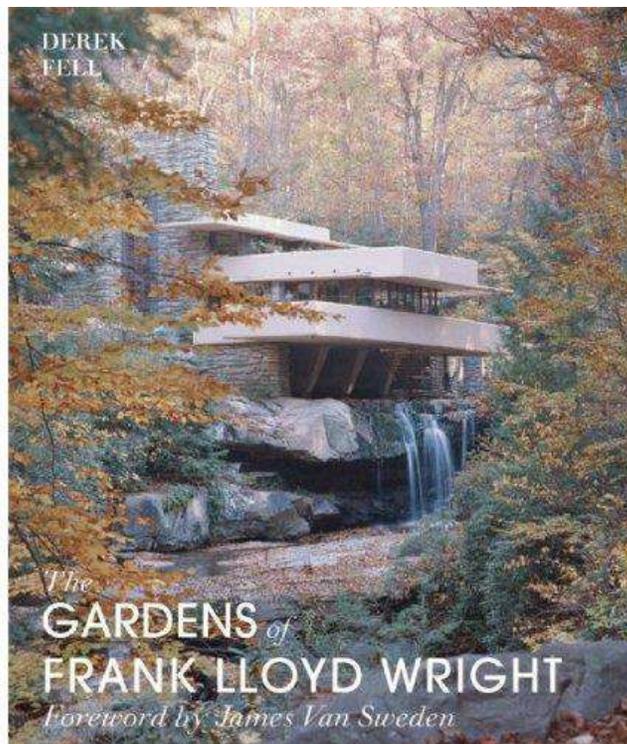


Figure 66: Kaufmann House, Bear Run Pennsylvania, USA (Fell, D, 2009).

Ebenezer Howard (1850 – 1928)

He believed the answer lay in an attempt to provide the best qualities of town and country in the Garden City, an ideal which embraced all classes and occupations, but which evolved into the middle-class garden suburb and villages (Howard, E, 2008).

One factor common to large towns in Europe and America in the nineteenth century was the expansion of population. Some lived in cellars above sewers. There were many attempts by the poor to brighten their lives with small backyard gardens or even plants in pots.

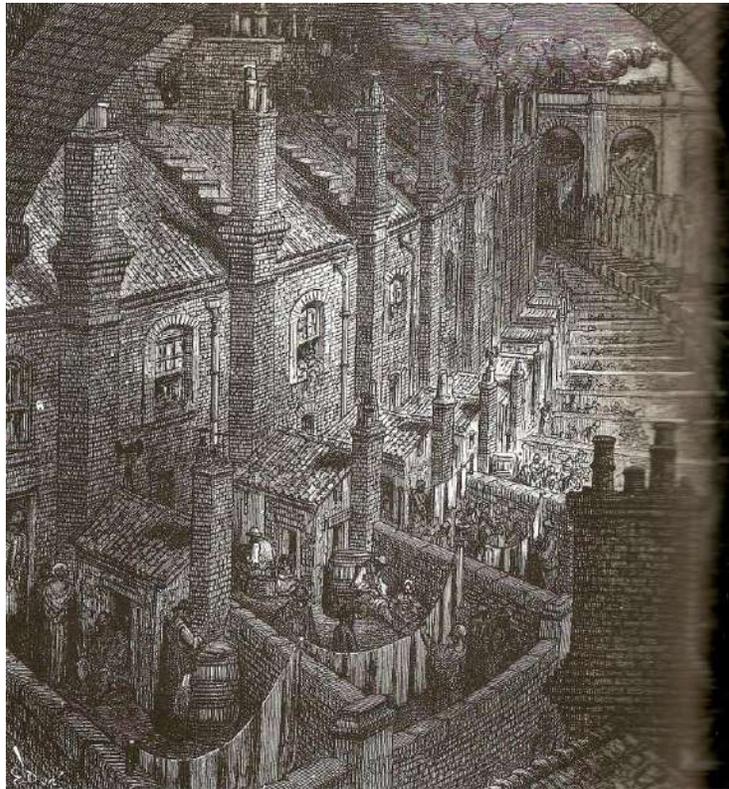


Figure 67: Gustave Dore, 'Over London by rail', 1887 engraving. (Waymark, J, 2003)

Howard's solution to the overcrowding of cities was based on an entirely new concept, that of corporate ownership.

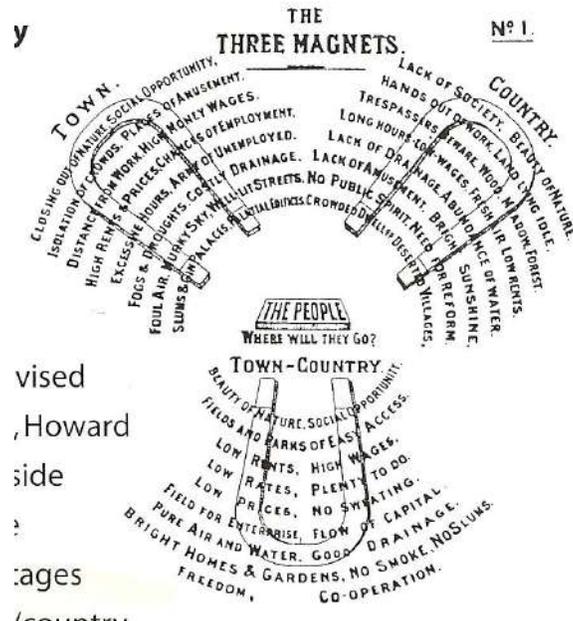


Figure 68: ‘three magnets’, Ebenezer Howard. (Howard, E, 2008)

The 'three magnets' illustration highlights the advantages and disadvantages of town, and country, and town/country which he claims offers the best of each lifestyle.

The bottom section of the magnet, ‘Town – Country’, reflects some of what I believe are the important attributes Cottesbrooke could offer to potential residents: beauty of nature, social opportunity, plenty to do, pure air and water, bright homes and gardens, no smoke and cooperation.

In America, Howard absorbed the utopian ideas of Edward Bellamy, author of *Looking Backward* (1888) and Henry George, author of *Progress and Poverty* (1879). His thinking was inspired by many sources:

- The rejection of capitalist landlords pocketing unearned increments from the land
- The belief in cooperative society without interference from government, church, army or any other body
- The belief that working classes could be moved out of cities

- He believed that the country was a better place in which to live and that getting back to nature was best for society

Town / city idea:

- Each town would recycle its waste for use on the agricultural land
- It would provide infrastructure such as water supply, work in agriculture and industry, craft and small businesses, education including agricultural colleges and colleges for the blind, institutions such as hospitals and asylums (Howard, E, 2008)

In short, the garden city was to be self-contained and all embracing. Howard did not specify exactly how the garden city was to be laid out, however it proved to be an adaptable model. The underlying assumption was that the garden city should instill the overwhelming benefits of country life.

House design was mostly conservative and inspired by the Arts and Crafts movement. His Garden City concept attracted attention worldwide. The 'Three Magnets' diagram was translated into Russian, Japanese, French and German (Hill, P, 2004).

Roberto Burle Marx (1909 – 1994)

Borne in Rio de Janeiro, he was hailed as the 'real creator of the modern garden' by the American Institute of Architects (Montero, M, 2007).

He used new materials such as concrete in hard landscaping as well as natural stone, his designs were abstract and he worked with modern architects like Lucio Costa (1902 to 98) and Oscar Niemeyer so that his landscaping perfectly complemented the buildings it surrounded and was an extension of them (Waymark, J, 2003).

His brief history indicates the immense influence and energy of the man and it is disappointing that so much of his work has vanished or been badly maintained. This is partly through the lack of public money to maintain the gardens. In Brazil there has been

resentment of what was considered a politically high spending regime with which Burle Marx was associated (Montero, M, 2007).

The artist in Burle Marx at first experimented with placing his plants in asymmetrical, non-axial shapes deriving from modernist Europe.

From the 1950s he moved more towards the free form designs of California, using the swinging, biomorphic rhythms which resonated so well with the swelling mountains and sinuous curves of the harbour at Rio and its hinterland (Waymark, J, 2003).



Figure 69: the Kronsforth garden, Teresopolis, Rio de Janeiro, Brazil. Architect: Burle Marx (Montero, M, 2007)

From form matched the natural world, the flow of the river, the shapes of the leaves and trunks in the forest. Free form also suited the large spaces in which Marx' designs were placed (Montero, M, 2007).



Figure 70: Odette Monteiro Garden, Petropolis, Rio de Janeiro, Brazil. Architect: Burle Marx (Montero, M, 2007)

Isamu Noguchi (1904 – 88)

The landscapes of Noguchi have been described as having 'significantly influenced the vocabulary, if not the actual course, of American landscape architecture' (Roszak, T, 1995).

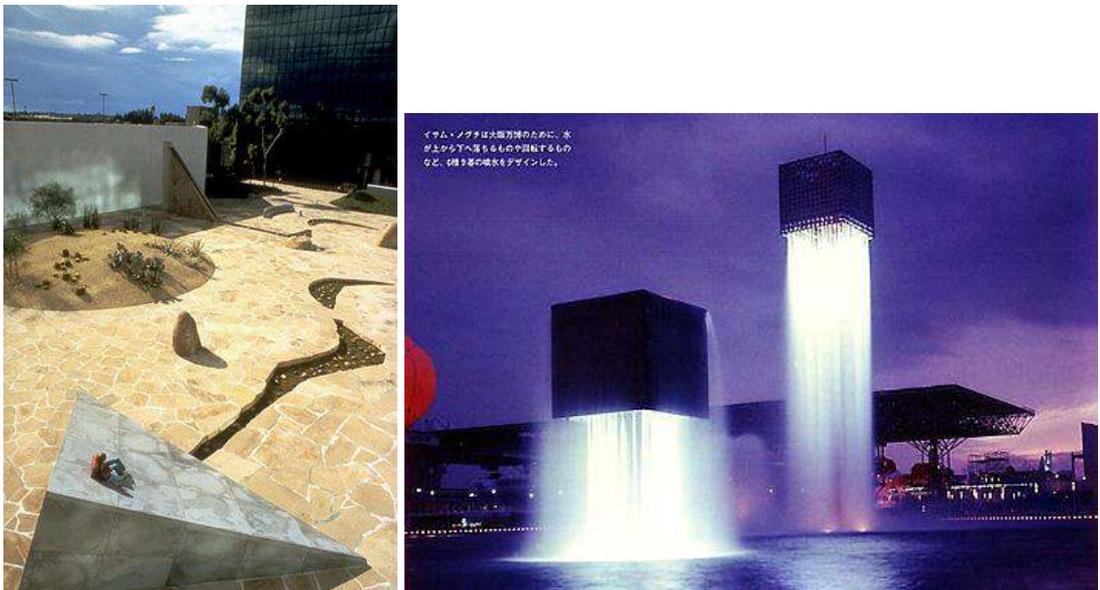


Figure 71: various design works by Isamu Noguchi (Google images, 2009)

By this was meant the blending of sculpture and architecture in a manner similar to the emerging land artists.

There was a rush to make Japanese gardens, but without much understanding of the culture from which they came.

Some ended as a mere collection of lanterns, stepping stones, bridges, pavilions and clipped shrubs, others were more meaningful as the result of collaboration with Japanese gardeners. In Europe he is known for the UNESCO headquarters garden in Paris which was commissioned in 1956. Part of the UNESCO design is a stroll garden, which the walker observes, as in life, a changing scene (Waymark, J, 2003).

Fernando Caruncho (1951 – present)

He regards the straight line as man’s intervention in nature. He combines formality with agriculture. He has turned wheat fields into gardens by spacing olive trees and cypresses along the paths and edging the fields with stone (Cooper, G and Taylor, G, 2000).



Figure 72: Mas de Les Voltes, Spain, 1995 – 97. Architect: Fernando Caruncho (Cooper, G and Taylor, G, 2000)

No other formal designer has 'combined agriculture crops to create such a formal design' (Waymark, J, 2003).

Basil Scruby (1876 – 1946)

Petts Wood, 'The Chenies', is a garden village located in Kent which followed the Hampstead model in the 1920s. It was part of the Arts and Crafts Movement built in 1928 by developer Basil Scruby. As a developer he saw the selling power of the garden village within commuting distance of London. The aims of the village were commercial rather than egalitarian (Muthesius, H, 2007).

Nearby Davis Estate Housing, built less expensive, mass produced housing on smaller plots with smaller gardens. Scruby intended the development to be a picturesque middle-class garden village suburb. It managed to keep its character with its surrounding green belt of woodlands and recreation grounds and the high cost of its housing. This greenness, the interspersing of houses with gardens, grass verges, tennis courts and a cricket ground, the woods to walk in, was typical of the loosening of urban texture so well loved by house owners in garden cities (Waymark, J, 2003).

Scruby created Petts Wood as a 'quality settlement'. It was 400 acres (160 hectares) in size which he divided into plots and sold to builders like Welshman Walter Noel Rees, who created housing in the Arts and Crafts tradition, with low roofs, prominent chimneys, brickwork with occasional patterning, half timbering and diamond paned lead windows (Waymark, J, 2003).

The houses had large gardens and were set back from the tree lined, gently curving roads with grass verges.

Where possible trees were retained and buyers often found themselves the possessors of small woodland in their back gardens. With the expansion of towns and the rising cost of land, the Garden City became an impractical ideal for wide scale use, though its blueprint was admired by many. Instead, parts of the ethos became the estate agent's best seller:

the suburban cottage with good garden in a respectable area, the tree lined road and grass verge (Mawson, T, 2008).

No longer were allotments required for working men. There were parks for the masses to walk dogs and children's games. English people were more interested in gardens than schemes for egalitarian ownership (Waymark, J, 2003).

Poundbury

Based in Dorchester, Dorset, it is set in an officially designated Area of Outstanding Natural Beauty and is restricted to intensive housing.

All parts of Poundbury and Dorchester, next door, are accessible on foot. Traffic is discouraged within the settlement so children can play in some of the streets as well as their own playground. People are about during the day, whose vigilance is intended to prevent crime. Neighbourliness is encouraged by front doors opening onto the street, and small gardens.

It was variously described as 'Siena Down the Bridgport Road' or 'Retrophilia', as the designs for street pictures provided by an Italianate town were then replaced by Dorset vernacular (Waymark, J, 2003).

From its inception in 1989, it has grown steadily. There is a chocolate factory, an upholstery works, offices and workshops. As the town grows, communal facilities are being added. It has confounded its critics and is said to be popular with its residents who prefer conservative design (Hardy, D, 2005).

Chinese gardens

In Taoism the objective was to live beyond conventional moral and social standards, believing that such limitations alienated one from nature; all the routine activities and construction of civilisation were considered to be of a lower order, inclusive of

architecture. The best buildings could achieve was to engage landscape in a reverent way (Keswick, M, and Jencks, C, 1978).

Geometric forms were apart of traditional Chinese architecture. The Taoist idea was to fuse architecture and landscape as ‘stenographic fantasies’ (Keswick, M, and Jencks, C, 1978). Such will be the largest of the themed gardens at Cottesbrooke. They will incorporate a series of interlocking lakes, connected by bridges and surrounded by oddly shaped hills, which will be formed from the spoil taken from the construction of the lakes.

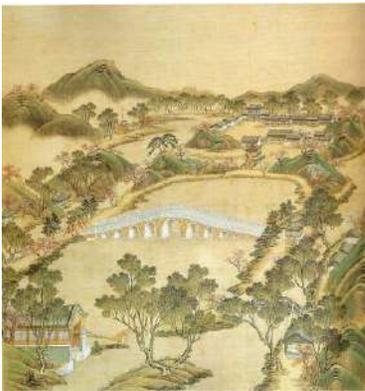


Figure 73: example of Chinese gardens (Google images, 2009)

I will aim to adapt many of the ideas from the image on the left (previous page) including one central bridge made from steel but with a gentler approach to enable access for mobility impaired people.

Like Chinese gardens, there are few examples of Japanese gardens on any meaningful scale set in rural locations around the world apart from those in China and Japan. Various communications with relevant staff at the Japanese and Chinese embassies in London were not particularly useful in establishing the locations of such gardens on the Continent and in the UK.

Japanese gardens

In historic Japan, the Zen Buddhist vision of the entire universe, is as a system of interrelated parts, translated into architecture as an expression of the relation between inside and outside (Nitschke, G, 2007).

Zen was not about gardening or relating to nature from a purely observational perspective, but rather it was about the act of being nature.

The early followers of Zen could not have understood the Western idea of conquering nature and nor do I; which is why I want to embrace the philosophy of luminaries like Frank Lloyd Wright who did not just build houses. Wright's creations were in harmony with the surrounding landscapes (the hill was the house; the house was the hill). For a piece of architecture to work, house and landscape had to be one.

In Zen's conception, “one only conquers an enemy”, and, since there is nothing to be feared in nature, the earth was regarded as the ultimate friend and benefactor. As described by Zen scholar Daisetz Suzuki: “The idea of conquest is abhorrent. If we succeed in climbing a mountain, ‘why not say we have made a good friend of it’? To look around for objects to conquer is not the Oriental attitude towards nature” (Waymark, J, 2003).

Translated into traditional Japanese architecture, the theme of ‘borrowed scenery’ combined with a concept of ‘inside / outside’ was responsible for some of the most profound relationships between buildings and their sites in human history (Nitschke, G, 2007).

Having viewed many examples of Japanese architecture from traditional to modern, I find the architectural lines and overall design ideas to be too busy; but I like their interiors (uncluttered, light and for me 'connecting') and I especially like their gardens (simplicity at its best – rock, water with selective planting).

The idea with five of the 15 houses in the first phase is to bring the interior to the outside using an open hallway with large windows at either end, with rooms feeding off this. The public will be able to see right into the living rooms, dining rooms and beyond to the rear garden; all five houses will comprise three bedrooms with two receptions.

Chapter 5

‘Communities’

5.0 Communities

Communities come in all shapes and sizes and share many similar challenges - such as defining membership, succeeding financially, distributing resources, making decisions, raising children, dividing work equitably and choosing a standard of living. Many wrestle with questions about the right livelihood, spiritual expression, land use and the role of services in our lives. At the same time, there is limited awareness of what others are doing to meet these challenges and much to gain through sharing information and experiences with others exploring similar paths (FIC, 2009).

5.1 Intentional communities

Such communities have for many centuries been places where idealists have come together to create a better world. Although there are thousands of intentional communities in existence today and many others in the formative stages, most people are unaware of them or the roots from which they spring.

Cottesbrooke will be 'intentional'. It won't be based on idealism - instead it will be rooted in creative ideas expressed in the innovative use of materials, planting and paths that guide you around tranquil lakes and gardens that all come together as one landscaped community.

Intentional communities are often aware of themselves as different from mainstream culture and many choose to highlight these differences. Yet, virtually all communities share a common root value of cooperation which is the philosophy that will be encouraged at Cottesbrooke

5.2 Getting Started: The first steps of building a community...

adapted from (Sandelin, R, 1997).

These are some of the elements we will need to consider particularly over the first few months.

1. A vision/goal statement, which defines the intentions and directions of the community. This will clearly state what we hope to achieve as a group; a copy of which will be given to every future member. Some of these ideas have already been explored and others will be discussed in the analysis covering 'gated communities' and the values and ideologies expressed in the discussion on the 'kibbutz' movement.

2. A group decision and communication process. The following questions will need answers:

Who are members? What is the process and qualifications to become a member? Most communities require people to attend a minimum number of functions and be approved by the members. Some communities have found that investment = commitment. The success of Cottesbrooke will require at least two things: money (around one million pounds to purchase a house) and a keen interest in landscaped gardens as well as a capacity to be a part of a team to design, build and maintain such gardens.

How are decisions made? Who gets to make them? My initial thinking is to start with a ¾ majority vote. Consensus will be important but not if ideas on garden layout and other design details materially diverge from the 'scheme outline'. It would be my initial intention to allow only residents to vote but that all participants including those who live in the village of Cottesbrooke, members of the local authority and others who may assist in the development of the site, should also be permitted to offer ideas and opinions.

How will meetings be run? Who gets to talk, when? Having someone hold the role of facilitator will help and rotating this role among all the residents (for those that are interested) is also likely to be positive.

How will conflicts be handled/resolved? When we don't agree how will we work it out? Holding lots of parties and rituals together will grow bonds and make conflicts easier. Identifying residents and possibly even outside experts (a professional team facilitator for

instance) in advance could help our group make tough decisions.

How will records be kept? Who takes notes, how are they distributed and to whom?

Taking turns taking notes and particularly those that are good at it is probably the way to go. At the end of the meeting it will be important to ensure we assign any tasks to specific volunteers with dates due and read quickly through the notes about any decisions made so what is in the notes is accurate and agreed by the group members.

How will new members be brought up to speed? Decisions should be recorded in a decision document and handed out to all members. When we get to about a dozen people, new residents and members should probably be assigned a "buddy" who will be able to explain the processes and history.

3. A financial structure. We should have answers to the following questions:

- How will expenses get paid?
- How will we keep records of what has been paid?
- Is there a membership fee? How much?
- Will payments be refunded? If so, how?

4. Incorporation. It costs very little to incorporate and this will protect our personal assets. Being incorporated will also lend legitimacy to our organization in the eyes of banks and other agencies. I will take advice on what is the best legal framework for 'art at the farm'.

5. Based on the decisions made in number 2, I propose writing down the decisions taken as bylaws for our organization. These will no doubt be changed over time - the purpose of course will be to write down our agreements so we don't forget them and to create a record we can refer to.

6. Getting a bank account. Once we incorporate, we will be able to get a tax ID number and a corporate bank account. All expenditures will go through this. I may seek to delegate this book keeping function or retain the services of an accountant to keep track

of our revenues and expenditures. It is important to remember that once we start spending people's money, we are a legal entity in the eyes of the courts and the taxman. Lots of communities have gotten into trouble from bad accounting, which is something we should never lose sight of.

5.3 Gated communities

The rapid growth of gated communities and collective homeowner associations has resulted in their becoming the dominant form of residential development in areas of the US and emerging evidence suggests that such developments are increasing in many other countries.

A study by Low (2003) identified that gated communities were 'becoming a viable and socially acceptable option' and how these developments are symbolic of changes in social cohesion, local government structures, concepts of urban citizenship and the 'spatial governmentality' of cities.

Low uses her book to discuss the various catalysts leading households to live in such communities, including the quest for "community", fears of crime (incorporating an interesting case study from Mexico City), the security of children and fears of others.

She also provides a chapter on retirement communities. She makes a convincing argument for how architecture influences our ideas of society and how gated communities provide new social and spatial sites for the 're-articulation and enforcement' of middle-class norms.

She is less informative about the extent to which gated community residents were aware of and concerned about, how their own actions were contributing to wider social segregation. Such concerns are found in a recent study of gated communities in England (Atkinson et al, 2004), where Atkinson suggests caution in identifying disengaged self-interest as the defining characteristic of gated community residents.

Low refers to the concept of 'moral minimalism' to describe the social processes of regulation of conduct within gated communities in which residents search for intermediary institutions, such as home owner associations and security guards to resolve conflict and avoid interactions with other neighbours.

This emphasises just how important getting the 'right' people at Cottesbrooke will be. It will not be enough for the residents to just have a keen interest in gardens, a strong work ethic and £1m to purchase the homes; a strong sense of neighborliness and shared values of respecting each other's space and property will also be critical.

The residents of Hockerton came together over a bottle of red wine in France some 15 years ago. They knew each other. The Cottesbrooke residents by contrast are unlikely to know each other. They will be drawn to the development through features appearing in the broadsheets and what hopefully will be an appearance on 'grand designs'. Residents may come from all over the country and have completely different backgrounds and life experiences, which can be very positive, provided the shared values exist.

It is instructive to hear the comments of a gated community security guard quoted by Low who describes how the presence of his colleagues 'makes residents not responsible and...relieve(s) them of their obligations and problems'.

Is there a difference in community engagement among haves and have not's? According to Low, the answer is no. The similarities in the levels of citizenship between affluent and deprived communities are further illustrated by the comments of a gated community resident about the apathy and low attendance at gated community home owner meetings.

To what extent can architectural form, legal frameworks and governance processes generate communitarian endeavor amongst residents? Low states that the 'jury is still out' on whether gated communities create a greater sense of community than non-gated developments. Her study also suggests that techniques of punitive regulation and technologies of exclusion rather than civic interaction generate the desired levels of social

order, security (and social homogeneity) within gated communities (Low, S, 2003).

5.4 Kibbutz

Many lessons can be drawn from the philosophy of the kibbutz movement and applied to Cottesbrooke. Amir et al., (2005) and his colleagues in a paper titled 'the kibbutz', analyse the relationships between ideology and architecture. The specific case examined, is the influence of kibbutz ideology on the design of the family dwelling.

The kibbutz in Israel is a unique case among other secular communes in the world, since it was a relatively stable phenomenon that did not fade after the founding generation.

Among other reasons, this stability, they argue, is the outcome of an uncompromising ideological stance within the kibbutz movement in its first 50 – 60 years.

The dissertation examines the interpretation of three fundamental values of kibbutz ideology (frugality, equality and rejection of private property) in the architecture of the kibbutz dwelling. The main argument is that with time, changes in the design and planning of the kibbutz dwelling reflect the strengthening of the status of the traditional nuclear family and recognition of some basic individual rights that were systematically and intentionally ignored in the past.

Amir writes that the connection between cultural values and dwelling design has received attention in the interdisciplinary research literature that combines architecture and social science disciplines, such as psychology, sociology and anthropology (Altman 1975, Pratt 1981, Duncan 1981, Rapoport 1969, Churchman 1993, Sebba 1991).

These articles deal with human environment interactions, cultural meanings and the material context of the home, definitions of privacy, the meaning of territorial living space and other closely related topics.

A common opinion among those who were involved in the design and construction of the

kibbutz, as well as among many kibbutz residential apartments was determined by chronic budget constraints and it was these that affected architectural decisions.

Amir says, the status of the family in kibbutz society stood at the core of its ideology and was the subject of a constant internal struggle between the followers of Marxist theory, striving to undermine the family functions or even its very existence and between the followers of the Jewish tradition.

Much of the change within the kibbutz movement occurred over the period 1920 to 1970. In the latter years, the movement adopted the idea of a nuclear family dwelling. From that time on, the kibbutz residential dwelling gradually lost its unique physical and functional identity and its pattern became more and more similar to the typical Israeli urban residential dwelling.

According to Amir, the kibbutz is a rural, co-operative-egalitarian way of life, which was created in Israel in the second decade of the twentieth century. The founders of the Kibbutz came to Israel during the second large wave of immigration from Eastern Europe. The ideology and emotions these people brought with them was a mixture of the Jewish values they had absorbed in their parents' homes together with Tolstoyan ideas about closeness to nature, with the addition of Marxist revolutionary fervor. All these were intended to be implemented in their daily life in the new country.

The co-operative idea was applied to almost all spheres of life: property, except for basic moveable things, were held in common. Income from work went to a common fund from which each member received a budget based on his and her personal and family needs, regardless of their contribution to the common income.

Percentage return for my contribution

One of the things not explored in this dissertation is the precise mechanism for allocating monies derived from the various income streams identified in chapter 6 including monies from gate receipts.

If I am taking most of the risk on the development, identifying the location, negotiating with the land owner, local residents and local authority as well as other vested groups, financing the project, designing the houses and providing an overall scheme layout with specific ideas for the various themed gardens as well as undertaking the marketing to identify and negotiate with potential residents, project managing the initial ground works and providing the leadership to bring the vision about, I would probably be looking to take at least 70% of the proceeds from the various businesses.

Lessons to be learned at Cottesbrooke

The kibbutz community took upon itself most of the responsibility concerning the children's education and thus the parent's role was rather limited. This concept is clearly not relevant here although it does relate to the education program, I will be proposing involving troubled youth (offering apprenticeships).

Cooking, eating, laundry and other required services were all communal, under kibbutz responsibility. The idea of cooking and eating together on a regular basis at Cottesbrooke is something to be encouraged. One of the residents at Hockerton shared during a meeting on site, that they normally come together every Friday evening over a cooked meal which their children would sometimes prepare.

Amir writes that household activities were very limited within the Kibbutz movement in comparison with those in the Western world and free time was devoted mostly to fostering the community's needs. This is a value that is worth discussing among the Cottesbrooke residents before agreeing our constitution.

Because of the nature of the development, we can only hope to build an enduring brand if we can offer the public a unique product: one intimate Japanese garden (over an acre) planted out around 15 houses will not be enough. We have to be able to offer an experience.

The doors to the public should not be opened until there is sufficient scale and sufficient growth in the planting such that people could easily spend two or more hours in the gardens. If we can offer that, and at the same time, inspire and educate, then I think an entry fee of around £4 (and possibly more), could be justified.

Cottesbrooke should not seek to control and guide the way residents live, but I do believe for this to work the ideology will need to have similar parallels to the kibbutz teaching which had a major influence on the kibbutz member's life, behavior, ideas, conversational patterns and personal interactions according to Amir et al., (2005); characteristics not normally considered by architects or developers when designing a dwelling.

The challenges ahead

Since the middle of the 1980s there has been an increasing devaluation of the social status of the kibbutz in the eyes of Israeli society and many of its own members have lost their belief in the egalitarian ideology and co-operative way of life. Amir says that the kibbutz, as an idea and way of life, is in a state of 'existential crisis' that casts doubt on its ability to continue to survive.

Cottesbrooke may never come into being; it may be like so many a dissertation that ponders new ideas but doesn't get past the shelf of the LSBU library – and it may not even get there.

The forming of communities is normally organic and occurs over time. Cottesbrooke won't have the luxury of such time. It will need to get runs on the board early...roads, paths, drainage, electricity, water, housing and at least some progress on the gardens within the first two years will be needed.

It is a big site and it would be easy to become daunted by the sheer scale of what is to be done. I will be looking to create hills from where flat land lie, lakes from where winter wheat is currently being grown, while probably having to pacify a local community that will have come to the village of Cottesbrooke precisely because of the rolling hills, agricultural lands and because it is quiet.

There is every reason to suppose we could be attracting 100,000 visitors a year, which is significantly less than the patronage at Kew and Wisley gardens, if we can get an interesting product together and the national media provide favourable and ‘ongoing’ coverage of what we are doing.

There is no public transport in the area and the small gated roads which lead to Cottesbrooke could not accommodate such a large number of vehicles, that alone provide parking which is sufficiently far away so as not to create noise and visual pollution but not so far away that visitors are angry before they even get inside.

Fortunately, there are two smaller roads that could be widened that would ensure no vehicle needs to pass through the village of Cottesbrooke or travel along the gated road which divides the gardens. These two roads in turn lead to the A5199 which provide access to the A14 and the nearby M1 and M6 motorways.

Frugality

The kibbutz founders perceived frugality as a value, which was not a result of an ascetic vision that claimed the superiority of the spirit over the material, but a criticism of the fake lifestyle of the bourgeoisie and the separation that created among human beings and between people, nature and work (Amir et al., 2005).

Conserving what we have and finding ways to dispose of our rubbish and food left overs is a value to be encouraged and taken on board at Cottesbrooke.

Among the early followers of the Kibbutz movement was an active, creative, changing culture that had its own intensive spiritual life. There were workers, who wore torn pants and walked barefoot on purpose, not to show off, but to experience on their own bodies the feeling of being workers.

There may be ‘Health & Safety’ issues associated with this, but I would be interested in

developing a retreat where paying guests could come along to have such an experience.....rising early along with the Cottesbrooke residents to feed the fish, provide fresh bedding for the chickens, tend to the lambs, mend the fences and then after breakfast work the gardens in bare feet.

Our guests may come away from such a weekend feeling they have undergone some sought of proletarian change and this is one of the ways that 'art at the farm' could try to reach people and hopefully enable all our visiting public to better connect with nature.

Many of them already wear the torn pants and so extending this to our troubled youth program and asking the young people to remove their footwear and experience nature, could, if nothing else, help them to understand that the food they eat originates not at Tesco's, but from the soil and all that grows within.

Kibbutz history suggests some caution to such an approach because the perception of frugality as a value did not last. During the third wave of immigration from Eastern Europe (1919 – 23), the influences of Marxist theory won out over the ideology of the kibbutz. Consequently, the principle of rejecting private property gained great importance, together with the striving for absolute material equality (Amir et al., 2005).

Of course, I would not be keen to go this far. Certain ideals of frugality are noble and should be encouraged but at its heart I would want Cottesbrooke to be a commercial enterprise with profit share incentives offered to all residents.

Equality

The kibbutz outlook towards equality went through a process of great change particularly regarding the housing system. In some areas of consumption, such as education, culture, food and laundry, members took from the public 'basket' according to their needs (Amir et al., 2005). Work, the main area of giving, was also based on egalitarianism, according to which each member was expected to contribute to his or her maximum abilities and skills.

Prospective residents are unlikely to hand over a million pounds for a property at Cottesbrooke and commit hours on end over several years before they may see any real fruit from their labours if they knew that such a value of equality was expected. One doesn't need to consult a group psychologist or leadership guru to know this would not work.

Kibbutz ideology stated unequivocally that the member would live only on kibbutz resources and thus was prevented from owning any private property, which was an alternative source of income. This principle is also expressed in the State's laws regarding the kibbutz (Official Regulations of the Cooperative Associations 1994).

Residents at Cottesbrooke, by contrast, will be 'actively' encouraged to pursue their interests, in particular business's where they can trade off the Cottesbrooke brand; but of course, discipline and focus will be needed especially in the early years.

Unless the creative and hard work are put in at the start and sufficient acreage planted, then we won't have a product and therefore a brand. So it will be important in probably the first two years that we are not diverted by other commercial ventures.....of course such ventures should be discussed and plans put in place but the focus must be on building 'art at the farm' into a destination.

5.5 Summary

The principle of rejecting private property, which was inseparable from the kibbutz members' mode of life and thinking, found expression in the tenants' minimal involvement in planning their own dwelling, in a minimal design approach and in a housing system that was based on maximal standardization (Amir et al., 2005).

The principle of frugality had a strong impact on the way kibbutz life was formed. It continued to influence those who were responsible for housing and to dictate small living areas and modest finish standards, even after it lost its ideological validity.

The principle of egalitarianism dictated a distribution of the kibbutz housing resources, without examining the real housing needs of the individual, or even ignoring them.

Such a parallel could be drawn with much of the housing stock in the UK where housing design often comes from a small pot of ideas (elevational treatments), with cladding (typically brick) being similar in appearance to the adjacent houses and those up the road and often in the same developments.

A cynic might say, it is about 'sameness' and being 'me-too' because it keeps the accountants who run many of the volume house builders and their shareholders happy (limited suppliers with limited elevational treatments = reduced costs and if they get their marketing right, greater revenues and more profits often follow); but can you build a unique brand in adopting this approach? Available research suggests the jury is still out, though some effort is made to explore this idea in chapter 7.

The observation about design being based on 'sameness' is borne out in discussions with senior management at many of the house builders in the UK, architects and others who operate within the built environment.

The consensus among those I spoke to seems to be that things have changed over the last 10 – 15 years and 'original' design is coming to the fore. Much more thinking is going into site layout, vehicle and pedestrian movement, public realm and landscaping, and this should be viewed as a good thing.

Chapter 6

‘Housing in the UK’

We are surrounded by bland housing in this country. Not just old stock from the 50's where the authorities let anything go up, but new builds as well.

A limited selection of cladding has been used over the years in housing construction. With an eye on profit and costs, the focus has been on 'plain vanilla' where only limited curb side detailing is used.

A simple frontage and interior layout reach a wider audience; at least this is the conventional thinking. You start adding 'detail' and the price goes up and then architects want to bump up their fees and other professionals may need to be called in.....structural engineers, specialist trades people and the like.

There is a strong business case for less is more because with few exceptions, provided the properties are suitably located, reasonably well built and fairly priced, they will find a buyer; but one day these buyers may become more discerning and not just those in the market for executive homes.

Every so often you come across developments where you scratch your head; you can't quite believe that you are seeing such innovative design in this country; not just one-off houses, but in the case of 'Upton' in Northampton, which targets young executives and families, innovation right across the whole development.

The site is located off the M1 (junction 15a) as you enter Northampton town centre. 1,382 homes are being built on 107 acres on what was former green field land (English Partnership, 2009).

The development partners with The Princes Foundation and features a sustainable urban drainage system (SUDS) which provides an environmentally friendly way of reducing the amount of run-off surface water.

A lot of thought has gone into the layout at Upton. Many of the houses feature PV's and solar panels. Five of the houses offer a passive heat system, with sod roof and wind turbines. There are many developers on site and by the look of the houses, their best architects have been retained on the scheme. Images I took in April 09.



Figure 74: flats targeting the over 50s, open drainage and landscaping at ‘Upton’, Nothampton (Author, 2009)





Figure 75: houses at 'Upton', Northampton (Author 2009)

6.0 Why design matters

The Department for Communities and Local Government published a paper in 2007 titled '*Homes for the future: more affordable, more sustainable*'. The paper makes the case for increased housing supply. In meeting the challenge, it is vital, they argue, that we create places and communities where people want to live and work. More houses and better houses are needed. 'In the past, too many new developments suffered from a lack of attention to quality, safety, energy efficiency, environmental impact and infrastructure' (CLG 1, 2007).

According to another report published by the same body in the same year, one quarter of the UK's current carbon emissions (around 150 million tons of carbon dioxide each year) arise from the way we heat, light and run our homes. We want to increase protection of the environment by cutting carbon emissions and we want all new homes to be zero carbon from 2016 (CLG, 2007).

They make a strong case for change and support this with tougher building regulations to be introduced in 2010.

The Commission for Architecture and the Built Environment (CABE) is also helping authorities provide and use more green spaces. Such spaces are an essential part of CABE's 'growth areas', 'new growth points' and 'eco town' programmes, where a tenth

of growth area funding has been dedicated to improve parks, forests and green spaces since 2003 (CLG 1, 2007).

CABE's aim is to eliminate poorly designed new housing and make good the norm, by ensuring that Planning Policy Statement 3 is adopted. The clear aim, they say, is to support delivery of good design and embed inclusive design principles in the blueprint of new homes and spaces.

These reports make for sobering bed time reading but then you get a reality check when you speak to the volume builders and walk around their developments. Yes, they talk a good story about design, but the truth of it, the business is about economics and even more so in the current climate given the financial turmoil the industry and country are in. Many talk about brand and some genuinely have a good 'regional' story to tell, but few if any have a strong national brand. They talk about signature architecture but when you press the Directors of Marketing and Design, you find, with few exceptions, the houses and developments are often very similar and if it were not for a sign out the front you wouldn't know that Barratts, Persimmon or Redrow were behind these. It's a bit like the high street in many of our towns and cities. You have the main retail franchises but few independents offering any difference. The look and feel is bland, in my opinion, like much of the housing stock in the UK.

Housing for an aging population

According to a 'CLG' study in 2004, older people will make up 48 percent of all new growth households to 2024 and a substantial number of new older households in many regions will be over 65. The second largest of these older households are projected to be in the East Midlands, which includes Northamptonshire. The graph illustrates this projected household growth in what is arguably the market 'art at the farm' at Cottesbrooke will be targeting.

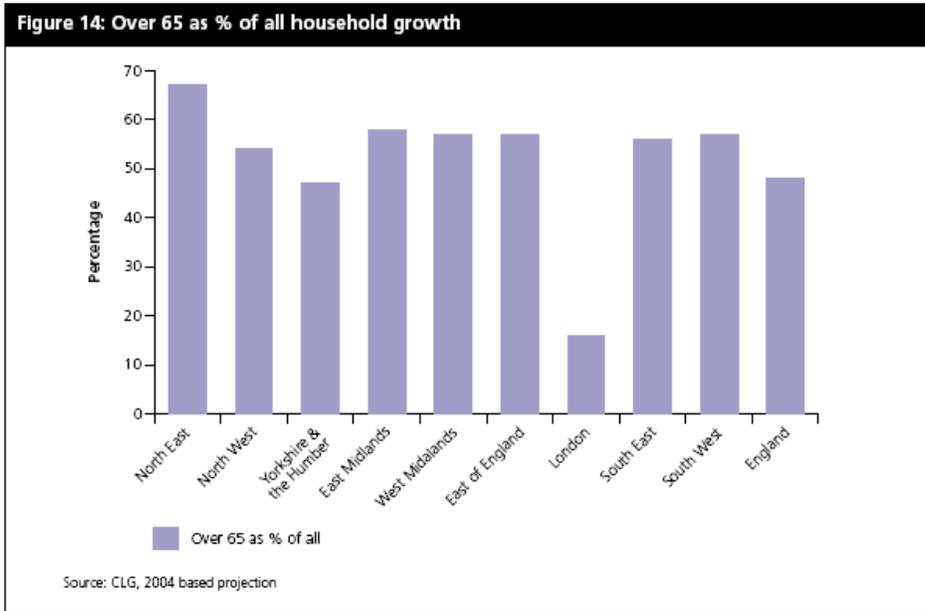


Figure 76: Over 65 as a percentage of household growth (CLG 1, 2007)

Greenfield vs. brownfield

This growth has been achieved while protecting the green open spaces around our towns. It is argued that clear and consistent planning policies have enabled the proportion of homes built on brownfield land to rise from 56 percent in 1997 to nearly 75 percent today. And by using land more efficiently, the density of new housing has been increased from 25 to 40 dwellings per hectare (CLG 1, 2007), which is reflected in the graph below.

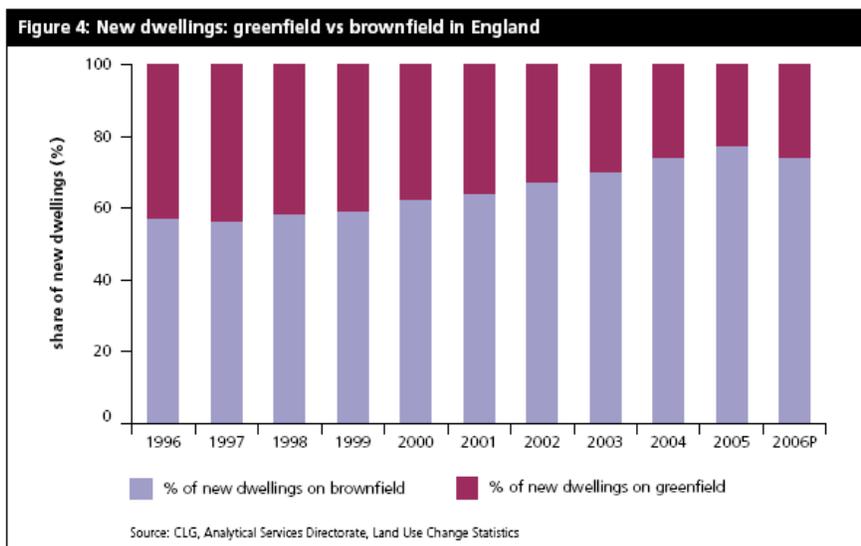


Figure 77: new dwellings: greenfield vs brownfield in England (CLG 1, 2007)

Eco towns

Such towns are designed to build on the UK's rich historic experience of creating planned new settlements such as 'garden cities' which are much copied around the world. Ebenezer Howard's vision of such garden cities was of places to combine 'the health of the country with the comforts of the town.' Modern schemes, it is said, need to be more flexible in design and make more use of different models of financing but many of the lessons of the new towns still apply.

According to the Department for Communities and Local Government, they will be entirely new towns comprising between 5,000 to 20,000 homes. They will be designed to meet the highest standards of sustainability, including low and zero carbon technologies and good public transport. The entire community will be designed to have zero or low carbon use, including new schools, community and health facilities (CLG 1, 2007). Environmental infrastructure will be a key component of eco-towns including effective flood management, sustainable urban drainage systems, waste water management together with green space and enhanced bio diversity.

Eco towns will complement town and city centre renewal, urban extensions and the redevelopment of major sites in existing urban areas. Two prototype schemes, Northstowe in Cambridgeshire and Cranbrook outside Exeter in Devon, are already at an advanced stage of planning and will provide a test bed for informing plans for ecotowns (CLG 1, 2007).

Such towns are not a model that Cottesbrooke will seek to copy. The concept is clearly on a different scale.....15 houses vs. 20,000 houses, though there are similarities: employment opportunities will be available at each and the proposed schemes are both earmarked for green field development.

Recycling homes and land

The success of the strategy being pursued is not just about building new homes; it depends just as much on making better use of existing buildings and maximising the use of brownfield sites for building new homes.

Sustainable brownfield land continues to be the priority for development, with a continued national target that over 60 percent of homes should be built on brownfield sites. Every local authority will be expected to set their targets for brownfield use. Councils will also be expected to do more to bring long term empty homes back into use (CLG 1, 2007).

Infrastructure planning in Northamptonshire

In Northamptonshire, 100,000 dwellings and 100,000 new jobs are planned between 2001 and 2021. Meeting this level of growth will require significant joint working by the range of local authorities and those charged with delivering these targets (CLG 1, 2007).

6.1 Who I interviewed and why

I spoke to senior managers at eight house builders, four of which are in the top ten in terms of volume output. I wanted their perspective on design and where innovation, topology and landscaping fit into their business models. I wanted to understand the importance they place on brand and architecture and where they see their businesses going forward; and importantly I wanted to know whether developing Cottesbrooke would be of interest to them.

Why did I speak to three planning authorities? Because for understandable reasons they will have a material impact on whether a landscaped garden community like Cottesbrooke ever gets built. Northampton Borough Council was chosen because Cottesbrooke falls into their jurisdiction. Cambridge was chosen because they were the ones who signed off on Accordia and finally Gloucestershire were of interest because they are currently overseeing green field developments at Cotswold Water Park where there are similar proposals to Cottesbrooke under consideration.

The print media were of interest because I wanted to milk them for contacts (particularly senior personal) at the big builders and to get their perspective on the industry while at the same time try to get them to publish a feature editorial as a way to connect with potential residents. It was the same reason I sought out key industry figures like David Birbeck who is the CEO of Design for Homes which runs a national design campaign.

A leading architectural practice (Alison Brooks Architects) were targeted because they are 'current' and because their peers think they do outstanding architecture (Stirling prize winner in 2008) and I was fortunate to have some quality time with Alison who gave me some very quotable material.

The Chinese and Japanese embassies were useful because I wanted to know who they rate as designers and builders of their traditional gardens. The contact Philip Cave Associates came through them.

As for the gardening community it made sense to target the big boys: the 'National Garden Scheme' (NGS) and 'Royal Horticultural Society' (RHS) are well known and respected. I was fortunate to be able to speak to the head gardener at RHS (based in Wisley) and as for NGS they have 100's of gardens which they promote each year, so I was interested to know who their target market is and how they go about communicating with this market.

There are so few examples of subterranean houses in the UK so getting out to see Hockerton in Nottingham and looking over their operations and interviewing their residents was critical. The normal tour to the general public is around two hours. I managed to get half a day with Nick and Trudi White who coincidentally were selling their house at Hockerton after 12 years (they were one of the founding families), so I had a good chance to look over their house and fortunately for me, Nick is probably the key guy there. He handles all their marketing and does all their radio and television and

oversees their commercial interests as well as their publishing; he had just finished writing a book when I was there.

Why did I try to broaden the list to include renowned authors like Joanna Trollope and cultural anthropologist (Dr. Martin Philips), a director at Savills estate agents, someone who has an interest in utopia (Bob Jarvis at LSBU) who lent me an interesting book on the subject, and the head of marketing and sales at the 'Ecology Building Society'.....they were of interest because they broadened the perspective of my hypothesis, that Cottesbrooke could become a living, breathing community.

In all, 28 people have been interviewed across 15 different professions as well as the counsel of my supervisor (Chris Powell) which gives me confidence that the balance of opinions (and they were not always positive on Cottesbrooke) give the dissertation an objectivity and a platform for what I hope will be further research down the line (a PhD).

Rationale for government intervention

The Stern Review concluded that regulation can play a powerful role in cutting through the barriers to the behavioral changes which are needed to tackle climate change. Stern also concluded that taking strong action to reduce emissions should be regarded as an investment, as a cost incurred now and in the coming decades, to avoid the risks of very severe consequences in the future. Regulating such environmental standards in housing, places an implicit value on reducing carbon emissions, mainly in the form of additional construction costs (DTI.gov, 2007).

Micro-generation technologies are currently much less cost effective, but can sell electricity via the grid and do not incur the same distribution costs and transmission losses as traditional much larger sources; here the government can play a vital role facilitating the debate to reduce our carbon dependence.

Currently there is no requirement to pay for the wider costs of building less efficient homes, so developers have no incentive to build to higher environmental standards. In

addition, buyers are often unable to judge the energy efficiency, carbon rating or other parameters establishing the sustainability of homes. This means that developers are unable to distinguish their product and gain a profit from sustainability.

It can be argued therefore that government regulation has an important role in limiting the emissions from new homes where the market does not already respond.

6.2 Accordia (*Stirling prize winning residential development in 2008*)

One of the three architects who designed Accordia (Alison Brooks of Alison Brooks Architects) commented on why she felt Accordia worked. Among other things, "the housing and topology blended in with the streetscape and many of the houses had private gardens". Alison's practice was responsible for four semidetached houses, a block of 10 and another block of 26 flats over three plots.

The project in her view "would have been a great scheme without the landscaping but it did add another dimension".

Of some surprise given the location of the site (central 'leafy suburban' Cambridge), the fairly substantial prices they have been achieving on sales and the 'professional clientele' they have been attracting to the development, the finished houses and flats are "eco home very good" which roughly equates to Code 3. The other surprise was Alison had to defer to her P.A when I asked what code they were designing to; almost to suggest that designing in sustainability was something of an afterthought; though in mitigation, I had been pretty persistent with her and her staff for weeks and she may have been slightly frustrated by the regularity of my phone calls.

On both Accordia and 'New Hall' in Harlow Essex, which Alison Brooks Architects are currently involved with, they were given a clear brief from the developer..... "code 3 and no more". The view is customers will not pay for sustainability.

It is apparent from this, that the government and the green movement as a whole have some way to go in educating the general public and Cottesbrooke could play a substantial role in this regard. Not just locally or regionally, but nationally, if the 'right' media and publicity could be generated.

The houses at Cottesbrooke will be built to code 6 standard, though it is the extra dimension of 'innovative design' and landscaping that will hopefully separate us from the 'homogeneity' of new builds across the UK.

To the question, of 'why the council favoured three architectural practices', she said "it was felt that one practice would come to this with limited ideas and involving other firms would make it more interesting".

Background to Accordia

Alison Brooks and team were brought in by Feilden Clegg Bradley Studios (FCB) who were originally retained by the developer Countryside properties; despite repeated requests, Feilden Clegg declined to participate in my research. FCB also brought in the other architectural firm Maccreanor Lavington and the landscape architect Grant Associates. The master plan was prepared by FCB, though Alison confirmed they also made contributions.

The carve up among architects was based on the size of their practice. Alison Brooks were responsible for 10 percent of the designs, Maccreanor Lavington 20 percent and FCB 70 percent. The original submission was for fairly 'traditional' housing, which was rejected by Cambridge City Council. The planning authorities "wanted something more modern and asked the developer to retain high quality architects".

All told there are four phases with some 400 properties. The 2nd phase is nearly complete. The site has since been purchased by another company 'Redham Homes' which are currently sitting on Alison's drawings and she is not sure what they are going to do with them.

The feedback from residents has been positive. When they were being evaluated for the Stirling prize, she said they went into two of the homes and some of the flats including a flat owned by Iva Richards a former professor at Cambridge University.

New Hall (Harlow, Essex)

Alison is currently involved in developing the southwest corner at New Hall. "They fought to get the plot sizes larger". Instead of a conventional 5.5m x 20m (110m²) plot they opted for 10m x 10m which she said was better. She was particularly critical of the inadequate living space in houses in the UK (Alison is American). Her designs, by contrast, include private courtyards and a north / south orientation with extensive glazing.

The terrace style houses back directly onto each other. The roads are gravel and merge in with the houses creating a rural lane effect; "the houses are more sustainable at New Hall than Accordia". They use solar hot water, PV's on their affordable houses and other features like water butts. Grey water is not being recycled on any of their schemes.

The subject of Hockerton came up in our discussion. I shared about the regular cleaning the owners undertake in order to ensure their P.V' operate at maximum efficiency. A small bit of settled dust for instance can apparently reduce the effectiveness of a whole cell. Of course walking to the rear of the property and up the earth berm is one thing, but climbing a ladder to gain access to a conventional house to clean the P.V's on a regular basis is an altogether different thing with the obvious health and safety concerns. Alison seemed to know very little about this side of the technology which comes back to one of the arguments I made in chapter 2 that elements of design are often treated indifferently as 'installed' rather than 'expressed', with no clues to their sources in nature or contributions to the expanded life of buildings, that alone issues associated with effectiveness or maintenance.

Making better ordinary housing

Medium size developer, Baylight, promote their practice as being ‘the Jamie Oliver of School Dinners in architecture’. Their claim.....they want to ‘use their passion to make better ordinary housing using simple, healthy architectural ingredients’. As a firm, they are shifting away from city to country locations, which was a reason for my interest in their practice.

I spoke to the founder Crispin Kelly who had been recommended by David Birbeck, CEO of Design for Homes which runs a national campaign and awards scheme focusing on improving housing design.

David described Crispin as something of a maverick. After speaking to him it was apparent that Crispin doesn’t do ‘wow factor or icons.’ As their website indicates, ‘they plan something familiar: quiet, elegant, but offer something new and ultimately more sustainable’.

Crispin was critical of developers: “few he said do architecture.....not that they don’t do design, but they don’t do architecture”. He believes that most of the volume house builders build intelligently, but at the end of the day the business is about cost.

6.3 Building a brand

There are ‘down market and up market’ builders and you get a reputation for building quality. Berkeley is considered to be an up-market brand with a focus mostly on flats while Bryant is perceived by many of their peers to be at the opposite end.

Is it possible for volume house builders to be successful and profitable and do architecture?

I asked this of many of the builders. Crispin Kelly (Baylight) said he has asked this question himself and he is still not sure. “Brand has a lot to do with build quality and finish and not necessarily architecture”. The key decision, he said, “is the price you pay for land and this often determines whether you are profitable or not”.

It is possible to do architecture and be profitable according to Nick Davis at Crest Nicholson. He felt it is a valid criticism that few of the larger builders do signature housing. Material selection, particularly cladding choices, often comes from the top. Head office do a deal with a supplier of brick and this is then imposed on the business across the board even if the managers on some developments request an alternative.

“Acquisitions have been a bad thing for individuality over the last 3 to 4 years. It drives out natural diversity”, he said.

Smaller companies are taken over and initially they would retain their identity but soon become subsumed into the larger group. Many of these acquisitions are driven by the ‘city’ and part of the consequence is a business model geared to efficient and profitable production and architecture and innovation often suffer as a result.

James Boyce of Berkeley Homes said it is difficult to differentiate between house builders where you are talking about completing 1,000 or more units a year. It is easier, he says, for house builders who focus on lower volumes of unique units such as Candy who specialise in the ‘Super Rich’ sector of the market.

Berkeley focuses on precision and quality rather than quantity. While other builders attempt to shift the greatest volume of houses possible, Berkeley seeks to develop more challenging regeneration sites by focusing on attention to detail which they believe produces a higher level of finish in their homes. They credit this quality, “complemented by their superior level of customer service (pre and post completion)” as one of the key reasons why 10 to 20 percent of purchasers have bought from Berkeley before or have been recommended by a friend who has bought from Berkeley, reinforcing their tag that one should ‘experience the Berkeley Difference’.

Matthew Byatt, Head of Sales and Marketing at New Hall, Harlow, Essex, which is a new residential development comprising more than 2,000 homes, believes it is possible to

build a successful brand. Currently they don't have a brand, but "they are spending a lot of money developing one, taking out quarter page ads in the national press".

To the question of which house builder does he admire, Matthew cited Berkeley and Countryside (Essex and Hertfordshire). "The key thing in this business is location and specification", he said.

There are 'aspirational customers' at all levels including first time buyers where brand matters, but the critical things remain: good PR, stylish advertising and getting the basics right. Matthew believes most firms are marketing led, though the industry has a history of letting themselves down; their sales / customer service staff in their showrooms "have been more order takers than marketers". This was true in the 80's and 90's, he said. Now a days, Matthew's staff are 'sales consultants' and "they take you on a journey".

Malcolm Pitcher who was a former Marketing Director at Taylor Wimpey during the period when they tried to build Wimpey as a brand, left the company to set up a consultancy called 'in-house'. David Birbeck (Design for Homes) recommended Malcolm.

"None of the top house builders are run by designers or marketers", Malcolm said. I put this to him..... 'run by accountants' – he didn't disagree. He mentioned two firms that he thought were standouts: Berkeley and Redrow. "Don't ask customers what they want because they don't know – they will talk about yesterday. Instead observe how they live".

Malcolm believes you build brand from the inside out. It starts with location. When he was in the US he asked people in Indiana where they wanted to live and they pointed to a 20 square mile radius and in this space there may have been 30 developers. In the UK if you ask the same question, you may only have 1 or 2 developers in the same 400-mile area and "with fewer developers means fewer choices".

He mentioned about Barratt's national advertising campaign some years back with the use of a helicopter featuring various locations around the country. Malcolm believes there is a difference between 'awareness', as in Barratt and their national campaign featuring a helicopter, and 'image', and that people (senior management) are confused by the two.

A good web presentation is important as is effective 'local advertising'. "The key, he said, is to wow your customers with experience".

He was critical of the selling process within the industry and unlike Matthew Byatt at New Hall in Harlow, his view is precisely the opposite, "people haven't sold houses in 10 years; they are order takers". At board level, he believes that senior executives across the industry are not passionate about customers. Few, he said, get emotional. "They don't discuss features and brand".

He talked about Lexus and 'the little things.' When you give a key to a valet it should feel heavy and solid and so the Lexus key is just that, heavy and solid. David Birbeck (Design for homes) said that "volume house builders don't do brand, though some have tried without success".

Alexei Orlov, who was a marketing manager with Redrow in 1996 tried to develop Redrow as a brand and was sacked in 1997 when he publicly said the boss did not understand it. Alexei has since left the industry and is now a key figure in the advertising industry; despite repeated requests I have not been able to get an audience with him.

It was important, David Birbeck said, "not to make too many claims or otherwise you will get yourself on the consumer awareness programs".

Early in my research it was apparent that there is no consensus about the importance of brand - of what it can do for business, though my marketing instincts tells me, done well, 'effective branding', could be a very powerful asset in developing Cottesbrooke.

“Developers will take a view on the site and design accordingly”. David was basically saying there is no developer which does innovative housing all the time. They will design according to local needs which is basically code for, they will build what sells and will take few risks.

Most of the developers are run by management accountants who may have worked in other industries or executives who have worked in the housing industry all their lives. “Few if any are run by marketing people”.

David likes Tim Hough (CEO) at Miller Homes the 7th largest house builder in the country (Housebuilder, 2008). Tim has tried to develop brand value mostly through better communication to customers.

He said “that Wimpey were known as having fewer defects in their houses, better back up but this did not translate into more sales”. In the late 90’s Wimpey brought in a marketing director from Volkswagen, recognition of their willingness to search for the best talent and best ideas where ever they are. Barratt were a rival at the time.

“Some have tried but none have been successful at building a national brand”, David said. The larger developers have regional brands. He shared about one of the big house builders having strong brand recognition in the south but up north they were not well respected.

Basically, the industry is not interested in building brand where no company has more than two to three percent market share. According to David you need 30 to 40 percent of the market before you can do this.

He talked about Eric Lyons and SPAN, in particular Mallard Place in the 60’s. There was a view then that brand could be developed.

David thought this would make for an interesting dissertation topic exploring what has happened in the last 50 years. If the view then was brand could be built why can it not be built in the current period?

Brand exists in other industries, consumer electronics (Sony, Samsung), in the car manufacturing industry (Toyota, General Motors and the up-market brands of Mercedes and BMW). It exists on our high street with retailers like M & S and Tesco, so why not in the housing industry? It's a 'consumerable', so it should be possible to differentiate. The four walls of a house don't always need to be the same, the windows, doors, rainwater goods and importantly the cladding can be made to look different.... there is surely enough space to do 'design' and good architecture.

Eric Lyons of SPAN bought into a landscaped community. He was convinced that resident societies helped engender a sense of belonging and community. Lyons performed the function of 'architectural generalist' taking an active involvement in the design, town planning and landscaping requirements of the SPAN housing schemes.

Nick Rogers (Design Director) at Taylor Wimpey described the key things that matter in housing: the right place, customer attractiveness and cost effectiveness. They adopt a standard house design. They have only one supplier for their bricks across the group (again he repeated the starting position is cost).

Nick does strategic but he doesn't do brand. Kevin Belsham (Director of Marketing at Taylor Wimpey) does brand, though despite repeated requests I was not able to get an interview with Kevin. Nick's main job, as he put it, "is to raise the standard of design across the group" and across the group there are 24 regional businesses (all stand-alone companies). They are currently going through a post-merger activity combining Bryant, McLeans and George Wimpey which he said "was a three to five-year plan".

They have a standard house type which can be regionally adapted and he is increasingly pushing for more standardization. One of the key focus areas for Wimpey concerns

“sustainable communities”. The two words ‘sustainable’ and ‘communities’ are both liberally used here. Sustainable, basically means, generating profits to appease their shareholders and communities means public realm and urban design; perhaps a degree of sarcasm on my part but this was the underlying theme coming from our conversation.

The reality is, the housing industry has a lot of power over government and in fairness they have strong arguments in support of their position. At the end of the day, they are a business and therefore the need to act responsibly and undertake developments that are only economically viable is entirely understandable.

The requirements set out by the government by 2016 make no mention of ‘embodied energy’. There is no requirement, for instance, to shift to more sustainable, environmentally friendly products like timber, which have a low embodied energy. A ‘2x4’ section of timber can come to market without having to spend vast amounts of energy in its production, unlike steel, concrete, aluminum, plastic, brick, among others, which all require substantial transformation (processing) and therefore energy.

The 2016 building regulations are really about energy efficiency and as Nick Rogers (Taylor Wimpey) pointed out, “this can be done with traditional construction (brick and block) and achieve ‘passive house’ energy efficiency”. Where they come unstuck is in the installation. “90 percent of the problems with air and heat leakage arise because of poor installation”, to which I asked, why don’t you use some of your marketing budget to pay your site workers more money (given that the majority work on a price).....invest in developing good project managers and you will probably cut down on your snagging budget and your customer service people will probably be taking fewer aggressive calls from disgruntled customers because of poor workmanship. The idea was met with silence.

Such a suggestion seemed to strike an accord with Malcolm Pitcher (former marketing director of the same company) who believes that brand has a lot to do with ‘providing an experience’, which in the housing industry means, give your customers a quality product.

There is something about timber, as Nick pointed out, particularly where it comes to cladding, that British home owners shy away from. The love affair with brick, it seems, remains.

Despite all the strong arguments for change and the need for a big push towards more sustainable building products, there continues to be “a measurable difference” in demand for houses with brick and those with timber cladding which Nick said was borne out in example after example across many of their sites.

Two identical products side by side: same internal space and layout, same specification, same finish and price....same everything except for cladding. The majority of customers, on all of their sites, continue to go for brick. He is in regular contact with the group’s sales people on the ground and they are all saying the same thing; customers don’t want to do maintenance and timber cladding means maintenance.

2016 is about achieving ‘carbon zero’ which is equivalent to code 5. The industry has been able to negotiate a lower definition and part of this relates to the housing supply problem. In the last financial year 210,000 units were built across the UK (Telegraph, 2009). As few as 60,000 units (houses and flats) may be built this year against an annual government target of 240,000. In the past, the top 25 house builders could be relied upon to build at least 50 percent of all output, which equated to around 100,000 homes each year, according to accounts published in the Oct 2008 edition of ‘housebuilder’.

You can wave your fist at the industry and say they simply need to meet these targets, but the harsh reality is, all these completed homes are not going to find buyers. We are in the biggest recession since the 2nd world war and credit to a very large extent has dried up, even to those who have the 25 to 30 percent deposit being demanded by banks.

There is another reality as well.... the industry is simply not geared to substantially increase the amount of product they build, and this is evident in the numbers Nick Rogers

(Taylor Wimpey) quoted: “the industry has never exceeded 5 percent year on year growth in new builds”.

The more I research this topic the more convinced I am of the conservatism that exists in the industry. Their understandable reluctance to take on risk would suggest they are not likely to be suitable partners to develop a landscaped gardening scheme.

There is one final point and it is important. The housing industry price new builds against the 2nd home market, and prices have been falling; most of the published numbers suggest a 15 percent reduction over the last twelve months (up to May 09) and with a dwindling customer base, the industry has had no choice but to cut back supply. In the medium term this is probably a good thing. When the recovery begins, it is likely to mean we will start to see prices rising again but this discussion goes beyond the remit of the dissertation.

The discussion, though is relevant, because it would make it difficult for builders like Taylor Wimpey to partner with me to construct Cottesbrooke.

Wimpey won't develop a site with less than 50 units. “For every 600 units they build they directly employ 40 people”. These are Nick's numbers.

Having described my proposals for Cottesbrooke, he said they would not be interested in developing this “because of the disproportionate amount of management time they would have to spend”.

“It would need a full-time project manager and possibly others”. As a business, “they don't have that level of flexibility”. And as for the subterranean houses, they won't touch them. One, there is almost no market and two they don't have the specialized skills, though in saying this he acknowledged that such houses can be built to a high standard.

I asked him what if they want to develop one of their sites and the relevant council says no?

In this instance would they consider going underground to preserve the integrity of the site, particularly if there are large sections of vegetation and 'green space'?

No, because they are sitting on large parcels of land where no restrictive covenants exist, and they are more inclined to build these than focus on some niche, subterranean development..... "it's about land economics and supply", he said.

On the subject of architecture, Nick believes the industry has raised their game in terms of design in the last 10 years, though he acknowledged that poor practice remains.

Nick Davis (Design and Planning Manager) at Crest Nicholson, the 8th largest builder according to the trade magazine 'housebuilder' (Oct 08), believes they are a design led organization. They position themselves as a regeneration company undertaking town centre and green field developments. Interestingly, he recognised "there was no defining feature that differentiates Crest from their competitors".

Internal specification constantly evolves, though they recognise they cannot take their eye off the external look of what they build; "it is after all what people see first". Nick Davis believes, "that in a tough market it is hard to differentiate yourself".

Victoria Finch (National Marketing Manager New Homes) at Miller Homes, 7th largest house builder ('housebuilder', Oct 08), said they try to differentiate themselves nationally. They are a family owned business and according to Victoria, the largest private builder in the UK. The main focus of brand seems to be in their communication (pre and post purchase). They undertake customer satisfaction surveys and the results are published.

6.4 Design

What can architecture (good design) do to the cost of a house?

Crispin Kelly (Baylight) thought “it added around 10 to 15 percent to the price”. James Boyce (Berkeley Homes) says that quality of design is imperative to the group’s business model. In support of this he said that “Berkeley’s success has been possible in its ability to add value through the planning and optimisation process whilst consistently producing homes that people have a desire to live in”.

Does innovative design cost more and if so will ‘joe public’ pay for it and is there demand for it?

“Normally it does cost more”, though that is one of the challenges to try to come up with an interesting product and do so at the same cost as a traditional build or less, but usually it costs more according to Nick Davis (Crest Nicholson). The main reason for this is if a different product is specified then a contractor will attach a cost premium because of the unknown and therefore the risk. New materials may be required and they may need to bring in specialized labour as well.

Developers stick with traditional because they understand it and the subcontractors understand it. Crest Nicholson use a standardized house design across the group and they try to repeat this as much as possible to achieve economies of scale. Because of site constraints, Nick said there was no point “reinventing the wheel” which would normally cost more and take longer. Housing prices are set by mortgage valuations which are in turn compared with the 2nd home market. Given the tight market conditions, this is a key consideration when undertaking a new development.

James Boyce (Berkeley) said that any product which is not mass produced will generally be more expensive and so as a rule, innovative design does cost more. Purchasers are generally attracted by innovative designs particularly in technology, architecture and fashion. Whether they will pay for it depends very much on the individual purchaser

profile and the location of the development. Typically, purchasers at the more upmarket urban developments will expect innovative design whereas the target market on a more rural housing development would expect a more traditional design. In other words, the extent to which a purchaser would pay for innovative design is unique to each individual development.

How powerful is the 'city' in the influence they bring to bear on the big developer's day to day operations?

Nick Davis (Crest Nicholson) believes they are important and “undoubtedly contribute to the homogeneity of build designs across the country, but they are one of many that influence housing design”. Given that part of his role involves negotiating, he spends a lot of his time working with local authorities on design issues.

A final question to Nick Davis was, *does anyone care about design anymore?* This was met with silence.

Victoria Finch (Miller Homes) said they have a standard house type which relates to less than 30 percent of the units they build and they have over 100 variations on this standard design, which mostly relates to layout. The other 70 percent of the schemes are guided by local architecture and other conditions in the area. They have an in-house design team but supplement this with external architects. Most of their houses in Scotland are built with timber and clad mostly in brick or rendered block; by contrast, in England, ‘traditional construction’ is used. “They are very conscious of the need for storage in their family homes as well as maximizing natural light” which is why bay windows feature in many of their houses.

Skilled workers

David Birbeck (Design for homes) said there are very few skilled site people: a comment which he said was relevant across the board and includes project managers, builders and associated trades people.

6.5 Marketing

Malcolm Pitcher (ex Taylor Wimpey) believes housing design and layout are getting better; “you had rows of tacky houses in the 80’s” Nowadays you have firms like Redrow, offering in their new range of mid-size homes, big doors opening onto the garden from the kitchen.

Before coming to the housing industry, Malcolm worked at Honda in their R & D department. “A lot of what they did there was observational”. He and his team would visit different locations to observe customers going about their daily routines. He described a visit they made to supermarket car parks where they would watch people loading their cars; observations from this led to changes in the boot design of some of their models. This progressive, behavioral approach to trying to understand their customers is in stark contrast to his Wimpey experience and his view on many of the volume house builders, which he broadly regards as being “non progressive”.

Bathroom story at Wimpey

He believes in giving designers an open brief with few constraints. The housing industry, in his view, lacks passion; “they don’t engage”. They are very insular in their thinking and decision making and often very clinical in the design brief, “leaving almost no room for the in-house architects and those the industry engage externally to come up with fresh ideas”.

To get a house right you need to get the bathroom right. Malcolm Pitcher (ex Taylor Wimpey) recounted how he spoke to his in-house designers / architects about improving their bathroom designs.

He presented the designers with a toilet roll because he said many of the houses they built “had no logical place for one and the bath panels were flimsy”. The panel should be sufficiently robust so as to withstand being kneed by mum and dad as they wash their children. “It should be able to last for at least 5 years as little Joey is growing up”. In

presenting the designers with the toilet roll holder they then proceeded to ask questions about size to which he replied, for two adults and children. Their questioning continued.

The story illustrated the top down ‘we have all the answers’ approach from management. In the past, designers had been given very specific design criteria; as a result, “they had never really been designers”. He wanted them to free up their minds and allow them to come up with their own ideas.

He approached one of their suppliers (Symphony) with a design. They then came up with a product which they agreed to provide a two year exclusive on, only to find that one of Wimpey’s directors had gone to another supplier and organized to build the product for £10 cheaper, in so doing undermining Malcolm’ relationship and presumably the contractual agreements he entered into with Symphony.

Basically, what he was saying is, Taylor Wimpey are run by accountants. They are not about relationships. “It is all about shifting homogenous product as quickly as possible. You don’t build brand this way and as an organization, they don’t really offer a unique proposition”.

A different business model

Leanne Forshaw (Communications Manager) at Urban Splash described their business..... they want to get cities working again, making them places where people would want to live. “They believe they build customers amazing homes with imagination and top-notch architecture. Just like other Europeans, they believe people want to live in UK cities and in buildings with soul”.

‘They strive to build inspirational spaces and offices with independent retailers. They want to make places to work that were part of wider communities and they have been doing this since 1993’.

Urban Splash's fundamental principles are based around identifying disused properties. Leanne said they are not aggressive acquirers of land though they do build new houses as they have at their 'New Islington' site in Manchester. They describe themselves as "the regeneration company", designing with the surrounding in mind. 95 percent of their schemes include a combination of commercial, retail and leisure.

"The key buying decisions come down to design, location and affordability". These are their main selling points. Urban Splash generally uses both architects and separate landscape designers. For some of their schemes they have had competitions where they have invited architects from around the world to design their developments.

'New Islington' (Urban Splash)

Based in Manchester (old mill buildings), New Islington is built on brownfield land with some new builds as well. The new builds are called 'tutti frutti' and in contrast with most other developments, they sold individual plots for people to design their own houses. They were intentionally looking for mismatch and something really different. Planning restrictions on their 'tutti frutti' scheme, basically came down to size only. Houses were restricted to a width of 5m and a height of 6m but there were no restrictions on cladding.

Landscaping

Leanne (Urban Splash) said that residents pay a maintenance charge which also includes the upkeep of the gardens which they themselves manage. Urban Splash regard landscaping is an important part of what they do.

Do they have any sense of whether landscaping helps with the bottom line? Does it help with margin or is it mainly an aid to marketing and therefore a way to shift product?

She didn't want to offer an opinion on this and was not aware of any studies in this regard though she did say they aim to include commercial facilities which provide local employment.

In his view, David Birbeck from Design for Homes did not believe that landscaping added value to a development.

Specific developers and landscaping

‘Countryside’: have built a development where they have landscaped a ‘Paris atmosphere and identity’. Berkeley homes have done similar works at Woolwich Arsenal, Charter Key and Puckney Wharf.

Urban Splash incorporates landscaping into their designs. At their Castleford site, seven architects were asked to design seven different cows and these are on display; in addition, they have used soft landscaping involving earth works with different plants.

Crest Nicholson’ developments in Bristol, Birmingham and Dartford work well, according to David Birbeck, because of their landscaping, though he pointed out, things don’t always go to plan. The same developer at their Port Marine site (it was previously a coal mining area) came across problems with phosphorous which was exploding on contact with air.

Private gardens and public realms

Urban Splash created a public park called Cottonfield at their Longlands Mill site in Cheshire. The scheme comprises a private garden and at their ‘Chimney pot park’ where 300 terrace houses were restored, connecting alley ways are now car parks and each resident has a garden at first level with the bedrooms at ground.

Nick Davis (Crest Nicholson) believes the size of the garden is not important to most people. Most are happy to have an area where they can sit outside and which is low maintenance. They incorporate public realm into their schemes (both hard and soft landscaping). They use external designers for their schemes and endeavor where possible to bring these designers in at the start when they are developing their master plan.

Japanese gardens

Philip Cave Associates were recommended by the Japanese Embassy. Their business designs and builds Japanese gardens. The principal, Philip Cave, said “the key elements of Japanese gardens were the style of rocks and subtlety in the colours (both plants and materials). Japanese gardens are typically small. They need to be enclosed to make them work”.

Where are the better examples of more recently built Japanese gardens in the world?

The US and Germany. The interest in gardens in Germany, he thought, was due to the relationship they had during the war.

In the UK, there is a Japanese garden in Hertfordshire called Cottered which is in private ownership. It was first laid out at the start of the 20th century by a wealthy china merchant named Herbert Goode.

National Garden Scheme (NGS)

Valerie Caldwell, Deputy Chief Executive of NGS said their organization is set up to facilitate garden open days. “They have their own chosen charities (determined by the board of trustees) where the proceeds of the garden days go”. The average attendance across all the gardens is between 200 and 300 and is typically held one day a year in an afternoon. NGS cannot dictate an entry fee however they recommend £3 for adults with free access to children.

The gardens are mostly based in rural locations. She was not aware of any community gardens (gardens designed, built and maintained by the residents) along the lines of Cottesbrooke, anywhere in the UK or anywhere else.

The Queens Residence gardens in Windsor (Frogmore) average between 1,500 and 2,000 people over a full day and many of the visiting public are from overseas. NGS organizes a coach campaign to bring in people from outside the area. The local marketing would be undertaken by the coach companies. Frogmore is only open six days a year so the

exclusivity is important particularly for the overseas visitors, who want to experience a regal garden.

Ambrose Place, near Brighton, recently held their 25th anniversary. They had 2,200 people in one afternoon which is roughly double what they would normally get on previous open days. Valerie mentioned they did quite a lot of publicity for this and were able to raise £12,000 on the day.

Up until 10 years ago, the target market for NGS was 55 + and was mostly female. Now it is 35+, and remains mostly female. More children come these days and they are increasingly attracting people from abroad including the US and the Continent. Couples, particularly from Belgium, enjoy coming here on the coach tour trips.

The same people often go along to Wisley and Kew but enjoy the smaller private gardens because of the experience they offer. Most will travel between 10 to 15 miles to get to the gardens. Part of the attraction is not just being able to talk to the gardeners but because people are generally from the same area, they will have similar climate and soil and so it becomes “very real” unlike Wisley for instance, where she said “you have the main gardener and then sub gardeners with few opportunities to talk to any of these”.

They do co-marketing with 100 National Trust listed properties and also offer multiple garden tours using ‘Brightwater holidays’ who offer horticultural specialists as guides.

They get between 25 to 40 people per coach and may do four to five gardens in a day which includes lunch, possibly in a pub, for which they pay an all-inclusive £85. This is currently focused on the London market only. They organise four trips around the time of Chelsea and three when the Hampton Court garden show is on.

Valerie said “it is difficult to make money because of the fixed costs involved”. These tours typically target women 55 +. They get an intimate experience and are shown

around the gardens by experienced people. They co-market these tours with the American Conservatory.

Royal Horticultural Society

Jim Gardiner, Curator, RHS Wisley Gardens, commented on the Cottesbrooke idea and said he thought 500 acres of landscaped gardens was probably too large. Like Valerie Caldwell from the National Garden Scheme, he too was not aware of any development along the lines of Cottesbrooke.

There are a number of sculpture parks in the UK that are worth seeing: Henry Moore at Perry Green, Yorkshire sculpture park in Wakefield, Hannah Peschar Gardens in Surrey, Hamilton / Finley gardens in Scotland and the sculptures in Dumfries in Scotland. These are all fairly traditional whereas the sculptural designs at Cottesbrooke will be quite radical.

At Wisley, they have a sculpture trail in September each year. In the past they have had different exhibitions including the ‘Zimbabwean stone sculptures.’

“Wisley attracts 800,000 visitors a year. The numbers have gone up since they installed their glass house in 2007”. They charge £8.50. Because of the geographic location, most come by private vehicle and unlike Kew, there is no public transport to the site, which is the same as Cottesbrooke.

Kew by contrast attracts one million visitors a year with an entrance fee of £13.50. Historically the figure has been closer to 800,000 according to Jim Gardiner, but they experienced a 15 percent increase with the Henry Moore exhibition.

Topography and site

Crispin Kelly (Baylight) is not interested in public realm. James Boyce (Berkeley Homes) says that soft and hard landscaping are an integral part of their developments and are essential in creating a desirable environment.

Does sympathetic landscaping do anything for margin and marketability of a site?

James Boyce avoided comment on the first but observed that landscaping is generally a relatively cost-effective way to improve the image of a development and does add value to the overall product. Natasha Callaghan from City and Country does not believe landscaping does anything for price but does help with marketing.

Architects and volume house builders

Crispin Kelly (Baylight) believes “architects cannot build estates and believes they have lost interest in working with volume house builders”. According to Crispin, volume builders are set up to build in a certain way and they find it difficult to change their ways; he also believes there is a degree of arrogance about the bigger builders.

6.6 Building houses vs. communities

During the 1990’s Berkeley adjusted its strategy away from building executive homes and towards building communities through urban regeneration. The first major example of this was at Gunwharf Quays in Portsmouth.

Crest Nicholson believe they build communities. According to one of their main designers, Nick Davis, “they try to deliver some excuse to incorporate a range of ‘tenure’ including a blend of affordable housing which he said some people remain hesitant about, but management of such places is getting better”.

Victoria Finch (Miller Homes) said “they don’t build houses, they build homes”. On the question of where they fit in with communities, she had to think about this and then

confirmed that they do build communities, many of which she said, include public spaces.

Market activity

Unsurprisingly given the current market turmoil, many of the buyers in the market are said to be ‘down sizes.’ Natasha Callaghan (City and Country) says this is certainly true with their properties. They are a conversion specialist and the majority of the buildings are listed. Very few of their developments are new builds.

6.7 What others had to say

6.71 A financier’s perspective

John Lee (Marketing and Commercial lending Manager) at Ecology Building Society in Yorkshire believes one of the main challenges will be in valuing the scheme; not just the gardens, associated amenities and the businesses that could be developed around this, but the architecture (houses) as well.

Established in 1981, the Society has assets in excess of £60m. Their vision is to specialise in properties that convey an ecological benefit in terms of construction, use of land or lifestyle.

Ecology Building Society is one of few lenders that may be sympathetic to the ‘green architecture’ proposed at Cottesbrooke including the subterranean houses, which John said, “would be the least of their worries”. It would also be difficult to value the overall development finance; “the more unusual the project, the greater the risk to the bank”.

When assessing applications financiers are looking for exit strategies.....”if the project were half complete, would they be able to find a buyer”? The short answer is, few if any developers are likely to have the expertise, patience and time horizon for seeing Cottesbrooke through to completion that alone the appetite for the risk such a project is

likely to represent. The target market is small and there are no other similar types of developments and therefore there is no 'proven' market.

The availability of development finance is limited for 'speculative and open-ended developers' and in the current climate and foreseeable future, it may be difficult to find credit. Ecology Building Society would require a "reasonably high" percentage of the development to be covered by pre sales; as much as 70 percent, he said. With a loan to value of no more than 70 percent, I would therefore need a deposit of not less than 30 percent for both the land and development costs. They would also require six months interest cover on deposit and evidence that I would be able to service the interest and capital repayments. The 'Societies' basic position is they want to take on little to no risk and that is probably the wider view across the financial services industry today.

Given the value of the project, which is probably in the region of £10m (though this has yet to be properly costed as it goes beyond the remit of the dissertation), Ecology Building Society would not be able to assist. Their exposure to any lending is restricted by the FSA to a maximum of £1.1m, which reflects their relatively small capitalization.

In commenting on the scheme, John thought a green field plot of land could be quite expensive to purchase and suggested it may be more feasible to buy brownfield though in saying this, if extensive remedial work is required, a brownfield development may prove to be more expensive in the long run; and if it were green field they would only lend if there was outline planning permission in place.

Such comments suggest that 'traditional lending' is probably not an option unless I can do substantial pre marketing and get people on board early and at the same time come to some long-term arrangement with the land owner at Cottesbrooke in order to avoid any substantial outlay at the start.

6.72 Savills – view from a leading estate agent

Tim Deakin (Eastern Regional Director) at Savills, summarized my proposal: “low density, high level architecture, country estate in scale”. Having talked through the scheme and outlined the vision he indicated this is not something that Savills could partner on, though they may be able to offer consultancy (for a fee) and take on the listings when the houses are complete.

He felt a better approach would be to work with a good quality regional developer. From a marketing point of view, he felt a good place to try to find potential clients are through architects.

The main issue will be the ‘positive covenants’ which will effectively require people to work on building the landscaped gardens; because of this, he thought such a scheme may be difficult to sell on.

Such a concern, I anticipated, and I don’t see this as an issue. Like the owners of subterranean houses, they almost never sell their properties. They are a niche market and the available evidence suggests that when they commit to a lifestyle change of living underground, they stay committed.

Tim has had no experience of taking on any listings where the instruction has been to effectively screen applicants, in this case for their ‘suitability’ of joining the Cottesbrooke community. Again, no surprises, though I was slightly bemused, that in his role as director, he so quickly passed up the opportunity to earn a higher fee and become involved with such an innovative scheme and where nationally I would have thought, there would be some real cache for Savills to be associated with such a development.

6.73 Joanna Trollope (novelist) – what she had to say

Joanna is a highly-acclaimed best-selling author of contemporary novels and historical fiction and has personal experience of living the ‘rural idyll’. She was one of three guests on a radio 4 program in August 2008 that debated this topic. The other guests were Sir Howard Newby (Vice Chancellor of the University of Liverpool) who declined to participate in my research and Dr. Martin Philips from the Department of Geography at the University of Leicester; his comments follow.

Joanna regards the rural idyll “as a peculiarly English romance.....other European countries don't seem to believe that life will be better and purer, with people to match, in a rural setting”.

As a nation, she said, “we seem to persist in believing that a better and nobler life is to be had in beautiful natural surroundings, and even more importantly a greater chance of happiness”.

“The phenomenon of the country house ads, in all their glossy glory in the weekly magazine, Country Life, is surely evidence of this hope and aspiration”

Joanna left the country four years ago. Friends and family commitments, as well as her professional life were increasingly hard to fulfil from a remote place, and “she also developed a distinct taste for the stimulus - largely cultural and social - of living in a city”.

She thinks “the longing for the country is a direct result of the pace and tension of modern life - certainly stimulating, but when out of hand, uncomfortably stressful, so that there is an understandable desire to escape, and the countryside, by its very contrast seems to offer a change of pace, and peace and healing....”.

To the question of could Cottesbrooke be for her, she said she “would find it a little pedagogic, being taught so much so earnestly all the time, and asks, wouldn't it be rather noisy? One of the reasons people dream of the country is, after all, the relative quiet...”

6.74 Martin Philips (Reader in Social and Cultural Geography, University of Leicester)

Martin spoke about two different communities, ‘low impact’ and ‘private’. The low impact communities are often associated with permaculture and unlike Cottesbrooke generally do not seek to build destinations. Many of these communities are built without planning permission and many in recent years have received such planning (retrospective).

Private communities, by contrast, focus on leisure and retirement. These are normally located in cities and semi city locations; no special planning permission is needed for such communities. Increasingly people are ‘teleworking’ while others, Martin said, are ‘setting up businesses’, subcontracting for firms and working from home. These communities typically target those who are 50+.

To the question of which group/s could prove to be obstacles, he mentioned the Council for protection of rural England, though recent contact with them indicates they have changed their name to Campaign for protection of rural England (CPRE). According to Martin, they retain the ear of the government and are a powerful lobby group.

CPRE use to be about preservation and now are more targeted in their campaigning, suggesting perhaps a lack of resources, a media that is less reluctant to champion their cause and possibly a more pro-business attitude at a local planning level. Whatever the reason, they have had to become more pragmatic. Martin implied this pragmatism could work in my favour and they may find sufficient merit in my proposals to recommend approval.

“Residents complaining of too many village fetes and incomers who are simply too keen to get involved in everything”.

I asked Martin about these quotes – he said he was aware Radio 4 attributed these to him, but they were not his.

On the subject of sustainability, he acknowledged there were different interpretations, one of which is to reduce the use of private vehicles.

6.75 Catherine Boyle (property journalist – Times)

Catherine covers the property market from a financial perspective. To the question of who does she think are the standout builders, she said Berkeley and Bellway and at the other end, “hideously dull”, was how she described Taylor and Barrett.

Eco homes are being driven by the government. There is very little demand for these houses coming from the general public, she said. To the question of who is at the helm of these builders..... “shareholders - it’s all about building product and getting cash flow”. As for marketers within these firms, they basically don’t exist. “The firms, in the main, are being run by ex-bankers and accountants”.

6.76 View from Communities and Local Government (CLG)

Alan Scott from CLG confirmed there are three key documents that are relevant as far as Cottesbrooke is concerned:

1. PPG2:
 - Planning policy guidance notes
 - They came out in 1995 and are still current today
 - He said there are no plans to revise these in the near term
 - There is a general presumption that building on green field is inappropriate
 - Housing is an exception in some circumstances where they target low income earners for instance
2. Regional spatial strategy in each region
3. PPS7: Countryside including greenbelt

Isolated developments that are outside villages or existing communities are unlikely to succeed, which is exactly where Cottesbrooke is. The site is just outside the village. Though in saying this, there are grounds for challenging a rejected application. You need to be able to demonstrate that the harm to green field is outweighed by the benefit to the local community.

There are different appeal mechanisms. It can go before a planning authority chaired by a planning inspector, who is the representative of the secretary of the state. Where it is a small change to an existing regional spatial strategy, then there would be a public consultation.

The planning inspector directorate has a database which lists all the appeal decision records which may assist in helping to frame a better argument if an application were rejected.

Importantly for Cottesbrooke, there are precedents of residential developments on green field land. One of which is based in Cotswold Water Park. Alan knew little about the development other than to say it was not 'a typical'.

View from the planning authorities

June Kelly (interim Head of Development Control) at Northampton Borough Council made it clear that the authority's position was no different to that at Hertfordshire Council where she previously worked, which she said was 60 percent rural..... "there you had a slim to no chance to getting planning permission to build on green field".

There is a presumption against developing green field and it is up to the developer to make a case. By contrast it is up to the council to explain why they are refusing a 'normal planning application'.

Having outlined the scheme proposal and the location, which I believe she was familiar with, she said “she would not be convinced of the merits of such a scheme”. She basically said there are existing Japanese gardens in the UK and her question was, why bring them to the sleepy backwater of Cottesbrooke.....because it is rural, I said, and that is the point of it; to have gardens in a natural setting. She didn’t buy the argument.

Simon Excell (Sustainability and Regeneration Development Manager), Gloucester County Council, said there is a difference in terms of planning criteria between green field, green belt and areas of outstanding beauty.

Issues to consider from a planning point of view

Access, design and sustainability are important, though even if you get sign off on these, your application may still fail because of highway and traffic concerns. If new roads, upgrade of existing roads or car parks are required, which they are at Cottesbrooke, this together with the rural location, may prove to be a substantial obstacle which will need to be overcome.

Any application is likely to require an environmental impact assessment and probably an assessment on the impact of the air and water quality. I would also need to discuss the sustainable drainage proposals in detail.

As for wind turbines on the site, June Kelly (Northampton Borough Council) said I would struggle with this; and as for procedure, if they went against policy guidelines and recommended the scheme be approved, the matter would be referred to the regional representative of the Secretary of State for their approval because of the development on green field and this body has veto power.

Nick Davis at Crest Nicholson believes one of the best strategies would be to pursue an application with an emphasis on **PPG12** which allows the creation of new country houses in very specific situations. He acknowledged it would need to be a high-quality proposal.

He thought probably nine consents for such properties are given each year across the UK. Local authorities are mostly interested in ‘sustainable’ developments and a key feature of this is a ‘total non-reliance’ on private vehicles.....sites therefore need to be close to rail links, shops and schools. Cottesbrooke offers none of these.

Timber

Will we see more timber used in houses in the UK?

Nick Davis (Crest Nicholson) confirmed they use different types of timber cladding including mineral board, which he said is long lasting. The main reason for low take up of timber houses is the maintenance required.

Plastic windows came in and are widely accepted because of the poor softwood timbers that were used, particularly in the 60’s. The Scandinavians use softwood timber but everything is factory engineered and they use superior softwood timbers. By contrast a significant part of the window construction in the UK (in the past) was done on site and poorer quality timbers were used, and as a consequence problem occurred.

Micro renewables

Nick Rogers (Taylor Wimpey) believes they are extremely inefficient. “The energy outputs that are claimed are very dubious”; though they use Photo Voltaics (P.V’s) on their apartments. The key to ensuring they don’t have the problems that Hockerton seem to experience, with settled dust and other particles causing the effectiveness of cells to be reduced, is to ensure they are “installed at a self-cleaning angle”.

6.8 Example of a development on green field

Crispin Kelly (Baylight) is working on a project in Chesterfield which was green field (the land was previously a mine). A golf course had been built on it and they now have planning to build 250 self-contained lodges.....a dome with leisure attractions, water features and hotel etc. The site is being developed into a tourist attraction.

Simon Excell (Gloucester County Council) confirmed a master plan is being prepared for Cotswold Water Park. Scott Wilson (a planning consultancy) has been retained to complete a three-stage process. At the end of April 2009, the 1st two stages have been submitted:

- Stage 1: vision and implementation plan (consultation draft)
- Stage 2: key issues and option evaluation
- Stage 3: strategic framework for the Cotswolds

The ‘local development plan’ was crucial and the master plan recommendations will reflect this. The park crosses boundary lines and includes Wiltshire. 90 percent of the site is green field. The remaining 10 percent is car parking, residential and mining. The site is spread over 40 square miles. There are many competing interests and while Simon is not intimately involved in the proposals, he believes there are multiple developers. Some of the planning submissions want to use it for houses, some for sport and recreation, others for minerals, and others again, want it left as it is. There is very little public transport to the site which is a negative. On the positive side are the tourism opportunities.

Dr. Martin Philips (University of Leicester) mentioned they ran an architectural competition for the site. Many of the new builds are 2nd homes, suggesting there is ‘money’ coming in; also on the site are existing suburban houses with a higher density than the ‘signature architecture’ developments.

While Cotswold Water Park clearly has much more scale than Cottesbrooke and has many competing interests, it is at the end of the day, 90 percent green field and by all accounts the authority is very interested in the tourism and local employment opportunities which such a scheme could generate.

Lobby group

The Countryside Alliance is a big lobby group and is likely to be opposed to such developments. According to their website, their agenda is about preserving as much green field land as possible.

6.9 Comments on my proposal

Crispin Kelly (Baylight) thought the crucial decision would be maintenance and how this is paid for. He did not think gate receipts would be sufficient. In fact, he said a business plan on such a proposal should not include any reliance on any income stream from visitors; I should find other sources of income, was his message.

Would you be interested in developing my idea?

James Boyce (Berkeley Homes) said they pride themselves on their ability to develop 95 percent of their dwellings on brownfield sites and so it is unlikely they would be willing to build on green field.

Matthew Byatt (New Hall) asked whether older people (retirees) would be interested in building the gardens; and no, he did not see his company being interested in the Cottesbrooke proposals.

As a business model, David Birbeck (Design for homes) thought that forming a co-operative like at Hockerton would be the way to go with Cottesbrooke.

Nick Davis at Crest Nicholson described it as an “enlightened gentrified country house” and thought the idea had much merit but Crest would not be interested in such a scheme.

Victoria Finch (Miller Homes) would not be interested. She did not think there would be much demand for this and suggested it would be a difficult proposition to market.

Simon Excell (Gloucester County Council) said he is not aware of any similar scheme. If a planning application were submitted to the district council in Gloucester, he thought it may be reviewed positively. The key elements that were of interest are the scale of the development, the potential for tourism and for generating local employment. Such a scheme will automatically get some crosses (green field, need for private vehicles etc), but what was critical is to get as many ticks in as many boxes as possible.

Some of the comments that were made

Baylight (Crispin Kelly)

They build with direct labour as opposed to contractors. They do almost everything on site. He builds with brick though they are selective with what they choose. He has been going through the “discovery period” and was now in the “mistake period”. He targets the lower quartile.

He does houses (not flats). Orientation is important. On the subject of micro renewables, he claims to know little about these and does not incorporate them into his designs.

He is interested in appearance. He utilizes larger windows. He is also a fan of SPAN and mentioned their project in Blackheath as being a benchmark for their business model.

New Hall (Matthew Byatt)

40 percent of the space is open with lots of mature trees. Residents pay £190 per year to have the gardens maintained which he said has received a lot of opposition. People ask, why the council doesn't pay or do the work’because it is a private development he would say’.

Some at the top of the site that cannot see the water features and gardens feel they should not have to pay. The site plan is based on the original master plan put together by Frederick Gibson. They are offering some space for allotments on land they cannot develop for which there is a waiting list.

Crest Nicholson (Nick Davis)

Nick was surprised when I described them as a volume house builder; “they are not in the same league as Taylor Wimpey, Barrett or Persimmon which he described as the premier league” in terms of the units they build. They regard themselves as medium size builders.

Design for Homes (David Birbeck)

Design for homes is a body set up to promote excellence and sustainability in home design. He thought an investigation into why garden centered communities, which was a strong business model in the 60’s, was less relevant today. “The top 50 are building between 1,300 to 20,000 units per year though this has declined in the last 12 months”.

In commenting on subterranean houses, David did not feel there would be many people who would like living in such places which is why he said it would be difficult to sell on the open market..... “people don’t like having windows just to the front”.

Miller Homes (Victoria Finch)

Victoria said that 90 percent of their customers live within a 20-mile radius of their developments. Their target market is across the board including 1st time buyers, down sizes, retirees and those in the market for executive homes.

Chapter 7

‘Conclusion’

Chapter summary

Chapter 2 Green architecture

Asks, what makes a green house? Are ecological materials and solar panels on roof tops the only signs of environmental architecture? The text explores how a heightened awareness of environmental issues has influenced architecture and analyses the relationships between construction and the environment.

The chapter considers 'sustainable architecture' as an alternative to the industrialised societies' wasteful legacy of short-term construction concluding with the argument that without 'art', the whole idea of sustainability fails.

Chapter 3 Green architecture at work

Reviews examples of green architecture around the world including the 'Real Goods, Solar Living Centre' in California which is constructed with straw bale insulation covered with pneumatically applied earth and cement mixture. 'The Hockerton Housing Project' in the UK and the 'Association Sens Espace', a Paris studio composed of architects, artists and engineers who support the currently held view of most environmental psychologists that nature deprivation is at the root of an increasing number of mental disorders, are also reviewed.

Other areas of focus include a critique of 'utopia', the delusion of architects and the historical journey of radical architecture, which has often failed, concluding with farming techniques in the US.

Chapter 4 Landscape architecture

Examines the key influences on gardens including the Arts and Crafts Movement, architects like Hermann Muthesius and Frank Lloyd Wright, cubism, art nouveau and German villages. Issues connected with land settlement and history in other countries, as well as garden designers including William Morris and Claude Monet are considered.

Chapter 5 Communities

Looks at different communities around the world and profiles two: the Kibbutz in Israel and the phenomenon of gated communities across the US. The chapter sets out the steps needed to build such communities, specific challenges and the lessons Cottesbrooke will need to embrace if it is to succeed.

Chapter 6 Housing in the UK

Seeks to answer the questions of why design matters and whether it is possible for volume house builders to be successful and profitable and do architecture at the same time?

It considers the debate about green field vs. brownfield, eco towns and the rationale for government intervention.

I review last year's Stirling prize winner, Accordia and New Hall in Harlow Essex and conclude that the industry has failed to grasp the benefits that branding can achieve. I support these conclusions and further analysis with commentary based on conversations with senior executives in the housing industry as well as perspectives by an architect, garden designers, planning authorities, an estate agent, a bank and a lobby group that is likely to oppose the scheme.

Chapter 7 Conclusion

Frank Lloyd Wright was correct when he proclaimed that 'no house should ever be on any hill or on anything. It should be of the hill, belonging to it and where possible, hill and house should live together; as it will at Cottesbrooke.

Could Cottesbrooke become a reality? The answer is inconclusive.

However there have been green field, low density housing developments approved and such a scheme is currently going through planning at Cotswold Water Park in Gloucestershire. There are many similarities to Cottesbrooke: one, the site is only accessible by private car, two (and importantly) they have plans to turn this into a tourist attraction with opportunities for local employment, and thirdly, 90 percent of the site is green field. I also understand there are a number of well-known architects that are looking to build prize winning houses with substantial private gardens, though the full scheme outline remains fluid.

7.0 Summary and conclusion

7.1 Proving / disproving hypothesis

Further research is required to establish with any certainty whether building a landscaped garden community like Cottesbrooke is a viable option.

As for the five objectives outlined in Chapter 1: to investigate trends in green / sustainable housing; communities; housing design in the UK; earth structures and the importance of brand, further research is also required, though on the latter, available evidence suggests that ‘brand’ is not currently used effectively across the housing industry and could be a determining factor, if effectively used, in developing Cottesbrooke into a leading tourist attraction.

7.2 Inconclusive arguments in support of the main hypothesis

Just how much idealism can architecture support? To be prophetic has its price and the history books are filled with non-building missionaries. Could Cottesbrooke shift from the pages of this dissertation to become a reality? The answer is inconclusive. Major obstacles, not least of which are planning constraints and an unknown as to the willingness among the gardeners to embrace the idea as residents and a paying public, could consign this to the history books.

There may be a reason why such a scheme does not exist in the UK and by all accounts anywhere in the world, because there is no demand for it. No demand for potential residents who are monied, able bodied and passionate about garden building or the general public who may prefer their Kew’s and Wisley’s with their topiary and formal rose gardens. It may also be that they prefer to see their ‘banksy’s and other urban artists sprayed on the walls of cities across the UK instead of on walls erected in 500 acres of pristine countryside. It could also be the case that the public do not particularly care where we get our fuel from and so planting acres of 1st, 2nd and 3rd generation bio fuel crops with their associated displays, may be of no interest.

Finding a sympathetic backer may also be challenging. It is unlikely that a ‘traditional’ bank would offer funding given that there is unlikely to be any cash flow for at least three years. Even if we were able to get planning and persuade local residents to support the scheme and find 15 couples who are able and willing to put in the hard graft, there is still the matter of vehicle access which will need to be resolved.

The main gated road leading to Cottesbrooke is predominantly single lane and could not accommodate a large number of vehicles, particularly if they were coming in both directions. Upgrades of another nearby road would be required as well as the provision of substantial car park facilities. Would the locals continue to be supportive if they knew their little community was going to have 100,000+ vehicles travel to the area each year? My sense is if they knew the ‘true’ ambitions for the site they would oppose it; though I could be mistaken.

Conversations with other local authorities particularly Gloucestershire, as well as conversations with many of the builders, the curator of Wisley gardens and deputy CEO of the National Garden Scheme, suggest that Cottesbrooke could be built and that a landscape garden community could emerge from the rolling hills of this quiet Northamptonshire village.

The locals could come to fall in love with the themed gardens and be proud of having one of the best examples of modern landscaping in the world on their doorstep and the tourist potential this may bring. These are all unknowns and the only way to properly gauge public opinion would be to further develop the proposals and present it in a town hall meeting with fully worked up schemes including architectural and landscape designs.

7.3 Proving my objectives

7.31 Is there radical change a foot in green / sustainable architecture?

As regards housing in the UK, the answer is probably no; at least not in the foreseeable future. Are the building arts at an early stage of a radical transformation that will

ultimately change the way we live? Again, there is no evidence to suggest this. It is undoubtedly the case that houses are being built with a higher level of thermal efficiency than 10 years ago and there appears to be an increase in off-site production at least with the volume builders, though there are some that are bucking the trend. Developers like Baylight, construct their houses on site and while the typical model seems to be to contract out everything except for 'essential' services, Baylight employ their own builders and by doing so feel they are able to maintain a higher level of finish.

7.32 Earth structures: do people in the UK want to live underground?

No, they don't. Subterranean housing is not new, but few have embraced this way of living. There are more negatives than there are positives according to David Birbeck of Design for Homes, and this is borne out in the number of people who actually live in subterranean houses in the UK.....less than 100 out of the UK's 21 million homes are underground.

The Swiss architectural practice, Vetsch Architektur, have revolutionized underground living with their open plan accommodation. Their light, airy organic designs are a feature, and it is these design qualities I am interested in replicating at Cottesbrooke.

Countries like Japan have had no choice but to adopt underground living given that roughly 90 percent of the country is mountainous and cannot be built on. Such a relatively small land mass accommodating over 126 million people requires new thinking. but such thinking is unlikely to be embraced in the UK, at least not among the big builders because they are sitting on large land-banks with few if any restrictive planning covenants. So why would they construct underground accommodation for a public that is dubious about the benefits of such accommodation and expose themselves to potential risks, because it is after all, 'nontraditional' construction? I am happy for the masses to be skeptical because I only need five residents to embrace the idea and then 1/3 of the houses at Cottesbrooke are occupied.

7.33 Can you build communities from scratch?

Experience suggests the process of bringing people together is normally best achieved where it is organic.

So, can Cottesbrooke bring disparate people together, possibly from all over the UK and build a successful community? The answer is yes. It is certainly possible and in chapter 5 I explore some of the critical elements of achieving this. A clear vision/goal is a must as is a coherent group decision and communication process that everyone can buy into, as well as a clear financial structure which sets out the outcomes each can expect to receive depending on their contribution. Questions on how decisions are made and who gets to make them will also need to be answered.

7.34 Is there a case for developing brands in the housing industry and at Cottesbrooke?

The answer is, why not. They do it in most other industries and in many cases successfully, so why can this not be replicated in the housing industry and at Cottesbrooke?

The answer is simple but it's also complicated. A former marketing director of the number one house builder in the UK, Taylor Wimpey, thinks you can build a national brand. Even though he has built a successful consultancy practice advising clients like the top 10 builders, he doesn't believe the right people are in place at the top. There needs to be a much stronger voice for building a 'customer experience' at board level, and this necessarily involves developing schemes that are truly community in their philosophy and will embrace different elevational designs and layouts, public realm, street scapes that blend in with their surrounds and which discourage anti-social behavior and shifts people towards walking, cycling, carpooling and public transport.

The founders of SPAN certainly think you can build brand and at the same time build communities and a good margin business, as is evident in the prices SPAN developments, like those at Blackheath, have been achieving over the last 50 years.

My conversations confirmed a consensus among the builders that it is possible to differentiate your offering at a local level and all of the firms have programs in place to do this. What is not clear is whether you can roll this out on a national level and whether this could then have some discernable benefit to the business in terms of selling margins and edification through positive word of mouth which firms like Berkeley Homes have been successful in achieving.

7.35 House building as a manufacturing process

House building companies have been criticized for their overall approach to design and for their commitment to house building as a manufacturing, rather than a design process (Black, 1997).

The question therefore is, *are volume house builders in the UK in the manufacturing business?* Yes, they are after all a business, and the majority of the big builders are listed and therefore have shareholders. As the bastion of capitalism, the ‘city’ is particularly good at pushing for higher returns and marking down any whose profits fall short of expectations. While the pin stripe suits and skirts talk a good story of being in it for the long term, the reality in most cases (from my experience of working in the city) is they are looking for short term gains which make it very difficult for a firm to properly invest in brand building.

It clearly makes sense to run a business efficiently and that necessarily means examining how you can reduce your costs (contract labour, off site production, small number of main suppliers and standardized housing types) and then on the revenue side build a quality product that somehow differentiates you from your competitors; though this is where the argument gets messy because on the revenue side we are effectively talking about building brand and architecture that you would not normally find in the UK. How do you do this with standardized housing types and businesses that are in the main run by management accountants and where the process of ‘marketing’ is often reduced to being just another ‘cost centre’. When times get tough, as they currently are, marketing along with HR and IT are often the first departments to be targeted for wholesale redundancies.

7.4 Can we become more like ‘Gaia’ than Le Corbusier?

One need only scan the web sites of our larger builders or peruse the property sections of daily newspapers to get an idea of what is being built in the UK today. A champion has emerged to try to improve our housing stock. Organisations like ‘design for homes’ which run the housing design award scheme as well as many within government and industry are keen to move beyond Le Corbusier’ idea of houses being ‘a machine for living in’. A new generation of architects, who regard the earth itself as the ultimate ‘machine’ and the human habitat as an extension of the concept of Gaia, are needed to better engage the general public.

The industry has strong arguments given the government’s ambitious building program of 240,000 new homes per year. It is a massive target which has rarely been achieved before and no red tape or strictly imposed building material guidelines should get in the way. The concept of ‘embodied energy’ does not even feature in the 2010 planning codes or those up to 2016, so it would seem the general public will continue to have their traditional structures built with transformative materials like brick, cement and UPVC which require large amounts of energy to produce.

7.5 Further work required to prove or disprove my contention

Elements of design are often treated indifferently as ‘installed’ rather than ‘expressed’, with no clues to their sources in nature or contributions to the expanded life of buildings that alone issues associated with effectiveness or maintenance which was evident in the conversations I had with a number of builders, in-house designers and in particular, my communication with Alison Brookes (RIBA Stirling Prize winner, 2008).

7.6 Limitations

I identified and contacted 17 house builders with the view to speaking to the CEO at each of these. In every firm bar one I was blocked by gatekeepers or in the case of some of the ‘big 10’ their marketing departments had been so decimated by redundancies there was almost no one to talk to. This was certainly true at Redrow and in particular Taylor

Wimpey, the largest of the UK builders which constructed just under 40,000 units last year and employ over 12,000 people (Housebuilder, 2008). Their marketing department consists of just four people. In saying this I was able to speak to Marketing Directors and design executives at many of the firms, which in many cases, reported directly to the CEO.

When it comes to strategic matters like brand and issues concerning design and architecture these are often the responsibility of the Director of Marketing. In the case of Crest Nicholson, which is the 8th largest house builder in the UK (Housebuilder, Oct 08), the appropriate contact was Helen Saunders. She has overall responsibility for brand and while she does not sit on the main board she does report directly to the CEO. Despite numerous attempts I have not been able to get through to Helen though Nick Davis (Design and Planning Manager) at the same firm proved to be an invaluable and enlightened replacement.

In the case of the second largest builder (Barratts), they have not replaced their Director of Marketing who left before Christmas 2008, which raises the question, given the importance of such a role and more than five months on, with not even an interim person filling the role, does marketing and brand really matter to these volume builders?

7.7 Criteria appraisal

7.71 Further research

1. There appears to be very little in the way of published peer reviewed material in understanding why customers buy the 'bland boxes' which constitute a large proportion of the existing housing stock in the UK. The question is, don't people care what they live in? To this end I would seek to interview as many residents of the different SPAN developments to understand their stories, why they bought into the different schemes and what they believe SPAN delivers that other developments don't. Part of this research would necessarily involve an analysis of the contract each new resident is required to sign regarding their obligations which go beyond any council by-laws. Another focus will be to try to get national

coverage in the press. To this end I would seek to obtain favourable feature editorials in the broadsheets. At the date of printing this dissertation I am in contact with two papers about getting such an article published.

2. Hooper and Nicol' (1999) research found that 90 percent of the largest house building firms utilize standard house designs, whereas the figure is close to 69 percent for those producing 501 – 2000 units. I would be interested in understanding whether this percentage has changed particularly given the consolidation within the industry in recent years and pressure to build more sustainable homes. Beer and Booth, (1981) commented that what seems almost entirely absent from available research is any detailed analysis of the interrelationship of the whole building design process, so that the private speculative house building industry is blamed uncritically for adopting an overly conservative, populist and philistine attitude towards residential design. This could provide an opportunity to undertake further research to establish whether these conclusions remain true today.

3. A widely acknowledged difficulty with many of the benefits associated with good design is that they are hard to measure or intangible and this makes it difficult for those who procure buildings to assess how much it is worth investing in design and in construction (Rouse, 2004). Rouse says that a number of corporate clients tried to measure architectural value to justify their investment. He argues that if the benefits of architectural quality and value can be demonstrated and quantified, then additional investment into the built environment can be released. If this could be done to assess the architectural quality in housing then a strong case could be made for the builders to commit the necessary resources to properly build brand or in the alternative if it were substantiated that brand (particularly at a national level) adds no discernable value to a corporate business then they can get on with running their operations and dissolve their marketing departments. Of course such conclusive findings would mean the 'city' would need to adjust their

valuations on these listed businesses, because many have substantial ‘goodwill’ sitting on their balance sheets.

4. In chapter 2, I argue that what the green cause desperately needs is a universal commitment by governments to research and sponsor economically affordable green habitats and a grass-roots movement of hands-on builders who want to set an example of sane living at a reasonable price. This could be an opportunity for the private sector to come together (a medium size builder or a number of smaller builders) to investigate the potential of such a scheme. Government departments could play a role here with funding and assistance with planning and the national media could also be encouraged to get behind the initiative.
5. The ‘pedestal criterion’ proposes that good buildings in model form particularly those with proclaimed environmental ambitions can be weeded out from the bad examples based on whether they look more convincing installed on their intended sites or mounted on exhibition plinths. The test can throw new light on the ‘art versus design’ debate. This could make for an interesting case study to establish whether such a test could be incorporated into the ‘sustainability’ requirements proposed for 2010 and beyond.

2. CONCLUSION

Some volume house builders construct houses while others build communities. According to a number of the developers I interviewed, Barrett's are house builders, while others like Urban Splash are perceived to go beyond.

Urban Splash' schemes frequently incorporate innovative architecture and site layout, attractive public spaces with a focus on developing on-site businesses. These are some of the qualities proposed in my scheme.

There is equally division among the major house builders as to whether you can 'build brand'. Many of those interviewed believe it is possible at a local level, though doubt was expressed as to whether this is possible nationally unless you have 30 to 40 percent market share. These ideas are outlined in Chapter 7.

Some developers focus on elevational treatments where you have a relatively small portfolio of housing types from which customers select different cladding, windows and guttering, internal features and in some cases house layout, while a select few recognise the attraction of good landscaping and the importance of having house and landscape as one design feature. While specific executives at the major builders were interested in my proposals, none were willing to embrace the concept as it falls outside their strategic plans.

3. ACKNOWLEDGEMENT

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Architect	Company Alison Brookes Architects	Contact Alison Brookes (Director and founder)
Author	Name Joanna Trollope	Books written The Choir, A Village Affair, A Passionate Man, The Rector's Wife
Developers	Company Baylight Berkeley Homes (Urban Living) City and Country	Contact Crispin Kelly (Managing Director) James Boyce (Sales and Marketing department) Natasha Callaghan (Marketing Officer)

Crest Nicholson	Nick Davis (Design and Planning Manager)
Miller Homes	Victoria Finch (National Marketing Manager, New Homes)
New Hall	Matthew Byatt (Head of Sales and Marketing)
Taylor Wimpey	Nick Rogers (Design Director) and Malcolm Pitcher (former Marketing Director)
Urban Splash	Leanne Forshaw (Communications Manager)

Embassies

Organisation

Contact

Chinese

Vicky Chun (cultural department)

Japanese

Mika Kakinuma

Financier

Company

Contact

Ecology Building Society

John Lee (Marketing and Commercial lending
manager)

Gardens

Company

Contact

National Garden Scheme

Valerie Caldwell (Deputy Chief Executive)

Royal Horticultural
Society

Jim Gardiner (Curator, RHS Wisley Gardens)

Government

Organisation

Contact

Communities and Local
Government

Alan Scott

Housing
design awards

Company

Contact

Design for Homes

David Birbeck (Chief Executive)

Landscape
Architect

Company

Contact

Philip Cave Associates

Philip Cave (Director)

Local
authorities

Company

Contact

Cambridge Borough
Council

John Summers (Head of Planning)

Gloucester County
Council

Simon Excell (Sustainability and Regeneration
Development Manager)

Northampton Borough
Council

June Kelly (Interim Head of Development
Control)

LSBU

Contact

Position

Bob Jarvis

Coordinator of Urban Design Arts and Human
Sciences

Chris Powell

Dissertation supervisor and Course Director of
MSc Building Surveying

Print media

Company

Contact

Telegraph

Kylie O'Brien (editor)

Times

Catherine Boyle (property journalist)

Private

development

Hockerton Housing Project

Company

Contact

Nick and Trudi White (one of five founding partners – their Hockerton house was put on the market in July 2008)

Real estate agent

Company

Savills

Contact

Tim Deakin (Director of Development)

Rural

ethnographer

Organisation

University of Leicester

Contact

Dr. Martin Philips (Reader in Social and Cultural Geography)

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