

The Outdoor Landscapes of Cornwall's Secondary Schools; the Politics of Design

Submitted by Sarah Elizabeth Thomson, to the University of Exeter as a thesis for the degree of Doctor of Philosophy in Geography, December 2013.

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Abstract

Through collaborative work with Cornwall Council, this AHRC funded project has produced an in-depth study of the design of secondary school outdoor landscapes linking two areas of research – landscape design and cultural geography. It explores the politics underpinning the design, construction, use and function of the outdoor landscapes of secondary schools in Cornwall, focusing on the extent of active participation of children and young people in these processes. Contemporary research has illustrated that outdoor spaces are essential to the development and wellbeing of young people as they are places in which children can play or have fun whilst they experiment with their identity, learn to socialise and participate in informal education.

This thesis examines the role children and young people may have had and their potential in helping to formulate the design and implementation of outdoor spaces, alongside planners, garden designers, teachers and other interested parties. There are three linked aims.

- Exploration of the politics underpinning the design, redesign, use and function of the outdoor landscapes of secondary schools. Here, “politics” refer to the complex negotiations between people, practicalities (policy priorities, management) and school strategic vision and ethos (including the role of student voice).
- Understand more about the local spatialities of childhood of secondary school age children in order to: i) explain the politics of design; and ii) propose a more nuanced approach to understanding the varying needs and expectations of secondary school-age children. By participatory methods, interviews and observations I was able to note the use and functionality of the grounds by and for pupils, teachers and site managers.
- Using an understanding of the politics of design in Cornwall’s secondary schools, and with greater awareness of the spatialities of childhood, develop recommendations for evaluation of secondary school outdoor landscapes via a ‘school’s biography’ approach.

While policy-facing literature contemplates the educational function of school spaces in the secondary sector, this research broadens the view of children and young people’s relationship with secondary school outdoor spaces, emphasizing the relationality between groups of children, and children and others. This project proposes work which is attentive to how constructions of childhood are achieved in practice, beyond the contingencies of policy making and educational practices. The extent to which school grounds meet pupils’ needs is a reflection of school ethos and the relative status of children and young people in the decision making process.

Acknowledgements

I want to say a huge thank you to everyone who has assisted in this research; the anonymous Schools - their pupils and staff, current and former employees at County Hall who gave time and knowledge, my supervisors Kate and Mike Leyshon for 'bearing with', Wendy Titman and Rachel Delourme for being so insightful and my family, especially my daughters Amber and Willow who lost chunks of family-time due to me working on 'the beast'. Of course the whole project would not have been possible without the funding from the AHRC, Cornwall Council and also the University of Exeter for facilitating my research; I'm indebted to these organisations for enabling my life-time ambition.

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Definitions

BREEAM: Building Research Establishment Environmental Assessment Method is a means that local authorities use in the setting of environmental quality targets of new and refurbished school buildings. Any new funded school has to achieve the rating of at least ‘very good’. School 4, one of the case studies in this thesis, achieved an ‘excellent’ rating. The assessment gives a score rating for categories such as building materials, transport facilities, environmental impacts and the consultation process.

BSF: Building Schools for the Future was launched by the DfES in February 2003 to transform secondary education through rebuilding or refurbishing every secondary school in England over the next 15 years. After the formation of the Coalition Government, the Programme was halted by the Rt. Hon Michael Gove MP in July 2010, who was quoted as saying “But throughout its [BSFs] life it has been characterised by massive over-spends, tragic delays, botched construction projects and needless bureaucracy.” He called the scheme “dysfunctional” and “unnecessarily bureaucratic”, with nine “meta stages”. He also added: “It is perhaps no surprise that it can take almost three years to negotiate the bureaucratic process of BSF before a single builder is engaged or brick is laid” (Richardson, 2010: unpaginated).

CABE: Commission for Architecture and the Built Environment was set up in 1999 with the remit of advising Government on good building design and inspiring others to consider and incorporate good design within new structures. The Commission oversaw the BSF programme. In April 2011 CABE became part of the Design Council (a Royal Chartered charity founded in 1944 as the Council for Industrial Design).

Cornwall Council: Was created as a unitary authority 1st May 2009, Cornwall Council replaced the former two tier level of local government administration delivered through the County and District Councils (Cornwall Council, 2010b).

CST: Capital Strategy Team, which is the Cornwall Council body responsible for the management of new in-house capital developments

CYP Plan: Children and Young People’s Plan. Each Local Authority produced its own CYP Plan that seeks to improve the outcome for children in that area (Cornwall Council, 2008).

DCSF: Department for Children Schools and Families. DCSF replaced the Department for Education and Skills (DfES) in June 2007.¹

DoE: Department of Education. Operational between 1992 and 1995,

DfE: Department for Education took over from DCSF with the change in Government in May 2010. It is responsible for education and children's services.

DfEE: Department for Education and Employment was active 1995 to 2001.

DfES: from 2001 the Department for Education and Skills was responsible for education and training and became the DCSF June 2007.

DoES: Department of Education and Science - 1964 to 1992. Previously the department had been known as the Committee of the Privy Council on Education, 1839–1899; the Education Department, 1856–1899; the Board of Education, 1899–1944; and the Ministry of Education, 1944–1964.

DQI (DQIFS): Design Quality Indicator (for Schools) is a method of evaluating the design and construction of new buildings and the refurbishment of existing buildings. DQI was a mandatory part of the BSF programme (DQI, 2012). It was used to enable all users, but in particular school pupils, to have a voice in the design process (Webb, 2009). A facilitator works with clients before, during and post build using a list of 113 statements with regard to characteristics such as access, lighting, facilities, entrance quality and car parking. The statements are then prioritised by the school focus group. In theory these statements then act as a design 'brief' for the architects but in practice the brief is modified by other factors such as cost, as I will show in a later discussion. DQI is intended to enable ownership of the new school by its members (Webb, 2009).

EBDOG: Education Building Officers Group is an association of Local Authority officers which meets twice a year to consider school building developments (EBDOG, 2012). Members of the Capital Strategy Team might attend these meetings.

LA: A Local Authority is the next level of administration down from central government.

¹ In chronological order from 1992 the formation and dissolution of government departments responsible for education is as follows: Department of Education 1992-1995; Department for Education and Employment 1995-2001; Department for Education and Skills 2001-2007; Department for Children, Schools and Families 2007-2010; Department of Education 2010-date.

LEA: Local Education Authority is the Local Authority that is responsible for education.

LOtC: Learning Outside the Classroom (initiated 2006) became the Council for Learning Outside the Classroom (CLOtC) in 2009 but still rather confusingly still uses its former acronym for teacher awards. It recognises and promotes the benefits of learning outside in young people's educational attainment and social, emotional and personal development (LOtC, 2009: unpaginated).

LtL: Learning through Landscapes is a charity which developed out of the research done by Eileen Adams (1986-1990) funded by the then Countryside Commission, twelve English local authorities and the Department for Education and Science. Her research led to the creation of the Learning through Landscapes Trust, which now carries out research and gives advice to schools as to how best develop their school grounds (Adams, 2009). The original report that Adams produced in 1986 concluded that out of around 30,000 schools only a couple of hundred were realising the potential of their grounds (Lucas, 1995). Further research enabled the LtL in 1990 to persuade the Government to publish 'The Outdoor Classroom' (Lucas 1995) in the DfEE Building Bulletin series (number 71, 2nd Edition, 1999). The Bulletins are a set of manuals that regard a particular aspect of school design for instance disability access, sustainability and energy efficiency. New volumes were added on a regular basis but no new versions have been published as yet under the Coalition Government.

Ofsted: The Office for Standards in Education carries out and is responsible for school inspections, grading schools, publishing school reports after inspection and showcasing good practice (Ofsted, 2012).

PAN: Public Admissions Number. The designated number of pupils allowed to be registered at an individual school per year (Direct Gov, 2010b).

PFI: Private Finance Initiative. McCabe *et al* (2001) potted history of PFI shows that they were introduced in 1981 as a means for injecting private capital into the then nationalised industries. As an approach it became more flexible with private investment freeing up public capital and effectively injecting badly needed investment into neglected areas of public ownership. Currently PFI is seen as a way of replacing public sector capital rather than adding to it, alongside the provision of services such as catering and cleaning (McCabe *et al* 2001).

Chapter 1: Introduction

Of course, what goes on in a school is far more important than the buildings themselves. But the one contributes to the other, and today we are celebrating a stunning new generation in school design. Not just a few new classrooms. But state-of-the-art ICT, whiteboards, sports facilities, community facilities, public space, facilities for out-of-hours activities. All built around the needs of students, teachers and their wider community. All geared to develop the talents of each individual young person to the fullest extent (Blair 2004 cited in CABE, 2006:2).

This research, funded by an Arts and Humanities Research Council Collaborative Doctoral Award, explores the politics underpinning the design, construction, use and function of the outdoor landscapes of secondary schools in Cornwall, focusing on the active participation of children and young people in these processes. It examines the extent to which children and young people have helped to formulate the design and implementation of outdoor spaces, alongside planners, garden designers, teachers and other interested parties. The thesis also explores the ways in which national educational policy and local delivery of these policies enables or constrains the development of outdoor landscapes in Cornwall's secondary schools. Further, it sketches out how a history of relative neglect of the outdoor spaces of schools in educational policy has impacted the use and function of such spaces in the present day, revealing a low level of care towards school grounds. The outdoor landscapes of schools are defined in this context as all the outdoor space within the boundary of the school property, including playing fields and playgrounds (often with a hard surface) but not car parks, multi-use games areas, or other specialist outdoor sporting facilities.

This thesis draws on and contributes to current understandings of theory, practice and materiality within the disciplines of both Geography and Landscape Design by focusing on the neglected area of school outdoor landscapes. Contemporary research has illustrated that outdoor spaces are essential to the development and wellbeing of young people as they are places in which children can play or have fun whilst they experiment with their identity, learn to socialise and participate in informal recreation (Titman, 1992, 2007; Fjortoft, 2004). The research was initially conducted in collaboration with Cornwall Council's Capital Strategy Team (see over), which had identified the need to know more about the desires and expectations of secondary school-age children (11-16) in respect of the design and use of the outdoor spaces of schools.

At the start of this research project in 2009 there were thirty-one state secondary schools in Cornwall. As part of an extensive evaluation of these schools, contact was made with twelve by letter (Appendix 1). The letter had clearance from the Head of Cornwall Council Capital Strategy Team and Cornwall Council's Head of Children Schools and Families. Of these twelve schools, three declined to take part and nine agreed to a landscape evaluation of their grounds. In four of these nine schools, further research was carried out and a close working relationship developed with two of them. Through exploring examples of current practice and new ways for children and young people to participate, this research has tried to encourage young people to become stakeholders in the design, construction and use of outdoor spaces and develop ways for them to do this effectively. Nevertheless, as I will show, educational policy and the prioritisation of indoor spaces in school development provide formidable barriers to the effective use of and design of outdoor spaces and pupils' participation in such development.

This Introduction will now outline the work of the Collaborative Doctoral Award project partner in order to give a flavour of the political and organisational context for the design and management of outdoor school landscapes in Cornwall as well as the significant shifts in this context that have occurred during the lifetime of the research. It will then set out the aims and objectives for the research, highlighting some of the relevant theoretical and conceptual issues which it addresses before moving on to review the scope of the thesis.

1.1 The Project Partner

When the research project started in October 2009, the Cornwall Council Capital Strategy Team had been responsible for the prioritisation of the educational capital programme for 31 secondary and 237 primary schools in Cornwall for the previous ten years (personal communication with Deputy Head of Capital Strategy Team 20.10.09). The team prepared project briefs and monitored the educational capital budget. They worked closely with, *inter alia*, head-teachers, planners, landscape designers, governors, children, parents, and school managers to deliver both new school builds and the redesign or refurbishment of existing facilities, including the outdoor spaces of the schools. The Capital Strategy Team was also responsible for research and dissemination of good practice to other local authorities on all aspects of building and landscape design.

The Capital Strategy Team was also committed to delivering aspects of the Cornwall and Young People's Plan, 2008-2011. The Plan was a key part of the Every Child Matters: Change for Children policy (DCSF, 2003), which supported services in working better together and securing improved outcomes for children and young people. Amongst other things, this plan aimed to i) make information, support and opportunities available and accessible to children and young people in Cornwall through listening to and acting on their voices; ii) contribute to the development of sustainable communities for children, young people and their families; iii) improve aspiration, learning, enjoyment and achievement for children, young people and families and their communities; and iv) promote and improve the health and wellbeing of children, young people and families in Cornwall and reduce inequalities in health.

With the creation of the Coalition between the Conservatives and Liberal Democrats in May 2010, a seismic shift in Government policy occurred, which then had repercussions at local Government level. The new Minister for Education, Michael Gove, announced amid much controversy the immediate closure of the Building Schools for the Future Programme (see Definitions) unless a school project had all contracts signed and the building programme was underway (DfE, 2010). A more detailed discussion of the impacts of current Government policy is provided in Chapter Four. Monies that had been given to councils for capital expenditure on schools were clawed back to central Government (personal communication with the Head of Children, Schools and Families). The Capital Strategy Team, with no Building Schools for the Future projects underway and no way to assist schools with their devolved capital, was left with a hugely diminished purpose. It was disbanded by February 2011. As a result of this my point of liaison became the Cornwall Council Head of Children, Schools and Families.

Setting Cornwall Council within a wider context of Cornwall as a focus for this thesis, the following briefly sets the scene of Cornwall's main characteristics.

1.2 Cornwall as a Focus

Cornwall is a unitary authority with an expanding population (due to in-migration) of approximately 534,475 as of the 2011 Census (Office for National Statistics, 2014). A maritime, rural county situated at the southwest periphery of the country, it is widely known as a tourist destination by many people. Other major industries include kaolin extraction, agriculture, granite and slate quarrying and fishing. The historically important metal mining industries, which produced wealth through tin and copper

extraction, died away by the mid-1990s. Cornwall has a beautiful landscape reflecting its geology, history and culture but also has high levels of deprivation and poverty in some areas (Payne *et al*, 1996).

Truro is the cathedral city for Cornwall and is rapidly expanding to cope with an influx of migrants to the county. Other notable county towns are St Austell, Camborne, Redruth, Penzance, Newquay and Falmouth. They have a similar population size to Truro of circa 20,000 (Cornwall Council, 2009b). Few of Cornwall's small towns have more than one secondary school, with the exception of Truro which hosts two state secondary schools, one special needs secondary school and two private secondary schools.

The aims and research questions, which I detail next, were created in the context of the work I carried out with state sector secondary schools. Private sector and special needs schools have a different set of issues when considering design and use of their outdoor landscapes, which are beyond the scope of this thesis.

1.3 Aims and Research Questions

The aims and objectives of the project have been produced in collaboration with Cornwall Council and focus on developing a thematic study of the design, construction and use of secondary school outdoor landscapes in relation to the amount of 'care' bestowed upon them. There are three interlinked aims:

- Aim 1 – To **explore the politics underpinning the design, redesign, use and function of the outdoor landscapes of secondary schools**. Here, “politics” refer to the complex negotiations between people (policy makers, budget holders, school leaders, pupils, teachers, landscape architects and others), practicalities (policy priorities, funding structures, accountability, consultation, and management structures) and school strategic vision and ethos. This exploration has paid particular attention to the place of the student voice in these negotiations.
- Aim 2 - Using an understanding of the politics of design in Cornwall's secondary schools, and with greater awareness of the spatiality of childhood, to **develop recommendations for the planning and evaluation of secondary school outdoor landscapes** through a qualitative tool; school biography.

- Aim 3 – To **explore critically the local spatialities of childhood of secondary school age children (11-16)**. The thesis has utilised the concepts of children’s geographies to i) *explain* the politics of design and ii) *propose* a more nuanced approach to understanding the varying needs and expectations of secondary school-age children (11-16) when planning for the design, use and function of outdoor landscapes.

1.3.1 Research Questions - This project has addressed a series of research questions, linked to the aims of the project:

- What are the current arrangements for designing and redesigning outdoor spaces in secondary schools? (Aim 1). I have achieved this by exploring policy documents, interviewing members of the Cornwall Council Capital Strategy Team, interviewing members of school management teams (heads, deputy heads, and site-managers) and ground-staff, interviewing Private Finance Initiative providers, talking to architects and relevant professionals.
- To what extent have selected schools incorporated their outside landscapes into the overall ethos of the school, bestowed a level of care upon it? What has been school landscape ethos? (Aim 1). These questions have been explored by a series of Activity sheets (discussed in Chapters 3 and 7), the designing of a garden, and participation in a gardening club at a school. Further, talking to staff and pupils, observing student council meetings, and looking at school websites and newsletters has provided insights into the ethos of individual schools.
- How have current tools of landscape design evaluation helped when examining the outdoor landscapes of secondary schools? (Aims 1 and 3). I have worked critically with current landscape design evaluation literature such as that of Eriksen (1985), DQI (2009), Louv (2009), Titman (1994) and Building Research Establishment Environmental Assessment Method as well as undertaking my own evaluation of the grounds of nine schools. As an alternative evaluative tool I have utilised ‘school biographies’ to aid understanding the mechanisms that have given rise to the historical legacy that underpins the amount of care bestowed upon school grounds.
- How have the use and function of secondary school outdoor landscapes been understood by pupils and teachers, and what actual use has been made of these spaces by different groups of children and by teachers for educational activities?

(Aims 1 and 2). This question has been answered by a set of pupil ‘Activities’ that I have designed as well as pupil observations carried out during break-times. Semi-structured interviews have been held with senior school managers (preferably the head) and site managers. In response to pupils’ feedback I have worked with them to design a garden in a school, in order to demonstrate outdoor space can meet a range of pupils’ needs.

- What have been the methods of consulting with school pupils and to what extent have their views been built into the final plan? (Aim 1). A review and analysis of recent new school building projects has been undertaken and linked to interviews with members of the Cornwall Council Capital Strategy Team, school management teams, ground-staff, and architects.

In the next section, I consider the theoretical and conceptual material that underpins these aims and research questions.

1.4 Theoretical/Conceptual Framework

This thesis links two broad areas of research – landscape design and cultural geography – to explore the politics underpinning the design, redesign, use and function of the outdoor landscapes of secondary schools. This research seeks to broaden the view of children and young people’s relationship with secondary school outdoor spaces, emphasizing the heterogeneity of children and young people who have different needs for a space in which to socialize as well as play. Titman (1994, 2007) has shown that children consider school grounds to be ‘their’ space with four potentials; a place of doing, thinking, feeling and being. As my thesis will illustrate, the extent to which this is achieved reflects: i) the political and financial climate; ii) the prevailing attitude towards the value of the outdoors as an educational or social space; iii) the whole school ethos; and iv) the relative status of children and young people in the decision making process (itself a function of societal views on the place of children).

Hendricks (2001) worked with primary school pupils and explored the quality of their school grounds in comparison to those grounds/gardens available to the meso-scale education ‘decision’ makers. To illustrate Hendricks’ notion of relative grounds quality between decision-makers and primary schools and act as a comparison for secondary school grounds, I have included a set of images that show Cornwall Council gardens at

New County Hall in Truro (Figure 1²). The landscape of New County Hall, has high design values, is well-maintained, with a range of mature trees, new trees, a Barbara Hepworth sculpture at its centre, and ponds and café style seating. Hendricks (2001) considered that the decision-makers appear to have aesthetically pleasing and pleasant outdoor spaces in which to dwell and relax, whilst primary school pupils do not enjoy such a quality outdoor environment. The difference in the equality between Council grounds and other public large open spaces with that of schools displays a paradoxical difference in the level of Council property care.

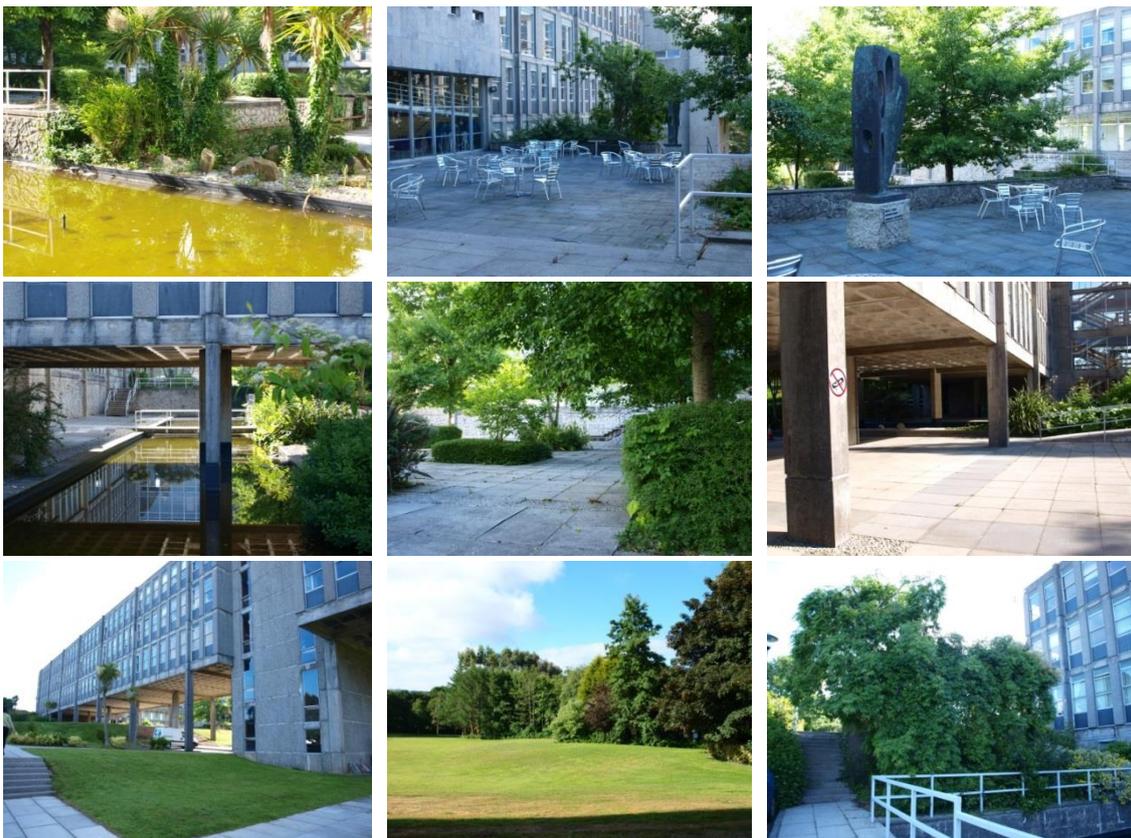


Figure 1 – Images of County Hall, the main Cornwall Council building in Cornwall. The building is considered to be iconic of its period. The courtyard terraced garden/cafe contains both pools and a Barbara Hepworth sculpture ‘Rock form, Porthcurno’ (British Listed Buildings, 2010). Overall there is a mix of shrub type planting with extensive pools in which the building stands on stilts and open grass parkland with mature trees.

Drawing on an often taken-for-granted view that being outdoors is good for children, school outdoor landscapes are often presented as a positional good, especially when

² In descriptive terms, the Grade II Listed early 1960’s Cornwall Council building sits amidst high quality gardens designed by GA Jellicoe (a key landscape architect of the 20th Century, (Landscape Institute, 2010).

they are threatened, for example, by development.³ They are seen as providing an essential safe space in which to let off steam, play and socialise at a time when children's access to public space is routinely curtailed by parental fears about safety and community anxiety about young people 'hanging about' (Leyshon, 2008).

In the late 1800s, Jevremovic (1964) noted the benefits of teaching in the school grounds and Government grants were available in 1895 for school gardening. By the early 1900s the outdoor landscapes of schools were used for primarily for physical education and to a lesser extent, rural science and nature lessons which were introduced as part of the 1904 'Code of Regulation'⁴ (Jenkins and Swinnerton, 1998). Rickinson (2004), in her history of school grounds, notes that the value of school grounds was recognised and promoted by educationalists such as Montessori. Children were encouraged to grow vegetables on school sites during the Second World War. A 1950s girls' school's entire curriculum was based around being outside and so emphasised the long-standing importance of school grounds in terms of education. The Department for Children, Schools and Families (DCSF) (2008a) instigated a 'Growing Schools' agenda, which had been 'designed to support teachers in using the 'outdoor classroom' as a resource across the curriculum for pupils of all ages' (DCSF, 2008a).⁵

The brevity of this list of historic examples and short-lived initiatives should suggest that outdoor spaces of schools have been the object of benign neglect in comparison to school buildings and have not received the same amount of care. This has continued despite policy interventions under the Labour Government (1997-2010). Titman (1994) describes the outdoor spaces of schools as being on the whole unremarkable, featuring

³ Chillman (2004) explains that the School Standards and Framework Act (1998) enables schools to sell playing fields as long as the proceeds are spent on improving sporting and education delivery. Other land, which is not designated as 'playing fields' (for example large plots between or at the corners of playing fields), is very vulnerable to disposal for economic gain (Chillman, 2004). Therefore, schools need to have the vision to see that potentially their grounds could have a greater value if kept and developed rather than sold for short-term funds. The DfES (2004) admit to there being no record of the amount of land or playing fields lost before Labour came to Government in 1997. Between October 1998 and 2004 there have been 164 applications to dispose of school playing fields, (i.e. land that can be used for grass sports pitches). Of these, 158 have been approved, 2 rejected and 6 are still under consideration. Of the 158 approved, 66 were in respect of closed or closing schools (DfES, 2004). Although pre-election Conservatives stated that they would protect playing fields the Coalition Government between May 2010 and August 2012 have allowed 21 playing field sell offs out of 22 applications (Vasager and Herbert, 2012). This seems to be in contradiction to the 2012 Olympic spirit and achievements and the encouragement of young people to take up sport.

⁴ The 1904 Code of Regulation was aimed at the newly emerging secondary schools, providing a ubiquitous academic curriculum of English language and literature, mathematics, geography, history, a foreign language, science, physical activity, drawing, manual labour and housewifery for the girls; hence the reinforcement of the academic over the vocational which continues to this day (Gillard, 2011).

⁵ Interestingly, despite offering a search facility for educational visits by putting in your postcode, no schools showing best practice in Cornwall were offered.

perhaps an expanse of grass and asphalt with few design features of note; occasionally rapidly fading floor paint or sterile rubber-floored play areas may be included in the primary sector. In terms of quality, secondary school grounds feature a standard suite of spaces with tarmac sports areas, flat grass playing fields and interconnecting spaces between buildings (for example, courtyards and outdoor corridors) (Hendricks, 2001). Pupils tend to view tarmac-dominated school grounds as being ‘boring’ and ‘just hindering you’ (Khan, 1994: unpaginated). Titman’s research, based on findings of research in 12 primary schools, found that tarmac encourages aggression and territorialism, creating spaces that children are expected to colonise. She also made it clear that even young children could read between the lines and recognise that they are not worthwhile in terms of expenditure on improvement to the grounds, when maybe money is spent on new carpet inside. Children see the school as being ‘whole’ rather than as separate buildings and outside areas (Titman, 1994). Yet, in 1999⁶ it was estimated to cost £125 million to maintain the grounds of 25,000 schools with their 60,000 to 70,000 hectares’ (DfEE, 1997: viii). At face value this may seem a lot yet in proportion to overall 1996 educational expenditure of £36.5 billion it is a small amount. This thesis will show that school grounds do not meet educational or schooling needs for a heterogeneous school body.

Billimore *et al* (1999) and Rickinson (2004) have noted that school outdoor landscapes do not receive the attention that the internal spaces enjoy, as they are rarely seen as strategically important to school design. Titman (1994) considers that research regarding school grounds has focused on primary school children with little done in exploring the preferences among secondary school pupils. When researching primary school children, the pupils made clear as to what they would like; grass, trees and to be able to play using imagination (Titman, 1994). Participants in Titman’s research are quoted as saying: ‘You’re not meant to stand on the proper bench because sir said it might fall down, and a bench is for sitting on, not walking on. We don’t have any for walking on’ (Titman, 1994:48). Titman continues by suggesting that children have broad concepts of their own personal value, ownership and identity, developed in different ways by their environment. Therefore, she goes on to discuss that it is not surprising that large expanses of tarmac create territorialisation and seem to result in bullying and racism. School playing fields form part of children’s everyday local environments, which are increasingly highlighted as an important contributor to the

⁶ More recent data has not been found.

social development, health, and wellbeing of children (Thomas and Thompson, 2004; Tovey, 2007).

Simkins and Thwaites propose a useful method to explore and analyse outdoor experiences of ‘primary school’ age children using participatory techniques in a longitudinal study. However, their findings contain some significant lacunae. First, the planning and design of built and outdoor environments of secondary schools and the use to which these are put by children and young people (11-18) and teachers are not widely considered in the scholarly literature on landscape design and participatory planning. This thesis seeks in part to address that gap. Second, where studies have been undertaken, they fail to compare “place perceptions between age, socio-economic, geographic, or other variables” (Simkins and Thwaites, 2008:534). Third, as Kraftl argues, “far less geographical research has been concerned explicitly with (often adult) constructions of childhood, and particularly constructions that are localised, banal, material and practical” (Kraftl, 2006:489), although for an exception see Holloway (1998). My thesis is, in essence, relational, developing a view of age as being produced in the interactions between different people of different ages (Hopkins and Pain, 2007:288). Recent developments in children’s geographies enable us to understand more clearly how to take account of the great variation in children and young people’s experiences and expectations of outdoor spaces. In this thesis I explore the usefulness of intergenerationality, intersectionality and life-course as well as a relational approach to understanding the outdoor landscapes of Cornwall’s secondary schools. A brief review of the chapter plan is shown below.

1.5 Thesis Structure

Chapter 2; the Literature Review sets the thesis within a wider context and will offer an account and critique of relevant academic literature, showing why school grounds are cared for in the way that they are. Apart from the wider agendas already mentioned of landscape design and cultural geography, the finer nuances of children’s geographies, place, gardens, school architectural landscapes are all explored to varying extents depending upon their relative importance. In exploring theoretical and conceptual literature, this chapter will identify the scholarly ‘gap’ that the research seeks to fill.

Chapter 3; Methodology examines the broad methodological approach of the thesis and explores the methods of data collection and analysis used. Ethical considerations are discussed in terms of research with children and the use of material in the thesis.

Chapter 4; The Politics of Design explores national educational policy in terms of being met, modified, negotiated and played out by the case study Schools. The local political relations between Cornwall Council and schools in relation to school grounds are critically analysed. The micro-politics occurring in Schools will also be explored.

Chapter 5; School Biography and School Landscape Evaluation presents a unique, novel analytical and interpretive methodological tool that gives a critical insight into the many and varied influences at work in a school landscape. The Chapter will have the selected school biographies including general information, whole school data (for example pupil enrolment numbers), specific quantitative data relating to the school grounds such as areal extent, boundaries and land use and how government guidelines and education policy have been operationalised at the school. Images are included, placed on a scaled plan of each of the schools. The landscapes are evaluated in terms of how they meet Government recommendations and school need (pupil, teacher) within social, academic and environmental contexts. The extent that schools incorporate their school landscapes into the overall ethos of the school will be explored.

Chapter 6 – Design Projects and Gardening Club as examples of Process; through my close work with schools on design projects and by assisting in a gardening club with pupils I gleaned an insight into the processes behind schools' use, the extent of student voice and the school desires for their grounds.

Chapter 7 – Spatialities of Pupils in Relation to the Design of School Grounds; I present my empirical findings on inter-pupil and pupil/adult relationships in the school grounds showing how the outdoors works as a site of social relations between abilities, ages and genders. Using literature from children's geographies, I present a critical contextual account of how pupils view and use their school grounds and how their needs change in relation to age, gender and ability.

Chapter 8 – Conclusion; returning to the research aims, the conclusion will draw together the linked themes of the thesis. A comprehensive picture will be drawn of the current standing of Cornwall's secondary school landscapes and how this relates to child centred geographical theories. I review my contributions to current understanding

of the role of children in school decision making, their lunch time environments, what level of participation secondary children can offer the garden designer working with school landscapes, and what landscapes children prefer. I have explored the philosophies of Foucault, the theories of territoriality, Kaplan and Kaplan's (1989) and Louv's (2009) views on restorative environments, the notion of 'nudge' as a Paternal Libertarian perspective, Augé's non-spaces and the ecological principles of mutualism as analytical tools.

I now turn to a review of the relevant literature.

Chapter 2: Literature Review

This Chapter highlights relevant research contributions to debates surrounding secondary school grounds with regard to the level of care exhibited and the level of importance granted to the grounds as a resource by schools. The subject of this thesis sits broadly at the juncture between landscape design, educational policy, school practice and children's geographies. It is these notions that all come to bear influence over school grounds and form an analytical framework for the thesis.

The Literature Review is broadly divided into three parts. The first section will focus upon the school grounds/outdoor landscapes as 'space' and their potential as gardens, places to dwell and linger (in the sense of garden design), affording the opportunity to be a positive part of a pupil's education encouraging social skills and friendship. As one of the potential influences helping explain school grounds a historical overview of school architecture is discussed as it is this which sets the legacy that schools are working with today. Of importance to this discussion is Colin Ward's (1976) critique of modernist era school buildings, the legacy of which dominates school architecture in Cornwall. In this relatively sparse literature, the buildings are privileged over the outdoors in a way common not only to the architectural history of schools but educational policy and practice suggesting that care is placed upon buildings over grounds.

I also explore the conceptualisation of schools grounds as gardens, as with this simple change in terminology there is a transition in meaning and an expectation of care. Hobhouse (2004) explores the semiotics of gardens as a space of nature altered by humans and invested with care and aesthetic value. Gardens have then been seen as healthy environments both as places of doing and being (Louv, 2009). Akin to this is Ulrich *et al's* (1991) research into the health benefits that outside plant-based environments can offer, especially as restorative places where people can mentally rest and recharge before continuing with work. These debates have informed my observations of the children's activities and use of school grounds during lunch-times.

I discuss the three main forms of curriculum in relation to their influence over school outdoor landscapes; the formal (National Curriculum subjects taught in school), the informal (the social interactions that are part of an individual school's planned agenda

along with the Government's notions of sustainability) and the hidden (the semiotics of school life which pupils and others can interpret).

In the second section, I critically examine the terms 'education' and 'school' as a means of understanding education's political legacy, highlighting the largely unexamined assumption that core educational delivery takes place in buildings and that the learning that takes place in the outdoors is in addition to, or marginal to, such core activity.

The final part of the Literature Review follows the academic debates surrounding school grounds in the context of children's geographies; there will be a focus of social and spatial relationships that children have with other pupils, adults and their outdoor school environment. It will start to highlight the limited use, in practice, of the notions of intergenerationality and intersectionality in this case. I will make particular use of Horton *et al*'s (2008) relational approach to children's geographies, which take into account the different forms of social interactions that pupils and adults may display when at school during free-time. Research on the spatiality of childhood takes into account the placement of pupils in the grounds along with their social interactions primarily through the theory of territoriality in explaining the dispersion of pupils around the grounds during recreation time.

2.1 School Outdoor Landscapes

This section of the Literature Review will set the design of schools in an historical architectural context, I will then review critically school grounds in terms of being valuable 'cared for' green spaces for young people to have access, exploring them for their 'aesthetic, social, environmental, ecological' functionality (Choumert and Salanié, 2008:331).

2.1.1 A History of School Architecture

Across disciplines there appears to be a lack of literature on school architecture and in particular school grounds design. Therefore this section is based upon a few discursive texts. Architecturally schools embody a physical historical legacy going back to the Victorian era as well as a policy legacy that informs the underlying assumptions made about the importance of the school grounds compared to the school buildings. A clear paradox occurs that schools are assumed to need an outdoor setting yet that setting has not been a point of investment, design or maintenance. My research will contribute to the thin body of publication surrounding school architecture.

The following brief account of secondary school architecture serves to set the current state of school buildings and grounds in their historical context, within which it is possible to identify two main periods of influence; the Victorians and post WWII through to the near present. The discussion begins in the latter half of the 1800s with a major school building period.

The initial 1870 Elementary Education Act made primary education compulsory and resulted in the creation of a large number of schools (Bullard 2006) (it wasn't until later that secondary education achieved a similar compulsory status with the Fisher Act of 1918 (Gilliard, 2011)). Harwood (2010) describes how ER Robson, the architect based at the London School Board, designed the archetypal classic school, which was then replicated across the country; a red brick building, with multiple storeys and gables and large windows with small panes (Figure 2). Though large, the windows were positioned at a height from the floor which denied children a view when seated at desks. Robson was influenced by the Queen Anne era of architectural design, along with an element of the Gothic (Banerjee, 2008). The underlying aim was to create an imposing structure that would impress (and perhaps oppress) the people living in the Victorian slums where often these schools were to be based. Classrooms were separate for boys and girls as were the entrances into the playground. In all, schools embodied the reforming idealism of the Victorian era, as a site of disciplinary power and moral example (Banerjee, 2008).

The Victorian era of school building has left a significant building heritage which the present day 'Victorian Society' is keen to preserve at all costs. This has been in contrast to the previous Labour administration with its BSF programme, which preferred demolition over refurbishment (Youngman, 2006 and Bullard, 2006). Youngman (2006) notes how Victorian school buildings were and still are at the heart of many communities, allowing pupils to walk to school; unlike new build schools which are on the periphery of towns and cities and encourage commuting by car. Youngman (2006) continues to note that the buildings are seen as being well built with airy environments for children, achieved by high ceilinged rooms with large windows (Figure 2). Youngman also points out that these schools always come with a secure playground with railings or a wall. By contrast, Bullard (2006) notes the previous Labour Government's view that the Victorian school was no longer fit for purpose, it is more costly to refurbish and it is difficult to find skilled tradesmen to carry out the work. Bullard describes Hampshire as a good example of where refurbishment of older school buildings was undertaken in preference to complete new rebuilds, as the Council

believes that a richer environment is created for the children. An example of where a Victorian school has been adapted is shown in Figure 2.

Along with Victorian schools came, in some instances, school gardens. Productive gardens were sometimes seen as an integral part of the school design ethos. Lawson (2005) traces the inspiration for school gardens in America during the late-nineteenth and early twentieth century's to Europe, including England (Figure 3). Lawson (2005) describes how gardening in cities was encouraged during economic crises as a way of greening the city but primarily as a means for people to be occupied and feed themselves whilst picking up new skills. Urban gardens were encouraged in not just schools but in a variety of available spaces. Overall these gardens were seen as a moral good supported by volunteer networks. Their popularity dwindled with economic prosperity.



Figure 2, shows the classic Victorian construction to the right of the image with small paned windows and a four storey red-brick construction, whereas the modern adaption is to the left (Michael Bradley Partnership, 2012).



Figure 3 showing a radiating vegetable and flower garden in an American school at the turn of the twentieth century (Greenheart Education, 2010, unpaginated).

In complete contrast to the Victorian era of building schools which followed Tudor and Gothic architectural references and were individually designed by prestigious architects

without tight budgets, post-Second World War secondary schools had to be built as cheaply as possible with obvious consequences for the outdoor spaces (Harwood, 2010). Ministry of Education data from the 1950s shows that ‘the average net cost of the secondary school started in 1949 was about £320 per place ... developments in the economic situation have made it increasingly clear that secondary schools must be built much more cheaply than this, or there is no hope in providing the number of places required over the next few years’ (Ministry of Education, 1950:2). For the 1951 programme of school building the limit was set at £240 per head; such a notable reduction that a new kind of school had to be designed in complete contrast to what had gone before the War. The unpalatable alternative was to just build the part of the school that could be afforded, in other words have an incomplete school.

Guidelines from government to the local authorities on how to build a school came in the shape of Building Bulletins initiated by the Ministry of Education in 1950. Building Bulletin 1 was concerned with the construction template of primary schools whilst Number 2 covered secondary schools. They were produced by the Ministry of Education (1950) at short notice, under the guidance of teachers and local authorities’ officers. The main focus was the construction of the buildings whereas outdoor provision is covered by the brief mention of sports facilities, and if applicable, facilities for ‘rural studies’ such as a greenhouse, raised beds and composting area to assist delivery of the rural studies curriculum. The Building Bulletin series continued up to the fall of the last Labour Government, with hints and guidelines concerning all topics regarding the building and maintenance of schools. At the time of writing in winter 2013, it is yet to be seen if the current Government will continue with the practice given financial constraints.

The Ministry of Education (1950) maintained that ‘economics’ was the main control over school design rather than any educational ideal or even building regulations. Indeed, building regulations became more lenient so that new schools would conform to budgetary restrictions (Ministry of Education, 1950). Building Bulletin 2 provided guidance for a school building accommodating 10 to 20 classes. Assuming 30 pupils per class and a 2 or a 4 class intake, schools were being built for between 300 and 600 pupils. The Ministry of Education (1950) suggested that if a sixth form or adult education facility was required then this was an extra on top of the pupil calculation. The Ministry encouraged the construction of school rooms that were not tied to a particular purpose. Educational thinking at the time was based upon children

responsibly working on their own initiative; ‘there will be constant adaptation and the school, architecturally, should encourage this’ (Ministry of Education, 1950:5). School grounds were not considered or included into calculations per se but the Ministry noted that there had to be enough room for playing fields if the school was of a potentially sprawling single storey construction.

In its review of the pre-War design of secondary schools, The Ministry of Education (1950) considered that up to 60% of existing school buildings was wasted space. The wastage was made up largely of high percentages of circulation space, i.e. wider corridors than necessary on two or more floors in buildings made up of a main block with wings. Other wasted space was found in storage areas, toilets, administration offices and rooms given over to a specific use and then only used for part of the day. As a result of these considerations, the total area for each school was reduced with the insistence that all of the space be used all of the time. Although the Ministry was seeking to economise on construction, whilst keeping within the remit of building regulations, it did not feel that it had the expertise to give advice on specific construction methods about which is felt more research was needed (Ministry of Education, 1950).

It is the above architectural legacy that has formed the basis for school grounds as the physical spaces we see today. The past processes of school design are the complete antithesis to the relatively new discipline of ‘transformative design’. The following is a brief acknowledgement to the design phenomenon which centres the user in the design process and maybe seen in some BSF school design.

2.1.2 Transformative Design

Under the Design Council’s umbrella, RED (short for redesign) was established in 2004 to ‘tackle social and economic issues through design led innovation’ akin to a ‘do-tank’ (Burns *et al*, 2006). As a small interdisciplinary team it has explored a series of complex public service problems such as preventing ill health, reducing energy use in the home and improving learning at school (Burns *et al*, 2006). As a new design process, transformative design enables a wide range of vested stakeholders to collaborate, putting the individual at the centre of the solution. Burns *et al* (2006) note how some designers argue that transformative design is not design at all as a final tangible outcome – such as a final building. Rather, the outcome is a resolution that can be altered with time and adapted to changing need, for instance balancing the budget

whilst prioritising the quality and quantity of classrooms, against whether the school has a green energy woodchip boiler or a cheaper conventional gas version. The authors actually put a warning out to ‘traditional’ architects that their profession as they know it may be changing, leaving them behind, as new design transformers are emerging from a variety of disciplines. Burns *et al* (2006) see transformative designers as; abandoning singular authorship, shaping behaviour, generating never-ending results, running on different time frames, accepting the input of others, and accepting of the input of non-professionals.

An example of transformative design and its application with schools was seen with the Designer of the Year, 2005, Hilary Cottam. She set up ‘School Works’ in 1999 (now the British Council for School Environments) making the connection between learning and the built environment. A key example was Kingsdale School in south London that had been in special measures until Cottam’s work with the School secured substantial funding for refurbishment from the then incumbant Labour Government and the School became one of the most improved in 2004 (Cottam, 2012).

The notion of transformative design provides a means of considering the role the designer or architect has played in the design of both past and new schools. It reiterates the importance of the role of student voice (Mason, 2007). It also provides a counter view to the present Coalition Government’s James Review which came out in April 2011 which argued that there had been too much student voice (discussed later). Although there are no examples of transformative design used as a process in Cornwall, it does give an insight into certain aspects of school design as discussed below.

Transformative design sets an agenda as to a way of thinking about the built environment yet does not transfer to the spaces in between building be they grounds or gardens. An alternative way of considering school grounds, which may then allow them to be designed and cared, is to label them as gardens. With this change in terminology a mind-set shift may occur to consider the space in a different way. Bringing to bear critical and analytical work on gardens may provide some intellectual leverage over the analysis of school grounds in Chapters Five, Six and Seven. It is to this literature that I now turn.

2.1.3 School Outdoor Landscapes as Gardens

Thinking through school outdoor landscapes as gardens opens up their potential to contribute to health and wellbeing, sustainability, social wellbeing/friendship,

curriculum development and in turn be spaces that are cared for. In this section I review work on the restorative and health-giving benefits of gardens before considering the role of school grounds in the curriculum.

Hobhouse (2004) in her 'Introduction' gives a potted history of gardens and gardening as concept, space and practice. The role of past gardens in inspiring poets and artists in the myths and legends of ancient civilisations suggest that gardens were not just an eclectic collection of plants. From their creation, gardens represented a new relationship with nature. Indeed, humanists consider the garden to be a 'dialogue between the relative values of 'art' and 'nature'' (Hobhouse, 2004:8). Gardens also came to be thought of as improved forms of nature, in which plant combinations were blended with an element of design; 'the art of gardening' (Hobhouse, 2004:8). While contemporary ecological concerns may now dominate aesthetic considerations, gardens can still be described as an artificially bounded area with some manipulation of nature, very often with the inclusion of an element of water. The inclusion of water in a garden has long been held to be a means of adding beauty and pleasure. Within modern society the inclusion of trees may help block traffic noise and aid climatic control through a cooling effect (Hobhouse, 2004; Sullivan, 2002).

Cultural interpretations of the garden varies; they can be productive (for example providing plants for food or shade, as in the Moorish gardens of Spain) or a place in which to contemplate the spirituality of place, as in Japanese Zen gardens. For most western cultures, the garden is a place to walk, a figurative oasis. The original oasis was the desert garden surrounding a source of water in an otherwise hostile, parched environment, and so forms a useful metaphor for modern life where everyday stresses can be left aside (Hobhouse, 2004).

Aspects of environmental psychology are useful in understanding human responses to a garden. As Bell *et al* (2001) and Cave (1998) suggest, there are broadly two main strands in environmental psychology. First, there is the study of the consequence of behaviour upon our environment, which explores the larger issues of pollution, recycling and the ecosystem scale of influence. This strand is of marginal relevance to my research. A second strand in environmental psychology focuses on the influence that the environment has upon us as people, typically seen in the context of behaviour and the affordances (or possibilities) that can be offered by the landscape to then affect behaviour. This is useful when thinking through the potential for gardens and by

inference, school grounds to be a healing environment (Cooper Marcus and Barnes, 1999) or an important part of a healthy lifestyle with a moral purpose.

2.1.4 Outdoors and Issues of Health and Wellbeing

There is an extensive body of literature which discusses the level of children's wellbeing outdoors (Valentine and McKendrick, 1997; Wells and Evans, 2003; Mayall, 2010) but as Bell and Dymont (2008:77) discuss, a lack of research with regard to the relationship between school grounds and children's health. The underlying assumptions for their discussion are that: a) children's ability to learn is linked to their physical and mental health; and b) the school environment has a significant impact on their health and learning (Bell and Dymont, 2008). The list of the likely benefits of green school grounds that Bell and Dymont provide is quite extensive – including aspects of physical, social, mental and spiritual health.

This section explores the idea of a green environment as a positional good, drawing on ideas from Richard Louv's (2005) *Last Child in the Woods: Saving Our Children from Nature Deficit Disorder*; an ethos supported by William Bird, the Health expert for Natural England.

Considering the benefits of nature in a wider context, Louv (2009) extols the virtues of children being in contact with nature and suggests how children's relationship with nature has changed over time and that currently a lack of child interaction with nature results in what he has termed as a 'nature deficit disorder'. He suggests that 'a child today can likely tell you about the Amazon rainforest, but not about the last time he or she explored the woods in solitude or lay in a field listening to the wind or watching the clouds move' (Louv, 2009:14). Louv suggests that nature around the home or the view of a natural landscape from a window can help give a sense of wellbeing, especially with children (Louv, 2009). Ross (2005) also extols the importance of marginal outdoor spaces for play. Disabled children and those with problems such as attention deficit disorder seem to develop an improved self-image, exhibit improved behaviour and enjoy an overall positive therapeutic benefit from contacts with nature. He goes on to note that 'Schools that use outdoor classrooms and other methods of direct-experience learning are proven to produce students with enhanced skills in problem solving, critical thinking and decision making' (Louv, 2009:14). Louv's views support the idea that school grounds could be developed to positively enhance the mental health of the school pupils both by enabling direct interactions with nature and improved views from

windows. This point has also been recently endorsed by Bird (2009) and Forder (2009). Although the therapeutic and health benefit of gardens is widely researched, there is hardly any consideration of the potential of school grounds in this regard.

Despite the immense potential for school grounds to provide many of the benefits of access to nature, most of the developments which seek to improve and extend opportunities to interact with nature do not lie in the education sector. For example, William Bird is both a GP and also the strategic health promoter for Natural England and has played a keen part in developing the 'Natural Health Service' (Natural England, 2009). Walking for 30 minutes every day, in a countryside or natural environment in order to achieve health benefits, is the key for the 'Green Exercise' campaign. Dr Bird started providing maps to his patients of local walking routes. To be successful the walks had to be led, short and local. In 2009 Natural England supported more than 4000 walks a week (Ford, 2009). Bird, in an interview with Forder (2009:23), is quoted as saying 'When people look at trees their heart rate goes down ... And if looking at a tree can reduce everyday stress, you are reducing the risk of developing diseases like diabetes and depression'. This then suggests that the outdoors has the potential as a healing tool and my discussion moves on to this facet of literature.

2.1.5 Gardens and the Outdoors as Restorative and Healing Environments

Cooper Marcus and Barnes (1999) suggest that a loss of the connection between humans and their environment means that they are not benefiting from specific healing properties. The outdoor landscapes of hospitals and health centres, until very recently, provided peripheral decoration to offset the building with no specific healing agenda. There is an interesting parallel to the spaces around schools, where little thought went into the design of landscapes and choice of planting beyond making a front of a hospital or school look inviting.

The positive effect of gardens on the clinical outcomes of hospital patients is well researched. Roger Ulrich (1984, in Pennsylvania hospitals) started by monitoring the impact of green views for patients post-surgery compared to those with no view and found that the amount of medication (pain relief) was reduced, as was the time spent in hospital convalescing. Further work was done exploring stress recovery in a natural environment as opposed to an urban environment (Ulrich *et al*, 1991). The experiment indicated that as humans we have a psycho-evolutionary means of mental restoration by looking at nature after experiencing a stressful situation. Wilson (1984) developed

this into the concept of Biophilia, defined as people's intuitive love of nature as opposed to non-living objects and environments. This attraction to other living organisms is deemed to come from our evolutionary past and is, in Wilson's view, vital to full human psychological development (Wilson, 2008). This plays out as a contemporary aesthetic liking and positive disposition towards specific types of natural environment such as the tree canopy associated with savannah type environments (Orians, 1986).

Ulrich's observations on stress reduction in a natural environment can be applied to a school environment. It is possible that after being in a stressful situation or concentrating hard, restorative responses in a natural setting could occur in minutes and be more complete, as compared to resting in a built-up environment (Ulrich *et al*, 1991). This is compelling evidence for a better quality restorative environment for children to be in during their breaks from study. As an exemplar, Cooper Marcus and Barnes (1991) asked 300 participants to envisage a healing environment for someone who was in pain, feeling helpless or wounded. All the responses described a form of nature including plants, water and animals (in particular bird song) as agents for healing, often with some element of movement and maybe a vista. The experiment highlighted the difference between the imagined healing-environment to the reality of a hospital devoid of these elements (Cooper Marcus and Barnes, 1991).

Goldsmith (2009) is determined for schools to develop their 'green' agenda. His attention-grabbing start to his 2009 article uses the 400,000 British children taking behaviour-altering drugs such as Ritalin as evidence of a societal inclination to see childhood as a disease. UNICEF considers British children to be the unhappiest in Europe despite the wealth of the nation (Brown, 2007). Goldsmith (2009) argues that these ills have been caused by children becoming increasingly separated from the outside natural environment, illustrated by surveys which reveal many young people think that cows lay eggs and brand identification is more developed than tree identification. The cure, he asserts, is the greening of schools so that the environment is connected to and loved.

Tuan (2001) suggests that a comfortable outdoor space is comparable to the human view of paradise/Eden. Such spaces have a richness which offers protection from external dangers. The individual characteristics create a sense of place, to which individuals feel connected and which provide the opportunity for reflection in relation to

the self. A child might best express their ideal space through drawing, especially if young or disabled and their oral or written abilities are not sufficiently developed to describe their ideal context (Tuan, 2001).

The outdoors has been recognised as lending itself to physical exercise and the concepts of green health. The Literature Review now turns to discuss how the problem of obesity (as a form of poor health) may be reduced by being more active when outdoors.

2.1.6 Obesity

A major concern of governments in the global north is childhood obesity (WHO, 2000). Within children's geographies this topic is gaining interest with work by Hemming (2007) and Evans *et al* (2011) who, in their research, are linking levels of obesity with the schools and the type of exercise that pupils do. One of the target areas for tackling the problem is to make school grounds more effective in encouraging active pursuits during break and lunchtimes, as seen in Australia and Canada (WHO, 2000). There is a recommendation that children in Australia spend at least 60 minutes a day doing physical exercise (part of a 'Get Moving' program where pamphlets encouraging exercise potential are aimed at children (5-18 years) and parents are distributed through schools). The corresponding recommendation in the UK is also 30 minutes whilst in Canada it is 90 minutes (Australian Government, 2006, Change4Life 2010 and Active Healthy Kids Canada, 2009). Dymont *et al* (2009) compared gender differences in levels of activities in two primary schools, one in Australia the other in Canada. Both schools offered a variety of outdoor space, including a green area, paved sporting court, manufactured equipment, open playing field, open asphalt, treed grassy steps, concrete steps, canteen courtyard, paved thoroughfare and a mini oval. The green areas appealed to a wider group of children in terms of interests and activities and promoted plenty of more continual, moderate exercise. In other words, trees, shrubs and branches gave places to hide, run, jump, climb and be social, so promoting physical activity. Fjortoft (2004), when looking at young children (5 to 7 years), showed a significant improvement in their motor skills, including balance, after being able to play in a green environment as opposed to those playing in a conventional playground. Dymont *et al* (2009) also noted that green areas may be of special importance to engage children who are disabled or are not socially comfortable in physical activity (with the bonus that bullying diminishes as well). Dymont *et al* (2009) also show that the main sporting areas are dominated by physically able boys playing team sports, and girls are often physically excluded. Meanwhile, schools that only provided the usual tarmac and

playing field promoted social exclusion of children with poor physical ability or self-confidence (Barbour, 1999).

The next major section of the Literature Review moves from the spatial aspect of schools to consider what an ‘education’ or ‘schooling’ really means, as well as a brief consideration of curricula and their relevance to the design and quality of the school grounds.

2.2 Education and Schools

This section of the Literature Review begins to consider what the role of adults and schools are in educating children and what form that process may take. I begin with an exploration of the relationship between adults and children before moving on to the terminology of education, schools and schooling. The formal, informal and hidden curricula are also explored as well as the application of sustainability within the school and its ramifications in the school grounds. All of this helps to understanding how the legacy, role and ethos of schools influence the level of care and the degree which the grounds are incorporated into the whole school framework. (The exploration of government educational policy is covered in Chapter 4; the first empirical chapter which includes macro, meso and micro political analysis via analysing text, interviews and diary keeping.)

2.2.1 Adult Perspectives of Children, Education, Schooling, Schools and Learning

Ariés and Baldick (1973) assert that many principles that adults enforce upon children have extended through history, especially in Christian-based 16th and 17th Century societies. The first English schools were Church founded, run for the wealthy and instigated the segregation of children from the rest of adult society (Cunningham, 1995 and Brace *et al*, 2011). Valentine (1996) and Jenks (2004) show the provenance of contemporary ways of defining children and childhood in the history of Christian beliefs in the 18th and 19th Centuries which identified children as ‘Dionysian’ and ‘Apollonian’. The former saw children as little devils, in need of breaking via physical punishment and re-educating, the latter saw children as pure ‘angels’ at birth, incapable of sin. Echoes of Church influence are still apparent in the state-funded current school ethic, with for example the compulsory daily collective worship (DfE, 2013b). Children are expected to be ‘schooled’, with discipline enforced by adults and working to a

temporally structured day (James *et al*, 2005). Both constructions persevere today and may be reflected in the practical management of children in educational settings. For example, the well-known adage that children should be seen and not heard could be said to persist in the adult view of student voice; that adults do not think that children are worth listening to as they lack competence in decisions that affect themselves (Lodge, 2005).

The United Nations (UN) (1948) Universal Declaration of Human Rights was meant to cover all humans. However, 1989 saw the UN introduce the Convention on the Rights of the Child where special rights were granted to children under the age of 18. If the first version covered all humans, Lee (2001) questions the point of the children's version. It highlights adults' perceptions of difference; adults are finalised, independent human 'beings' whereas children are dependent, human 'becomings' (Lee 2001:5). Therefore, the UN has supported the notion that children are dependent upon adults, shouldn't need to work to sustain them, and should spend time in school gaining an education (Cunningham 1995). The Convention considers that pupils are entitled to self-expression and a high level of student voice within school so is an important consideration traversing all three thesis Aims. Governments have then considered that the future security of a nation is tied to the level and quality of education that children receive.

The murder of Jamie Bulger by the two ten year olds in 1993 was a pivotal moment in demonising childhood adding to the public dislike of young people 'hanging around' in open spaces (Valentine, 1996). Jones (2000) discusses how the Apollonian child is under threat from a range of spatial restriction and confinement for the child's safety. This process highlights the importance of school grounds as being one of the few outdoor spaces that children are allowed to exist and be in; as a supposedly safe environment.

As the concept of schooling spread through European society so the child's length of stay in school increased. This trend is still continuing: the Labour Government (1997-2010) proposed an increase in school leaving age to 18, or 16 years if going into employment but with day release training at a college, by 2013 (DCSF, 2009a). As at January 2013 the Coalition Government is making education compulsory to the age of 17 in the summer of 2013 and age 18 in 2015 (Henshaw, 2012).

The precise definitions of terms such as educate, schooling, schools and learning say much about what is expected in a school environment. Ideological changes between successive governments have changed the conception of schools as establishments of education to ones of learning, yet the underlying philosophy is still underpinned by a Victorian Reformatory era Protestant work ethic (Cunningham, 1995).

Educate v.t. ‘to bring up and instruct: to teach, to train’ (Landau *et al* 1988: 451) and supported by Williams (1988) who notes the derivation from the Latin *educare* to rear or bring up children.

Education; ‘bringing up or training, as of a child: instruction: strengthening the powers of the body or mind: culture’ (Landau *et al* 1988: 451).

Education is the ‘process of bringing up; systematic training and development of the moral and intellectual faculties’ (Garmonsway 1980: 246).

School n; ‘a place for instruction: an institution for education esp. Primary or secondary: a building or room used for that purpose: the work of a school: those who hold a common doctrine or follow a common tradition; a method of instruction.’

School v.t.; ‘to educate in a school: to train, to drill: to instruct: to coach in a part to be played: to teach overbearingly: to admonish: to discipline’ (Landau *et al* 1988:1315).

School fig; ‘anything that teaches or forms the character’ (Garmonsway 1980: 647).

These definitions are a reminder that there is plenty of scope within education and schools for ideologies to be established at government and local levels. These definitions are themselves open to interpretation and are differently manifested via policy and in schools. The use of the terms ‘school’ and ‘education’ as both nouns and transitive verbs enables a variety of interpretations and applications. The use of ‘school’ as a specific word to represent a building where children go, suggests that it is a specialised physical space that enables schooling or an education to take place. Foucault’s (1976, 1977 and Faubion, 1994) notions of power, restrictive practises, use of surveillance and control of behaviour are discussed later in the thesis, opening up the theoretical debate as to their level of relevance in understanding school grounds as a means of schools educating their pupils.

The suitability or quality of buildings and grounds (as they tend to be considered a whole by pupils and parents (Titman interview by Khan, 1994)) may reflect on the

perceived quality of the education taking place inside. However, these expectations are fundamentally the product of a historically specific notion of what constitutes an appropriate building and space, as John Grace (2007) discovered when visiting Sweden, a country which manages to attain 90% of students in full-time education up to the age of 19 and then 47% continue to university. The college he visited was in an industrial estate, upstairs in a warehouse, accessed through a plain low-key door. It was a specialist, state-funded college catering for the 16-18 age-group, many with special educational needs, providing training in specific trades such as lock-smith. All but a few of the students had employment at the end of two years of study (Grace 2007). It is a system that is being extolled by the Adam Smith Institute, which is also looking to Finland's educational system as a possible way forward. In terms of outdoor environments then buildings in industrial estates do not have grounds to be used for education and so they set a precedent that our Government may take note of especially with the establishment of 'free' schools, discussed later.

Jon Coles, the 2009 Director General for Schools in the DCSF under the previous Labour Government, stated that the Department was not looking to Scandinavia or Europe for good educational practice. Apparently only English speaking nations were looked to, primarily the USA, about which Coles observed 'with its 50 states something good must be going on in some of them' (unpublished, Coles, 2009, Discussant: New Policy Spaces of Education (part of an ESRC Seminar Series on 'New Spaces of Education: the changing nature of learning in the 21st Century', University of Surrey, Guildford).

Since the formation of the Coalition Government in 2010, Michael Gove has emerged as a strong proponent of both USA charter schools⁷ and Swedish free schools. Seeking inspiration in America also took place in the last Conservative Government (1992-1997), where delegates attended the American Educational Research Association Conference (Wragg, 1995). The late Professor of Education, Ted Wragg, whilst at the Conference, disclosed that every particular element of the English and Welsh National Curriculum was covered by law, to the stunned international audience, which were not legally beholden to laws when teaching a curriculum. He also told the audience that this

⁷ From both USA charter schools and Swedish free schools the Coalition Conservative-led Government introduced 'free' schools to England in 2011, they are discussed later in Chapter 6. Also in Chapter 6 there is discussion regarding academies. Under Margaret Thatcher's Government, Kenneth Baker adopted the concept of city technology colleges from America (Wragg, 1995). The Labour Government's use of the term 'academy' superseded 'technology college', and was picked up and expanded by the Coalition who use it to describe an independent state sponsored school.

embedding of education into the statute books had been challenged by teachers but any criticism had fallen on deaf Government ears. This was an important indication as to the real level of control central government has over schools and education. Hence, if school grounds had an equivalent level of legislation as the curriculum they would receive more attention and have increased care bestowed upon them.

In schools, the term 'education' is quite specific, suggesting the delivery of both academic and non-academic content to national standards through the National Curriculum and tested at certain Key Stages and through GCSEs. Thus whilst the existence of schools themselves goes unquestioned, assumptions about their role are not necessarily underpinned by a clear understanding of the impact of shifting political philosophies and ideologies.

Education is often implied to be a final form, an end point, a finished product that has completeness about it, whereas learning emphasises self-motivation and responsibility in an on-going process without an end. Learning might be characterised as a set of small elements which *en masse* make up an education but at the expense of a holistic view of the many individual strands of learning. One possible consequence of this is that government does not consider its role as giving an education any more but instead provides opportunities for learning with education as an outcome that is measured by qualifications. Therefore, government is not interested in the informal curriculum that pupils receive in the school grounds as no obvious educational outcome is made.

Alternative educational contexts exist having emerged from different ethos from the conventional, for instance Steiner and Montessori school systems as well as forest schools. Steiner schools were started by Rudolf Steiner (1861-1925) in Austria and promoted human values and education pluralism. Teaching was and still is carried out as themed blocks giving a balance between the artistic, practical and intellectual. The schools are open to all abilities and faiths, are always coeducational and offer an unhurried creative learning environment (Steiner Waldorf Schools Fellowship Ltd, 2014). Kraftl (2013) has considered Steiner schools in the context of a children's geographies and the alternative educational setting.

Similarly, Montessori schools were created for young children up to the age of six, by Maria Montessori, as a way of developing the holistic child with an emphasis on play. The outdoor environment was an important feature including gardening (Montessori, 2014). Neither of these educational scenarios was included in this research, even

though they potentially offer an alternative to the commonly found, standard school, due to the Montessori being an early year's situation (not secondary) and Steiner schools not occurring in Cornwall.

Forest Schools emerged from Sweden and Denmark in the 1950s as a way of using the local woodlands as places for learning outdoor skills (Forest Schools Education, 2014). This ethos of involving woodland holds a huge potential for the use and development of school grounds and is explored in part with School 7 in Chapter 5.

Being a child and having a childhood is a heavily politicised arena and one where political viewpoints are played out, with a current example being the Coalition Government's dichotomy between the supporting of the 2012 Olympic Games legacy for school sport and the selling off of school playing fields.

The Literature review now moves to explore the curricula that schools deliver as its education framework.

2.2.2 School Outdoor Landscapes and the Curriculum

I begin with a brief discussion of the way school grounds are incorporated in the formal curriculum (involving National Curriculum subjects), before moving the discussion on to the informal curriculum (the informally taught aspect of education, mostly based around social, behavioural aspects such as bullying). I then consider the 'hidden curriculum', wherein the social coding of the outdoor spaces conditions or enables certain kinds of behaviour in relation to a set of expectations.

2.2.2.1 The Formal Curriculum

The formal school curriculum is detailed by the Government through a series of National Curriculum statements for the school subjects; Mathematics, English, Geography, History, Science, PE, PSHEE (Personal Social Health and Economic Education), Citizenship, ICT, Religious Education, Music, Art and Design, Design and Technology and Modern Foreign Languages. Within each of these subjects there are a series of Key Stages 1 to 4 that traverse across the primary and secondary 5-16 education sector. The subjects have guidelines for content and Level descriptors yet lack suggestions for where activities may take place or examples of ways to achieve the goals set. The original National Curriculum subject literature from 1991 was voluminous and included examples of teaching strategies but I do not remember any

reference to practical use of either the school grounds or outside of school when I did my secondary geography teacher training in 1990/1991.

The current Department for Education website (2012c:unpaginated) suggests that where school grounds are concerned then schools should refer to the following publications even though they are normally referred to by councils, architects and designers and are not commonly owned by schools:

The DfES (2006c) publication, *Schools for the Future: Designing School Grounds*, is full of information, guidance and ideas to inspire the best possible designs for school grounds, as well as examples of schools that have used the development of their grounds to enhance the formal, informal and hidden curricula.

The Shacknell *et al*, DCSF, DCMS (2008) publication, *Design for Play: a Guide to Creating Successful Play Spaces*, is intended to inform the creation of outdoor play spaces that do justice to children's endless capacity for adventure and imagination, their fundamental need for exercise and social interaction and, above all, to their innate sense of fun. It aims to show that well-used and well-loved places to play will often be integrated within the cohesive design of a wider community space and children of all ages.

The Billimore *et al*, DfEE (1999) publication, *Building Bulletin 71: The Outdoor Classroom: Educational use, Landscape design and management of school grounds*, is aimed at highlighting the potential of school grounds as a valuable resource that can support and enrich the whole curriculum and the education of all pupils.

The DfEE (1997) publication, *Building Bulletin 85 – School Grounds: A Guide to Good Practice*, is aimed at helping schools understand more about the range of issues affecting school grounds and to interpret them according to their own school's circumstances and priorities.

The advice given in the above texts is not backed by money and as I previously stated are texts not held by schools. The Cornwall Capital Strategy Team did not lend their copies of the books, using them purely for reference, and with the demise of the Capital Strategy Team in 2010 the texts will be gathering dust on a shelf somewhere in Cornwall Council premises.

Billimore *et al* (1999) in Building Bulletin 71 'The Outdoor Classroom' briefly cover the benefits and opportunities that schools grounds may offer to the teaching of subjects in the National Curriculum. There is opportunity for a whole range of maths applications and the collection of numbers, such as numbers of tree species, their height

and girth measurements. Yet teachers would not normally know of this publication so would only come across it by searching for 'school grounds' rather than as a subject specific teaching resource.

Building Bulletin 85 is a more technical document with it seems a greater relevance for designers, planners and maintenance professionals. It includes for instance the layout and construction of sports pitches and shelter belts. Cover photographs and those early on in the text are all of primary school children and primary schools even though the text is not specific to the primary sector. There is discussion as to how designers could potentially meet the needs of covering the three curriculum types along with management issues. Yet with all of the Building Bulletin series there is not a wide circulation beyond the local government community. I shall return to scrutinising these publications later in the thesis.

Dyment (2005a) concluded that teachers were able to deliver a whole range of subjects via a greened school grounds programme, and that when they did so, pupil learning was enhanced, students exhibited positive social behaviour, social inclusion was improved, the grounds were safer and healthier and environmental awareness and stewardship were promoted. Further, the increased diversity of learning approaches and techniques that green spaces offered suited a wider range of students (in terms of ability, gender, ethnicity) than conventional tarmac and turf.

2.2.2.2 The Informal Curriculum

The DFEE (1997) consider the informal curriculum to be an area of school life which is part of school education that is not formally measured or taught in a planned way like the formal curriculum. It is when pupils have break and lunchtimes that the informal curriculum occurs and it is these play times that have had a focus in the primary sector where there is a greater school attention to pupils socialising successfully, but a neglected area for research and educational concern in the secondary sector. Break times and the informal curriculum are of particular importance in developing pupil social skills, as the pupils are required to coexist in large, mostly un-supervised numbers (Chillman, 2004:19). As well as a gap in research in the secondary sector there is also little insight on the relationship between school grounds and the informal curriculum. Titman (1999) and Chillman (2004) suggested that if school grounds were to provide a positive informal educational experience then there needed to be a suitable quantity of quality seating and outdoor shelter with recreational activities suitable for a variety of

ages. Titman's (1999) work with pupils showed that the school grounds seemed to accentuate stress and tension rather than make for a potential social setting. This notion is akin to Blatchford's (1998) work where he found that as pupils got older in a secondary school setting, when questioned, their interest in improving the grounds to meet their needs (such as more seating) diminished whereas the pupils were more keen on the school providing activities. The reason for this could be that they are resigned to the state of the grounds knowing that no improvement is going to occur (Chillman, 2004). Research is needed alongside school grounds design improvements to record if there are any improvements in pupil social wellbeing but is beyond the scope of this thesis.

Over the past 20 years there has been an increased interest in primary schools in the development of school grounds as a place of learning as well as catering for the informal curriculum, as demonstrated by the DfEE Building Bulletin 71 (1999) 'The Outdoor Classroom'. But as Chillman (2004) points out, secondary schools are both poorly represented by the images utilised or the exemplars given as good practice within this text. There is the assertion that informal environmental learning and sustainability could easily be improved by greening the school grounds (Malone and Tranter, 2003; Kemmis and Mutton, 2012). These authors show that, in schools in Canberra, a holistic approach has been achieved via both teacher-led and unguided pupil experience. The development of school grounds was a way of increasing access to nature, especially for children in urban areas (Malone and Tranter, 2003; Kemmis and Mutton, 2012). The developments of tidy grounds, which adults are comfortable with, do not necessarily conform to the child's perspective. The adult view also impacts on whether the child would be allowed in that area or be able to play effectively. In sum, 'greening' has to be designed along the lines of a child's perspective rather than adults.

Other research on the informal curriculum has focused on inter alia: i) the dominance of the classroom environment in determining a pupil's quality of school life rather than the quality of formal education (Mo Ching Mok, 2002); ii) subject specific influences especially in music creation outside; iii) the production of gender and sexual identities (Dunne, 2007); and iv) masculinisation of male pupils by school practice/male role models (Warren, 1997; Wedgewood, 2005). The latter research has influenced my analysis of patterns of play and the notion of territoriality found in a secondary school grounds.

2.2.2.3 The Hidden Curriculum

Titman's (1994) 'Special Places; Special People: The hidden curriculum of school grounds', brought to the fore the idea that the behaviour and attitudes of staff and pupils could be influenced by the outdoor school environment. Titman labels these as 'coded messages' that children read from their outdoor school environment along the lines of Relph's (1976) suggestion that individuals read and understand signs and symbols around our everyday environments. Chillman (2004) notes Titman's (1999) statement that secondary school grounds are the only really dedicated open space for the secondary (11-18) age group. Hence any messages emanating from the grounds are ones pupils assume the school has a role. For instance, a lack of seating suggests that the school does not want its pupils to sit down during time outside. Whereas younger children have a wider variety of public spaces to be or play in, the teenage group is least likely to make the most of public green areas such as parks. This is compounded by a lack of dedicated space for teenagers outside of schools (Department for Transport, Local Government and the Regions, 2002 and Nestlé Family Monitor, 2002). Indeed, signs with age limits and bylaws posted at playground entrances can actively put off older children from entering the site.

Relph (1976) considered there to be a relationship between the common socialisation of groups of children that share a particular space. For example, a group of teenagers hanging around an underpass will probably have a friendship commonality such as smoking and the underpass will provide shelter and lacks surveillance. Winchester *et al* (2003) discuss how authority and power can be veiled within a landscape along the lines of Foucault's (1976, 1977 and Faubion, 1994) notions of power. This is relevant in terms of levels of surveillance, boundaries and limits that may occur in a school's grounds. Effectively, power could be exercised by any level of society and manifest as a physical and/or a social control. For instance schools may be fenced in to prevent outsiders crossing school boundaries and vandalising property. However, there is also a message for pupils within the school that they should not leave the school and that they may be given a sense of security. Winchester *et al* (2003) also discuss the extent of normalising and affirming power messages in a landscape. For example, the large open hard and soft school landscapes preferentially offer boys active games opportunities and so let them dominate the landscape as opposed those who want a quiet space and may not find one. It was the State that ultimately controlled and focused the amount of land given over to the different designations; the school building and sports facilities. Sports

that traditionally were seen as boys' sports (football and rugby) took up more space than the girls' equivalent (hockey and netball) therefore would physically dominate the school grounds.

Titman (1994) suggests that children's responses to places are forged by their attitudes to different elements such as colour, trees, places of different levels, shady areas, places to climb, places to challenge and wildlife – which invoke a positive response – and pollution, litter, muted colours, damaged things, nowhere to sit/hide/or shelter or places that are too open – which invoke a negative response (Titman, 1994:25). In Titman's research 'children consistently expressed very strong, positive reactions to natural areas, which they judged as peaceful and associated with freedom' (Titman, 1994:27). There appears to be a preference for things natural opposed to the man-made and a general feeling that designed spaces rarely matched expectations or needs; a view supported by Jones (2000).

A couple of examples of common school ground elements and their meaning are given by Titman (1994):

- Tarmac - was thought of by children as being dangerous as falling over inevitably hurt. It was associated with group games, especially football, and was recognised by the pupils as giving a territorial advantage if space was at a premium. Tarmac's greyness meant that it was boring to look at and children felt that it was the cheap option as its implementation was usually for sports rather than for play alone.
- Trees – meant climbing and offered a different experience to man-made play equipment. They were appreciated for their shade, shelter and their constantly changing seasonal character.

Tarmac, although expensive to place is seen as a cheap option as it requires very little maintenance in the long-term, as opposed to grass which needs cutting on a regular basis or other plants which also need a level of maintenance.

Titman's (1994 and 1999) work on the hidden curriculum provides a useful basis for interpreting school grounds but one which I consider has weaknesses and needs refinement. I will return to the notion of a hidden curriculum later in the thesis where I offer 'coded mutualism' as an alternative more rigorous means of looking at the relationship between school buildings and school grounds.

By taking into account the discussion before on health and landscapes and then the school curriculum there is a natural progression into the concept of sustainability when thinking of gardens around schools.

2.2.3 School Grounds and Sustainability

One of the previous Labour Government's priority agendas for schools, in particular those built under the BSF Programme when it came to building quality and design was sustainability. Sustainability also became embedded in the formal and informal curricula, achieved by schools buying local good quality food, cooking and growing food, walking to school, getting involved in saving school utilities bills, calculating carbon footprints, and reducing waste, at least some of which could be achieved (but probably won't) via the creative use and development of the school grounds. Some of these activities are the focus of national initiatives such as Food for Life (Food for Life Partnership, 2013), sustainability competitions (as described below), and the RHS five levels of plant growing in the grounds (discussed later in the thesis). The benefits of such activities are widely recorded. Goldsmith (2009) for example, shows how a counsellor in San Francisco's county jail, inspired by the 'Grapes of Wrath', set up a prison garden. The inmates exhibited a 25% reduction in their reoffending. For Goldsmith, it is a transferable experience and 'every school should include food growing in the curriculum' (Goldsmith, 2009:unpaginated). This would be achieved by the schools themselves setting up a small farm or liaising with local farms and food growing businesses. Goldsmith does not elaborate as to how this may be achieved when there are the barriers of finance, national education policy, skills, training, capacity and space to negotiate; all of which affect the current design, use and function of school grounds.

Gayford (2009) reports on a three year study where 15 primary and secondary schools had good levels of activity in relation to sustainability already in place. Some interesting findings were that most pupils saw sustainability as being important and that the school should be a clear demonstrator of sustainability and its values. Discussions of sustainability, by teachers to pupils, if done in a direct way in the secondary sector, were perceived as preaching. More successful were the practical activities that included pupil involvement. The most successful school councils were the ones where the pupils had control over proceedings and then dissemination of outcomes (again important application for true democratic school voice as opposed to a teacher-led activity). If

pupils took the lead on monitoring sustainability measures, pupil motivation was increased (Gayford, 2009).

The DCSF (2008d) stated eight criteria as a broad model for schools to become more sustainable, covering food and drink, energy and water, travel and traffic, purchasing and waste, buildings and grounds, inclusion and participation, local wellbeing and the global dimension. DCSF (2008d:11) suggest that schools should ‘manage and, where possible, design their buildings in ways that visibly demonstrate sustainable development to everyone who uses the school. Through their grounds, we would like schools to bring pupils closer to the natural world, capture their imaginations in outdoor play, and help them learn about sustainable living’. The potential here is for schools to choose the grounds option as a sustainable way forward yet in reality few do as it is the one choice that needs a financial outlay to initially develop the grounds whereas nearly all of the other criteria when scrutinised would save the school money.

Through this brief consideration of what schools are for and what an education is, I have given an inkling of the politics embedded within the education system and that the priority lies in the education taking place within the school building as opposed to the school as a whole, incorporating the outdoors. There appears to a rather narrow Governmental view as to the role of a secondary education system that does not incorporate the school grounds as part of a holistic pupil schooling. Unless a secondary teacher takes it upon themselves to embed the school grounds as a teaching tool then the formal curriculum is not officially required to include the school outdoor environment. As the third major section of the Literature Review, I now move on to explore how children’s geographies may give an interpretive insight into spaces that are school grounds and their role as a major outdoor space for children to be.

2.3 Children’s Geographies

Children’s geographies are a relatively new sub-discipline of human geography, recognised by the launch of the journal *Children’s Geographies* in 2003. Horton *et al*’s (2008) editorial piece highlighted the many important gaps in human geographies of childhood and the lack of application of geographical theory to schools and secondary schools in particular. Horton *et al* (2008) start by noting the ‘missing’ children and young people within the economic, political, urban realms of human geographies,

despite the fact that 25% of the population fall into this category.⁸ Notwithstanding the gaps identified by Horton *et al*'s foreward, the Percy-Smith and Thomas (2010) article two years later point to the huge improvements in children's participation in research and the growth of children-based studies within Geography. However, despite a geographical cultural shift into researching young people, Horton *et al* (2008) and Hopkins (2010) note the dearth of research into the built environments, schools in particular as major places that children inhabit. Given that children in England spend about 190 days a year attending school,⁹ it represents one of the everyday spatialities about which little is known. 'Everyday spatialities' are one of the most important geographical aspects of studying young people, especially of the 'space, place, scale and landscape' through which they travel and in which they dwell (Horton *et al*, 2008:340). Horton *et al* (2008) considered the extent of politics and participation as an important element of research with children, and have carried out research into student participation in the design and building of new schools under the BSF.

The concepts of intersectionality, intergenerationality and lifecourse could be used to explore the social interactions between adults and children. Such concepts seem to offer a 'framework' for a 'certain, clear, clean, collected, decisive and above all linear, kind of theorisation of human life' (Horton and Kraftl, 2008:286). The debate has focused on the usefulness of these concepts when understanding the complex social negotiations that take place between children and adults in the spaces of everyday life. Although, as noted above, adults seem to occupy a position of dominance over children, the concept of intergenerationality tends to polarise adults and children while the concept of lifecourse seems to reinforce the notion of children on a journey to completion as adults. Hopkins and Pain (2007) argue for an alternative framing – understanding age 'relationally'; in recognition that age is one of several factors that determine the unequal relations of power between children and adults. Meanwhile, Horton and Kraftl (2008) also consider that age differences are only part of the explanation and that there are other factors that come to play such as power relationships and emotional ties which the term intergenerationality may fail to incorporate. They consider that 'geographies of age may not be important to children's geographies' (Horton and Kraftl, 2008:286).

2.3.1 Children's Geographies and Schools

⁸ Horton *et al*, (2008) do not define the age range of what they call young people.

⁹ DfE (2012e) discuss how the length of the school day is no longer prescribed centrally by Government, but that at least 190 days should be spent in school a year unless reduced by Parliament.

It might be suggested that schools, with traditional Foucauldian (1976, 1977) structures of discipline and authority between apparently homogenous groups of teachers and pupils, may appear to lend itself to an ‘intergenerational’ interpretation. Yet as the year groups are heterogeneous, with mixing between the years rare, I will be taking a ‘relational’ approach. Year groups are further differentiated by friendship groups and cliques, often organised around shared gender interests (such as sports), or illicit activities (such as smoking), as discussed later. Thus it is the ‘alterity, otherness, interrelations’ that Horton *et al* (2008:340) discuss that need to be explored in relation to everyday school life whether in a direct teacher/pupil contact or indirect governmental procedure (strategies, acts, policies) which are eventually applied to children.

Power relationships between adults and children were described by Punch *et al* (2005) as manifested through the supportive rules and guidelines for young people living in an adult world, especially in relation to school settings; for example queuing in the canteen for lunch, being quiet when someone else is talking (especially an adult) and respecting other peoples’ belongings (with extra value placed upon school property). Foucauldian power relationships can be conditioned by expectations of what constitutes an appropriate relationship between younger and older people, which may be somewhat oppressive and constraining. Children may subvert the unequal power relationships with adults by threading small acts of resistance through activities directed by adults (Punch *et al*, 2005). For example, young people working together as year-peer-groups and cliques behave subversively, resulting sometimes in bullying the younger members of the school (Punch *et al*, 2005). The membership of such groups is often temporally very fluid and social distancing may occur if support dwindles or empowerment is not maintained. Leyshon (2008) and Jones (2000) discuss how older children are often pushed to the periphery of existence within public spaces, making the design of school grounds all the more important as places for children to be, socialise and hang out. It is that spatiality of childhood that I now turn.

2.3.3 Spatiality of Childhood

The development of a sense of place can be considered in a variety of ways and scales from the global to the local and the interaction of these (Massey, 1994). Localised spaces are ones that nurture the child in an everyday sense; the home, the local-street and school (Holloway and Valentine, 2000). Children form attachments to micro-

elements of their localised world and are capable of changing the use of a designated space (often exemplified by skate boarding) and even give colloquial names to places (Ward, 1978). This behaviour is sometimes characterised as one of the key differences between organised adult worlds and the disorganised, un-designed world that children desire and create. Such a difference could have significant implications for the design and use of school outdoor spaces (Ward, 1978). For instance grounds have an unrealised potential for use by different pupils at various times of day and different stages of life to that adults originally considered or planned for. Leyshon's (2011) work on the importance of rural young people's memories and their creation of a spatial context very different to that of adults could also help us understand how pupils use school grounds. This is due to school grounds being the one place, unlike parks and recreational areas that children are allowed to be seen and expected to be in and hence allowed to form a positive attachment, a place to dwell and form memories.

The relative orderliness of the adult world is in part reflected in the desire to create spaces of safety for children. Valentine (1997) notes how society now has an obsession with the safety of the vulnerable Apollonian child and the naughty Dionysian when away from the home space. School grounds are strongly influenced by the need for security, with boundary areas, fences and planting regimes designed to keep students in and unwanted visitors out. Further, the ethos of the school conditions the amount of freedom or trust given over to the pupils during the break times spent outside in the grounds.

Kraftl *et al* (2007) give a critical review of research on young people and their environment. They note how early work on mind mapping was used as basis for later study (Lynch, 1977 cited in Kraftl *et al*, 2007) followed by work on perception and spatial interaction (Ward 1978 cited in Kraftl *et al*, 2007). The focus of research seems to be on the home, the school and the playground and how these spaces are interacted with by children rather than the extent to which they are designed to meet child need (Kraftl *et al*, 2007).

However, as hinted in the above discussion, young people tend to group together with peers when there is a common interest and lend themselves towards territorialisation of spaces, often defined by age and gender; an issue which I now address in more detail.

2.3.4 Territorialisation of School Grounds

The design of the school landscape may inadvertently or by design enable or prevent the many small acts of territorialisation that occur in it. Theories regarding territorialisation can be used as a major tool in the analysis of pupil spatiality whilst in the school grounds, and it is these theories which are now discussed. Territories are considered as expressions of ‘influence and power’ through which spatial organisation is maintained (Sack, 1986:216). As social constructs their impact depends upon who is in control and for what reason. Territoriality yields to an analysis wherein the deconstruction of relationships between the component parts exposes the unequal spatialised relations of power. Territoriality helps explain how the outdoor landscapes of schools are conditioned by social relations between groups of children and children and staff (Sack, 1986).

Sack’s (1986) theory of territorialisation in the primary playground is reiterated by Thomson (2005). She sees both adults and children forming territories and re-territorialising by means of control, domination and resisting others’ spatial range and rule. The playground is arbitrarily segmented and delimited by the way it is used by individuals and groups. She notes that the architecture and the design of the playground form the layout for the territories and then staff and pupils superimpose further territories on top. Furthermore, apparently delimited areas could be based both on actual lines – such as fences or paths – as well as imaginary constructs such as rules. Of course she notes that there are always areas which are ‘off limits’ (areas of the outside environment that children are not allowed such as the front of the school, or grass areas in winter) and these can be both permanent and temporary. The restriction of space with winter weather conditions may then confine pupils’ territories and lead to conflict between groups. Thomson (2005) categorised the primary playground into limited spaces, privileged spaces and prescriptive spaces and examines the roles of adults and children within each.

Territorialisation of the grounds can occur by groups of different gender and/or differing age groups (Sack 1986; Thomson 2005). Tucker and Matthews (2001) examine how children mark territory to claim ownership of place and send a clear message for others to stay away; may be by leaving various kinds of rubbish or creating graffiti. Cresswell (1998) discusses the role of graffiti as a specific form of anti-authoritarian protest in public spaces by young people. Tucker and Matthews (2001) note that girls are in

conflict with boys over the type of space that can be occupied, for instance, playing fields and recreation grounds. Girls often perceive these spaces as being unsafe and to be avoided, resulting in girls staying in more domestic environments nearer to home.

Territoriality may be considered as an instinctive or learned behaviour or an amalgam of the two (Brown, 1987; Altman and Chemers, 1980). Ardrey (1967) identified people's instinctive drive to claim territory by marking the space and then threaten others in its defence. As land is a finite resource, conflict could then arise over territory claims. However, it is also been argued that territorial behaviour is learned through experience and culture (Bell *et al*, 2001). It is an aspect of territoriality that is thought of as being particularly human in character as opposed to other animal species. Bell *et al*, (2001) downplayed the notion that territorial behaviour arose from biological functions and suggested that it was a response to organising our environment. Territories have allowed for the mapping of areas in which particular behaviours could be practised and expressed, reflecting a social order.

Human territories have been classified into four functional types by Taylor (1988) (cited in Bell *et al*, 2001:279) namely public places (such as a beach); primary territories (a bedroom for instance); small spaces for face-to-face contact (family spaces); and neighbourhoods and communities. These can operate to give a feeling of distinctiveness, personal space and identity (Harris and Brown, 1996). Therefore, people can use territoriality as a higher order differentiation to others, reflecting self-image and status. The school grounds have varying scales of territoriality (from football pitches to a space where three or four people could squeeze), with older pupils often wanting to be further from the school buildings, in space outside of a classroom or the school site as a whole.

In terms of defence of one's territory, people can normally recognise boundaries, whether real or symbolic, and avoid overstepping them so that aggression is avoided. However, this depends upon the type of territory. Altman (1975) noted that in primary territory (the home or office) there is a high level of ownership and the space is extensively personalised. When this space was intruded upon, the owner could experience a loss of control. Secondary territories (classrooms for instance) were not owned by a single individual but their occupants saw themselves legitimate person within those spaces. There may be some personalisation – perhaps through the decoration of a personal drawer or locker – but this is usually short term and there is

often a separate controlling influence over the space such as a teacher. Lastly, in Altman's (1975) public territory (such as school grounds or the beach) the level of individual ownership was low and hence difficult to achieve and control in a territorial sense. There are a large number of users who may personalise a space in a temporary way (e.g. through the placement of a beach towel or school bag) but who are not likely to be inclined to be defensive of the space. Bell *et al*, (2001) suggest that territories function to provide order and make space legible and easier to negotiate.

In Bell *et al*'s (2001) view, territories reduce stress, minimise aggression and give identity to the individual. However, at their extreme, group-based territories are manifested in, for example, youth-based 'gangs' which mark their territory and defend it rigorously (Ley and Cybriwsky, 1974). Ley and Cybriwsky's (1974) research into the distribution of abandoned and stripped out cars in inner-city Philadelphia acknowledges that the characteristics of the landscape lent itself the activity of stripping and abandoning cars and other criminal activity. Although this is a long way from Cornwall's secondary schools, the work suggests interesting avenues for my analysis of year group domains around a school site (see Chapter 7), whether these spaces have particular characteristics, and whether the territories (if they exist) are marked and defended in any way. Ley and Cybriwsky (1974) conclude that there was a strong relationship between crime and surveillance; the greater the chances of being seen by members of the local community, the less likely the cars were to be abandoned in that space. As I will show, surveillance also conditions the territorialisation of school grounds.

The positive aspects of group territoriality tend to occur where there are mutual feelings of support, identity and security (Taylor, 1988). The marking of space (by graffiti or abandoned cars for instance) can deem that space to be safe for those who 'belong'. Of course, the antithesis of this is that outsiders can then be seen as suspicious and treated with aggression.

Mercer and Benjamin have explored the gendering of group territories, showing that males are more territorial than females and that male territory is larger (Mercer and Benjamin, 1980). This is seen in grounds by the dominance of soccer as an activity by the boys which takes up the most space, where territory is marked by school bags and school uniform, often doubling as goal posts (Thomson, 2005). Dominant individuals can appear to be more territorial, especially if a particular space is deemed as being

more desirable than other spaces. If no space is seen as being highly desirable then a dominant individual can roam a greater distance and can appear to be less territorial. Therefore territoriality can depend upon group composition and social organisation (Bell *et al*, 2001).

Meanwhile, personalising a group territory through embellishment is often undertaken by females, giving a feeling of attachment and ownership to a particular space in the form of commitment, identity markings and a level of sociability (Werner *et al*, 1989). This has an important implication for the analysis of group activity in secondary school grounds and whether pupils demonstrate care for a particular aspect of the site. Also of importance is the site's potential for becoming territorialised and exclusive to groups of pupils. As pupils move through the school age groups, an area may be defined by direct pupil input and 'owned' by a particular age cohort. Ownership is lost when the pupils grow older and leave, but the new cohort often occupy that space because a history and folk memory of territorialisation is passed on to future pupils.

Tucker and Matthew (2001) show that girls are in conflict with different age groups as well as with boys over the type of space that can be occupied in rural areas, namely playing fields and recreation grounds, which could be transposed to a school site with its playing fields and other peripheral spaces. Girls see recreational playing fields as unsafe and hence to be avoided, resulting in girls staying in environments nearer to home or perhaps school buildings (Tucker and Matthews, 2001).

Sommer (1969) explored the effectiveness of territory markers. If there is space available, people avoided markers such as a sandwich or book, and sat or stood elsewhere. However, if space is at a premium the marker is then scrutinised as to whether it is personal or of a more general nature such as a newspaper. The personal and valuable tend to have more respect (a coat for instance) whereas a newspaper may lead to confusion and the space may be taken over. Male markers are more effective than female markers, with a man's desk being less likely to be invaded than a woman's (Haber, 1980). Haber's detailed notes on the reactions of a group towards others could be easily transferable to school grounds and act as a point of comparison. Students on the periphery of a group will greet others when they approached. Haber put this down to the students on the periphery being more vulnerable but also more accessible. This same peripheral group is more likely to avoid invaders to their territory and will pick up their belongings and leave. Those students central to a group greeted outsiders the least

and defended the most with statements of ownership and territory (Haber, 1980). Closely related to territoriality are the notions of sociality and friendship as it is these aspects that tend to create territories.

2.3.5 Sociality and friendship

Bunnell *et al* (2012), in their synopsis of friendship as a geographical theme, considered there to be a research gap especially when looking at friendship between children and how this was developed in schools. Friendship is a means of achieving social and cultural wellbeing and can confer or deny particular freedoms (Bunnell *et al*, 2012). Skelton (2000) notes that being with friends then allows parents to be happy about children going to places that they would otherwise be denied to visit if on their own. It appears that much of what Bunnell *et al* (2012) say about friendship is closely related to territoriality in that there are spatial friendship boundaries usually with a social commonality (going to the same school, living on the same street) and markers are sometimes used to define the friendship group: ‘cultural and spatial practices that may be detrimental to education, skill acquisition and ambition can be articulated by friendship formation that enforces and reinforces social segregation which continues into adulthood’ (Bunnell *et al*, 2012:501). Therefore, friendship groups can reinforce differences in socio-economic groups and can provide a context for resistance (Bunnell *et al*, 2012). The application of these ideas to a school setting helps us to address this research gap.

Morris-Roberts (2004) explored the role of friendships of 14 and 15 year old girls in the Rhondda Valley and their gender stereotypes. She found that friendship patterns in this instance were based on a commonality of appearance (dress, hair style, jewellery, make-up) and hanging out at selected spaces. This latter point would form the basis for territoriality and hence an aspect that would be explored in this thesis.

Despite the significance of children’s friendships within children’s lives, little research has been done, especially in a school scenario regarding the spatiality, formation, and significance of friendship, whereas, much has been made of the importance of play in the younger age groups (Skelton, 2009). This thesis touches on friendships via the occurrence of peer-groups in the school grounds. The discussion now explores social relations in the context of school design.

2.3.6 Social Relations in School

There is a small literature by den Besten *et al* (2008; 2009; 2011) on schools and the building design process undertaken with the BSF programme. The three articles focus on the level of pupil inclusivity in the BSF design process, the successfulness of aspects of new building designs (particularly corridors and other open spaces) and the extent BSF has achieved the ‘promise of transformation’ den Beston *et al* (2011:9). den Besten *et al* (2008) suggest that there is a mismatch between national policy statements regarding the positive involvement of pupils within the design process and the reality taking place in schools where a series of constraints stifle the inclusion of pupil voice (such as budgetary limitations meant that few choices were really available for pupils to have a say, time allowed for participation was limited, the role of pupil involvement was unclear, a lack of facilitator training meant pupils were left confused, the number of pupils involved were ‘tokenistic’ when considering the numbers of pupils in a school, pupils design suggestions showed little creativity and were often trivial, and schools’ attitude to pupil participation varied affecting their level of involvement) (den Besten *et al* 2008:207-209). This article gave me an indication for similar trends of pupil involvement to be conscious of when exploring Schools 4 and 5. The den Besten *et al* (2009, 2011) articles were useful to my research in that they made the link between Labour’s (1997-2010) claims and promises as to the benefits of school redesign will have upon childhoods but did not go as far as measure the extent of influence new school architecture and design has had upon pupils.

Matthews *et al* (1999) suggest that there is a lack of participation by younger members of society in the urban planning process and design of buildings and adults can actively make public spaces unattractive to children so that they will not linger (Lee, 2001). The separations of designer/architect by both space and time to the pupils/young people who inhabit the space make the analysis of design success difficult to measure. Gendered social relations in schools have also been considered and the discussion moves to this area.

James *et al* (2005) discuss the gendering of the outdoor school space, explained in part by the genderisation of the adult educational adult work place, with female teachers now dominating in numbers (Martinez, 1998) and how this establishes certain norms and expectations amongst the children (Belotti, 1975). Traditional playgrounds push girls to the periphery in preference to boys playing games of football (Thomson, 2005). The

gendering of areas of the outside secondary environment is explored in this thesis, and comparisons are made between secondary schools and research from the primary sector. My thesis fills the research gap and concurs that a gendered landscape exists but will go further and explore the nature of gendered secondary school grounds.

Hopkins (2007) considers the relationship between 'young people, masculinities, religion and race' arguing that the religious aspects of young people's lives are often neglected by geographers along with a consideration of young people and race (Hopkins, 2007:163). This calls attention to the place of spiritual beliefs in school and the possibilities for reflection, contemplation and worship that school grounds could offer. The Learning Outside the Classroom (LOtC) programme (under the auspices of the DCSF via charity trusteeship) considers 'sacred spaces' as being essential for emotional wellbeing. 'Well-designed and maintained school grounds' (LOtC, 2008: unpaginated) could fulfil this function. The LOtC extol the virtues of school grounds as being beneficial for physical and emotional health, a 'refuge from the pressures of life, relieving stress and anxiety' (LOtC, 2008: unpaginated). They also suggest that the natural environment that schools can offer promotes a sense of awe and wonder that forms an important part of spiritual development (LOtC, 2008). This links to previous discussion on the health and wellbeing aspects of school grounds.

When adults design spaces for children, their own childhood experiences are often a distant memory and therefore adults think that they know what young people want or do not take into account the child's perspective (Kennedy, 1991; Jones, 2008). Young children are obviously shorter than adults, and see and experience the world from that perspective. This, of course, changes as people grow, but it is all too easy to forget what the world looks like when one is little. Further, a child perceives time passing differently, has different modes of behaviour and expectations to adults, and approaches space in a different way. Whilst childhood might be considered the most dynamic period of physical, mental and emotional growth and change, Kennedy (1991) points out there is enough consistency amongst young, primary-school-aged children, no matter what their socioeconomic cultural backgrounds, that design can be generalised for specific age groups.

Jones (2007) points out that the European Landscape Convention (ELC), with its inclusion of the public as participants, could be of increasing significance to schools who may need to include children in the decision making process if assessing the

quality of their school grounds under the ELC initiative. The role of student voice in the design of schools has been extensively explored by Mason (2007). She suggests that there needs to be a movement away from the consultation (short-term referral) of pupils towards a relationship of collaboration (a long-term working relationship). Levels of pupil input, observed at a case study Pathfinder School that Mason studied, were minimal and the architects were reluctant to include radical design proposals from the children. Sheat and Beer (1989 and 1994) noted a similar level of student voice in the design and use of two secondary school grounds in Sheffield. Sheat and Beer discuss the quality versus the quantity of student input into a design process. They observed that there was pupil involvement at the consultation level but the process rarely moved beyond this. The opportunity for pupils to gain experience of measuring, designing, implementing the design and maintenance of the site was lost.

I would argue that there is a large change in demand for outside spaces in secondary schools as pupils' progress from 11 to 18 years. Nevertheless, adults continue to design space from their own perspective without consideration for the younger 'other' and children are frequently seen as not worthy of specialised, child-centred architecture/design. Kennedy (1991) noted how school architecture often implied that the child's needs should not be indulged, reflecting instead adult expectations about children's behaviour.

The discussion now moves to explore more closely the role of children's voice and their participation in schools and the school grounds in particular.

2.3.7 Children Participation/Student Voice

Inspirational work has been carried out by the architect Cengiz Bektas, who overcame the poverty of Istanbul's communities by empowering children and who in turn empowered their families and the wider communities by creating gardens and play areas from waste land (Sancar, 2006). When Cengiz was asked about his preference for working with children his response centred round their lack of bias and ulterior motive, combined with their capacity to take on a sense of ownership during a development project. Bektas' work demonstrates the importance of consulting with children, recognising their potential as change agents and acknowledging their wants, needs, and expectations when designing and constructing an outdoor school space.

Conversely, Jeffs (1995) considered British schools to be depressing places for human rights, because no policy or act has extended the capacity of children to have a say in their education. As far back as 1985 with the ‘Gillick Judgement’¹⁰ laid out by Woolfe and endorsed by Scarman, children have been deemed capable of making their own decisions, depending upon their maturity. Although this judgement was drawn up in a legal setting it can and has been applied elsewhere in society yet avoided in an education setting (Jeffs, 1995). Further, Article 29 of The United Nations Convention on the Rights of the Child includes a right to free education, and enshrines respect for the values of the young person. However, Jeffs (1995) argues that although the basic education in Britain is free, it comes at the cost of an effective and respected student voice. Along with restrictions on student voice via the student governor role under Margaret Thatcher’s premiership (1979-1990), the views of key, then ‘radical’, educational practitioners were also suppressed. Under the cover of ‘improving standards’, a covert agenda sought to deny the creation and shaping of educational policy by locally elected officials, weakened the teaching unions, and buried progressive forms of education such as ‘Global Education’ (Jeffs 1995). It was an indication that the then Conservative Government wanted an end to Local Authority input into education, especially if that Local Authority had alternative political views to the Government. ‘Global Education’,¹¹ underpinned by a radical politics, was

¹⁰ The law regarding competence of children under the age of 16 was established in the case of *Gillick v West Norfolk and Wisbech Area Health Authority* (1985). Before this case there had been no real debate as to the competency of children as decision-makers pre-16-17 years until in 1974, the Department of Health and Social Security (DHSS) issued a circular to area health authorities containing guidance on giving of contraceptive advice. A small part of this guidance related to giving of such advice to girls under 16. Revised in 1980, the guidance essentially comprised of: i) A doctor prescribing contraceptives to a girl under 16 would not act unlawfully as long as he acted in good faith to protect her from harm; ii) Doctors should if possible try to involve parents (there might be exceptional cases where this was not possible or appropriate. In such cases, it was up to the doctor's clinical judgement whether or not to prescribe contraceptives). Mrs Victoria Gillick, who had at that time five daughters under the age of 16, was deeply concerned by the implication that her children could be given advice or prescribed contraceptives without her knowledge or consent and she sought assurance from the health authority that this would not occur. The authority replied that in their view, this was a decision for the doctor in each case. As a result, she brought proceedings against both the authority and the DHSS, arguing that the advice was unlawful and amounted to advice to doctors to commit an offence (Sexual Offences Act 1956), and doctors could not give contraception advice or treatment without parental consent because it would be inconsistent with parental rights. Her case was dismissed in the first instance but successful in the Court of Appeal. The Department consequently appealed to the House of Lords where it was upheld (Hayhoe, 2008:767).

¹¹ Global Education is concerned with ‘action-theory grounded in a holistic view about the world and human beings... normative educational goals and contents such as, for example, solidarity, tolerance, empathy, a holistic view and so forth are central and aimed for’ (Scheunflug and Asbrand 2006: 35).

developed by authors such as Prof David Selby who was then Director of the Centre of Global Education University of York; 1982-1992. Selby felt that his career was untenable under the then Conservative Government and he emigrated to Canada for many years where his research was welcomed and widely applied by organisations such as UNICEF via his base at the University of Toronto (Selby, personal communication 1999).

Children's participation in the governance of schools in general and the design of the outdoor spaces in particular has had a rocky history. The abolition of school student governors by the 1986 Education Act signalled the beginning of the removal of students from governance and decision making processes (Jeffs, 1995).¹² Indeed, from 1986, the Conservative Government instigated a rationalised, coordinated, goal-centred approach to policy making in education. The on-going battle between those in favour of centralised control and those who wanted deregulation saw the 'New Right' overpowering the objections of marginalised Local Education Authorities and teachers to bring a rationalist agenda to education policy. This resulted in the introduction of market forces to education with the 1986 and 1988 Education Acts (Trowler, 2002).

In this new political climate, pupils were considered as consumers by schools and hence subject to market forces, placing added pressure upon the school to include them in some way in decision-making when considering the running of the school, therefore contradicting the earlier Thatcher demise of the presence of student governors, (as discussed above). In addition, there were echoes of Local Agenda 21¹³ which encouraged citizen involvement in making informed decisions about their local environment. In light of these developments, two potential outcomes for children were identified by Wyness (2003): first, that they should be included in choices over environmental issues; and second that children's rights to social and personal space were enhanced (Wyness 2003). This, however, was contradictory and difficult to put into practice within the Conservative 1986 Education Act, where the 'political bias' of teaching was outlawed making student voice difficult to achieve in a non-politically

This goes against the 'constructionist' perspective of the traditional English based education system (Scheunpflug and Asbrand 2006).

¹² There is a modern movement that deems the role of the 'governor' as being powerless in line with the instigation of academy and trust schools where Whitehall and outside bodies are holding schools to account rather than local people with a vested interest in the school (Mansell, 2009).

¹³ Local Agenda 21 came into being as a result of the Rio Earth Summit 1992, where the UN agreed that Local Agenda 21 would provide a starting point to achieving sustainable development, at the local level, in the long-term. The drawing up of a Local Agenda 21 strategy would involve all aspects of the local community with foci of economic, social and environmental agenda (Sustainable Environment, 2013).

principled way, unlike other nations such as Germany and the USA where there is a tradition of citizenship and politics teaching so enabling the debate around student voice to be achieved (Davies, 1999; Hahn, 1999). It is difficult to see how the inclusion of student voice through the school council, a seemingly democratic process, can successfully influence the running of the school, given the lack of understanding of basic political processes and positions. Indeed, Wyness maintains that the standard student council is ‘marginal and tokenistic’ with pupils being included on a limited agenda determined by adults (Wyness, 2003:226).

The strength of the student voice within a school has a bearing on the overall ethos of the school and the school’s willingness to act upon issues that the pupils bring up at a school council meeting, especially with regard to school grounds improvement, as exemplified by Mannion (2003). He showed that children (aged 7 to 13 in this case), when given the opportunity to be part of a design and implementation process, really enjoyed the experience. It gave them tremendous levels of self-worth and achieved memorable learning with plenty of hands-on team building. Mannion also noted that small rural schools were more inclusive than large urban schools. He tentatively explained this by reference to a local culture of parental participation, high levels of social cohesion, school size and thematic teaching in rural schools (Mannion, 1999).

Mannion (2003) suggests a broader definition of ‘inclusion’ for children which includes their participation in mainstream society via total education and active citizenship rather than a narrowly definition which focuses upon the behavioural and attendance records of individual students in the school. In keeping with this approach, Mannion (2003) saw the potential of pupils being involved with the development of school grounds as a promoter of social inclusion and a future prevention of social exclusion (truancy, early school leaving and underachievement). He discussed the role and use of pupil councils and their ‘voice’ based in Scotland, underpinned by the ethos that ‘*learning experiences*’ should be ‘within a more inclusive and participative school culture and ethos’ (Mannion, 2003: 180).

The role of ‘student voice’ is a democratic process for change and is well documented. The UNCRC Article 12 decrees that children should have a say in all things that concern them and that it would in turn promote and develop spatial competence and confidence (Wilks, 2010). Further the Labour Government’s document, Every Child Matters: The Children’s Plan (discussed in more detail in Chapter 4), states not only that

that the child should be at the centre of decision making but that they should also actively participate in decision making. Despite this weight of policy, my research demonstrates that the degree to which students are included in decision making in schools is largely a function of the school ethos, which is often determined by adults such as the head teacher, teaching staff and governors.

2.4 Summary

The literature review has nodded to and explored to varying degrees a raft of directly relevant literature. The three broad themes of School Outdoor Landscapes, Education and Children's Geographies were explored. The discussion has identified the following key themes and gaps in the research that I will be addressing:

Within children's geographies, there is very little research in a secondary school context considering the proportion of children's lives spent in school (Horton *et al*, 2008, Hopkins, 2010). This research will begin to address this issue via Foucault's (1976, 1977) notions of power and restrictive practices as well as student voice and territoriality in a relational context. Territorialisation has been seen to occur in primary school grounds due to their design (Titman, 1999; Thomson, 2005). There is also a well-identified link between territories, levels of surveillance and crime (Ley and Cybriwsky, 1974). The characteristics and causes of secondary school pupil territorialisation whilst in school grounds will be explored as a research gap. The extent of student voice and its worth has changed over the last 30 years (Lodge, 2005). This thesis looks at the extent that student voice has been incorporated into designing secondary school grounds.

School grounds have been thought of as suitable, safe places for children to be seen without much consideration for the quality of that experience. Research in secondary schools is missing in this respect and I will be later exploring the quality of school grounds through the School Biographies Chapter. School grounds have a huge potential to enhance pupils' health and wellbeing via being a cared for garden-type space (Bell and Dymont, 2008; Cooper Marcus and Barnes, 1999). At the moment children are kept away from outside environments leading to a 'Nature Deficit Disorder' (Louv, 2005 and 2009). My research will support the potential of school grounds to be a place for pupils to dwell and enjoy (in a design sense). School grounds have the potential to offer/enhance quality formal and informal curricula and give positive messages through the hidden curriculum; this is rarely been seen to occur especially at secondary level

(Titman, 1999; Chillman, 2004). I will be exploring the level of secondary school grounds inclusivity into the ethos of the case-study schools, their curricula and the level of care that the schools manage their grounds;

This Chapter has shown that there has been a historical legacy of adult notions of moral purpose in design and content, what it means to be a child (Apollonian versus Dionysian), to have an education, to be at school (Valentine, 1996; Jenks, 2004; Cunningham, 1995). A legacy has also been shown to occur in school architecture and design (Banjerjee, 2008; Ministry of Education, 1950; Burns *et al*, 2006). I will be contributing to research by exploring the extent that secondary school grounds are included as part of a holistic school experience and redefining the relationship between school buildings and their grounds. The historical context is closely aligned to national government education policy and this too is analysed in Chapter Four in conjunction with local government and schools' influence in designing and managing school grounds. This is new research in a children's geographies context.

The Literature Review has in part contextualised the scene for the research into secondary school grounds and the politics of design as well as beginning to offer ways and means to analyse the information gathered. The next chapter will focus on the methodology and methods that I have deployed in order to meet my research aims and objectives mentioned earlier as well as ethical considerations surrounding research and practice.

Chapter 3: Methodology

In the previous Chapter I have explored a raft of literature in order to try and show the wide range of theoretical context needed to appreciate the current state and role of today's secondary school grounds. This has highlighted the need to develop an equally diverse range of methods in order to fully understand how and why school grounds are as they are and the role that the grounds play in the education and schooling of the young people that utilise the space.

There is no one theoretical or methodological perspective that fully explains the role and character of current secondary school grounds and the gaps in our knowledge identified as previously discussed. As I have looked into a raft of literature to highlight relevant theories, gaps in knowledge and understanding relating to school grounds, I have had to establish an epistemological approach and range of methods with which to glean an insight into the nuances that school grounds' spaces are in terms of stage and character.

In order to understand the grounds as 'space', the methodologies and methods deployed need to reflect both the physical qualities of the space and the ways in which the grounds are used, both in an educational and a recreational sense. There is also the notion that schools are 'daily' institutional places/spaces of experience (Rivlin and Wolfe, 1985). Schools are complex spaces which have 'social and political structures, containing assumptions about how people (that is largely children) ought best to be' (James *et al*, 2005:42). The embodied hierarchy of power that is exercised in part through the school space seeks to socialise children into adult norms. Therefore, to understand the school grounds as they are, research methods needed to reveal the reasoning behind the design, construction, maintenance and use of today's school grounds. This is a difficult process, as Hart (1979) identified with his research into children's use, experience and value of space and the way that these aspects are very different from an adult's use, experience and value of the same space. Benwell (2013) with his work looking at children in Cape Town's outdoor spaces used a similar range and type of methods as I have for this thesis.

As the main users of school grounds are the pupils, the research methods have to reflect this. O'Kane (2008) discusses the commitment to conducting research *with* children rather than *about* them and the methodological issues this raises in that many research methodologies and ethical position that are practised with adults may be unsuitable for

children. The way in which the researcher communicates with children is very important (O’Kane, 2008) and the heightened power relationship between adult and child in a school setting provides a massive challenge (Morrow and Richards, 1996). Participatory research and techniques provide a useful means of empowering children to be more open, to engage with the researcher, to express themselves and talk more freely than in a non-participatory setting (O’Kane, 2008).

In this chapter I detail my methodology by looking at first, the criteria for my selection of schools in Cornwall¹⁴. Although not strictly speaking a method, the selection of schools forms the basis which other methods are deployed and is best placed here; second, the epistemological approach to the research, giving some consideration to the challenges and ethical demands of working with children; third, the quantitative and qualitative research methods used for data collection and analysis.

3.1 School Selection

Of Cornwall’s thirty-one state secondary schools, twelve were initially written to seeking permission to take images of the school grounds and carry out an extensive visual survey.¹⁵ A copy of this initial letter is attached as Appendix 2. These twelve were selected in consultation with staff in the Capital Strategy Team (who made the suggestion of School 4 as a new build Path-Finder school as a pre-empt for the Building Schools for the Future Programme, School 8 as the Head was interested in developing the grounds with a focus on health and School 6 as members of the Team were visiting the School so enabling me access) and making use of personal knowledge of some of Cornwall’s schools which would effectively cover a broad a range of the criteria discussed below; type of school, the age of the buildings, Ofsted grade, size of pupil body, level of deprivation and the level of funding that placed the schools in order of rebuild or refurbishment. The Capital Strategy Team hoped that by studying a range of schools in Cornwall that it would assist them in future school developments to provide a holistic school grounds that would match the design considerations placed upon new

¹⁴ Cornwall’s population is made up of a majority of white British people, with approximately 35% identifying themselves as Cornish and 7% from a minority ethnic group (Cornwall Council, 2010b). Therefore, ethnic minority percentages have not been included for individual schools. It would be nice to think that evidence of diverse cultural backgrounds would have been seen in school grounds and gardens reflected the small but important population mix in Cornwall.

¹⁵Confidentiality and school anonymity are difficult aims to meet within the research. The schools have been numbered in this instance, satellite images used have been cut in a way that obvious landmarks were avoided and maps have had identifying features removed in Photoshop. For someone familiar with Cornwall or determined enough, identification of the schools would still be probably achievable.

school buildings. I will now review the characteristics of Cornwall's secondary school sector in relation to national descripts.

3.1.1 Type of school

Mainstream state schools (schools which are not specialised to cater for specialist educational need (including Steiner schools) or fee-paying private schools) educate approximately 90% of children in England and Wales. They were all funded by local authorities when I started my research and followed the National Curriculum with regular inspections from the Office for Standards in Education, Children's Services and Skills (Ofsted) (Training and Development Agency for Schools 2010).¹⁶ Therefore I wanted to include schools from a range of types. The main types of school at the start of research were:

- **Community:** run by the Local Authority (LA) who employ staff and care for buildings and set admissions criteria;
- **Foundation schools:** the governing body, which has charitable status, employs staff, owns the site and sets the admissions criteria;
- **Trust schools:** akin to Foundation schools but a trust is established;
- **Voluntary-controlled:** religious or faith schools, the site is often owned by a charitable foundation. The LA employs staff and control admissions (none in Cornwall).
- **Voluntary-aided schools:** usually a religious school which has the governors employing staff, sets admission criteria and owns the site and buildings (Training and Development Agency for Schools, 2010) (none in Cornwall).
- **Specialist schools:** these have a curriculum focus for example sports, science (most secondary schools have a specialism as it qualifies for extra funding);
- **Academies:** at the start of my research academies were often set up to replace failing schools or where demand was very high. However, the current Conservative-led Coalition Government changed the remit with the 2010 Academies Act that encouraged schools to become centrally funded and move away from Local Authority control. Initially, Ofsted defined 'outstanding' schools were allowed to apply to become an academy instead of 'failing' schools. Subsequently 'good schools with outstanding elements' according to Ofsted reports could apply. Now any category of school can apply as long as they are in a partnership with an outstanding school.

¹⁶ It is important to remember that since the selection of schools, new educational policies such as the widespread use of the academy system and 'free' schools have been put in place by the Coalition Government, altering the mix of state, academy and private schools in Cornwall.

- **City technology colleges:** these have a vocational specialism covering 11 to 18 years (none in Cornwall);
- **Community and foundation special schools:** these are designed for children with special educational needs;
- **Church and faith schools:** are schools who are partly supported by a particularly faith or the Church of England (no secondary examples in Cornwall);
- **Pupil referral units:** are specific units where pupils have been referred to usually because of behavioural issues (none in Cornwall);
- **Grammar schools:** these are selective on the basis of academic ability (none in Cornwall); and
- **Maintained boarding schools:** tuition is free but payment is made for board and lodging (none in Cornwall) (Training and Development Agency for Schools 2010).

In Cornwall (when my research commenced in the autumn of 2009) the majority of school were ‘community’ schools (21) with just 3 trust schools and 2 foundation schools. There were 4 Phase 1 PFI (Private Funded Initiative) schools but these schools reverted back to Cornwall Council control in 2009 as the PFI provider could no longer perform the necessary maintenance and management tasks. There is currently only one PFI (Phase 2) secondary school in Cornwall.

Of the twelve schools written to, seven were community schools, two were ‘trusts’ and one each were of former and current PFI status. The choice of schools to be contacted was based upon conversations with the Head of the Capital Strategy Team and coverage of the different types of secondary schools available in Cornwall. I discovered when visiting School 7 that it also offered the Forest Schools programme that was previously discussed in Chapter 2.

3.1.2 Age of original construction: there are a range of the possible ages of secondary schools in Cornwall (Table 1). The most common decades for construction were the 1950s and 1960s when over 50% of Cornwall’s secondary schools were built. Table 1 also reveals that Cornwall has 3 Victorian secondary schools and had no new schools constructed in the 1980s and 1990s. Pre-Second World War buildings are sometimes difficult to manage and maintain by the school and Cornwall Council. Restoration or reconstruction can be affected by whether the buildings are ‘listed’ as being

architecturally significant (British Listed Buildings, 2010).¹⁷ Two of the schools that agreed to participate in the research are ‘listed’. In political terms the lack of new schools during the Conservative term of office (1979 to 1997) and the few extensions added to buildings tentatively suggests that the relationship between educational quality and the environmental quality of schools was not a priority.

Age range of oldest school building	Number of Cornish Secondary Schools
Pre 1900	3
1901-1949	6
1950-1969	17
1970-1979	3
1980-1989	0
1990-1999	0
2000-2010	2

Table 1 shows the ages of original school buildings in Cornwall, although additions to the school buildings have been made after the initial building phase (constructed from Cornwall Council 2010, unpublished data).

Related to age of schools is the physical siting of secondary schools in Cornwall. They have been constructed on the outskirts of towns (at the time of construction) so enabling the schools to have large grounds. However, the older schools have been under pressure from development that has often overtaken the school site and have become pressurised to sell-off parts of the school. School 3 is in very controversial negotiations with a major supermarket to purchase a large section of the school in exchange for new school buildings. There does not appear to be a relationship to age of school and the extent of the school grounds.

3.1.2 Ofsted grading (out of a possible 4 grades):

- Grade 1 Outstanding ‘A service that delivers well above minimum requirements for users’ (Ofsted 2007a:5);
- Grade 2 Good ‘A service that consistently delivers above minimum requirements for users’ (Ofsted 2007a:5);
- Grade 3 Satisfactory ‘A service that delivers only the minimum requirements for users’ (Ofsted 2007a:5) and

¹⁷ Both Schools 2 and 7 have Grade II elements, which mean that ‘listed building consent’ is needed from the local planning office before any work can be carried out on the building. Depending on the building and the nature of the listing, there may be constraints on alterations to paintwork or the exterior or interior of the building.

- Grade 4 Inadequate ‘A service that does not deliver minimum requirements for users’ or ‘A service that delivers only the minimum requirements for users’ (Ofsted 2007a:5).

Of the twelve original schools selected, two had an overall Ofsted Grade 1, six had a Grade 2 and three had a Grade 3 at the start of the research.

3.1.4 Size of school: based upon pupil numbers and the size of grounds and buildings (Appendix 2).

3.1.5 Level of Deprivation: a measure derived from the percentage of Tax Credit uptake by parents (Table 2) (which was selected by Cornwall Council as opposed to other measures available when applying for BSF funds). Advice on the use of deprivation measures by Local Authorities was given in ‘*Indicators of Deprivation for use in School Funding*,’ a DfES (2006b) draft document. It came from a joint Treasury/DfES Report “*Child Poverty: Fair Funding for Schools*” (2005) which identified a need for advice to be given to Local authorities on the appropriate deprivation measure or measures to be used when applying for funding.

3.1.6 Funding Issues: twenty six of the secondary schools in Cornwall are over 40 years old, necessitating a large capital outlay by Cornwall Council for upkeep and maintenance (personal communication with Head of Capital Strategy Team 2010, also refer to Table 2 which gives the capital maintenance estimates per school in terms of £s per square metre per school). For this reason a list had been created by the Capital Strategy Team which prioritised the Cornish schools in order of need for significant refurbishment or total rebuild under the then Labour Government-led BSF (Building Schools for the Future) programme and Primary Strategy. A school’s place on the list was a function of the number of students in the school, the condition of the building (importantly the condition or extent of the grounds does not play any part in the prioritisation process), the cost of repair per pupil and the pupils’ overall academic achievement (personal communication with Capital Strategy Team Member, 2010). Coincidentally, when looking at the spread of the schools and the 5 ‘waves’ of prioritisation,¹⁸ all of the schools bar one, in both the Priority Wave and Wave One, are in the SW region of the county, west of Redruth. In 2010 Cornwall Council (2010c) announced that it had been successful in its application for continued funding from the BSF programme. This would have funded the rebuilding, remodelling and

¹⁸ Map not included as schools are clearly identified and would easily compromise anonymity of schools in this research.

refurbishment of the five Priority Wave schools. However, as an interview with a Deputy Head at School 7 prior to the 2010 General Election revealed, it was anticipated that the BSF programme would not be continued or the money committed to Cornwall's Priority Wave would be withdrawn once a Conservative Government was 'voted in' in May 2010. He heard this from a Conservative Party representative whilst attending a Heads' conference considering BSF and what it would entail in the future. A telephone call to an Ofsted representative after the election supported this view. This speculation became reality when the Coalition Government's Education Secretary Michael Gove MP announced the discontinuation of the BSF in parliament 5th July 2010 (DfE, 2010). Gove described the BSF as 'bureaucratic and wasteful... in some cases schools had taken longer to build than an airport in Hong Kong' (Prince, 2010: unpaginated).

At the time of writing, three new secondary school builds in Cornwall have been completed since 2007. One of these is a PFI (School 5), the second a BSF Pathfinder (School 4) and the third a specific mix of funding sources which was completed May 2012 (School 1). The latter school came about from a specific bid to the then DCSF who then put in a third of the total funding, Cornwall Council made up a third from its reserves and the remaining third came from the Cornwall Council Capital Programme. This funding was secured and not under threat from any timely changes in national politics.

The Capital Strategy Team database and the Ofsted website were used to compile the above information. Of the original twelve schools, three declined to take part in my research, seven agreed to limited participation and the remaining two were fully involved. This is explained in more detail later. A summary of the participating 9 Schools building and education statistics is shown as Table 2. The Schools cover as many of the previously discussed criteria as possible of the types of secondary schools found in Cornwall.

3.2 Research Epistemology

The research shares the epistemological concerns of geographers working with participatory methods, recognising that knowledge is socially constructed and co-produced (Christensen and James, 2008). The understandings that have been reached through the research are necessarily partial, provisional, and contextual.

Table 2 – is an unpublished dataset formed as a working dataset by the Cornwall Council Capital Strategy Team (personal communication Capital Strategy Team Assistant, 2010). This data has been edited from a more comprehensive set of data and any clear school identification has been removed, especially if not deemed necessary information or is strategically important to other schools. In terms of acronyms used – PFI is Private Funded Initiative and PAN is Published Admissions Number. The Net Capacity refers to the numbers of pupils in the school. The condition of the buildings is included as this measure is used in conjunction with academic achievement of the school to calculate the Building Schools for the Future priority list (personal communication, Capital Strategy Team Assistant Cornwall Council, 2010).

School Name	Type	Admission	Net Capacity	Buildings & Site	Deprivation													
					PFI Two	Trust		PAN (2009/10)	Actual	Date of Oldest Building	Total Site Area (m2)	Year of Statistics	Gross Internal Area (m2)	Backlog Maintenance	Cost Per m2	Rank (Highest 1st)	Tax Credits (Deprivation Indicator)	Rank (Highest First)
School 1	2, 2008	Arts	11-16	Y				140	727	1959	71216	2009	6422	£2,458,931	£382.87	1	62.34%	9
School 2	3, 2009	Music	11-16	Y				180	900	1910	78500	2007	7555	£1,078,736	£142.78	13	67.08%	2
School 3	2, 2008	Technology	11-18			Y		272	1605	1954	131100	2007	14332	£1,201,158	£83.81	20	57.95%	17
School 4	1, 2009	Sports	11-16	Y				210	1050	2008	82600	2009	11294	£743,007	£65.79	24	57.00%	18
School 5	2, 2007	Technology	11-16		Y			270	1350	2007	0	2008	12839	£0	£0.00	27	51.17%	26
School 6	3, 2010	Humanities	11-16	Y				130	716	1962	16239	2008	6910	£1,300,846	£188.24	8	61.09%	11
School 7	3, 2009	Sports	11-16	Y				180	900	1908	82800	2009	7891	£2,899,431	£367.42	2	62.81%	7
School 8	1, 2009	Science	11-16	Y				240	1236	1978	151000	2008	10200	£2,213,710	£217.04	5	48.01%	29
School 9	2, 2008	Languages	11-16	Y				270	1350	1960	107500	2007	10166	£2,280,787	£224.35	4	55.16%	22

Although not all the methods used were ethnographic (for example landscape evaluations), the research has been grounded in an ethnographic approach that has been concerned with the texture of everyday life, and the processes, practices and politics through which the outdoor landscapes of school have been designed and utilised.

The research also aims to produce recommendations for change and improvement in the practice of school grounds design and, as such, the project has also featured a degree of action research. Kemmis and McTaggart (1992:16, cited in Cohen *et al* 2000) state:

Action research is concerned equally with changing individuals, on the one hand, and, on the other, the culture of groups, institutions and societies to which they belong. The culture of a group can be defined in terms of the characteristic substance and forms of the language and discourses, activities and practices, and social relationships and organisation, which constitute the interactions of the group.

Zuber-Skerritt (1996) views action research as a distinctly cyclical process where there are the stages of i) planning; ii) implementing the plan (action); iii) observation, evaluation and self-evaluation; and iv) critical reflection on the previous stages to enable the creation of a new cycle. The research process is also iterative, with methods adapting as the research cycle progressed.

3.2.1 Working with the School Community

Aitken (2001) attempted to understand young people in context; he considered that empowering young people during the research would prevent the researcher projecting their own childhood memories and expectations onto the next generation. Aitkin also raises the question of whether adults can achieve a high level of honest empathy when researching children (Aitken 2001). Working and communicating with children from the adult perspective is described by Mayall (2008:109) as working with a ‘permanent feature of society’ (in other words, there is always a new generation of children in society) whereby only they have ‘knowledge’ of what it is to be a child at any particular time. Following Mayall (2008), this research recognises that children’s knowledge is built up from a series of experiences which gives rise to a level of understanding which is then adjusted by time, reflection and exchange of the experience with others. Adults can then communicate with children to gather that knowledge and understand how they may learn (Mayall 2008). However, Fine (1981 cited in Fine and Sandstrom 1988) considers that children are ‘able performers’ who only reveal what they want to and

have a sense of appropriateness with a given audience that can easily be exceeded if they so wish. Adults sometimes do not want to fully understand children in our very adult-centric world, relying instead on their own recollections of what it is like to be a child and their view of what is in children's best interest (Fine and Sandstrom 1988:9). Thus, when researching children, Fine and Sandstrom (1988) see the main challenge as being children's social distance rather than their physical proximity. Children have their own cultures, and those cultures change with age and the qualities of the nurturing elements around them.

Whilst it is important to think about how the differences between adults and children have informed the research, it would be wrong to assume that adults have a shared set of understandings just because they are all adults. During my research, it was clear that different relations of power existed between myself and teachers, head-teachers, school managers, caretakers, site maintenance staff, governors and other adults involved in the running of the school. Each of these groups of individuals had different priorities, values and strategic visions and were often differently positioned to intervene in decision making.

3.3 Methods

The research methods I chose were designed to collect data from a range of places, individuals and constituencies. The focus was on three main opportunities for data gathering; with the children (aged 11 to 18 years); with adults (teachers, heads of schools, members of school management teams, other school employees, school governors, parents, architects and landscape designers, members of the Capital Strategy Team and other relevant Cornwall Council employees, representatives of local, regional and national government); and in the school grounds themselves.

3.3.1 Data Collection

I have deployed a mixed raft of techniques in a phased and iterative way that amounts to a bespoke methodology. The separate components of this methodology are outlined in more detail below. In summary, in phase one, I selected and recruited the schools, familiarised myself with the policy context and began to work with the Cornwall Council Capital Strategy Team. In phase two, I established working relationships with the schools, began to roll out my classroom activities, interviewed key adults and continued to work closely with staff in the Capital Strategy Team and other Cornwall

Council departments. Phase three ran concurrently with phase two and entailed observation of break-time activities, school garden design activities and maintenance of my research diary.

Three of the original twelve schools selected declined to take part in the research, two participated fully and seven participated to a lesser extent. I then became embedded in the two schools as a participatory researcher which enabled me to appreciate the micro-politics of designing school grounds which otherwise would have been missed. School 8 was visited at least on a weekly basis where I led a gardening club with some Year 7 pupils, as well as attending a variety of school meetings, and meeting and liaising with staff with a variety of school based projects. In School 4 the teacher with whom I liaised was more confident in leading the activities with a variety of pupil groups. I regularly met with him and the gardener employed to work with pupils and design future funding proposals. A variety of meetings were attended where observations of staff were made.

3.3.2 Landscape Evaluation

As a new method in exploring school grounds, I undertook an extensive landscape evaluation with the nine Schools to ascertain the physical composition (for example grassy areas and nature gardens), their use (educational and social), who had access to the space at what times and what they did when there. The evaluation of the school grounds combined both an interest in their quality, the extent to which they were informed by the school ethos and the values the school placed upon the outside school environment. This formed the basis for the 'School Biographies' Chapter and a base to accrue further material pertaining to the case-study Schools.

Other evaluative tools already used by new build schools/substantial rebuilds such as the DQI (Design Quality Indicator) and BREEAM (Building Research Establishment Environmental Assessment Method)¹⁹ will be explored and critiqued in my analysis. My method of evaluating the school grounds in terms of a summative quality statement per school has been drawn from Erikson's (1985) criteria for society's expectations of a schoolyard (cited in Hendricks, 2001: 57).

The site design should:

¹⁹ The DQI is a mandatory tools used to assess the effectiveness of the design process and product of the BSF programme and BREEAM is mandatory requirement for substantial new-builds/ re-builds showing the level of environmental impact that is incurred pre-, during and post- the building process.

- serve the needs of the student and faculty
- be an amenity to the surrounding community
- invite young and old to visit, linger and relax
- afford children with opportunities to explore and wonder
- provide children the experience of well designed, lively settings
- provide for the needs of all age groups, and for the interaction between age groups
- provide for a variety of sensory experiences through the use of varying textures and materials
- support learning and development and
- provide for supervision, so children can be permitted to move freely.

These criteria, although designed for the early years and primary sectors of education, serve the secondary school landscape equally well. There is careful consideration for the aesthetic, the ‘linger and relax’ use, as well as the academic uses, the needs of the teacher and the changing requirement with age. I have used all of Eriksen’s criteria when I have evaluated the grounds of my focus schools, alongside DQI and BREEAM where applicable. Other possible evaluative criteria are offered by the Teachernet (2009b) guidance on meeting disability needs and being anti-discriminatory, and Ofsted’s (2008c) ‘Learning outside the Classroom’. I have also considered what greenspace means to the pupils. Price and Stoneham’s (2001:53) ‘Enabling Environments’ looks at aspects of inclusivity in a landscape as well as individual’s sense of comfort in a landscape. It is because landscape evaluations tend to focus on the material product and not the process of production that the other aspects of this research have been crucial to a critical evaluation of the politics of design.

3.3.3 School Grounds evaluated as ‘School Biographies’

The landscape evaluations form part of the school biographies for the seven schools that have participated to a greater or lesser extent in my research. I developed school biographies to help to fulfil Aims 2 (to explore critically the local spatialities of childhood of secondary school age children) and 3 (using an understanding of the politics of design in Cornwall’s secondary schools, and with greater awareness of the spatialities of childhood, to develop recommendations for the planning and evaluation

of secondary school outdoor landscapes). Understanding the composition of each school, its size, history, and recent development and the nature and extent of its grounds has formed an important starting point for research on the substantive themes of the PhD.

Two schools were happy in participating in a more comprehensive scheme of research in exchange for some assistance with designing a small part of their grounds, in line with Activity 6. This has been one example of the iterative nature of the research, in which offering some design work has resulted in a benefit to the school and given an opportunity to for the pupils and staff to participate in the design process, so generating fresh insights into the school's ethos, the role of children, and the overall politics of design.

I have summarised the basic details of each school in a school profile including pupil numbers, physical size of school, percentage land-use coverage, Ofsted Report data, mission statements, relevant school policies (sustainability, equality) and school initiatives. This has been presented in a textual form.

Phase two of the research involved rolling out the classroom activities in schools and interviewing key participants as well as continuing to work with staff at Cornwall Council.

3.3.4 Participatory activities designed for schools

Participatory research in this context was achieved through a series of activities that were carried out in a time-frame organised by the schools, in classroom based tutor groups, class sets and activity days. Tutor groups were preferable to self-selected pupil groups as pupils were of a mixed gender and ability. Yet, as a researcher, I was relying on what the schools saw fit to allow in terms of pupil access. Anecdotal evidence and personal experience suggests that tutorials (the scheduling of which vary from school to school) are often a time when administration chores are done quickly and there are no timetabled tasks, making them an ideal slot for the activities. There were six activities, 1-5 of which took approximately four hours in total while the timing of Activity 6 depended upon the area to be designed, number of students participating and how much time the school gave me to complete the task. Where there was less time available then the priority was given to Activities 1 to 4 inclusive and the other two activities were completed at another time. The Activities have gradually painted the picture of

qualities, characteristics and use of the school grounds, with Activity 6 giving the pupils a voice in stating what their ideal school gardens would look like or may become if the design was going to/or did reach fruition.

I designed the Activity sheets (Appendix 4) to gain an insight into pupils' use of space and the outside space available for them at home. This has then enabled relationships to be teased out between pupils' favourite outside spaces and their preferences for the design of a hypothetical school courtyard (with Aim 1 and 2 in mind).

In designing the activities, I considered the basic personal information that I wanted the children to share including name and age (this will be anonymised in discussion later), their view of their home environment and its characteristics (Activities 1 and 2), their ideas about their preferred outdoor environment, the places they relate to and feel happy in, and what they would put into a design for the school grounds.

I had designed the Activity sheets to be progressive, starting by encouraging the pupil to reflect on a familiar space such as home, followed by their favourite outdoor space, to spaces in general and those spaces found around the school and their ideal school garden. The information on common activities in the home has then compared to the results of the multiple choice questionnaire on home characteristics, with a focus on the outside space.

Activity 3 involved drawing/doodling and/or describing a favourite outdoor space, preferably the one that the pupils feel happiest in. Elements of this could then be seen to come out in the next three activities.

Activity 4 asked the children to select three favourite and three least favourite images from the laminated sheets of sixteen images. The activity was akin to experiments done by Balling and Falk (1982) and Anderson (1978) as cited by Kaplan and Kaplan (2002). This would show the type of landscape that children of different ages and genders (although not the only available means of social classification, age and gender are the only two that can be readily identified by the Activities) may relate to and be happiest/least happiest being in. It relates to humans' 'landscape preferences' as discussed in the Literature Review.

The choice of images had been piloted with children of secondary school age and adjustments made. When they had made their selection, pupils had to justify their choices by a brief comment and identify an overall favourite. The images chosen

include ones that relate to the theories of Orains (1980), Kaplan and Kaplan (1989) and Kaplan *et al*'s (1998) premise that people prefer environments by a behavioural assessment (the functions of a landscape that would improve our chances of survival; for instance good visibility with cover) or an aesthetic assessment (whether there are landscape characteristics that stimulate the observer and act as points of interest). Very often, a savannah type landscape where human beings originated is a favourite, as it holds places of refuge as well as prospect (Kaplan and Kaplan, 1989). Appendix 4 has a copy of the images to which the following refer. There is an image of woodland (15), which represents the 'resting' 'healthy' environments muted by Louv (2005, 2009) as well as offering shade. Apparently individuals have strong preferences for one environment or the other when it comes to shade or sunny options (VanDerZanden and Rodie, 2008). Other images represented are; the amusing (14), the abstract (16), the active (1), just being outside (6, 5), the musical (9), the sea and water (2, 13), patterns and colour (7, 8), texture (4), the urban constructed world associated with noise (10 and 12), the solitary, quiet peaceful image (7) and the enquiring (3). The reasons that the pupils have given for their choices are discussed later.

Activity 5 gave the students the freedom to view the school grounds with a critical eye, recording their views with a camera. The images gathered had to be justified by the pupils and are analysed later in the thesis. Any notable images are included in the discussion along with the pupil comment. Schratz and Steiner-Löffler (1998) considered that children using photography as a school evaluative tool was preferential to written alternatives. The images reflect what the children see and provide a useful insight as to their perspective of the school and a pupil's evaluative approach.

Activity 6 was a role-play exercise in which pupils could design their own hypothetical garden or a space identified by the school as a site that would be constructed. In reality this exercise became a school specific technique, which is discussed later as a garden design method. Pupils could then express their preferences when creating mood boards and designs for the space. Activity 6 was an appropriate ending for the students and pulled together all the previous activities to enable a full picture of pupil preference for their outdoor environment when at school.

Cohen *et al* (2001:370) describe role-play as "participation in simulated social situations that are intended to throw light upon the role/rule contexts governing 'real' life episodes". It is a method typically used in school to practice empathy (Cohen *et al*

2001). In this instance that is a by-product from the main interest of analysing the pupils' choices for an outdoor school area.

Acting as the designer or contributing to the design of gardens at Schools 4 and 8 enabled me to observe, as a participatory researcher, the micro-politics of grounds design being played out. I drew up a design for a 'peace' garden at school 8 and took the practical lead in their gardening group, the fund raising and construction of the garden. With school 4 I worked alongside a designer/school gardener in supporting her design, leading the application for a finance package for the development of their grounds as a 'memory' garden and for horticultural studies, as well as assisting in the physical development of the sites.

These activities were partially or wholly audio-recorded to enable informal questions to be asked when going around the group during activities, or detailed diary entries were made after the activity. As the classroom environment was often relaxed, interesting disclosures were sometimes made by the pupils towards the school grounds. After discussion with teachers, it became apparent that Activities 1 to 5 could easily be carried out by a member of staff. I then came in to help with Activity 5 and to facilitate Activity 6. This arrangement varied from school to school with adaptations occurring in an iterative way. School 7, for instance, would only let me have an hour with the students, so a specific design-led session was carried out to get ideas regarding a potential 'memory garden'. School 8 allowed Activities 1 to 4 to be run by tutors in years 7, 8, 9 and 10, then a 'design' specific session occurred over a whole day looking at designing a 'peace garden'; Activity 6. Table 3 summarises the numbers of pupils involved at the participating Schools that carried out some elements of the Activities. Activity 6 is now discussed in terms of the garden design process.

3.3.5 The Anatomy of a Garden Design Process (Activity 6)

Activity 6, designing an area of school grounds to become a garden, is both a subjective and objective material process that has to take on board a myriad of variables (Waterman, 2009). Waterman notes how, as a garden designer, there is a succession of stages that he has to progress through from the first contact with the client to the actual construction and maturation of the garden itself. The client in this case is the school and primarily its pupils, to a lesser extent the staff and, to a smaller extent, the wider community. Steps in the design process adapted and applied in part to my research

from Koberg and Bagnall (1981) cited in VanderZanden and Rodie (2008) are illustrated in Table 4.

School and Group	Female Pupils	Male Pupils
School 4 – Year 9	17	14
School 7 – Year 7	17	13
School 8 – Year 10	17	9
School 8 – Year 9	15	14
School 8 – Year 8	13	13
School 8 – Year 7	18	11
School 8 – Wellness Day	23	21
School 8 – Gardening Club	2	4

Table 3 displays the numbers of pupils who took part in the Activities 1 to 6 and the Gardening Club at the participating Schools. Gender was the only demographic data that I had available.

All steps can occur sequentially, be cyclical or run concurrently depending upon the preference of the designer (VanDerZanden and Rodie, 2008). The design process could be used as part of the road map of successful ideal creation of school gardens. It is both a method and an analytical tool in which results are created and assessed, through which I have glimpsed the micro-politics as they happen.

All the way through the three stages of research I have carried out interviews and these are discussed further as a method.

Accept Situation	Where the problem is identified or the need for change. In the case of schools, teachers and pupils identified that there is a problem in the outside environment. An area is then singled out for initial redesign. The Activity sheets assisted in this area.
Analyse	A site analysis was undertaken and a report written which summarised the findings. Factors considered are climate, situation, soils, flora and fauna, planning restrictions, utilities, views, shadows, potentiality of site in terms of user groups and sustainability of site before during and post construction.
Define	This section has the design brief clearly laid out by the client. Clear statements are made which give the underlying credence to the project and then can be met by measurable outcomes. The pupils assisted in this area by being part of a small discussion group at School 4 and partaking in a garden design day at School 8.

Generate Ideas	This is where the pupils at School 8 and 7 had the greatest input into the design process. Using specific activity sheets, pupils drew sketches, drew on plans, listed plants and details, or cut out pictures from magazines and considered narrative for the new garden spaces. For School 7, this manifested itself as a memory garden and for School 8 a ‘peace’ garden. In School 4 ideas for their ‘memory’ garden were discussed in the meeting when defining what the ‘memory’ garden meant. There was the assistance of a PowerPoint (Table 2) which I quickly went through and then had on a continuous roll in the background when at School 7. PowerPoint 4 was used at both Schools 4 and 8 when considering design and then PowerPoints were used with separate pupil groups at School 8 during their World Wellness Day when three separate groups then looked at design, detailing and plants for the Peace Garden (Appendices 5, 6 and 7).
Select	I then took the pupils ideas away and drew up design options for the sites at Schools 4, 7 and 8, which synthesised all relevant factors but also the pupils’ design initiatives. Factors such as the site analysis, available finance and resources are all taken into account.
Implement	Unless you have a good rapport with the landscape contractor this is often the point where problems can arise. The designer needs to be directly involved with the implementation process. Unfortunately, School 8 did not construction the garden so I was unable to oversee the project. However I did get my hands dirty helping out with the gardening club.
Evaluate	The finished product should be evaluated and this often forgotten if designing many sites. Evaluation should be integral to assessing the design, skills deployed and running of the finished design. As the projects did not manifest into reality I was unable to evaluate the finished product, only share my disappointment with the staff involved.

Table 4 – summary of the design process, including a partial application when interacting with Schools 4, 7 and 8.

3.3.6 Interviews

The interviews that I have carried out so far have been semi-structured, based upon key ideas that I would like covered. A well-established technique in human geography it is often used to triangulate a variety of research methods (Yeung, 1997; Pain and Francis 2003; Graham, 1999). A list of people that I have interviewed or have had extended conversations with are given in Table 5.

Interviews have been supplemented with informal chats which take place whilst visiting schools, talking to teachers about their use of the school grounds as an educational resource, and whilst working with the Capital Strategy Team office (initially one afternoon per fortnight in the first year then more sporadically until the Team was

disbanded in winter 2010). Whilst interviews were scheduled with members of the Capital Strategy Team, the informal exchange of news and information in the office provided an important resource for this PhD.

I used two methods of carrying out interviews which typically would take about an hour or if interviewing a teacher, a length of a school lunchtime; 45 minutes or less. The first method was accompanying the person concerned on a walking tour of the school grounds (mostly done with the site managers and my liaison teachers at Schools 4 and 8) recording the conversation digitally (as well as taking digital images). This method enabled a blend of questions along with observations of the school grounds which would then stimulate further discussion. It proved a particularly useful means of interactive research, where unless the weather was inclement, the interviewee was at ease and openly discussed what we saw. I also carried out interviews with school heads and education officials in the standard office more formal setting at the individuals' concerned place of work.

Semi-structured Interviews

Interserve representative (PFI provider for School 5)	March 2010
Science Department staff School 7	March 2010
Alistair Rivers (lecturer Duchy College)	March 2010
Dr Nick Vaughan-Williams (Uni. Exeter)	May 2010
Cornwall Council County Architect	October/December 2010
Head of School 8	January 2011
Cornwall Learning STEM Coordinator	January 2011
Cornwall Council County Ecologist	March 2011
Chef at School 8	May 2011
Head of Science School 8	May 2011
Regional Soil Association Ed. Rep.	June 2011
Head of Cornwall Council School Procurement	July 2011
Head of Education Eden Project	July 2011

Meetings/informal Interviews

Head of school 1	February 2010
Head of Cornwall Council Capital Strategy Team	Regular-approximately every two weeks
Deputy Head of School 3	February 2010

Deputy Head School 8	March 2010
Senior Assist. Head School 5	February 2010
Senior Assist. Head School 3	February 2010
School 4 on-going regular meetings	March 2010
Head of School 2	April 2010
Teacher liaison School 4	Regular- from April 2010 onwards
Meetings/informal interviews continued	
Quality Assurance National Team: Ofsted by phone	May 2010
Head lunch-time supervisor School 3	June 2010
Teacher liaison School 8	Regular- from June 2010 onwards
Garden Assistant School 8	Regular- from June 2010 onwards
Student Council School 8	January 2010
Head of Cornwall Council Children, Families and Schools - March 2011 onwards as replacement for Head of Cornwall Council Capital Strategy Team	
NHS Forests Cornwall Coordinator	March 2010
English Teacher School 4	June 2011
Bursar of Devon BSF Pathfinder College	June 2011
Bursar Local Primary School	July 2011

Table 5 lists the various interviews that have occurred over the research period.

A technique that I didn't use was pupil based focus groups. Although these may have provided a useful insight into pupils' thoughts and opinions surrounding school grounds, from my experience I have observed that the school will helpfully select the pupils it thinks would be useful and that some pupils may easily dominate discussion. Therefore in preference to the focus group I felt that the visual sharing of their Activity Sheets (discussed later in this Chapter) and the observation of their activities in the school grounds offered a far richer and more reliable source of information. As a result Chapters 5, 6 and 7 have few pupil quotes but rather display the more authentic pupil based notions towards school grounds and their use by pupils.

Apart from the wide array of conversations that I had, observation has formed a key visual aspect to the raft of research gathering techniques deployed.

3.3.7 Observation

Following the ideas and principles around observational techniques in human geography discussed by Jackson (1983) and Cloke *et al* (2004), I carried out an observational record of the visual ‘physical’ landscape of the case-study schools, made in note form, images and audio recording. This i) helped in identifying and developing discussion points for interviews; ii) contributed to the critical analysis of the school grounds through the school biographies and landscape evaluation; and iii) contributed to an understanding of the spatialities of the school grounds and how they were used by the children. The latter has entailed evaluating critically the activities of staff, pupils and helpers at break times. This has also helped to establish the overall ethos of the school, particularly in terms of how space has been used, the extent of surveillance, where access has been restricted and discipline invoked. Observation has also taken place of school council meetings.

In some cases, Activity 6 (outlined above) has led to new opportunities for participant observation. Three schools expressed an interest in having a small space in their grounds designed by myself (in a professional capacity as a landscape designer) and the pupils. In these cases, it has acted as a form of gratuity to the school by way of saying thank you for participating in my research. Whilst in schools, observations were made as a semi-participant observer following the advice of Emond (2005) and her research experience with young people.

Finally I have acted as a participant observer in the everyday activities of the Capital Strategy Team both in their offices and on-site visits (acknowledging the problems of being a participant observer that Jackson, (1983) outlined). These observations as both participant and bystander helped to achieve Aim 1 and Aim 2.

I have considered myself to be an observant person and enjoyed carrying out my critical evaluation of the School grounds that contributed to the School Biographies Chapter and my walking tours of the Schools during lunchtime recording thoughts and details into the audio digital recorder. All through my three stages of research I have kept a research diary and the principles of this are discussed below.

3.3.8 Research Diary

As the research is broadly situated in reflexive ethnographic techniques, I have maintained a research diary. Observations have been noted in the diary, as a reflective

piece of ongoing text which then formed a useful tool for me to consider my own positionality, reflect critically on my research practice, note off-the-cuff conversations and insights that do not form part of formal interviews, and track the iterative nature of the research. It has been used as part of the critical and contextual analysis. It is a way of thinking, linking and drawing together ideas as I go along and then acting upon them as a means of progressing the research, and it is appropriate for all three Aims. I have tried to experiment with and test new ideas within the diary as well as it being the focus for discussion (Cloke *et al*, 2004).

Where I have had the in depth participation in both Schools 4 and 8 the material produced has then been written as an ethnographic narrative, inspired by Ellis's (2004) work '*A Methodological Novel about Autoethnography*'. My research is not purely autoethnographic and I only touch on it in a way of critiquing my design work whilst being with School 8.

I found diary-keeping to be a cathartic activity, a useful means of reflecting on my interactions with the Schools. The technique worked well as an interaction with the image taking discussed next and provided the basis for writing up my thesis. Yet the diary did require a commitment to be written as soon after being at the School as possible otherwise details would be quickly forgotten.

I have used imagery throughout, both as a tool and a record of my research. As a method it is discussed next both in its theoretical and applied context.

3.3.9 Image taking

Flowerdew and Martin (2005) discuss the use of images as research tool. In this thesis digital images were taken in a range of contexts as an ethnographic tool. Initially images were taken to record the landscapes of schools when a tour of the schools' grounds was made and then these formed a basis for the School Biographies Chapter explored later. In order to take the images strict restrictions were placed on me that ensured no images of children would be taken. Apart from two schools visited I was accompanied by the site manager to ensure that I took no images of pupils. Of the two Schools where I was allowed to roam around the School alone, the Head of School 1 wanted to see the images after I had toured the School. Only School 3 trusted me not to include images of its pupils.

Activity 5 had hopefully empowered the pupils of both Schools 4 and 8 to take images of aspects of their outdoor environment that they like and dislike and are discussed in Chapter 5. Crang and Cook (2007) discuss this ‘autophotography’ where by the researcher encourages the participant to take images of the landscape in order for the researcher to have an insight into their (the pupils in this instance) world.

After time at School 8 and in negotiation with the Deputy Head I was allowed to take a series of images, when accompanied by the teacher liaison, of the pupils during a lunch period, which formed a visual element to a narrative of the school grounds (presented in Chapter 5). Other images were taken during other events at School 8 such as gardening club, a School fete and pond clearance which can then be used to reinforce analysis in the following empirical chapters. Any images from School 8 in which pupils could be identified had to be edited with Photoshop to make the faces unidentifiable. Crang and Cook (2007) discuss the ethics of taking pictures of people and the use of consent versus catching people unawares. I did not want the pupils to pose for the images as I wanted to capture the pupils’ everyday use of the school landscape. The School assumed responsibility of images taken, that I was accompanied and that they were then shown to the Deputy Head.

The images that were taken of school landscapes were selected as representations of that landscape and act as form of semiotics (Flowerdew and Martin, 2005). A landscape image that was taken in grey cloudy weather may, for instance, not be perceived as being as appealing by the viewer than the same landscape on a sunny day (Crang and Cook, 2007). A sunny day in summer could make a huge difference to the interpretation of landscape compared to grey tarmac being captured on a grey day in winter. Images can then be seen to give a ‘partial truth’ (Crang and Cook, 2007:109).

In practice, image taking was a reinforcement of the diary providing that snap-shot impression of a particular time with the state of the weather exaggerating the tone of an image, especially a grey wet day and grey buildings/ground surfaces; this was most evident at School 5. There are very many images used in this thesis and they contribute especially to the length of Chapter 5. The inclusion of specific images to create a walking visual tour superimposed on the School plans necessitated for the justification of the presence of that image. In other words I felt it was necessary to tell the reader why any particular image has been included; they all had something important to say.

The next section considers how the raft of methods discussed above are used and analysed in the following chapters of this thesis.

3.4 Data Analysis

The methods used to analyse the data collected are given below.

3.4.1 Textual Analysis - Politics and Policies

Drawing on the material gathered from classroom activities, interview transcripts, observations, school biographies, and school management and policy documents I wanted to draw out recurring themes and repeated motifs. To get to grips with government policy, a table has been constructed in Chapter 6 which gives a timeline summary of the various relevant policies that hold influence over school grounds. This information has been gathered through published literature. The material was then placed into a broader political framework and critically evaluated at national, Local Authority and school scales in terms of Aim 1 and research questions 8 and 9.

I undertook an evaluation of the ‘student voice’ in each case-study school. One useful way to conceptualise this has been using Hart’s (1992, 1997) ‘Ladder of Participation’ (Figure 4) originally conceptualised by Arnstein’s 1969 with his ‘Eight rungs on the ladder of citizenship participation’ (Arnstein, 1969, cited in Shier 2001: 108).

Compasito is a European organisation that works towards child inclusivity in decision-making processes. In the instance of Figure 4, Compasito (2010) have further adapted the original ‘ladder’ model into the one shown with its relevant annotation regarding children. The main principle is that of improving child participation and the movement out from ‘non-participation’ to the upper rungs of the ladder. Whilst my analysis exposes a process that is less linear and more dynamic, this forms a useful starting point to build an interpretation.

The pupil Activity sheet exercises are designed to fall in the upper rungs of Hart’s Ladder of Participation. Although the Activities are adult initiated exercises (rung 6) the lack of outdoor seating is identified by the children (rung 8) and a partial solution is then sought through the design process. The next section looks at the Activity sheets and how they have been analysed.

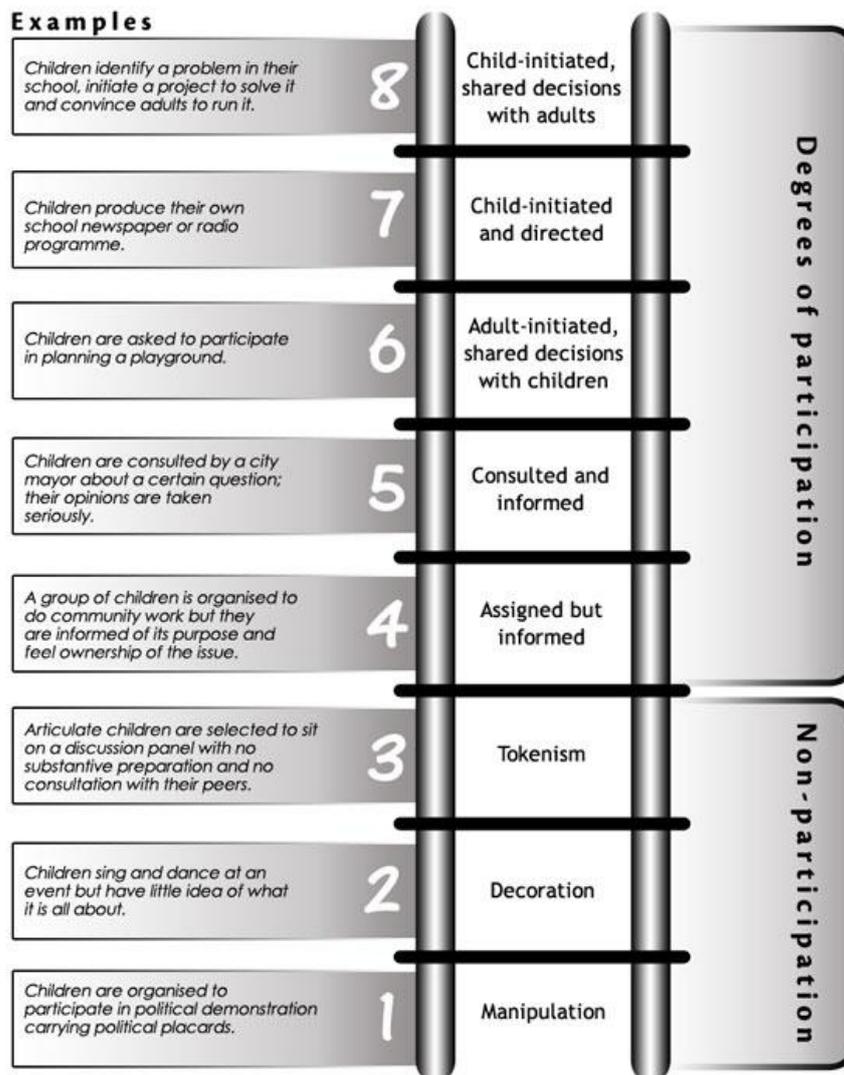


Figure 4, Hart's 1992, 1997 Ladder of Participation where the bottom rungs are seen as non-participatory (Compassito, 2010: unpaginated).

3.4.2 Analysis of Activity Sheets

The information that has been accrued from the Activity sheets is mostly deconstructed and discussed in Chapter 5 where there is a focus on the spatiality of children within the school grounds. As the exercises had been designed to take the pupils on a journey, considering their own lives in relation to school landscape preferences, the following discussion reflects the analysis of their journey. The various Activities are summarised and help support analysis based around relationality and to a much lesser extent; intergenerationality, intersectionality and lifecourse. Other philosophical considerations offered by Foucault (specifically his ideas on power) are considered as well as some principles of community ecology will be used as a means of metaphorical analysis when looking at the spatialities of children in their school outdoor landscapes. They will also

assist in understanding the relationships between indoor and outdoor elements of the school.

3.4.2 Analysis of Images

I will be using Schratz and Steiner-Löffler's (1998) ideas of interpreting image content when analysing pupils' images of their school. They noted how the preferred images were related to experience of the place and people. Primary school children liked the places that were hidden and forbidden such as the staffroom, and disliked places where ones where they had a bad experience with a teacher or the subject matter was boring. However, Schratz and Steiner-Löffler (1998) found that secondary school pupils had a more critical eye and chose favourite places that indicated a way out and freedom such as windows and front doors. These types of images were explained as being counter-surveillance opportunities, as the authors used Foucault's argument that schools are constructed on control, discipline and punishment and taking images beyond the school is a way of temporary liberation from school processes.

3.4.3 Concepts as Analytical Tools

This section is present as a means of signposting four diverse concepts, Foucauldian readings of schools, Augé's non-places, nudge theory and the ecological principle of mutualism, which I have used as analytical tools; especially in Chapters 5, 6 and 7. These concepts I have been used as a means to underpin the notion of 'care' that runs as a thread through the thesis. Foucault, Augé, nudge theory and mutualism are only briefly discussed here, as I am not critiquing them as such but rather highlighting what I have seen as their potential as an aid in understanding the school outdoor landscape; how it has been designed, managed and used.

3.4.3.1 Foucauldian readings of school spaces

Foucault saw schools as having a whole raft of 'regulated communications' such as lessons, obedience rituals, levels of knowledge, differentially 'valued' people as well as a range of power processes such as surveillance, enclosure and a pyramid power structure to ensure pupil learning (Marshall, 1996:95). The intense pyramid of control that Foucault discussed in his 1976 lecture '*Meshes of Power*' illustrates this. During class, the pupil is held under intense scrutiny by the teacher, who commands such power by being able to individualise each pupil and able to chastise them 'if they dream or even yawn' (Foucault, 1976:160). Evidence of Foucault's notions of power play in

the Schools studied is discussed further in Chapters 6 and 7 where I use it as a way of understanding the pupils' behaviour whilst outside the school buildings.

3.4.3.2 Augé's non-places

Augé (2008) considered non-places as a characteristic of super-modernity (effectively super functional) and defined them as a 'place that cannot be described as relational, or historical or concerned with identity' (Augé, 2008:63). I thought this notion was a suitable understanding for the bland, featureless outdoor spaces seen adjacent to the studied School buildings in Chapter 5.

3.4.3.3 Nudge theory and libertarian paternalism

Thaler and Sunstein's (2009) 'libertarian paternalism' is a useful tool to interpret the installation of particular school grounds' elements (such as a trim trail). Libertarian paternalism encourages or 'nudges' people into a particular choice or direction (in this case exercise) whilst giving people a supposed freedom to choose.²⁰ Thaler and Sunstein's inspiration came from thoughts on how to encourage children to pick healthy choices in the school canteen. Using a friend's super-marketing experience they found that pupils would choose healthy options by rearranging the order the foods were presented; effectively nudging them to choose what others wanted. As an alternative, Colls and Evans (2008) explored the relationship between parents and children embodying responsibility when choosing healthy options in the supermarket. The supermarket packages and labels its own brand products for the parents and the children are left out of the consumer process with the assumption that they are incapable of making a healthy choice (Colls and Evans, 2008). The authors concluded that there was a need for a group responsibility when making choices.

Nudging was to be seen in evidence at School 8 in particular and is discussed further in Chapter 7.

3.4.3.4 The ecological principle of mutualism

I wanted a theory that showed the functioning relationship between the two elements of a school, namely the building and the grounds in terms of the money, time, care and consideration. Mutualism in nature is a relationship between two species where they

²⁰ 'Nudge' is a key underpinning part of Conservative policy with Thaler and Sunstein's (2009) text recommended as essential reading by David Cameron for Conservative MPs (Cameron, 2012).

can both benefit by living together (Campbell and Reece, 2002). Independently the two species can survive but not in an optimal existence. The classic example of this is the shark and pilot fish as shown later in Figure 75. Mutualism, in an ecological sense, met this need and I further amalgamated it with being 'coded' in Chapter 7.

Discussion moves from method to the ethical considerations of carrying out fieldwork with people, mainly children as well as the ethics of utilisation the data collected.

3.5 Ethical Considerations

De Laine (2000) discusses how face-to-face contact with participants requires the researcher to think about the implications for those being researched. In this case the interaction of an adult researcher and participant children would have the assumed adult/children relationship with all the unequal power relations that this implies (de Laine 2000). Although there is a large literature on this issue (Mayall, 2008 and Vale, 2009), in this section I have given a brief résumé of the ethical considerations regarding ethics of research involving children and ethics of 'practice' with children.

The ethical issues that have arisen in this research have been complicated by the school setting, which have made a difference to the type and extent of contact made by me as a researcher and the impression I made on the children involved in the research. The metaphor of teaching as acting, using a script, carrying out a performance is a useful one to remember when researching in a school environment, because as an adult, pupils will not differentiate me from teachers, based upon my age. As de Laine (2000) points out, the extent of physical and personal closeness or distance has ethical ramifications for the researcher. A happy medium has been strived for where I have acquainted myself with the children but not so far as I intrude into their lives or them into mine. Multiple roles (as researcher, teacher, friend or ally) should be avoided as a conflict of interest can occur if the dual role of friend and researcher develops. If information has been willingly passed on to the researcher because they are seen as a friend, a conflict of interest and a breach of trust could have arisen. To overcome this problem, de Laine (2000) advises that an individual's privacy rights have to be established along with a clear 'researcher' role and an informed consent given by the pupils and staff. This will then have discouraged the disclosure of personal or inappropriate material that may have been passed onto others in authority at school and would have been seen as a betrayal of trust.

However, my research experience has been very mixed with regard to the dissemination and gathering of research permission forms to/from pupils. This is then discussed later in 'Ethics of Practice'.

3.5.1 Ethics of research

Hill (2009) notes the prominence given to children's rights and the appropriateness of research methods when designing a programme of research with children. The UNC on the Rights of the Child clearly states that children should be able to give their opinions regarding matters affecting them (Hill, 2009). Key principles that underpin ethical research are the respect for all people, equality and non-discrimination, privacy, dignity, anonymity, confidentiality, fair treatment and protection from discomfort or harm (Hill, 2009: 65). Simple relevant ethical questions of relevance to this research are listed by Alderson (1995): is the research in the children's interests? What are the potential costs and benefits to the children or participating in the research? Is confidentiality and ability to withdraw at any time considered? Are 'all' members of the school body included, if not then why? Are there safeguards and checks in place? Are the aims of the research clearly explained? To what extent are the rights to refuse respected? Do the children know and can pass comment upon the research findings? And lastly, how does the research impact upon wider thinking with an accurate children's perspective being conveyed? These questions have informed my research design, methodology and structured the way that I have approached schools.

3.5.2 Ethics of practice

The project was approved by the University of Exeter's *School of Geography* ethics committee. Issues of rights, dignity and the welfare of the participants were covered by the application which is given as Appendix 5. With this document is a copy of the consent form (Appendix 6), which has used to gain participant informed consent from some of the pupils and parents selected at the schools for participatory group work. Consent protects the rights of freedom and self-determination along with the notion of an informed refusal (Cohen *et al*, 2001). The consent form was then personalised by participating schools.

In practice this has been a steep learning curve as the initial school that I visited (School 7) did not want to be bothered by sending the consent form home after I had previously agreed that the form would be used. The reality of the situation meant that I had the

Assistant to the Head write on headed note paper that a consent form was not needed as he felt the school had given the consent for me to work with the children, yet he did not appreciate the need for me as researcher to have the consent. In negotiation with Liz Trinder, Professor of Socio-legal Studies, University of Exeter, I devised an opt-out form. Details of my research would be publicised by the school and if any pupil or parent then objected then the opt-out form could be found, filled in and returned to reception for the staff to collect (Appendix 6). I then offered both systems to schools and discuss with a member of staff the best form for use by the school. School 4 did not bother with the forms at all as it considered that if the school had given permission for me to work with the school then that would suffice when considering parents and pupils. School 8 was sympathetic to my needs as a researcher and sent permission slips home with the pupils. Some were returned with signatures. The majority were not returned probably due to forms being lost in transit in the school bag. It would not be possible to separate out the pupils who did not return the permission slips as there was no alternative teaching provision when the activities were timetabled. This saga illustrated well the difficulties of working both with schools and in particular pupils.

Although a school acts as a convenient point of reaching children, pupils who are absent, excluded or are deemed by the school as being undesirable to work with are usually missing from the research (Hill, 2009). Hill goes onto note how very often the younger sections of the school do not have a 'voice' in student council meetings and so their knowledge is not included. This has not been the case with my participant schools. I was allowed to work with a year 7 class when at School 7 and years 7, 8, 9 and 10 for Activities 1 to 4 at School 8. The focus garden group at School 8 was derived from years 7 and 8 as decided by the Deputy Head. The extent of pupil interaction at School 8 was initially closely controlled by the Deputy Head in terms of what he deemed as being suitable for the pupils. Year 11 was protected and strictly off bounds due to it being their GCSE year, so in effect had no student voice in this area. The Deputy Head also considered that the pupils would soon be leaving the school so there was no point in including them. He did not acknowledge that the older children may have different needs in terms of an outdoor environment compared to the younger members of the school. School 4 had their Activities 1 to 5 managed by a science teacher. He used years 7 to 9 and then I sat in on a pupil staff meeting where pupils volunteered to be present to discuss the content of a proposed memory garden; pupils who attended this all came from year 9.

Fine and Sandstrom (1988:13) note that an adult suddenly being amongst them ‘hanging out’ is unexpected within the group dynamic and is looked upon by both children and adults as suspicious. In the current climate of child safety as described in *Every Child Matters* (DCSF, 2003), any interaction with children (especially in a school) has to have the official nod from the ‘head’ of the school. Further, a Criminal Record Bureau (CRB) check through Cornwall Council has enabled me as a lone researcher to enter the school and interact with children and teachers but always with a member of the school staff present. The CRB have the aim to ‘protect children and vulnerable adults by providing a first-class service to support organisations recruiting people into positions of trust’ (CRB, 2010).

3.6 Conclusion to Methodology

The methods discussed above have been included and designed to gain the information needed to answer the aims and objectives listed in the Introduction. The accrued methods have enabled me to ascertain the level of care placed upon school grounds by schools themselves and other interested parties such as local and successive national governments.

I have highlighted the methodological challenges that face the researcher when carrying out children’s geographies in the field along with the reflection upon a range of ethical issues. In order to explore the physical ‘space’ of the schools’ grounds I have devised a school’s biography as a technique whilst incorporating a landscape evaluation through gathering observations and semi-structured interviews to give an extensive school grounds survey. The role of the grounds as an educational tool (in its widest context of formal, informal and as a coded mutualism) for both staff and pupils has been ascertained via the participatory research, school biography, observations, images, diary-keeping and semi-structured interviews. A historical and educational context to partially evaluate the current state and role of school grounds is achieved through textual analysis of relevant governmental legacy originating from national, regional and local school-based levels as well as supported by interviews and observations. This latter context forms the next and first empirical chapter as it focuses on the politics and governance of school grounds.

Chapter 4: The Politics and Governance of School Grounds

To comprehend the contemporary politics of school grounds, one needs to examine the past policy and agendas that have created and maintained these landscapes. In order to understand the current state of school grounds, one must understand the larger historical and political context that has occurred, along with the ways in which regional and national decision-making is manifested in the school grounds that we see today.

This Chapter is organised around scale; governmental levels (macro), Local Authority (meso) and within the school itself (micro). The main thesis thread of the level of ‘care’ invested in school grounds will emerge via a discussion of how financial structures and the amount of time and level of expertise that the grounds have given to them compared to school buildings are the result of a consistent policy bias. Discussion based around the macro and meso scale and close scrutiny of the workings of the schools themselves will show that there is an entwining of the macro, meso and micro level politics which dictate the content, quality, use and ethos behind school grounds. Much of the discussion regarding the health, welfare and educational benefits that a good quality outside environment potentially offers a school were discussed in the Literature Review. The systematic and widespread failure of grounds to meet those elemental benefits and realise their potential is a consequence of a long-term politics of neglect which I will discuss here.

This Chapter is broken into three main parts; first, the macro political influence will be discussed, followed by the meso-political level where the focus is the influence of local government (in this case Cornwall Council) upon the design of secondary school grounds. Finally I will examine the micro scale where governance plays an important role as a means of taking on board and acting upon the macro and meso scale dimensions underpinning Aim 1 of the research. These three main scales are also divided into pre- and post- the election of the current Coalition Government.

4.1 National Government Macro-scaled Governance (pre the Conservative-led Coalition Government 11th May 2010) over School Grounds

I start the macro-scale influence of national government by listing a chronology of key influential education acts and papers, before moving on to focus in more detail at ‘Every Child Matters’, the influence of OECD ranking, the ‘Manifesto for Outdoor Learning’, the ‘Manifesto for Learning Outside the Classroom’ and the ‘Children’s Plan’, all of which have had the potential to influence the value of education within the school grounds up to and including the Labour Government term of office 1997 to 2010.

4.1.1 Education Acts form the historical base for government policy. A chronology of key educational acts and papers is given below as a quick reference guide to this section (Table 4). The early acts set the historical scene for England’s current education system and I have largely drawn from Gilliard’s (2011) comprehensive ‘Education in England: a brief history’. In Table 4, I initially start with the Victorian era, which saw the first wave of mainstream school construction, before jumping to the 1944 Education Act, which was the next major influence upon schooling in England.

Key Acts and dates pertaining to education and schools	Brief/comment
Peel’s Factory Act 1802	Required employers to provide instruction in reading and writing for their employees.
Early 1800s – industrial schools and elementary schools	Catered for 6-14 year olds, basic reading, writing and maths, some practical skills such as sewing. Academic was cheaper to achieve rather than a vocational education.
1830s start to see state funded school buildings – the School Sites Acts 1855 School Grants Act for the building of schools	These were met by large public protest but schools began to see greater numbers of pupils attending. A fourth ‘R’ – religion to be taught.
Thomas Wyse 1837 ‘Education Reform’	His picture of state education was one where there was little preparation for occupations especially future agriculturalists.
1944 Education Act	During WWII as a means of morale boosting this well researched Act (the then Government spent 2 years consulting relevant education based

	<p>parties) was produced that placed school in the care of Local Education Authorities (LEA). Education was to be free up to the age of 18 and divided into primary, secondary and further education systems. The LEAs were then in charge of the running of schools: maintaining buildings and grounds, the length of day, school governance, teacher appointments, compulsory attendance (5-15 years) and the provision of milk (1946) and meals (universally free was to be too expensive) to name a few areas. Three types of school were maintained; grammar, secondary modern and technical schools. The latter were always very much in the minority and did not achieve any popularity unlike the technical schools brought in to Germany.</p> <p>Some schools (typically technical schools) would have had the facilities for teaching Rural Science included in the grounds otherwise the school grounds were not referred to in the Act.</p>
1947 New Secondary Education	Continuation of a divided education system based around the 11+. The School grounds still just being used for PE and possibly Rural Science.
1976 The Ruskin College speech by Callaghan.	Great debate about the purpose of schools by the then Prime Minister Callaghan and Shirley Williams the Minister for Education. Teachers were said to be out of touch, education did not prepare for the work place (particularly with regard to skills and an emphasis being on manufacturing industries) and the system was not comprehensive compared to other countries.
1976 Education Act	Saw to end school selection in principle but not in law (repelled by Conservatives in 1979).
1976 'Yellow Book'	Was a leaked document which proposed a core curriculum instigated in schools and the abolition of the 11+.
1979 Thatcherism – marketization of education and the privatisation of public services.	There was a huge reversal of power away from LEAs back to central Government. The strong right-wing think-tank Institute for Economic Affairs encouraged the abandoning of

1979 Education Act	<p>post-War welfare and the embracing of free market conditions. Secondary education was to be based upon freedom of choice by application. This Act failed to get rid of comprehensive education as it underestimated public support for the system. Government ideas on selective schooling and the demise of a comprehensive education became more underhand.</p>
1981 'The School Curriculum'	<p>Was reviewed by LEAs in schools with no mention of outdoor based education beyond PE. Schools should be free to choose what subjects taught with an eye on local employment needs and a modern world that was becoming more technical so should feature computing and science.</p>
1987 The National Curriculum 5-16	<p>Was typed as a 40 page document; it identified core and subsidiary subjects. Vocational education was introduced with a series of BTECs and GNVQs (NVQ if via the work place). It included a land-based option, which would require specialist facilities and was usually offered by colleges rather than schools.</p>
1988 The Education Reform Act	<p>The then Minister for Education Kenneth Baker wanted to empower schools, de-power LEAs and have an overall central Government control.</p>
1991 The National Curriculum	<p>Written by Government quangos with no teacher input. Proportion of spending on education continues at a low level; 6.5% GDP in 1975, 5.3% of GDP under the Conservative Governments of Thatcher and Major. Each subject had a weighty Curriculum that over later years was reduced to a few pages. Attainment targets were set within Key Stages and national testing became a means of creating school league tables. My PGCE in secondary geography coincided with these documents being produced. Each subject came in a separate folder and had to be purchased. For geography, I do not recall any mention of the use of school grounds as a resource.</p>

1992 The Education Schools Act	Creation of Ofsted; Office of standards in education. ‘Selection’ becomes now known as ‘specialism’.
1993 Dearing Review into the National Curriculum.	Reduction is seen to the 1991 original rather than anything being added.
1997 Labour continues as before 2000 Specialist Schools	Extra finance is given to ‘specialist’ schools by way of a £100K for capital expenditure.
2003 Every Child Matters Green paper	A response to the death of Victoria Climbié.
2004 Children’s Act, Every Child Matters: Change for Children	This has child safety as a focus and priority for all sections of society that may come into contact with children.
2005 Manifesto for Outdoor Learning – the first acknowledgement of the value of learning outside yet is not formed in legislation and remains as a recommendation document.	As a result of the Commons Education and Skills Committee (2005) Second Report. Then administered by the Council for Learning Outside the Classroom, initiated 2009.
2007 Children’s Plan: Building brighter futures	A comprehensive document that supports families to be involved in their children’s education, promoting links between home and school to ensure the best safe-learning environment for children. The Chapter – ‘Happy and Healthy’ discusses the encouragement of children to be active, with schools’ playing-fields being legally protected and the expansion of the number of playgrounds. School grounds are not mentioned but tenuously referred to as places to be designed for play under the BSF.

Table 6 gives a chronological brief to key educational acts and government related statements.

As Hopkins (2010:184) point out there has been little research ‘conducted about the built environment and places of schools’. Table 4 shows the history of the creation of a public institution which has been structured and designed in a particular way (McGregor, 2004). As past governments have controlled the design of schools it has been the school’s role to implement school rules and regulations through those spaces (Hopkins, 2010). Therefore, the 1944 Education Act does not refer to any great extent to the provision or obligation to provide outdoor spaces for children, apart from them being the responsibility of the local education authority. Schools are not beholden to embed the grounds within their institutional structure:

‘... managers or governors shall not be responsible for repairs to school playgrounds or playing fields’ (1944 Education Act: 13).

‘It shall be the duty of every local education authority to secure that the facilities for primary, secondary and further education provided for their area include adequate facilities for recreation and social and physical training and for that purpose a local education authority, with the approval of the Minister, may establish maintain and manage or assist the establishment, maintenance and management of camps, holiday classes, playing fields, play centres, and other places (including playgrounds ...)’ (1944 Education Act: 42).

Importantly, the ‘adequate’ provision of recreation, social and physical development facilities does not necessarily have to be on school premises nor does it link these aspects to a curriculum. Further, it is the LEA that is responsible for assessing the facilities, rather than the school. Where facilities are present, their quality is only assessed through Health and Safety checks made by a school representative on an annual basis. These provisions, made nearly 70 years ago, marginalised the school grounds from the day-to-day planning, management and governance of the school until the present day. Currently, Ofsted (as the organisation in sole charge of evaluating and assessing school performance, success, management, governance and infrastructure) may comment on grounds in terms of level of security of site or where a school draws particular attention to the grounds as a developed resource for learning (personal communication with an Ofsted representative, May 2010). And whilst Ofsted note that ‘There is strong emphasis in these successful schools on a rich variety of opportunities outside the classroom, including, sporting, cultural and creative activities’, these are largely achieved through visits off site (Ofsted, 2009:31). Therefore, Ofsted along with the 1944 Education Act, remain toothless in terms of the quality of education pupils may expect in the school grounds that is not sport based. There has been 65 years of neglect by policy, legislature and ombudsmen towards school grounds.

Opportunity for supporting the importance of children in outdoor school spaces occurred with the ‘Every Child Matters’ Green Paper and it is this that I know turn.

4.1.2 ‘Every Child Matters’ Green Paper (2003) was written in response to the death of Victoria Climbié²¹, instigated a flurry of Government interest and subsequent

21 ‘Victoria Climbié died in the intensive care unit of St Mary’s Hospital Paddington on 25 February 2000, aged 8 years and 3 months. Her death was caused by multiple injuries arising from months of ill-treatment and abuse by her great-aunt, Marie-Therese Kouao and her great-aunt’s partner, Carl John Manning. Following their conviction for her murder, Lord Laming was appointed in April 2001 to chair an independent statutory inquiry into the circumstances leading to and surrounding the death of Victoria

publications, primarily the report *Every Child Matters: Change for Children* (2003), and followed by the *Children Act* (2004) (DCSF, 2009a), which underpinned with legislation the content of the former document. Together, these aimed to support families and protect children so that they stay safe, healthy, happy and make a positive contribution to society and achieve economic wellbeing (DCSF, 2009a).

'The Children's Plan' (2007b) further developed the agenda set out in *Every Child Matters* through a ten year strategy which has the primary aim 'to make England the best place in the world for children and young people to grow up' (DCSF, 2007b:5). It trialled the production of both the 'The Strategy for Play' and 'The Strategy for Children and Young People's Health' ahead of their publication in 2008 and 2009 respectively. These various publications focus on child safety and the role of Government in providing opportunities for play and being healthy, yet school grounds are not included within the texts. It called for the creation of new playgrounds, some of which were completed during the Labour Government, but none were in school grounds. The health foci were diet, exercise (primarily participating in sports) and education preventing substance abuse. School grounds are not mentioned nor seen as an opportunity for developing spaces for restorative mental health, places for socialising and enjoying being outside. It is possible that the potential of school grounds to develop health and wellbeing are largely overlooked because of a dominant discourse of education as necessary to economic growth. This is reflected in the approach of the OECD to the role of education, to which I now turn.

4.1.3 OECD ranking within a wider context, the UK's education system is compared internationally to other countries through the OECD, which is an organisation that;

brings together the governments of countries committed to democracy and the market economy from around the world to: Support sustainable economic growth; Boost employment; Raise living standards; Maintain financial stability; Assist other countries' economic development; and Contribute to growth in world trade.

The Organisation provides a setting where governments compare policy experiences, seek answers to common problems, identify good practice and coordinate domestic and international policies' (OECD, 2009: unpaginated).

Although there is no direct mention in the mission statement of education, OECD member governments consider it essential to achieving the other economic aims such as boosting employment and raising living standards (Gurria, 2011). This sheds an

Climbié, and to make recommendations "as to how such an event may, as far as possible, be avoided in the future" (The House of Commons Health Committee, 2003:3).

interesting light on a politics of education in which the Government's main aim when educating young citizens is to further the economic wealth of the nation and thereby develop its standing in the OECD league table when compared to other 30 OECD nations (Gurria, 2011). Lifelong Learning²² (2006) included a summary from the OECD's annual 'Education at a Glance for the UK';

- It continues high levels of investment in education as a proportion of GDP; spending on educational institutions in the UK increased from 5.5% of GDP in 1995 to 6.1% in 2003, above the OECD average of 5.9%; the UK invests more money per child in the early years than any other country apart from the USA.
- is tackling historically low post-16 staying-on rates in education, with the UK ranking improving by four places compared to last year's report.
- tops the 30 OECD nations in 'educational expectancy' - the number of years that people spend in education - with a child of five now expecting to spend an average of 20.7 years in education; educational expectancy has risen by 20% at primary and secondary levels and 25% at tertiary levels since 1995 (Lifelong Learning, 2006:unpaginated).

The emphasis on the long term economic potential of the future workforce helps to explain the policy and legislation that determines what happens in schools. When the DCSF asserted that schools systems were essential for preparing every young person for a successful life, it was the economic contribution they had in mind. Schools were meant to 'break down barriers to achievement' in order to meet future demands of society and economy, producing young people with more qualifications and higher level skills (DCSF, 2007a:5). Countries that the UK Government use as role models and that fare better than the UK in educational measurements are the so-called high-tech countries such as South Korea, Singapore and Japan. Therefore, the educational emphasis seems to lie with the sciences and maths, leading to employment in industry and technology as stated in a speech by the British High Commissioner Sir James Bevan in India 09.01.2013. Improving the school grounds does not seem to correspond to a high tech future and hence may be a reason for their lack of inclusion within school/education developments.

However, as a movement away from the OECD based rationale, the House of Commons Education and Skills Committee (2005) Second Report Session announced an inquiry into education outside the classroom 22.09.2004. This inquiry was the first governmental focus on the potential for the outdoors as a learning environment and it had the remit to look at all aspects of outdoor education provision from early years up to

²² Lifelong Learning is a private organisation that promotes the adult education sector (Lifelong Learning, 2006).

and including the HE sector, from stays at study centres, to sport, to school grounds provision and is discussed below.

4.1.4 The Manifesto for Outdoor Learning (House of Commons Education and Skills Committee, 2005) had the potential to make a difference to the development of school grounds as a space or place of learning with an inherent level of care. Evidence for the Report was gathered from a wide range of relevant bodies including Learning through Landscapes, The Outward Bound Trust, the RSPB, the Field Studies Council, the Secondary Heads Association, various unions, DfES officials, Ofsted, Groundwork, various county councils, Wildlife Trusts, the Woodland Trust, The National Trust, the Royal Geographical Society, CABE, Museums, English Outdoor Council, insurance companies and Children's Play Council, which are but a few of the 110 bodies who contributed. One group of people not included as contributors to the Report are children; this gap ties in with Horton *et al's* (2010) identification of children being missing in research because adults seem to know what is best for them (Punch *et al*, 2005). The Report concluded the following;

- the value of out of classroom education to; academic subjects, sustainable development, practice vocational skills and informal curriculum areas such as self-confidence and social skills.
- the provision of outdoor education is very 'patchy'
- neither the DfES or Local Authorities have done enough to promote the benefits of out of class education or to provide strategic leadership
- schools perceive school trips to be risky, which is an unsupported fear
- school trips are too bureaucratic, the Government will try and alter this
- teachers need to be well trained to take children into outdoor environments, so training provision must be in place
- Educational Visits Co-ordinators have been introduced to schools to ensure best practice
- The Department for Culture, Media and Sport will develop a strategy for improving outdoor centre facilities
- ***'The DfES should ensure that its capital projects, for example the Building Schools for the Future and Academy programmes, devote as much attention to the 'outdoor classroom' as to the innovative design of buildings and indoor space'*** House of Commons Education and Skills Committee (2005:4, emphasis added to highlight the equality placed upon the outdoors as the indoors).

This list is generalised for all outdoor education and the focus seems to have been on out of school/off site visits rather than within the school grounds. The creation of an ‘Education Visits Co-ordinator’ post in schools is not equalled by a position that may co-ordinate the development and use of the school grounds. Government encouragement to schools to take pupils on off-site visits means that no particular level of expertise is required by the school to organise the trip and the one-off cost is effectively shifted on to the parents. Whereas the development of the school grounds would require a design professional, contractors, finance and teacher-training in development of schemes of work that would utilise the grounds and long-term maintenance expertise/budget.

As a result of the Report the DfES created a Manifesto for Outdoor Learning (similar to the Music Manifesto) in order to instigate ‘real change’ (House of Commons Education and Skills Committee 2005:4). It would provide similar professional support and funding (£30 million) for off-site visits, yet crucially it made no mention of developments in the use of school grounds. The other recommendations included the appointment by DfES of dedicated staff for outdoor learning and an Outdoor Education Advisor in each LEA to coordinate educational visits. These recommendations were acted upon by the LEAs, but with the Conservative-led Coalition Government policy of local government financial cuts and the creation of academies and free schools, these posts have been cut.

Out of the 40 published contributors to the Commons Education and Skills Committee (2005) Second Report there was only one main contributor that was directly relevant to school grounds; the Learning through Landscapes (LtL) group made a sizeable 7 page contribution to the 195 page House of Commons Education and Skills Committee (2005) Second Report, making the following 10 recommendations;

- i. Provide clear guidelines for Local Education Partnerships re: a holistic design approach for schools which maximises school grounds potential.
- ii. Consider school grounds within school capital investment programmes.
- iii. Ofsted should inspect the whole school in terms of effective use with the DfES producing a standard of excellence.
- iv. Provide schools with support and guidance for grounds development.
- v. Address the fears of litigation.
- vi. Promote school governors role in maximising the potential of school grounds.
- vii. Encourage research into supporting school grounds with effective use.
- viii. Encourage business incentives to invest in school grounds.

- ix. Improve the status of the school grounds with the teaching profession.
- x. Commission a baseline survey of the current state and use of school grounds in respect to a five year plan for action and improvement, as seen in Scotland.²³

It is clear that these recommendations did not make it into the conclusions in the House of Commons Education and Skills Committee Report, in which the emphasis is on off-site visits. The school grounds are still seen as a poor alternative to going off-site to museums, farms or outward bound centres with no explanation as why. Neither David Bell (Her Majesty's Chief Inspector of Schools; 2002-2006), Ruth Kelly (Education Secretary; 15.12.2004 – 05.05.2006), or the Conservative, Labour and Liberal Democrat Party Manifestos of 2005 (Institute for Learning 2009) mentioned the development of school grounds to meet the educational or social needs of pupils, as advocated by the LtL. The recommendations do not directly refer to children or pupils, corresponding to Lee (2001) and den Besten *et al's* (2008, 2009 and 2011) work that shows that children are not included in the major decision-making processes. This goes against the UN 1989 Convention on the Rights of the Child and their entitlement to self-expression and having a voice. Where student voice may be included is in student councils and in relation to small daily issues that affect the pupils such as school uniform, which charity to raise money for and quality of school dinners (personal observation of numerous school council meetings at a variety of schools).

From the House of Commons Education and Skills Committee Second Report (2005) the Manifesto 'Learning Outside the Classroom' (DfES, 2006) was launched. Its rationale is now discussed below.

4.1.5 The Manifesto 'Learning Outside the Classroom' (DfES, 2006) is a document which explained and promoted Government policy of the time, emerging from the House of Commons Education and Skills Committee (2005) Second Report. The Manifesto came under the remit of The Council for Learning Outside the Classroom and was launched April 2009 by Alan Johnson (the then Education Secretary) outside the Natural History Museum (along with the announcement of £2.7 million to promote learning outside the classroom, which would not amount to much

²³ McKendrick (2005) produced a School Grounds in Scotland Research Report sponsored by the Scottish Poverty Information Unit. The Report sought attitudes toward and use of Scotland's school grounds with a target of how to target resources more effectively, support new initiatives and establish best practice (McKendrick, 2005:1). From this Learning through Landscapes (2012), working with the Scottish Government, developed an effective authority-wide process to enable planning and development of Scottish school grounds. These processes include, setting objectives for use, a self-assessment tool to collect quality data relating to the school grounds, connect school development plans for their grounds with the wider community and provide links to officials and experts to ensure grounds development is done well and is appropriate.

when divided between primary and secondary schools across England and Wales) (Linden, 2006). The 'Learning Outside the Classroom' (LOtC) website content originated from the Labour Government's The Manifesto for Learning Outside the Classroom partnership and was designed to help professionals working with the 0-19 age group to provide quality outdoor experiences (DCSF, 2009c and LOtC, 20012a).

Within the 21 page Manifesto there is a small generalised paragraph given over to school grounds: 'These areas are a rich multi-faceted, learning resource on the doorstep. They offer excellent opportunities for both formal and informal learning and play. School buildings can also provide a useful resource for learning about energy use and waste for example' (DfES, 2006a:4). This does seem a rather puny reference to schools grounds considering the size of the Second report. It very generalised and there is no clear suggestion as to how the grounds may be utilised by the school. The way the report immediately moves on to talk about the buildings is indicative of the priority buildings receive over the grounds. The Manifesto then urged readers to sign up via www.teachernet.gov.uk/learningoutsidetheclassroom to seven pledges with the possibility of adding their own. The basic pledges are given below;

- 1 We will provide all young people with a wide range of experiences outside the classroom, including extended school activities and one or more school visits.
- 2 We will make a strong case for learning outside the classroom, so there is widespread appreciation of the unique contribution these experiences make to young people's lives.
- 3 We will offer learning experiences of agreed high quality.
- 4 We will improve training and professional development opportunities for schools and the wider workforce.
- 5 We will enable schools, local authorities and other key organisations to manage visits safely and efficiently.
- 6 We will provide easy access to information, knowledge, expertise, guidance and resources.
- 7 We will identify ways of engaging parents, carers and the wider community in learning outside the classroom (DfES, 2006a:6).

Numbers 3, 4 and 6 are non-specific to the school grounds and could be covered by other school paperwork rather than a specific grounds-based Manifesto. Crucially the Manifesto is not underpinned by legislative or regulatory systems that ensure its delivery. Instead, it encouraged everyone else to do something: 'Our shared vision is open to anyone to sign up' (DfES 2006a:5). Waite (2009) points out that the Manifesto was confusing for practitioners as there were no clear guidelines to be followed. Even though as of 18.04.2013 there were 2391 signatories listed on the Manifesto link, none of the case-study schools used in the thesis had signed-up/nor mentioned the scheme

(Council for Learning Outside the Classroom, 2012b). Effectively, from all of the effort placed into the House of Commons Education and Skills Committee Second Report (2004-2005), the launch of the Manifesto promoting outdoor education and its continued promotion by the Council for Learning Outside the Classroom there has been little discernible difference made to the school grounds that I have studied in terms of design, maintenance and use. School grounds are not highlighted by the Government as a possible safe outdoor location in the 'Children's Plan', which is now going to be discussed.

4.1.6 The Children's Plan: Building brighter futures (2007) has a foreword written by Ed Balls (Secretary State for Children, Schools and Families; 2009-2010) which states that 'this first ever Children's Plan, is to put the needs of families, children and young people at the centre of everything we do,' (DCSF, 2007c:3). The foreword continued:

This means a new leadership role for children's trusts in every area, a new role for schools as the centre of their communities, and more effective links between schools, the NHS and other children's services so together they can engage parents and tackle all the barriers to learning, health and happiness of every child' (DCSF, 2007c:3).

The stated outcomes were for every school to sit at the heart of the community, to deliver measurable improvements for children and, by 2010 to have identified those that need extra help, to monitor the difference that Children's Trusts made and ensure that all child-based agencies are integrated (DCSF, 2007c:143).

Leading from the Children's Plan came the creation of the 'Play Strategy' (DCSF, 2008a) and £235 million to be spent on 'high quality places for children to play safely and free of charge' in 'every residential area' (DCSF, 2008a:3). School grounds presented an obvious site for developing safe neighbourhood play spaces in a way that was clearly commensurate with Ed Balls' vision for schools at the centre of communities. Yet as of 05.08.2009, 526 play sites had been finished in 63 LAs and none of these were in school grounds (DCSF, 2009b). The Coalition Government then cancelled Labour's Play Builder Scheme as a money saving measure when they came to power.

The other strategy to come out from the Children's Plan was 'Healthy Lives, Brighter Futures: The Strategy for Children and Young People's Health' (DCSF and DH, 2009). This time Ed Balls, writing with Secretary of State for Health Alan Johnson in the joint ministerial forward, suggested that 'For school-age children and their families, there

will be a core health programme, ‘The Healthy Child Programme’, to set out clearly what services should be available to parents, children and young people from 5-19, supported by 21st Century Schools with a focus on pupils’ health and wellbeing,’ (DCSF, 2009b:3). Again, the potential to utilise school grounds to deliver this strategy was overlooked. Valentine and McKendrick (1997); Wells and Evans (2003); and Louv (2009) as examples, have extolled the potential value of school grounds and the outdoors to contribute to a healthy life for children. Without explicitly identifying a role for school grounds in the healthy child programme, the strategy noted that ‘even small amounts of green space are shown to have qualities that facilitate relaxation and recovery from mental fatigue and stress (Louv, 2009; Ulrich *et al*, 1991), particularly for those with symptoms of Attention Deficit Hyperactivity Disorder (ADHD),’ (DCSF, 2009b:40). However, money was not ring-fenced for the particular development of school grounds and was lost in the general building budget for ‘The Healthy Child Programme’.

These linked developments in the last years of the Labour Government (1997-2010) were the first to send a positive message about both the role of schools promoting health and wellbeing and the benefits of quality outdoor spaces. Nevertheless, the legislative, financial, and regulatory structures that might have enforced the delivery of such measures were not put in place before the election of the Coalition Government in May 2010. The DCSF’s (2008b:5) aim to ‘make England the best place in the world for children and young people to grow up’ via working in closer partnership with children (and others-parents, businesses, LAs, colleges), making best use of resources (including the sharing of facilities with the community), expanding the ‘Healthy School’ programme and improving sustainability, remains little more than a rhetorical hope and school grounds remain marginalised.

The 11th May 2010 General Election saw the creation of the Conservative-led Coalition Government and subsequent sweeping changes to educational policy, financing, governance and delivery, which have had a direct impact on schools building and restoration programmes and – by implication – on the role and status of the grounds.

4.2 National Government Macro-scaled Governance (post the Conservative-led Coalition Government 11th May 2010) over School Grounds

The first major shift to directly affect schools was the cancellation of the Building Schools for the Future program by Michael Gove in his speech to Parliament 05.07.10

(see the Definitions). The Coalition Government then commissioned the James Review (published in April 2011) to explore the past and future spending of capital budgets for schools, clawing back from local councils any unused devolved capital monies until the next financial year (personal communication Cornwall Council Head of Children Schools and Families 16.03.11). The other major change was the promotion of ‘free’ schools as well as the reinterpretation and branding of the ‘academy’ school. The following explores these areas of new Government policy as there are implications for the priority given to school grounds.

4.2.1 James Review 2011

The Capital Review team was made up of a panel of ‘experts’ led by Sebastian James - Group Operations Director of Dixons Retail plc (DoE, 2011). The other members of the team were:

- Kevin Grace, Tesco; Director of Property Services
- Barry Quirk; Chief Executive of Lewisham District Council
- John Hood; former Vice-Chancellor of University of Oxford
- Sir John Egan; former Chief Executive of Jaguar and BAA
- Ben Gordon; Chief Executive of Mothercare plc.

The expert panel did not include anyone from either the primary or secondary education sectors. The group were drawn from the private sector, with the exception of Barry Quirk. Sebastian James, in the chair, is an old Etonian and friend to Prime Minister David Cameron, as well as a founding member of the now controversial Oxford University Bullingham Club (a public school boys’ wine and dining group; membership by invitation).

Sebastian James was asked by the Department of Education to head a team to make recommendations on the future delivery of school capital expenditure in light of ‘ambitions to reduce the deficit, raise standards, tackle disadvantage, address building condition and meet the requirement for school places resulting from an increase in the birth rate’ (James Review, 2011:4).

The James Review made a number of points of relevance to this thesis, touching on issues of design, maintenance and capital investment. However, it is important to note that very little mention is made of school grounds. Thus, the James Review provides

another example of where ‘school’ becomes synonymous with a group of buildings, the design and maintenance of which is a key priority for any capital strategy. The grounds are simply elided, or mentioned in passing as ‘landscaping’. Nevertheless, the James Review provides some insights about design and capital that help us to understand more about the challenges of designing and maintaining a school environment. For example, the review suggests that poor design was not the fault of the designers but instead has been due to a poor design brief (p25). In my research, design decisions about the outdoors are shown to be considerably more complex than the James Review suggests, involving a set of negotiation between pupils, teachers, senior managers and funders in an unequal relationship of power, in which the relatively low priority of the grounds is a factor. Also when noting the experience that School 7 went through (discussed later) the resultant inadequate grounds development was due to financial constraints and poor design.

Further, the Review found that councils did not monitor the spending of devolved capital (p30), meaning that there was no means of assessing the amount spent on the grounds or insisting that funds should be ring-fenced for their development. There is little information currently available that indicates how centrally funded academy schools have their finances and spending audited by the Government. Yet indications from the National Audit Office (2012) show that the Academy Programme has placed tremendous financial pressure on the Department for Education, with they estimate an extra £1 billion of funding having to be found from an already pre-designated budget and that it

was unprepared for the scale of the financial implications arising from such a rapid expansion ... The Department largely relies on the quality of academies’ financial management and governance to safeguard effective use of public money. To date, there have only been a small number of investigations into financial mismanagement and governance failure in academies. Financial mismanagement in any school is a real cause for concern, and such failures in academy schools create the risk of wider reputational damage to the Programme. The Department needs to weigh this risk carefully in operating a light-touch oversight regime. (National Audit Office, 2012:unpaginated).

This statement suggests that there still may not be any centrally held record as to how academies or schools spend their budget. Clearly, though, the allocation of capital to

school projects is fundamentally tied to both strategic priorities and notions of value for money in which the grounds seem to be a very low priority because, in turn, their value and potential in the delivery of educational, social or wellbeing targets is not recognised.

The Review recommended the ‘standardisation’ of new school design (a hark back to the post-War era of rapid school building) via a national standard design that would be tweaked to fit the local environment – similar to many out-of-town stores and supermarkets. This in theory would save large amounts of architect/designer fees and ease procurement but, along with a reduction in planning restrictions, would serve to further marginalise the school grounds. The opportunity to insist on the development of useful, innovative, beautiful grounds as a condition of any new build was lost. Even the cancelled BSF programme at least encouraged consideration of the grounds as a resource worthy of consideration even if it did not insist on any quality protocols or budget given over to buildings design. What follows are the key findings of the James Review:

- The Review Team were critical of BREEAM as being too prescriptive (p35). It was advised that an abridged form should be used in the future.
- It was decided that new buildings did not drive ‘educational transformation’ as had been suggested by the former Labour Government.²⁴ This seems to deny the well-established link between the quality of a built environment and the level of learning that a pupil may achieve (Schneider, 2002). This could impact upon school grounds in two linked ways; i) if the idea that the environment does not matter takes hold then it could be argued that grounds may not be needed at all. The effects of this can be seen in the types of buildings that have been put forward as possible free schools such as the site in Camborne which has little outdoor space of any kind; ii) new buildings and refurbished/redesigned grounds are not needed as they will have no benefit to the pupils in terms of academic achievement.
- The Review Team were not convinced that pupils should have an input into any aspect of school design arguing that ‘staff and pupils in BSF schools had an unusually high level of input in the design process. The Review team were

²⁴ The language of transformation was seen in all of Labour’s main policy documents including the DES (2006) Schools for the Future: designing school grounds, where schools have formed their environment it has helped bring new learning and excitement for their children, staff and wider community (DES, 2006:1).

troubled by elements of this involvement. While it is clearly right to work hard to get excitement and buy-in from all stakeholders including students, we were not convinced that there should be significant input by pupils into the design for each school' (James Review, 2011:21). This unsubstantiated view goes against the wide array of literature that puts value to student voice as mentioned earlier and falls in line with Staeheli's (2008) notions regarding the politics of construction of a place as an example of macro governmental control instead of giving power to local people.

As a response to the James Review schools still within LEA control saw their devolved capital entitlement reduced by 90% for the 2011/2012 financial year, whereas an increased budget was on offer for the first round of schools opting to become centrally funded 'academy' schools (personal communication Head of School 7, 06.01.11). In response to the James Review (Government responded 19.07.2011, Gove, 2011a) the Priority School Building Programme was initiated by the Coalition Government and is discussed below.

4.2.2 Priority School Building Programme

Michael Gove's Commons Speech (19.07.2011:unpaginated) stated that the Government 'broadly accepted subject to a thorough consultation process on details and implementation' the recommendations of the James Review. The main outcome was the Coalition Government's 2012 Priority School Building Programme, which has resulted in a draft 'Generic Design Brief' from the Education Funding Agency. This document gives the generic details for any new school built following the guidelines from the 2011 James Review with no comment as to school grounds. New outdoor environments (if they are included in a new school plan - some new 'free' schools appear not to have land to accommodate outdoor facilities) should be 'safe and attractive' offering a variety of different settings for sports, outdoor teaching, social and recreational activities' (Education Funding Agency, 2012:38). There is a retreat to former governmental paperwork where the emphasis is on buildings and very little reference is given to the quality of school grounds. Further, there is no stipulation that the 'attractive' and 'offering different settings' are compulsory elements or just suggested guideline. Neither is there any stipulation as to the extent of school grounds to be used by a particular function nor the ring-fencing of any amount of money to be spent on the development of the grounds. There is no reference to sustainability, which

the school grounds could play a major role, apart from the conservation and enhancement of biodiversity so that hazardous pesticides are not needed. The document also suggests that a ‘proportion of the social area should not be developed, but provide a framework to allow schools to develop parts of their grounds gradually in the future, with the participation of pupils’ (Education Funding Agency, 2012:39). There is no supporting statement as to why this should be the case, or only suggestion that monies should be ring-fenced to achieve this later redesign and construction work. So when considering school grounds, the current Government’s views lack the rigour and consideration to design that it offers new school buildings.

Any school that falls into the Priority School Building Programme would be expected by Government to become an academy or be a new free school (which would also be expected to have academy status). Some schools in England and Wales have become Cooperative Trusts as an alternative to the academy. The following is an exploration of these types of schools and whether their creation has any implications for the school grounds.

According to Sellgren (2013), there were 2309 academy schools in England at the start of the 2012/2013 academic school year at both primary and secondary level. As academy schools have become independent of LA finance and control the schools are free from budgetary controls such as setting aside a specific percentage of income for capital expenditure, IT and staff training. Theoretically, finance may be easier to allocate to school grounds developments. An academy is a publically, centrally-funded already established school (DfE, 2012a), whereas a free school is a new school which has come about from public demand and would, when established, also be seen as a publicly-funded independent school. According to the DfE (2012b: unpaginated) ‘academies benefit from greater freedoms to innovate and raise standards. These include:

- freedom from Local Authority control
- the ability to set their own pay and conditions for staff
- freedoms around the delivery of the curriculum
- the ability to change the lengths of terms and school days’.

Initially only ‘outstanding’ schools could apply, then the scheme was extended to ‘good’ schools with outstanding elements, and finally ‘poor’ schools if they were linked to an Ofsted rated ‘outstanding’ school. The initial new wave of academy

schools in England were promised additional funds saved from the reduction of the devolved capital funds schools previously received from the local authorities (personal communication with Head at School 8, 06.01.2011 and). Since the start of the scheme in 2011 the financial incentives from central Government to apply for academy status have slowed down in Cornwall (personal communication Cornwall Council Head of Children, Schools and Families 06.01.2012). As it was the larger schools that became academies, nearly a third of Cornwall's pupil population was attending an academy school by January 2012. By April 2013, the rapidly expanding schools cooperative trust movement meant that over half of 267 eligible schools in Cornwall had either become an academy or part of a cooperative trust (personal communication Cornwall Council Head of Children, Schools and Families 21.03.2013).

Academies are free to set their own budgets and policies; only being responsible to Ofsted for education quality. As Ofsted only comment upon the school grounds in terms of safety there is not much hope for a radical change in a school's view of its grounds unless a new school head has a personal interest to prioritise the school grounds.

Free Schools is the Conservative-led Coalition Government's offering to parental choice where brand new state-funded schools are set up in response to local parental demand. The trigger might be a lack of what the parents consider to be good schools in the area or an oversubscription to local schools. Free schools have quickly come under criticism for their curriculum (for example, some are teaching creationism in preference to scientific based evolutionary theories (Burns, 2012)); being themselves under-subscribed (Cox, 2012); and for the veil of secrecy around whether Government fund these new schools by taking resources from other schools in the sector (Murray, 2011).

Some preliminary observations can be made about the place of school grounds in free schools. According to the DfE (2012d), these brand new schools tend to come with an inherited land and building legacy, very often disused public buildings such as offices are used which do not have extensive outdoor spaces. This gives rise to an undercurrent that the outdoor school environment is not a priority when selecting a suitable school building. The first free school for the southwest region opened in Camborne, Cornwall September 2012 using the buildings and site of a former Victorian grammar school, which had been used as Cornwall Council offices (BBC, 2011b). It illustrates the above point that the small size of grounds does not appear to be a limiting factor when

selecting the site for this previously physically confined small (250 pupil) Roman Catholic free school academy that was originally based in Truro. The grounds of the old grammar school had been sold off in the past and, according to the School's website, PE classes utilise other external facilities (St Michael's Catholic Secondary School, 2012). A new Government-funded £3.5 million specialist teaching block was completed by September 2013 (St Michael's Catholic Secondary School, 2012). The Cornwall Head of Children, Schools and Families commented that normally a secondary school of this size would not be supported under government policy and cost structures and that the amount of money the central Government was spending on the School was a waste when there were many of Cornwall's schools that would have benefited from such money (personal communication Cornwall Council Head of Children, Schools and Families, 21.03.2013).

An alternative to academies and free schools are school-based Cooperative Trusts, a relatively new means of grouping of schools in England and one in which Cornwall seems to be leading the way since the creation in 2011 of a small number of these Trusts. The Cooperative Trust scheme has been seen, by some schools and local education authorities, as a way of ensuring the viability and future of small (under 100 pupils) rural schools (personal communication Cornwall Council Head of Children, Schools and Families 06.01.12). The schools remain under the Local Authority financial umbrella, but benefit from the mutual sharing of expensive services, specialist teachers, head teachers, group purchase agreements and procurement procedures. If for any reason a school should close, the monies raised from the sale of the property will stay within the trust (as opposed to an academy where monies would go to the Treasury). Cornwall has the UK's largest schools' cooperative, which involves 14 primary schools and 2 secondary schools (personal communication with a Helston primary school head, 19.01.2012).

Speculatively, there is nothing in the design of an academy or a cooperative trust status that will radically alter the use of the grounds or change the policy mechanisms and financial structures that currently prioritise buildings over the outdoors. There may be some beautifying of the public entrances of academies as they are in a greater competitive position with other schools for pupils (academies are at liberty to set pupil numbers and select pupils; so are in competition with other schools for pupils).

From the redefining and formation of new types of school the discussion moves to recent key relevant Government policy developments; the UK National Ecosystem Assessment (Watson and Albon, 2011) and The Natural Choice: securing the value of nature (HM Government, 2011).

The following two documents are more tenuously related to schools and their grounds yet provide a reason for schools to develop their grounds in a sustainable holistic way in contrast to the recommendations of the James Review.

4.2.3 UK National Ecosystem Assessment: understanding nature's value to society

The focus of this comprehensive assessment of the UK natural environment is on ecosystems, their state, their impact upon people, potential changes in the future and management scenarios. The text relates to schools on a few occasions. One notes the value of knowledge gained at school with regard to ecosystems, which is later supported by the following statement:

Environmental settings are valuable surroundings for outdoor learning where engaging with nature can lead to enhanced connectedness to nature and increased ecological knowledge. Ecological knowledge has been defined as 'accumulated knowledge about nature' and can be acquired through contact with different natural environments, directly or indirectly. The economic value of ecological knowledge, generated formally in schools and less formally elsewhere, is considered to be substantial. However, there are significant complexities associated with estimating this economic value, with a recent study undertaken as part of UK NEA using an investment in human capital approach to investigate the value of ecological learning experiences of children in the formal educational system. Benefits of this investment in ecological knowledge include a possible boost in lifetime earnings as well as possibly enhanced quality of life through more productive use of leisure opportunities. Whilst this approach may be appropriate for ecological knowledge acquired in school it is difficult to ascribe a gain in knowledge to a specific trip or location. The approach to the latter therefore involved examining travel costs and resource costs in order to estimate investment costs over and above those involved in gaining knowledge in a classroom situation (Watson and Albon, 2011:82).

In other words, there is a nod to the value to children of outdoor experience but there is no advice as to how this may be achieved. The National Ecosystem Assessment (Watson and Albon, 2011:56) notes 'that outdoor learning environments enhance the physical health and mental wellbeing of participants' therefore supporting the former discussion regarding the health benefits of the outdoors. However, the emphasis of the document is on offsite visits and the potential for school grounds development is not

really clearly stated, *let alone* discussed as a means of encouraging schools to realise the potential of their grounds as an ecological resource.

4.2.4 The Natural Choice and other policy development: securing the value of nature (HM Government, 2011)

This White Paper aims to ‘strengthen connections between people and nature, to the benefit of both’ (HM Government, 2011:2). It contains many references to schools and reiterates the benefits the outside environment can have on children’s health and ability to learn. Work was going to be done by the Government to ‘reduce barriers to taking pupils outside and increase schools’ abilities to teach out of doors when they wish to do so’ (HM Government, 2011:4), but as at October 2013, no way forward on this aspect had been achieved.

Another aspect of the White Paper that may have relevance to school grounds is the Natural Connections initiative which will provide support for schools, pupils and parents who want to benefit from learning out-of-doors. Apparently thousands of volunteers will be recruited to help schools, with no indication from where or which society groups they are to come from (for instance pensioners as they are time rich) or which schools want the volunteer assistance. One means of promoting the ethos of the White Paper is by the ‘Eco Schools’ award programme.

The ‘Eco-Schools’ award programme, managed by Keep Britain Tidy, can draw up action plans to develop school biodiversity as well as recycling and litter control measures. The Government wants to put sustainability at the heart of all schools and is planting one million trees as part of that policy via the Eco-Schools programme (HM Government, 2011). HM Government (2011:49) also want young people to understand where their food comes from. They continue to give some financial assistance to schools, ‘particularly those from deprived areas, to organise educational visits to farms. More than 1,000 farmers in England are funded through stewardship schemes to provide educational visits, and between them they host around 100,000 school children per year’.

The above discussion has shown that the Conservative-led Coalition Government has had a superficial attempt at influencing school grounds under the value of nature umbrella. However, the Coalition Government is giving contradictory messages, initially stopping the BSF and then restarting the process with PSBP. Grounds are not

deemed to be important enough to feature explicitly in policy yet have the potential to improve school sustainability. The Department for Education seems to be aiming for greater school autonomy rather than control via local government, achieving this through the academy and free school programmes. This means that local government will have a smaller role in the future.

My discussion now moves from the macro Coalition Government to the meso scale local government, the focus being Cornwall Council.

4.3 Local Government Meso-scaled Governance (pre the Conservative-led Coalition Government 11th May 2010) over School Grounds

Allen (2008) sees that the state-centred transmission of power through local authorities creates a network which oversees a large set of resources (as opposed to the military or NHS). The workings of the political cogs at a Local Authority level were illuminated by my regular visits to the Cornwall Council Capital Strategy Team (October 2009 until its demise in the spring 2011) and with associated personnel such as the Cornwall Council Architect. This insight enabled me to glean an understanding of the principles behind the capital management of current secondary school grounds and the design of new and past schools in Cornwall. The main considerations for the thesis are: i) the way that Cornwall Council used government policy and delivery; ii) Cornwall Council's input into new school build projects and their school grounds; and iii) what tools Cornwall Council has at its disposal to encourage a 'well-considered' school grounds when a school is a new build or managed.

4.3.1 Cornwall Council delivery of government policy and delivery

I start this section with an insight into how the Council applied governmental guidelines to the building of post Second War schools, followed by analysis of the role of the Capital Strategy Team and associated Council departments with respect to school grounds.

An interview with the Cornwall Council Architect (12.10.10) filled in the gaps regarding the design and construction of Cornwall's schools. It appears that, to dispose of the excessive circulation space identified in pre-War II schools, many schools were designed with a single storey, or maybe two or three storeys with a single corridor on each, bookended with a staircase at either end. The principles of Modernism informed

the design of buildings which were highly functional, dominated by straight lines and straight footpaths. Figures 5 and 6 are Cornish schools built in 1954 and 1959 respectively and exemplify the architecture of the time. The Cornwall Council Architect went on to note how schools were then being constructed around a steel frame. With the development of mass production in construction methods, the craftsmanship evident in school buildings disappeared. Window frames, for example, were replaced with wall modules that incorporated the window, which were made in factories and then transported to site. Economies of scale dominated, with similar designs being rolled out across Cornwall, enabling the bulk purchase of materials and components, such as window modules of the same specifications.

Notably, there is very little information on the form, use or function of the school grounds in Ministry of Education documentation from the 1950s and 60s. Indeed, interior open courtyards are one of the very few ‘outdoor’ features that were designed into new schools (the only other feature being an area for ‘rural studies’, otherwise the outdoors do not feature). The Cornwall Council Architect interview shed light on the use and function of open courtyards in new school design in the 1950s and 60s. The benefits of a single storey school is that it could spread out for any distance with no concern for the problems of pitched roofing, it is cheap to construct, the buildings fit into the landscape better, and new structures can be easily added. However, classrooms needed light and ventilation, and by including courtyards windows can be easily incorporated along the sides of classrooms. The benefits of natural light and sufficient ventilation are evident in Ministry of Education (1950) documentation which gives quite specific guidelines as to the requirements for light and air by size of room. The



Figures 5 and 6 are case-study Schools 3 and 1 respectively and demonstrate well the modularised window walling made as factory fabricated components. The outdoor environments also correspond to modernism design principles with little effort beyond what was at the time deemed a functional landscape.

Ministry note the extra cost of windows that open compared to fixed windows and that the inclusion of opening windows had to be carefully considered. The Cornwall Council Architect did acknowledge that there seemed to be a naivety on behalf of the architects of the time, who envisaged the courtyards as sheltered spaces that pupils would be able to use. However, the original architect overlooked the need for supervision of pupils and the usefulness or otherwise of such spaces for teaching, having enjoyed very little input into the design from an educational expert. This proved to be a valuable insight when coming to understand the construction context of many of Cornwall's schools and the reason for the existence of courtyard spaces that are often under-utilised by the schools concerned, or described in the School Biographies Chapter.

The changing role of the Council as an education provider is discussed by Campbell (2000). She gives a potted history of the demise of and the changing role of local education authorities (LEAs) since Kenneth Baker's 1987 election speech where he saw Central Government taking over the hub controlling the curriculum, with schools and parents at the rim, controlling the administration. There was no mention of LEAs having a role in the wheel and they had to reinvent their position in the late 1980s (Campbell, 2000). By 1998 the Audit Commission saw LEAs as having a partnership approach with four main aims of: 1) articulating a vision, with a supporting strategy, for education in the area; 2) acting as a vehicle for improvement; 3) ensure quality by having an inclusive system and; 4) managing disagreements between schools and parents and pupils (Campbell, 2000).

The BSF programme of building new schools (February 2003 to July 2010) fitted into the first three of the above categories where the Council had to provide a vision to improve and ensure a quality education into the future. The statements suggest that Cornwall Council had to provide a level of care of its schools in order to fulfil its commitments. During the BSF Programme the County Architect worked closely with the Capital Strategy Team and their main remit of writing briefs for new school developments. This included giving building guidance, encouraging schools to include some flexibility of spaces (for instance not every science room needs to be a fully kitted laboratory and a general teaching room would suffice or an outdoor theatre could be an outdoor classroom or recreational space) whilst referring to the Governments' reference documents Building Bulletins 98 (secondary) and 99 (primary), (Head of Capital Strategy Team, personal communication, 19.10.2009).

The Head of Capital Strategy Team (personal communication, 19.10.09) noted how new school buildings had designated generic total areas to work with, for instance, a need for a reception, staff room, toilets and general teaching rooms in relation to the size of the school body. In addition there was an option of placing spaces where the school felt was ideal such as size and type of catering, sports and outdoor facilities. The County Architect assured me that when a new school brief was generated by a school and architects that nothing was left out (disabled access, toilets, enough sports facilities per age group for instance). A source of assistance in terms of design may have been sought from CABA²⁵ and The Design Council. They would have been able to offer access to design experts who could have advised on any issues (I was not aware that they had been used by Cornwall Council).

Therefore, a collaborative process occurred between a school, Cornwall Council and the construction contractor/design team/architect. New schools, in Cornwall, have been built under two Private Funded Initiatives (the first PFI failed and was taken back under Cornwall Council control, the second PFI includes School 5), the BSF Pathfinder programme (School 4, a new school and School 7, a partial refurbishment), and a one-off replacement for a school which had failing structural integrity (School 1). An £86 million package was put together by the Capital Strategy Team to provide funding for the first wave of school rebuilds proposed by Cornwall beyond the initial Pathfinder school (School 4). Initially this was turned back by the Government as Cornwall Council's Children Schools and Families Department was placed in special measures due to failings in the Social Services element (personal communication, Head of Capital Strategy Team, 07.07.2010). Not until a new Head of Department was found some months later did the BSF package get cleared from central Government. This time delay meant that schools to be developed under the BSF had not gotten far enough in the procurement process to have secured the funding when the Coalition Government came into power and Michael Gove halted the BSF programme in July 2010.

Apart from previously acknowledged Government key texts and policies there are also 'Building Bulletins' (BBs) which offer aspects of design guidance to school engineering and building. Very often these titles were returned to and reissued, for instance BB71 'The Outdoor Classroom: educational use, landscape design and management of school grounds 2nd edition' (DfEE, 1999) first was issued in 1990. The publication describes

²⁵ As mentioned in the Definitions – CABA were the Government's advisors on architecture (CABA, 2009).

the educational potential of school grounds and how this potential may be achieved and managed. It encourages a wide whole school ethos in developing all of the grounds with access throughout the year.

The first section is given over to each National Curriculum subject and how it may use the school grounds as well as special needs and gifted pupils. The second section refers to the elements that may be of importance or used in the grounds such as trees, shrubbery, security fencing and furniture. Section three has the title 'Roles and Relationships' and considers how people may use the site and the training that may be needed. Section four explores design and development and lastly Section five addresses the management and maintenance of the grounds; the least planned-for aspect and the one that is the most common cause of failure as there is not the budget nor level of expertise to maintain the designed and constructed grounds (DfEE, 1999).

The advice given is relevant and comprehensive. However, when studying the case-studies used in BB71 the majority of them were based in the primary sector. The Head of Capital Strategy Team for Cornwall Council (personal communication 17.11.09) pointed out that interest given over to the grounds in primary schools prevails over that in secondary school due to the use of the school grounds used as part of the National Curriculum at the Foundation Stage. I was not convinced by this as BB71 had been published before there was a compulsory daily outdoor element to the Foundation Curriculum. I think that primary school teachers have had more of an established pedagogic interest in using the outdoors as a resource and there are plenty more examples that the authors could utilise and photograph for BB71. Also, as carrying out my research has illustrated, it is easier to gain access to primary schools as an outsider than secondary schools. With the secondary schools that I visited I did not come across any mention of BB71 or see a copy in a staffroom for general teacher reference.

An issue that had been raised when visiting School 7, viewing School 5 and discussed with the Capital Strategy Team was the fencing in of the School site. Child safety had become a new focus in the Ofsted framework for inspecting schools (Head of Capital Strategy Team, 07.07.2010). Ofsted had the capability to bring a schools' grade down if it deemed the site was not secure enough. As the Head of the Capital Strategy Team noted "Inspectors are more aggressive in their view of secluded places and philosophy has given way to safety" (Head of Capital Strategy Team, 07.07.2010). We discussed how educational policy seemed to have been marginalised by the focus of safety. Much

of the Capital Strategy Team knowledge regarding school fencing and safety was gleaned from reading between the lines of government literature as there were no firm guidelines to go on. All schools had no direct budget for their grounds in terms of maintenance or development. Monies had always come from the general school budget and outside capital building such as fencing was not able to be included in a school's devolved capital, so a school would not be able to afford to fence its grounds. The only time that money was available was with a new school build and this had to be 'ring-fenced' by the Council (therefore would vary from one council to another).

In a personal conversation (17.11.09) about the relationship between local government and government policy and guidance, the Head of Capital Strategy for Cornwall Council informed me that the only government publications generated from the Local Authority level of administration come from EBDOG (Education Building and Development Offices Group) which is made up of Local Authority officers and property professional who are responsible for asset management. EBDOG came under the auspices of Children's Services who were directed from the DfES (Birmingham City Council, 2004). EBDOG has issued a series of publications, since its inception in 2002, mainly relevant to school buildings and to a lesser extent school grounds. They also hold a Local Authority led conference twice a year. Their audience is other Local Authority members who are responsible for managing the school estate as well as companies which have an interest in school buildings, mostly builders. The Cornwall Capital Strategy Team worked closely with EBDOG and hosted one of the sixth-monthly conferences in Cornwall in 2008 (EBDOG, 2013).

The Capital Strategy team and Asset Managers were expected to absorb all of the relevant policy generated centrally in order to submit bids for new schools which met Government-guidelines. The closer the new designs were to Government expectations, as set out through exemplar case-studies, the more likely the school was to be built and funded (Head of Capital Strategy for Cornwall Council, personal communication, 17.11.09).

What follows is a look at the role Cornwall Council had in the enabling of new schools and their school grounds.

4.3.2 Cornwall Council's input into new school build projects and their school grounds

As will be discussed further in the next Chapter, land use divisions of school properties were overseen by the Cornwall Council Principal Land Surveyor of Property Services. He discussed with me (personal communication, 19.10.09) how the Department for Schools gave guidelines on categorised land-area requirement. The same land designations used by the Council are also shown in the Chapter 5 Figures. Yet a whole variety of agencies had, under BSF, input and influence over the guidelines and design of new schools and their grounds. The Highways Agency took a lead on car park capacity, road and footpath creation and the Environment Agency dealt with surface water issues, drainage and the means to manage water. If necessary buildings were designed to withstand a 100 year storm event with a drainage network that would last about 15 to 20 years before it would need replacing. Plenty of trees were planted to assist in water storage and particular grasses were grown to meet an array of human demands (sport, walking, sitting and as a means of allowing water to infiltrate the soil). Building Regulations were used to design appropriate disabled access, ramps and paths. Conversely, Health and Safety guidelines were very subjectively considered and were open for an individual assessment of risk.

The Cornwall Council Ecology Team was brought in for school wildlife assessments and potentially could have had one of the largest influences over new school grounds design as bats and dormice had been accounted for at School 5. The County Ecologist noted that if she had been in Cornwall at the time of School 5 being planned she would have had problems with School 5 being built on its particular site because of the occurrence of European protected mammal species (personal communication 08.03.2011). This is discussed further in School Biographies.

4.3.3 The tools Cornwall Council has at its disposal for the design of new school grounds and the management of school grounds.

A range of tools was available for designing and managing school grounds; texts, forms, DQI and BREEAM.

4.3.3.1 Texts

Apart from the guidance mentioned earlier under governmental policy and delivery, when designing the outdoors, architects referred to a range of Government publications

that were distributed to local authorities for guidance purposes. The priorities for design information were the: 'Red Book' (due to its colour and discussed over); Department for Education and Skills (2006) *Schools for the Future: Designing School Grounds*; the 'Silver Book'; 'Schools for the Future: exemplar designs, concepts and ideas' (DfES, 2005a) which was appropriate for new builds; and the 'Bronze Book' – 'Schools for the Future: transforming schools-an inspirational guide to remodelling secondary schools' (DfES, 2005b) – was used, as the title suggests, for part builds and refurbishment. Both the Silver and Bronze books focused on school buildings not the grounds. Others in the 'Schools for the Future' series include texts on sustainability, kitchen and dining areas and designing school grounds.²⁶ There was no 'gold' book as the series of names suggest and the former texts have since gone out of print. Members of the Capital Strategy Team, architects or school staff members did not look further afield to academic literature for assistance when designing a school or its grounds. Therefore the health and wellbeing benefits associated with Ulrich *et al* (1991) and Wilson's (1984) notions on Biophilia have been missed as potential reasons to pay the design of school grounds more attention.

The DfES (2005b) *Schools for the Future; designing school grounds* (the Red Book) provides examples from 66 schools across England and Wales; less than a third of which are from the secondary sector. The Red Book aims to 'encourage schools to consider how best to use their grounds for the educational, recreational and social needs for their pupils' (DfES, 2005:1). Links are made to BSF funded projects with the opportunity of improving secondary school grounds, noting that '63% of the whole school estate is land rather than buildings, but often the potential of the school grounds is not fully considered and developed' (DfES, 2005:1). Red Book contents are broadly divided into: i) the process of developing the school grounds; ii) the various possible audiences that school grounds' developments may want to focus upon – learning and teaching, healthy lifestyles, positive behaviour, community use and development, sustainable outcomes and different sectors and needs (early years, primary, secondary and special educational needs) and; iii) supporting school grounds – external help and funding (DfES, 2005:3). The sections of the Red Book are very visual, dominantly consisting of colour images from the 66 contributing schools. Both the text and images highlight the potential of school grounds to contribute to pupils' education. As suggested earlier, there is little exemplar material from the secondary sector. Out of the

²⁶ DfES (2006c) *Schools for the Future: Designing School Grounds* is a book of exemplar material including many images with a bias on the assurance of sport facilities.

211 images (photographs of schools' grounds and drawn garden designs) included in the Red Book, some images are repeated more than twice and only 19 of the 211 images include secondary school aged children.

Overall, The Red Book gives a range of examples of good and bad design practice and emphasises the potential for the grounds for both the school and community. However, with no financial allocation to grounds developments, the Red Book strongly encourages the role of volunteers (parents and members of the local community) in assisting with gardening projects and involvement in long-term use of the grounds.

4.3.3.2 Forms

Cornwall Council is also involved with changes made to school buildings. Schools need a 'capital approval' form so that permission can be given by the Council as schools have a habit of carrying out alterations without prior permission, clearance or detail as to what was going to happen. No such permission is deemed necessary for making alterations to outside environments unless planning permission was required, then the Council would be informed. This highlights the level of regulation and scrutiny that surrounds building development compared to school grounds.

4.3.3.3 Design Quality Indicator (DQI)

As means of measuring some aspects of the landscape quality before, during and after the building of a new school the Design Quality Indicator (DQI) was used. This national measurement had to be applied by Local Authority members when there had been Local Authority based capital projects. In the discussion below, information has come from two Cornwall Council personnel who have run and experienced both processes. This discussion will show that DQI as well as the Building Research Establishment Environmental Assessment Method (BREEAM discussed later), as the evaluative mechanisms for environmental standards, do not really include the outdoors.

From a long conversation with the Cornwall Council Architect (03.12.2010) I had an insider view of facilitating the DQI with Schools 1 and 4. His personalised DQI PowerPoint Presentation is shown as Appendix 3. It will soon become apparent from reading the account below that the DQI is an extremely time-consuming and complex process involving a selected group representing different members of the school. All the members of the DQI group have equal weighting (for instance the contribution of an 11 year old pupil would have the same value as the contribution of the head teacher or the architect). The County Architect explained that in the instance of School 4 some

senior members of staff had a problem accepting the notion of equal voting rights. Some children had difficulty in understanding the DQI process and much time was taken in explanation.

The DQI is a toolkit for the creation of a design brief and measurement of aspirations expected from the design of a new establishment. It originated with CABE's programme of improving office accommodation standards. It is a system that tries to promote construction industry engagement with the client via a DQI facilitator (which can cost between £3K and £5K; depending on the extent of engagement). As an auditable process, it can prioritise particular elements, monitor elements and track their progress through the development. None of this happened at PFI funded School 5, which was designed with no staff or student input but purely by the PFI architect. The then DCSF did expect a level of engagement but DQI was not compulsory, unlike BREEAM.

The job of the DQI facilitator is to achieve consensus with the DQI school team and to overcome language problems between educationalists and the construction industry in their use of specific jargon. As shown in Table 2, the architecture used *Vitruvius* and the Wootton concept triangle in the PowerPoint presentation given to the school first stage DQI meeting to convey three design considerations: Commodity (*Utilitas*), Delight (*Venustas*) and Firmness (*Firmitas*), translated into functionality, impact and build quality respectively and represented in a Venn diagram, Figure 7. The group then debate and agree on where design features are going to sit within the diagram according to their importance; whether the feature is 'fundamental' (F) (in the non-overlapping circle), 'adds value' (AV) (in the area where two circles overlap) or is categorised as 'excellence' (E) (where all three circles overlap).

For example School 1 has a performance specialism and so performance spaces were of high importance. They had to be of a high specification in terms of functionality, impact and building quality. Conversely, the humanities learning space was of less importance. The above terms form the acronym 'FAVE' which when all factors are then considered, plugged into the DQI programme and a graphic representation of the DQI is produced (Appendix 3).

Stage 2 of the DQI process occurs at the mid-design stage. The designer and team go away from the initial meeting and then return with the initial design. A spider diagram is produced and interpreted from the DQI criteria and their relative importance in the

design. This stage also considered other schemes such as the Faraday Project which provided funds for the radical design of a school's science department. School 4 signed up to the Faraday Project but pulled out at the last moment and opted for conventional science rooms.

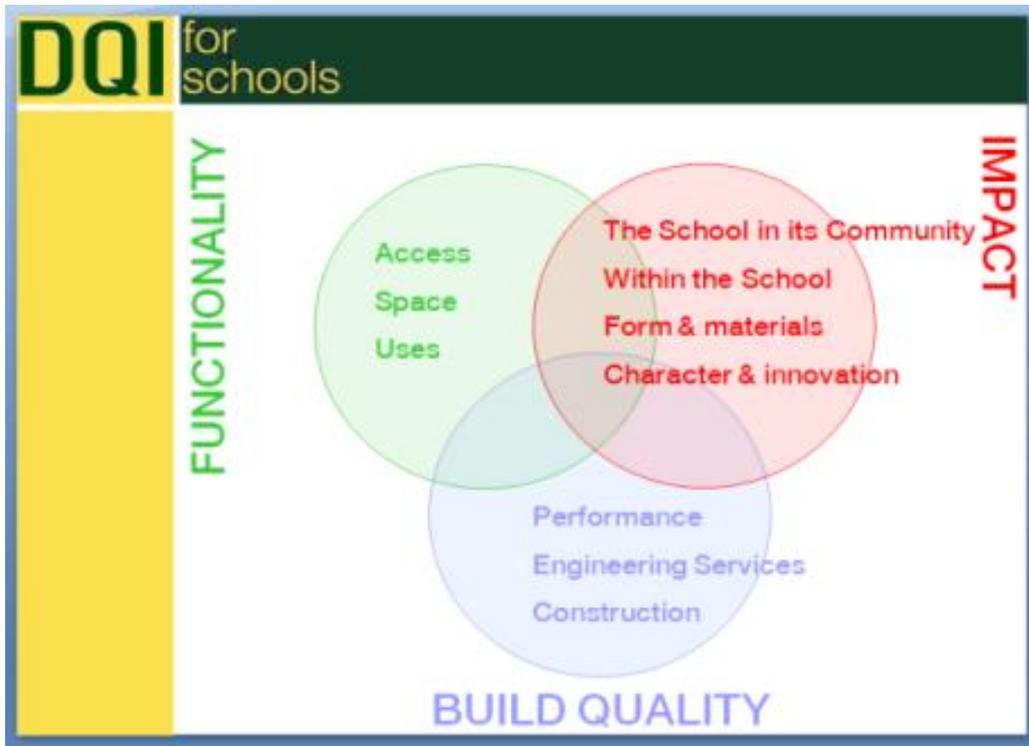


Figure 7 shows the Venn diagram used in the Cornwall Council PowerPoint presentation made at the initial DQI meeting, explaining to the DQI school team the processes involved in the DQI.

It was disclosed by the Cornwall County Architect (personal communication, 03.12.2010) that School 4 gave the DQI lip service, but did not fully engage. As the process had not been applied from the beginning, back-tracking had taken place. School 1, however, incorporated DQI from the start, resulting in a radically designed school that in the Architect's view meets the community's needs. The Architect organised and accompanied the Head of School 1 on a tour to London to visit a BRE-run sustainable eco-park that at the time had a section given over to an exemplar eco school designed by Willmot Dixon. Also included was a visit to the Laban Dance Centre, which had a display of performance space designed with a thick glass wall to allowing a view of performers' shadows to be observed from the outside.

There was also discussion based around the Norman Foster-designed Bexley Business Academy (3-19 years), the radical design of which has been critiqued when being used by staff and pupils. Open plan classrooms and glass walls designed to eliminate bullying led to noise problems when teaching. Effectively the Architect considered that design ideology had gone too far in the case of Bexley Business Academy. The Head of Bexley Business Academy was blinkered by his close relationship with Norman Foster and the practicality of the design had not been challenged by the rest of the school community. Arguably, had the DQI been implemented many design faults would have probably been noticed and stopped before construction. Figure 8 shows the outside environment of Bexley Business Academy to be very bland with mown lawns and standard trees, which complement the architecture but are of questionable value to students and staff (Figure 8). This shows that although the building was designed by a well-known and established architect the grounds were not considered to the same degree of care, and were constructed as easily maintained, bland landscapes without the same level of consideration that the buildings have afforded.



Figure 8, Bexley Business Academy designed by Norman Foster, the steel vertical louvre blinds are closed, boxing in the open glass structure yet has foot eroded turf in the fore (image by Miles J.D., 2011).

From DQI to the other design and sustainability measure, BREEAM ‘sets the standard for best practice in sustainable building design, construction and operation and has become one of the most comprehensive and widely recognised measures of a building's environmental performance’ (BRE, 2012: unpaginated).

4.3.3.4 Building Research Establishment Environmental Assessment Method (BREEAM)

As with the DQI, BREEAM is a national assessment tool that is delivered by a licensed organisation and uses recognised measures of performance. These are set against

established benchmarks to evaluate a building's specification, design, construction and use. Some BREEAM measures can be delivered in the school grounds, for example if tree planting is included as part of the CO2 reduction measures as seen with School 7 (discussed in the next Chapter). The measures used represent a broad range of categories and criteria from energy to ecology. They include aspects related to energy and water use, the internal environment (health and wellbeing), pollution, transport, materials, waste, ecology and management processes across the stages of a building's life-cycle (BRE, 2012: unpaginated).

BREEAM was briefly explained to me by a member of Cornwall Council Property Services 03.12.2010. He stated that all new schools and substantial re-builds were required to have a BREEAM assessment of at least 'very good' with a score of over 55 (an excellent score is over 70). It was important to engage with BREEAM from day one as easy points could be gained but would be missed if BREEAM was started at a later time. As the last Labour Government was enforcing with all institutions that employed over 1000 staff, Cornwall Council was keen to implement the measure as it helped with the Council's Carbon Reduction Commitment of its estate, which school sites formed a major part. The plan was for the Government to publish the carbon footprints of these institutions and impose fines if they were not reduced. Although Cornwall Council had money to promote carbon reduction measures and incentives, the Coalition Government took this money back (personal communication, by a member of Cornwall Council Property Services 03.12.2010).

The Cornwall Council Property Services member elaborated that the main focus of the BREEAM assessment is the reduction of energy consumption and the consequent reduction of building running costs and carbon footprints. However, an excellent score could be achieved by just considering the construction components rather than the inclusion of other factors, such as locally sourced materials rather than those imported from abroad.

To summarise this section, all the local authorities in England have their own subjective take on Government guidance. This view is then negotiated between the architects and the schools. School design with respect to both sustainability and the outdoor environment have to be negotiated with head-teachers, the senior management team, teaching staff and governors who often see classrooms as the key site of strategic investment (Head of Capital Strategy for Cornwall Council, personal communication,

17.11.09). From talking to the Cornwall Council Architect and the member of Property Service it became apparent that the outdoor environment of a school is not normally the priority or focus when designing a new school, nor is it considered a major part of the building design process when considering BREEAM or DQI.

The seismic policy shift in national government in May 2010 then had a wave of impact in local government, initially through a clawing back of unspent monies by the Treasury in order to cope with the national deficit in midst of the global financial crisis.

4.4 Local Government Meso-scaled Governance (post the Conservative-led Coalition Government 11th May 2010) over School Grounds

The global financial crisis also impacted directly on the funding of school building and maintenance programmes. In 2010 Eric Pickles, Secretary for State Communities and Local Government, issued a statement that made it clear that deficit reduction was the Government's most urgent priority and that the Treasury was looking to save over £6 billion from spending during the 2010-2011 financial year. Included in that savings package was a £1.166 billion reduction in grants to local government. As a result, between autumn 2010 and spring 2011, restructuring within Cornwall Council saw the Capital Strategy Team dissolved, with the Head and the Deputy of the Team losing their jobs as there was no capital to manage (after the Government's halting of the BSF and the clawing back of capital monies for that financial year).

Cornwall Council's Head of Children Schools and Families (16.03.2011) reflected on how the role of the Council was changing from one of *delivery* of services to one of *commissioning* services. Centrally funded capital would be 40% of previous totals, and that money was going to be concentrated on areas where pupil numbers exceeded school facilities, such as primary education in the North Cornwall town of Bude where pupil numbers had exceeded the capacity of local primary schools. A passing nod was made to the waste of three year's work in drawing up plans for the BSF £86 million funding that had just been secured by Cornwall Council under the former Labour Government.

Discussion now moves to the school level; the micro. Traditionally schools received their direction from the Local Authority but under the Conservative-led Coalition Government, schools now have greater freedom from local government if they choose

to become academies or free schools; any direction would then come straight from central Government.

4.5 School Micro-scaled Influence over School Grounds

In theory schools take on board governmental policies and guidelines as they are published and then disseminate them through the school as a series of policies endorsed by the governors. A list of Department for Education (DfE) policies that a school is expected to have is given as Appendix 1. Academies and free schools have greater freedoms than maintained schools in relation to school policies and other documents. Arrangements applying to academies and free schools are outlined in legislation or in their funding agreements. School grounds are neglected within this school policy context compared to school buildings and school social functioning where, for instance, there are policies on fire, health and safety, bullying and equal opportunities.

While governing bodies are required to hold each of the documents, the drafting of school policies can be delegated to any member of school staff. Schools are also free to adopt model policies as they see fit.

A notable absence is a ‘Sustainability Policy’, which is optional. In Cornwall, a one-day conference held at the Eden Project titled ‘Cornwall Learning Education for Sustainability’ (Eden Project, 2009) was set up in conjunction with Cornwall Learning in order to give schools the chance to come together and discuss sustainability. None of my case-study Schools have a sustainability policy.

School 7 was an example where there was both student and staff consultation with regard the development of their School grounds and is discussed later in Chapter 6. While educational policy links schools and government, it is via the process of governance that policy is enacted. Governance is briefly discussed here as the means by which school policies are selected, written and enforced as well as acting as a conduit between other levels of government, depending on the type of school.

4.5.1 School Governance

Governance has traditionally been associated with government and operations of power, especially the state. In the 1980s the term started to include government in the widest sense, encompassing all the processes and actors that deliver public administration, public policy and international relations (Kjær, 2004). Rhodes (1997) suggests that ‘Governance refers to self-organising, inter-organisational networks

characterised by interdependence, resource-exchange, rules of the game and significant autonomy from the state' (Rhodes, 1997:13). It is the authoritative allocation of values from government to its subjects which is a common thread in all definitions. Kjær (2004) notes that during the 1980s there was a trend of decentralising governmental power to lower levels of administration so that a variety of organisations (both public and private) have become involved with the delivery of public services. Therefore, governance is concerned with the steering of the 'game rules' as they are administered and enforced, in the instance of this thesis, by schools and their governing body.

School governors have what Allen (2003) refers to as an imminent form of power that gives strategic leadership and accountability. Pupils know that governors exist but from my experience of schools and having been a school governor, they know little about what the school governor role is. The National Governors Association (2012) summarise the role of governors in the state education sector as that of a critical friend. The number of which in a school normally reflect the size of pupil body. The Head of the School may be present at meetings but is not normally a governor. Indeed, it is the governors that select and employ the head of a school and then the head implements the chosen strategic framework and policies. There will be members from the Local Authority, staff, parents and local people of some standing in the community, maybe the local vicar, a solicitor or head from another school. They meet regularly both as a whole and via sub-committees.

It is the governors who chose the future form the school will take and, with the types of school that both the former Labour Government and the current Coalition Government have constructed, there have been three broad types of underlying ethos. The first has been the privatisation of education via the out-sourcing/contracting out of the running of schools by the Labour Government-initiated Private Funded Initiative (PFI) programme of which School 5 has been shown to be an example. School grounds were not seen as a priority of this new School and they resulted in being ill conceived and inadequate.

Secondly, Kjær (2004) discusses competition as a concept and how its application between schools has been promoted as a capitalist business model. Schools compete for parental choice via league tables, resources, capital quality, and Ofsted ratings for pupils equating to the amount of budget that the school will receive. Free schools and academies have larger capital budgets than their LA funded counterparts so in theory

have the potential to spend on grounds development though there is little evidence beyond the beautification of the public front of the school. School 8 has spent its extra capital monies on the building of a gym which is then let out for public use and hence will generate more income.

Thirdly the principle of decentralisation, as explained by Kjær (2004), is not being practised when it comes to current Coalition education policy. Both current and recent Governments have been keen to decentralise as they believe that central government is too distant for local matters. However, the opposite can be observed with the principles behind free schools and academies that are centrally Government funded but give schools complete freedoms to manage their budgets without LA input and support.

Allen (2003) discusses the art of giving enough freedom in order to achieve successful governance. The Coalition Government seems to be successfully illustrating this by encouraging ‘free’ schools and ‘academies’ as a way of giving freedom to parents to choose a school, yet this in reality is a promotion of Conservative ideals. The former Labour Government promoted the benefits of school grounds by a couple of publications that may or may not have been purchased by a school. The current Government sees that school grounds are not needed, allowing free schools to be established in ex-office blocks. With the introduction of the English Baccalaureate controversy has been created by the exclusion of the creative arts (art, music, design and technology) as contributing to the new qualification (Mansell, 2011). This does not encourage schools to invest out of doors when only the traditional academic subjects (English, two sciences, maths, modern languages and humanities) count in the league tables.

4.6 Chapter Summary

The key theme to emerge through this chapter is political educational and financial ‘legacy’ and its continual repercussions on the current condition of and amount of care bestowed to school grounds. This chapter has shown that past educational policy and school building legacy have placed an emphasis on school buildings and the curriculum that goes on within them. Successive governments have promoted a model of education that delivers an economically successful hi-tech workforce in the future that competes well on a world stage; the inclusion of a well-considered school grounds as a means to part achieve this goal has not been part of successive governments’ agendas.

No matter the scale of politics, macro, meso or micro there has been a common thread of benign neglect bestowed upon school grounds compared to school buildings. The historical array of notable educational acts, speeches and statements that have emanated from successive governments, since the early 1800's, rarely have encompassed the school as a whole indoor and outdoor experience. This message has then filtered down through councils, local education authorities and into schools resulting in school grounds to be considered as a second-rate learning environment compared to the learning that goes on in the indoor classroom.

Finance has been both a direct and indirect underpinning influence over the extent of care placed upon school grounds and their role in the education of children. State schools have been built within restricted budgets, especially in the post-Second World War period, resulting in school grounds as just spaces left between buildings. Although the previous Labour Government saw that school grounds had potential as places to develop health, wellbeing and be an outdoor classroom for the formal curriculum subjects, it was up to the education authorities at council level to ring-fence some of the BSF budgets for grounds design and construction. New school builds, under BSF and before, have tempted designers and architects away from focusing on the outdoors, instead focusing on the buildings which have carried a higher kudos architecturally and where they would make more money. In order to save money in future Priority School Building Programme, the James Review (2011) has promoted a standardisation process of design and build with no mention of the outdoors as to the quality or proportion of budget to be spent in this area. The Conservative-led Coalition Government has also aimed to save money by encouraging academies and free schools so cutting-out the council based middleman. However, stopping the role of councils in overseeing the school capital has meant that there is no opportunity for promoting the potential for school grounds.

Part of this Chapter has shown that the role of student voice has been of a tokenistic nature since the demise of student governors in the 1986 Education Act (Wyness, 2003) and its more recent rebirth via the use of school student councils. The use and non-use of pupils in the design process and the DQI adds to the academic discussion on the level of student voice and its place in children's geographies as initiated by Wyness (2003) and continued by Horton and Kraftl (2010).

There is little direct research as to the role of school grounds in school sustainability. Suggestions are alluded to by Government texts (DES, 2006; Billimore *et al*, 1999 and HM Government, 2011) that the grounds may play a key part in making schools more sustainable institutions. DQI and BREEAM focus on building sustainability and ignore the role school grounds could play in improving the sustainability of the school site as a whole. Again this reinforces the message that buildings are more important than grounds and there is no indication that this situation has changed under the Coalition Government.

This thesis now turns to explore the ramifications of a history of education policy upon school grounds in Cornwall via the method tool 'School Biographies'.

Chapter 5: School Biography and School Landscape Evaluation

This Chapter is long yet comprehensively shows the commonalities and differences in the design and management of case-study schools. This illustrates the previously explored political story where there has been a systematic failure to place school grounds on a par with school buildings in terms of their care and the education that takes place within. I have designed 'school biographies' as a new, systematic, critical, extensive, contextual survey tool to evaluate secondary school grounds in Cornwall; nine school biographies have been included in my thesis out of a possible thirty one state secondary schools in Cornwall. Surveys of the school grounds are not routinely undertaken and the only quantitative surveys are held by Cornwall Council, which were carried out remotely and do not show the potential or quality of the outdoor spaces for play, socialising and learning.

Schools currently assess their grounds in terms of safety through a cursory check routinely conducted by grounds staff on a daily basis for example for dangerous litter, damaged sports equipment or signs of vandalism. Cornwall Council surveyors have school plans (used with each school in the chapter as a basis for annotation of school grounds' images) which use government land-use classifications and are used by the Council to assess whether there is enough land given over to each category for the pupil numbers at the school. The plans also assist the Council Architects when they were drawing up plans for new schools to ensure that enough sports space was still available and where new buildings could be placed. As previously mentioned the plans are based on remote, office based surveys carried out by the surveyors with no discussion with the schools. No account is taken of whether pupils have access to all the land in the perimeter of the school.

Government guidelines recommend that each school should have given amounts of sports pitches (grass and all weather surfaces), games courts (tennis and netball), soft play (grass or wood chippings), hard play (for example tarmac informal area), habitat space (gardens, trees, wildlife, nature trails), banks and unusable land, supplementary site area (non-school land) and a float (the difference between minimum net space and the recommendation). Other land-uses given on the plans are paths and circulation as well as roads and parking. These are calculated in m² and an example is given in Table

5 for School 1. The County Surveyor calculates the recommendations for these 'zone areas' based upon pupil numbers and then measures the actual areal extent for the categories by having the plans in Autocad which has the facility to measure area when a specific space has been highlighted (Principal Land Surveyor, personal communication 02.02.10). Deficiencies and excess in areal extent were also shown, as seen with Table 5.

This method of land-use assessment pays no attention to where these pieces of land are that may make up soft or hard play, for instance School 7 has playing fields a good 20 minute walk away which are very rarely used. In practice soft play areas may be very fragmented and dispersed over a large area. There is also a lack of consideration of the educational worth of the land or any attempt at a quality assessment. For example, in one school, some very small triangular shaped pieces of grass are included as 'habitat' space by means of elimination as the land does not fit into any other category. In contrast, banked grassland is deemed unusable, when in fact it could be a valuable grassland habitat, educational resource or seating area. When discussing these definitions with the Principal Land Surveyor he described to me how the term 'habitat' is not considered in this framework in a traditional ecological sense (even though the government zone definition shown in Table 5 suggests otherwise) but as land which does not fit into any of the other categories, hence odd land pieces being given this allocation. There is also a pale green used in the plans around the sports pitches (for instance Figure 10) which does not occur on the key. Therefore the Government and the Council are only concerned with the *quantity of land* rather than its quality or potential.

The Principal Land Surveyor's visual survey allocates a land-use category according to the guidelines but he does not enquire about the actual use of areas of the grounds. For example games courts often double up as hard play surfaces. School 1, for example, appears to have a deficiency in hard play area, but in reality this is probably not the case because hard sports surfaces are used instead. Playing fields in summer are usually opened up to student access and so effectively act as soft play areas. Some spaces may in fact not be available to pupil use, some spaces too small to be useful to pupils and so are identified as 'habitat' and some 'habitat' space may be habitable for wildlife.

The Schools in my research were not aware of the Council made and held plans, which seem to be for the sole purpose of planning when there is expansion/construction of

school buildings and establishing that minimum quantities of land for certain uses is provided. The plans are a way of ensuring there is adequate space given over to sports facilities or buildings when construction has finished. The land-uses such as soft or hard play are given as Government guidelines only and are not protected by legislation so if a school is found to be in deficit then there is no obligation to rectify the issue by the school or by the Council.

5.0.1 Components of the School Biographies

The schools below are presented in the order that the schools responded after initial contact was made at the beginning of my research. School statistics (pupil numbers, type of School, Ofsted rating, subject specialism, age of buildings) have come from the publically available Ofsted material about a school.²⁷ Each school has a visual summary based upon a plan of the school and a Google Earth image (apart from School 4 where the image displayed is out of date and a new school has been constructed), which gives a visual impression of size and layout of the school. A written account has also been included based on a combination of visual and narrative evidence gathered and then an overall evaluation made for each school landscape. This then helps identify the legacy that schools are working with today when maintaining their grounds.

The site plan of each School which has been supplied by Cornwall Council Property Services is included and augmented with images that I took when visiting each site. The types of land-use identified on the plans correspond to the relevant data given in the areal measurements shown in the tables, for instance Figure 7 with Table 4. Other evaluation is based upon the individual context of the School for example, having a Victorian legacy, or being a new BSF or PFI School.

The extent of critical evaluation varies from School to School. One School (School 6) was visited with a Capital Strategy Team member, with images taken whilst being accompanied by the site manager. Further research with the school has not been possible as they ceased to respond to emails or return phone calls. The other eight schools included agreed to participate in the research when the initial contact letter was sent (Appendix 2).

The resultant style of this Chapter, with its sheer length, may appear to be just description and over-narration. However, it is the importance of the individual School

²⁷ To ensure anonymity the school number is used in the referencing.

contexts that have deemed it necessary to highlight and justify in the text body the images included on the plans for each School. By closely examining each School's grounds it brought to the fore that every School had a different historical framework which resulted in the grounds' varied, visual quality observed on my visits. By looking at the nine Schools in this way it enabled differences and similarities in the quality of the grounds to become apparent which then went on to enable further analysis to take place in later Chapters.

5.1 School 1 General Description – is a Community mixed Comprehensive School with approximately 700 pupils on role, making it slightly smaller than average for the secondary sector (Ofsted, 2008a). Its situation is within the spine of mid-Cornwall, serving rural village catchments. The number of pupils on role increased 50% over the last 10 years and it is a popular School, over-subscribing its PAN (Published Admission Number) of 140 (Table 2). The 2008 Ofsted Inspection Report gave the School an overall effectiveness Grade: 2 (Good) reflecting improvements made over the last few years. It also noted how students ‘take exceptional care of their environment’ (Ofsted, 2008a:4). Ofsted do not define ‘environment’ but from my visiting the School, both the interior and exterior was clean, tidy and displayed an array of pupils’ work. The designated specialism for the School is ‘English and the Performing Arts’ and it has Sir Tim Rice as its patron.

The School’s rural location on a hilltop with a southerly aspect enjoys panoramic views to rolling wooded, fields and hills to the sea beyond on a clear day. The northern boundary backs onto a village periphery, where an old vicarage and a couple of other large houses are the only neighbours. This school has a perfect example of a ‘borrowed’ landscape (Bradley-Hole, 2005; Brown, 2001), where students and staff enjoy the free view during breaks.

The main body of the school was built in 1959 modular post-War style and at the start of my research, had a roof in a severe state of disrepair (personal communication with Head 08.02.2010). It was a priority for Cornwall Council and Government funding (personal communication Head of Capital Strategy Team 08.12.2010) and was finishing a complete rebuild programme in 2010-2011. Construction was taking place on the playing fields to the SW of the school and so was boarded off for safety reasons. Figure 9 shows a Google Earth image of the original School with its peripheral site in a village, small size and green flat roofs. The two white roofed buildings are recent additions linked to sporting activities.

Initial clearance of the site was started in early 2010 and protective screening was erected, indicated on Figure 10. The main building was completed in the early summer of 2011 and the old School was demolished to make way for the grounds to be completed.

This was then hugely delayed as asbestos was found and had to be extracted before demolition. The grounds had designs created by a landscape architect in conjunction

with members of the school and were provisionally based on the ‘Tree of Life’ (personal communication with School 1’s Head, 08.02.10); they are expanded upon later in this section.



Figure 9 shows a Google Earth image (2010), the image date March 5th 2006, of School 1. It shows the School on the periphery of the village, bordering agricultural land.

I visited the School (08.02.2010) students appeared to have been consulted over the development of the new School, evidence of this being that; workshops had taken place and resulting work displayed as posters around the main thoroughfare and key text phrases circulating on a school information screen.

School 1 (Table 7) appeared to be deficient in both hard and soft play areas. This problem was rectified with the building of the new school and grounds. The excess of sports pitches is common, as schools prefer adult sized facilities to younger pupil-sized pitches. Income can be earned from renting facilities out to the community; therefore pitches often exceed the needs of the school (Principal Land Surveyor, personal communication 02.02.10).

5.1.1 Quantitative and Qualitative Description and Analysis of the School Landscape

In reference to Figure 10, School 1 has quite an open, flat, exposed grass expanse to the southwest rear, with paving and raised rectangular beds with conifers. There was a clear difference in planting between the public front of School and the pupil centred rear of the school which are both described in the next paragraph. Beyond the School to the south there are lovely views of wooded valleys and the sea in the distance; a ‘borrowed’ landscape.

SITE AND ZONE AREAS	Recommended (m²)	Existing (m²)	Deficiency (m²)	Excess (m²)
Net Site Area: Playing Fields				
Total Sports Pitches (<i>grass plus all weather pitches</i>)	36,250	50,083		13,833
Games Courts (<i>tennis/netball</i>)	2,100	4,096		1,996
Soft Play (<i>soft informal area</i>)	2,675	1,644	1,031	
Hard Play (<i>hard informal area</i>)	1,525	967	558	
Habitat (<i>gardens, trees, wildlife, nature trails</i>)	950	3,978		3,028
Banks and unusable land	0	0		
Supplementary site area (<i>non-school or support functions</i>)		1,442		
Float (<i>diff in sum of min net spaces to the recommendation</i>)	4,750	17,268		12,518
Total Net Site Area	48,250	62,210		13,960

Table 7's contents regard school grounds divisions as defined by the Government. The 'recommended' column is calculated by multiplying pupil numbers by m² per pupil. The 'existing' column is what has been measured from maps by the Cornwall Council surveyors (after Cornwall Council, 2010f unpublished). In this instance a clear deficit has been identified with regard to hard and soft play surfaces.

Starting at the formal entrance of the school, the visitor arrives via a car park and walks down a grey paved footpath to the entrance (1 on Figure 10). To either side of the path were mature evergreen shrubs and conifers including a pretty pink flowering *Camellia*. Pupils' artwork was in evidence by way of some aging attractive installation mosaic pieces set in the paving and in the shrub borders.

This was evidence for the 'hidden curriculum'²⁸ where the public front of the School was aesthetically appealing, even beautiful, but the hidden back of the School was grass and paving and of course this is the space the pupils have access to (Chillman, 2004). The difference in quality between the front and rear of the school ground is similar to Hendricks (2001) observations on the differences in quality between the grounds of decision-makers and the school grounds where pupils spend time. This infers that the quality of the grounds will vary between adult and child users; adults and parents seeing the more attractive front of the School and pupils picking up on this message.

Area 2 revealed picnic benches set on a hard play space adjacent to a grassed soft play area and was used by pupils during break times and during fine weather conditions. This was a very basic facility and the bright red waste bin dominated the image. To the west was space identified as habitat on the School plan, planted with evergreen

²⁸ The term 'hidden curriculum' is deconstructed in the next Chapter and re-established as a 'coded mutualism'.



Figure 10 shows the images taken around School 1 with its land-use definitions as used by Cornwall Council.

shrubbery (3 on Figure 10). Image 4 shows a raised bed which contained conifers and evergreen shrubs. It was set in a paved area and the whole space seemed to have been classified by the Council as ‘hard play’ when it was used as a large, wide footpath with a flowerbed. This example highlights the subjectivity of the Cornwall Council Land Surveying Team individual who measured the spaces and the errors of designation that creep in when allocating the land use according to Government based classification as given in Table 6.

Area 5 was an example of Augé’s (2008) ‘non-places’, in this case an outdoor pathway linking two spaces at south of the school. I did not get the chance to observe pupils in this space to see if they lingered under the arch, yet it did appear to be a space where anybody could move from A to B without having to think or be stimulated by the space. Area 6 to the right is a small area and just seemed to function as a fire escape from some classrooms.

The area adjacent to the School seen in Area 7 had been designated as a sports facility on the plan yet there were trees present and no sports pitch line markings. It was too close to the buildings to be a sports area (as there was no fencing to protect windows from balls) and should rather have been seen as a soft play area. As with the other grass soft play area, this one is seasonal, and pupils were not allowed on the grass during winter and wet conditions, because the school authorities have constructed as a temporary, imaginary territory (Thomson, 2005).

Area 8 was designated habitat space on the Council plan when it was only partially designed for that specific use. The ‘habitat’ in an ecological sense was a fenced-off area planted with hazel to divide the border of the School with the School’s neighbours. A clay lined pond was constructed but purposefully sabotaged in order to ease the planning of the new School²⁹ (personal communication Head of Cornwall Strategy Team, October 2010) and so when observed it failed to collect water and appeared as a grassy hole in the ground. There was a small vegetable growing area including a poly-tunnel and wood bordered beds. Very little was being cultivated, probably due to time of year, but the bed was fairly free of weeds and clearly being tended to. Vegetables had been sold in the past by the pupils, who had a sense of achievement from this and raised some money in the process (personal communication with the Head, 08.02.10). The poor quality allocation of areas of school grounds to the Government categories is

²⁹ Ponds are protected and their presence makes development of the land difficult.

again evident here, as footpaths are included in the habitat space. To the north of the School was the caretaker's house and garden which were open to the School grounds and were tended to by Team Maintenance under the School contract.

When considering Erikson's (1985) criteria for society's expectations for school grounds, School 1 may be seen as failing on some accounts. Displays of art work and the vegetable area indicate that some staff utilised the opportunity to use the grounds with their pupils. There was no evidence of other subject use on a permanent basis (for example, narrative pieces woven into landscape by the English department, which there was the potential to do). The sports facilities were used by the wider community.

The grounds did not strike me as an inviting place to 'visit, linger and relax' (Erikson cited in Hendricks 2001:57) nor were they designed to meet differing needs of various age groups and genders. A variety of sensory experiences were available in terms of grassy and paved areas and the view could have been seen before the protective fencing was erected for the new construction. The grounds had the potential be used to support learning and development but there was little evidence of this. The few productive spaces were in a poor state of maintenance. Supervision and surveillance were easily achieved as the pupils were restricted to the south side of the School where it was all open to the sports fields and easily observed from the multitude of windows.

I saw the school grounds as lacking aesthetic consideration in the planting and overall structure of the site. This had the potential to change with the new School design, however the grounds were not completed in the lifetime of the PhD. Although Khan's (1994) interview with Titman highlighted that pupils find hard play surfaces boring, the extent of hard play surface has the potential to increase in the new school design as an external theatre space is planned which will fit into the hard play category (described later). There was a lack of colour which the Head had noted from pupil comments and will hopefully be rectified in the new design (personal communication with the Head, 08.02.10).

5.1.2 Proposed Landscape Design for the New School

The proposed design for the new school's landscapes is presented in Figure 11 and the final design in Figure 12; detailing and mood images in shown in Figures 13 to 16. Cornwall Council was overseeing the project in conjunction with HLM Architects who are based in London with offices in Cardiff and Plymouth. Kier had the building

contract with Cornwall Council to construct the new School. The grounds were managed by 'Team Maintenance' a private company offering basic horticultural services of 'Gang mowing, Pitch marking, Hedge trimming, Grass cutting, Strimming and Clearance' (Team Maintenance, 2010: unpaginated). This has implications for the type and extent of planting placed into the school grounds, as seen in Schools 4 and 5 where 'maintenance-free' planting dominates and forms a major criterion for grounds design.

The initial ideas for the final design (Figure 12) for the landscape came from the pupils who for inspiration, saw images from the Eden Project and another local recently built secondary school in the months before I visited the School. A computer based questionnaire was put to the pupils and staff and key threads were picked out from the responses indicating what was desired in the new grounds (personal communication with the Head, 08.02.10).

Figure 11 shows a draft scheme based on straight lines and a check pattern for the main pedestrian entrance to the north of the School along with an artist's impression. This alternative 'straight' design is in complete contrast to the Fibonacci spiral pattern that the School members had expressed an interest in having at workshops. By the designer including more detail on the spiral design it encourages the School members to choose this option.

The design chosen by the School (Figure 12) has extra labelling and imagery added by the designer, showing where the concept has been composed by the designer. The spirals originate from the school giving the impression that the school is the ground that the tree sprouts from. The spirals themselves give more intimate areas for hanging out and socialising compared to the straight lined avenue shown in Figure 11. The exemplar images offering a curved bench, paving patterns and grass amphitheatres show that the designer may be offering aesthetically pleasing options as to what items, surfaces and spaces may appear in the future. These could however be misleading in that they may not be affordable within the budget available for the outside environment.

Figure 13 shows the Fibonacci styled entrance from a slightly elevated position, with the grass and tree space being bordered by a wall which could double up for seating. A strong blue paved pattern is laid in the general paved space but there is no indication of the material type or how this pattern may be achieved. Broad steps are incorporated into the paving which also be used as seating and random block seats are present.

Figure 14 has detailing for the maths courtyard with images showing the Fibonacci concept and examples of what may appear in the space. Again, curved seats are shown and the blue line in the ground pattern. This time the surfaces are rubber, a recycled material, which can be dyed to any colour and ‘wet’ poured into designated shapes (Wet Pour Surfaces Ltd, 2010). The suggestion of architectural planting gives rise to strong forms and shapes yet tends to be high maintenance in terms of care. None of the images makes reference to what the care and maintenance of this space will be required, post completion.

The ‘habitat’ space shown in Figure 15 is based upon a row of hazel trees already established on the site. The new additions are the footpath and two outside teaching spaces. Imagery states and suggests outdoor learning in an environment constructed of natural materials; gravel and timber. Apart from the image of the house sparrow, the two butterflies and the other bird are not native to this country and would never be seen in Cornwall.

Figure 16 shows examples of amphitheatres both grassed and paved. The key aspect of amphitheatres is that they are oval or semi-circular, yet the one planned is straight and so not really an amphitheatre but as it suggests a possible performance space. The shallow steps are incised by a sloping path, which gives access from top to bottom of the steps.

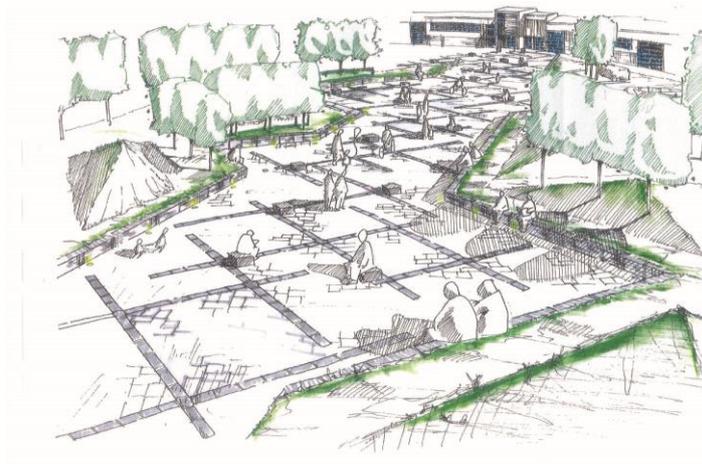
5.1.3 Analysis of Proposed Landscape Design for the New School

The proposed large formal landscaped public front of the School makes a grand statement about the new School. Overall patterns are only seen from the air, yet the spiral patterns create more intimate spaces that the pupils seem to need (research I have conducted at School 4) but looking at the scale these are not small enough for small groups of pupils getting together for chats. Malone and Tranter (2003) note how the ‘greening’ of a school has to be done from the pupils’ perspective not adults, and this includes introducing landscape features at an appropriate scale. The preferred ‘tidiness’ of the landscape (from a design perspective) is also an adult view of the world, whereas children tend to like messy and unplanned spaces (Malone and Tranter, 2003). Therefore, even though the pupils’ ideas and concepts have been included by the designer, the final design (Figure 13) seems to meet adult priorities for easier and cheaper maintenance.

Teaching spaces have been created to provide formal academic experiences for the pupils in the maths garden and habitat space. The informal curriculum is also being catered for by the ‘sensory’ garden and the large amount of seating on offer in the outdoor theatre.



Figure 11 – shows the first draft and an artist’s impression of the front of the school from the previous draft plan.



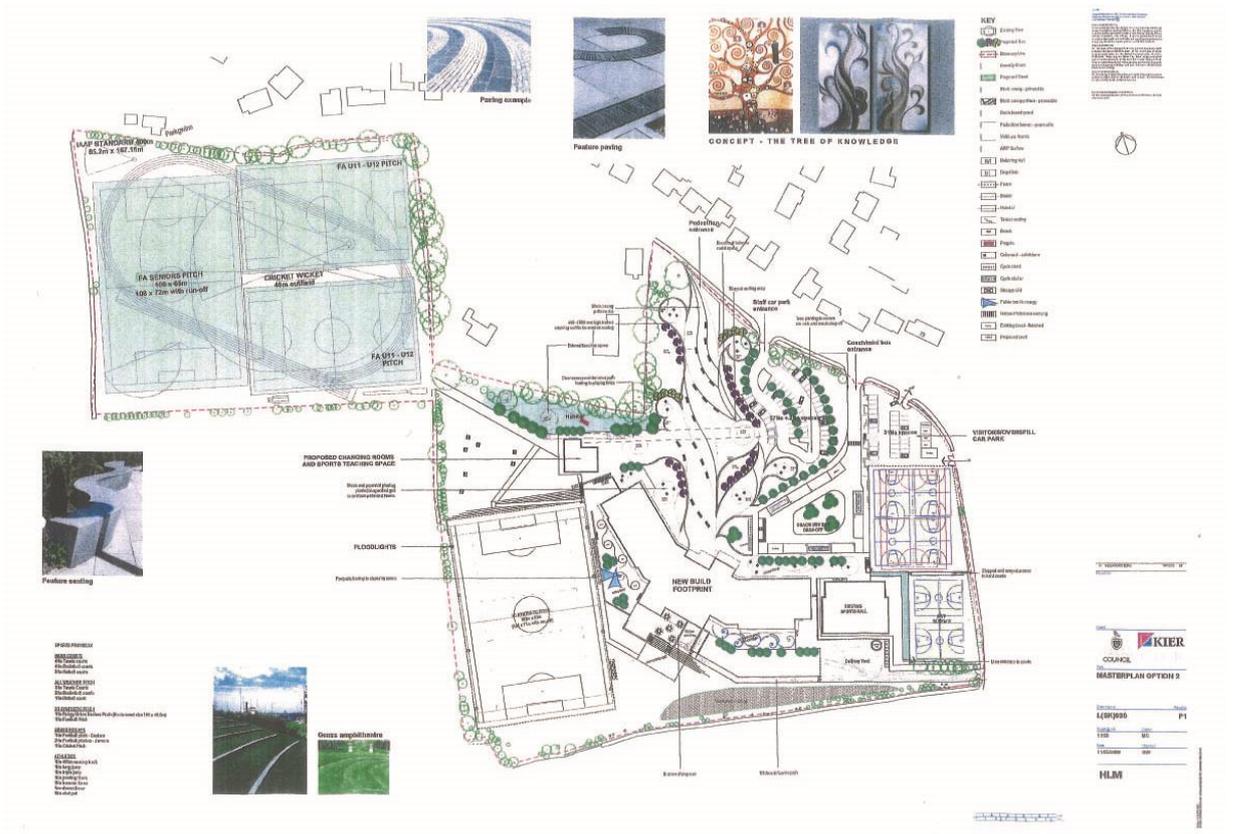


Figure 12 – is the draft plan for School 1’s landscape which was chosen in preference to the previous design.

Figure 13 – is an artist’s impression of the front of the school with the preferred design based upon the ‘Tree of Life’.



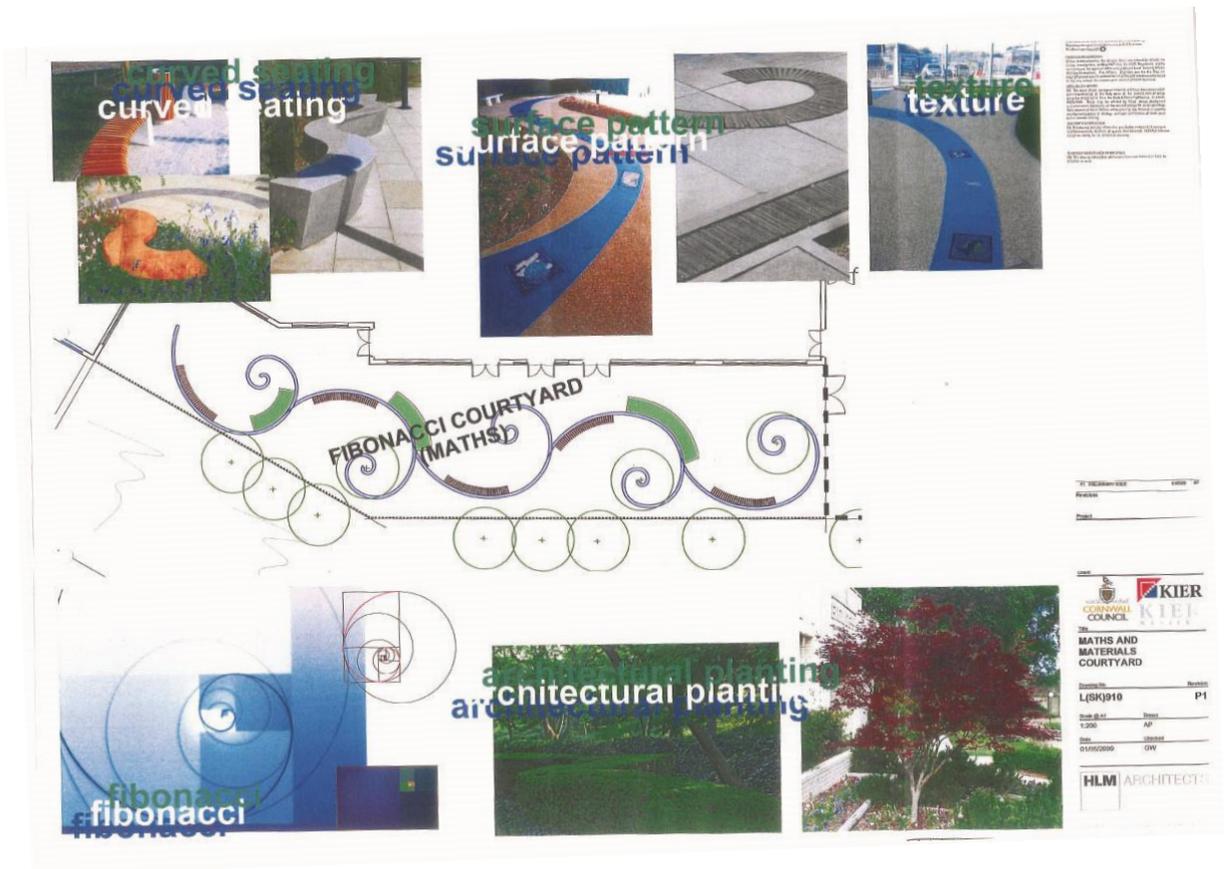


Figure 14 – shows detailing for the Maths Courtyard, which will appear to the south of School 1.

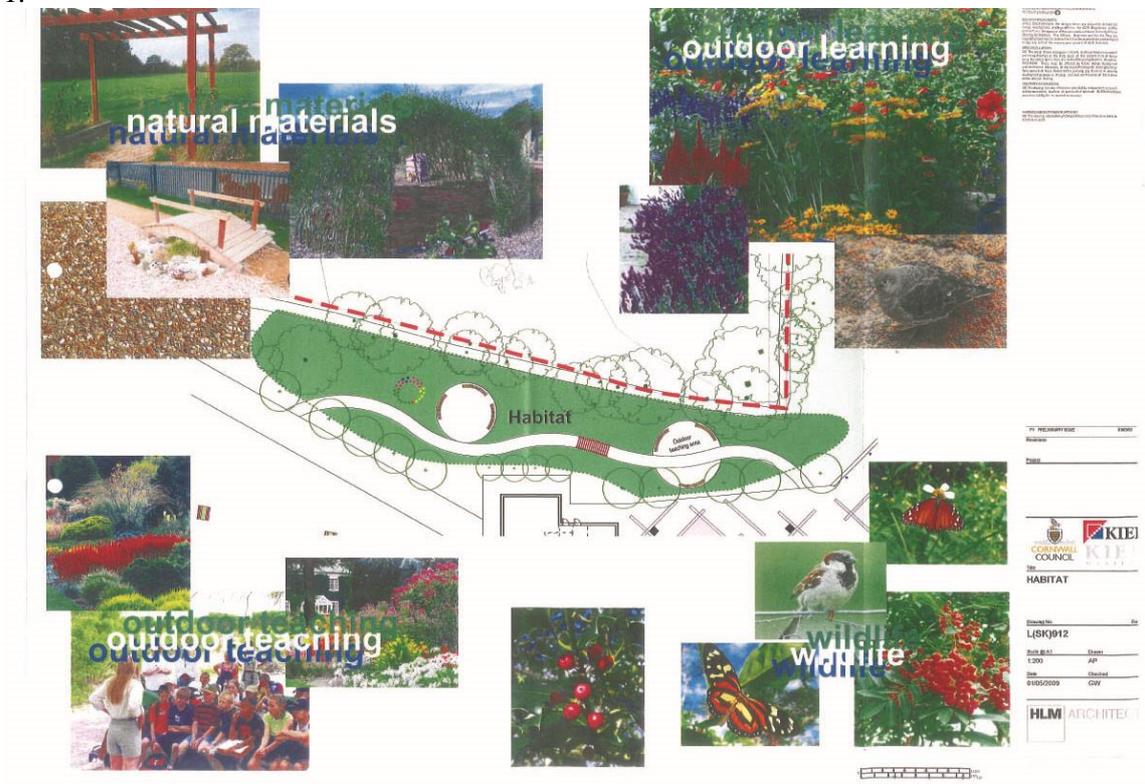


Figure 15 – detailing and mood images for the habitat space that will be placed to the north west of School 1.

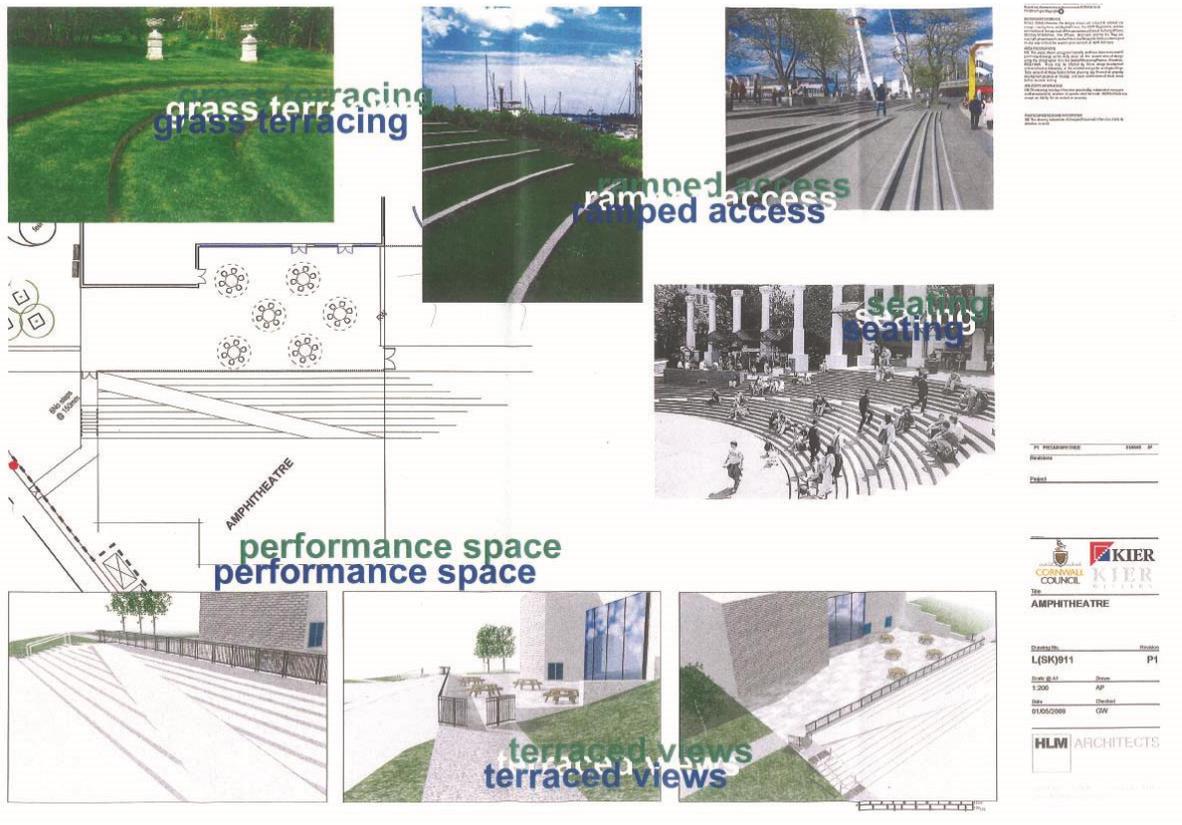


Figure 16 – detailing and mood images for the amphitheatre.

5.2 School 2 General Description – was originally a boys’ grammar school, which when first built was set on the fringe of a market town but now has been encompassed by housing. In 2010 it celebrated its centenary year. In 1984 it amalgamated with the girls’ grammar and a secondary modern. It is now a mixed Community Comprehensive School with a music and maths specialism.

In 2009 there was a student population of approximately 743 making the School smaller than average (Ofsted 2009a). Ofsted (2009a) also stated that the proportion of pupils who were entitled to free school meals, or had learning difficulties and/or disability was above national average. The level of deprivation was shown by the percentage take up of Tax Credit (Table 2) at 67.08% indicating the relatively high level of poverty in the catchment area.

Pupils attend from the town and local rural communities. Opposite the School is a large public recreational space that was sometimes utilised by the School (personal communication with site manager 05.03.2010). Behind School 2 is the imposing development of a tertiary college (to the southeast of the image) that is separated from the School by a public footpath (Figure 17).



Figure 17 shows a Google Earth image (2010), the image date May 11th 2009, of School 2 with the School in the centre and the tertiary college in the bottom left corner.

The combination of the cost for building repair (Table 2) and student achievement had placed this school in the Priority Wave in terms of the BSF Prioritisation (unpublished, Cornwall Council, 2010). The Minister for Education, Michael Gove, halted the BSF funding programme for the majority of schools in England that were due for total or partial building projects under that BSF, this included all schools in Cornwall where the documentation had not been finalised (Richardson, 2010).

5.2.1 Quantitative and Qualitative Description and Analysis of the School Landscape

Cornwall Council breakdown of land-use at the School (Table 8) indicates no deficiencies. Curiously, the steep slopes to the north of the site are identified as soft play surfaces rather than being unusable land, as seen at other Schools' plans (Figure 18) so distorting the amount soft play space. Area 6 of Figure 18 is also marked as being a soft-play area but is planted with a selection of deciduous trees and is more like a habitat space in the ecological sense.

SITE AND ZONE AREAS	Recommended (m ²)	Existing (m ²)	Deficiency (m ²)	Excess (m ²)
Total Sports Pitches (<i>grass plus all weather pitches</i>)	39,750	47,628		7,878
Games Courts (<i>tennis/netball</i>)	2,300	3,498		1,198
Soft Play (<i>soft informal area</i>)	2,925	10,502		7,577
Hard Play (<i>hard informal area</i>)	1,675	2,396		721
Habitat (<i>gardens, trees, wildlife, nature trails</i>)	1,050	6,306		5,256
Banks and unusable land		384		384
Supplementary site area (<i>non-school or support functions</i>)		454		
Float (<i>diff in sum of min net spaces to the recommendation</i>)	5,250	15,047		9,797
Total Net Site Area	52,950	71,168		18,218

Table 8 shows both the Government recommendations for outside school spaces as well as the Cornwall Council measurements; only excesses were noted at this School (unpublished Cornwall Council, 2010).

The site manager accompanied me on a tour of the School grounds on a lovely sunny day in early March 2010. Part way around, we came upon the school gardener. It quickly became apparent that he was a well-qualified individual who had spent part of his horticultural career at the horticultural centre at Probus, which was run by Cornwall Council in the past.³⁰ The following 'Areas' described are in reference to Figure 18.

Area 1 shows the original Victorian granite building at the public front of the School. The lawn area was originally a grass tennis court. Now it had the unofficial designation of a 'memorial' garden, where cherry trees had been planted on an *ad hoc* basis. The

³⁰ Probus Experimental Gardens were created by the County Council in 1969, as a demonstration garden. It had displays of annuals, herbaceous plants, shrubs, tree, conifers and hedges. The aim was to help gardeners learn how to manage their property. The gardens closed in 2004 and await development (The Garden and Landscape Guide, 2008).

ex-tennis court took the form of a sunken garden with walls to the west and north sides and hedging to the east and south of the site. The nearest School access was via small flight of steps in the northwest corner; this had been timbered and nailed secure. Access was now only available through a gateway opposite, furthest away from the School buildings; pupils' access was denied unless accompanied by a teacher for an academic session. There was no pupil access during break or lunch times (personal communication with site manager 05.03.10). It was a well-kept pleasant area to reside and had the potential to be a worthy place for quality restorative periods for pupils and staff.

Area 2 was a transit space linking car parking and buildings as well as being an outdoor corridor between buildings. Unlike the thoroughfare spaces of other Schools (School 3 in particular) these could not be considered as Augé's (2008) 'non-place'. Instead these were pleasant places to pass through; shrub lined with raised grassed lawn areas. The site manager shared anecdotal evidence that a raised wall dividing car parking and the footpath with a view of the shrubbery was a popular place for older pupils in particular to sit and hang out during lunch and break-times.

Area 3 was a mixture of shrub and ornamental trees (*Cordyline australis* and *Eucalyptus gunnii*), which was in front of the covered performance area doubling up as an eating space. The area was sloping and tarmac paths criss-crossed the space. An eroded grass area by a door showed that the carrying capacity of that particular area has clearly been exceeded and new desire lines were created. This was where we caught up with the gardener who was dividing *Phormium* and replanting a slope under some large fir trees that appeared to need stabilising. The covered space that was Area 4 had greenery to look out upon and had the potential for a restorative view. The space itself appeared a little austere, dark and draughty. Picnic benches were in abundance for pupil use. The site manager revealed that younger pupils tended to frequent this space at lunchtime, it being more enclosed and closer to lunch time supervision. In other words the younger pupils felt safer. Akin to Area 3, Area 5 had the combination of vehicular access to buildings, grassed and shrubbery spaces. All was clean and well kept. One side of the drive had a wide space and this had a pleasant separate garden space.

Continuing around the school we came to Area 6; a truly beautiful space even before the leaves had emerged on the trees. The trees were a mixture of both ornamental and fruit with well-kept grass carpeting. Pupils had access to this space. The isolated building in

Area 6 is a unit for pupils who are nearly at the point of becoming excluded. It was recognised by the School that this is a quiet environment and offered the potential green landscape to calm the children so that they could return to their peers in the near future. It was envisaged that somewhere in this area the school would develop productive spaces in which to extend the curricula on offer to the pupils to include a horticultural element (personal communication with both site-manager 05.03.10 and head of school 30.04.10).

Area 7 is a grass strip between a footpath and sports area. It was trampled, indicating that it was being compacted and eroded by pupil use. The footpath led to a public footpath that borders the school to the west and leads to a tertiary college beyond. Concern was expressed by the site manager as to the form the boundary would take in the future and that fencing and planting combinations were being considered so college students would not have access to the School site. The path itself does not seem to be wide enough for the foot traffic that it receives. Area 8 was a tarmaced access point for the school buildings. It was a purely functional space with a bin for rubbish and an attempt at a shrub border under the windows. Moving round to the north side of the school, Augé's (2008) non-places become more in evidence, with tarmac paths and a grass bank being present. It was a characterless space but one that had the potential as a vantage point allowing pupils observe football games on the adjacent hard surface tennis courts during fine weather.

This made me consider whether Augé's theory as to whether it may be adapted in a temporal sense in that between lessons the space acts as a non-place and the pupils and staff walk through the space purely to get from A to B. Yet at break times the space took on a new role and became a sunbathing area and viewing platform. Area 10 was just around the corner from Area 9 and was very similar in outlook and appearance.

Area 11 was a peculiar area in that it was wall-to-wall tarmac with a circular island planted with *Phormium*; there was no seating. Finally back around to the public front of school revealed an interesting array of mature trees and shrub borders that masked the railings that border the school. This showed that fencing could be incorporated for safety of pupils that it did not have to be overly tall and that vegetation could camouflage the fence, rendering it invisible to view.



Figure 18, shows a land-use plan of School 2 and the placement of images taken on site.

5.3 School 3 General Description - Ofsted (2008b) noted that it was a larger than average School with over 1600 pupils (and was Cornwall’s largest populated school as of January 2009 (Capital Strategy Team member, working dataset, unpublished, Cornwall Council, 2010). School 3 had ‘technology’ status, was a mixed community comprehensive and became an Academy April in 2011 (Table 2). Of the selection of schools in the thesis it was the only one to have a sixth form with circa 240 members (Ofsted 2008b).

The original School from 1954 had additions made in 1969 with a new drama centre as its most recent asset seen in Figures 19 and 20 as the hexagonal building. The School is sited on an elevated, exposed periphery of one of Cornwall’s seaside resorts and so is affected by regular salt laden winds through the year which affect plant growth and limit planting to suitable species. Its catchment is both urban and rural with pupils commuting in from surrounding villages. A minor road (which is a popular short cut and main access for the municipal waste site) splits the main site from the majority of its playing fields (Figure 19). The Google Earth image clearly shows the flat roofed School and its many courtyard spaces that are both hard play and soft play areas (Figure 20).



Figure 19 shows a Google Earth image (2010), the image date May 11th 2009, of School 3. The School is sandwiched between its playing fields to the west and a road and playing fields to the east. The dominance of greenness and trees at the eastern front of both lower and upper sections of the School is apparent.

The whole School is unusual in that it is divided into lower (years 7 and 8) and upper sections (years 9 to 13). The lower School has a separate outdoor space as does year 9, which is discussed shortly. For this reason and because the School had taken part in the ‘Joinedupdesign’ project run by the Sorrell Foundation, I selected the school for inclusion in the research.

It had for me that classic secondary school feel; wooden block floors, leaking roofs and hoards of quite intimidating children streaming into corridors when the bell rung (deafening) for end of lessons. The Deputy Head had been in post in this School for many years and let me go around the school unaccompanied to take pictures, noting that I had a visitor's badge and would be visible on CCTV. This showed that the Deputy Head was very knowledgeable about the role of surveillance and this was being further applied to potential territories occupied by and activities undertaken by pupils of varying age and gender. For example in one instance, one sixth form boy held onto the chain link fence whilst others kicked a football at him as hard as possible. Girls watched the somewhat odd display of male ability in a courtship ritual. The lower School pupils, the Deputy Head observed, still liked to play games and run around as they did in primary school. The main priority of the School was to reduce bullying; hence the division of the School grounds into arbitrary spaces for the different years and the reduction of potential stress of pupils by giving broad territories and making the areas safer for the pupils, applying the notions of Bell *et al* (2001) and Taylor (1998).

Table 9 displays the School external zone areas and reveals a small shortage of soft play space. In reality the amount of soft play space that pupils have access to is much smaller than the measurement given as it includes all of the grass areas at the front of the school (Figure 20), to which as I mentioned earlier, the pupils do not have access. Therefore the deficiency should be even greater.

5.3.1 Quantitative and Qualitative Description and Analysis of the School Landscape

Information about the school grounds was collected when I visited the school on 8th February 2010. I had a brief meeting with the Deputy Head and I had a conversation with a site maintenance person who discussed some of the courtyard areas around the school (spaces 1 and 7). The following descriptions are in reference to Figure 20.

Space 1 is a courtyard area, referred to as 'Tenko' by the staff (site maintenance team member 22.2.10). The reference to the BBC1/Australian Broadcasting Corporation drama of the early 1980s, which was set in a women's Japanese WWII internment camp has, to the staff, amusing undertones. The thatched open construction, which serves as a covered space for either classes or eating, was designed and constructed by a member of School staff, who was trying to meet a recognised need in the school. Access is

restricted to particular times of year and day, yet was noted on the plan as a ‘hard play’ area implying that the space is available all of the time.

SITE AND ZONE AREAS	Recommended (m²)	Existing (m²)	Deficiency (m²)	Excess (m²)
Net Site Area: Playing Fields				
Total Sports Pitches (<i>grass plus all weather pitches</i>)	67,750	88,086		18,336
Games Courts (<i>tennis/netball</i>)	3,900	4,910		1,010
Soft Play (<i>soft informal area</i>)	4,925	4,713	212	
Hard Play (<i>hard informal area</i>)	2,875	4,182		1,307
Habitat (<i>gardens, trees, wildlife, nature trails</i>)	1,850	6,154		4,304
Banks and unusable land		1,788		1,788
Supplementary site area (<i>non- school or support functions</i>)				
Float (<i>diff in sum of min net spaces to the recommendation</i>)	9,250	18,390		9,140
Total Net Site Area	90,550	107,833		17,283

Table 9 shows the external zone areas for School 3 as defined by the Government and measured by Cornwall Council (unpublished, Cornwall Council, 2010).

Planting is a nondescript mixture of shrubs, which as with all the other planting in the School is not well tended. Some colourful and pretty mosaics completed by the pupils are on a slope facing a corridor.

Space 2 is a courtyard area with a theme of ‘energy’. It contained a shed for storage and various forms of small scale renewable energy systems; windmill and solar photovoltaic cells. The area was quite overgrown and unkempt. The colour grey dominated, yet the space had the potential to be a beautiful space with colour, texture and smell. It is recorded officially as a hard play area, yet pupils were only allowed in this area during a few science classes.

Space 3 is an area between buildings. It is officially designated as a footpath and links the Year 7 and 8 break-time space with the sports’ fields. This I thought as being one of Augé’s (2008) ‘non-places’, it was purely functional in that it allowed pupils to move from one space to another with minimal fuss. There was no augmentation to the space in terms of making it look aesthetically pleasing. The opening of the grey chain link

gates to 'free' the pupils when appropriate did give the impression that the pupils were caged in.

Space 4 is the Year 7 and 8 break-time space. It is a tarmac, enclosed area with sport based line-markings. There were a few benches and bins and a basketball mural on one wall. It was a space dominated by boys playing football and other pupils were squeezed around the periphery being a perfect example of the gendering of the playground Catling (2005), where boys playing expansive, highly mobile games dominated the centre whereas the girls engaged in quieter, more static activities were on the periphery.

To the side of Space 4 is Space 5 which is recorded on Figure 20 as a soft play space, though it is actually a combination of worn grass and paving with picnic benches. The space acted as a corridor between the main building and Space 4 and got very crowded at break-times (the condition of the grass indicated this). There were rendered block-work walls which did not provide an inspired or an aesthetically restful environment for pupils to spend time.

Space 6 shows a tarmac sports facility which doubles up as a break-time space, again dominated by ball-games. The other images show the public entrance to the front of the Year 7 and 8 section of the School. It has a tree-lined avenue under planted with *Phormium* and *Griselinia littoralis*, which are common to Cornwall (personal observation). Pupils are not allowed in this area, other than arriving and departing from the school. The large expanses of grass to the east of the school, between the school and the road are designated as soft play areas but again the pupils are not allowed on these areas and they are fenced off.

The images of the canopied area show the space designated for Year 9, which the school deemed necessary to have their own space. It is a partially enclosed courtyard area designed with the 'Joinedupthinking' Programme discussed in detail later.

Area 7 is a large courtyard space that had been adapted by staff over the years as a teaching resource, particularly by the science department and gardening/environment club. The area contains ponds (with many ducks), willow structures and a large domed greenhouse akin to the Eden Project concept. When seen in February the garden and dome looked neglected. Again this has been designated as a soft play space yet pupils only have restricted supervised access to this area.



Figure 20 Shows the land use categories for School 3 and associated images.

The pupils seem not to have access to any soft play space in winter and it is the school playing fields which act as a summer resource for break-times.

The only enclosed courtyard marked as a hard play area is sited behind the main School reception whose administration staff regularly made the most of the garden during fine weather (personal communication with receptionist, 22.02.2010). Pupils are not allowed access at all and doors were unlocked to let me pass through. The garden is dominated by hard paving and a rectangular pond with stepping stones which attracted wild ducks. The plants were ill kept, in need of some pruning and tidying. This task of tidying up is important as dead vegetation can harbour pests and diseases. The garden had both well-weathered benches and pieces of sculpture set into the sides of the stepped terrace. The sculptures were a permanent feature and looked as if they were placed in the courtyard when the school was built. It was revealed, by the receptionist, as being used for functions only.

In Area 8, a double row of paving and narrow strip of grass on either side is clearly an outdoor corridor enabling access from classrooms to the sports pitches, yet is categorised as habitat space by the County Surveyor on Figure 20. In my view, if the soft-play and habitat spaces had been correctly identified by the County Surveyor they would both be in deficit.

In summary, Erikson's (1985:47, cited in Hendricks 2001:57) '*lingering and relaxing*' space is only applicable to the courtyard behind the main reception, to which only adults have access. The grounds are poorly maintained with the front of the School off-limits to pupils and areas where pupils do spend time showing considerable wear and tear. The County designation of the outside zones also appears erroneous giving a misleading account of the reality of the amount of space pupils have to use. These observations would only be apparent through the school biography process and would otherwise be missed.

5.3.2 John and Francis Sorrell Foundation Design of Year 9 Space

School 3 took part in a John and Francis Sorrell Foundation national 'Joinedupdesignforschools' event (one of six schools in Cornwall that did so, both primary and secondary, and sixty three nationally). Notable designers were teamed up with particular schools to resolve a specific issue that could be improved by pupil participation in the design process. The pupils created the brief; in this case the

improvement of the Year 9 outdoor break-time spaces. The pupils acted as clients and were consulted with over two school terms (Sorrell and Sorrell 2005).

In the case of School 3, ‘the client team wanted to revitalise the school entrance and create a sheltered outdoor area by utilizing ‘dead space’’ (Sorrell and Sorrell 2005:180). The pupils involved were treated to a trip to London by the designer team and also considered ‘Cornwall’s sun-and-surf youth culture’ as a source of inspiration (Sorrell and Sorrell 2005:133). The designer Marks Barfield,³¹ in response to the brief, came up with the ‘concept of a Hollywood-style palm-tree walk, with a dome-structured canopy that provides sheltered space to socialise, exhibit work and present plays and concerts’ (Sorrell and Sorrell 2005:180). The pupil team comprised of thirteen Year 9 pupils chosen from a high ability group. When looking at their brief in more detail, the pupils also wanted ‘cosy seating’ arranged in a circle so they could chat with mates with the option of privacy to do their own thing if wished. They also wanted ‘colour and ornaments’, perhaps some ‘patterned stonework’ (Sorrell and Sorrell 2005:133).

The design images shown in Figures 21, 22 and 23, offered by Marks Barfield, show a canopied space linked to the main entrance area. The space had the potential to be iconic akin to his design company’s previous works, yet no seating was included and little colour seen. The floor surface was given as green but no labelling gave an indication of actual surface to be used. Planting was all foliage based (palms of varying sorts) and did not offer any seasonal colour. Therefore, the design did not meet the brief.

Figure 23 shows what Year 9 actually got for their space. What had been a covered paved pathway with shrub beds to either side became completely tarmac and quite shaded by the domes. Seating was made up of picnic benches which may have already been there and there was not a plant in sight. The domes proved to be so expensive for the School that there were no palms planted or new Hollywood-style entrance built.

³¹ Marks Barfield Architects are noted for their iconic designs in London such as the London Eye yet appeared to be an odd choice for the space given the past works of the company.



Figures 21, 22 and 23, show Marks Barfield's drawings (Sorrell and Sorrell 2005:132) and what was constructed in reality. In the sketches there is no annotation so the viewer is left to decide the green surface and the construction materials of the canopies. The photograph shows that there is not the open boundary to this space that is suggested by the design. Instead the blue spiked fencing is in clear view.

One side of the space that was open to the entrance drive now has 2.25 metre spiked fencing, painted blue (so as to not blend in) to make the site secure from vandalism. The Deputy Head informed me that money ran out to complete the design to the original remit and conceded that it was not quite what the school had envisaged.

This School biography provides an example of where there has been a legacy of marginalisation and neglect of the outdoor capital. The School has recognised that there is a problem and tried to utilise a charitable opportunity to in part improve a small element of their School grounds but this has failed. A clever idea has not quite lived up to School expectations for the space and because the project ran over budget.

5.4 School 4 General Description- with 980 pupils (11-16 years) School 4 was recognised as an ‘average’ sized secondary school by Ofsted with an ‘average’ number of children eligible for free school meals Ofsted (2009b). Over a quarter of the pupils had learning difficulties and/or disabilities, which was well above national averages (Ofsted 2009b). Ofsted also noted that the intake of students was of a below ‘average’ academic ability, yet the trend was of an increasing amount of able students applying to the School. Its main specialism was sport (since 1998) and applied learning (since 2006); a number of accreditations have been awarded in these curriculum areas. The last Ofsted inspection identified the school ‘Outstanding’. It became an ‘academy’ in July 2011.

This school is a ‘new’ School built in 2008 from £22 million Pathfinder money and an additional £2 million specialist sports funding (Cornwall Council, 2009a). The School was part of the initial Pathfinder/BSF Government programme of rebuilding/refurbishing secondary schools (Cornwall Council, 2010a). There is no inclusion of an overhead image as Google Earth for this area is dated back to 2006, before the new school was built and has not been updated at the time of finishing this thesis.

Cornwall County Council Planning (Development Control) Committee (2007: ‘Background’ 3) summed up the proposed design as being exemplary; ‘embracing the concept of an ‘extended school’, i.e. the provision of community and learning opportunities on site from 0800 until 2200 hours for all’. The Committee also noted when looking at the ‘Design Ethos’ points 5 and 7 quoted below as

in terms of design the applicants’ aim is to achieve an excellent BREEAM rating (i.e. the environmental performance of a new building). This is regarded in the construction industry as a reliable measure of best practice in environmental design and management. Educational projects over £2 million now have to meet at least a ‘very good’ BREEAM rating. ... The materials proposed reflect a sustainable approach to the design and generally have “A” rating classification using the Green Guide to Specification’ Cornwall County Council Planning (Development Control) Committee (2007: ‘Background’ 3).

The new building was designed through substantial consultation with staff, pupils and the wider community as a whole. The underpinning design was based around a pedestrian ‘street’ that links the main entrance with the various school department areas (Cornwall Council, 2009a). The ‘Design Brief’ states that ‘the new [School name] will be based in a modern building with an exciting design that will provide students, staff

and the local community with a healthy, challenging, inspirational and transformational learning environment' (Mason, 2006:3).

Table 10 shows the division of land-use for School 4. Compared to the Schools in this study there are no deficits nor are there any 'banks and unusable land', which considering the numerable steep slopes around the School is surprising. The County Ecologist, working with the School, had ensured that these 'bank' spaces had a wildlife focus therefore the majority of banks are officially recorded as habitat spaces. Hedgerows and trees had been planted to provide wildlife corridors (particularly bats) between some mature stands of trees (School Governor, private communication, 22.10.2009). One steep bank area to the northwest of the School buildings is officially shown as a soft play area. The County Surveyor does not seem to have been consistent in the allocation of zone definitions within this School or between Schools in this study.

SITE AND ZONE AREAS	Recommended (m²)	Existing (m²)	Deficiency (m²)	Excess (m²)
Net Site Area: Playing Fields				
Total Sports Pitches (<i>grass plus all weather pitches</i>)	50,250	56,208		5,958
Games Courts (<i>tennis/netball</i>)	2,900	3,244		344
Soft Play (<i>soft informal area</i>)	3,675	8,806		5,131
Hard Play (<i>hard informal area</i>)	2,125	3,085		960
Habitat (<i>gardens, trees, wildlife, nature trails</i>)	1,350	14,690		13,340
Banks and unusable land				
Supplementary site area (<i>non school or support functions</i>)		1,418		
Float (<i>diff in sum of min net spaces to the recommendation</i>)	6,750	7,849		1,099
Total Net Site Area	67,050	87,451		20,401

Table 10 shows School 4's grounds divisions as recommended by the Government and measured by Cornwall Council (unpublished, Cornwall Council, 2010).

5.4.1 Quantitative and Qualitative Description and Analysis of the School Landscape

The redevelopment of the site allowed for an increase in pupil numbers of approximately 180 (Cornwall Council, 2009a). A school governor (who had also been the Cornwall Council Project Manager for this development) accompanied me on the tour of the school on a sunny day in October 2009, when the images shown in Figure 24 were taken. Discussing the school on the tour, he elaborated on the excess of building capacity being available for applied subjects and business based specialisms for Years

12 and 13 in the future. On further visits to the School I walked the grounds at lunchtime and found the site to be spacious with regard to student need; the quality of spaces will be discussed below as part of the description for the grounds.

Referring to Figure 25, Area 1 and the corresponding images is situated to the southwest of the School. It is an exposed area, elevated, with little protection from the predominant south-westerly winds and rain that Cornwall suffers through the year. It was dominated on the ground by a red brick surface, which is a surprising choice of building material in Cornwall as there has not been a history of brick use in the County so it sits a little incongruously in the landscape. There was horseshoe shaped seating, picnic benches, black bins, a very tall pergola structure and two large umbrellas. The pergola had no plants or roofing so appeared to be stark, offering no shelter. A similar situation occurred with the umbrellas, as their size would offer little protection from the wind and rain. Their shadow would provide a space out of the sun yet there was no seating below their structures.

Area 2 is dominated by hard surfaces; tarmac, decking and red brick. The space was designed as a viewing platform to the various sports fields beyond. On the many occasions I visited the School these spaces were being little used. Where there were pupils they were in groups, typically of boys, and they were trying to find a small space out of the wind, either sitting on the ground or placing their bags on the seating and creating a diamond formation; one standing on the seat or wall, maybe two sitting on the seat and one sitting on the floor. As Figure 24 shows in more detail, Area 3 was based upon a Fibonacci spiral. This design was borne out of the process led by the architects who guided the School members and the wider community when the new school was being considered. The spirals look beautiful on paper, yet when constructed the spiral pattern is not seen when standing in its midst and the scale renders the space large and uncomfortable to dwell in. These open areas are not that appealing to the pupils (evidenced by both the lack of use by the pupils and anecdotal evidence by science teacher). Therefore, the pupils did not fully appreciate what the design in planning would look like when completed. The most popular spaces were the sports facilities to the east of the School where hundreds of boys played football.

Area 4 shows the expanse of sport facilities that double up as a water runoff drainage system from the main building. There is also a climbing wall fenced in to restrict access and which cannot be used without supervision. Adjacent to this is Area 5 which is the

‘ecology’ garden. The greatest proportion of this is fenced in by green mesh fencing. The space contains a pond which was repaired by the School ‘eco’ team and then filled with water by the fire service summer 2010, a small copse, other trees and a representation of grassland (Figures 24 and 26). Figures 24 and 26 are derived from an ‘Ecology Management Plan’ drawn up by a School 4 parent governor who is a trained ecologist and Carol, who as a former garden design student, was employed by School 4 to manage the ‘farm’ space (Area 8 on Figure 25) and other productive spaces around School 4’s grounds. The Ecology Management Plan was a comprehensive document which listed and evaluated species currently found in the space and made recommendations for future management, including incorporating a piece of sloping ground that might be seeded/planted as grassland.

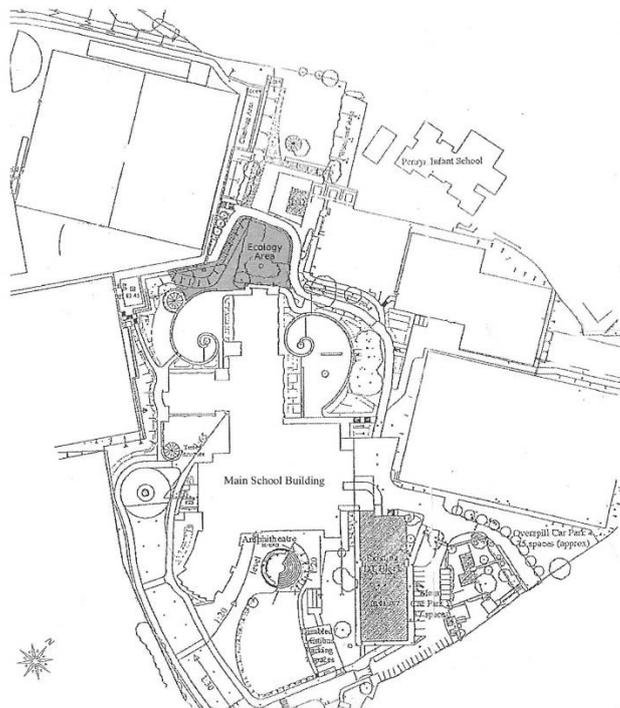


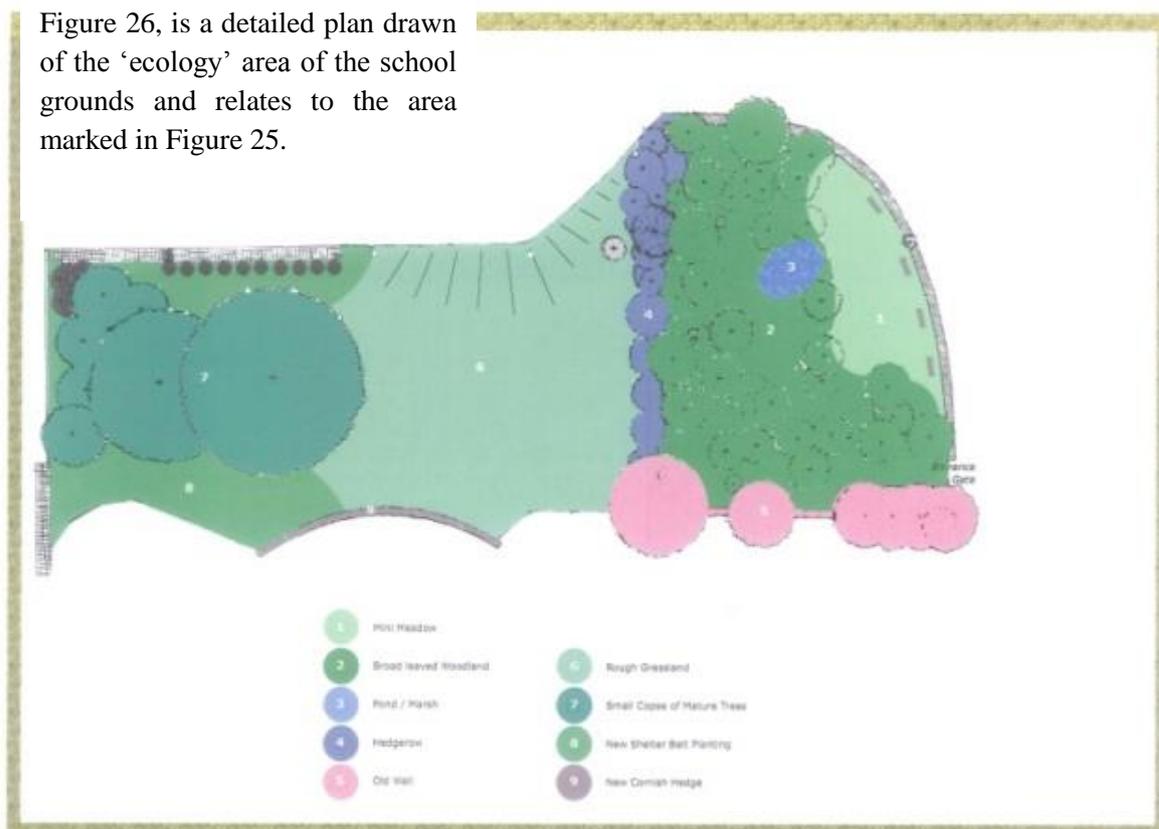
Figure 24, showing a more detailed plan of the school grounds adjacent to the School building. The spirals are in clear evidence whereas they are absent from the Cornwall Council plan shown in Figure 26.



Figure 25 shows a land-use plan of School 4, with zone categories used in Table 4 and the images taken on site.

Area 6 was a tarmac space with a stone, Cornish-style hedgerow Fibonacci spiral shaped and overplanted with a variety of traditional Cornish wild flower species. It was shaded by the main School building and appeared to be a transitory piece of ground that pupils passed through on the way to the astro-turf to play football. It was overlooked by Area 7 which was a lawn bordered by an old Cornish hedgerow and contained a few mature oaks and holly trees. This space proved to be a popular place to sit for small groups of girls in particular.

Figure 26, is a detailed plan drawn of the 'ecology' area of the school grounds and relates to the area marked in Figure 25.



School 4 wanted a 'memory' garden; a space in which to celebrate both the loss of School members in the past and positive School achievements. Carol and I were asked to submit a design idea for Area 7. This process and what it reveals about the politics of design is discussed in greater detail in the 'Spatialities of Children' Chapter.

Area 8 is the School farm. It is an extensive peripheral site which had a range of resources such as a fenced-in pond, two poly-tunnels, a shed, raised beds, a key hole garden, compost bins, willow spiral, native hedging, a young orchard planted with traditional Cornish fruit trees, and a small grass-based outdoor classroom. There were plans to develop this further in order to offer basic level horticultural qualifications to pupils and members of the public. More detail of these developments and how the

plans failed to get funded support is offered in the next Chapter. It is an exposed site that was gradually being metamorphosed into a both an asset to the School and a carefully considered inter-active teaching space. This is an example of where the outdoors can be utilised as an effective teaching space.

Area 9 is a grassed patch to the front of the design and technology wing of the School building. It had been augmented with a series of raised beds and gravel footpath, financed by a Creative Partnerships³² £40K grant to create a teaching resource for the design and technology curricula. The beds contained a range of edible plants, along with medicinal plants and plants used for fabrics including the creation of dyes. The raised beds enabled disabled access and participation. Maintenance was under the remit of Carol along with the voluntary after-School ‘Eco Team’ of pupils.

Area 10 is a large outside amphitheatre constructed from the granite stone utilised in part from the original School building. It had been designated as a soft play area by Cornwall Council Principal Land Surveyor as the seating had grass growing through. Pupils had access to the amphitheatre during lunch and it proved to be popular with older year groups.

Overall the School appeared clean and tidy. The majority of pupils remained indoors during lunch as the central ‘shopping-mall’ type space was an ideal area to socialise with a good array of seating (still not adequate in quantity for the whole school so some teachers allowed their form groups into the classroom to eat their packed lunch). Very few girls were seen outside. A variety of environments were created and designed in conjunction with the pupils yet these do not seem to have met some of the pupils’ needs for small intimate spaces in which to socialise (personal communication, John³³, 16.03.2010). This School was one of one of my two focus Schools and so will be discussed again in more detail in the next two chapters.

³² Jones and Thomson (2008) comment upon the ‘Creative Partnerships’ programme which sought ‘to promote enjoyment, innovation and creativity in education’ in areas where educational standards were at risk of not being met (Jones and Thomson 2008: 715). The Creative Partnerships ran between 2002 to 30th September 2011 when funding was withdrawn from the Arts Council (Creative Partnerships, 2012). It was meant to ‘transform both classroom learning and whole school cultures through the joint activity of teacher and creative practitioners’ (such as artists, scientists, musicians) (Jones and Thomson 2008: 715). The Creative Partnerships programme aimed to develop young people’s creativity by raising their aspirations and achievements, improve teachers’ skills, evaluate the school approach to culture and creativity and improve the sustainability of the creative partner employed.

³³ John is the name that I gave the science teacher who was my liaison at School 4.

5.5 School 5 General Description - is a specialist technology School, described by Ofsted (2007b) as being a larger than average, mixed, School for 11-16 year olds with circa 1260 pupils. It was rebuilt and relocated in August 2007 to a new edge-of-town, exposed location open to the prevailing south-westerly wind, which then caused problems to the operation of the school doors (personal communication, Senior Assistant to the Head, 23.02.10). The £26 million School was designed and constructed by the Private Finance Initiative (PFI) provider and is maintained by them on a 25 year lease from Cornwall Council (PFI provider, 2011). It is expected that the School (Figure 27) is handed back, after 25 years, to Cornwall Council in the same condition that it was when newly constructed in 2007. The PFI provider profits from maintaining³⁴ the School at less cost than if the School was maintained by the Council.

When I stood waiting at reception I overheard a PE member of staff complain that the battery in a fire alarm was beeping in the changing rooms and that it still (after many requests for it to be changed) needed renewing. From speaking to other people who are involved with PFI schools, for example a Parent Governor at a partner Primary School (personal communication 11.09.11), the very slow and onerous procedure for small, routine maintenance procedures is the main problem of the PFI.



Figure 27 shows a Google Earth image (2010), the image date May 11th 2009, of School 3. It shows the new School's roof as the white angular U shape as well as the outside space dominated by roads and car-parking at the south-west of the building

From the onset the School has experienced a series of design problems from both vortexes and strengthening of wind on the leeward side of the school so that doors

³⁴ School maintenance includes the provision of catering, cleaning and decorating services, energy costs, grounds and capital maintenance as well as the procurement of sundry items used in School.

would not remain closed. Further, extreme loss of heat occurred through the high ceilings in the main thoroughfare of the School. The PFI Company specialises in the building and management of prisons and detention centres and employed their in-house architect to design the School. When the PFI CEO came to open the School he winced when he saw the building and commented on it being akin to a prison (PFI representative, personal communication, 19.03.2010).

This School features a range of design and maintenance problems that have characterised PFI schools from their introduction and have implications for the grounds. The Commission for Architecture and the Built Environment 'CABE' (2006) assessed the design quality of schools built under the Pathfinder, BSF and Wave One schemes, looking at 52 of the 124 completed schools by 2005. It utilised the Design Quality Indicator (DQI) scores that had been generated at the completed stage of the new school building process. CABE found that half of the schools constructed in the 5 year period were assessed as mediocre or poor by the DQI. Of these schools all were PFIs except for one. CABE (2006) makes the point that very often cost took priority over transformative design. There may be an indication of this with School 5 where there has been no evidence of the ethos of transformative design used during the consultation process with the PFI Provider.

Table 11 indicates that there is a surplus of land for the key areas measured and that there were no steep banks or other unusable land. Yet, as with other Schools discussed, the students only have access to the core exercise space (Area 5, Figure 30) and adjacent sports focused tarmac space and MUGA. There is a large area identified as soft play detailed in Table 8 but in reality most is not accessible to pupils during the school day.

5.5.1 Quantitative and Qualitative Description and Analysis of the School Landscape

The images as seen on Figure 30 were not helped by the weather conditions. Even on a sunny day 'grey' would have been a prevailing colour of the School because of the frequency of tarmac as a ground material. Area 1 was the front of the School and, as already discussed, had been designed with the car and bus as a priority. Pedestrians struggled to reach the front entrance (site manager, personal communication, 19.03.2010), with no obvious choice of doorway to enter by. Despite the way car parking dominated the design of outside, there was rarely adequate parking when I visited.

SITE AND ZONE AREAS	Recommended (m²)	Existing (m²)	Deficiency (m²)	Excess (m²)
Net Site Area: Playing Fields				
Total Sports Pitches (<i>grass plus all weather pitches</i>)	57,250	59,387		2,137
Games Courts (<i>tennis/netball</i>)	3,300	3,460		160
Soft Play (<i>soft informal area</i>)	4,175	6,292		2,117
Hard Play (<i>hard informal area</i>)	2,425	2,548		123
Habitat (<i>gardens, trees, wildlife, nature trails</i>)	1,550	28,901		27,351
Banks and unusable land				
Supplementary site area (<i>non- school or support functions</i>)				
Float (<i>diff in sum of min net spaces to the recommendation</i>)	7,750	25,485		17,735
Total Net Site Area	76,450	100,588		24,138

Table 11 shows the Government recommended size of external zone areas and the measurements made by Cornwall Council (unpublished, Cornwall Council, 2010).

The exposed islands of grass featured isolated native trees, which appeared to be either dead or in poor health. To the south of Area 1, by the School gated entrance, there was even an example of a mulched dead tree (Figure 28). The School grounds are under the same terms of transfer as the buildings from the PFI to the Council after 25 years; trees and shrubs need to be replaced if dead. I observed numerable dead shrubs and shrubs suffering from being constrained by their rabbit protectors, which I pointed out to the site manager when I visited the site. He was surprised and had not noticed the condition of the plants. This does suggest that the external grounds maintenance staff deployed in schools did not have suitable horticultural training to maintain the grounds in an effective way otherwise the failing plants would have been replaced.

When I spoke to the Senior Assistant to the Head he explained that the School was hoping to plant one of the grass islands with daffodils and create a ‘Field of Hope’.³⁵ A similar discussion was also occurring for the creation of some raised beds to be built at the rear of the school enabling some gardening activities with the pupils with learning difficulties. For changes to take place a whole paper trail had to be negotiated and contracts altered between the School, Cornwall Council, the PFI provider and the PFI maintenance company (a subsidiary of the PFI provider).

³⁵ Field of Hope is a Marie Curie fund and profile-raising activity, where daffodils are planted and each bulb is sponsored by children or families.



Figure 28 – example of a carefully mulched dead tree at the entrance of the school site.

Area 2 overlooks a tarmac sports area, which was used for recreation by boys playing football. The paths were tarmac, similar to School 3, reflecting Augé's (2008) 'non-places'. An area had been planted with some native hedging, yet it seemed to be slow to establish and appeared stunted. When I returned to the site accompanied by the County Ecologist (08.03.2011), she explained how these islands of habitat were a problem for wildlife, especially where they were isolated by roads. Small mammals found traversing roads a particular problem so even where sections of original hedge had been left behind, such as Area 7, they became quite useless to sustain local mammals such as the dormouse.

Areas 3 and 4 were very similar to Areas 1 and 2 featuring grass traversed by tarmac paths. The only variation in the grounds was Area 5 which was reminiscent of a prison exercise yard and was meant to accommodate school pupils during lunch and break times. Adjacent to the school building was a covered thoroughfare that offered some shelter from rain. There was an outdoor theatre which had picnic benches placed upon it (retained from the old school) which served as a seating area for students with packed lunches. Raised beds constructed from a red non-local brick created informal seating. No seating was provided specifically for sitting and chatting. Visually the space was dominated by perimeter fencing and a double set of mesh gates that provided emergency vehicle access to this side of the school. Trees in the raised beds were *Alnus glutinosa* (English Alder) which although good nitrogen providers and great for wildlife, normally enjoy damp environments which they would not attain in a raised bed (Habitat Aid, 2011). A grassed space provided the setting for a sculpture, which was

robust enough for sitting on by pupils. Any shrubs present, such as *Hebe* species, were visually similar to council utility borders and required little maintenance.

School 5 is the only school which had seating put to one side specifically for staff use. There were some old benches saved from the original School site located in Area 6 on Figure 30. The site manager said that the School auxiliary staff used the space rather than teachers, as the seating was effectively at the rear of the school kitchen, teachers and auxiliary staff did not mix and in a space that pupils were not meant to frequent (personal communication 19.03.2010). Area 6 to the south of the School was a planted wildlife space, which enjoyed far-reaching views of a rolling rural landscape. Plans were in place for this area of rural landscape to be replaced by housing and the road up to the school to be extended to form a town road by-pass, so isolating the School from the adjacent countryside and wildlife corridors at the local Wildlife Trust site 200m away. Patches of native trees have been planted, contained by plastic protectors to stop rabbits causing damage. Many of these trees and shrubs on the site were struggling, curtailed by their environment and the protectors, which can often strangle a plant if not managed over time.

To the side of this Area is a bat loft (Figure 29), which the County Ecologist was keen to see. She explained how there were both bats and dormice in the hedgerows on the site before the School was constructed and that alternative accommodation had to be built to mitigate the impact the new School would have on the habitat. There was also a disclosure that she was not sure how the School was given planning permission to be built in this particular site as both the bats and dormouse are protected under Law (for instance the 1981 Wildlife and Countryside Act and the 1994 Conservation Act from deliberate capturing, disturbing, injuring and killing. Damaging or destroying their breeding sites and resting places is also prohibited (Natural England, 2007:2). This process had occurred before the County Ecologist took up her current position so she was unsure of the background processes and procedures that had taken place. She explained that even though the bat roost had been created, Short-eared bats did not like artificially lit environments and that they had probably moved on as the School had abundant street and flood lighting. Also the old hedgerows that the dormice would have enjoyed had become truncated by access routes into the School, rendering them quite useless as a continual habitat.



Figure 29, shows the purpose built bat loft. When it was visited there was a House Sparrow colony thriving in the facility. The County Ecologist was quite certain that no monitoring of either bat or dormouse numbers had or was taking place as to ascertain the efficiency of the provisions made.

As with the other Schools being evaluated, the designation of space given over to the various categories seems very subjective. Banked steep slopes were created along the entrance road to the School and were planted as grassland habitat. So in this case they have been identified as habitat rather than unusable steep slopes. The soft play areas to the south of the School are out-of-bounds to pupils, so in reality the pupils have very little soft-play space.



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 Scale:

Not to scale

School 5 Figure 30 shows the land-use and images of the landscape circumnavigating School 5.

5.6 School 6 General Description - according to Ofsted (2009c) this is a small mixed gender School for 11-16 year olds with approximately 550 pupils. In 2008 the School closed its sixth form which had considerably impacted upon school structure, as there was freed-up classroom space and teaching timetable. The school served a rural and quite isolated community with over 70% of pupils arriving by bus. The vast majority of students were of a British white origin. There was an average take-up of free school meals and an average proportion of pupils with SEN. It has a ‘humanities’ specialist status and received an overall effectiveness grade 3 (satisfactory) rating for the School in 2009.

In July 2010 the School became a ‘Co-operative Trust’ in response to the Government’s threat of closure of small primary schools (BBC, 2011a) and the expansion of academies being directly funded/controlled by Whitehall. There were worries that the small feeder primaries would have closed with pupils having to commute longer distances to large primary schools in other towns. This would have had the possible knock on effect of this School losing potential pupils to other secondary schools. The School considered the ‘Co-operative Trust to be about mutualisation not privatisation’ (School 6 2010: unpublished PowerPoint on School Website). The School appeared to be very critical of the current Government’s education policy of encouraging academies and was in contrast to being in favour of co-operatives and trust status. School 6 undertook responsibility of the entire School site from Cornwall Council and aspired to values of openness, equality and social responsibility when running the School. Their attitude to the School environment was stated in their 2010/2011 Prospectus:

We value the environment, both natural and that shaped by human occupation presently and historically. As a Humanities College, this is of great importance to us, not only as the basis of life but as a constant and enduring source of wonder and inspiration.

On the basis of these values, we should:

- Accept our responsibility to maintain a sustainable environment for future generations
- Understand the place of human beings with in nature
- Understand our responsibilities for other species
- Ensure that development can be justified
- Preserve balance and diversity in nature whenever possible
- Preserve areas of beauty and interest for future generations
- Repair, wherever possible, habitats damaged by human development and other means.

With these grand statements I had great expectations as to the quality of the School grounds. The Google Earth image (Figure 31) shows the School buildings central in the image with sports fields to the north and south.



Figure 31 shows a Google Earth image (2010), the image date May 11th 2009, of School 6. It clearly shows the School's rural placement. The fields at the top of the image have been partially converted into a BMX bike track for both pupil and community use since this image was taken.

I was accompanied by the site manager 22.10.09 on what was my first visit to a secondary school grounds for this research. Table 12 indicates that there was a large excess of soft play surfaces which, looking at Figure 32, is located to the north of the School. At the time of visiting, a new primary school was being constructed adjacent to this space and safety barriers made it inaccessible. This School has only approximately half the recommended hard play spaces, which presented themselves as courtyard spaces between the original 1962 buildings and more recent buildings, a legacy of single storey building and a need for light (Table 2). The inconsistency in designating some areas as habitat versus steep slopes was in evidence on Figure 32, as there were steep slopes around the playing fields which were recognised for their wild life potential whereas other steep slopes were deemed unusable.

SITE AND ZONE AREAS	Recommended (m²)	Existing (m²)	Deficiency (m²)	Excess (m²)
Net Site Area: Playing Fields				
Total Sports Pitches (<i>grass plus all weather pitches</i>)	32,750	39,492		6,742
Games Courts (<i>tennis/netball</i>)	1,900	2,300		400
Soft Play (<i>soft informal area</i>)	2,425	5,621		3,196
Hard Play (<i>hard informal area</i>)	1,375	726	649	
Habitat (<i>gardens, trees, wildlife, nature trails</i>)	850	14,883		14,033
Banks and unusable land		508		508
Supplementary site area (<i>non- school or support functions</i>)		1,262		
Float (<i>diff in sum of min net spaces to the recommendation</i>)	4,250	17,334		13,084
Total Net Site Area	43,550	64,792	649	21,242

Table 12 shows the Government recommended zone areas for outdoor spaces as well as the Cornwall Council measurements for the zones (unpublished, Cornwall Council, 2010).

5.6.1 Quantitative and Qualitative Description and Analysis of the School Landscape

With reference to Figure 32, Areas 1, 2 and 3 comprised the public open fronts of the school. The tarmac drive leading past a car park gave a very grey appearance to the school. Had the large *Hydrangea* bank been in flower the space may have looked more cheery. The site manager disclosed that some female teaching staff sat on the grass in the summer to have lunch whereas the pupils were not really allowed to use the space, highlighting both the lack of external space given over to adult free time in quality restorative environments and the restrictions placed on students in their use of spaces officially designated as soft play areas.

Area 4 was a tucked away semi-open courtyard space that had recently been tarmaced. There was a raised bed that had once contained a pond. The base had been pierced and drained. It had not been managed to an optimum standard by the science department and its water quality had deemed it as unsuitable for the school. I pointed out to the site manager that the space would make an ideal bog garden with carnivorous plants, replicating a wetland habitat and so remain useful as a teaching resource. I do not know if the message got passed on to the science department.

Area 5 was an enclosed courtyard space with a mixture of paving, grass, tarmac footpaths, shrub borders and picnic benches. The space was packed at lunchtime as the internal dining space/main school hall was inadequate for the numbers of children eating school lunches or packed lunch. The site manager said that the school was

hoping to get some of the space covered to take the pressure off eating inside when there was wet weather.

Area 6 was the new coach park and car parking space at the rear of the school. The site manager showed me the unfinished areas between the parking slots where shrubbery was meant to have been planted but the site had been left unfinished by the construction company. Although there was plenty of shrubbery around the school site that could provide free cuttings, the site manager did not consider himself to be a gardener and was angry that the construction company had not finished the job.

Area 7 was a new BMX track that could be used out of school hours. It was an 'in between' space; a small field that divided the school away from the newly seeded Area 8 sports fields and so was un-supervised and beyond CCTV surveillance. It was a clever use of space as it was a small field between sports pitches and the track had been designed by the pupils. There was also a wildlife space planned for one half of the small field, which was to be centred round a pond. As the purpose of the BMX track is primarily for exercise it may be considered as an example of libertarian paternalism where it is a non-compulsory choice; a nudge to good health (Thaler and Sunstein, 2009). This concept will be returned to in the next two Chapters. A similar example was seen at School 8 with a 'trim track' installation.

The overall impression of the school was one of being quite exposed due to its elevated situation and lack of trees. There was the placement of red bins in central social locations, which the site manager considered the only way that pupils would place their rubbish in the bin. He did not think their location was intrusive. The grounds were designed for ease of management via grass mowing and occasional shrub pruning. One small courtyard area to the east of the site was quite intimate and attractive (as it had a diversity of shrubs around a square of lawn) but was fenced off to stop pupils utilising it. It was not a readily observable space and the School was afraid that bullying may occur. Another central courtyard was used by the science department to grow some vegetables with the pupils during a gardening club but the time of year did not show itself in its best light.



Ref. No: 4141E421
 Scale: **Not to Scale**
School 6

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Figure 32 shows some images of School 6, taken when accompanied by the site manager 22.10.2009.

5.7 School 7 General Description - is situated on the periphery of one of Cornwall's largest towns, on a hill with distant views of the sea. Ofsted (2011a) identified the mixed School, as smaller than average with circa 810 pupils (11-16). The catchment area included numerous pockets of deprivation and there seemed to be a high turnover of pupils. There was also an above average level of pupils with learning difficulties/disability (Ofsted, 2011a). Overall Ofsted graded the School as 'satisfactory' in their 2009 inspection. It has a sports specialism.

School 7 had some of the oldest secondary school buildings in Cornwall, dating back to 1908 giving it a Victorian type architectural legacy (Table 2). These form the public front of School, viewed from the adjacent main road (Figure 33). Recent substantial improvements to the School have seen the granite facades preserved, with alternations and extensions to the buildings behind. A substantive daylong consultation workshop was held in 2007 that purposefully wanted to utilise the 'student voice' and the learning environment (Appendix 7). The resulting document is briefly mentioned here as the desires of the pupils and teachers were not realised in the final design of the outside space. There is more discussion of the report in terms of process in the Chapter looking at the Politics of Design.

Unusually the school grounds were not all 'on site'. The majority of the School grounds were to the north of the school buildings. However, the obligatory 400m grass running track and a small wooded area were to the west, beyond a substantial manufacturing company site, connected by a footpath. As it took so long for pupils to walk to this area (it took me 20 minutes), it was infrequently used (apart for annual whole school sports day and the Forest School Programme (Director of Projects and Resources, personal communication 16.03.10)). The site had to be maintained, there by incurring costs, but under the then Labour Government guidelines could not be sold.³⁶

³⁶ Initial school playing field protection was set up in 1998 with the School Standards and Frameworks Act 1998 and then further laws were introduced in 2007 under the Education and Inspections Act (DfE, 2011a). The DfE (2011a:unpaginated) give three main criteria to enable a sale;

- 'that playing field provision and curriculum requirements at the school making the disposal, and at other local schools, are met.
- that community use of a school's playing fields is taken into account.
- that any sale proceeds are re-invested; firstly to provide new or improved outdoor sports facilities, secondly to provide new or improved indoor sports facilities and thirdly to be used to help raise standards by providing educational facilities'.



Figure 33 shows a Google Earth image (2010), the image date May 11th 2009, of School 7. The school is gradually being encircled by new housing developments to the north.

Table 13 reveals a substantial deficit of soft play space and the small areas that are identified as falling into the category were not accessible by the students.

SITE AND ZONE AREAS	Recommended (m²)	Existing (m²)	Deficiency (m²)	Excess (m²)
Net Site Area: Playing Fields				
Total Sports Pitches (<i>grass plus all weather pitches</i>)	36,250	46,031		9,781
Games Courts (<i>tennis/netball</i>)	2,100	3,883		1,783
Soft Play (<i>soft informal area</i>)	2,675	775	1,900	
Hard Play (<i>hard informal area</i>)	1,525	3,308		1,783
Habitat (<i>gardens, trees, wildlife, nature trails</i>)	950	15,969		15,019
Banks and unusable land		4,929		4,929
Supplementary site area (<i>non- school or support functions</i>)				
Float (<i>diff in sum of min net spaces to the recommendation</i>)	4,750	18,733		13,983
Total Net Site Area	48,250	75,327	1,900	27,077

Table 13 shows the Government zone guidelines for outdoor spaces and the Cornwall Council measurements for School 7 (unpublished, Cornwall Council, 2010).

In Area 2 (Figure 34) there was a yellow line painted on the ground which students were not meant to cross during lunch or break times forming an artificially constructed territory similar to those identified by Thomson (2005). (The line would need to be crossed to reach the soft play areas.) Therefore, in reality, this school had no soft play space for the pupils unless the playing fields during the summer months were included. A surplus of hard play areas were dominated by tarmac. When the School had the

opportunity to develop the grounds adjacent to the building re-development, wall-to-wall tarmac was used; whether the school desired the medium or not.

5.7.1 Quantitative and Qualitative Description and Analysis of the School Landscape

Description of the School grounds is based upon a visit to the School 09.02.2010 accompanied by the Site Manager. Referring to Figure 34, Area 1 at the public front of the School showed both the original and the new developments. The building was grey and quite austere with newly surfaced access roads and car parking dividing the building from the main roads. The small pieces of grassed areas remaining had not been fully finished by the construction company as top soil had not been brought in nor the areas grass seeded. Instead, building rubble was visible sticking through the rutted, compacted surface. The site manager was not happy about this and had tried on many occasions for the construction company to return, but to no avail. The School is responsible for the maintenance of this area but there is nothing to maintain apart from compacted mud with rubble. This highlights the difference between what the construction company considers as a fit state to leave the site and the School's role in maintaining the grounds. The School does not have access to the funds to remedy the problem as the budget was administered by Cornwall Council and so is dependent upon the construction company to respond.

To the front of the School was also a small rectangular block construction pond dating back to the original building. It had a disproportionately large post and rail fence surrounding it, supposedly stopping anyone from falling in and drowning. The fence however had not prevented an inordinate amount of litter from being blown into and deposited in the water; despite this, fish were present.

To the west of the pond were two small ornamental cherry trees. They had been planted in memory of pupils who had died, but there was no information saying what the trees represented and the ties were strangling the awkwardly shaped trees which had not been pruned. It was this space that the Director of Projects and Resources, (personal communication 16.03.10) had requested that I design as a memorial garden for the school. I was to use the Year 8 pupils' ideas for the design, yet in reality the design exercise was an impossible task. When I had interviewed the Director of Projects and Resources he had disclosed that the School grounds-man was untrained. His abilities were limited to purely maintenance tasks such as mowing grass, so he would not be able

to maintain a plant based design. I asked the Director of Projects and Resources, “Whether the grounds man would be able to do some training as courses were available at a local college?” His response, “I doubt it, you could ask him, but the man is illiterate”. This is one example where the lack of an appropriately trained person on site or the restrictions of a maintenance contract prevent the potential of grounds being realised.

Area 2 was a new tarmac space between old buildings and a new extension of the dining-room complete with brightly coloured roofing. The lines on the ground represent placing for forms during fire drills. Some wooden picnic benches were present as an overflow from the dining area. Both tarmac and grass playing fields lay to the north of the school (Area 3) and lead up to Areas 6, 7, 8 and 9. I was told by the Site Manager that they were popular places for the children to sit and eat during the summer, the litter providing evidence of their popularity. The sloping banks had been planted with an array of native tree species about 10 to 12 years ago. Some of the trees were deformed from poor pruning; their tops had been loped even where the species would not tolerate that sort of shaping. The Site Manager said that the neighbours behind had complained that their distant views of the sea were disappearing and that they wanted to prune the trees.

One of these neighbours was a local councillor with whom School wanted to maintain relations so allowed people to come and trim the trees. I expressed my concern that both *Alnus glutinosa* and *Betula pendula* should not be pruned in this way. The site manager concurred that he knew that now, as the Cornwall Council Tree Warden had visited the School and had discussed what had happened. He was not happy and warned the School that it should not happen again.

Area 10 was at the eastern periphery of the school and over the fence on the top of a steep bank leading down to a road and houses. As part of the School rebuilding programme trees had to be planted and this space was perfect in that the trees would stabilise the slope, take up some of the excess runoff, provide a visual and noise screen as well as a wildlife habitat. Some non-native trees were planted by the construction company and this had become another point of discussion between the Cornwall Council Tree Warden, the School and the construction company. Letters had been sent to the company along with an acceptable tree list from the Cornwall Council Tree

Warden; there had been no replies. The trees that had been planted were in a poor state or dead as the space had been neglected and unmanaged.

There was the remains of a large fenced off educational space at Area 11. The remnants of a poly-tunnel, an overgrown pond and productive spaces were being invaded by a bamboo species as well as *Elymus repens* (couch grass). I had queried the state of this Area with the Science Department when I had a group meeting with them 16.03.2010. Below is a small section of that meeting.

Head of Science, "... science gardens, ponds and environments, keeping it going and keeping it managed, is very problematic. It is fine in terms of bringing it into lesson plans/curriculum. It never comes to fruition".

I asked, "Is it a lack of ground staff expertise?"

Head of Science, "no! The grounds staff would not be involved. It would be up to us to maintain it; a huge drain on resources, money, time and good will."

I then suggested that the BTCV may come and clear the site and asked if the Science Department would use the garden then.

Teacher A, "It would always run as an after school club. We have lost kids, Year 11s have gone to exam frenzy or coursework catch-up and so it is difficult to justify for a very small amount of children doing it after school ... As well it is not the best site as the poly-tunnel area does flood, so to grow anything in there, you have got to grow it in raised beds because if it rains heavily and it just floods off the field, it literally just floods ...I'll say at the moment it is not a key priority of the school."

These brief remarks highlight a few strands that carry through the thesis. In this instance some teaching staff feel put upon to do this as an extra-curricular activity for just a few pupils after school despite it not being a whole School priority. The management and maintenance of the site would quickly exceed the benefit what would be gained as a teaching resource. The view of teaching staff that a grounds-man could be involved with the management of external teaching spaces is supported by an interview with the Head of School 8 and is discussed as a result later in the thesis.

Area 4 and 5 were a long steep grass banked space that the Cornwall Council Principal Land Surveyor identified in Table 11 as unusable land, in contrast to sites 6, 7, 8 and 9 which are on steep banks but with trees so have been identified as habitat space. The Site Manager told me that many of the younger pupils liked to run down the steep slopes and that the previous Head had placed large stones at the top to try and dissuade this activity. Eroded soil around some shrubs at one end of the slope seems to support his anecdotal evidence.

Area 12 was an external corridor; paved with a shrub border. It was a bland space, purposeful in its role as a means of pupils getting from School buildings to the outside sports facilities and could have an Augé (2008) interpretation as a non-space.

Area 13 was a newly designed and constructed space. The site manager was extremely damning of the construction quality. An original metre high wall that had stood in the courtyard had been built around rather than being demolished and removed. It now showed above the soil in the raised bed among the shrubs. The colourful flowers that the pupils and staff had expressed an interest in having in the garden were represented by *Vinca major* (Periwinkle), *Ceanothus* and some *Salix alba brittensis* (Red-stemmed Willow). The School had repeatedly requested planting plans for the raised beds, from the architects, but the choice of plants were not negotiated, they were just planted. The clean white curved seating looked acceptable, providing a quite small intimate space. Yet a major thoroughfare cut amidst the curves and gave the main access from the school to the canteen. In this example of inappropriate design for the location, pupils did not sit and use the space as planned and effectively clogged up the entrance for people passing through to/from the dining facilities. When I observed the space during a break-time a few older pupils stood on the seats talking to chums stood on the ground. The seats mainly provided a convenient place to drop off bags when socialising.

Kiers, the construction company who designed and constructed new buildings at School 7, ran short of money and the promises regarding the landscape design and input were not fulfilled as the landscape is the final area to be done. School 7 was disappointed in



Figure 34 is the Cornwall Council based land-use map annotated with images of School 7.

both the company and the finished product (personal communication with both the site manager and the Deputy Head of School 7, 10.10.2009). In this case, as well as that of School 1, money was supposedly ring-fenced for the landscape. Complaints from School 7 were repeatedly made to the Architect's Department at Cornwall Council regarding the situation with no successful response. School 7 was still waiting for the tree plan which was returned to the Landscape Architect at Kiers as it was deemed unsatisfactory by the Cornwall Council Tree Warden. This was in 2010 and there had been no sign of the list's return. After two years the new development was signed off by the construction company as being complete and in working order and in this case any problems were not rectified (personal communication with the Deputy Head of School 7, 16.03.10).

This School used its grounds for very few activities other than sports with the interesting exception of the Forest Schools Programme for its 'difficult' pupils. The original concept that the whole School should have the opportunity to partake in the Forest School Programme as intended when developed in Scandinavia has been reinterpreted by the School. The Programme is used as a 'carrot' for pupils that School had difficulty in controlling (Director of Projects and Resources, personal communication 16.03.10). When speaking to a Teaching Assistant (TA) she described how the TAs took groups of students over to the copse of trees far west of the site. Here they worked with a variety of outdoor tools (loppers, knives, sickles) learning to handle them with care. Other activities involved shelter building, making fire and creating of journey sticks; as the TA remarked "It is about promoting self-esteem and team work" (TA, personal communication 16.03.2010). The Forest Schools Programme is taken away from the pupils if they are naughty. It is an encouragement for the pupils to behave as the Forest Schools Programme is very popular with the group. Yet they are effectively taken to the far reaches of the school where no one can see them. Other pupils do not have access to such fun activities that seemingly promote self-esteem and appear to be so enjoyable. School 7 along with School 9 and to a lesser extent School 2 use the outside environment and pupils' interaction with it either through Forest Schools Programme or gardening as a form of reward for pupils with behavioural problems.

5.8 School 8 General Description – was inspected by Ofsted (2009d) and found this science focused School to be ‘outstanding’. The School, built in 1978, is situated in an extensive 56 acre hilltop location and commanded panoramic rural views to the south with a peripheral urban site. Its mixed gender pupil body was circa 1200 in 2009 making it larger than the UK average (Ofsted, 2009d). The 2009 Ofsted Report still found that some of the school accommodation to be wanting yet acknowledged the opportunity of the newly built on-site integrated health centre. There was a below average number of pupils entitled to free school meals yet the adjacent housing estate does provide a pocket of disadvantage (Ofsted, 2009d). The Report also acknowledges the School’s awarding winning chef and his contribution to improving children’s health via food quality and gardening with the children.

Figure 35 shows that the School is set slightly askew to a minor road, with its main entrance accessed via a small car park to the south of the image. Housing lies to the west and the School grounds continue to the north and east of the image. On a smaller scale it is of a similar ‘boomerang’ shape to School 5 except the inner space has had more recent building additions to cope with increasing pupil numbers.



Figure 35 shows a Google Earth image (2010), the image date May 11th 2009, of School 8.

Table 14 reveals the large excesses in most land use categories, apart from hard play surfaces where a deficit of 777m² has been identified. As with other schools discussed, the tarmac tennis courts partially seen to the north of Figure 35 are available to pupils to play sport during break times (personal observations during many visits to the School). Steep grass banks have been registered as unusable even when there are a range of standard mature trees planted in some areas.

SITE AND ZONE AREAS	Recommended (m²)	Existing (m²)	Deficiency (m²)	Excess (m²)
Net Site Area: Playing Fields				
Total Sports Pitches (<i>grass plus all weather pitches</i>)	52,000	66,184		14,184
Games Courts (<i>tennis/netball</i>)	3,000	4,841		1,841
Soft Play (<i>soft informal area</i>)	3,800	15,161		11,361
Hard Play (<i>hard informal area</i>)	2,200	1,423	777	
Habitat (<i>gardens, trees, wildlife, nature trails</i>)	1,400	16,319		14,919
Banks and unusable land		18,249		18,249
Supplementary site area (<i>non- school or support functions</i>)		1,055		
Float (<i>diff in sum of min net spaces to the recommendation</i>)	7,000	35,064		28,064
Total Net Site Area	69,400	123,232	777	53,832

Table 14 shows the Government's recommendations for external zone areas for School 8 alongside the Cornwall Council measurements (unpublished, Cornwall Council, 2010).

5.8.1 Quantitative and Qualitative Description and Analysis of the School Landscape

The base map used in Figure 36 is quite out of date, as a nursery has been built in the southwest corner of the School site adjacent to the car park. I was accompanied around the School grounds by the then Site Manager (24.02.2010). With reference to Figure 36, the images in Area 1 start at the public front of the School with a large expanse of grass, which the pupils have access to in the summer months. Trees had been planted on the periphery, when the School was built, to act as a wind break as well as a visual/noise barrier between the school and neighbouring housing. Image 2 revealed the first of the views of the shrubbery around the School that occurred next to a building. The shrubs are all trimmed to about a metre in height so that there is clear line of sight from the building to the outside. I discussed this with the Head when I interviewed her 06.01.2011. I asked, "Why are the shrubs trimmed to the height that they are?"

Head's response: "I came to the School in the same year as Dunblane so was very safety conscious. It is about the pupils looking out as well as lines of sight. The School has no fences and many doors so senior staff can see from their rooms out across the site for safety. The teaching team is vulnerable if an irate parent comes to the School and uses a side door. We also have CCTV because of no fences (fencing would give the wrong message as well as unrealistic on such a gig site). They watch the main School area and corridors. They quickly diminished low order behavioural problems."

The Head's determination not to have the School fenced in as a safety measure will be discussed in a later Chapter, as well as the use of CCTV.

Area 3 was a semi-enclosed courtyard space that had a central raised bed with mature *Cordyline australis* under planted with an array of struggling edible herbs. The wall around the raised bed doubled up as an unintentional seating space alongside picnic benches as a place for students to socialise. Area 4 was a grassed corridor with a paved footpath which had been identified as unusable in Figure 36. In many respects it bore resemblance to one of Augé (2008) non-places, as when observed during lunch times pupils just used the space as an external corridor from the tennis courts to the main building (or vice versa). Not many pupils lingered in this space as it was furthest from the dining room. (If having a School meal in the 40 minute lunch time, the queues were quite prohibitive and would not give much time to return to eat lunch.) A small pond surrounded by paving was just off Area 4. It effectively resided behind the Science Department and was maintained by their Laboratory Technician. When seen initially it appeared neglected and was full of litter including a dustbin lid. Later observations in the year had the pond looking brighter and more cheerful as the paving stepping stones had been painted and most of the litter cleared.

The School had a small triangular piece of woodland (Area 5) which was overgrown on the day of the tour, with litter and a trampled cut-through path used as an unofficial entrance onto the School site. The Site Manager explained how somebody had placed a 'tree preservation order' (tpo)³⁷ on to all of the trees at the School; a person he considered bore a grudge towards the School. During the interview with the Head as well as the tour with the Site Manager, these trees as well as others created administrative and care problems. An external company was brought in to manage the trees and regular surveys were undertaken. Remnants of a clay-lined pond were pointed out that had been created by the Science Department but unfortunately the pond failed to receive enough rainwater to exist (supported by Head of Science interview 12.05.2011).

³⁷ Under the Town and Country Planning Act 1990 and the Town and Country Planning (Trees) Regulations 1999 trees can be protected by tpos. They prevent the lopping or felling of a tree without permission from the local council. Any tree could be protected but defining a tree is problematic. A tree is normally considered to be single stemmed so hazel which is multi-stemmed would not normally be protected. Designated areas may hold protection orders (Naturenet, 2011).

Area 6 was a popular facility for boys to play either football or tennis depending on the season. The tarmac sports space was surrounded by grass and trees forming a pleasant space that pupils then were not allowed to have access to as the space was secluded. Sports fields (Areas 8 and 9) were quite distant from the main school building. A trim track has since been placed on the periphery of the sports fields; its purpose will be discussed in a later Chapter.

Between Area 10 and 11 was going to be a Peace Garden, pond and productive spaces. They were add-ons to a large glasshouse that was constructed with the school in 1978 and used as part of the 'Rural Science' curriculum (now used by the school chef and the Science Department). Another productive space was Area 12 which was an enclosed courtyard looked onto by the adjacent school dining room. The School Chef operated an after-school Gardening Club which cared for the space. These spaces have been a major focal point of my research and will be visited again in the next two Chapters.

Area 13 was a paved thoroughfare that doubled up as an external eating space at lunch times and break. Pupils made use of the picnic benches and seating surfaces for eating and socialising. One small raised bed has had some soft fruit bushes (blackberry, red currant and gooseberry) established by the chef.

Area 14 was a newly constructed and opened informal health centre for the school community. It was supported by the Duchy and officially opened by the Duke and Duchess of Cornwall in 2009. The building was designed in conjunction with the pupils and situated discretely away from the main buildings to allow for unseen access by pupils during the school day. Its role is to allow for medical appointments, consultations, health talks and clinics such as sports physiotherapy (interview with Head 06.01.2011).

Area 15 was the open core of the School; a grassed space crisscrossed by official tarmac and paved footpaths as well as unofficial eroded desire-lines indicating that the footpaths were either inadequate in size and/or location. There were also specimen trees including a *Pyrus pyraster* (Wild Pear). A climbing wall was attached to the main school building adjunct to this space, giving pupils free access to this activity during break times. In my many visits to the school I have never witnessed anyone use the wall unofficially, outside of class or school time.

Area 16 was a long paved exterior corridor extending along the outside of the Science Department. On the other side of the path is a truly unusable space and one defined as such on Figure 19, of a paved steep bank. The main School building at the north end is built into the hillside and the slope was covered in the paving with spaces left and planted with *Cotoneaster horizontalis*. A foot-bridge links the upper land level with the second storey.

At the eastern side of the public front of the School is a grassed area with some newly planted young specimen trees (*Fraxinus excelsior*) and a sculpture which doubled up as a seating area during lunch (Area 17). The grass and footpaths led along the front of the School to Area 18 which held well concealed car parking behind a whole range of shrubs, raised beds and ornamental trees. The formal entrance to the School had undergone a transformation from a gravel bounded footpath (where the gravel was poorly constrained and was finding its way beyond the space) to an aisle of raised timber constructed bedding and large boulders. A significant *Magnolia* had also been planted in memory of a recently deceased School governor.

This School had been trying to provide a variety of spaces for its pupils yet any developments appeared to be of a piecemeal, half-hearted nature by a few teachers when time appeared available.

5.9 School 9 General Description - is a 1960s suburban school that Ofsted (2011b) identified as being larger than average with approximately 1300 pupils. It is a mixed school of 11 to 16 year olds with a languages specialism and rated as ‘outstanding’ in its last Ofsted inspection (Ofsted, 2011b). The proportion of pupils that are entitled to free school dinners is below national average and the number of pupils with learning difficulties or who were disabled was in line with national averages (Ofsted, 2011b). It became an ‘Academy’ 1st April 2011 in conjunction with a couple of other local secondary schools (one being School 8), forming a partnership.

Figure 37 reveals that the School is of single storey interspaced with courtyard spaces and that it is at the apex of a major road intersection. The extensive playing fields have distant views to the sea and were dissected by a public footpath, which gave many management problems such as young people using the furthest reaches of the fields for parties in summer as well as irresponsible dog walkers exercising their dogs on the sports facilities (Site Manager, personal communication, 15.02.2010).



Figure 37 shows a Google Earth image (2010), the image date March 5th 2005, of School 9.

Table 15 shows a great deficiency of hard play surface yet the tarmac sports facility (Area 2, Figure 38) was used as break-time space. All other areas reveal that School 9 had a surplus of space with no unusable land. The sloping/banked areas surrounding the sports pitches to the south of Figure 38 are designated soft play space. These are not suitable for soft play but would have been ideal habitat spaces, given over to grassland or planted with trees. The key that Cornwall Council has used on Figure 38 is inconsistent with the colour-coding used on the plan.

SITE AND ZONE AREAS	Recommended (m²)	Existing (m²)	Deficiency (m²)	Excess (m²)
Net Site Area: Playing Fields				
Total Sports Pitches (<i>grass plus all weather pitches</i>)	57,250	63,837		6,587
Games Courts (<i>tennis/netball</i>)	3,300	5,400		2,100
Soft Play (<i>soft informal area</i>)	4,175	10,290		6,115
Hard Play (<i>hard informal area</i>)	2,425	917	1,508	
Habitat (<i>gardens, trees, wildlife, nature trails</i>)	1,550	11,713		10,163
Banks and unusable land				
Supplementary site area (<i>non-school or support functions</i>)				
Float (<i>diff in sum of min net spaces to the recommendation</i>)	7,750	18,820		11,070
Total Net Site Area	76,450	92,157	1,508	15,707

Table 15 shows the Government recommended zone extent for external spaces as well as the Cornwall Council measurements (unpublished, Cornwall Council, 2010).

5.9.1 Quantitative and Qualitative Description and Analysis of the School Landscape

I was initially escorted around School 9 by the Business Manager and then the Site Manager and Head Grounds-man (15.02.2010). Images taken are displayed on Figure 38 and the different areas are referred to below. Area 1 was a multi-use courtyard that was a memory garden with some shrubs and ornamental trees, a science garden with a semi-neglected greenhouse and a water garden with large raised and sunken concrete goldfish ponds. It was openly viewed by the school community via a major glass sided corridor linking school buildings. Recent time and effort had been spent improving the public front of School, which, although having a large grass area, was dominated by car parking. Flag poles had been added as well as new line of *Camellia* to give colour.

Area 2 had two separate tarmac surfaced tennis court areas; one was used as staff car parking and the other used as a recreational space. Areas 3 and 4 were grass that had been well worn by the creation of desire lines by pupils. It is in front of a quite new building that had designs in place for Areas 3 and 4 but apparently the funding ran out during construction of the building and the garden was not installed. This demonstrates that unless the construction budget is ring-fenced for outside development, then funds often run out by the time the development of the grounds can begin. The outside space is not then redesigned and is usually a grass seeded area of mud containing rubble.

Area 5 was an example of Augé's (2008) non-place; a nondescript outside paved corridor linking school buildings. Identified as habitat, Area 6 is grass and probably in reality a soft play space as it was convenient for pupils to use during break-out times.

Area 7 was identified as a soft play option yet the image shows paved steps and shrubbery. A hedged path (Area 8) leads to a productive garden space adjacent to an isolated building given over to pupils who are on the verge of being expelled. Although not much growing in February the raised beds were well cared for. The Business Manager discussed how important this space was as a calming space for pupils who were maybe agitated or had behavioural issues when at school. Areas 9 and 10 are more examples of grassed and shrub lined footpaths acting as transitory spaces when pupils move between buildings.

Areas 13, 14 and 15 were sports pitches; the two main areas were split by a public footpath which gave management problems of easy public access to the site as discussed earlier. The pitches commanded sea views and gave the potential for a restorative environment to the pupils by the 'borrowed' landscape.

Many aspects of the grounds were garden-like, akin to School 2. The grounds-man had been trained as a gardener by a large northern England municipal authority that had often entered RHS Chelsea Flower Shows and won awards. He was also an amateur ornithologist and was keen to place a whole range of nest boxes around the site. The professionalism displayed in the care of much of the school grounds support my idea that schools hugely benefit from employing a person with horticultural training to manage the grounds rather than employing unqualified or contracting out to a maintenance company.

When I returned to the Business Manager he was keen to seek my views as to a design a wife of one of the teachers had done for a small courtyard space. The design involved a range of flags, some seating, potentially using local materials. It had been generated with very little student input. She could not stimulate any interest in the design process so tried to guess what the pupils would like.



Figure 38 shows the Cornwall Council (unpublished) land-use map for School 9 along with images taken 15.02.2010.

The Business Manager was reluctant to expand the use of the school grounds in an academic sense as he related an incident where a pupil had been blindfolded during an orienteering course and his team mate had, to his amusement, advised that it was fine to run forward. Unfortunately the pupil ran straight into a wall, badly damaged his face and his parents successfully sued the school for negligence. In response the Head had halted all such activities rather than encouraging staff training so that pupils could be professionally taught outside with confidence.

5.10 Conclusion to the Chapter

The evaluation of school grounds via the Schools' Biographies technique underpins all three aims providing results and evidence of the previously described political educational policies outlined in the previous Chapter. As the School grounds have to be viewed to see the extent of design, level of maintenance, amount of use by teachers and pupils, the researcher can begin to appreciate what political influences maybe materialised in the grounds and how the design of the school grounds may influence pupil behaviour. The following are some common threads that have been noted through exploring school grounds in this Chapter that have resonance with the level of care extolled upon school grounds:

As previously discussed, Titman's (1994) consideration that most schools have a bland character dominated by tarmac and grass has been reiterated by evidence seen by the nine schools visited in Cornwall. Although Cornwall Council measured the potential quantity of soft and hard play areas, the quality of those spaces or the amount of access was not incorporated in any measurements. Surfaces were clearly differentiated by : i) material rather than design; ii) pupils' potential needs both recreationally and academically as a whole or according to pupil age.

School landscapes were noted as being poorly managed with respect to plant care, unless there was a trained gardener on site, as seen with Schools 2 and 9 which exhibited professional care. In these instances, elements of Schools 2 and 9 could be defined as gardens rather than grounds. The out-sourcing of grounds maintenance contracts appears by schools to be a cheap option, yet those employed by the contractor seem to have qualifications for equipment use rather than plant management.

The schools built pre-1979 had 'architect' designed buildings, whereas the landscapes around the buildings such as courtyards were left as spaces between buildings, for light,

for fire escape provision, as linkages from building to sports facilities or to give an impression at the public front of the school. They rarely had the input of a landscape designer. Very little external design was considered in terms of recreational or academic use; that process was left up to the school which had no or very little money available.

All of the Schools demonstrated clear differences between the public front and areas at the rear of Schools, especially when considering the aesthetic and the use and care of planting, pupil use and access during recreational time. The fronts tend to have more maintained trees and shrubbery, accessible only when entering or exiting the school or giving a quieter space for the more vulnerable pupils, as seen with School 3. This is similar to Hendricks' (2001) view of the difference in the quality of landscapes for people in power and school pupils. The two different spaces were often seen to have arbitrary divisions between them as invisible lines that must not be crossed by pupils at particular times of day similar to Thomson's (2005) notions discussed earlier.

It seems that there are various forms of boundaries within school grounds that make up the complicated relationship between surveillance, territory and power (Sack (1986); Valentine (1997); Thomson (2005) and Pike (2008). School 5 has purposefully fenced the site to keep children safe and keep out would be vandals, effectively responding to the Apollonian and Dionysian child (Valentine, 1997). School 8's maintenance of shrubbery at 1m high for open surveillance of its grounds gives an odd aesthetic to the School site and has not been tested in its efficiency of preventing an inappropriate adult-based School incursion. The aspects of surveillance, territory and power are considered in more detail in Chapter Seven and offer a new avenue of research in children's geographies and garden/landscape design when applied to secondary school grounds, adding to previous work of Pike's (2008) work on Foucault and power displayed in primary school dining rooms; the noting of the characteristics of territorialisation in primary school grounds by Thomson (2005) and the school grounds work of Titman and Chillman (2004).

Many Schools had a memorial space where trees had often been planted and then received differing amounts of care (School 2 well-cared for whilst School 7 was completely neglected and the cherry trees were suffering from in-growing tree ties). I can only place these spaces in a wider academic context of memorial gardens and trees as sites of supposed contemplation and social memory for individuals, particular events

and their development as an evolving cultural landscape (Cloke and Pawson, 2008; Coltin, 1994; Francaviglia, 1971). School memorial gardens fall into a research gap both in children's geographies and the wider literature. The Schools' views towards the areas of the grounds set aside as a memorial space varied. School 2's memorial garden on the old grass tennis court was cared for but a legacy that was in the way and holding up the potential redevelopment of the grounds into an outdoor theatre. It proved to be a source of frustration for the Head, who was unsure how to proceed (personal communication, 30.04.2010). School 7's Director of Projects and Resources was proud of its memorial cherry trees representing the deaths of former pupils and thought that with former pupils serving in the armed services in Afghanistan that more trees would need to be planted in the future (personal communication, 16.03.2010). Yet the space was neglected and the School had no finance or maintenance expertise to develop the area into a garden. School 4 wanted a memory garden and the process of trying to develop the garden is discussed in the next Chapter. School 9's memorial space was in a courtyard, with small trees and a pond. Positioned by a corridor, labels were present associating the plant and those being memorialised. It was a cared-for space that pupils had access to during relevant science lessons and was considered by the Business Manager in a neutral context of 'just being there'; neither being in the way or a place of raw emotion at a recent loss of a school member. School 8 placed a magnolia at the front of the School in memory of a School governor who had died. The care-takers who dug the substantial hole and planted the Magnolia commented upon the expense (it still had its price tag of £250) and that nobody was familiar with the individual as the governors rarely came into School (personal communication, 16.03.2010). The issues of legacy, lack of association with the memory highlighted here are discussed further in the next Chapter.

The presence or lack of a 'key individual' with responsibility for the grounds is a theme that starts to become apparent in the school biographies. I will introduce the notion here but it really comes to the fore in the next Chapter. Key individuals in a business sense are those who serve an important role in innovation of ideas and processes by enthusiastically promoting an alternative way forward often having a positive spiral effect of influence on others (Howell and Higgins, 1990; Walter and Bruch, 2008). Bunnell (2001) discusses 'key actors' as charismatic individuals that make a difference. Examples of qualified School grounds-men demonstrate this (at Schools 2, 4 and 9), whereas the absence of a key person seems to lend itself to a cynical appraisal, by staff,

of the grounds; as seen by the senior management team and the science department at School 7.

School biographies begin to highlight the extent of pupil participation in the design and maintenance of school gardens. Having discussed student voice and Hart's Ladder of Participation (Wyness, 2003; Mannion, 1999; Hart, 1992, 1997) in earlier Chapters it is apparent that pupils were not consulted as to the design of their schools or grounds apart from new Schools 1 and 4. Participation in the form of pupils gardening was seen to be voluntarily open to any pupil only at Schools 4 and 6. School 7 ran the Forest Schools programme which used activities based in the school grounds as a 'carrot' for pupil good behaviour. Schools 2 and 9 used the grounds for pacifying students with behavioural issues to prevent them from being completely excluded from School. Hart's (1992, 1997) Ladder does not take into account the extent of participation within a school or the quality of participation that the pupils may experience. The notion of pupil participation is returned to in the next Chapter where I offer gardening and design opportunities to pupils at School 8.

Any new designs, even when pupils are consulted (Schools 1, 3, 4, 5 and 7) are drawn up and implemented from the adult perspective, in terms of scale, state of tidiness, easy mechanical maintenance and anticipated use by the pupils (for example benches used for bags, when pupils sit on the wall as seen at School 4). Louv (2005 and 2009) and Ward (1978) discuss the quality of outdoor space that many children require to dwell and to enjoy and those spaces are messy, offering opportunities to hide away from view if wanted. There are few, if any, spaces in schools that are quiet restorative areas linking in to Kaplan and Kaplan's (1989, 1998 and 2002) notions of restorative space, where pupils can retreat from the adult gaze, whether of supervisors or CCTV. School 3's use of part of its front areas 'vulnerable' pupils is meant to offer a quieter space away from the others taking the stress away by creating a prescribed territory (Taylor, 1988). Schools 1 and 9 have beautiful borrowed landscapes that offer the pupils and staff the opportunity to sit and look at the view in a restorative sense. However, seating was not provided by the Schools to enable this to occur. All nine Schools display a lack of variety of cared-for, considered, outdoor space to meet the changing, diverse needs of their pupils.

The lack of school ground space that is designed or adapted for teaching and is then actively used for academic purposes is lacking in all schools. Schools 3, 4 and 8 are

making some efforts to remedy this problem. Productive spaces if they exist were usually small, out of the way and often poorly tended. Gardening is used by schools as a behaviour moderator with 'naughty' children or children with learning difficulties. Gardening or outdoor privileges may be withdrawn if a pupil is naughty, as seen with the School 7 which followed the Forest School curriculum in part. Gardening does not tend to be available for the bright pupil, pupils do not necessarily want to be seen gardening by their peers as it is 'un-cool' (evidenced and discussed in Chapter 6 with School 8).

Where there was seating around a school the main purpose was for pupils to eat their packed lunches so wooden picnic benches were used. These were quite often of a poor quality with pieces missing or with carvings and in inadequate quantities. Schools discriminated between pupils who had school dinners and could eat inside albeit in cramped dining room conditions compared to the pupil with a packed lunch who often had no choice but to go outside or if raining sit and eat in the corridor.

In terms of sustainability the building of a new school has seemed to have over-ridden the existence of protected mammal species (dormice and short-eared bats) present in the greenfield site before the construction of PFI School 5. The value placed upon wildlife and habitat is seen to be in competition with the building of a new school. European species protection laws are seen to be ignored, as Lowther (2011) points out there has been a 'dismal record of failure' when it comes to implementing regulation and the protection of wildlife (Lowther, 2011:319). Even with the wildlife provisions made at School 5, there had been a lack of monitoring and the County Ecologist suspected that the dormice and short-eared bats had disappeared with the isolation of habitats and light pollution. Noel and Lapointe (2010) specifically look at the isolation of animal species and the reduction of the gene pool and the eventual demise of a species. Polak *et al* (2011) looked at the impacts of artificial light on different species of bat. Some species benefit from the light source and its attraction of extra flying insects where as other species are repelled by the light; the short-eared bat comes into this latter category. There is a conflict of ideals highlighted here, education versus wildlife, which again exposes the preference that society may place on buildings rather than what existed before.

The main underlying factor which has influenced the above is the lack of finance that has been in place to either, design, build, maintain or develop the grounds at any stage

of the Schools' histories. There is no evidence that the School grounds have never been financially indulged in the same way as the School buildings. Schools 1, 4, 5, 6 and 8 have external grounds maintenance contractors who just maintain what is there within a limited budget. Schools 3 and 7 employ poorly qualified grounds-men who give a poor quality return in grounds quality. Schools 2 and 9 have well-qualified grounds-men who well maintain the grounds creating garden spaces in limited budgets. Budgets have run-out, leaving the grounds as last aspect of a redevelopment to occur, as seen at Schools 7 and 9 where the promised designs not constructed. The implications of finance in the process of school grounds development is illustrated in the next Chapter.

From carrying out School biographies it is apparent that the current means of assessing school grounds are inadequate; the land zone categories used by Government and Cornwall Council are not useful. When it has come to the Cornwall Council monitoring the school sites, the land has been measured and categorised. The categorisation of school land was adequate when designing a new school and when re-organising of space for building extensions was required. However, beyond these purposes, the rationale for the measurement of land, noting a surplus or deficit, is unclear when no measure of quality is included and the results are not shared with the schools concerned. As there has been no Government requirement for a grounds quality survey, Cornwall Council has not explored this aspect when auditing its schools. The land zones are subjectively allocated and often seem to have not been ground-truthed. They don't work to realise the potential of the outdoor space for learning or socialising and the land zones are not evaluated for the land's quality, design value or potential. The current use of the land assessment of school grounds is unclear as to any deficits do not force a school or the Council to act and correct the issue.

I have shown school biographies to be a successful new critical tool that highlights the commonalities and differences between schools. By opening up a dialogue with the various members of the school community that manage, control and work within the school grounds the technique shows that there is an often complex narrative behind the visual appearance that is noted by an observer. The School biographies have revealed a litany of neglect, a lack of care, inadequate design, restriction in use by pupils and teachers, poor levels of management in most cases underpinned by a lack of finance. Aspects of the grounds share characteristics to Augé's (2008) non-places as they are so nondescript and purely act as corridors to get school members from A to B without thinking. Pupils do not often have the opportunity to participate in the design and

running of a school garden. Lastly, Cornwall Council did not have a means for ascertaining and monitoring the quality of school grounds.

The next Chapter will explore the design projects that illustrate the processes occurring in schools when teachers want to create memory gardens or a garden as a teaching tool.