

THE ARCHITECTURAL DESIGN
OF UK SUPERMARKETS: 1950 - 2006

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July 2008

Submitted for the Degree of Doctor of Philosophy

University of the Arts London

ACKNOWLEDGEMENTS

This project would not have been possible without the help of many people. Special thanks to my supervisors Martin Woolley, who has given constant support and encouragement during this trek through largely unknown territory and to Barry Curtis, who has given inspiration and comfort throughout.

I have received help and encouragement from many architects and academics who have found time in their busy schedules to give me invaluable information for which I am very grateful. My thanks to Michael Aukett, Martin Williams and Saunders Architects, Smith Smalley Architects, David Gibson Architects, Hamilton Associates, Kathryn Morrison at English Heritage Alison Whiteman, Eleanor Kent and the London Borough of Enfield planning department.

Particular thanks to Bridget Williams for her generosity and to Steve Douglas, for his invaluable enthusiasm and guidance.

I also owe thanks to my family for their patience and to my colleagues at UAL, particularly Susannah Good, Debbie Hayes and Janice Hart for their unwavering support, and Tony Kent for his determined optimism.

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THE ARCHITECTURAL DESIGN OF UK SUPERMARKETS: 1950-2006

ABSTRACT

This thesis addresses the evolution of supermarket architecture in the UK from the period following the Second World War up to the present day. It records the history of this phenomenon and explores the relationship between the developing architectural design styles of supermarket buildings and the social economic and political changes that have influenced their design.

Focusing on the main objectives the research progressed through interview, observation and the analysis of archive material towards an inquiry into the nature, and particular significance, of these buildings and their place in the field of retail commerce.

In order to examine in depth the concept of supermarket architectural design, four case studies are presented, both to illustrate the evolution of store design and to demonstrate the complex processes involved in the design and the completion of specific developments. These studies of individual stores together present a clear picture of the many variable elements that must be considered in the design and construction of a supermarket building.

The discussion and conclusions drawn from the research material, in particular the four case studies, records and demonstrates the substance and meaning of these and other supermarket buildings and the influences, both mandatory and elective, that are important and significant in their design and the design of the sites they occupy.

The review of relevant literature supports the conclusion that this research presents new knowledge in a field as yet unexplored by academic study.

1.CHAPTER ONE

INTRODUCTION

1.1 Introduction

In the past forty years, supermarket buildings have become some of the most familiar structures in the urban landscape. During this period many relatively modest post war, high street, self-service grocery stores have evolved into vast retail giants.

Supermarket retailing has had a huge impact not only on patterns of behaviour, attitudes towards consumption, life style and what constitutes necessities within the UK population, but also on the landscapes of towns and cities. The architecture of present day supermarkets has developed from the long tradition of shops located in high street footprints to large, stand-alone structures that occupy their own sites, and are most recently designed to support the development of new communities (Tesco, Slough 2005). The sites alone make a substantial impact on the landscape, and most involve the development of new road systems as well as statutory large car parks, petrol stations and complex landscaping. In spite of the impact of these developments there is a lack of academic appraisal and more general cultural awareness focused on the architectural design of supermarket buildings. There is therefore a justifiable need for in depth research that facilitates the exploration of this phenomenon.

This study therefore sets out to examine the nature and particular significance of the architectural design of supermarkets and the elements that have combined to produce the designs that have evolved, from the post war period to the present day.

Morrison defines the UK supermarket as '*a food retail outlet with over 2,000 square feet (185 sq.m) of selling area*' (Morrison, 2003 p.275). Seth and Randall define superstores as 25,000 square feet or more and hypermarkets 50,000 square feet or more. (Seth & Randall, 1999) More recently food retailers appear to refer to their entire stand alone stores as superstores. A statement from Tesco explains, '3k feet stores can be called superstores'. However 'Tesco calls all shops

superstores because it sounded better' (Douglas, 2007). 'Hypermarkets' sounds scary so they just call them superstores apart from "Tesco Extra", which is very large, having 60k trading space which includes non food,' (Tesco, 2007).

In order to define an area suitable for an achievable study, this research focuses chiefly on the external design or 'shell' of the buildings. This area alone presents a large body of material from which examples are selected for research. The interior space is only considered when this is relevant to the main focus of the work.

As an architectural phenomenon it is surprising that the external design of these buildings in the UK is a neglected subject for academic and social study. The decision to explore this area as a possible subject for research was initially motivated by this omission. It is possible that due to its diverse nature supermarket architecture has fallen between the two areas of serious architecture and popular design and is therefore not a clear or 'respectable' area of academic research. It relates to the distinction made by Pevsner in his influential introduction to *An Outline of European Architecture* (first published 1943), between a cathedral described as 'architecture' and a bicycle shed, described as 'mere building' (Pevsner, 1945). For many people supermarket buildings are disqualified as architecture because they are sheds. Pawley makes a point about the rise of the shed in his book *Terminal Architecture* (1998), while Venturi (1992) famously tried to reclaim the shed as a form of architecture in his formula for the semiotically enhanced 'decorated shed'. The architect Cedric Price, who was an advocate of the shell as a dynamic structure capable of contingent change, also indicated his willingness to concede that buildings, like his design for the 'Interaction Centre' in Kentish Town, North London (1971) should not be preserved but should last only as long as they were useful (Design Museum 2005). Such diversity has confused attempts as academic or critical focus on an architectural style that cannot be specifically defined.

This study is necessarily interdisciplinary and multidimensional. Although relating to the areas of psychology, anthropology, sociology and business it is not bound by any of these disciplines. Nor is it solely an architectural record, or a

history of retail systems, but could be defined most clearly as design history linked to contemporary discourses. Walker (1989) defines design history as ‘the name of a comparatively new intellectual discipline, the purpose of which is to explain design as a social and historical phenomenon... Like art history, its immediate forbear, design history is a branch of the more general academic discipline, history. And like history itself, design history has close links with other disciplines’ (Walker, 1998 p.1).

From the earliest years of the formalising of the study of Design History issues of household design and consumption have been to the fore, notably Forty’s book *Objects of Desire* (1986).

The Design History Society has a further confirmation of design history as an area of academic study, and encourages ‘liberal and inclusive definitions of design history and its methods, approaches and resources’ (Design History web site, 2007). Founded in 1977 the society’s journal, published quarterly provides further insights into the subject. They also hold annual conferences at various European venues.

The need for research into the significance of retail architecture is supported by the work of the American academics Turley and Milliman. They suggest in their review of *Atmospheric Effects on Shopping Behaviour* that: ‘*The external variables include the store front, marquee, entrances, display windows, building architecture, the surrounding area, and parking. The research pertaining to this portion of a store’s atmosphere is extremely limited*’. Referring to other work in this area they state, ‘*external variables have an influence on the behaviour of retail consumers*’ (Turley & Milliman, 2000 p.195).

Bitner, in her work on the physical surroundings of service organisations, also argues the need for further research. She suggests that; ‘*Research opportunities also are available in exploring the ability of the physical environment to achieve particular objectives of the firm, and at what cost*’. (Bitner, 1992 p.68). Turley and Milliman suggest further that:

The exterior of a marketing facility (e.g. retail store, restaurant etc.) must be considered acceptable before the interior of the building is ever experienced. Research on exterior

building shape and characteristics, such as colours and architectural style, and the effects of exterior landscape and signage are particularly called for since so little is known about these variables at present. (Turley & Milliman, 2000 p.207).

Since starting this research in 1997 there has been a measurable appreciation in academics attitudes towards retail theory and history. This has included the study of supermarkets and their dramatic social and economic evolution since the 1950s in. For example, the published work of Williams (1994), Hardyment (1995), Miller et al. (1998), Seth & Randall (1999)

By the 1970s supermarket retailing was a complex and rapidly developing behemoth. However, although consumers were attracted to supermarkets, the contribution of the architecture has been inadequately studied or recorded. It could be said that one of the aims of supermarket architecture is to make the building seem to be composed of products and thereby to deny its appearance as a container. Nevertheless it seemed inconceivable that the architectural design of stores did not play a specific part in the increasingly complex and competitive field of supermarket commerce.

1.2 Retail Literature and Academic Interest

Prior to the late 1990s there was little literature focused on retail design history apart from the work of Alison Adburgham and Dorothy Davies. Kathryn Morrison writing for English Heritage in 2003 (*English Shops and Shopping*) published a concise history of retail architecture including a section on supermarket design and a case study of Tesco store design (Kirby and Morrison, 2003). Academic interest was reinforced in 1998 when the University of Wolverhampton set up the Committee for the History of Retailing and Distribution (CHORD).

The relationship between retailers and the public had also changed significantly in the late twentieth century. Shopping has been recognised as entertainment and a leisure activity. The suggestion that shopping is therapeutic ‘retail therapy’ and the urging to ‘shop ‘til you drop’ has become part of common parlance.

Selfridges has published (Feb 2004) promotional material that suggests not only that customers should shop until they dropped, but expands the concept in the suggestion that in 'dropping' customers would be *'Thereby fulfilling your role in society while simultaneously finding happiness'* (Show, 2004 p.3). This trend was reflected in academic studies, in the anthropological approach undertaken by Miller, in *A Theory of Shopping* (1998), and Bowlby, *Carried Away*, in 2000... Television and radio programmes have also focused on shopping as a leisure activity and as consumer culture BBC 2003.

1.3 Aims and objectives

The starting point for this research was to trace the history of supermarket architecture, and subsequently the emergence of stand-alone supermarket buildings whose origins lay in high street grocery chains. Supermarkets heralded the introduction of retail systems (self-service) that revolutionised food shopping behaviour. The self-service system and supermarket ambience in the 1950s offered a 'modern' life style that suggested freedom from shopkeeper dominance that existed in their interactions with the customer.

1.3.1. Aim

The overall aim of this study is to explore how and why the architectural design of supermarket buildings has changed over a period of time between 1950 and 2006.

1.3.2. Objectives

The diverse nature of both supermarket design and its commercial and social contexts, has in terms of this research been classified into three main objectives. An initial study of visual evidence reveals that although diverse in style, supermarket buildings contained common elements, the combination of which are recognised as being a supermarket.

The first objective concerns the changing architectural design of supermarkets and the significance of these changes in the context of changing social conditions and expanding retail commerce. The architecture of free standing supermarket

buildings and the significance of the changes and variations that have occurred in the design of these buildings during the period since the end of the Second World War are the main focus of the research. The design of stores sited in shopping malls, are not included in this study, as they have no independent design style, Apart from the company signage and logo they are designed to fit in with adjacent retail units.

The study will focus on UK supermarket buildings, which have characteristics specific to this country. These characteristics are closely related to the environment and architectural traditions of the UK and the perceived national identity of the population. Some UK companies have become global players, for example Tesco, and building design concepts originated in the UK are now reproduced in Eastern Europe and the Far East. The fact that these architectural concepts are now exported, underlines the importance of the designs that have originated in the UK and reinforces the purpose of an academic study that focuses on this important and neglected area of architectural evolution and design.

The reuse of buildings for supermarket applications is included in this research and is particularly important in the light of 21st century thinking. Reuse of buildings for supermarket use appears to have begun in the 1950s as established UK companies, needing to expand within the high street, occupied vacant cinema sites (see History section 4.5).

The nature of supermarket architectural design will, for practical purposes, necessitate, for this study, focusing on a select number of buildings that will illustrate the development and particular significance of the phenomenon. Large purpose built standalone stores are the most interesting in terms of architectural design and are the richest source of research data. Within this narrower category there are hundreds of possible candidates, research therefore will focus on examples that illustrate the main aim and objectives of the study and the four case studies have been chosen to this end.

The architecture of Co-operative stores is not discussed in this research apart from some brief historical reference (see below). This area of retailing is complex

and bound up with philosophical and political issues that necessitate a separate study. Commentating on the store design Morrison writes;

These stores have a robust character that is all their own, and they can be distinguished from their contemporaries as much by their peripheral positions and piecemeal construction as by the symbols of manufacture and industry that are emblazoned on their facades. As such they are a highly visible manifestation of the English tradition of utopian socialism, and form a distinct element in the English townscape. (Morrison, 2003 p.145)

Sainsbury's approach to architectural design during the 80s and 90s is clearly an important and significant contribution to any debate focusing on the architecture of supermarkets. Their decision at this time to commission high profile architects to design landmark buildings resulted in almost all of these receiving detailed attention in professional journals and the national press. A focus on the significance of these high profile designs is therefore an important area for consideration in this study. Sainsbury's reasons for adopting the policy of commissioning internationally recognised architects to design a series of flagship stores is investigated. The influence of these designs on future architectural solutions, their effect on the quality of supermarket architectural design and their influence on architects from other companies are considered and given particular focus in the case studies.

Although speculative, an exploration of the possible antecedents and past associations of supermarket architectural design is explored in order to ascertain whether such areas are significant in regard to the physical characteristics of the buildings (see History section). The relevance of the social, cultural and moral issues that coexist with comparable architectural styles of the past will be considered along with the possibility that these can feasibly translate to concurrent issues of contemporary thought.

This strand of the research concerned specifically with the architectural design of supermarkets will focus particularly on the architectural design, prevalent during the 1980s, commonly referred to as the 'Essex Barn'. This design has particular

significance in the development of the supermarket as a recognisable building archetype.

The second objective is to understand how the sites of supermarkets have been perceived by the retailer stakeholders, and the environmental impact of supermarket developments. This question is highly relevant in terms of design and attitude towards supermarket buildings and is often a crucial factor in the sites of commercial developments.

Since the end of the Second World War the rapid and extensive need for domestic housing, retail outlets and commercial office space has resulted in dramatic changes in the landscape of sites previously marked for agriculture (green field) or industrial use (brown field). Retailing has expanded from limited High Street environments to town shopping centres, often at the expense of small retail outlets. Even larger out of town retail centres and vast shopping malls have all made, often unwelcome, distinctive changes to local landscapes. New road and transport systems are necessary for access, car parking and provision for delivery vehicles is also necessary. Freestanding supermarket buildings, that are the subject of this research, have been part of this pattern of retail expansion. This strand of research will investigate the effects of supermarket development on local environments and the perception of these changes voiced through public consultation.

The research in this strand considers the influence of post War Governments and the extent to which the intervention in the publishing of planning guidance notes, have influenced the design size and location of supermarket buildings and their environments

Further research investigates how and to what extent Government legislation and published guidelines are related to the part played by local authority planning departments in the design and sites of supermarket buildings, particularly the 'stand alone' and out of town developments that are the subject of this study. Also to be considered are elements related to the change in landscape affected by

supermarket presence and whether these changes are part of the shift in patterns of social behaviour and related urban reorganisation.

Urban landscapes, the High Street, edge of town areas and rural landscapes, where stores have been developed on green field sites, have been considerably altered by the development of major supermarkets. Research explores the effect on local environments of developments on brown field sites, often on contaminated land, that have been cleared for supermarket use and the changes in the landscape of areas formally put to industrial use. The effect of accompanying road schemes, both for customer access and delivery trucks, which are likely to transformed the localities in and around the sites of out of town, stand alone stores and more recently around sites within town centres are addressed and considered in the fourth case study.

The importance of assessing and interpreting the impact of supermarket developments on both urban and rural landscapes has been an important factor in judging the significance of the buildings (see Case Studies).

The nature and importance of a development site within the urban landscape will prove significant in relation to architectural design outcomes. This significance is also explored through the case studies. The results of change are investigated in relation to instances where listed buildings have been demolished in a formally traditional High Street to provide space for a supermarket (Camden 1994). This strand of research also considers the design solutions that have occurred in cases where authorities have demanded that buildings compliment those already established on a new edge of town site (Morrisons, Norwich).

The research explores cases where the design of a store is selected by competition, and the extent to which planning departments and site owners have been involved in the selection process (see Case Study 3, Greenwich). The influence on the outcomes of architecture and landscape design applications by protest groups, working through local authorities, and occasionally influential individuals are

explored, and the extent to which this intervention has influenced the outcomes of architectural design within changing landscapes is considered.

The third objective of the study is to evaluate the extent to which branding and corporate identity influences the design of supermarket buildings. Although branding schemes are clearly apparent in many areas of supermarket design, for example in logos and advertising slogans, there appears to be no clear indication of such schemes in building design. This area therefore is explored as part of the research question.

Many buildings represent dedicated spaces for specific purposes, for example churches, schools, market halls, these have in general recognisable characteristics in their design, which are identifiable as being significant and related to the activity that takes place inside them. The church spire or cupola, the school playground etc. are familiar features that identify the purpose of the buildings. Research will identify such features in supermarket buildings and explore the relationships between these features, if any, and company branding, whether intentional or unconscious.

Although essentially enclosing a space designed to accommodate supermarket trading, the diverse and eclectic character of supermarket architecture has makes it difficult to identify the common features, which communicate the essence and nature of the specific activity that the buildings support. In many instances the logo appears to have replaced any identifiable features in the building design. In some respects this approach reflects an economic imperative. Alternatively it can be said to follow the logic of extreme functionalist approaches to architectural design, such as the architectural philosophy of avant-garde designers such as Archigram and Cedric Price who sought to create temporary adaptable structures for containment or prefabricated shelters. Signage in this context is sufficient to designate its availability for certain contingent uses but is an important semiotic component of the structure (Crompton 1999). The idea of the ‘decorated shed ‘ as proposed by Venturi also lends itself to commercial function and promotional logic. In terms of branding this is a significant area of interest, the question of the importance or necessity of identifiable features in supermarket architectural

design to a company branding strategy is an important objective that is explored in this strand of the study.

Kotler (*Marketing and Management* quoted by Coomber 2000) describes branding as a '*name, term, sign, symbol or design*' that is designed to differentiate one specific company from another. A more recent definition is given by Koch (quoted by Coomber, 2000 p.9) that explains further that the brand will '*assure consumers that the product will be of high and consistent quality*'. Riewoldt quotes Naomi Klein as going further and suggesting, '*brands are the main source of identity. The brand fills a vacuum and forms a kind of armour, taking over the part once played by political, philosophical or religious ideas. Logos are becoming fetishes*'. (Riewoldt, 2002 p.8) Riewoldt, considering the relationship between branding and retail design suggests, '*Brands signal our membership of an "in" group. They are the tools with which we build status.... brands build emotions, promise happiness and provide kicks*'. (Riewoldt, 2002 p.8).

This research seeks to discover whether these definitions are relevant to this study that, within the pattern of the three main objectives, examines the nature of branding in the context of supermarket architectural design. The research will clarify the concept of branding in relation to supermarket architectural design and whether this concept has developed in an area of commerce, in which positive branding and related life styles changes have been and are an essential element of their success.

Also considered within this objective is the role of the supermarket customer. This is no longer fixed, but embodies many different kinds of intentions and experiences. To be successful the buildings must echo the needs and expectations of the customers, or 'users', and those of the staff and others who must interact with the building. The relationship between these 'users' and the 'players', those involved in determining design outcomes, is important in a consideration in the branding of the supermarket phenomenon, it is possible that this is not always a one way process. For example Tesco have regular meetings with staff and customer focus groups in order to monitor feedback on the introduction of new systems and the general running of the store. During the planning stage of a new

store local opinion groups are also involved in discussions regarding building design and access routes. (Tesco archive).

In order to investigate the process of architectural design of supermarkets, four buildings are selected from two major companies whose design and development appear to have particular significance and for which records and research material are available. These are included as case studies and will be examined within the framework of the study's three main objectives. They will each in different ways form an 'anchor' for discussion and other research included in the study. Each store will differ in age, design, location and purpose and represents a specific generic type in contexts that offer similar and dissimilar equations.

1.4. Visual images

Photographs of early supermarkets are difficult to source. As the study progresses, any available visual material is collected, some of which is used as an aid to the research, the rest will be stored with a view to adding them, at a later date, to an existing established archive of retail design. The images that appear in the study are included in order to clarify architectural details discussed within the context of the three main objectives. Photographs are sourced from company archives and taken specifically for the study. Photographs included in the text are not formally catalogued or curated and cannot therefore be defined as a true archive but rather as a collection of images that will be later included in an existing retail archive, subsequent to this research. This archive will record details of dates, architectural designers and other available statistics relating to the buildings, for example size and site history, which will provide data for future research and possible links with similar retail archives.

Commercially produced pictures are often enhanced to create images that are designed for press releases. These rarely show buildings with busy car parks and customers with loaded trolleys, and therefore give limited information as to the true environment and practical working of the store. This difficulty is taken into account where photographs are used to support a specific observation. The problem is comparable to architects' drawings and virtual reality presentations

that include images, other than the proposed building, for decorative rather than realistic purposes.

Because, therefore, of the complexity of photographic imagery, photographs included in the text are there to support the study, not to stand as part of a practical submission. The unreliability of photographic recording is well documented. David Hockney is among those who write of the veracity of present day photographic images. He suggests that '*modern photography is now so extensively and easily altered that it can no longer be seen to be true or factual*' (Hockney, 2004 p.3). There has been a long tradition of retouching photographs especially postcards. Even images that have not been digitally enhanced can, by use of careful camera angles and subtle lighting, produce stunning images of unexceptional buildings. The reverse is also applicable in that bad photography can devalue a good building. In the case of supermarket buildings this sometimes occurs due to difficulties in accessing a store located on an overcrowded site.

The veracity of images can become apparent when visiting a building that has previously only been seen in photographs. For this reason site visits are made to any existing stores that have particularly significant designs or those that represent a style repeated in other locations.

Many of the photographs included in the study are of stores that have been visited, but others are of buildings that no longer exist or have been extensively altered since their original conception.

1.5. Structure

This thesis is divided into six chapters.

Chapter One gives the introduction to the thesis and states the aim and main objectives of the research study.

Chapter Two examines the methodology and research methods used throughout the thesis.

Chapter Three is a review of literature relevant to the study and specifically to the main objectives, although these will be examined as discreet sections they are

interrelated to each other and coexist in relation to the main aim of the study-changing nature of the design of supermarket buildings.

Chapter Four records and examines the chronological history of supermarket architecture. The evolution of design styles is defined in order to map the changing nature of the design of supermarket buildings. This section records the changes that took place in this area of architectural design between 1950 and 2006.

Chapter Five focuses on four case studies that record, examine and evaluate the significance of four individual stores in the context of the research objectives.

Chapter Six is a discussion and conclusion of the research findings, and presents the conclusion to the study in which a summary of the key findings are linked to the research objectives. Limitations of the research and themes for future research are also considered.

1.6 Conclusion

Research into the nature and particular significance of supermarket architectural design reveal a rich and complex area of study, that has not previously been explored. The design of supermarket buildings will prove a more labyrinthine issue than one driven solely by finance or local authority preferences.

It is clear from their history that the buildings have become part of a complex organism that has, consciously or unconsciously, been absorbed into the social geographical and economic structure of the 21st century in the UK.

The over all aim of the study, is to explore, how and why the architectural design of supermarket buildings has changed over a specified period of time This is achieved through examining a number of relevant buildings and design styles in context, in particular periods between the 1950s and 2006.

The three main objectives of the study, architecture, environment and branding specify more in depth research to address the questions posed by the overall aim. Not all the objectives will have equal relevance in all areas of the research, however each is considered, whether the evidence results in negative findings or positive answers.

2. CHAPTER TWO

METHOD AND METHODOLOGY

2.1. Introduction.

The architectural design of supermarkets and their history is an extensive and complex subject, which demands that more than one methodological approach is necessary in order to structure the material for discussion. The critical theoretical framework of the research is discussed in an assessment of methodology followed by an explanation of the case study method adopted here along with the interpretative, qualitative and historical approaches. Supermarkets have been discussed as phenomena highly sensitive to consumer needs, corporate identity and specific aesthetic issues relating to location and the negative perceptions that have been levelled against them as the enemies of a 'High Street' culture. Research has been sensitive to the shifting, specific instances of supermarket design as well as the wider context. The case study method and the sources of evidence are discussed followed by the discussion of other research methods. Several research methods are used to collect data Saunders et al. suggest that 'multi' methods as well as enabling triangulation (see below) has the advantage of allowing different methods to be used for different purposes within the study (Saunders et al, 1997).

2.2. Critical Theoretical Framework: Venturi and Pawley

The theoretical writings and architectural design of Venturi, together with the critical and interpretative work of Pawley will support the theoretical framework for this study. Yin suggests that for some topics, existing work may provide a rich theoretical framework for designing a specific case study (Yin, 2003).

In his published work *Complexity and Contradiction in Architecture* (1966) Venturi praises the inherent honesty and beauty of ordinary buildings (see literature review). In the citation from his Pritzker prize jury it is acknowledged that his theoretical stance '*wove a manifesto that challenged prevailing thinking on the subject of American functionalist architecture, and the minimalism of the International School*' (Pritzker Jury 1991).

Although Venturi has been said to have diverted architectural design away from modernism he denies that his work should be defined as Postmodern. He describes as perverse *'where complexity and contradiction in architecture deriving from the method of historical reference, have been misinterpreted as justifying historical-revival Postmodernism'*. (Venturi et al, 2004 p.9).

Scott Brown explains that *'we have not worked explicitly to invent a school and promote our ideas thereby.... As far as movements and schools in architecture are concerned, we have been loners'* (Venturi/Scott Brown, 2004 p.1x).

Venturi advocates a more contextual approach to architectural design and praises *'the messy vitality of the built environment'*. He states

I like elements which are hybrid rather than "pure", compromising rather than "clean", distorted rather than "straightforward", ambiguous rather than "articulated", perverse as well as impersonal, boring as well as "interesting", conventional rather than "designed".... I include the non sequitur and proclaim the duality. (Venturi 1966 2nd ed, 1992 p.16)

Venturi describes the 21st century as Kafka-esque explaining that bureaucratic review boards and committees were responsible for stultifying architectural design (Venturi, 2004).

Discussing the importance of context in architecture and urbanism he suggests that context is important because it *'acknowledges the quality of a place, of a whole beyond the single building, and enhances an extended unity'*.

(Venturi/Scott Brown, 2004 p.10). He goes on to explain that harmony in context can be achieved through contrasts as well as from analogy and that complexity *'engages a range of contexts: cultural, aesthetic, sociological, urbanistic, rather than just the formal or ideological'* (Venturi/Scott Brown, 2004 p.10).

Learning from Las Vegas was published in 1972 (see literature review) and describes the Las Vegas of c.1968, it acknowledges the significance of symbolism and signage, which in later work leads to the concept of electronic technology which Venturi sees as evolving into a form of digital media in an architectural and urban scale. From this work he has evolved two ideological concepts *'perverse'* and *'positive'*. Within the positive strand he suggests that an

architecture of complexity and contradiction can become what he defines as explicitly Mannerist in what he describes as our neo-Byzantine era.

(Venturi/Scott Brown, 2004).

Pawley, in an article about Venturi and his work suggests that Venturi's published work had been highly influential in the period (1965-1975) that '*marked the sea change from modern to post modern architecture*'

(Pawley 1991 *Blueprint* – Jenkins 2007)

Pawley's writing might be compared to that of Reyner Banham. Banham's adage that architecture is 'a cultural solution to the problem of enclosure' is a theme that runs through much of Pawley's work. *Theory and Design in the Second Machine Age* (1990) can be said to be a sequel to Banham's work written in 1960. Pawley is considered to be an original, unconventional, critic and thinker (Jenkins 2007).

Advocating an approach to High-Tech architecture Pawley suggests that it is illogical to suggest that buildings and machines are completely different. He champions the concept of 'ephemeralisation' which he suggests are the products of 'non-fine art' industries, for example distribution and retailing, he proposes '*an optimised rate of replication-say ten years instead of 300 years – that is unconfused by cultural ideas of heritage, conservation or sentimental camouflage*'. (Pawley, 1991 *AA files* no.21 Jenkins p.245). He sites Fosters and Rogers 1967 Reliance Controls building in Swindon, as an example of a transitional object '*caught midway between fine art, "architectural culture" and true "Redneck" production engineering*' (ibid), and suggests that Foster's design for Stanstead Airport, influential in supermarket design, can be traced back to the earlier design of the Reliance building.

Pawley quotes Peter Rice and Michael Hopkins, that High-Tech architects agree that architecture and engineering are complementary to each other. (ibid).

Discussing the meaning of 'vernacular', Pawley suggests that, as defined by town planners, it is '*the way most buildings used to be done in any definable locality*' (ibid. p.74). He continues that '*this simple concept of formal similarity enables those utterly lacking in aesthetic sensibility to pronounce on taste and style*' (ibid). He argues that vernacular architecture only truly exists in the relationship

between local techniques and building resources and that when this relationship is lost the definition is no longer applicable.

In his 1968 essay *The Time House* (Jenkins 2007) Pawley writes of the need for the designer to move on from the conventional ideas of architectural design into an acceptance of experiencing and understanding the environment. He suggests that ignoring the problem results in confusion between action and consciousness. In discussing the environment he refers to the importance and significance of context, he writes that '*behaviour can only be understood in the context of the environment in which it takes place*' (1968 Jenkins, 2007 p.30). He considers therefore that hostility to redevelopment by inhabitants of a particular area is because in this context they see redevelopment as equally destructive as it is creative. He reiterates the need for stability and quotes the work of Habraken who argues against the huge increase in bureaucracy and environmental control in the 20th century, which he feels, poses a threat to formal stability.

Pawley writes extensively about the concept of 'technology transfer', which he defines as a process in which techniques or processes used in one field of industry are used in other industries or fields. He disagrees with Banham (1960) that architecture and technology may be incompatible and suggests that post war modernist designers were 'overwhelmed' by the vast and rapid innovations in science and technology. He suggests that a serious analysis of technology transfer in the field of architectural design would provide a base from which to compare pre-Modernism, Modernism and postmodern architecture. He gives as an example of an instance of technology transfer that some postmodern structures might be more fertile to this than some High-Tech buildings.

Pawley champions the evolution of innovative concepts and the application of revolutionary technology showing how design solutions can evolve with these innovations. (Foster, 2007 Jenkins, 2007)

2.3. Research Methodology

2.3.1. Interpretative

Design History as such has no specific theoretical base but borrows from other disciplines such as linguistics, sociology and other branches of historical research.

(see chapter 1). The research involved in this enquiry is necessarily empirical and will call upon existing theories that are appropriate to the subject area (see below). Wilson defines history as a '*continual, open-ended process of argument that is constantly changing...thus there are no final answers, only good coherent argument*' (Wilson, 1999 p.3) He suggests that the lack of any common methodology in recent decades poses a problem for contemporary historians. He comments that historians have used a variety of methodologies that deal with the past. Discussing this problem he suggests that '*History is a creative process that expands our horizons over time and shows how contingent our condition actually is*' (Wilson, 1999 p.x11).

Whilst Elton defends the idea that history is the search for objective truth about the past (Evans, 1997) other authors suggest that historical research brings particular ideas and ideologies to bear on the past. (Evans 1997).

This study adopts an Interpretative method of research, which emphasises the use of qualitative data in exploratory and creative research designs (Hackley 03)

The study adopts a phenomenological approach as it is concerned with the context in which events occur and the reasons why such events do occur.

Remenyi describes the process, which is arguably pertinent to what is a historical enquiry. He suggests that the approach to phenomenology unfolds as the research proceeds and that '*every evidence collection suggests how to proceed to the subsequent phase of evidence collection, as does the interpretation of the evidence itself*' (Remenyi et al, 1998 p.35). Hackley suggests that;

'Phenomenology can conceive consumption not merely as behavioural response to external stimuli but as meaning directed behavioural response driven by emotions, feelings and fantasies' (Hackley, 2003 p.112).

A phenomenological approach clearly cannot be applied directly to the supermarket buildings themselves. The design and outward appearance of the structures and their environment is central to the aims and objectives of the study and is therefore of prime importance in the research process. However as the study seeks to explore these visual phenomena through the data gathered from the main players who influence and determine the design solutions, a phenomenological approach is therefore apposite in this context.

2.3.2. Qualitative

Qualitative data is defined as material such as transcripts, field notes, records of conversations and texts such as books, newspapers, journals and advertising material and visual images. (Hackley, 2003)

Although not discounted, because of the diverse and variable nature of the research material, quantitative research methods are largely inappropriate. The arguments against qualitative research continue, but this approach is most suitable for a subject that seeks to understand the nature of a developing phenomenon, where visual data form an important part of the research material.

Daymon and Holloway discuss research involvement and suggest that the main research 'instrument' in qualitative research is the researcher as opposed to the techniques of quantitative research in which researchers are remote from their informants. They also suggest that the use of qualitative techniques allow flexibility and that while this approach might start with inductive reasoning it is then likely that, through a sequential process, it will employ deductive reasoning. That is to say the researcher moves inductively from specific data to more general patterns and commonalities, these ideas are then tested by relating to the literature and to further data collection and analysis i.e. deduction. (Daymon & Holloway, 2002).

2.4. Case Study Method

In order to investigate the process of architectural design of supermarkets, four buildings will be selected from two major companies whose design and development appear to have particular significance and for which records and research material are available. These will be included as case studies and will be examined within the framework of the study's three main objectives. They will each in different ways form an 'anchor' for analysis and other research included in the study. Each store will differ in age, design, location and purpose and represents a specific generic type in contexts that offer similar and dissimilar equations.

The purpose of the case studies is to identify the main reasons for the design outcomes that are manifest in the four supermarket buildings chosen for research.

A case study can be defined as an intensive examination using multiple sources of evidence, their purpose, to increase knowledge about how and why things occur (Daymon and Holloway 2004). Remenyi et al. quote Yin who they suggest regards a case study in the same way that a scientist regards a laboratory experiment. They quote Bell (1993) who suggests that the case study is an overall term for a group of research methods focusing on a specific enquiry and Schramm who specifies that a case study will focus on how and why decisions were taken how they were implemented and the results of the decisions that were made. *‘Which ever view is taken it is the aim of the case study to provide a rich multi-dimensional picture’* (Remenyi et al.)

Whisker (2001) quotes Robson who suggests that a case study is a technique of doing research which would involve empirical investigation of a specific phenomenon in its actual context using multiple sources of evidence (Whisker 2001).

The Case is a real life set of events from which data is drawn (Yin 2004). Case study is the substance of research inquiry, consisting of research questions, theoretical perspectives, empirical findings, interpretation and conclusions (Yin 2004). Cases are commonly used where the investigation must cover both a phenomenon and its context (Yin, 2006). They can intensively use documents such as newspapers.

Denscombe asks if it is possible to generalise from a Case Study. How representative is the case? Although a case is unique it is also a single example of a broader class of things. The extent to which it is generalisable depends on how far the case is similar to others of its type. He suggests that the reader can make an informed judgement about how far the findings have relevance to other instances (Denscombe 2007)

2.5. Sampling

The subjects for the case study are chosen from the many supermarket buildings that were examined during the first part of the research programme. From the large number of possible supermarket buildings that could be subjects for case

studies, four are chosen for in depth study. The selection is not random but purposive, they are selected because their design or context is particularly significant, because they represent a generic design, or because they represent a particular move towards a changing design style.

The research methodology is interpretative therefore the aim is to arrive at insights for which as much evidence and reasoning as can be deduced. Sampling must sometimes be driven by practical considerations, or suitability for the issue in focus (Hackley 2003). It is suggested that it is not unusual for a case to be selected for its convenience or accessibility, choice can also be determined by a case which illustrates features or processes which are of interest to the study. The final justifiable selection is likely to be based on several possibilities. (Daymon and Holloway 2003). Stake suggests that it is acceptable to study a case 'in its own right' (Stake 1995).

2.6. Sources of evidence

In order to obtain sufficient and appropriate data for analysis it is necessary not only to observe and record information but also to access the less obvious and, in some cases, hidden areas of interest related to the subject of the study.

Using the technique defined as 'snowballing', (see below) contacts are established and relationships developed with informants in the area of study.

These include architects, designers, town planners and historians. Hackley cites the work of Agar (1996) and Easterby-Smith et al. (1991) who advocate the importance of establishing trust between researcher and participant (Hackley, 2003). Contacts within the field of study enables access to information, which would otherwise be difficult or impossible to obtain. Such contacts include senior managers, executives and department heads in the fields of architecture and commerce. It is necessary to gain the trust of those involved directly with the design and planning procedures in order to understand the processes involved in supermarket commerce and design.¹ This is aided by mutual exchanges of information and material useful to both sides.

¹ Interviews with architects planners and archivists between 1996 and 2005 (field notes)

Hackley discussing the ethnographic research methods of Rust (1993) suggests that it may be possible to simply 'hang-out in places of interest' (Hackley, 2003, p137).

Much of this research is likely to be conducted in informal settings where participants have are more relaxed and prepared to give information that would not be forthcoming in a formal interview. Hackley supports this, suggesting that; *'informal social settings, such as staff restaurants, the bar or pub after work, or other work-related social gatherings, can be particularly valuable for the ethnographic research'* (Hackley, 2003 p.135).

2.7.Triangulation

The diverse nature of the subject and the material available for research suggests a non-positivist approach is valuable in view of the availability of data. The material is suitable for a triangulated study where multiple evidence collection methods can demonstrate a match between theory and reality.

In this study the elements of triangulation relevant for analysis are observation and recording, interview and archive material. These elements will be used to verify and analyse research data.

Triangulation is a common term in qualitative research (Hackley, 2003 p.66). It refers to the verification of research findings by reference to more than one course (see above).

Remenyi et al referring to research in business and management explain that 'Triangulation refers to obtaining evidence from multiple sources to ensure that a biased view is not being obtained from one informant' (1998 p.142) this method is equally applicable in the context of design history. They further suggest that 'the essence of triangulation is to attempt to corroborate any evidence that is supplied either by speaking to another individual or by asking for documentation that will support the initial view'. (1998 p.142).

2.7.1. Observation

Observation falls into three categories, examination of photographic records, plans and other documentation.² Restricted site visits and in-depth site visits, including guided visits with architects or planners.

Site visits range from brief observations to close examination and photographic recording. Almost all stores visited, have been photographed, particularly those that are possible subjects for case studies.³

The most useful in depth site visits have been with members of development teams or architects who have been able to point out important design features and less obvious, successes or failures in the development construction. For example Sainsbury's millennium store and Tesco's store in Ludlow (see Case Study).

Store visits have also been valuable following interviews with designers or planners; these have enabled an informed understanding of the building and how it works as a supermarket. For example, Sainsbury's in Streatham, Tesco in West London.

2.7.2. Interviews

The methods for collecting evidence for the case studies is largely face to face interviews, one to one telephone interviews and emails in response to specific interview questions. Some interviews are formal and structured but in some cases, where this approach is not appropriate, semi-structured or unstructured interviews are used. Formal interviews, although structured, are not conducted in a formal manner. The advantage of this approach is that the interviewer is able to act freely with the interviewee, questions can be open ended and the interviewer is able to adapt the questions where necessary or appropriate (Remenyi et al, 1998).

Although this approach is time consuming and can be costly, in the context of these case studies it is the method that elicits useful data. This approach gives an

² Access to company archives council records and personal collections. E.g. Sainsbury's archive 1999 (field notes)

³ All case study subjects visited and photographed between 2002 and 2005

opportunity to ask in depth questions in a relaxed atmosphere. The attitude and behaviour of the interviewee is also useful in later interpretation of the data (Remenyi et al, 1998).⁴

Within this element of triangulation (interview) the primary research method applied in the study, is that which is defined as ‘snowballing’. Interviews have not only been used to gather direct data but also to move on to other contacts who are prepared to give interviews themselves or answer specific questions.

Although generally associated with enquiry in the field of sociology this method defines the approach and structure of the study, in what is an expansive and diverse area of research. Remenyi et al discussing the collection of empirical data, explain that: *‘Once the research has obtained access to one organisation it is sometimes possible to have a friendly informant help the researcher obtain access to another suitable organisation. This approach is sometimes called “snowballing”’*. (Remenyi et al, 1998 p.146).⁵

Initially the subjects for interview were architects and planners who had already contributed to the research programme. Although the subjects for the case studies are chosen from two major supermarket companies not all the players involved were willing to give interviews or undertake any one to one dialogue.

2.7.3. Architects

Many early interviews established good background material but were not specific enough for detailed discussion. Others have been recorded and used in the discussion and case studies. (see footnote 5)

2.7.4. Archive Material

Research has revealed that, with a few notable exceptions much of the archive material relating to past supermarket architectural design had been lost or destroyed. This loss reinforces the ephemeral nature of these buildings and the

⁴ Many interviews between 1999 and 2005 included Tesco development team, Sainsburys architectural advisor, Morrisons head of planning, Somerfield head of planning, Waitrose architect. Architectural practices including Michael Aukett, Chetwood Associates, Nathaniel Litchfield, Saunders Architects, and English Heritage research team.

way that companies regard past design styles in relation to current or future projects. It can be interpreted as a side effect of a view of the buildings being essentially ephemeral.

In this context 'archive' is defined as a collection of material ranging in type from a large professionally curated collection of historical material focusing on one particular company to small unclassified personal collections of documents or photographs. Within this definition are extensive local government archives and the personal collections of architects and planners.

Interviews with company designers and independent architects produced some information regarding company histories, but in general it was found that archive material had disappeared during office moves or company mergers. One of the notable exceptions to this was Sainsburys, who employed a full time archivist (Bridget Williams), who had produced a book on the company history, *The Best of Butter* (1994). Their extensive archive, curated by Williams, included photographs of stores, copies of company promotional literature and a complete collection of in-house journals.⁶ Tesco had no archive as such, but an unclassified collection of photographs taken for public relations purposes were discovered, and a collection of photographs of stores gathered by an individual who had put the collection together for reasons of personal interest. Material, mostly photographs, which was gleaned from other companies, was also donated by individuals within the company, who had collected material for their own interest. The availability of research and archive material has, to an extent, dictated the buildings and companies that are chosen to explore as subjects for discussion. Although they are referred to in some sections of the study, there is no focus on the architecture of the Co-operative Society stores. This is a broader and more complex area of retailing that is not practical to include in this study (see above). Also For practical reasons it was not feasible to explore in depth material from the John Lewis (Waitrose) archive or the Somerfield archive, which it was agreed early on had no data related to architectural design.

Archive material falls into three categories: photographs, published material (books and journals), company documents and archives and local government

⁵ Initial contacts with supermarket planners at RFAC seminar 1996 (field notes)

records. Local and national newspaper archives have also provided valuable information.

2.7.5. Books and Journals

These are discussed in the Literature Review, which forms an integral part of the methodology, bringing together previous work and supporting the main aims of the study. Architectural branding and the environment are explored within the literature that relates to the historical and cultural history of the research question.

2.7.6. Company Documents

Material acquired from company archives and during interviews.

A large quantity of material from the extensive Sainsbury archive has been made available for research (see foot note 6). Architects and planners have also been generous with supplying material such as plans, drawings and virtual images relating to specific projects and company achievements.

2.7.7. Photographic Images

The visual experience or impact of a design is a primary consideration in research. This experience is not confined to the building but includes the site and surrounding associated landscape. In view of this, the recording of photographic evidence is an important element in the research method. Visual images, whether recorded specifically for the study or collected from company archive material, are a useful tool for exploration in this field.

2.7.8. Photographs, Plans and Other Documentation

As recorded above the availability of visual and written material relevant to research into supermarket architecture is very uneven. In some cases the sources are very rich and in other almost non-existent. Not all the material collected appears in the study, however, that which has been collected has provided a wide body of information which has served as an aid to research.⁷

2.8. Conclusion

The method and methodology used in this study has been driven by the nature of the archive and other material discovered during the research process.

Photographs, both donated and taken personally before and during the period of

⁶ Access to Sainsburys archive April 1999 and July 2002 (field notes)

⁷ Photographic collection between 1999 and 2006

study, have formed a valuable visual collection and references for the detailed properties of subjects (buildings) that are later used in discussion. The interpretative and qualitative approach to the research is successful and pertinent to the nature of the research journey.

As a research exercise, constructing a method diary from a personal archive of notebooks and recorded data has helped to consolidate the research material acquired through formal interview and informal discussion. Research diaries can be useful for supplementing field notes, assisting discussion of the research process and providing a chronological account of events for later reference (Hackley 2003). Quantitative research methods tested in the early stages of the research proved largely unhelpful due to the many variables encountered in the resulting findings. A qualitative approach was therefore adopted, being particularly suitable for a subject involving a considerable number of visual images.

3.CHAPTER THREE

LITERATURE REVIEW

3.1. Introduction

The material reviewed falls roughly into areas relevant to the three main objectives of the study, architecture, environment and branding. As explained above, three other areas of relevant literature will be included to support this main framework of objectives these supportive areas of interest are, social issues (including consumption and popular culture), history and retailing. These areas have been selected as extensive searches of published material has shown that they relate most closely to the subject of the study and therefore give an overall picture of relevant work in the field. The overlapping relationships between the areas illustrate the richness and complexity of the research subject. As in many design studies, there are instances where the distinctions are blurred and more than one category can be defined. Literatures relating to architectural and building design are clearly the most relevant areas for research in an enquiry into the specific significance of supermarket design and the history of the development of the phenomenon.

In addition to published literature, reference is also made to mass media through TV and radio. These have contributed information about the development of the supermarket phenomena as well as opinions regarding contemporary comment on supermarket shopping and retailing in general. This material has also reinforced the theory of a change in attitude towards the importance of retailing from both a social and economic standpoint.

The review of literature found in company archive material, library databases and published biographies of prominent retail pioneers, has provided a history of the development of supermarket architectural design. Reports and critical reviews published in architectural and design journals have traced a chronological account of design development from the 1950s to the present day. This account is unavoidably incomplete in that buildings promoted to the press by their

companies, or those having particularly 'news worthy' features, attract press attention and coverage while others less interesting or novel have gone unrecorded.

From the extensive literature concerned with architectural history and contemporary architectural design, published work has been selected on the basis of that which is most useful in explaining the particular phenomena of supermarket architectural design.

Literature that records the changing status and working patterns of architects and their relationships with clients is also included. In addition, there is a consideration of works that have discussed the changing status and use (or reuse) of buildings relevant to supermarket development, and the legislation that also has a bearing on these and other important aspects of planning and subsequently store architecture.

Published work has been included that concerns retailing and marketing which give insight into the systems that are in effect 'housed' in supermarket buildings, and which have both a direct and indirect influence on their architectural design. Within the literature of this subject area there is, however, rarely reference to the design of buildings except in the case of buildings that are now regarded as historically interesting, or, more recently, those that have been designed by prominent architects, for example department stores.

Books focusing on retail design are largely, apart from those discussed above, concerned with interior design rather than exterior appearance of buildings such as those considered in this study. For example Din's *New Retail* (2000) and Manvelli's *Design for shopping* (2006) Shopping malls also come into this category, supermarkets rarely appear in these complexes and those that do are designed to fit into an existing foot print, their architecture, as such, is not therefore relevant to this research which is concerned largely with standalone buildings.

Literature concerned with the social aspects of shopping, is included as a significant area of the review in order to investigate the important relationship between the appearance of supermarket buildings and the people who use them. Published work and interest in this area has increased considerably in the past five years as the recognition of retailing as an important social phenomenon. The history of this development is included in this section of literature as it is an aspect of the complex relationship between the customer (the consumer) and the supermarket companies.

There is a section in the review that focuses on the technology that has had a marked influence on the changing design of supermarket buildings. This literature published in journals and books identifies and traces the history of technological development that has both facilitated and influenced store design and patterns of social behaviour.

3.2. Design

This part of the literature review focuses on published work that is concerned with the areas of architectural history that are relevant to the study and its subject, the architectural design of supermarket buildings. Both late and contemporary historical works are included where they are relevant to the subject. The section is divided into two parts the first considers literature that provides a historical overview of relevant issues. The second examines published work that is concerned with areas of recent and contemporary design and design theory that contribute to the contextualisation of the study and its validation as a suitable subject for academic scrutiny.

3.2.1. Out of Town Developments

By the early 1980s fierce rivalry between supermarket companies competing for prime development sites was becoming influential in the architectural design of new buildings. This was particularly evident within the four major companies, Sainsbury, Tesco, Safeway and Asda. Morrison comments that as *'the novelty of the free standing off-centre store diminished, the unarticulated "big box" became less acceptable to planners and to the public'*. (Morrison, 2003 p.279)

3.2.2. Flagship Stores

Williams records that during the 1980s Sainsbury's made a positive decision to focus attention on the architectural design of their stores. To this end they commissioned high profile architects to design a portfolio of flagship stores that were intended to reinforce the company emphasis on quality in all things (Williams, 1994). Lamacraft in her *Financial Times* survey reports that;

Sainsbury's uses architecture and design to differentiate itself from rival food multiples and enhance the separateness of its brand. It wants its customers to equate the quality of the built environment with the quality of the products inside. By taking a local approach to the design of each of its stores, Sainsbury's creates a sense of community ownership that would be impossible with a rigid Sainsbury's formula....Where as until recently supermarket architecture in the UK was characterised by vernacular "barns" and red brick clock towers, Sainsbury's has taken a boldly diverse approach, commissioning some of the biggest architectural names. (Lamacraft, 1998 pp.10-11)

The success of this policy, from the point of view of professional recognition is documented in the recording of design awards, and the interest shown by architectural and design journals (see below). In addition the inclusion of high-profile supermarket buildings in architectural guides. Hardingham in her guide to recent architecture in England lists four Sainsbury supermarkets (Canley, Harlow, Plymouth and Canterbury) and one (Camden Town) in her architectural guide to London (Hardingham, 1996). Williams quotes Pawley who, writing in *The Guardian*, describes the Camden Town building as '*the most extraordinary piece of take-no-prisoners architecture since the Lloyds building*' (Williams, 1994 p.187). Most recently (2001), Sainsbury's Millennium store in Greenwich is the focus of an article in the *Guardian* that discusses the quality of the building's much publicised attention to ecological issues (*Guardian Weekend*, April 2001). Tesco's conversion of the Hoover Building (1992) in West London is also featured in architectural guides, but for historical interest rather than as a supermarket building (Glancey, 1998). (The design and significance of these buildings are described fully in the History section).

An aspect of architectural design that has concerned both historical commentators and contemporary architectural designers is the utilisation of space within an architectural form. Niklaus Pevsner's extensive survey of architecture both in the UK and Europe although written in the early and mid 1900s are still relevant in their observations and analyses. In his study *A History of Building Types* written in 1976 (see below) he discusses the use of space and its relationship to architectural design. Pevsner in his discourse on church architecture comments on the liturgical problems associated with the internal space created by a domed exterior. He makes little comment on retail buildings, which suggests he considered them not a suitable or respectable subject for discussion. Another eminent architectural critic, John Summerson, also discussing space, reinforces this view in his work *Architecture in Britain 1530-1830* (1972), he explains that Wren in his design for the new St Paul's Cathedral was forced to compromise, having encountered the problems caused by creating a central dome.

In the 21st century the problems of function dictating form are again discussed in the context of supermarket architectural design. Bowlby's work *Carried Away- The Invention of Modern Shopping* is concerned with the developing academic interest in retailing and the changing attitudes towards both shops and shopping. Although written for a popular audience the book is helpful in its reference to facts and attitudes hitherto unrecorded. In one area of her work Bowlby suggests that the design of supermarket architecture is largely dictated by the function of the internal layout. She suggests that the results of the restrictions that arise from this planning affect the overall design of the building (Bowlby, 2000).

3.3. Building Types

Pevsner's *History of Building Types* is recognised as a standard work published in 1976 after his major opus the series *Building of England. A History of Building Types* (1976) focuses on the identification of buildings as belonging to a specific 'type' of architectural design. Although there is little in his account that addresses the contemporary development of retail structures, this is an approach that suggests a non evaluative way of incorporating commercial developments into

architectural history. This concept is relevant to an evaluation of supermarket buildings and their classification as a 'building type'. Although largely concerned with 19th century buildings Pevsner's disquisition suggests that contemporary architecture can also be approached in this way.

The department store as a concern for modernist architects like Mendelsohn is featured in a number of histories of 20th century architecture. In Germany it was an ideological issue because the 'Jewish' department stores were a focus for national socialist attacks on the ideologically compromised nature of modernism. Arnold Whittick's work on Mendelsohn makes a more detailed study of this new architectural focus. In general, the department store is featured in cases where the architect is a well reputed innovator, or in locations like Chicago where structural and aesthetic change was incorporated into the narrative (Whittick 1974)

Supermarket buildings are mentioned briefly in Pevsner's chapter that focuses on 'Shops, Stores and Department Stores' (Pevsner, 1976 p.272) he suggests that the first supermarkets in the USA were King Kullen and Big Bear, but he makes no comment on their architectural design.

Recognition of supermarket design as an identifiable building 'type' is difficult as there is no design that typifies the subject. However, a study of visual evidence suggests that common elements can be identified. The common presence of these elements suggests that a definition of supermarket buildings as a building type is feasible.

There is other literature that supports this proposal. In an article published in *Blueprint* (1994) focused on the newly build Sainsburys store in Canley, designed by Lifschutz Davidson, Rowan Moor suggests, albeit in a pejorative comment, on the proliferation of supermarkets as a building type (Moor, 1994).

Supermarket designs have been compared in literature to Victorian railway stations and medieval cathedrals (Glancey, 1998), and described by their architectural designers as contemporary civic buildings. Pamela Buxton, writing in *Building Design* (1996) reports, '*Aukett believes supermarkets are not the*

closest thing to civic architecture, with retail representing one of the biggest arenas for building'. (Buxton, 1996 p.6).

The identification of a building through its function (Pevsner, 1976) establishes important reference points in an historical context. Marcus in his work on buildings and power suggests that:

Once a new function is named its ambiguity disappears. Its name affects the choice of designer, how the building is financed and its location. Strong labels establish an identity between place and activity today "supermarket" has achieved it "health club" has not yet done so. (Marcus, 1995 p.12)

The diverse nature of supermarket architectural design precludes the identification of a single individual architectural style or, with some notable exceptions, architect whose work has influenced the design of supermarket buildings. However, there are well-documented key styles that can be seen to have been influential in post war supermarket design.

A comparison can be made between an approach towards the literature focused on the architectural design of supermarkets and those of petrol stations. Like supermarkets these structures have been largely ignored by historians and critics but like similar buildings, for example fast food outlets and 'greasy spoon' cafes have more recently become of literary interest as objects or symbols of popular culture.

Jones, writing in 1998 in *British Archaeology*, suggests that petrol station design is constantly changing and their short lives have meant that many have disappeared without trace. Jones describes the standardisation of modern petrol stations, which, unlike many supermarkets do not display any relationship to their surroundings. Ironically supermarket petrol stations are often used as a vehicle for displaying mandatory local vernacular features in their design.

Wainwright in an article published in *The Guardian* in 1998 discusses the phenomenon of petrol stations and mourns the adaptation of Britain's only listed

petrol station the 'petrol pagoda' in Beckenham, Kent (*The Guardian*, 1998). The architecture of this building appears to have been inspired by an oriental design, much like the pagoda in Kew Gardens.

An area of interest within this study is concerned with the reuse of buildings as supermarkets and a record of supermarkets in the UK being reused as public buildings (see below). An article by Finn (2001) for *The Financial Times* records the restoration of a petrol station in the United States and its conversion into an art gallery. The original building, Finn writes, was designed in 1965 by Albert Frey, who worked with Le Corbusier before moving to Palm Springs in the 1930s. Now listed as a 'Timeless Structure', the building is described by its restorer s '*a bird of a building with a galvanised steel hyperbolic paraboloid roof jutting out 95 ft to a beak-like point*'. (Finn, 2001 p.X1).

3.4. Modernisation

Modernisation, explained by Glancey as being as much a philosophical investigation as an aesthetic revolution (Glancey, 1990) is relevant both to early free standing store designs and more recent supermarket architecture. Amongst the literature that records modern architectural history is Glancey's 1998 work on 20th century architecture, subtitled 'The structures that shaped the century', this gives a useful analysis of Modernism. In this and a later work published in 'The New Moderns', he suggests that the Modern movement initially emphasised the functional aspect of architectural design above that of appearance. That the clean machine-like aesthetic was itself seen as conveying a new message of health, light and openness after the horrors of the First World War (Glancey, 1990).

Frank Lloyd-Wright debated '*how to replace the copying of the past by a style based on modern technical, economic and social conditions and prepare architects and designers for significant change*'. (Wilk, 2006 p.165). Wilk also quotes from Le Corbusier's his work L'Esprit Nouveau, that '*There is a new spirit abroad: it is a spirit of construction and synthesis, moved by a clear conception of things. Whatever one may think of it, this spirit animates the greater part of human activity today*'. (Wilk, 2006 p.21).

After the Second World War, the materials and simplicity of Modernism were embraced by hard-pressed local authorities required to produce large quantities of low-cost housing. Low cost prefabricated units, which could be constructed, by builders and engineers reduced the need for architectural involvement, possibly as a consequence of this, Modernisation became an unpopular style associated with vandalism and shoddy workmanship. Watkin's history of modern architecture (1996) cites examples of modernist buildings that display elements found in the designs of post war supermarket architecture. The use of concrete, steel and large areas of glass used in both the early 1950s and in more contemporary supermarket buildings echo the work, illustrated by Watkin of Mies van de Rohe's Farnsworth House in Illinois, built in 1945/50. In the UK, Glancey (1990) illustrates the Smithsons Secondary Modern School in Hunstanton, Norfolk (Glancey, 1990 p.193).

3.4.1. Modernism and Supermarket Design

Bridget Williams' history of Sainsbury's (*The Best Butter in the World*, 1994), although not an academic work, is of great value to the study of supermarket architectural history and almost unique in its recording of the history of a supermarket company. As a photographic record it is also particularly useful in understanding the development of supermarket design.

Williams includes an illustration of Sainsbury's first out of town store in Coldhams Lane showing large glass windows reminiscent of Mies' Farnsworth House, illustrated by Watkin (1996, p.463). In the case of the Sainsbury store, the purpose of the glass was not only to allow natural light into the building but also to allow people to see into the store (Williams, 1994). Mies use of glass was designed to let in light but also to allow a view out of the building rather than to view within (Watkin, 1996).

Ironically the illustration in Watkins study confirms that the occupants of the house subsequently hung curtains over the all-glass external walls in order to maintain privacy (Watkin, 1996). Many supermarkets with similarly large windows use these as display areas for promotional posters, thus cutting out the light intended to illuminate the interior.

Glancey focusing on Nicholas Grimshaw's Financial Times Building in London (1988) demonstrates the successful application of vast glass and steel framed walls that display to advantage the mechanisms within the building. Glancey describes Grimshaw as 'fascinated by engineering', an influence clearly demonstrated in his design for the Sainsbury's supermarket in Camden Town (see History section).

Farrell's white box design for Sainsbury's store in Watford (see History section), displays elements of Le Corbusier's ideas specifically his 1925 design for the Pavilion de l'Esprit Nouveau, Paris (Glancey, p.139) and Villa Savoye, Poissy (Watkin, p.532).

3.4.2. Red Brick

In his 20th century architectural history Glancey focuses on the work of the Finnish architect Alvar Alto (1952) regretting that his style was widely, but often unsuccessfully, copied in Europe as an antidote to concrete Modernism (Glancey, 1998). Described by Glancey as a '*hand-crafted bricky style*' (Glancey, p.191), Alto's use of red brick and verdant landscaping can be compared with the style and materials used extensively in supermarket design during the 1980s. For example Sainsbury's store in Dagenham, built in 1980. Scandinavian modernist classicism was widely adopted in the UK for town halls like Barnet, Crouch End and Walthamstow, particularly influenced by the Dutch Architects Dudok and Berlage and the Amsterdam School.

Glancey comments on the adoption of this style by Colin St. John Wilson's controversial predominantly red brick design for the British Library (1997) that includes a clock tower, which, by the 1990s a feature commonly associated with supermarket design. He records the architect's interest in Alvar Alto but describes the library building as a '*bit cold and obtrusive*' (Glancey, 1998 p.271).

Sainsbury's 125 years celebration supplement includes photographs of single storey supermarket buildings with brick facings, reminiscent of British

agricultural buildings (Sainsbury, 1994). It could be argued that these owe more to the Arts and Crafts Movement than Modernist thought. Glancey introduces his study of the Arts and Crafts Movement by suggesting '*the spirit of Ruskin and Morris continue to haunt new architecture, from schools to county halls*'. (Glancey, 1998 p.10).

This observation could be indicative of the preferences of the general public as well as local authority planning departments. The developing pattern of supermarket architectural design in the UK is shown in the literature, to follow that of the United States.

3.4.3. The Failure of Modernism

Jencks, writing in 1990, suggests that the failure of modern architecture was marked in the early 1970s when the act of blowing up modernist tower blocks became a public spectacle. In 1982 Tom Wolfe reinforced the attack on modernist architecture in his book '*From Bauhaus to Our House*', (Wolfe, 1982). Many critics point to the collapse in 1968 of Ronan Point in the London Borough of Newham as a significant date in the rejection of modernism, although tower blocks were already regarded as failures in many circles.

3.5. Postmodernism

The term 'postmodernism' was used in the 1930s to explain a reaction to modernism; the term was in more popular use in the 1960s by artists such as Cage and Rauschenberg, who rejected modernism, which was felt to be institutionalised. In the 1970s and 1980s the concept was adopted in the fields of architecture, music and performing arts. Wider discussion in the 1980s were between those seeking theoretical and philosophical explanations of postmodernity, included in the discussion were Derrida, Foucault, and Baudrillard. Complex definitions of the subject included the collapse of boundaries between art and everyday life, the distinctions between high and popular culture, eclecticism, parody, pastiche, irony, and the suggestion that art can only be repetition. (Featherstone, 1991).

During the 1980s the term 'post modernism' was used to indicate an affiliation to hybridity, an awareness of cultural and historical difference, more complex method and an aesthetic of visual richness and colour. The work of Baudrillard was particularly popular and was used to explore ideas of irony, hyper reality and simulational visual culture of what was termed 'late capitalism' in which the significance of the product became superseded by that of 'life style'. (Baudrillard 1981)

Supermarkets can be said to be expressive of what Jameson calls 'the cultural logic of late capitalism' (Jameson 1991) that is that capital has become increasingly mobile. In terms of supermarkets this fits the idea of buildings that rest lightly on the ground and masquerade as something more grand and integrated. The design and styling are intended to fulfil all of the functional requirements, detailed elsewhere, whilst presenting themselves as comforting and familiar.

Relevant concepts and theories can be drawn from Baudrillard's discussion regarding the 'hyperreal', which instructs a discussion of virtual reality and postmodernity. His essays '*The Hyperreal and the Imaginary*' and '*Hypermarket and Hypercommodity*' raise issues that relate to the architecture of supermarket structures. Baudrillard presents Disneyland as a model for his complex web of Simulacra. He discusses the obvious ideology of Disneyland, as a representation of the American way of life but the discussion develops to examine the phenomenon that hides a '*simulation of the third order*' he explains that Disneyland is presented as imaginary so we will believe that the rest is real. Whereas, he suggests, that it is no longer real, '*but belongs to the hyperreal order and to the order of simulation*' (Baudrillard 1981/1994).

The Essex Barn supermarket can possibly be approached in this way. Baudrillard explains that '*simulation is no longer that of a territory ...or a substance. It is the generation by models of a real without origin or reality: a hyperreal*' (ibid p1).

The outside of the 'barn' presents an imaginary building of the past, 'better' more 'wholesome' times, an image of the past that is believed to be 'real' that promises calm and an illusion of security, '*a frozen childlike world*' (Ibid p12) that offers an escape from the 'real' outside world that the building suggests is not real. Although referred to as a barn the building is not a reproduction, it is not a true

representation but a collage of fantasy an eclectic design style based on a fantasy of idyllic rural existence, it is formed by these relationships, it is hyper reality.

Within the building the illusion continues. The abundance of goods that promise a fulfilment of a harvest without effort, that give an illusion of plenty supported by graphic material that fulfils the illusion of choice and the satisfaction of fulfilling the atavistic desire of the hunter gatherer.

The purpose of this simulation is to mask the fact that the real is not real. The illusion of historical superiority, is reinforced by counters presented as market stalls, with staff dressed as 19th century butchers and fishmongers. The fresh meat that is sold at a counter is real the historical concept is hypereal; it does not exist and in the form it is presented, never has existed. It is the systems that create the hypereality.

The Simulation is not about the falsity of signs its purpose is to hide the fact that real is not real. Baudrillard's fourth order of simulacra '*has no relation to any reality whatsoever: it is its own pure simulacrum*' (ibid p6). The building hides its real intentions, which are those of social affiliations and economic capitalisation, behind the simulation of order and nostalgia, a simulacrum of consumption on a grandiose scale.

Although referring in his essay to French and American constructions, some concepts that relate to UK supermarkets can be drawn from Baudrillard's essay on Hypermarkets. He suggests that the hypermarkets, cannot be separated from the road systems that surround and feed them and that the hypermarket resembles a '*giant montage factory*', that there is an impression of passing through '*aleatory circuits from one point of the chain to another*' He suggests that it is a '*model for future forms of controlled socialisation*', and that this 'form' can illustrate the end of modernity, he explains that the new cities are satellized by the hypermarkets which, surrounded by road systems, become 'metropolitan' areas which are no longer determined qualitative space. The hypermarket is an out-of-own nucleus, part of an operational system, where the real is not to do with things and imaginary, but operations; the hyperreal (ibid p 77).

An alternative view of the supermarket phenomena can be drawn from the work of Auge who writes of 'no space' that is not 'space' or 'place' but an area with no identity where people travel through and movement is fleeting, it does not exist in pure form. He suggests that place and non-place are like opposing polarities,

place is never completely removed non-place is never entirely completed. (Auge, 1995)

The appearance and nature of supermarket architecture, although diverse in style and concept, can also usefully be measured against the philosophical work of architect Robert Venturi. Glancey (1998) suggests that Venturi's concept of post-modernism advocated a rejection of Modernist simplicity and the adoption of a collage style composed of an eclectic mixture of historic references. However in a later theoretical work, (Venturi/Scott Brown 2004) Venturi denies that he advocates postmodernism. In the introduction to the section of his history devoted to post-modernism Glancey quotes Venturi's epithet 'Less is a bore' (Glancey, 1998, p280). In his seminal work *Learning from Las Vegas*, Venturi researches the symbolism and impact of popular culture on architectural styles and suggests that architects should be more receptive to popular tastes and values (Venturi, 1998). Venturi's work gives credence to the study of a style of architecture, which, like the architecture of supermarkets, is generally considered to be outside the boundaries of academic interest. Commenting on the architecture of Las Vegas, Venturi writes in the preface to his work:

We believe a careful documentation and analysis of its physical form is as important to architects and urbanists today as were the studies of medieval Europe and ancient Rome and Greece to earlier generations. Such a study will help to define a new type of urban form emerging in America and Europe, radically different from that we have known; one that we have been ill-equipped to deal with and that from ignorance, we define today as urban sprawl. (Venturi, 1998 p.x1).

His study proposes that the symbolism of architecture, criticised as ugly and ordinary, should not be discounted and that its significance must be acknowledged. He cites historical instances of architecture developed from the commonplace or mundane. The influence of folk art on fine art, conventional rustic architecture on eighteenth century architects and industrial buildings on early modern designers.

In his examination of post-modernism Glancey includes a Best Supermarket, built in 1975 in Houston, Texas by the architectural practice S.I.T.E. Described as 'De-Architecture by S.I.T.E.s founder James Wines, the building is one of a series of eccentric store designs.

Glancey recognises the humour of the architectural design and comments '*The idea was quite funny in a Beavis and Butthead kind of way*' (Glancey, 1998 p.289) Charles Jencks in his book Bizarre Architecture describes S.I.T.E.s third store project for Best.

'Every morning at 9.00 this front door slides open for shoppers , but unlike other push-button apertures it takes part of the building with it, forty-five tons of jagged- edged engineering brick. The handling of the "ripped joint" is carefully realistic; it follows the angle of shear which might occur in an earth quake, and a few bricks are missing near the points of violence' (Jenks 1979 p31)

Glancey, further comments are unfortunately prophetic in view of the company's eventual demise.

What the hell: supermarkets are extremely boring buildings at the best of times and at least the Best buildings raise a smile for the first time that you see them. Perhaps regular customers laughed too for the first few months, but they probably got to worrying about the price of frozen corn cobs and treated the buildings like any other store. (Glancey, 1998 p.289).

3.5.1. Pastiche

The application of a decorative façade to a basic structure can be seen to have been a common technique in supermarket architectural design. During the late 20th century the approach can be seen to have been used extensively to disguise functional or cheap buildings, in order to make them acceptable to planning authorities and local communities (see below). In earlier centuries both Nash and Wood used the technique to imply quality and grandeur to terraces of unspectacular buildings. Pastiche architectural designs appear frequently in supermarket architecture most often in historic towns, where stores were developed in conservation areas or replaced listed buildings.

Jencks records Prince Charles' preference for 'traditional' architecture and in particular the work of Quinlan Terry. He records that the Prince cites Terry's pastiche Neo-Georgian scheme at Richmond as a successful way of housing an

up-to-date office block with a mock façade (Jencks, 1989). Prince Charles' very personal dislike of modern design is well documented; in 1984 he voiced the opinion that traditional architecture was 'human' and 'modern' was 'inhuman' (Jencks, 1990, p20). His tirade against modern architecture, given in his speech to the RIBA's 150th anniversary celebration, caused consternation amongst the architectural profession and raised the profile of architectural design in the population as a whole. In 1989 the Prince produced his book and television programme '*Vision of Britain*'. An accompanying exhibition at the Victoria and Albert Museum resulted in much public debate and further argument among contemporary high profile architects. A record of the heated debates and seminars for and against the ideas that took place at the V and A following the Prince's speeches are documented in a publication produced for the series '*Architectural Design*'. This publication records comments made by architects involved in the debate and include opinions by Charles Jencks, Richard Rogers, Max Hutchinson, president of the RIBA (1989) and Leon Krier, architect of Prince Charles' Poundbury development (Architectural Design, 1989).

The importance of this literature to this study is, apart from recording opinions towards modern architecture, the implications of the debate on the attitude of the general public towards 'traditional' and modern architecture. The status of the Prince of Wales and the media coverage of his comments, particularly television coverage, focused public opinion and awareness on an area of design largely ignored or (publicly) uncriticised by the general public. Referring to the programme Jencks reports that '*Over six million viewers watched his latest (1989) film... and according to an unofficial poll 75.5 per cent agreed with his thrashing of modern buildings. His television ratings are higher than any other performer except David Attenborough*'. (Jencks, 1998 p.25).

3.5.2. New Modernism and High-Tech

In another architectural design publication relevant to the study, Papadakis suggests that the architectural style he defines as New Modernism has many strands including High-Tech and possibly also Deconstruction. He describes High-Tech as '*a very British architecture that is both evocative and practical in the hands of such architects as Richard Rogers and Sir Norman Foster*' and has in fact '*been in existence since Victorian times, but even so reflects the future*'. (Papadakis, 1990 p.7).

Davies (1988) also writes of the 'Britishness' of High-Tech architecture, among other explanations he suggesting that it was inspired by the work of British engineers and designers of the 19th century. He defines High-Tech design as that whose,

'characteristic materials are metal and glass...that it usually embodies ideas about industrial production, that it uses industries other than the building industry as sources both of technology and of imagery, and that it puts high priority on flexibility of use'. (Davies, 1988 p.6). He also suggests that *'Exposed structure and exposed services are the two most visible distinguishing features of High- Tech architecture'*. (Davies, 1988 p.8).

The High-Tech designs of the Lloyds Building (Rogers, 1986) and the Pompidou Centre (Rogers and Piano, 1977) were widely publicised in the National and popular press as well as architectural journals. Glancey describes the Pompidou Centre as one of the most popular buildings of the 20th century (Glancey, 1988). It's (at the time) eccentric design possibly contributed to a wider public acceptance of modern architecture along with the increasingly high public profile of its architects.

Hi-Tec design styles emphasised the exposure of the structural elements of the building and were widely emulated by supermarket architectural designers, particularly in the use of tubular steel and tension wires. Davies suggests that in High –Tech design tension wires are not always used as part of a building's structure but for their 'symbolic power' (Davies 1988 p6).

Glancey suggests that both the Pompidou Centre and the Lloyds Building were designed to allow the maximum uninterrupted floor space within the building (Glancey, 1998) an ideal construction plan for a supermarket structure. The exposed interior construction of 19th century market halls, one of the antecedents of supermarkets, fulfils Papadakis also suggestion that High-Tech can be traced back to Victorian times.

Although Davies agrees that High-Tech architectural designs were inspired by 19th century designers he also suggests that High-Tech philosophy lacks a relationship with the past. That the style is forward looking and believes in

invention rather than tradition. (Davies 1988). This apparent contradiction is possibly apposite in the argument concerning supermarket design.

3.6. Functionalism and technology

Martin Pawley's controversial book *Terminal Architecture*, (1998) is relevant to this study in respect of its focus on 'bid shed' architecture, and his emphasis on the importance of function rather than form. Pawley, who has established an interest in the functionalists and High-Tech tradition of recent British architecture decries both reused and pastiche buildings, suggesting that buildings need only be designed as communication centres with limited lives. Pawley's theory requires the architect to be an engineer rather than a designer (see below). He cites the work of Austrian architect and industrial design Michael Trudgeon, his 'Hype House' (1992) is described as '*multifunctional living space enclosed by an intelligent skin*'. (Pawley, 1998 p.196). The skin is a glass membrane that can adapt to the users needs and within which all necessary services are contained. Although seeming futuristic, some of Trudgeon's proposals exist in supermarket design or other design contexts that could, in the future, be adapted for supermarket structures. For example, the air wall used to control atmosphere in current Tesco stores and Nicholas Grimshaw's short life membrane, used in the construction of the Eden Project (2001). Pawley records that Trudgeon's structure would respond to climate change and the needs of its occupants via a series of sensors connected to computers. The building would store energy within its own structure acting as a thermal battery. He explains further that:

Structurally the dwelling will be a kit of parts snap-locked together from an ever-expanding array of components adding up to an infinitely upgradeable product. The house will thus become a static customised car with a different equipment package available for every owner. In this it leaves the realm of architectural design and joins the realm of industrial design instead, becoming a model for Terminal Architecture in the process. (Pawley, 1998 p.197)

3.6.1. Construction and Technology

Although possibly definable as ephemeral supermarket buildings are complex ingenious retail machines, designed to house huge commercial and social structures and systems.

This research indicates that written briefs for supermarket architectural design do not appear to exist. Information relayed to the designer is verbal and consists only of information regarding the size and location of the site and the type of development, which could include housing (see Case Study 4). Designs required for outline planning permission are often produced in haste by architects, already familiar with company standards, in order to comply with tight time scales that also involve site acquisition and competitive bids from rival companies. Although written briefs are not given to architects, a standard contract is provided in order to clarify the work in hand and the agreed payment (Tesco archive).

Sainsbury's, in the 1980s, produced 'yellow books' that gave detailed instructions as to the construction of store interiors. These ensured that the interiors of all stores were identical. The books contained details of paint colours and door fittings, as well as major construction details. This created major difficulties for architects trying to introduce innovative design.

Westwood's book on retail design written in the 1950s gives detailed instructions on the design and construction of a 'Modern Shop' and includes supermarkets. There is no 21st century equivalent of this work

Many supermarket designs in the 1980s demanded red brick facings. An example of this type of construction can also be seen in 'Portacabins' prefabricated buildings erected for MacDonald's during the same period. Watkin, writing in the 1980s, refers to this technique; he describes recently erected buildings as having a thin brittle veneer of brick that has built-in fault lines in order to accommodate movement of the building. These are filled with rubberised mastic that has a ten or twenty year life span. Rain soaks through the brick and runs down the inside surface, it is collected in plastic trays and runs out through 'weep-holes' in the walls (Watkin, 1986).

By the mid-1980s materials available for constructing supermarket buildings had become increasingly sophisticated and were applied to increasingly complex building designs. It seems likely that as in other areas of architectural design, the availability of innovative materials influenced building design, while the needs of supermarket designers in turn produced innovative techniques and materials. Such developments can be found in the advertisements and articles published in trade magazines and professional journals. For example the *Yorkshire Architect* reported in 1984 the construction of a development for Sainsbury's, recording that it had been decided to use a cladding system incorporating 'Alucobond' (*Yorkshire Architect, 1984*).

Since the mid-1980s energy saving in supermarket design has also been an issue reported in both the national press, as a subject of concern, and trade and technical journals, often as a financial issue. *Building Services* reported in 1986 that cost saving had motivated Tesco to introduce new technology that would reduce energy bills and thereby increase profits (Building Services, 1986). In the same year Asda claimed to have saved £2 million on an energy bill of £8 million (Building Services, 1986).

In 1988 Building Services also reviewed the energy saving technology in the Plymouth and South Devon Co-operative Society's new superstore. The recycling and energy saving systems in this store were installed in order to 'achieve continuous bottom line savings and short payback' (Building Services, 1988 p.21). By 1998 the trade journal *Building*, reported that the architect of Sainsbury's millennium store at Greenwich (Chetwood) claimed that the design of the store would reduce energy use by more than 50%.

3.7. The Architect

The changing role and status of the architect, relevant as background material for this study, was perhaps foreseen in the nineteenth century. Writing in the 1970s Pevsner comments on the background of Paxton, noting that he was neither an architect nor an engineer but a horticulturist. Writing in 1982 Curtis asks did 'these building in iron and later utilitarian structures in steel, constitute a new architecture?' (Curtis, 1982 p.38). Decimus Burton who together with Turner

designed the Palm House at Kew Gardens (1844-1848) was not an architect but a London builder (Fleming, Honour & Pevsner, 1991).

The architectural historian Saint records that the majority of architectural designers in the seventeenth century such as Hawksmoor and Flitcoft were builders, surveyors, masons or other building tradesmen. In addition to this group were a small number of 'amateur' designers who focused their attention on buildings where a high level of scholarship was required. Wren and Vanbrugh fall into this category (Saint, 1989, p.57).

3.7.1. Architects in the 1980s

Writing in 1983 Saint discusses the changing role of architects at the beginning of that decade. The 1980s saw many architects without work or struggling to come to terms with changing roles within the building industry and with uncertain professional status. It was during this period that architectural practices became interested in designing for supermarket companies. The traditional role of the gentleman architect involved a lengthy training that emphasised creativity and individualism. This resulted in a lack of understanding of the wider issues, building techniques, social responsibility and the ability to apply co-operative talents (Saint, 1983). Saint recognises that architects in the 1980s were in the midst of a transformation in that 'architectural history' which emphasised aesthetics design and authorship was rapidly re-forming as 'building history' which was concerned with broader social and economic preoccupations (Saint, 1983).

In his book *The Image of the Architect*, Saint analyses the 1943 novel, and 1949 film version, of Ayn Rann's novel *The Fountain Head*. The central character of the novel is an architect, Howard Roark, who is portrayed as a hero and genius. Thought to be based loosely on the character of Frank Lloyd Wright, the architect as hero describes a highly romanticised ideal of an architect dedicated to individualism at all costs. Saint discusses the problems associated with an obsession with artistic individualism concluding that the answer can only be compromise between individual idealism and commercial enterprise. He concludes that the future and survival of the architectural profession will lie in

their ability to balance imagination and artistic ability with technical and managerial experience. *'In which collaboration with other specialists takes on a more realistic, less high-handed meaning, and in which "sound building" is valued above "high art"'*. (Saint, 1983 p.166).

Pawley in his 1998 apocalyptic vision of architecture suggests that architects *'selected not by ability but by auction, and employed not by patrons but by developers ... take their place well below the salt'*. (Pawley, 1998 p.25).

3.7.2. Architects and Supermarket Design (Background)

The involvement of professional architectural practices in the design of supermarkets can be seen to have changed during the watershed of the 1980s (see Literature above). Many early stores appear to have been designed by in-house architects. Williams, writing of delays in completing store building programmes records that *'During the Autumn of 1975 the company's architects, engineers and retail staff worked hard to reverse the delay'*. (Williams, 1994 p.169). Williams later records that by the mid-1980s independent professionals were being commissioned for one off flag ship stores or to produce designs that would possibly serve as prototypes (Williams, 1994).

During the late 1970s companies began increasingly to employ independent architects to design buildings that would receive approval from local authority planning departments (see below), Morrison records that in 1977 Asda commissioned Alcock to design a store in South Woodham Ferrers, Essex that suited local preferences. The resulting *'Essex Barn design' 'dominated superstore design in the 1980s and early 1990s'*. (Morrison, 2003 p.279). Other architects with little work were happy to take on previously scorned supermarket projects.

During the 1980s the system of employing architects altered dramatically and by the 1990s few stores employed in-house architects, but most had a pool of independent architectural practices from whom they would commission store design. *The Journal of Building Design* (May, 1996) discussed the reduction of Sainsburys' architectural design pool. This had been reduced to eight following

the rejection of Michael Aukett from the list. Two years previously, it is recorded there had been 26 architects in the pool. The remaining architectural practices were to be guaranteed a percentage of work over a three-year period. Sainsbury's are quoted as being prepared to employ one practice to win planning permission and another to complete the job (Buxton, 1996, p6).

Michael Aukett's position is unclear; in May 1996 he gave an interview to the same journalist from *Building Design* stating his enthusiasm for new stores he was designing for Tesco. In this article he states that he feels supermarkets are now 'the closest thing to civic architecture' (Buxton 1996 p6)

3.7.3. Engineers and others

There are many examples of notable buildings conceived by designers who were not professional architects. Owen Williams, a structural engineer, designed the modernist Boots factory in Nottingham in 1932. Glancey suggests that before the arrival of the Danish engineer Ove Arup, Williams was the only engineer who understood the forms and possibilities offered by Modern architecture (Glancey, 1998). Thomas Cubbitt, initially a carpenter, designed Osborn House (1845-50) under the direction of the Prince Consort (Fleming, Honour, Pevsner, 1991). His company set up in 1815 employed professional builders who offered 'design and build' services (Saint, 1983, p60).

3.8. Popular Design and Prefabrication

In the 1970s Venturi attacked the established attitudes of architects and architectural critics in his, at the time, controversial study '*Learning from Las Vegas*' (1972). In the context of Supermarket architecture this work is relevant in its attitude and analysis of popular culture and symbolic references. Venturi's study is a concrete argument for academic recognition of the value of popular styles, while its attack on the attitudes of contemporary architects perhaps throws light on the changing attitudes towards their profession.

The study suggests that the symbolism of architecture, criticised as 'ugly and ordinary', should not be discounted and that its significance must be

acknowledged... Venturi cites historical instances of architecture developed from the commonplace or mundane, the influence of rustic architecture on eighteenth century architects and that of industrial buildings on early Modernist designers (Venturi, 1972).

Reyner Banham in his work *'The Architecture of the Well Tempered Environment'* (1969) makes observations relevant to the architectural design of supermarkets. He emphasises the importance of the consideration of plant, or services, in architectural projects. He criticises the attitude of architects who ignore this aspect of design and, in addition, architectural historians who fail to record them. Banham suggests that

It fell to another body of men to assume responsibility for the maintenance of decent environment conditions: everybody from plumbers to consulting engineers. They represent "another culture" so alien that most architects held it beneath contempt, and still do.
(Banham, 1969 p.11)

The consideration of these elements in the design of supermarkets is of prime importance, both in respect of the building's design and the success or failure of the building working as a successful store

Most purpose build supermarket structures, in common with many post-war buildings in the UK, are constructed largely from prefabricated units. The concept of prefabrication, both in modern and early building design is usefully considered by Fleming, Honour and Pevsner in their comprehensive *Dictionary of Architecture* (1991, 4th ed.). They suggest that *'The mass production of building parts may be traced from the late 18th century onwards'* (p227). They also refer to the system as 'Industrialised Building' and cite as examples Darby's Iron Bridge at Coalbrookdale, built in 1775, and Paxton's wholly prefabricated cast iron and glass Crystal Palace, built for the great exhibition in 1851. All the parts of the Palace were factory made and assembled on site. (Fleming, Honour & Pevsner 1991, 4th ed) Watkin records Ruskin and Pugin's condemnation of the building as contributing to the unchecked tide of the industrial revolution (Watkin, 1986). He (Watkin) suggests that although the building,

has sometimes been hailed as a revolutionary step on the way to modern architecture. In fact, it would be more appropriate to regard it as the climax of a tradition of greenhouse and railway ... shed design established in the 1830s. (Watkin, 1986 p.408)

Fleming, Honour and Pevsner record that the bronze window frames of Barry's Houses of Parliament building (1839-52) were mass-produced. Under the same heading, they also cite Buckminster Fuller's Dymaxion House design (1927), which they suggest was derived from aircraft and vehicle construction, and Gropius' General Panel System for the construction of prefabricated housing.

Pevsner recorded in 1964 that in the 1940s Gropius developed the General Panel System specifically for prefabricating housing. He writes of Gropius' use of a complete glass façade with unsupported piers reduced to narrow bands of steel leaving unsupported corners. He explains that this technique allowed air and light to pass freely through the walls blurring the separation of exterior and interior space (Pevsner, 1964 p.214).

Fuller's 'geodesic' structures were based on a series of metal or plastic octahedrons or tetrahedrons that allowed an economic system of covering a large area (Glancey, 1998) Glancey suggests that Fuller's system was a logical development of Paxton's lightweight prefabrication methods used in the Crystal Palace design. He records that Decimus Burton used a similar construction technique for his design for the Palm House at Kew Gardens. (Glancey, 1998) Fleming, Honour and Pevsner suggest that metal framed windows, curtain walls and varieties of prefabricating cladding typify industrialised building. They record that these elements were later used with space frame construction and pre-cast concrete systems (1991, 4th ed).

Saint in his comprehensive study of post-war school buildings, discusses at length the development and application of prefabrication in school buildings. His recording of the aims, achievements and failures of prefabrication provide a useful historical background for an analysis of the systems that evolved later in the century for the construction of supermarket buildings (Saint, 1987).

Glancey records that the other systems of prefabrication were developed in Britain and the USA, notably Charles and Ray Eames' house construction in California in 1949. The building was one of several experimental houses commissioned by the publisher of the journal *Arts and Architecture*, John Entenza. The house was constructed entirely from off-the-peg industrial components, inspired by Japanese design, the result is light and airy and open. Glancey writes '*the design was easy on the eye, with none of the repressed earnestness of contemporary European design, nor the work ethic aesthetic of Chicago and New York*'. (Glancey, 1998 p.184).

3.9.Culture

This section of the review examines the literature that provides an insight into the changing patterns of post-war culture in the UK. Particularly the way that these changes have influenced, and have been influenced by, the development of supermarket shopping, and the relationship between these changes and the architectural design of supermarket buildings. People began to shop in a different way and this had an impact on design.

3.9.1. Post War: The 1950s

Hardyment, in her study of post-war eating in Britain, records information about the changes in social behaviour that were developing during the period when supermarket trading was becoming established in the UK. Writing in 1995 she suggests that in the UK the thirst for change after the Second World War created a period ripe for innovation. Particularly, all things American, a seemingly ideal way of life seen through advertising, the cinema and later television programmes. (Hardyment, 1995 p.78).

Lury in her study of consumer culture also examines the influence and popularity of American popular culture during the post-war period. She suggests that a series of interrelated social and political changes, the disintegration of traditional housing patterns, changes in economic organisation and the increasing employment of women re-drew the contours of everyday life. Parallel to this were

changes in the culture and leisure industries, partly due to the emergence of youth as a market and the related breakdown of British culture (Lury, 1996).

The techniques and technology of self-service and supermarket trading were introduced into the UK by companies who had visited the United States and seen for themselves the already established American systems (see History Section). Hardyment agrees that the changes in shopping rituals imposed by the introduction of self-service systems reinforced the disintegration of a class system that has been encouraged by the traditions imposed by pre-war shopkeepers (Hardyment, 1995).

3.9.2. Community

Hardyment suggests that the supermarket system has destroyed what she terms the 'community forum'. She writes that self-service has made shopping a solitary and impersonal activity made anonymous by the changed role of the shop employee who no longer need, or have time to relate to customers (Hardyment, 1995). The quality of this attention was, however, uneven and many shoppers welcomed the relief of not having to discuss their shopping with a sales person. In this respect the design of supermarket buildings, purpose built to accommodate the self-service system, changed the nature of the social experience of shoppers. In contrast the American author Mayo writing in 1993, describes the American supermarket as having a community atmosphere where shoppers chat with their friends, one of the few places where all classes of people can meet face to face (Mayo, 1993). Mayo's book is helpful in that much of his work records the development of American supermarket design which in retrospect can be seen to have set a pattern of development which was emulated by most major chains in the UK.

Other writers referring to UK supermarkets also offer a different opinion. Lamacraft, in her extensive report for the Financial Times on retail design, agrees with Mayo and discusses the disadvantages of remote shopping, she suggests that physical stores have always provided an arena for human contact and social interaction and a sense of community. The focus of retailers on providing leisure

facilities within a retail environment she describes as ‘merchaintainment’ (Lamacraft, 1998). She also records that supermarkets remain the most popular locations for food shopping, town centre stores being the most frequently visited.

Major supermarket chains have in recent years recognised the need for social and community interaction and employed this as a means of competing for customer loyalty. This has been particularly important in the context of store architecture which, while evolving towards larger, modernist, and thereby less ‘cosy’ (traditional) design styles, could be criticised as becoming too impersonal. Lamacraft suggests that companies have focused on the need to make shopping more enjoyable, more convenient and more efficient. They have also promoted a community role through their commitment to environmental issues and support for local schools (Lamacraft, 1998).

Lamacraft also suggest that leading stressful lives in the world of growing social fragmentation, customers demand more flexibility from the retailer. Attitudes to day and night have fundamentally changed justifying the need for 24 hour shopping. In contrast a bid to cut out the middleman has resulted in the emergence of Sunday ‘farmers markets’. The Guardian in 1999 reports this move as being an attempt to strengthen the alliance between farmers and consumers who ‘*want to know exactly where their food comes from*’. (Guardian, 1999 p.15).

Miller et al in their research on shoppers in North London records the comments of a customer ‘*I quite like Tesco’s. And we have lunch therethere’s a nice little restaurant ...and that’s sort of a little outing*’. (Miller et.al.1998 p.85). Miller’s work is useful in that it offers research and analysis in an area that until recently has received limited academic focus.

3.9.3. Change in the 1980s

By the end of the 1980s many supermarket companies started to address the issues of social interaction and began to include, in addition to food and non-food goods, facilities such as restaurants, coffee bars and crèches within their new stores. Lamacraft in her 1998 survey suggests that, it is the extra space available

in large out of town supermarket developments that allow the inclusion of these facilities, and in addition a range of franchised services. She suggests that many supermarkets have become mini-high streets. quoting Anderson Consulting, she records *'We may witness a shift from the supermarket to the community market'*. (Lamacraft, 1998 p.56).

Seth and Randall's account of the history and development of supermarkets is also a valuable source of recorded information and statistics in an area where little specific information has been published. In relation to the changing role of supermarkets, they record in 1999 that almost half Tesco stores have a coffee shop, which they report provide popular meeting places in their own right. Safeway, they state, also record the phenomenal success of their crèches (100 opened in 1998), which they claim are not a loss maker (Seth and Randall, 1999).

Seth and Randall suggest that by any measure, *'supermarkets are of prime significance in British society'*. (Seth & Randall, 1999 p210). They suggest that the supermarket chains reflect change but do not lead them. They also discuss the universality of supermarkets, recording that their customers are drawn from all areas of society, and that the average British citizen will spend 3% of their working lives in a supermarket. (Cable and Wireless, 1999).

In addition to their monthly in-house magazine Sainsbury's have regularly produced promotional material aimed both at customers, the national press and trade journals. These publications are generally anonymous and almost always updated. Despite this, such material, particularly publications that include photographs of stores, comprise a valuable source of archive material.

Sainsbury's *125th Celebration Supplement* suggests that supermarkets profited from social change even more than the late Victorian multiples. They record that supermarket customers became *'increasingly affluent, educated, classless, discerning and mobile'*. (Sainsbury archive). Many women combining household responsibilities with full time employment had a limited time to shop and therefore welcomed the chance to make their purchases quickly and under one roof. Customers were offered a range of goods unheard of by the pre-war shopper,

but expected by shoppers who had acquired a liking for exotic food during package holidays (Whitford in Sainsbury's, 1994).

3.10. Shopping Theory

Academic interest in retailing and its history has included research aimed at establishing a theory of shopping. Such theories are supportive in a study of retail design. Miller (1998) takes an anthropological view of the subject, suggesting that the act of purchasing goods is contained within complex rites of sacrifice. (His research was focused on an area of North London over a period of one year [1994-1995]). He writes that for '*most of those primarily responsible for household shopping the foundation stone for provisioning is shopping in supermarkets*'. (Miller, 1998 p.10).

Hackley, as an example of phenomenological research, cites the work of Brown and Reid (1997) who recorded customers' personal shopping experiences. They concluded that people went shopping as a distraction or to cheer themselves up, also that shopping was an integral part of contemporary culture and '*forms a landscape within which everyday life takes place*'. (Hackley, 2003 p.123).

Prior to this, McGoldrick, (1990) answering the question why do people shop? Had suggested that, apart from an atavistic desire to be hunter gatherers, there are reasons that can be identified. Among these he suggested are role-play, diversion, self-gratification and sensory stimulation. Other less obvious reasons he proposed were social experience outside the home, communication with others of similar interests, status and authority (McGoldrick, 1990).

Shopping for pleasure, as a leisure pursuit as part of a chosen life style has in the 21st century become a focus for media and cultural debate. Academic and media interest in consumer culture and consumer behaviour has, since the 1990s, resulted in a recognition of the relevance of shopping as more than an atavistic exercise in 'hunter gathering'. Shoppers faced with changing systems of retailing have adapted, although often reluctantly, to new techniques and increasingly have demanded change and innovation in retail trading.

The concept of shopping and 'life style' has become a subject for academic discourse. And in an historical context the issues of an expanding population, changes in employment and patterns of work are discussed in relation to their effect on supermarket expansion and family consumption.

Miller et al also examined the significance of place to that of the identity of the shopper. This study produced a complex picture of contradictions, for example that people who apparently hate shopping as a family are drawn to places designated for family shopping. Discussing retail design Miller, writing in 1998, suggests that the modernist sheet glass used to up-date the design of Brent Cross shopping centre was out-of-date. He states that supermarkets were giving up 'glass boxes' and constructing buildings with gabled tile roofs and clock towers, which he describes as having '*their own version of nature*' (Miller et al, 1998 p.116). This is, in fact, inaccurate and it is perhaps significant that a piece of research concerned, in part, with retail design should make this mistake. Although flawed in this respect his further observations are relevant to supermarket design. He records that of two 'shed' buildings in close proximity to each other, Toys R Us and Community Wholefoods, although virtually identical in design, were described in totally different ways. Toys R Us being described as intensely claustrophobic while the Wholefoods store produced none of these reactions (Miller et al, 1998 p.117).

3.10.1. Lifestyle

By the 1980s supermarket customers were seeking not merely basic provisions but goods to sustain or establish a chosen lifestyle. Lury suggests that 'lifestyle' can be defined as a mode of consumption, or attitude to consuming, '*it refers to the ways in which people seek to display their individuality and their sense of style through the choice of a particular range of goods*'. (Lury, 1996 p.80). She suggests that as a member of a particular lifestyle group the individual uses consumer goods, including food, to make distinctions between themselves and other groups of individuals (Lury, 1996).

In their published work charting the development of Tesco's Club Card, Humby, Hunt and Philips record that by 1998, in their analysis of customer behaviour, Tesco defined clusters or segments of customers initially as 'buckets' but after further analysis redefined as 'Tesco Lifestyles'. They explain that *'When Buckets became Lifestyles, Tesco made a change: for the first time its data analysis could describe groups of customers that staff in the store could relate to. It had peered into our shopping baskets and made sense of what it saw'*. (Humby & Hunt Phillips, 2003 p.146).

3.11. Environment

The early effect of retailing on the environment is recorded by Morrison, writing for English Heritage, in her comprehensive study of retail architecture. Referring to medieval markets, she suggests that;

These markets frequently swelled out at one end to create a small triangular space adjoining a major route, but many medieval market places were triangular or funnel-shaped... Even small village markets had regular triangular or rectangular shapes, and it is clear that their establishment could have a profound effect on the morphology of a settlement, sometimes shifting it away from the church to a major through route.
(Morrison, 2003 p.8).

More recent history records that the changing landscape of the town and city since the end of the Second World War has both transformed and imposed transformation on the culture of those who live within the urban environment. Supermarket development involves not merely the store building, but the site and road systems that surround it. An analysis of American fast food outlets (Jakle and Sculle 1999) discussed the concept of space; this analysis of inside and outside space is equally applicable to supermarket developments. Although technology has allowed supermarket buildings to have an unrestricted entrance, customers are carefully guided into the store through a pathway of strategically placed shopping trolleys, baskets, goods and in some cases covered ways or tunnels. The space within the supermarket building is divided between areas for shoppers and areas restricted to employees. Different activities occur in each allocated space. Shopping has become a ritual and as such requires a special space that defines the activity.

Bowlby, in her study of the phenomenon of modern shopping records that in America by the 1960s supermarket buildings were as much part of the landscape as the small town or factory. Whereas in Britain at this time supermarkets were new and far from established (Bowlby, 200).

Petrol stations are now part of the modern landscape, and have become immortalised by artists such as Edward Hopper. Jones' study of the evolution of petrol stations is a work that relates to the development of early supermarket buildings. She comments on the little recognised impact made on the landscape by petrol stations (Jones 1998). A similar, but more extensive study by Jakle and Sculle records and analyses the development of fast food outlets in the United States. Like Bowlby, they also comment on the changes that occurred in the landscape through increased affluence and widespread car ownership. They write,

here is a landscape created around the needs of the automobile travel. Driveways, parking lots, canopies, signs and building layout and orientation, among other characteristics, speak of a pervasive automobile convenience. (Jakle & Sculle, 1999 p.11).

In an essay on landscape the artist Patrick Keiller discusses change in landscape in his work 'Popular Science'. He suggests that;

Capitalism both destroys and creates places, but the places it creates seem always, at least to begin with, less substantial, less rich, than the places it destroys – as in the case of, say, the mechanisation of agriculture and the ports, or the replacement of mining and other industries by landscape of distribution and retailing. (Keiller, 2000 p.67)

3.11.1. Introduction

This section of the literature review examines the relationship between supermarket companies and local authority planning departments. It is largely concerned with Government legislation that has affected and influenced the architectural design of supermarkets.

3.11.2. Planning Acts

Guy in his work that examines the retail development process (1994) records that the Town and Country Planning Act of 1947 was initiated in order to control unplanned development. This was superseded by the Town and Country Planning Act of 1968, which includes the mandatory instruction that Local Authorities must consult local residents and amenity groups as part of a planning application process. These acts were intended to control the use and development of land in the interests of the general public (Guy, 1994). Their structure therefore has a bearing on the process that relates to the development of supermarket architecture and the way in which planning permission is granted.

3.11.3. Supermarket Development

As supermarket buildings developed rapidly, both in size and number during the 1980s, the number of suitable sites dwindled. Competition for edge of town sites and, increasingly, requests for permission to develop controversial out of town areas changed the nature of the relationship between local authorities and supermarket companies. This relationship was to some extent formalised in the government publication of Planning Policy Guidance (PPG) reports. Guy writes of the vague and often ambiguous nature of these reports, for example PPG6 (see History section), and quotes the work of Stocks (1989) who suggests that this situation has resulted in *'lengthy and costly planning inquiries into new retail schemes'*. (Guy, 1994 p.201). Guy also suggests that planning control over retailing has inflated land prices for retail development. Referring to Local Authority Development Plans (UDPs) Guy notes that *'retail development appears to be considered worthy of attention development plans because it can generate employment and create wealth; not in its own right as a service to the local population'*. (Guy, 1994 p.73). This is particularly relevant to supermarket development (see Case Study Four).

3.11.4. Public Consultation and Planning Gain

Guy reports on a survey conducted by Sainsbury's in 1990 with Local Authority councillors and planners which suggested that government advice on major retail

development was a less determinant factor in decision making than the views of local residents (Guy, 1990). This seems a flawed conclusion in the light of past and recent research (see Case Studies). Guy cites the work of H.W.E. Davis et al (1986) whose research suggested there were typically fifty-five separate considerations that would be taken into account when considering a planning application (Guy, 1994).

The subject of planning gain is also discussed by Guy who explains that road improvement schemes would be not only acceptable but, possibly, a requirement of gaining planning permission. He suggests that the concept of planning gain is ambiguous and that for example the building of a supermarket in exchange for a sports hall may not be acceptable (Guy, 1990). However, more recently this kind of agreement has become more openly acceptable. In 1990 one of the many revisions to the Town and Country Planning Act (1990) stated that where planning permission might be in doubt supermarkets could offer 'planning gain', these were otherwise known as section 6 agreements. The figure referring to the relevant section of the *1990 Town and Country Planning Act* (Raven & Lang, 1995). The making 'official' of a covert practice that had been in existence for some time gave councils increased power to dictate terms while supermarket companies had more ammunition to bargain with. (Seth & Randall, 1999 p.219).

Blythman writing in 2004 refers to the planning gain associated with the Tesco store in Coventry, she states that planning consent was won by the company agreeing to part fund a new stadium. She quotes a Tesco spokesperson as saying, '*Sometimes the value of the land is enough to push the deal – sometimes you have to build the stadium*'. (Blythman, 2004 p.27).

3.11.5. Out of Town Developments

During the 1980s and early 1990s most planning applications for out of town supermarket developments were granted either directly or on appeal (Seth & Randall, 1999). The controversy over the relationship between the development of out of town stores and the decline of the traditional high street is a much discussed topic. Seth and Randall suggest that changes such as population shifts

and regional changes can also affect town centre retailing, that supermarkets are not entirely to blame and that the nostalgic image of the high street is perhaps one that never existed (see History section). One study, by the Department of the Environment, they quote (BDP Planning and OXIRM, 1992) found that it was not possible to demonstrate that the opening of a large supermarket would have *'severe adverse effects on the scale, structure and diversity of town centres'*. (Seth & Randall, 1999 p.271).

Jenkins, however, disagrees writing in 1977 about the decline in town centres and the destruction of the countryside, referring specifically to Chichester and its ring road, he suggests that;

this road deserves to stand as a totem of Tory Britain. It will live on ... The road is one of those known as "Ridley doughnuts" a circuit of out of town supermarkets, traffic jams and suburban estates with, inside them an ancient town centre deserted and gasping for commercial breath. (Jenkins, 1997 p12).

The Institute for Public Policy research produced a report in 1995 that blamed supermarket companies both for the decline of the traditional High Street and the destruction of wildlife sites. The incorporation of these sites into supermarket landscaping has, they report been claimed to be an innovation in wildlife conservation (IPP, 1995) (see Case Studies). Blythman in her critical study of supermarket trading quotes a 1998 DETR (Department of the Environment, Transport and the Regions) report as saying that *'Our research has shown that large food stores can and have, had an adverse impact on market towns and district centres'* (Blythman, 2004 p.4). Increasing pressure resulted in a series of Government guidelines to discourage the development of out of town stores, and in the wake of the Rio Earth Summit (1992) to establish guidelines for programmes that encouraged sustainable development (PPG6).

3.11.6. The Effects of PPG6

The Government Planning Policy Guidance document PPG6 published in June 1996 had a decisive impact on supermarket development, particularly proposals

for out of town sites. Planning policy guidance notes set out Government policy on planning issues and provide guidance to local authorities on the operation of the planning system. Their content must be taken into account by authorities preparing their development plans and can be relevant to decisions on individual planning applications. In essence, PPG6 advises local authorities to encourage town centre development and discourage out of town projects. Companies in 2005 wanting to develop stores in town centres now use this guidance note to their advantage (see Case Study Four). Paragraph 1.9 states;

Where the development plan has not yet identified such sites, local planning authorities should consider preparing development briefs for key town centre sites, to be incorporated in the development plan at the first opportunity. In the absence of a planning brief, if a developer is proposing an out-of-centre development the onus will be on the developer to demonstrate that he has thoroughly assessed all potential town centre options. (PPG6 para 1.9 p.6)

While encouraging edge of town supermarket development PPG6 advises that the design of these and town centre developments should *'have proper regard to their relationship with their surroundings'* and should *'develop and enhance local character'* (para 2.34). However, a later paragraph suggests that unnecessary prescription should be avoided and that companies should be encouraged to adapt their house style *'taking account of the character of the local area'*. (para 2.36).

By the time it was published in 1996 the contents of PPG6 had been widely predicted and many companies had in advance acquired outline consent for retail use, on sites which were intended for out of town stores. As there is only a five-year deadline before planning consent expires a significant surge of developments were expected before the end of the 20th century (Norris and Lynch, 1996 p.10).

The attitude of developers towards the Government guidelines appears to have been that it would make planning consent much harder to achieve. Norris and Lynch quote a planning consultant (Aitken) that post PPG6 *'The ideal solution is for the developers to realise that the planners have stronger weapons now to restrict development'*. (Norris & Lynch, 1996 p.10).

They also suggest that many of the Department of the Environment's planning decisions had been '*tempered by political considerations*', and that local authorities and property and planning experts '*are also not averse to a touch of constructive meddling to ensure they get their own way*' (Norris & Lynch, 1996 p.10)

3.11.7. Quality of Design

A DETR report on the Environmental Impact of Supermarket Competition, published in 2000 expresses concern about the quality of supermarket design. It suggests that if supermarkets are located in town centres '*they must be built to a much better design than most existing stores*' (DETR, p.3). They note that PPG6 mentions the need for good design but do not feel that this has been implemented. They suggest that a supplement to PPG6 should '*make it very clear*' to local authorities and developers the need for better design for supermarkets that is more in keeping with surrounding buildings (DETR, p.3).

3.11.8. Sustainable development

The application of energy saving technology and recycling processes has been applied to supermarket construction for some time (see above). In the late 1990s these issues became matters of public concern and started to be addressed not merely as cost saving exercises but as being part of perceived company values. Major supermarket companies recognised that their customers expected to see a commitment to sustainable development programmes.

Guy, writing in 1994 discusses the effects on retail development of concerns regarding the increasing consumption of natural resources and pollution of the natural environment. He cites the concern for sustainable development as necessitating the need to reduce car travel. This is emphasised in the Government's 'Planning Policy Guidance' notes (June, 1996), which suggests that '*new retail development should be accessible by a choice of means of transport*' (revised PPG6 para 4.6). This and other ecology issues have since been

incorporated into supermarket planning applications and implemented in store design (Case Study 3 and 4).

Moore, writing in 1999, suggests that the degree of actual commitment to 'green' practices is uncertain and suggests that environmental concern has become merely part of a public relationships programme (Moore, 1999, p13). Papanek writes, *'New directions in design and architecture don't occur accidentally, but always arise out of real changes in society, cultures and concepts'* (Papanek, 1995 p.236). Pawley writing in 1998 suggests that the 'Green Architecture' movement has as yet no definitive architectural incarnation. He suggests that such buildings are *'woefully under-researched for the immensity of the transformation they are expected to complete'*. (Pawley, 1998 p.114).

3.11.9. Re-use

The re-use of buildings and their conversion for supermarket use is a complex issue, involving public and company value systems, but has noticeably also been a factor in the competition for prime sites, since the late 1950s conversion of high street cinemas. Since then many companies (Sainsbury's, Tesco, Morrisons) have converted listed or significant buildings for supermarket commerce. Brand in his work on the re-use of buildings suggests that buildings can be adapted and converted to their advantage when altered over time, as their functions are redefined (Brand, 1994). Discussing the theory that form follows function Brand suggests that a re-used building *'became more interesting when it left its original function behind'* (Brand, 1994 p.104). He also quotes the seminal work by Jacobs (1961) who, in her analysis of American cities, also advocates the re-use of buildings. He again quotes Jacobs as saying that when a building is put to 'adaptive use', that is when a building designed for one purpose is put to a different use, its value deepens. However, Brand criticises what he terms 'Facadism' when the front of an old building is used to mask an entirely new construction. He suggests that; *'The passer by doesn't know whether to be insulted by the crude lie or delighted by the surreal kitsch'*. (Brand, 1994 p.99). 'Facadism' is a technique used in some locations by supermarket developers (Waitrose, Monmouth). Brand also records that when he describes as

'facadectomy' was practised by Humphry Repton who demonstrated the possibility of the service to his clients by producing a watercolour rendering of the proposed new façade which, with the aid of a flap, covered the existing design (Brand, 1994 p.57). Pawley describes such structures as 'stealth architecture' '*the retention or replica of historic facades on otherwise new buildings*' (Pawley, 1998 p.101). He suggests that; '*The result of such heroic surgery ...is that all formally real places and all formally recognisable categories of buildings are disappearing*'. (Pawley, 1998 p.171).

3.11.10. The re-use of Supermarket Buildings in the USA

The web site of Building Design and Construction (October 1998) reported the remodelling of a supermarket building (not named) as an extension to a hospital. A detailed account of the alterations to the building is listed on the web site including a description under the title 'Supermarket Image Erased' of exterior 'modifications'. These entail the addition of a 35ft high clock tower and a metal mansard roof, described as not only an aesthetic feature but also necessary for hiding 'mechanical equipment'. A further addition is a loggia that extends the former supermarket front by 10ft. A later paragraph describes the exterior appearance at night; '*Vertical and horizontal fibre optic lighting outlines the clock tower and clock face ...and a colour wheel alternates its colour from green to red ...Lights directed towards the fascia highlight the metal roof*'. (Wright, 1998).

On the same web site a second, later re-use case study (2000) is reported, the conversion of a supermarket into an alternative high school and community centre in Arlington County Virginia. This re-use is of a Safeway supermarket. It is reported that when viewed from the street only the arched roof provides a clue as to the original use. Although wanting to change the building's supermarket style the project supervisor is quoted as saying that they wanted to avoid the mistakes made in another supermarket conversion which now '*looks like a bowling alley*'. The lower part of the building was therefore removed and replaced with reinforced masonry into which windows were installed along the front, side and rear walls to allow natural light into the interior. Two towers

bracket the arched portions of the roof and serve as entrances (Cook, 2000). No similar conversations of UK supermarket buildings have so far been recorded.

3.12 Branding

The issue of branding in a history and analysis of supermarket architecture is significant in the complex part it plays in the relationship between store architecture and the company it represents or signifies (see Introduction and Discussion).

Klein writes in 2000 that branding and the recognition of company logos began to evolve in the second half of the 19th century. She explains that the role of advertising in this context became a way of building an image around a particular brand name version of a product.

It has become increasingly evident that the branding of retailers is a complex multi-dimensional concept, in which the distinction between goods and services disappears as the *'format becomes the brand'* (Dawson, Cite in Kent 2001). As part of this evolution the retail brand has moved beyond two dimensional, visual expressions of format and product identity to embrace three-dimensional spaces of the store environment. The introduction of 'retail theatre' in the 1990s, of multi-sensory experiences in department stores, shopping malls and in focused retailers typified by Niketown is evidence of the broadening of the concept (Kent, 2003).

Brauer also writes about architecture and Branding, although the buildings he discusses are prestigious one offs designed for major exhibition spaces, his discussion regarding buildings and branding is nevertheless relevant to supermarket architectural design. He suggests that buildings should have 'something to say'. His work discusses the way in which architectural design can be *'harnessed to serve the purpose of transmitting messages in a marketing environment'*. (Brauer, cite in Kent 2002 p.7).

Writing in 1986 the architectural historian Forty, examines design objects from the eighteenth to the twentieth century. His argument that design is used by societies to express their values is illustrated by examples of consumer goods

produced since the industrial revolution. Using as an example the corporate design of London Transport, under the management of Frank Pick, Forty discusses the power of design as means of expressing the identity of organisations. He cites Olins' writing on the relevance of corporate identity. He suggests that the use of design to express identity has been widely acknowledged and that design has been used by, among others, armies, religious orders and modern corporations to '*convey ideas about what they are like both to insiders and to the outside world*' (Forty, 1986 p.222). Forty quotes Olins's work on a corporate identity,

design, he says can be used to convey to people the shape and nature of organisations that might otherwise appear formless, either because of their geographical spread or because they have come into existence through the merging of many smaller organisations. (Forty, 1986 p.223, Olins, 1978).

In the context of supermarket architecture the 'Essex Barn' design became an early recognisable brand image, initially wrongly attributed to Tesco (see below 6.4). The 'traditional' nature of these designs were thought to lessen the impact of a large building erected near a town centre, while at the same time establishing the supermarket brand, although this was only made specific by the presence of the company logo (see below 6.4)

From its mid-nineteenth century origins, branding endowed a household product with special characteristics including its name: packaging and advertising and offered reliability and consistency to the consumer (Lury, 1998). The earliest application of branding that assigned specific qualities to the product and its subsequent development, can be charted through a focus on attributes, or functional features, and benefits. It provides a unique mixture of benefits that satisfy both rational and emotional needs. It has been assumed that brands work by facilitating and simplifying the consumer's choice process by short cuts, habit and perception. In this way brand selection is based on experience and expectation; it appeals to discrete group of buyers, indeed to consistently succeed it must maintain an affinity with a defined group (Fifield, cite in Kent 2002).

In the late twentieth century, the concept of branding expanded from its earlier, more narrowly defined features and benefits function. At a corporate as well as product level, the values of the brand and its visual cues have taken on greater significance. The attention of corporate brand managers has been directed to the creation of brand *personality*, the expression of values and culture; *identity*, the communication of personality through cues, and *image*, the perceptions of the brand, felt or thought, by its audiences (Pickton & Broderick, 2000 cite in Kent, 2003). The increasing significance of associations and symbols in the development and maintenance of the brand have affirmed this trend. Symbols provide cohesion and structure to identity, making it easier to gain recall. Values determining brand identity shifted from product or store functionality to those of symbolic representations.

The creation of 'image' too became increasingly important during the 1980s and 1990s, across both domestic and global boundaries (Goldman and Papson, 1969 cite in Kent 2003). During this period, consumer experience of shopping began to appear in both economic and marketing literature (Pine & Gilmour, 1998 cite Kent 2003). Typical of this trend is Bell's (1999) discussion of the essential values of Woolworth's brand in experiential terms as a warm, friendly environment, filled with family products, offering good value and trouble free shopping. The development of sensory experience as an element or even essence of branding marks a further broadening in the concept.

Klein writes in 2000 that branding and the recognition of company logos began to evolve in the second half of the 19th century. She explains that the role of advertising in this context became a way of building an image around a particular brand name version of a product. (Kleine cite in Kent, 2003)

Riewoldt suggests that '*Brandscaping*' which he describes as '*the three dimensional design of brand settings*' (Riewoldt, 2002 p.7), is increasingly becoming important in the area of retail architecture. He suggests that Brandscaping transforms the brand into a location and that the image of the brand is communicated through the architecture and design of the building. For example Selfridges store in Birmingham and Niketown London. In the context of

supermarket architecture, most buildings convey their brand identities solely through the presence of the company logo. The exceptions are those designed by high profile architects whose designs have established or reinforced the status of the brand (see 4.10). These stores tend to be located in areas that are already prestigious destinations, which give definition to the status of the store. (see 5.3 and 5.4). The reuse of buildings with listed status for supermarket use, also communicates the image of the brand, as suggested by Riewoldt (ibid), through the architecture of the building, for example Tesco's reuse of the Hoover Factory (see 4.8).

3.12.1. The growing power of the brand

At the time of writing (1999) Seth and Randall name Tesco, Sainsbury's, Safeway and Asda/ Wal-Mart as the four main supermarket companies trading in the UK. In addition they name as two strong 'second division' companies Morrisons and Waitrose. While Somerfield/Kwik Save, Aldi, Lidl, Netto and Iceland are described as the 'hard discounters' (Seth & Randall, 1999 p.136). The Co-operative movement with its many branches has now been described as a fading presence in the supermarket trade (see Introduction).

Sainsbury's archivist Bridget Williams published in 1994 a comprehensive history of the company and curated a 'virtual museum' web site. The up dated version of the Virtual Museum is to be installed at the Museum in Docklands study centre. Williams book records the life and work of the Sainsbury family and the evolution of their company from high street grocer to a major supermarket chain. The family approach to running the company is emphasised throughout the book, which, although published as an adjunct to corporate branding, is valuable in its almost unique recording of supermarket history. The archive as such has now been transferred to an online facility and is also available for research at the Museum in Docklands.

A limited history of Tesco was published by Powell in 1991 and the biography of their founder Jack Cohen by Corina published in 1971. In addition, a web site gives basic information as to the structure and history of the company. Seth and Randall (1999) also give a comprehensive account of the company's conception

and development. Their work includes statistical evidence as to the size and rapid expansion of the company and cites some significant periods of company history, such as Cohen's fight against resale price maintenance, his policy of 'pile it high sell it cheap' and the major re-launch (Checkout) in the 1970s. Morrison's history of retail architecture '*English Shops and Shopping*' also contains a case study on Tesco's history to 2002 (Kirby & Morrison, 2003). By 2004 Tesco had expanded into Eastern Europe the middle and Far East and by 2006 the United States. The company has expanded far beyond selling groceries and non-food goods and their services included personal finance (1997) online banking (1999) Mobile phones (2003) Broadband (2004). (Tesco Website)

Seth and Randall also give an account of the Safeway company and its complex history of mergers and takeovers and made up the UK Safeway stores established in 1987. At the time of writing Seth and Randall cite Safeway as the fourth largest of the UK's multiple food retailers (the company was taken over by Morrisons in 2003). They cite four phases in the development of the company. The acquisition stage 1978-81. the Allied stage 1982-85 and the beginning of retail dominance, a stage of rationalisation 1985-87 and the emergence of a competitive supermarket chain from 1987 (Seth & Randall, 1999 p.99).

Seth and Randall give an outline of the foundation in 1965 of Asda and the expansion of the chain after 1991 under the leadership of Archie Norman. In 1999 the chain was taken over by the American chain Wal-Mart. The arrival of Wal-Mart in the UK received a mixed reception in the national press. The Financial Times quoted Archie Norman as saying '*The culture and attitude of Wal-Mart is one that we aspire to*' (F.T., 1999 p.30). On the same day the Guardian quotes a financial analyst as suggesting '*I don't think there is one retailer in this country which hasn't discussed the operational and strategic threat of Wal-Mart's arrival in the UK.*' (ibid p.22). The Asda/Wal-Mart web site reported in 2000 that the first Asda Supercentre had opened in Bristol in a converted Asda Hypermarket.

Morrisons' web site recorded that by 2005 after the take over of Safeway, there were 375 Morrison stores. Remaining under the leadership of its founder Ken Morrison, the company completed the takeover of Safeway in 2004 creating the

fourth largest store in the UK (Morrisons web site, 2005). In 2006 Ken Morrison retired as Chairman. Prior to the Safeway takeover Seth and Randall describe Ken Morrison as the industry's Grand Old Man and quote him as describing himself as '*not a risk taker*'. (Seth & Randall, 1999 p.151).

Seth and Randall writing in 1999 record that Waitrose, part of the John Lewis partnership, had 120 stores in the UK. They suggest that the company has concentrated on developing high street or edge of town stores often in conservation areas and were the first supermarket claiming to sell organic produce. They also suggest that Waitrose targets middle class professional customers and that: '*The management approach is calm, studied and analytical*'. (Seth & Randall, 1999 p.154).

Literature relating to Somerfield/Kwicksave, Aldi, Lidl and Netto is limited to information from web sites, although Seth and Randall do mention them as 'hard discounters' and do not dismiss them as insignificant. Referring to Aldi they write, '*The stores themselves may be chillingly crude and stark – a far cry from the modern retail temple...But their structure and simplicity is compelling*' (Seth & Randall, 1999 p.147).

Retail design focusing on identity has evolved from a two dimensional approach to a combined three dimensional concept of internal spaces and external architecture. The brand experience is therefore significant in terms of space, Department stores and large shopping centres provide opportunity for experimental branding. Smaller life-style stores for example Laura Ashley or Starbucks have less space and therefore give more intense holistic experiences (Kent, 2003).

Kent quotes McGoldrick as suggesting that the atmosphere of a store creates 'a retail image' in the mind of the shopper and that the atmosphere of the store influences shoppers behaviour '*by creating attention, messages and an emotional, affective response*' (McGoldrick cited in Kent, 2003 p.8). Environmental clues such as signage and architectural design have shown to be significant in the decision making of customers (Ward, Bitner & Barns, cited by Kent 1992).

3.12.2. Emerging trends in Supermarket design

Lamacraft in her 1989 report on supermarkets for the *Financial Times* makes several speculations as to the future of supermarket buildings. Using as an example SMART STORE (their caps) Europe she suggests that British stores may alter their layout to accommodate 'social areas; such as community and social services, and 'solutions' areas where wine choices, special recipes and other choices are made (Lamacraft, 1989 p.58). Alteration to the standard store layout would present new opportunities for architectural design. Ultimately, she suggests that the need for a physical store may disappear or, more likely, will become part of a several retail channels through which goods are sold. Stores would become a means of promoting brand loyalty, which would demand a more innovative and creative approach to design (Lamacraft, 1998).

Bowlby in 2000 quotes an article from *The Grocer* Centenary Number (1962), which proposes that in the future supermarkets will be adapted to accommodate new forms of transport, for example vertical take-off craft that will land within 250 feet of the entrance (Bowlby, 2000 p.235). The rise in Internet shopping is discussed by Humby et al. in their study of Tesco's Club Card; they record the evolution of Tesco.com from Tesco Direct. They report that by 2000 Tesco's, although limited to Greater London, internet grocery service was taking 10,000 orders a week, and that '*three out of ten customers using home shopping service regularly-almost 1,000,000-were new to Tesco*'. (Humby, Hunt & Philips, 2003 p.234).

4.CHAPTER FOUR

4.A HISTORY OF SUPERMARKET ARCHITECTURE

4.1 Introduction

Although references are made in other chapters of this study to historical data, it is appropriate that an account of the history of supermarket architecture and its antecedents are recorded chronologically. This is necessary In order to clarify and establish an overview of the field in which the research lies. This overview is necessary in order to be able to explain in other sections of the study the use and relevance of elements in supermarket structures that are significant in an analysis of the phenomenon. For example the concept of ‘traditional’ design, and the evolution and acceptance of modernism in this field of architectural design. Developments in retail systems together with technical innovations, economic and social change are significant in the analysis of supermarket design and a record of these important shifts are included in the chronological account where they have been relevant to the architectural design of supermarket buildings.

4.2 Markets and shops

The antecedents of the present day supermarkets can be traced to medieval fairs and street markets. Many of these markets still exist, particularly on rural sites, and in the twenty first century have been revived in urban areas in the form of farmers’ markets (*Guardian*, 1999 p.15). Like street markets and covered markets, supermarkets display a wide selection of goods for sale in a designated space. Like traditional markets the produce in the supermarket is perceived as being cheaper than that of a high street retailer. As in a traditional market the customer in the supermarket is able to browse freely without pressure to purchase. The adopted name ‘supermarket’ suggests that these were initially perceived as a development of the familiar street market or market hall. Jack Cohen, the founder of Tesco started his business as a market trader. Winstanley records that the antecedents of the present day supermarkets can be traced to medieval fairs and street markets (Winstanley, 1989) by the end of the 20th century, like open

markets, the supermarkets were selling non-food goods as well as food and fresh produce.

For market traders who were unwilling to invest in fixed shop premises stalls were often provided by market owners, or they were loaned a construction that could be transported and easily assembled by the traders themselves (Winstanley, 1983). Stalls were of an open design and allowed space for displaying goods. Some Local Authorities, particularly in the newer industrial and commercial towns of the North and Midlands, provided covered markets to accommodate the growing numbers of stall holders, described by Winstanley as a colourful and contentious component of the retail scene (Winstanley, 1983). St John's covered market in Liverpool, erected in 1822, provided gas and water supplies for the stallholders (Winstanley, 1983).

Although most retail and commercial activity was focused on the market place, shops began to be established during the medieval period. In order to attract passing trade these were located close to key areas such as the church and the approaches to river crossings. From the thirteenth century town centres were thronged with a variety of individual shops (Morrison, 2003). Morrison records that in 1234 Canterbury had 200 shops and by 1300 Chester had 270 (Morrison, 2003 p.19).

Early shops were often adapted from domestic dwellings and the shopkeeper lived above or behind the store, (Adburgham, 1964). Shop signage, advertising goods or services was essential for the identification of the premises prior to the establishment of street numbering schemes. Initially, hanging signs above the shop advertised individual businesses, but these were banned in 1762 because of the danger to pedestrians and were re-hung flat over the shop doorways. The exceptions were barbers poles and pawnbrokers' three balls (Adburgham, 1964).

The shops, which were generally constructed from timber, had very little window space and the interiors were very dark until the introduction of plate glass in the nineteenth century. Adburgham quotes the writings of James Malcolm who observes that the lack of light was seen as an advantage by unscrupulous linen

traders whose customers in the darkness were unable to see faults in the cloth (Adburgham, 1964 p.6).

Winstanley's work charts the development of shops and retailing prior to the First World War.). Morrison records that by the late medieval period market crosses set up to '*inspire honesty amongst traders*' (Morrison, 2003 p.10), had been developed and expanded to form, often octagonal, structures with a roof and open sides (Morrison, 2003).

Winstanley suggests that some local authorities, particularly in the newer industrial and commercial towns of the North and Midlands, provided covered markets to accommodate the growing numbers of stallholders (Winstanley, 1983). Adburgham in her study of 19th century shopping suggests that early shops were adapted from domestic dwellings and that the shopkeeper lived above or behind the store (Adburgham, 1964).

Morrison records that the medieval shops were very small and varied in design and function. Some were little more than stalls while others were used as workshops by craftsmen or as showrooms by wealth merchants (Morrison, 2003).

Mathias, also writing in the 1960s, describes photographic records of early grocer's shops, the precursors to the supermarket, that displayed prominent signage often in very large gold or gold edged lettering repeated wherever space allowed. The company name inscribed above and below the window area, on fascia boards, gas lamps and mosaic entrance floors (Mathias, 1967).

Morrison includes illustrations of two 19th century provision shops that support Mathias' descriptions. The most decorative being the Maypole Dairy (Morrison, 2003 p.83).

This highly decorative style of design is well documented by Bridget Williams in her history of Sainsbury's and appears to have remained popular until the end of the Second World War. The design of both the interior and exterior of Sainsbury's shops was standardised.

Williams includes in her history of Sainsbury's an illustration of an architectural drawing of a 1929 East London shop. This shows staff accommodation at the front of the building over the shop, while the rear of the premises is single storey, allowing the installation of roof lights to allow natural light into the preparation room at the rear (Williams, 1994).

Much has been written about the decline of the High Street and the rise of supermarket trading. The past is often remembered without its imperfections and the downside of High Street trading is often forgotten. Winstanley, in a case study based on 19th century oral archives, records the conditions above a pawnbrokers' shop

In the summer it was furiously hot. And the fleas! ...It was really awful...they did have to work hard to keep the place clean. It was an awful hole to live in but I heard my father criticise other people that bought their own private houses and moved out of the High Street. (Winstanley, 1983 p.192)

Grocers' shops and other small retailers including corner shops, were often dark and unpleasant environments in which the customer was physically separated from the goods on sale and reliant on an assistant to show or provide produce as requested. The customer had little control over what was offered and no privacy in what was requested. Winstanley also describes 'traditional' butchers' shop practices that continued into the late 1930s,

The reformers' case for abolishing private slaughterhouses on health grounds is understandable...the gruesome butchering... took place directly behind the shop which was situated in a busy commercial and residential quarter of the town. (Winstanley, 1983 p.144)

4.2.1. Grocers' Shops

Photographic records of early grocers shops, the precursor of the early supermarket, displayed prominent signage, in affluent areas displaying very large gold or gold edged lettering repeated wherever space allowed. Above and below the window area, on fascia boards, gas lamps and mosaic entrance doors (Mathias,

1967). This style of architectural design is well documented in Bridget Williams's history of Sainsbury's (Williams, 1994) and appears to have remained popular until the end of the Second World War. Williams describes the architecture of Sainsbury's high street shops. The interiors were richly decorated with Minton Tiles and mahogany screens, mosaic floors and marble topped counters. **(see picture 1)** Externally the large and opulent company signage dominated the street scene (Williams, 1994).

The design of both the interior and exterior of the shops was standardised. An architectural drawing of a 1929 East London shop reproduced in Sainsbury's history shows staff accommodation at the front of the building over the shop. The rear of the premises is single storey, facilitating the installation of roof lights to allow natural light into the preparation room at the back of the shop (Williams, 1994). Sainsbury's founder, John Sainsbury, although from humble origins, aimed his grocery business at the increasingly affluent middle classes, his aim being to provide 'the best butter in London'. His wife was said to take great pride in the cleanliness of the first shop opened in 1874 (Williams, 1994 p.14). Sainsbury's reputation for quality and cleanliness was thereby established from the outset.

Morrison describes a typical shop of the 1920s as having '*a small lobby, plate-glass windows and pilasters and stall risers clad in oxblood or dark green glazed bricks*' (Morrison, 2003 p.83). The Maypole Dairy shop fronts made by Harris and Sheldon, she describes as '*having mirrored soffits and pilasters, and the Maypole name or monogram was worked into the mosaic floors and bronze door handles*' (Morrison, 2003 p.83).

Early archive photographs of Tesco shops show interiors lit by two parallel rows of suspended lights, illuminating goods stacked to the ceiling.

The tightly packed goods were almost hidden behind extensive price ticketing. **(see picture 2)** The founder of Tesco, Jack Cohen had started his business after the First World War selling salvaged goods in a London street market. The dubious origins of the business gained the company a lasting reputation for underhand dealing and a '*notorious disregard for planning regulations*' (Kirby &

Morrison, 2003 p.285). Early depictions of the Tesco name appear in sans serif face in keeping with a contemporary 1930s style. By the 1950s this had been superseded by the familiar three-dimensional red serified letter face with a white outline. The design was later (1990s) distorted into an italic face (Tesco archive).

Winstanley records the growth of multiples and the birth of the department store, providing a historical narrative from which the origins of the post-war supermarket can be seen to emerge (Winstanley, 1983).

Westwood's 1952 (1955) book '*The Modern Shop*' gives detailed advice to architects and retail designers ranging from selecting a site to all aspects of shop and store design. The book is well illustrated with photographs, plans and drawings and includes information, now archive material, on self-service and the layout of stores following the American system. The architecture and design of Co-operative stores is not included in this study (see p.12). However their archive contains various guides focusing on the design of self-service stores that were issued from the mid 1950s by the CWS and other Co-operative societies. These were largely concerned with changes made to accommodate self-service systems. For example 'Questions and answers on Co-operative Self Service' which gives detailed information on necessary warehouse space, details of shelving, handling products, and counter design (Co-op archive). These have not been the subject of detailed research for reasons given above.

4.3 Supermarket trading in the U.S.A.

The concept of supermarket and self-service trading originated in the United States. Because of the remoteness of settlements in the USA and the wide use of catalogues for purchasing goods and necessities, the idea of a 'store' where goods were accumulated and the 'retail' element minimal was already established and continues in such outlets as Walmart. The first supermarket is recorded as being Clarence Saunders Piggly Wiggly stores, opened in September 1916 in Memphis, Tennessee. The customers entered and left the store through a turnstile and were able to serve themselves with pre-packaged foodstuffs from tightly packed shelves. Other self-service experiments followed. King Kullen opened his first

store in 1930 in Long Island. In what has been described as a media event (Zimmerman, 1995). Otis and Dawson opened the Big Bear supermarket in New Jersey in 1932. The store was housed in a converted car factory and provided free car parking for its customers (Bowlby, 2002). However, only 30% of the floor area was dedicated to food sales, the rest was let to concessions (Bowlby, 2000).

After the Second World War the American grocery trade was, unlike their British counterparts, unhampered by rationing and restraints on price-cutting. They were, therefore, able to exploit the 'pile them high, sell them cheap' self-service philosophy which was to prove popular in wide spread communities with easy access to cheap transport. In the second half of the 20th century the small American grocery chain stores, which evolved from the original general stores, began to be replaced in the 1930s by the rapidly developing self-service supermarket.

The supermarket phenomenon originated in the United States where they were largely developed in shopping malls where design is uniform with other stores. Out of town, size and the availability of land has not enforced the kind of restrictions on design found in the UK where development sites are scarce and in close proximity to urban areas. Mayo, referring to American stores, writes that supermarkets that were part of shopping centre developments were required to fit in with an overall design scheme and had few definable architectural features. He suggests that their individuality is sustained through familiar signage, company logos and the ability of shoppers to see grocery goods through a glass façade (Mayo, 1993).

Early freestanding American supermarket buildings were converted warehouses or very large sheds. Their economic success was based on size rather than aesthetic appeal. It was not until after the Second World War that innovative architectural design was recognised as being a means of increasing trade. In the 1930s architects had experimented with Art Deco and 'Streamline' contemporary designs (Zimmerman, 1955).

Post-war design, however, was firmly entrenched in the modern movement. The use of steel and glass became widespread and the aesthetic overtones of the International Style could be seen in the design of facades, which emphasised exposed steel structures and large areas of glass. The vertical sign became the hallmark of the supermarket. The impact of the architecture was designed to impress the motorist rather than the pedestrian (Zimmerman, 1995). The packaging and volume, which characterised self-service in the USA, was an important reference point for the success of capitalism during the cold war. It was prominent in the iconography of early Pop Art as a symbol for abundance and the aesthetic of repetition, particularly in the work of Andy Warhol, and was seen as a sign of Western superiority during the meeting between Khrushchev and Nixon at the American Soviet Exhibition in 1958.

Mayo writing in 1993 focuses on an evaluation of the architectural space in the American grocery store. He states that in the 1960s many supermarkets began to modify their 'shed' shaped buildings and adopt a more decorative style of architecture that reflected changes in contemporary architectural design. These changes also demonstrated recognition of the effect of the design on customer experience.

These design changes reflect popular trends in architecture and store owners adapted these building designs to enhance their ability to capture customers who wanted a pleasant place to shop. (Mayo, 1993 p.194)

4.4 Early Supermarket Trading in the U.K., 1950-1970

In Britain the American self-service and cut-price style of selling inspired grocery traders to experiment with systems that offered fast and economic trading (see below). The economic situation in Britain was vastly different to that in the United States, where car ownership and increasing affluence provided fertile ground for consumer exploitation. British shoppers and traders were still struggling with post-war austerity, rationing and Resale Price Maintenance. Commenting in the 1950s on the changing attitude to the design of shops

Westwood suggests that the South Bank Exhibition has influenced designers and observes that;

There is a welcome freshness about these new designs, appropriate to this type of building which must be kept up-to-date ...In the interior, formality has given place to more and more freedom for the customer to handle the goods and make his own selection, and the counter has become less and less obtrusive. Lighting, wall surfaces and fixtures and fittings all show evidence of the exhibition designer's flair for attracting attention, and in many cases the interior is designed to be seen in its entirety from the pavement outside ...the general opening up of the interior has greatly influenced the exterior ... recessed fronts and use of more than one storey as part of the front. (Westwood, 1955 p.3)

Despite these restrictions British traders, who had seen the success of self-service systems in the USA, began to experiment with the new system, which promised fast and economic trading.

Shaw & Alexander suggest that the Canadian entrepreneur Garfield Weston was responsible for bringing the concept of the supermarket to the UK and that he was a key innovator and central to the changes in retailing in the UK. Weston moved into Britain via complex acquisitions in the grocery sector. His first success in the UK being the acquisition in 1960 of Allied Bakeries Ltd. (Shaw & Alexander, 2006). Weston bought key personnel from Canada to run his Fine Fare organisation and was thereby able to establish American supermarket systems in the UK (ibid p382). Fine Fare was however forced to halt their expansion in 1963 until more management expertise from Canada was available.

The changes in lifestyle, particularly for women, since the 1950s may have been aided by the supermarket evolution. It could also be claimed that the expansion of supermarket trading and therefore the need for larger and more efficient stores was caused by lifestyle changes that required 'one stop' shopping which included a demand for services and non-food goods.

4.4.1. Self-service

The introduction and subsequent evolution of supermarkets was made possible by the introduction of a self-service system of selling, sometimes referred to as the 'help-your self' system. The system was based on the idea of customers taking from the displays the items that they want to buy and paying for them as they leave the store. General consensus suggests that Clarence Saunders conceived the system in the USA in 1916, although Pevsner suggests that it was a Los Angeles innovation of around 1930 (Pevsner, 1976).

In 1949 the Ministry of Food issued 100 licences to grocers wanting to convert their premises to self-service. Williams writes that the licences were given to retailers who wanted to try the self-service system and were prepared to share their experiences with other retailers (Williams 1994).

There were promotions of the American system in the UK. Shaw records that in 1948 a model demonstrating the self-service system was displayed at the Imperial Institute in London, Promoted by Hussmann British Refrigeration, a company set up to promote American retailing techniques throughout the UK. (Shaw et al, 2004). In 1950, in order to study the development of Self-service in the UK, the Self-service Development Association was set up, producing a journal, Self Service, designed to inform a wide range of people involved in retail trading. A year later a fully stocked exhibit was set up in the Parnell Advisory Service Centre London (ibid).

Corina, in his biography of Jack Cohen, emphasises that it was Harold J. Wicker of the London Co-operative Society who was the "Father of British Self-service". It is recorded that in 1942 Wicker converted a small section of an Essex department store into self-service grocers. He later went on to establish the Self-service Department Association and lead the move within the Co-operative Society to adopt self-service selling (Corina, 1972 p.113).

Cohen experimented with self-service in 1947 with the conversion of a small grocer's shop in St Albans, but due to economic restrictions this experiment

lasted only twelve months. However, by 1950 Corina records that Cohen had established twenty self-service units, with fifteen more to follow within five months (Corina, 1972 p.129). (see picture 3) In 1950 Sainsbury's opened their first self-service store in a converted shop in Croydon. Their first purpose built store is recorded as being opened in 1952 in Eastbourne (Williams, 1994).

Elsewhere in Britain the self-service system was introduced gradually into grocery stores as post-war restrictions were lifted. Despite reports that customers found the system hard to understand, (Williams, 1994) it is suggested that, in fact, many British shoppers, particularly women, had already become familiar with the idea of self-service during the Second World War. Self-service systems used in works canteens, where a waitress service was neither appropriate nor economic, was welcomed by customers who appreciated the convenience and speed of self-service (Hardyment, 1995). The new system largely avoided the need for queuing; a practice that was associated with grim war time shortages. Hardyment quotes Marguerite Steen who in an *'open letter to some shopkeepers'* (1945), writes *'we are sick and tired of your rudeness, and fawning and simpering to get honest value for money from you'* (Hardyment, 1995-1997 p.19).

By the early 1950s British grocery chains, particularly Tesco, Sainsbury and the Co-operative Societies, were experimenting with the American system. The conversion of pre-war high street grocers to accommodate self-service selling resulted in drastic changes to both interior and exterior architectural design. Designs that had been inspired by fashionable Victorian craftsmanship were replaced by stark hygienic interiors and plate glass fenestration (Williams, 1994), this allowed natural light into the store and a view of the interior from the street.

Westwood, however, in his guide to the design of the modern shop (self-service) advises that although the window must lead customers to the entrance of the store, *'the queue should be screened from people in the street'* (Westwood, 1952 p.89). Signage remained an important element of the new self-service stores. Company names remained an important part of the exterior design, but in keeping with the new stark architecture were far less prominent than the ubiquitous heavily gilded pre-war signs (Mathias, 1967).

Morrison gives an in-depth account of the introduction of self-service and its effect on store design. She records that Co-operative societies began building supermarkets in the early 1950s, and were among the first to convert to the self-service system, she writes,

Throughout the 1950s, the huge shop fitting and shop front department of the CWS dispensed advice to societies, as their grocery shops were transformed for self-service. This involved the removal of old wooden shelving and counters to make room for new island display units and cash desks ... at the same time, societies began to replace their old shop fronts with flush aluminium – frame frontages. (Morrison, 2003 p.156)

Williams comments that within Sainsbury's stores the new system necessitated explanatory signs that guided the customers around the store and through the unfamiliar process of self-service (Williams, 1994). **(see picture 4)** She traces the political and social changes that facilitated the expansion of food stores during the early 1960s (Williams, 1994). Seth and Randall record that the new self-service stores could no longer fit into standard high street shop units, and that the deep footprint of recently vacated cinema sites became a popular alternative for stores needing large areas of storage space, in addition to an expanding shop front area. They cite as an example Morrisons' first supermarket, which was developed on a former cinema site in Bradford (Seth & Randall, 1999). Williams records that by the early 1970s large supermarket companies began to experiment with out of town developments (Williams, 1994).

The self-service system was essential in the progression from grocery stores, offering counter service, to supermarkets where customers served themselves (see below). Many early experiments with self-service failed because of the lack of pre-packaged goods, essential for self-service trading. Several companies claimed to be the first to introduce the new system, but the majority of these reverted to traditional trading after finding the self-service system unworkable. There was a need to produce new kinds of packaging, which provided the kind of information, which would traditionally have been supplied by counter staff, this including an

indication of the kinds of uses to which the products could be put and the aspirational dimensions they suggested.

David Grieg converted his Turnpike Lane branch to self-service in 1932, but returned to counter service after complaints from his customers and problems with packaging. (Morrison 2003)

An attempt had been made to introduce the system during the Second World War. Customers familiar with self-service restaurants referred to its 'cafeteria' system. One of the first of these stores opened in Bentalls, Kingston in 1933 (Morrison, 2003). In 1942, despite limited supplies The London Co-operative Society introduced a small self-service department on the ground floor of its department store in Romford. This shop probably conceived by Harold Wicker. The store used existing fittings and had a single counter for payment. The Co-operative Society were pioneers in the conversion to self-service and by 1951 there were over 600 self-service Co-operative shops (Morrison, 2003).

Most shop layouts were purpose designed for each location to fit into a pre-existing shop unit. A typical 1960s high street store would have been part of a mixed development with retail units on the ground floor and offices above. (see **picture 5**) The shop would have been constructed with a simple concrete frame with single-glazed steel cladding infill panels. The frontage to the street was created using a fully glazed shop front with a tiled façade above, providing a backing for the store signage (Morrison, 2003).

4.4.2. The Co-op

As described above the co-operative society was one of the first companies to use the self-service system. The Publication of George J. Holyoak's *History of the Rochdale Pioneers*, and the subsequent establishment of co-operative retail societies is well known and well documented, as is its philosophy of buying and selling goods on the principal of fair trading and dividing the profits amongst the members. Co-operative trading began in the mid 19th century and thrived until the 1960s. Throughout this period the stores themselves varied from small high street shops to impressive stand-alone buildings, most selling non-food goods as

well as provisions. In the 1930s two CWS architects Elkins and Johnson introduced early art deco and modernist architectural design into the society's 'emporiums' or department stores. In the 1960s the company adopted their now familiar co-op logo and turquoise colour scheme. (Morrison 2003) However due to increasing competition from multiples the company was forced to sell off many of its non-food outlets while experiments with out of town stores were not successful. Although, in the 21st century, co-ops still have a diverse property portfolio Since the 1990s the company has concentrated its development of supermarkets as small local stores (Morrison, 2003).

4.5. Supermarket Expansion

The need to find larger premises to accommodate larger stores prompted companies to convert existing high street premises to supermarket use. Cinema buildings and sites were ideal for this purpose. Following Tesco's 1956 conversion of a cinema in Malden, Morrisons converted cinema premises and later a bowling alley into a self-service supermarket in the mid-1960s (Seth & Randall, 1999). The journal '*Building Industries*' reported in August 1961 the conversion to supermarket use of a cinema in Shawlands Cross, Glasgow. The former Elephant cinema was converted into five shops, the largest of which, a Stirling Supermarket, occupied 9,000 square feet. An early 1960s definition of a supermarket was a store over 2,000 square feet with at least three checkouts (Morrison, 2003). The provision of parking space was of major importance at a time when rapidly increased car ownership was causing unacceptable congestion in town and city centres (see below).

Within the high street, purpose built supermarkets had broad frontages and were only one or two stories high (unusual for an urban environment). The flush fronted plain shop front was either recessed behind an arcade, or sheltered by a cantilevered canopy. (see **picture 6**) This arcade could be used as a pram park before the introduction of 'child friendly' shopping trolleys (Morrison, 2003). Above the superstructure was often a glass curtain wall (1950s) or left blind (1960s early 1970s). Some stores (Premier Supermarkets) had elevations faced

with moulded concrete blocks (Morrison, 2003). **(see picture 7)** Above the sales floor, the upper floor was usually used for storage. Inside, the tills were ranged along the front. **(see picture 8)** Fixtures were usually perimeter fittings against the walls, sometimes arranged to allow back loading from a service corridor. Low (by present standards) gondola fittings were positioned in the centre (Morrison, 2003) There were no window displays; the glass front was designed to allow a view into the store. Supermarkets that were part of shopping centre developments were required to fit in with an overall design scheme and had few definable architectural features. As in the USA their individuality is sustained through familiar signage, company logos and the ability of shoppers to see grocery goods through a glass façade (Mayo, 1993 USA).

By the early 1970s larger supermarket companies began to experiment with out of town developments. The design of these initially echoed the first high street stores, maintaining the large glass windows in a single storey, pre-fabricated steel framed building, on a site, which now necessarily included a car park (see below). Sainsbury opened their first purpose built out of town store near Cambridge (Coldham's Lane) in December 1974. **(see picture 9)** The glass and steel-framed building (24,000 square feet) was large enough to offer non-food goods as well as food. Williams records that on the day the store opened '*...the 376-space car park was filled within minutes and the queues soon stretched for hundreds of yards along both sides of the building*' (Williams, 1994 p.170).

Morrison records that during the 1970s Asda and Fine Fare began to open out of town superstores, keeping the size below 50,000 sq.ft. in order to avoid referral to the Secretary of State (Morrison, 2003).

Store design in the 1970s was basic with little thought given to the quality of the environment. The buildings were usually glazed along one side with a blind side and rear walls. Entrances were often poorly demarcated. Such 'sheds' were widely described as having 'concentration camp' imagery (Wright, 1973, quoted by Morrison, 2003 p.279).

4.5.1. Car Parking

By the end of the 1960s the problems associated with car parking were forcing companies who needed to expand their businesses to build on out of town sites. Williams quotes Lord Sainsbury as observing that, *'Planning problems in High Street locations had placed constraints on the size of almost all of our new stores'* larger (out of town) stores were therefore *'more popular and more profitable than those in cramped high street locations'* (Williams, 1994 p.173). The increase in car ownership and demand for 'one-stop shopping' made provision for parking and on site petrol stations essential to supermarket trading. By the beginning of the next decade the amount of space needed to accommodate a large supermarket with appropriate car parking provision also necessitated, in many cases, major changes in access routes. These problems fuelled the debate that supermarket trading causing the demise of high street trading.

Critics of supermarket architecture have also criticised the dominance of surface car parks on out of town schemes. (see **picture 10**) In 1982 an article headed *'Superstores in a sea of parking'* criticism is made of the amount of land needed to accommodate over 300 cars in Sainsbury's newly opened 2,167 square meters. Store in Nine Elms, Lambeth. It is suggested that supermarkets should consider providing multi-storey car parking. Sir John Sainsbury is quoted as saying *good parking is one of the main features of an attractive store'*. A further statement reads;

The design of adequate multi-storey parks (is) so difficult, their construction so expensive and their operation so fraught with problems that it is only under very exceptional circumstances that we now consider trading in a supermarket ... with this type of parking. (Architect's Journal, 17 Feb. 1982 p.26)

Sainsbury's flagship store at Plymouth is dominated by the semi-circular car park at the front of the store. This area was claimed by the architect Dixon Jones to have been treated as an 'architectural element' in the landscaped scheme. In reality once filled with vehicles it dominates the site and detracts from the originality of the building design. By the end of the 1990s, as sites large enough

for supermarket development became increasingly difficult to acquire, car parking became a contentious issue in site planning and store design.

4.6. The move to out of town developments

By the beginning of the 1980 sites big enough to accommodate a large superstore, with appropriate car park and service provision, could no longer be found in town and city centres.

Companies had started to consider out of town sites by the middle of the 1970s and although referred to as 'out of town' locations, most were on the edge of towns and suburbs or sited within mixed retail developments. Tesco had opened their first out of town store in 1967 (Tesco archive) and Sainsbury's developed Coldhams Lane, Cambridge in 1974 (Williams, 1994). (see above)

The American chain Safeway first appeared in the UK in 1962, and brought with it many of the retail systems that at the time were well established in the United States. The first purpose built Safeway was opened in Bedford in 1963 (Seth and Randall, 1999). In 1987 the Argyll group purchased Safeway UK and with Presto the merged chain were to adopt Safeway as their chief brand.

Argyll had a complex history, which included the purchase of Allied Suppliers which in its turn was the result of mergers with several grocery chains including Home and Colonial, Lipton's and Maypole Dairies (Seth & Randall, 1999).

Safeway's stores developed a characteristic design using grey or terracotta ridged tiles on pitched roofs with green/blue roofed canopies and dormers. Clock towers, sometimes glazed, mark the entrance, which was also emphasised by the company name in red three-dimensional lettering displayed on a white fascia board.

Asda, following their acquisition of GEM, adopted a policy of developing only large stores with a minimum of 30,000 square feet of selling space. Initially, in addition to food and household items, space was franchised to companies selling non-food goods. In order to acquire suitable sites the company converted a variety of existing buildings that met the requirements for developing a large store (Seth & Randall, 1999 p.77). Morrison writes that Gem's first two suburban

'supercentres' *'occupied a single-storied shed clad in ribbed aluminium sheeting designed by the Austin-Smith/Salmon/Lord partnership'*. She describes the building as essentially a retail warehouse and quotes the Architects Journal (May, 1965) as suggesting that the store represented 'a new building type' but concludes that *'its industrial character and windowless walls were deeply distrusted'* (Morrison, 2003 p.278).

GEM was the first out of town store in the UK. Opened in 1964 in the Nottingham suburb of West Bridgford it occupied 79,842 square feet. In America GEM was a discount department store open to members only. It is suggested that the development in West Bridgford was possible because of *'favourable planning attitudes'* (Whysall, 2005 p.113).

Surprisingly the GEM proposal for an out of town store caused very little organised opposition, the store was promoted as the UK's first one stop one level department store (ibid p.114). Confusion arose over the exact nature of the store, it being variously described by the press as *'a big American style supermarket – a superstore- a complete department store and more'* (ibid p.115). Whysall quotes the Architect's Journal, who suggested that,

'In many spheres of social and business life the American pattern is being followed in Great Britain. Our standards of life, technology and economy are in certain fields a decade behind the American counterpart so that we have the advantage of being able to see the mistakes made and the possibility of rectifying them in the early stages. In the Business of retailing the pattern is being closely followed...' (Architect's Journal, 1965 p.107)

In the same article, it is suggested that the 'industrial' appearance of the building could be deterring possible customers; the success of the interior design was also questioned including the lack of any discernible house style. Whysall suggests that the style of architecture presented a 'sea change' both in terms of architectural design and shopping traditions. The building presented an industrial inward looking structure, which, unlike the familiar outward looking high street shops, was almost only accessible by car. A concept that was both a copy of American store design and a precursor of future UK supermarket developments. (ibid p.119).

Once absorbed by ASDA the architectural design was altered to a more conventional design and a recognisable house style established. In the original store the provision of a community room and the change in pedestrian access were imposed as planning conditions and possibly indicated a change in the relationship between the company and the local authority. (ibid p.119).

In 1989 many of Somerfield's large out of town Gateway superstores were sold to Asda. A Gateway development in Warrington shows a large flat roofed store with a pitched roofed glazed atrium. The green field site, on the edge of open countryside, has extensive car parking on two sides of the building and includes a petrol station and other ancillary buildings.

By the early 1980s, fierce rivalry between supermarket companies competing for prime development sites was becoming influential in the architectural design of new superstore buildings. This was particularly evident within the four major companies, Sainsbury, Tesco, Safeway and Asda.

In this context, a multitude of differing architectural styles developed, designed by both in-house and independent designers, conversant with local needs and preferences. The majority of stores were single-storey pavilions, prefabricated and system-built with steel frames. These basic designs were adapted to suit disparate sites and locations in accordance with PPG6, and adaptations of local vernacular designs were applied to stores in protected areas or on sensitive sites.

4.7. 1980s-1990s Expansion, Refitting Reuse and Stand-alone Developments

By the 1980s the number and size of supermarket developments had increased dramatically both in size and number (Seth & Randall, 1999). The competition for town centre and edge of town sites became acute; demand increased and sites available for development in these areas dwindled. Competition for space and the growing public disquiet at the decline of high street retailing, placed local planning authorities in a dominant position and able to demand architectural designs and the site landscaping that would appease public opposition (Seth & Randall, 1999). Seth and Randall record that;

'The planning authorities have insisted on high building standards, so the cheap, large sheds typical of continental or US hyper-markets are not an option for the UK grocers'. (Seth & Randall, 1999 p. 226)

The public concern regarding the hegemony of supermarket trading resulted in local authorities becoming unwilling to accept inappropriate developments that would result in local dissent. This was particularly the case in areas or sites that were considered to be, architecturally, of special merit. Therefore, apart from a few notable exceptions (see below) store exteriors were notionally designed to blend in, as far as possible, with adjacent buildings in an attempt to disguise their unpopular retail identity. In practice this rarely worked and the results are inevitably a dishonest structure that is neither modern nor vernacular and therefore often ugly (see Ch. 6).

4.8. Building Restoration and Re-use

In order to gain prime sites for stores many companies (Sainsbury, Tesco, Waitrose and Morrisons) restored or adapted significant or listed buildings for supermarket use. In 1982 Sainsbury's restored the disused Green Street railway station in Bath.⁸ The station building serves as the main pedestrian entrance to the supermarket, but is not incorporated into the store, which was located to the rear of the listed train shed. The covered link, an orange tinted curved roof, between the station and the store echo the vaulted roof of the station. The journal *'Building Design'* describes the construction of the store, designed by Farrell Grimshaw;

The external cladding of the building Swiss-made Alucobond (two outer skins of aluminium with a dense polyurethane core) ... is supported by the cantilevered roof trusses which in turn are supported by concrete columns within the building. (Nov. 1982 p.19)

In 1993 Tesco famously restored the listed Art Deco Hoover Building in West London. (see picture 11) The architects, Lyons Sleeman and Hoare, created a scheme which restored the main building fronting the A40 for office use; while the supermarket building to the rear was designed with Art Deco detail that

⁸ Visited and photographed 1998

echoed the original 1930s design by Wallis Gilbert and Partners (*Architect's Journal*, 26 Jan. 1993 p.37)

Many Tesco Metro stores (see below) are also housed in significant or listed buildings. In 1996 the company undertook extensive restoration work on a listed former Victorian Provincial Bank building in Belfast to house their first Northern Island store. The building retains its original features faithfully restored '*with Gothic dome and gargoyles*' (*Guardian*, 2 Nov. 1996 p.10).

In 1978 Waitrose approached the problems of developing a listed site by, where possible, either building behind existing facades or creating facades that closely echoed the design of adjacent buildings, with particular attention to detail and use of appropriate materials. **(see picture 12)**

The '*Architect's Journal*' reported, '*Supermarkets in old towns have a nasty habit of standing out like sore thumbs. John Lewis' Waitrose chain is an exception to the rule*'. (*Architect's Journal*, 9 Aug. 1978, p.245).

The Journal cites the difficulties of designing supermarket buildings in existing town centres and suggests that the greatest problems are the 'sheer bulk' of the developments and the need to present '*an enticing image to the passer by which so often leads to brash modern buildings*' (*Architect's Journal*, 9 Aug. 1978 p.245). The Waitrose store in Monmouth,⁹ designed by a team of nine in-house architects, has been developed behind a listed façade in a conservation area. Their new build store in Stevenage presents a similar arcade design onto the high street (*Architect's Journal*, 1978).

Other notable developments of listed buildings are St George's church in Wolverhampton converted by Sainsbury's in 1988.¹⁰ **(see picture 13)**

Morrisons conversion of a military barracks in Hillsborough (1991), Tesco's restoration and adaptation of a former Water Authority building in Baldock, Hertfordshire and Sainsbury's conversion of a silk mill in Streatham.¹¹ In many

⁹ Visited and photographed 1999

¹⁰ Visited and photographed 2000

¹¹ Visited and photographed 2002

cases (Wolverhampton, Streatham) the restored building does not house the selling area of the store, but more usually the coffee shop or entrance hall.

4.9. The 'Essex Barn'

The BBC Television programme '*Off Your Trolley*', broadcast in 1989, focused on the design, already known to supermarket companies as the 'Essex Barn'. Or by Sainsbury's as the 'Cottage Style'. These pastiche English farm buildings were clad in red brick and featured pantile clad pitched roofs, gables and clock towers. **(see picture 14)**

Morrison writes of the dominance of this style in store design in the 1980s and early 1990s, confirming that the original was designed by Alcock in 1978 (Morrison, 2003). The style marked an important turning point in the design of supermarket buildings and lasted, in various permutations, for almost twenty years. The origin of the ubiquitous generic building style was the Essex superstore designed for Asda by Alcock in 1977-78. Based on the design of a medieval tithe barn, its initial purpose was to blend in with the surrounding rural landscape. Possibly the design provided the customers with a classless feeling of comfort, security, wholesomeness and prosperity. (Selling a nostalgia for a past that probably never existed). Much as John Constable's paintings illustrate the harsh life of 19th century farm workers are viewed in the 21st century as depicting a peaceful trouble free image of a pastoral ideal. Williams refers to this as the 'myth of the Golden Age' (Williams 1973 p14)

Sainsbury's journal reported in 1991 that their store in Rustington was designed with '*country-style, high gables and roof tower looks immediately at home amid the greenery of Sussex countryside*'. (J.S. Journal, 9 Sept. p.9). **(see picture 15)**

Most designs included a clock tower or loft, which was intended to mark the position of the store; a device also used in the past by architects of churches or civic buildings.

Twenty-three out of twenty eight Tesco stores built during 1991 had clock towers (Tesco archive, Kirby & Morrison, 2003).

Although adopting a new modernist approach in the late 1990s, Ken Morrison insisted that his stores retain the clock tower as a dominant feature (Morrison archive). Earlier stores demonstrated attention to vernacular and regional

individualities both in their design and detail. The Morrison's superstore in Chepstow for example is faced with local cream and grey brick and grey slate pitched roofs. Arched windows and doorways echo nearby Victorian buildings. The clock tower is topped by a weathervane with the silhouette of a cow, acknowledging the original cattle market site. Even in their more recent and more modernist stores, Morrisons retain their standard interior design based on a tradition of market stalls and barrows with 'rustic' internal signage to complement images of the past.

The Essex Barn design developed as the demand for larger stores increased. Some became so large that their proportions more closely resembled 19th century civic architecture than rural farm buildings. (see **picture 16**) Photographic evidence shows that the long pitched roofs of these stores were covered with flat slate or slate coloured tiles, or terracotta or green coloured 'pantiles'. The length of the main roof was often divided by dormers, some marking the store entrance. Brick faced walls were embellished with period features, colonnades and archways, applied in relief to the walls. The canopy for a pedestrian walkway or trolley shelter was often designed as a brick faced colonnade (see Case Study One).

The design, referred to by John Field (Hornsey School of Art, 1966-1984 and Middlesex University) as '*Romano British encampments*' (a combination of vernacular and Romanesque), was popular as it fulfilled many criteria necessary for successful development. It was an ideal shape, long and low, to house a standard supermarket layout. Its pitched roof could be used to house machinery necessary for services. It was easy to accommodate the need to include mandatory vernacular features or materials in the design and construction.

The design was also popular with customers (and therefore also town planners, as it elicited fewer complaints from protest groups and elected planning committees), who liked the metaphor of a building stocked with food, manifest as part of a rural idyll from the past, however unreal that was. The second, more recent style, which began to emerge in the late 1980s, could be described as a modernist or neo modernist design and included the use of large areas of glass supported by a

steel framework, often leaving structural elements and service ducts exposed. These designs were not as popular as the Essex Barn design, which was favoured by local authorities and by the 1990s was referred to by them and supermarket companies as a 'traditional' supermarket design, although expensive to produce the design was utilised by almost all supermarket companies up to the end of the 1990s.

Many authorities and shoppers still view this concept as the most suitable for a supermarket development. Sainsbury's journal reported in 1991 that their store in Larkfield was constructed from 'Staffordshire blue bricks' and was an 'attractive addition to the Kent countryside' (J.S. Journal, Oct. 1991 p.11).

4.10. Flagship Designs and Superstores

Sainsbury's decision in the mid-1980s to produce a series of landmark stores resulted, by the end of the next decade, in a portfolio of buildings by high profile architects. Several of these stores received design awards and gained Sainsbury's a reputation for architectural innovation. This was in part due to the appointment of Colin Amery, the *Financial Times* architectural critic, who advised and encouraged the directors to be adventurous in their architectural projects. Many of the stores were developments on brown field or edge of town sites. Camden¹² (Grimshaw, 1988) and Clapham¹³ (Chetwood, 1998) were both in-fill developments on traditional high street sites. The first of these flagship stores was designed by Ahrend, Burton and Koralek in 1984 on a site close to Canterbury Cathedral. The architecture was designed to echo the spire of the medieval cathedral and involved the use of exposed structural beams and masts as decorative features. It was said to resemble the exoskeleton of an insect (Williams, 1994).

The design appeared in Hardingham's 1996 guide to recent architecture in England. She suggests that, '*Sainsbury's supermarket buildings have always stood out from the rest of the barnyard crowd. Increasingly they are gaining a*

¹² Visited and photographed 2001

¹³ Visited and photographed 1999

reputation for stores that look a little out of the ordinary' (Hardingham, 1996 p.324). The Architect's Journal of October 1982 states that *'The brightly coloured structure will give the building a strong visual identity and will make it a clearly recognisable landmark'* (Architect's Journal 13 Oct. 1982 p.46).

Davies (1988) gives a detailed description of the building's structure and describes it as having two distinctive types of design, the main type that covers the sales area is a clear-span suspended steel structure, which gives an area free from columns. The secondary superstructure is a conventional steel frame that houses the plant and staff accommodation. Davies also suggests that the *'silver coloured masts and ties ...provide a visual echo of the tower and pinnacles of the distant cathedral'* (Davies, 1988 p.114).

Nicholas Grimshaw's 1988 design for Sainsbury's in Camden Town is included in Hardingham's architectural guide to London. **(see picture 17)** She describes the High-Tech building's design as being based on a market hall structure with a clear roof space of 42.3 meters (Hardingham, 1996 p.132). Williams records that the structure used webbed steel cantilevers and steel hawsers to support the roof without the use of interior columns (Williams, 1994). Unfortunately the roof span is hidden inside the store by the standard Sainsbury ceiling tiles.

Williams records that the building was specifically designed to occupy the site formally occupied by the listed Aerated Bread Company. The bays of the front elevation of the store are designed to mirror the width of the listed Georgian houses opposite (Williams, 2003). Despite enthusiastic praise from the architectural press the public were not so impressed, the *Architect's Journal* of August 1986 reports that, *'Inevitably the overt, or as the architect calls it, 'heroic' high-tech appearance of the building has provided concern among local residents and community groups'*. (*Architect's Journal*, 6 Aug. 1986 p.29).

Sainsbury's 1994 flagship store in Plymouth ¹⁴was designed by Dixon and Jones. **(see picture 18)** The design conceived as being part of a landscape was set to the side of a semi-circular car park bordered by small trees and dense shrubbery. The

¹⁴ Visited and photographed 1998

building is faced with red brick, apart from the front elevation, which is faced with stainless steel panels. The sail like structures that form the dramatic front canopy were initially designed by then Ove Arup engineer Peter Rice, who had also worked on the design of the Sidney Opera House. Davies suggests that Rice was one of the names that dominated High-Tech engineering (Davies, 1988).

Unfortunately Rice died before the completion of the project and the design for the sails was modified by his colleague Martin Manning. Rice's design was inspired by World War One aircraft construction and used fabric stretched over wooden struts. In the final design the wooden struts were replaced by steel, losing some of Rice's intended expressive use of materials (Powell, 1994). Hardingham includes the store in her architectural guide and records that although the store itself is unremarkable the canopy and façade of the store are '*undoubtedly the key features*' (Hardingham, 1996 p.254). Describing the sails she suggests that they appear different from different angles; '*from the motorway above they are sails, from the car park and to the side they are like sections of a spine, and from underneath they make up the underbelly of a snake*' (Hardingham, 1996 p.254). The site also includes a petrol station, a tourist information centre and an observation tower overlooking the bird sanctuary (*RIBA Journal*, Sept. 1994). The building was a winning design in the RIBA's 1994 buildings of the year awards (*The Guardian*, Sept. 28 1995).

Other innovative designs by high profile architects followed. The 1995 white rectilinear design of the company's Harlow store designed by post-Modernist architect Terry Farrell, which received RIBA and Civic Trust awards and in 1998 (see below) and a High-Tech design incorporating a video wall, designed by Chetwood for Clapham High Street.

The decade prior to the publishing of PPG6, between 1985 and 1995, saw the greatest development in both the numbers and size of out of town stores.

Superstores and Hypermarkets with their associated parking spaces could not be fitted into town centre sites. Most out of town developments were undertaken by the 'big four' (Sainsbury, Tesco, Safeway, Asda), although Morrisons were also developing their store base and moving away from their traditional sites in the

north to compete with major companies in the south. Although adopting a High-tech glass and steel construction for their new stores the company retained their 'old world' traditional market design for the interiors.

Tesco, like Sainsbury's needed to develop their increasingly large stores on sites out of town centres. Although under pressure from Local Authority planning departments to design stores that were acceptable to increasingly antagonistic public protest, Tesco's policy was to maintain low prices in the stores rather than produce high cost buildings. Planned before the issuing of PPG6 Tesco opened its biggest superstore, Tesco Extra, by enlarging an existing store in Pitsea, Essex in 1997. The store accommodates over 100,000 square feet of shopping space. Apart from food and non-food goods the shop offers a crèche and an in-store theatre. To save time, or possibly to amuse customers, some staff travel around the store on roller skates (Morrison, 2003).

4.11 The move away from the Essex Barn

During the early 1990s Asda included in its architectural design a distinctive glass atrium, sited at the entrance of the store. By the mid 1990s a new approach to store design resulted in the development of 'Market Hall Concept' stores (Asda web site), the inspiration being the Victorian market hall with its glass roof allowing natural light into the building. **(see picture 19)** The first of these was opened in Trafford Park in 1995. Morrison describes '*glass atria and green – tinted glass frontages, streamlined glazing patterns, buff brickwork and shallow architect roofs with north lights*' (Morrison, 2003 p.282). Designed by Aukett these were said to be inspired by the characteristics of traditional markets, the key element being use of natural light. The retail format was to be accommodated in a variety of building frameworks. Much of the design work for these stores, including the signage, was done by Rodney Fitch (Asda archive). After the company was taken over by the American chain Wal-Mart in 1999, this and other decorative features were covered and the supermarket extended and refitted as an unadorned Wal-Mart store.

By the mid 1990s Tesco was moving away from the 'Essex Barn' design. Their architectural design was developing into a modernist "state of the art" style that reflected their increasingly powerful position as the leading UK supermarket company. The company's first neo-modern store in Hemel Hempstead (1994) although designed with a hipped roof and faced with a red brick colonnade, the glass and steel used in the construction resulted in a light spacious building. It was described in the journal *Building Design* (14 Oct. 1994 p.3) as 'Akin to a giant conservatory' the building clearly marked a break from the past. Designed by Michael Aukett the store represented a new and honest expression of its retail function. **(see picture 20)**

Tesco supermarkets at Sheffield, Swansea and Cromwell Road¹⁵ all exhibited a changing approach to supermarket architectural design, providing an innovative environment for customers and staff. The Sheffield store, designed with a distinctive waveform roof won a RIBA award in 1997 (Tesco archive). **(see picture 21)**. The steel framed buildings with glass curtain walls allowed natural light into the stores, unlike the 'blind' windows of earlier structures. Most were system built with only small sections of custom-built units where necessary to fulfil the demands of local authorities who required a consideration of vernacular features.

By the late 1990s Tesco was persuading local authorities to accept designs that were adapted by consultant architects from Aukett's original design. Unlike the Essex Barn design these were low cost, energy efficient and speedily constructed buildings. Tesco's 'concept' stores introduced in 1999 (Haverford West) designed by Aukett, were subsequently developed by Tesco's Concept team, who established seven 'Format' constructions on a standard grid system that could be used as a basic design to fit on sites of various sizes (Saunders Architects.)

Inside exposed ceilings and service ducts reinforced the neo modernist approach and contributed to the open feeling of the building (Kirby and Morrison, 2003). **(see picture 22)**

¹⁵ Visited and photographed 2000

The open ceiling design was reminiscent of Victorian market halls, where structural ironwork was visible from the market floor. The roof of Carlisle market is an example of this and also includes an internal clock tower.

Tesco's Ludlow store, designed by Sir Richard McCormac, exemplifies the company's move away from the Essex Barn style and their recognition of the need to produce well designed stores in order to secure sensitive sites for development. Opened in 1999 the store is situated north of Hereford, on a former cattle market at the end of the town centre, within the conservation area (see Case Study, Ludlow). The design of Tesco's store in Tetbury, ¹⁶Gloucestershire also received special attention. Although on the outskirts of the town there was vociferous objection to the development, with royal support, against a scheme which it was admitted, in a public consultation exercise, would not have caused such alarm had it been submitted by Waitrose (Tetbury enquiry, 2003).

Other supermarket companies later developed similar projects, Sainsbury's in Tooting, South London (2002) and Morrisons in Letchworth, Hertfordshire (2000). In these cases planners encouraged companies to erect such stores as part of mixed use schemes, discouraging through traffic by providing good pedestrian access and maintaining the line of the street frontage (Morrison, 2003 p.283).

Public and government concern for the environment following the Rio Earth Summit, caused supermarket companies to approach store design in a way that would demonstrate their commitment to the ecological issues that had been raised. Sainsbury's Greenwich Millennium store much publicised for its 'green' building design was criticised for the level of its actual energy saving or pollution reduction. *The Evening Standard* suggested that; '*for all the oil by-products saved by the panels in the nappy-changing rooms, rather more will come out of the thousands of exhaust pipes that will come and go everyday*' (Moore, Sept. 1999 p.13). Friends of the Earth are reported as commenting that the building is '*repeating one of the worst mistakes of the 20th century in producing a car-*

¹⁶ Visited and photographed 2003

generating high street – destroying superstore. (Moore p.13) (see Case Study, Greenwich).

The largest and most recent outlet for Tesco are 'Tesco Extra', these have a trading area of more than 60,000 sq. ft. The first purpose built stores being developed in Peterborough and Newcastle in 2000. In order to maximise the use of space on restricted sites Tesco, and later Sainsbury's, adopted the concept of building on stilts. This enabled car parking below the building with sales on the first floor level above. Tesco's first store-on-stilts was opened in Altrincham, Greater Manchester in 2002.¹⁷ (Tesco archive)

4.12. Planning: After PPG6, the return to the High Street

In 1996 concern over the demise of local high street shopping and the loss of green field space prompted the government to issue a revised version of their planning guidance document PPG6. (see literature review) The document advised that a sequential approach should be applied when considering out of town developments. This, in effect, meant that before giving planning permission for superstores to develop out of town sites, companies and local authorities should first consider, as alternatives, town centre sites, then edge of town sites and local centres. If permission for out of town development was given this location must be accessible by means other than private transport (PPG, 1996).

Although gaining planning permission for large stores was much harder than before the publication of PPG6, out of town sites continued to be developed, and since merging with the American company Wal-Mart the size of these stores is likely to increase. Wal-Mart's Supercentre stores in America average 200,000 sq.ft. (Seth and Randall 1999)

While arguing for the benefits of large out of town stores Sainsbury's and Tesco began to plan a return of town centres and other opportunities for trading. Tesco launched its first Tesco Metro in Covent Garden in 1992. Town centre Metro stores, on average 12,500 square feet were designed to serve professional people who wanted to purchase lunchtime snacks or prepared meals in their lunch hour.

¹⁷ Visited and photographed 2002

Sainsbury's opened similar 'Local' stores during the next decade. The first situated on Fulham palace Road, London in 1998. Tesco Express stores, launched in 1994, combined filling stations with small retail stores of 2,000 to 3,000 sq.ft. These buildings were prefabricated flat roofed modular structures designed only to supply convenience goods and house a petrol kiosk. In 1996 Tesco launched its first (now very successful) internet shopping experiment (*Evening Standard*, 1996). This success of on-line shopping prompted other companies to provide the same service. If the popularity of home shopping continues to expand major changes could occur in the function and design of supermarket buildings.

The difficulty in acquiring suitable sites is now (2005) driving supermarket companies to design stores in conjunction with mixed housing projects and other community facilities, in order to gain planning permission to develop sites that would otherwise not be available for supermarket use (see Case Study, Orpington).

The largest stores are incorporating small retail outlets into the store footprint in the form of a gallery that runs the length of the store parallel to the checkouts (Tesco. Coventry. 2005). (see **picture 23**)

Consideration of a chronological history of supermarket architectural design substantiates the importance of these buildings as part of social and retail history. These structures have evolved and changed sufficiently in the period since the second war, to be recognised as having an independent history with particular significance, both in the field of design history, anthropology and architectural design.

The development and sometimes rapid changes in design styles over the period can be seen to mirror, or run parallel to, economic and political influences and developments. Less obvious influences are, changes in life style associated with class, and identity and public attitudes regarding choice, safety, convenience and aspects of sustainable development.

Although local authorities and government directives have clearly played a major part in influencing the design of supermarket buildings since the 1960s,

competition among major supermarket companies, and the expectations of increasingly sophisticated shoppers, has played an important part in the expansion of supermarket trading. In the present century larger buildings are needed to house both food and non-food goods and the variety of services now demanded by customers. The design of these buildings must pronounce the respect and attitude of companies towards their customers. They must be seen to be serious, thoughtfully designed buildings that work efficiently for both staff and customers. The demands of customers for modern efficient environments have been answered by the application of modern technology and innovative materials to produce buildings that are both efficient and economically sound.

4.13. Technology and Design Concepts

The history of supermarket architecture demonstrates that significant changes in architectural design can be linked to developments in innovative technology and construction techniques. This may seem an obvious connection but in practice technological developments and innovative building techniques are not necessarily taken up by architects and designers. Although using modern materials and building systems in domestic developments, such innovations are not generally used in a way that affects the architectural design, which in most cases remains 'traditional pastiche'. Developers' choices of architectural design are driven largely by considerations of profit and a public perception of taste. Samuel discussing contemporary house builders suggests that,

Brick serves a symbolic function somewhat akin to that of Tudor half-timbering for their 1920s and 1930s predecessors ...as something which gives an air of dignity to new developments, masks fast track methods of construction with a patina of rusticity.
(Samuel, 1994 p.120-121)

Numerous developments of pastiche Victorian or Edwardian houses illustrate this position. However, despite encouragement to produce cheap, adaptable low energy consuming housing, developers in the UK rarely use the state of the art materials and techniques, which could help to achieve these aims. A public distrust of modern architecture (Glancey, 2000), fuelled by the disasters of poorly designed cheaply constructed buildings erected during the 1960s, and the

intervention of Prince Charles into the debate on modernism (HRH Prince Charles, 1989) did much to damage the evolution of modern architectural design in the UK during the 1980s.

Davies comments on the lack of influence in the UK of the High-Tech style in housing. He reports that the few examples of High-Tech housing developments, for example Foster's project in Milton Keynes, have not been successful. The dislike and suspicion of innovative building design has been, to an extent, ameliorated by the appearance of some notable modern public and private architecture in the 1990s. There are many examples including the stations on the Docklands Light Railway, and Jubilee lines, Grimshaw's Eurostar extension at Waterloo, the BedZED sustainable housing development in South West London and, more recently, the Swiss Re building (Foster) popularly known as 'The Gherkin'. The annual London Open House project has also revealed a huge interest in both private and public modern architecture as well as ancient and period buildings (Open House, 2004).

However, this innovative approach although becoming more widespread, in general is, with some notable exceptions, for example Selfridges in Birmingham, The Western Morning News building in Plymouth (designed by Grimshaw), largely restricted to the South of England and, more specifically to London. All but two (Plymouth and Canley) of Sainsbury's stores designed by high-profile architects are in the South East. Tesco report great difficulty in gaining planning permission for modernist store designs in many areas out of the Southeast where 'traditional' designs, that is from the nineteenth century, are thought to be more suitable.

A parallel can be drawn between the pastiche designs of contemporary housing developments, for example by Wimpey and Barratt Homes and the more costly Poundbury development by Prince Charles, and that of the 'Essex barn' design. This has, in the past two decades become, for both the public and planning departments, the most acceptable design for a supermarket.

4.13.1. Early Innovation

Early supermarket buildings were either conversions of established high street grocers, or adaptations of existing shops. The idea of modernity suggested by the American way of life, glimpsed in Britain through film and advertisements, was manifest in the concept of the supermarket and the system of self-service (see above) Many important technological innovations developed during the Second World War were adapted for use in supermarket design. For example fluorescent lighting which was an important element in the success of supermarket trading and the self-service system. This technology was developed during the Second World War for use in munitions factories, as the illumination it produced was brighter and more even than conventional tungsten lighting. However fluorescent lighting alone gave a bluish light which made food look unappetising, Williams in her description of Sainsburys store in Croydon reports that spotlights were used in conjunction with fluorescent tubes in order to improve the colour rendering. She records that *'by 1957 fluorescent lighting was used to create a sophisticated "luminated" ceilings'* (Williams 1994 p.127). Good lighting schemes meant that the supermarkets were brightly lit in areas that had no natural daylight, this improved the customer experience, making the goods on sale more visible and the environment pleasing and reassuring for the customers and staff.

Perspex, developed for use in the design of aircraft, was another significant innovation used in post-war supermarket design. Williams records that it was found to be an ideal substitute for glass, being clear, lightweight and easily shaped. In the new self-service stores it was used for canopies, lighting covers and display stands (Williams, 1994). Its properties of colourfastness also made it ideal for use in company signage which as an important part of company identity needed to have consistency in colour for use in all company outlets. (Asda archive)

The advent of the refrigerator both for domestic and commercial use was clearly an essential element in the development of supermarket trading and the self-service systems. Early preservation of food included salting, smoking drying and fermentation and more recently canning. Garnett et al. discuss the use of

icehouses by the Chinese from the 8th century BC, in the UK icehouses and ice pits were a common feature in stately homes by the 18th century. Ice was imported from the USA and Norway for use particularly by the brewing and fish industry and the associated transport of these by road and sea. (Garnett et al, 2007).

Mechanical refrigeration developed slowly from the 1870s, it was not until after the Second World War that domestic refrigerators entered the mainstream market in the UK, while it was not until the 1990s that domestic freezers were adopted by British householders. (Garnett et al, 2007) Refrigeration and 'chilling' facilities in supermarket sales areas allowed stores to keep food and fresh produce for longer periods of time as well as offering frozen produce which could be stored in domestic freezers, in 1949 Sainsbury's set up a laboratory to develop an open topped refrigeration cabinet. This innovation was designed by Sainsbury's chief engineer Ralph Hall, and installed in their Chelsea store in 1950; the precursor to the present day chiller cabinet was also developed in this laboratory. (Williams 1994)

These developments facilitated the idea of 'one stop' supermarket shopping. The domestic refrigerator is the final stage in the 'cold chain' by the 21st century almost all goods sold in the supermarkets were temperature controlled at most stages in the supply chain something not possible in the 1950s (Garnett et al. 2007). Large quantities of food could be delivered in refrigerated trucks and stored at low temperatures in supermarket storage areas. This enabled companies to develop innovative food concepts as well as store food at low temperatures essential for food safety. Large supermarkets were designed with loading bays into which delivery trucks fitted tightly, allowing easy and quick off loading of food necessary for maintaining low temperatures.

The self service system initially depended on customers being provided with purpose built wire baskets at the entrance to the store in which to put their intended purchases. As the choice of goods available increased it was necessary to provide trolleys to accommodate customers' needs. Williams explains that the first trolleys were known as 'prams', these consisted of a metal frame on wheels on which two baskets could be rested. (Williams, 1994) As supermarkets expanded these were superseded by purpose built trolleys, initially of a simple

wire basket design on wheels that gradually evolved into more complex designs with child seats and specially adapted designs for customers with special needs. Hardyment suggests that a spate of baby snatching in 1973 prompted supermarkets to design a trolley with a 'cradle' facility for customers with young children (Hardyment, 1995).

The accommodation of large numbers of baskets and later shopping trolleys influenced the design of stores, initially internal spaces at the entrance and exit of the store where space had to be provided for safe and tidy storage of baskets. The design of shopping trolleys dictated the width of isles within the store and necessitated including, in the design of the building, covered areas where trolleys were protected from the weather but, for convenience, were adjacent to the store entrance. Larger stores and larger car parks necessitated providing customers with covered 'trolley parks' within the store car park in order to encourage customers to leave trolleys in a safe place for collection and return to the store entrance.

Another advance that contributed to the success of the self-service system was the cash register. There seems to be a consensus of opinion that the cash register was invented in 1879 by James Ritty from Ohio. The rights of Ritty's invention were bought by John H. Patterson who set up the National Cash Register company (NCR) in 1884. Patterson had previously owned a grocery store and understood the need for an efficient thief proof system of handling cash. By 1915, made out of brass cast iron or wood, the machines had become decorative features of most retail outlets. (thecorememory.com, 2007).

Morrison records that although cash registers were available by the end of the 18th century, many stores used overhead cash ball railways, wire line carriers or pneumatic tube systems. These connected the individual counters with a central cashier's office and were thought to be more secure than the cash register (Morrison 2003). The cashier's office was often a prominent feature in the interior design of the shop '*booths could be quite decorative, of high-quality hardwood, and sometimes incorporating a clock*' (Morrison, 2003).

The use of computerised cash registers in supermarkets allowed the speedy checking out of goods towards the front of the store, which was an essential part

of the self-service system. Since the 1980s 'checking out' was made even quicker through the introduction of lasers and bar codes. These relay information to stockrooms and provide itemised receipts. Surplus cash in the tills is sent to a central cash area via pneumatic tubes. (Morrison 2003). Bowlby suggests *'between them, Zimmerman and the National Cash Register Co. went about spreading the gospel of self-service to the rest of the world'*. (Bowlby, 2000 p.154).

The adaptation of existing buildings to self-service also involved new technologies. Sainsbury's 1952 Eastbourne store, their first conversion to self-service, is described by Morrison as being;

...in the form of a simple rectangular hall, with a row of columns running down the middle. It was very well lit: a mixture of spotlights and suspended fluorescent lights were attached to the coffered ceiling, while the front wall was completely glazed and fitted with pairs of armour-plated doors (Somake and Hellberg, 1956). The flank walls were, of course, blind. (Morrison, 2003 p.276)

Innovation and modern materials were used increasingly in the exterior construction of early stores. Glass frontages gave customers a clear view into brightly illuminated interiors whilst some purpose-built stores used concrete faced supports and steel framing which were both economical and quicker to install than traditional pre-war shop-fitting and building techniques, which had involved extensive use of wood, tiles and high maintenance paint work. Eye-catching signage, identified as the company logo, marked the entrances to the new stores.

As companies expanded, even large high street sites, such as disused cinemas, were no longer big enough and, in particular, the lack of car parking space for customers had become a major problem in developing high street stores (see above). Other difficulties included increasingly large delivery trucks that had to be accommodated on a daily basis and, as refrigeration, lighting, heating and air-conditioning plant became more sophisticated, larger areas of the site were needed to house this machinery. In addition, larger floor space made it necessary to allocate additional space for increasing numbers of staff (Tesco archive).

4.13.2. Replacements

The life of most stores was calculated as between ten to fifteen years, after which they would be refitted and upgraded or replaced (Tesco archive). Tesco's store in Weston-Super-Mare is an example of a mid 1980s supermarket (opened 28 November 1985) refitted in the 1990s. The grey aluminium cladding above the customer walkway was not adopted for use by Tesco until the mid 1990s. The original store is of brick construction on the ground level of a mixed housing/retail development and has a low-pitch concrete tiled mansard with minimal shop front glazing to the main customer car park at the front. The housing development above is of similar construction with lightweight steel-framed balconies forming the major feature (Tesco archive).

Tesco's store in Haverfordwest¹⁸ was thought to be dated and in too poor condition to be refitted and was therefore replaced by Tesco's first experimental 'Concept' store. The design of this building, by Michael Aukett, was not considered by Tesco to be a great success, but was important in that it marked a turning point away from the 'Essex Barn' concept towards a recognisable modernist design style. (see picture 24)

The large quantity of plant needed to run the complex services within a store could be housed under the pitched roof of the Essex Barn buildings close to the services they fed, thus providing more space on the site for other developments. The weight of the necessary plant was such that deep lattice girders (1.8 meters high and 2 meters deep) were needed to support it and service ducts could then be fed through the gaps in the lattice. Ducts that were too large were fed through a panel (Vicrendeel) set into the lattice. Although the close proximity of the services to the plant simplified the organisation of service ducts within the store, the supporting horizontal beams dictated that the ceiling of the store was low and flat in order to disguise the structures above it (see Case Study, Winchmore Hill). Samuel writes of apparently hand-tooled facades hiding hi-tech services within

¹⁸ Visited and photographed 1998

'the walls, even if they have the solid appearance of masonry are not load bearing but decorative; the cottagey look conceals a battery of electronics' (Samuel, 1994 p.131).

Asda, although incorporating High-tech features into their store design such as green tubular supports and tension bars, still used the basic low barn shaped design with a pitched roof and projecting dormers. Safeway and Morrisons all adapted the design for their superstore developments. **(see picture 25)**

4.13.3. 1990s Innovative building techniques

Sainsbury's flagship stores produced a series of unique buildings developed on edge of town and brown field sites, which in many cases were associated with problems of contamination. The company's aim was to extend their emphasis on high quality to include building design; by the 1930s companies such as IBM had already established building design as part of their corporate identity. The architecture of the flag ship stores moved away from the Essex Barn format towards designs that were intended to recognise the individual characteristics of each local community.

Terry Farrell's 1994 design for the edge of town development in Harlow was given an RIBA award in 1995 for its innovative post-modern design. **(see picture 27)** The store, which is linked to the city centre by a pedestrian cycleway, is designed as three large white cubes with arcades beneath. Between the cubes are cylindrical blue towers and a flight of steps leading to the north entrance. The cut out primary coloured corners of the cubes are illuminated at night (Hardingham, 1996).

Another Sainsbury's flagship store built in 1994 in Canley, Coventry, was designed by Lifschutz Davidson and is dominated by illuminated winged canopies that cover the petrol station and provide a shelter over the glass front elevation of the store. **(see picture 28)**

Hardingham describes the construction of the canopy *'tubular supports are spanned by steel aerofoil frames across the top with an opaque PVC-coated polyester fabric stretched cover. On the underside is a PVC-coated polyester mesh which, when illuminated reveals the profiles of the frames inside'* (Hardingham, 1996 p.110). The shape and construction of the canopies was

inspired by the Sopwith Pup aircraft, which were once constructed on the site (Hardingham, 1996, *Blueprint* Feb. 1994).

Nicholas Grimshaw's High-Tech development for Sainsburys on the site of the former listed Aerated Bread Company building in Camden High Street, (see above) included workshops, canal side housing and 300 car parking spaces located beneath the store, which is accessed by a travelator. In answer to the brief, which stipulated a column, free interior. Grimshaw designed a central span supported by '*steel cantilevered elements counterbalanced by a steel tie at the back of the pavement line*' (*Building Design*, Aug. 1986 p.10).

Sainsbury's store in Clapham High Street, designed by Chetwood, is an in-fill development sandwiched between a Victorian church and high street shops. The building is High-Tech in design with tubular steel supports framing the entrance to the side of the building, and because the Local Authority were insistent that a blank wall the length of the building should not face the high street, Chetwood installed a 20 x 3 metre £400,000 armour-plated video wall, used to advertise Sainsbury's products and display local information. **(see picture 29)**

In the same year a video installation won the prestigious Turner Prize. Although looking stunning at night, problems with sunlight and dirt detract from the video effect during the day (Sainsbury archive).

Sainsbury's millennium store at Greenwich was won controversially amidst fierce competition from the other major supermarket companies. Designed by Chetwood Associates, it was innovative in its use of natural light and recycled energy systems (see Case Study,). Costing almost twice as much as conventional stores, its much publicised 'green features' were seen as setting a precedent for future supermarket design and the energy saving properties of the building were widely promoted. The journal *Building Design* reported that;

Landscaped earth bunding shelters the concrete side walls. Water at a constant 10°C abstracted from a borehole will be used to absorb heat produced by refrigeration units, making them work more efficiently. Electricity for the store is generated by an on-site combined heat and power plant. The saw-toothed roof is 30% glazed. The remainder

is metal-clad and heavily insulated with wood-wool to maximise thermal performance.
(*Building Design*, 15 May 1998 p.4)

By the mid 1990s Tesco had also broken away from the farm building style of architecture favoured during the 1980s. Their out of town superstore in Abbeydale Road, Sheffield (1997) was designed with a clear glass façade that was found to be popular with customers and staff, who like the effect of natural light illuminating the front of the store. Early Tesco stores were designed with a single source large plant in the roof, operated by feeding service ducts from the roof down a 2 metre square shaft to a gully under the floor of the store, then under the floor to feed the necessary services (see above). This system has been superseded by a zonal system, which replaces the large single source plant with one small plant for each duct. This scheme gives wider flexibility for the placing of plant and service systems and thereby allows increased flexibility in the design and construction of the building.

The major plant for their Sheffield store were located at the rear of the store instead of in the roof space, making it possible to leave the ceiling open to structure with all the services exposed. Efficient air filtering systems within the store necessitate cleaning only twice yearly, causing minimum disruption.

In order to avoid the use of Boon Edam revolving or automatic doors, which were unpopular with customers and prone to breaking down, the entrance to the store was sealed with an air barrier. This system, first introduced in the 1950s in the USA, involved, as far as possible, sealing the building and pumping air through and around vents in the entrance cavity to create a wall of moving air that allowed the atmosphere inside the store to remain constant. This necessitated a heavy box construction around the entrance space, which from an aesthetic point of view, detracted from the simplicity of the glass frontage (Tesco archive). (see **picture 30**).

As building technology developed and became simplified, buildings constructed largely from glass and steel could be completely sealed. After construction had been completed air was pumped out of the building, which was then filled with smoke in order to test for leaks. The air, in what was now a completely air-tight building could then be regulated by sealing the entrance with an air curtain (simply a sheet of air flowing downwards across the store entrance), a system that

involved only minimal services and replaced the less efficient and visually intrusive air barrier (Tesco archive).

Tesco's store in Altrincham (2002) designed by Michael Aukett, addresses the problem of providing car parking space on a restricted site. One parking space for every 14 meters square of store selling space, and in addition to space for cars, one third of the overall space taken up by the store is dedicated to support space, staff accommodation, offices etc., while 25% is dedicated provision for storage space (Tesco archive). The store is raised on stilts, giving space beneath for car parking, because it has been found in the past that customers, particularly women, do not like underground car parks and will avoid these, particularly at night (Tesco archive). Aukett's design links the brightly lit car park to the store with an internal travelator that can be seen through the glass side of the building. **(see picture 31)**

This technique has since been used in other modern retail buildings, for example IKEA in North London.

Advances in technology and economic changes continue to influence supermarket architectural design, as fuel prices began to escalate (2006). Tesco opened their first store fitted with wind turbines, nick-named 'The Spruce Goose'; the turbines on the roof are designed to produce electricity with which to power the store.

These turbines have been installed for economic reasons not merely as a sustainable feature intended to elicit public approval (Tesco 2006).

4.14. Conclusion

Consideration of a chronological history of supermarket architectural design substantiates the importance of these buildings as part of social and retail history. These structures have evolved and changed sufficiently in the period since the second war, to be recognised as having an independent history with particular significance, both in the field of design history, anthropology and architectural design.

The development and sometimes rapid changes in design styles over the period can be seen to mirror, or run parallel to, economic and political influences and developments. Less obvious influences are, changes in life style associated with

class, and identity and public attitudes regarding choice, safety, convenience and aspects of sustainable development.

Although local authorities and government directives have clearly played a major part in influencing the design of supermarket buildings since the 1960s, competition among major supermarket companies, and the expectations of increasingly sophisticated shoppers, has played an important part in the expansion of supermarket trading. In the present century larger buildings are needed to house both food and non-food goods and the variety of services of services now demanded by customers. The design of these buildings must pronounce the respect and attitude of companies towards their customers. They must be seen to be serious, thoughtfully designed buildings that work efficiently for both staff and customers.

The demands of customers for modern efficient environments have been answered by the application of modern technology and innovative materials to produce buildings that are both efficient and economically sound.

There are key technological and design innovations that have shaped the development of supermarket architectural design since the end of the Second World War. Initially the use of fluorescent lighting and plastics, developed during the war, made possible the introduction of self-service systems, along with the development of refrigerators and deep freezers which facilitated the introduction of frozen and chilled foods. By the 1990s the use of glass and steel in store construction that allowed natural light into the stores had become economically viable. In this case the innovation was not wholly in the use of these material, but in the innovative attitudes of local authorities who accepted a modernist approach to supermarket design. Technological innovations that allowed the production of small scale plant and machinery made possible the design of buildings and flat roofs while the development of the air barrier made it possible to construct buildings with an open entrance.

Most recently (2006) the introduction of recycling and energy saving systems into new stores and the construction of wind turbines to produce electricity are becoming important elements in the design of new stores. In the future it is likely that the use of more sustainable materials in store construction will radically change the look of supermarket buildings. **(see picture 32)**

5. CHAPTER FIVE

5. CASE STUDIES

5.1 Introduction

Four stores from an original list of six have been chosen as subjects for case studies; those rejected are listed at the end of this introduction. The research material available has to an extent dictated the content of each case study, but all four contain material that is relevant to questions posed by the research.

The first case study is Sainsbury's Winchmore Hill, North London, opened in 1991. This building illustrates the design that came to be described by architects and supermarket companies as the 'Essex Barn' or 'Cottage Style' (see History chapter 4.9.). Although this is a late version of this style, first conceived in 1977, it presents a typical format of a style of architectural design that could be described as generic. This design is also included as it represents the only supermarket design style that could be claimed to be a brand image, not representing the company brand but supermarkets as a building archetype. (see 1.3.2.)

The second case study is of Tesco's store in Ludlow, Shropshire (1999). The study examines the concept of fitting a modern supermarket into an historic town. This dilemma is one that has been faced by all the major supermarket companies and this example illustrates how the problem influences the architectural design of the building. As discussed above, by the end of the 20th century the architecture of Tesco stores had no specific brand image, apart from the company logo. In the case of Ludlow the origins of the company and its inherited brand image appeared to conflict with that of the historical town (see 6.3).

The third study focuses on Sainsbury's 1999 Millennium store in Greenwich. This building was included as it was originally designed to be a generic 'green' design that would be a format for future stores. The case study explores the origins and development of the design and how and why it fails, as a standard for

'green' supermarket buildings, but can nevertheless be classified as belonging to a group of prestigious supermarket architectural designs. These appeared to be an attempt to establish Sainsburys as a high profile brand through its architectural design (see History section 4.10).

The fourth study is Tesco's development in Orpington, Kent. this store, which at the time of the research was not completed (Aug. 2006), was chosen as it represents an example of how stores are likely to develop in the future and how legislation has influenced design outcomes. The building is close to the high street and includes a mixed development of housing located above the store. By 2006 the Tesco brand had become well established as the leading player in supermarket commerce. The comparatively large size of Tesco stores could be said to be part of its architectural brand (see below), but apart from, this the related logo signage is the only external visual statement of the brand.

Stores eliminated from the list of possible subjects for a case study included Tesco's store at Addlestone (Croydon) built in 2000, which represented a design intended to be a generic style, that would establish a positive move away from the dated farm building design towards a new concept of supermarket architecture. The development however was not especially rich in research material. A second possible subject was Sainsbury's store in Streatham. This building was developed around a large listed building, which Sainsbury's restored. The building that housed the store was, however, a standard Sainsbury's supermarket and unremarkable in its design.

5.2 Case Study One

Sainsbury's, Winchmore Hill

This store has been selected as a subject for a case study as it is a good example of the 'Essex Barn' design that was typical of the 1980s-1990s supermarket style of architecture. (see picture 33) It is the earliest of the stores chosen for case studies and therefore establishes a basis, in many areas, for comparison with later designs and developments. It illustrates in detail characteristics that are focused on in the discussion. (see picture 34) ¹⁹

5.2.1. Statistics and Background

The store, which is not large, opened on 29 January 1991 with a sales floor area of 37,362 sq.ft. stocking 13,500 product lines. A free surface level car park to the rear of the building provided space for 480 cars including 12 spaces nearest to the store entrance reserved for disabled customers. Permitted opening hours at the time were for six days a week trading, opening until 8.00pm from Monday to Thursday and until 9.00pm on Friday and 7.00pm on Saturday. (Sainsburys' archive)

5.2.2. The Site and its History

The character and size of the site has been recorded in detail, as this, particularly its history, is significant. Common to many other supermarket developments during this period, the loss of land to supermarket commerce, particularly on historic or sensitive sites, had become an issue that eventually warranted government intervention.

The site, designated on the Enfield District Plan as playing fields, is described in the appeal document of 1987 as being a '*grassed field of approximately 4.0 hectares*'. The report records that '*the land falls about 4.5 meters gradually*

¹⁹ Visited and photographed 2002

eastwards from a level of approximately 36.27 metres on Haslemere Road to a level of approximately 31.52 on Green Lanes; an average of 1 in 39'.

Historically, the site on which the store was constructed was one of the last remaining fields of what as in the 18th century described as a rural oasis north of London. The 'field' was situated on the outskirts of the hamlet of Winchmore Hill, which was to develop rapidly after the coming of the Hertford Loop railway in 1827. (Dumayne 1990)

The field was, at the beginning of the nineteenth century, part of the grounds of a large house known as Highfield Park, built in 1815. When after several changes of ownership the estate was broken up the ground was sold in 1894 as an 'athletics ground' to St Bartholomew's Hospital. The large pavilion that stood at the north end of the site was built in 1896 for use as changing rooms for the 'athletes'.

Subsequently the playing field was acquired by the Hornsey Stationer's Company School and was later transferred, in the early 1970s, to the Langham School in Haringey. At the time of the proposed development the site was known as Langham Playing Fields and was owned by the London Borough of Haringey. However, the site lay within the London Borough of Enfield, which had failed to acquire the land, and therefore had little power over its future use. (Dumayne, 1990)

On the edge of the site was a brick built detached police station, opened in 1915, on land purchased from the London Brick Company. **(see picture 35)** The pavilion, although a large and exotic three-storey building, appears not to have been influential in the design of the Sainsbury store and was demolished during the development.

The design and status of the police station, grade two listed, is considered in the planning appeal to be an important issue. The Enfield Planning Authority had used the status of this building as part of their unsuccessful objection to the Sainsbury development. Sainsbury's architect reported to the enquiry that; *'great care has been taken to ensure that the setting and quality of this listed building will not be adversely affected'* (report to enquiry, Feb. 1987). After Sainsbury had

gained, on appeal, permission to develop the site, the local authority planning officer reported to the planning sub-committee in January 1990 '*owing to the selection of traditional materials, the deeper building line and generally lower profile, I do not feel it (the store) would detract from the setting of the three storey, listed police station*' (31 Jan. 1990).

5.2.3. The Development of the Site

In 1985 The London Borough of Haringey declared the site surplus to requirements and sought to dispose of it. Being under obligation through Section 123 of the 1972 Local Government Act to achieve the best price for the land, it was offered for sale by tender to residential developers and retailers. The local Gazette reported at the time that it was valued at £8 million (*Palmers Green and Southgate Gazette*, 23 Jan. 1986).

For many years prior to this the site had been little used as a sports field and, as the area as a whole changed and the population increased, it became an unauthorised amenity for local children, dog walkers and scratch football teams. Its close proximity to the local police station possibly saved the space and its pavilion from any severe acts of vandalism. (Enfield Local History archive)

In June 1985 the London Borough of Enfield refused planning permission for a residential development and public open space. The application had received much opposition by local residents, particularly house owners whose properties backed onto or faced the site. In December 1985 Sainsbury's applied for planning permission to develop the site for retail use. (Enfield Local History archive)

The application was refused by Enfield Council largely on the grounds of loss of open space, which was designated as such on the borough development plan. In addition, it was considered by the local planning authority that the development would have '*a material effect upon the setting of an adjacent listed building, viz: the Winchmore Hill police station*' (*Town and Country Planning Act public consultation notice*, 1986).

Local groups, who had opposed the application to develop the site for housing regrouped to voice their objections to the development. These were supported by the local MP, Michael Portillo, and local councillors. The Sports Council were also supporting the objections and a proposal for the local Saracens rugby club to take on the site was put forward but was not supported by sufficient funds to purchase the land, valued for housing or retail development. (Enfield Local History archive)²⁰

It was also discovered that there was a restrictive covenant on the land at the time of its purchase by St Barts Hospital. Sainsbury's applied to the Lands Tribunal for the discharge of the covenant in 1987 and despite local opposition were successful on the grounds that there was '*no person or body who has the benefit of the covenant on the land at Langham Fields*' (Borough Planning Officer to Michael Portillo, MP, July 1989).

5.2.4. The Surroundings

Winchmore Hill high street, described in the appeal document as a 'neighbourhood shopping centre' (known locally as Winchmore Hill Broadway), was a short distance (200 yards) from the site. Developed in 1905 the Broadway included a Sainsbury's shop built to the pattern of the company's early ornate design. The shop at 749 Green Lanes included the, by then, 'traditional' marble topped counters, mosaic floors and Minton tiled walls. The last were preserved as part of the interior design of the pub that occupied the site after the closure of the shop in 1973 (*J.S. Journal*, Feb. 1993)

Another high street branch of Sainsbury's that survived until the opening of the supermarket was in Southgate, N14. This had been modernised in the 1970s and was fronted with standard large glass windows and gold lettering incised on black marble fascias. This was a popular and consequently crowded store whose customers were almost certainly among those who supported the development of the new supermarket in Winchmore Hill. The local Gazette reported in May 1986

²⁰ Interview 2002 with local history officer

that some residents were realising *'the benefits of having the best in modern shopping in easy walking distance'* (5 May 1986 p.9).

Sainsbury's publicity material (date unknown) states that *'there is no large modern food store offering these customers benefits in Winchmore Hill and a new Sainsbury would attract shoppers not only for regular food shopping but for specialist and convenience goods at other shops in the vicinity. The provision of adequate convenient parking would benefit the surrounding area'* (Sainsbury's archive).

5.2.5. Planning and the Public Enquiry

Sainsbury's application to develop the site in 1985 was refused by Enfield Council on the grounds of loss of private open space, as designated in the development plan. damage to local trading and increased traffic pollution to the area. The site was seen as an unofficial park or 'green lung' in the area that was, like most London suburbs, rapidly losing such spaces to housing development (Enfield Local History archive)

5.2.6. Background

By the beginning of the 1980s many companies were seeking to build out of town stores. The London Borough of Enfield had tried to resist this kind of large development, but under pressure eventually allowed some 'bulky goods' retailers to establish single storey warehouse buildings for trading, in what was the industrial area of the borough. The first developments had been allowed on the North Circular Road in the 1970s. Kingsway Carpets were the first to win an application on appeal. Tempo (electrical goods) applied to occupy an edge of town site, which was refused by the Council, but won on appeal (London Borough of Enfield archive).

By the 1980s the planning authority had accepted that the Secretary of State was likely to find in favour of out of town retail developments. However, although the concept of 'bulky goods' retailing had become established in the Borough,

applications for convenience goods were rejected on the grounds that such large scale trading would damage town centres which it was the authority's policy to maintain. The Sainsbury's application was therefore felt to be unacceptable due to its position close to Winchmore Hill High Street, at the time classified as a 'local centre'. The planning authority recognised five 'town centres' in the borough: Edmonton Green; Enfield; Angel Edmonton; Palmers Green and Southgate (London Borough of Enfield archive).

The development of supermarkets in these areas was felt to be acceptable; a policy designed to keep main town centres flourishing. In addition, public transport systems had been designed to serve these areas, which were designated transport terminals. Sainsbury's won planning permission on appeal, granted by the Secretary of State despite vociferous objections from both the council and local protest groups. (Enfield Local History archive)

5.2.7. Architectural Design

Although Sainsbury's was granted planning permission to develop the Langham site, the London Borough of Enfield was given control over the detailed planning application. The Head of Development Control, at the time of Sainsbury's application, Peter Roach,²¹ recalled that the proposal was the first of its kind in the borough. That is, the first large supermarket that was not situated in an established town centre.

Peter Roach felt that because the Sainsbury development was the first edge of town supermarket to be considered by the planning authority, the design of the building proposed by Sainsburys seemed 'better' than previous applications for stores which had been on industrial estates and were therefore of a 'warehouse' design. He observed that because three sides of the site were faced by private housing Sainsbury had to recognise that the building must be low rise with a pitched roof to fit into what was a sensitive residential site.

²¹ Interview October 2002

He suggested that the quality of appearance, plus height, plus landscaping were of prime importance and that Sainsbury had recognised this. *'This was also the first residential context (in the borough) to be considered for large scale retail development. Sainsbury's realised the design must be out of the ordinary'* (Roach, 2002).

In retrospect it is apparent that the building was not out of the ordinary, but was based on a current Sainsbury design style used on other sites. In November 1991 Sainsbury's opened a store of a very similar design in Haywards Heath, reported in the *J.S. Journal* as being on a former cattle market (*J.S. Journal*, Nov. 1991).

Peter Roach recalls that, at the time *'The design of the (Winchmore Hill) building reflected the feeling of the time and the (perceived) relative affluence of the surrounding area'*. (Roach, 2002).

Sainsbury's publicity at the time of the enquiry states that *'The aim is to provide a modern food supermarket of high architectural merit with extensive landscaping, and make available a substantial area of public open space'* (Sainsbury's archive – undated).

5.2.8. Store Design

Sainsbury's rationale for the design of the building was based on the style and materials of the houses that surrounded the site on three sides.

The architect's report to the enquiry states, *'The new building has been carefully designed to harmonise with its surroundings'* (Enquiry document, Feb. 1987).

The building is described as *'predominantly of one storey with a number of roof pitches featuring overhanging eaves and projecting gables'*. The colonnades that run along the sides of the building are stated to have been designed to be lower than the eaves of the building in order to reduce the apparent height of the store.

The statement goes on to describe the red and brown brick intended for use in the construction. *'The pitched roofs are of brown tiles and the gables are faced in timber. The choice of main external materials further reflects the care taken to*

render the store compatible with its surroundings, including the immediate built environment' (Enquiry statement, Feb. 1987).

This description fits many supermarket buildings of the period. Sainsbury's journal repeatedly refers to the 'rural' characteristics of their buildings (9 Sept, 1991). The description fits the style that came to be known as the Essex Barn, the origins of which, as described in the history section.

One resident objecting to the traffic scheme states that,

The appearance of the Sainsbury retail shop, if it is in the style of the current single storey supermarket developments, should be acceptable aesthetically with tiled and quite attractive roofs and brick elevations as it would appear to be from the plans I have been shown by your planning staff, there is no objection or comment. (A.L. Goldsmith, Sept. 1989).

The Local Authority planning officer reporting to the planning sub-committee in January 1990 stated, *'the appearance of the building itself, is not unpleasant in my opinion'*. (31 Jan. 1990).

The acceptable nature of this building to the Local Authority and the recorded comments on its appearance, support the assumption of the popularity of this style of supermarket architecture. **(see picture 36)** It indicates why, almost three decades after the original concept, planning committees are still asking for what has become known as 'traditional' supermarket architectural design.

5.2.9. The Architect

At the start of the project Sainsbury's had commissioned the architectural practice Renton Howard Wood Levin to design the store. The drawings and submission to the enquiry were produced by their architect, John Tudor.²²

John Tudor recalls (December, 2002) that the 'script' written by him was read to the enquiry by H.Howard, one of the senior partners (now retired) of the practice.

²² Interview December 2002

Tudor now states that the content of the presentation, particularly the area that emphasised the attention to local ‘vernacular’ detail had not been considered by the design team but had been included in the planning application order to placate the Local Planning Authority (see above).

Edwardian houses, such as those surrounding the Winchmore Hill site, were built in the period where domestic architecture could be said to echo the ideas of the Arts and Crafts movement and their philosophy of vernacular influence. Although houses near the site could be said to be of this design, the predominant style visible from the store site is Mock Tudor. This is not a style that appears in the store design.

John Tudor states (Dec. 2002) that the greatest influence was Sainsbury’s chief architect (at the time) Mike Dunkley. It appears that Dunkley’s relationship with Sainsbury’s managing director and senior management team during this period was such that his influence on store design was total and his preferred design style was the Essex Barn (Tudor, Dec. 2002).

The Architect and *Financial Times* critic, Colin Amery, had been employed as a consultant by Sainsbury’s in 1986 to advise on a more radical approach to their architectural design. John Tudor recalls that ‘*he seemed little interested*’ in the Winchmore Hill design.

Amery appears to have been employed to counteract the ‘traditional’ approach to Dunkley’s design style. In the case of Winchmore Hill he seems to have conceded to Dunkley’s preferences. This was possibly because the store, although locally controversial, due to the sensitivity of the site, was not a sufficiently difficult acquisition to justify the commissioning of a high profile architect. This had been the case at the store in Camden, designed by Nicholas Grimshaw and opened in 1988, (see History section 4.10.) where the destruction of a listed building had been involved. This controversial project was supported and overseen by Colin Amery and ran almost parallel to the Winchmore Hill development.

5.2.10. The Entrance and Transport

The pedestrian entrance from Green Lanes, marked by a portico, was a '*concession to public transport*' (Roach, 2002). Like the majority of stand-alone stores of comparable size the proposed plan was for the store to be chiefly car orientated. The breach in the wall with a lay-by for buses was seen to '*pay lip service to the public transport system*'. Sainsbury's publicity material states '*the entrance lobby close to Green Lanes has the character of a pavilion with wide overhanging eaves and a pitched roof*' (Sainsbury's archive). The portico more closely resembles a porte-cochere often associated with houses of the 17th and 18th century (see Discussion). (see **picture 37**)

The main entrance for cars and service vehicles was located to the side of the building (next to the police station) in order to be as far away from the residential areas as possible to minimise traffic noise. (See **picture 38**) The service area was similarly located.

The site of the car park at the rear of the building was unusual but necessary due to the nature of the site and its surroundings. In most cases the car park is situated at the front of a stand-alone store. The strongest features of store design are, therefore, focused at the front facing the car park from which the customers will approach and enter the store. In the case of this development the reversed position of the car park has meant that the focus is divided.

Predominant architectural features, including the company logo or name, are generally devices used to communicate to customers the corporate identity of the company or the particular sensitivity of the company to local features or qualities. A notable example of this can be seen in the sail form canopy facing the car park at the Sainsbury's store in Plymouth. This is a dominant feature at the front of an otherwise low key single storey building, and is designed both as a visible sign in the landscape and a feature that signifies to customers the company's understanding of the site (see History section 4.10.).

In the case of Winchmore Hill the main features of the design have been divided between the pedestrian and car park entrances. The porte-cochere at the

pedestrian entrance, which encompasses the lay-by for the bus stop, is described in Sainsbury's literature as a pavilion, however its juxtaposition to the nineteenth century wall and colonnade visible through it, suggests an entrance to an important feature beyond the gates. Possibly a reference to the history of the site (see above), but more likely an attempt by the designer to give the building a more prominent face to the road. **(see picture 39)**

5.2.11. The Final Design

It is apparent from the submitted plans that the original designs by John Tudor were altered (Tudor, 2002) at the detailed planning stage. Tudor's design involved the removal of the trees directly behind the wall, and replacing these by a walkway under a decorative pergola, running parallel to the building. The design would have also involved redesigning the wall in a series of deep curves that revealed the walkway and the store behind.

This aspect of the design, which would have made the store visible from the road, was radically altered by the Local Authority planning department. Specifically the authority's conservation officer (now retired) who was at pains to retain the wall, which although not listed was of architectural interest and a strong feature in the character of the street scene. **(see picture 40)** In addition, the trees were mature specimens that had formed part of the grounds of the original Estate. (Enfield archive) The importance of these both to local records and to the street scene was emphasised in the planning discussions regarding the site (see below).²³

The retention of the wall and the large mature trees resulted in the store being largely invisible from the road. Only the covered entrance is visible. This invisibility altered the character of the store, which in the original design dominated the street. The altered design plus the high banking and comprehensive planting around the site resulted in the building and car park being largely hidden from public view. (Enfield archive)

Ironically although this unobtrusive development was the antithesis of Sainsbury's policy and that of supermarket companies in general, the result is far more in keeping with the company's stated concept, that is the influence of rural and vernacular architecture. For example, a detached house set in parkland hidden by trees (see Discussion 6.3).

Because of its unusual positioning on the site, the car park entrance to the store also displays a focal point of design at the corner entrance doors. Although covered by a low-pitched roof, the glass frontage of this entrance conveys, close to a more modernist approach than is evident in the rest of the architectural design. However, the length of the building facing the car park maintains 'rural' features and from a distance this impression is dominant.

5.2.12. The Landscape

By the nineteenth century Winchmore Hill had long since lost any features that could be described as rural. However, like many of the outer London suburbs, in addition to public parks there were still, by the mid 1900s, many private or 'unofficial' green spaces, often described as the lungs or green corridors of the suburbs. Many of these were on areas considered not suitable for development, situated near railway lines or on derelict sites. As a result of the building boom in the 1980s many of these green spaces were lost to housing development. The proposed development of the Sainsbury's store was seen, by local residents, as part of this loss that was resulting in the rapid change in the character of the suburban landscape. (Enfield Local History archive 1987)

The many objections to the development referred to the loss of green space and recreational facilities. One of the residents, whose house backed onto the site, wrote in February 1987 '*Further injury to amenity will result from the loss of a valuable local open space whose visual amenity is enjoyed by and available to the local community*' (J Baldwin, in Enfield Local History archive 1987).

²³ Interview with conservation officer 2002

The 'field' had in the eighteenth century been part of an estate attached to a house called Highfield built in 1815. Although most of the surrounding estate was developed during the early part of the century the house itself was not demolished until 1952 when the site it occupied was developed for social housing. The mature cedar of Lebanon that stood near the house remains and is visible outside and to the west of the site. It is one of many notable trees that remain within and around the development site. (Dumayne, 1990)

The importance of the trees was emphasised in a planning committee report in 1990, which discussed the removal of trees to the east of the site along the Green Lanes frontage *'These represent some of the most impressive trees on the site, in terms of height and stature. They are also a major feature in the street scene of Green Lanes'* (Planning Sub-Committee, 31 Jan. 1990).

Sainsbury's recognised the local importance of, and sensitivity to, the character of the site and as part of their planning application had employed landscape architects to investigate and handle the design and planting of the area.

Janie Thomas Associates produced an extensive detailed survey of the site and an equally detailed plan for landscaping and planting around the store and its car park.

The nature of the site facilitated the aim of the Local Authority to hide the store and its car park from view. The already sloping field was excavated to the extent that the store and car park were located in a hollow with steep banking to the three sides facing the adjacent houses. Like the other major supermarket companies, Sainsbury's designed its stores to be highly visible, particularly from the road, using such devices as towers, pinnacles and illuminated company signs and logos to advertise their presence. Although this policy was emphasised more particularly during the increasingly competitive 1990s, it was unusual for the company to agree to develop such an obtrusive store. However, Sainsbury's statement at the successful enquiry had contained detailed plans for including a 'park' in the development. Enfield Planning Department was therefore able to argue for this aspect of the application to be released. The Secretary of State had

included in his report that *'approval of the details of the siting, design and external appearance of the building, means of access thereto, and the landscaping of the site ...shall be obtained from the Local Planning Authority'* (Secretary of State's report to London Borough of Enfield, 1987).

The Secretary of State also argued that the site was, in fact, private land and not therefore available for public access. Aware of the local disquiet regarding the loss of open space, he pointed out that if the appeal was allowed, four acres of the site could be laid out for public use creating a 'small local park' (see picture 41) retaining much of the visual amenity of trees and open space. (ibid).

The Local Authority vehemently disagreed with Sainsbury's opinion regarding the wall and fringe of mature trees, marking the boundary of the site to Green Lanes. As discussed above, Sainsbury's original designs that showed three deep curves in the wall would have given visual access from the road to the store. This would have made the presence of the building prominent to the overall streetscape.

These proposals were, however, altered in the final design (see above) and the wall was only breached at the point of entry to the store. The architect reporting to the enquiry in 1987 Stated that *'The wall in my opinion, is of no architectural merit ...I consider it has outlived its original purpose ...the character of Green Lanes would, in fact, be improved by modifying the wall'* (architect's report at the appeal enquiry, 1987).

The Planning Authority Environment Committee meeting in 1990 felt the Sainsbury design for the wall was 'very unsatisfactory', the document goes on to suggest that *'The wall is a long standing and familiar feature of this part of Winchmore Hill, constituting something of a landmark in the area. Its visual quality would be severely compromised by the sort of proposal put forward in this application'*. The committee does not appear to understand Sainsbury's attempt to make the store more visible and questions the purpose of the alterations *'It would seem unnecessary to create such extensive openings and height reductions'* (Planning Sub-Committee, 31 Jan. 1990).

5.2.13. Changes Since 1991

Since the opening of the store in 1991 the building has been extended towards the car park to include a space for a Starbucks coffee shop, a dry cleaners, a laundry and photographic services. The extensions have not altered the overall architectural design of the building, although fenestration that allowed a view to the outside of the store from the checkouts has been largely lost, as has the advantage of natural day light illuminating the interior. (see picture 42)

The extensive planting of trees and shrubs around the building have matured and thereby added to the concealment of the store and car park. Apart from a small green site close to the police station, the landscaped areas are largely composed of footpaths flanked by planting and occasional seats. These may fulfil Sainsbury's concept of substantial areas of open space, but are unlikely to be defined as 'a small local park' (Sainsbury's archive).

The opening hours set down in the original agreement were extended to include Sunday trading in 1997 after the Local Authority accepted £10,000 planning gain to install traffic calming in nearby streets (London Borough of Enfield archive).

.5.2.14. Conclusion

There are many factors recorded in this case study that illustrate elements that are important and significant in the process of establishing the outcomes of a supermarket design.

It is apparent from the research material related to this case study that although Sainsbury's were granted planning permission to develop the playing field site, the Secretary of State gave the Local Planning Authority overall control in approving detailed consent. Thus giving them significant control over the design of the store and, crucially, the site.

Although by 1987 Sainsbury's had established a policy of commissioning high profile architects to design flagship stores, prior to the Winchmore Hill development their store in Canterbury, designed in 1984 by Ahrend Burton and

Koralek, and their controversial store in Camden High Street designed by Nicholas Grimshaw in 1988, were both contemporary High-Tech design.

Sainsbury made no attempt to introduce a state of the art design for the Langham site. It is possible that active local objection to the development caused the company to fall back on their 'safe' formulaic design of the early eighties that in the past had caused little controversy among planning departments and local protest groups. In addition, it would have been apposite for inclusion in the company's application to change the restrictive covenant on the site. Research, however, suggests that the outcome was dominated by the role played by Sainsbury's chief architect in the design process. His preferred solution was unchallenged, the site, although important locally, was not one that would raise national interest and would almost certainly not, therefore, warrant the cost of commissioning a major architectural practice to design a high profile store.

The statement submitted by Sainsbury's to the enquiry, rather than an accurate assessment of the design, was couched in terms that would appeal to the planning authority and reassure pressure groups that the store would be acceptable to contemporary attitudes towards architectural design.

Although they lost the appeal the Local Authority clearly had a major influence in the final design of the store, which, in retrospect, is unusual in its largely invisible aspect.

The case study stands as an example of the architectural style referred to throughout this study as the Essex Barn. It exemplifies the liking and approval of residents and many local planning authorities for what is seen as English rural building design, and the opinion that this is suitable for supermarket architecture (see Discussion). It also demonstrates the power of government intervention and supermarket commerce and the effect of this on supermarket commerce. It also establishes and explains the reasons, discussed in the History and Discussion sections of the study, why so many modernist store developments since the 1980s (see Conclusion, Tesco Beverley, 2001) have been altered by having vernacular or 'local' features added to their designs.

5.3 Case Study Two

Tesco, Corve Street, Ludlow, Shropshire

This store was selected as a subject for a case study as it represents the successful architectural design of a supermarket on a sensitive site and exemplifies the complex and lengthy process that can become necessary in the development of a site for supermarket use. As in the Winchmore Hill development (Case Study One) the history of the site was important in the design process, and the influence and intervention of local and national government in the development is particularly significant. A statement given by the director of Planning and Environment, South Shropshire District Council, James Caird, to the Royal Fine Art Commission (now CABE) 1969 Seminar on Supermarket Design, (paper given),²⁴ paints an extraordinary picture of a complex planning process. The design was given a Civic Trust Award for '*its worthy contribution to the community*' (Tesco archive). The research material for this case study included a guided site visit with Tesco's head of development planning who was directly involved in the design process. **(picture 43)**

5.3.1. Background

The store, opened in 1999, is situated at the edge of the Ludlow town centre conservation area, on the site of a former cattle market.²⁵ The intrinsic character and physical appearance of the town itself has changed very little in the past two hundred years. The store is close to the railway station and is serviced by a local bus network. The store car park, which also services the town centre, is located on the East Side of the building and has space for 180 cars. Extensive planting screens the car park and the store from hillside views (Tesco archive). Customer facilities include a café, photo booth and a recycling centre. The design of the building is an interpretation of the townscape and roofscape of Ludlow, and is a transition between the historic form and a contemporary modernist design, deliberately avoiding pastiche interpretation of the 'burgage' plot forms of the town's historic buildings (Tesco archive). Ludlow is Tesco's only building, to-date that has been designed by a high profile architect, Sir Richard MacCormac

²⁴ Paper given to RFAC on the design history of supermarket buildings. 1996

(MacCormac, Jamieson, Prichard). MacCormac also designed the Jubilee Line underground station at Southward and the Ruskin Library at the University of Lancaster (*Telegraph*, 28 April 2001 p.A7).

5.3.2. Architecture

The building footprint is 60m by 53m with a net retail floor area of 1,950 sq. meters (Tesco archive). The largest area of the store is covered by a single-span curved roof. The sweeping curved ‘ogee’ metal roof is the most prominent feature of the building, which, rising from north to south, unifies the design with the undulating hills behind the town. The CABE report published in conjunction with English Heritage in 2001 discusses the problem of accommodating modern buildings into historic areas. **(see pictures 44 and 45)**

The Tesco store is included in the CABE study as an example of good practice, meaning that the design is an example of modern architecture in an historic setting. The report records that *‘The dominant feature of the building is a curving metal roof which follows the contours of the town by rising from north to south’* (CABE, 2001 p.28). The roof is made of stainless steel coated and tucked to resemble lead (Tesco archive). **(see picture 46)** The actual use of lead proposed in the original design was abandoned due to cost and the additional weight of the roof, which would have needed additional structures to support it. The bulk of the store is hidden behind the two-storey building that contains the café and staff accommodation (CABE/EH, 2001 p.28).

The chief building material is hand made local brick laid in Flemish garden wall bond (CABE/EH, 2001). The local curved wall that fronts the street emphasises the curve of the road and completes the line formally broken by the open aspect of the cattle market. **(see picture 47)** Its position on the edge of the town is in an area that was previously dedicated to small-scale industry and commerce (Tesco archive). A large Victorian warehouse adjacent to the site reflects the history of the edge of town space. Worsley recorded *‘If you are going to have a*

²⁵ Visit to the store with Tesco’s head of development planning, May 2003.

supermarket in the town ...this was probably the right place to put it (Worsley, 2001 p.A7).

Internally, the selling area is a rectangular space with shelving arranged in rows parallel to the main street. The service block that houses the delicatessen and bakery runs along the southern elevation of the building. It is the design of this section of the store that reinterprets the medieval burgage plots that are prominent characteristic of the town centre (Tesco archive).

Like Sainsbury's store in Greenwich the building has been designed to allow the use of natural lighting, which enhances the store environment for both shoppers and staff. **(see picture 48)** The glazing on the external elevations and the placing of display material and merchandise away from the glazed walls gives maximum benefit from natural light, and allows external views from the inside of the store. Additional natural lighting is provided through a frosted glass clerestory on the south side of the building and the roof-light, set into the tilted lowered part of the roof on the north side (Tesco archive). Worsley, writing in the *Daily Telegraph*, reports that *'glazed side walls bring in light and glimpses of the street make it pleasant to shop in'* (*Daily Telegraph*, 28 Apr. 2001).

The impact of the car park is reduced by its setting, which is below the level of the road (Station Drive). Landscaping in and around the car park of maturing shrubs and trees are designed to screen it from the surrounding areas of the town and countryside. The store has two entrances; the pedestrian street entrance is the most prominent part of the building along the line of Corve Street. **(see picture 49)** Worsley comments that *'Less successful is the street entrance, which is over fussy'* (Worsley, 28 Apr. 2001). As in Winchmore Hill (Case Study One) the second less emphatic entrance from the car park is the most used. Of the street line Worsley states, *'MacCormac's analysis works, helped by the way that the street curves, and the street line (formerly broken by the cattle market) is recovered'*. (Worsley, 28 Apr. 2001).

CABE's report describes the frontage to the street which *'sits behind a low terrace wall'* (CABE/EH, 2001 p.28) behind which is the café. The long frontage

facing the street *'is low and is broken by a courtyard, which is planted with a tree and provides a view into the store'* (CABE/EH, 2001 p.28).

MacCormac is reported to have been unhappy with alterations to the building necessitated by Tesco's budget cuts (Tesco archive). Worsley comments that the architect had not found it easy working for Tesco and describes the *'loss of the ceiling in the store which means that the steelwork is unintentionally exposed'* as being due to budget cuts (Worsley, 28 Apr. 2001). In fact, this omission adds to the modernist appearance of the store and does not detract from the architectural design.

5.3.3. The Town

Ludlow has a strong and vociferous Civic Society committed to preserving the historic fabric and character of the Town. Glancey, writing in 1998, describes it as *'a genteel, much-loved and mollycoddled Georgian market town'* (Glancey, 1998 p.13).

The long period of disagreement over the development of the cattle market site (see below) and in particular its development by Tesco, caused much bitterness and, in the long term, polarisation and a hardening of attitudes against the project. Many local inhabitants were never reconciled to the Tesco development or the presence of any major supermarket in the town (Tesco archive).

Its position on the Welsh borders (the Marches) surrounded by fertile plains, allowed the town to prosper during the medieval period. The castle, built by the Normans in the late 11th century as a fortress was, and is still a symbol of the town's status and fiscal power. In 1461 it became crown property and thereafter was home to a succession of royal children. The town is described in the visitor's guide as primarily a market town, population 9,000, serving the needs of a large rural area. It became prosperous through the wool trade and flourished thereafter, both through trade and political power structures. The presence, during the 16th and 17th century, of lawyers, rich merchants and royalty, endowed the town with a proliferation of prestigious private and public buildings. During the 18th and 19th

centuries the town continued to prosper and become a fashionable retreat of the wealthy who added elegant brick houses to the medieval street plan (Lloyd *Guide to Ludlow* 1999).

The tradition of the past into which Tesco had to fit their store design is well illustrated in an article in the *Observer Food Monthly* (Aug, 2002) Graham Moss writes of,

A fabulously old-fashioned place in Broad Street called de Greys ... Everything about de Greys was stuck in the 1950s. The waitresses wore black frocks and white pinnies; the plat du jour alternated Welsh rarebit and sardines on toast ... to go there was like taking up temporary residence inside a poem by John Betjeman. (Moss, 2002 p.28).

Moss quotes food critic Jonathan Meades who refers to Ludlow as ‘deafeningly atypical!’ in its refusal to submit to the blandness and phoney choices of industrially manufactured supermarket food (Moss, 2002 quotes Meads *Incest and Morris Dancing – The Observer*, p28). The original medieval town was laid out with a rectilinear street plan below the 11th century Norman castle. Moss paints an idyllic picture of the town ‘situated as it is in full view of the Welsh mountains but on the edge of more fertile farmland to the South and East, Ludlow is surrounded by orchards, cornfields, flocks of sheep and other more exotic livestock usually run by small producers’ (Moss, 2002 p.32). The town promotes its five independent butchers, bakers, dairy and three Michelin-starred restaurants serving local produce. Moss records that ‘The giant Tesco hasn’t apparently hurt Ludlow’s smaller shops’ (Moss, 2002 p.35).

5.3.4. Branding

By the 1970s the increase in care ownership and the promotion of tourism had changed the status of Ludlow from a close knit prosperous community to a marketable commodity in the heritage industry. The town’s architecture is nationally recognised in its 500 listed buildings, (Lloyd *Guide to Ludlow* 1999) its castle, medieval buildings, burgage plots and royal associations became part of the town’s corporate or civic, identity. The town’s history represents a major part of what could be described as its ‘brand as a tourist attraction’. Civic identity and

civic pride dictated that the design of any development within the town would be subject to close scrutiny by both local and national authorities and local inhabitants. The unpopularity of supermarket companies, who were perceived as having destroyed high street retailing (see History section) meant that the architectural design of a building, proposed to occupy the cattle market site, would be of paramount importance. Although by 1995 Tesco occupied the premier position in supermarket retailing, through association with the past, their company brand retained the brash working class ‘pile them high sell them cheap’ image of their founder Jack Cohen (Kirby and Morrison 2003). Olins referring to Tesco’s corporate identity writes, *‘it was seen to have a genuine character, a genuine corporate identity, which emanated, of course, from its founder’* (Olins, 1978 p.80). Local opinions voiced at other public enquiries (Tesco, Tetbury) suggest that if Sainsbury’s or Waitrose had secured the site the opposition would almost certainly have been less dramatic (Tesco archive).

5.3.5. Planning Applications

Referring to the earlier proposals for the site CABE conclude, *‘...perseverance in the face of many obstacles can result in architectural excellence, even in a type of building which usually has no design merits at all. It demonstrates that a large modern building can be designed so as to sit comfortably in an historic town’*. (CABE/English Heritage 2001, *building in Context* p.28). Two previous schemes had been rejected at planning enquiries on the grounds of unsuitable design. CABE acknowledges the problem and recalls that; *‘The central problem to be tackled in this project was that of designing a large modern building which would sit well on a prominent site in an unspoiled historic town where virtually all the other buildings are considerably smaller’* (CABE/EH, 2001 p.28).

Although there was clearly a physical problem of size and scale, the problem of convincing two strongly branded bodies that they could become compatible was almost certainly an equally difficult challenge (see above). Explaining the psychological aspect of branding Coomer suggests that; *‘Brands are about hearts and minds’* (Coomer, 2002 p.12). He quotes futurist Watts Wacker who suggests that; *‘A brand is a promise, and, in the end you have to keep your promises’*.

(Coomer, 2002 p.12). The challenge at Ludlow was for Tesco to demonstrate through their architectural design that their brand could be re-branded to fit the Ludlow *'promise'*.

Tesco's three previously rejected designs for the site are recorded in detail in a presentation given by James Caird at the RFAC (now CABE) seminar on Supermarket Design. Caird paints an emotional picture of Ludlow and quotes country life of 1945, *'For sheer visual beauty coloured by history and substantiated in richness and architectural sequence, Ludlow stands high, perhaps first, among English towns'* (RFAC, Caird, 1996 p20). He records the series of rejected planning applications the first in 1991 for a supermarket on the cattle market, which was rejected in 1992. A second application was refused in 1991 for an out of town supermarket that conflicted with the Ludlow Plan. A further planning application, he reports, was submitted in 1992 for the eastern end of the cattle market site, which was refused on the grounds that it would create a frontage onto Cove Street, which for 200 years had been an open site. Following this application the Secretary of State ordered an enquiry, which took place in April 1993. The Secretary of State agreed that without *'a new food store of sufficient size, the trading strength of Ludlow would probably continue to decline'* (RFAC, Caird, 1996 p22), however, he rejected the scheme, contrary to his inspector's recommendation, solely on the grounds of design. Caird continues that: *'the developers when went about preparing a scheme that would satisfy the Secretary of State's requirements'* (RFAC, Caird, 1996 p22). In consultation with English Heritage a new scheme was submitted in 1994, designed by Duvall Brownhill Partnership.

Neither Tesco nor local groups felt this design was appropriate and a new design, named Scheme 1 was submitted in 1995. The council approved the scheme but English Heritage did not and the Secretary of State called it in. The developer then reverted to his original scheme and called it Scheme 2. Scheme 1, as described by Caird, was a 'traditional' (see History section) design and included a frontage of *'very small shop units placed as a kind of façade'* (RFAC, Caird, 1996 p22). Scheme 2 was a more modernist steel and glass construction with added plinths and columns. This design was approved by English Heritage and

the council, but was nevertheless called in. Caird recalls that by 1995 *'the Council was becoming increasingly concerned about the amount of time it was taking to build a supermarket'* (RFAC, Caird, 1996 p22).

Considerable discussions followed during which the Secretary of State's instruction, quoted by Caird, that *'any development on this sensitive site should be of a suitable design'* (RFAC p23) was considered at length. Faced with adverse criticism the council hurriedly submitted its own proposals designed by Caird. Over nine days in January and February 1996 a Public Enquiry considered all these schemes and concluded that none were suitable. In July 1996 at the end of his lengthy and detailed presentation Caird reported that; *'five years and 112 days after the first planning application the decision has still not been made'* (RFAC, Caird, 1996 p26).

5.3.6. The Landscape

Ludlow is situated ten miles north of Hereford and 40 miles west of Birmingham. The Tesco store was the first major supermarket development in the town and therefore particularly significant in terms of its architectural design (see above).

The government guidelines PPG6 issued in 1997, attempted to restrict the development of out of town supermarkets and retail parks and sites within the boundaries of established towns therefore became an attractive development option. Worsley comments that following government pressure to stop supermarket companies developing out of town sites *'there is now pressure to build supermarkets inside towns. Inevitably, particularly when pretty market towns are concerned this causes quite as much heat'* (Worsley, 28 Apr. 2001 p. A7). In the case of towns with important historical links a high standard of architectural design could be demanded by councils, facing opposition from protest groups and national bodies (CABE) responsible for maintaining the character of conservation areas and listed buildings. However, Worsley reports that in the case of Ludlow the Local Authority was concerned that without a supermarket, local shoppers would go elsewhere. He suggests that; *'The truth is that, without a good quality supermarket, Ludlow probably faced slow decline'*

(Worsley, Ibid). The cattle market fell out of use in the 1980s and the site was secured by a developer.

The local planning authority, South Shropshire District Council, supported the idea, in principle, for the development of a supermarket, however, finalising an acceptable design took over nine years to achieve. The developers, Durward Kingsley Estates, were forced to renew their 'options' on the site until the final design was approved in 1997. The CABA report suggested that; *'The completed building has won over most of the local opinion which was opposed to the earlier schemes for the site, and even to the idea of a supermarket on the site at all'* (CABA, 2001 p.28).

5.3.7. Conclusion

This case study demonstrates the complex process of securing a sensitive site for supermarket development. Although, in this case the time scale was particularly lengthy, it was the historical context of the site and the history of Tesco that presented the major problems, which necessitated two public enquiries and lengthy political argument before the building was erected. Tesco's humble origins and an early reputation for brash ruthless trading continues to haunt them, Glancey asks in 1998 *'Can Tesco ever get into Ludlow?'* (Glancey, 1998 – *Guardian*, 27 Apr. p.12). Described by Glancey as *'a thrusting, go-ahead up-to-the minute retail system of conveying food from agro-farm to cul-de-sac freezer'* (Glancey, 1998 p.12), Tesco was forced to engage a high profile architect to design the store in order to secure the site. CABA suggest that a major problem in developing the site was the size of the proposed designs (CABA/EH, 2001). In fact, the Tesco store is not large for a modern supermarket, but the design, particularly of the roof profile, does reduce the visual weight of the store. In addition, the extensive use of glazing on both sides of the building not only reduces the bulky appearance characteristic of a 'traditional' supermarket, but has the effect of reducing the structure's visibility through the reflections of surrounding trees and landscape. The CABA report quotes Caird as saying in 2001, *'We believe that after many years of frustration and indecision the outcome*

has been a building which fits well into Ludlow and which we can be proud of
(CABE/EH, 2001).

5.4 Case Study Three

Sainsbury's Greenwich

In retrospect this building has not fulfilled its much publicised potential as a paradigm for future supermarket buildings, and it remains a one-off in the field of supermarket architecture. The building has been selected as a subject for a case study as it represents the peak of Sainsbury's foray into high profile architectural design. Sainsbury's bid for and capture of what was at the time a prestigious site illustrates the attitude of the company towards its perceived corporate status and identity at the end of the 20th century. The 'green' features of the building are recorded in detail as these collectively gave the structure its high profile status and emphasised the companies much publicised apparent concern for the environment. The store itself is small and was so costly to build and maintain, despite its energy saving features, it could be defined as being part of Sainsbury's advertising programme rather than a working supermarket, and might be described as a 'loss leader'. As such it is an important trace in defining the phenomenon of supermarket buildings, their meaning and their historical significance.²⁶

The building was originally (1998) conceived as generic 'green' design that would be a formal for future supermarket buildings. The case study explores the origins and development of the design and the extent to which it fails or succeeds as a prototype. It also examines the relevance of the development site in relation to the design of the building, the history of the site and its contemporary context. The external influences (political, social and economic) that affected the development as a whole and the final design of the building are also discussed in relation to the other case studies. (see picture 50)

The competition for the site and the unconventional building design resulted in wide media interest (see below), unusual in the field of supermarket design. In addition, to its claims for ecological excellence the store can, as recorded above, be classified as belonging to a group of prestigious supermarket architectural

²⁶ Visits to the store 2001(guided with Sainsbury staff) and 2002

designs (see History section). The journal *Supermarketing* reported in May 1998 that Sainsbury's had won the competition to build a store on the site and records that designs by Morrisons, Asda (Grimshaw) and Tesco (Aukett Architects) had been 'outgunned' by Sainsbury's to win the '*prestige supermarket site next to the Millennium Village and Dome*' (*Supermarketing*, 15 May, 1998). They report that the competition ended up as a straight contest between Sainsbury's and Asda. The building was the subject of a major publicity campaign by Sainsbury's from its conception, and the company's bid for the Greenwich Millennium site, to its opening in 1999, was concurrent with the opening of the Millennium Dome and the festivities associated with the event.

Sainsbury's lavish publicity material, often quoted verbatim, was used extensively by the press and media. Emphasis was placed on the originality of the design whose innovative approach was welcomed by the media as a deviation from the commonly perceived basic rectangular box shape of standard stores (see Case Study One). Sainsbury's also needed the store to launch their new bright orange design scheme, which gave an additional boost to the publicity launch.

5.4.1. The Brief

A thirty-page document published by Sainsbury's in 1997 cites the supermarket as part of a development proposal for the Greenwich Peninsular (Sainsbury's, 1997). It is offered as a '*response to an invitation by Jones Lang Wootton to tender for the retail site at Greenwich Peninsular; and in accordance with the Development Brief issued on behalf of English Partnerships*' (Sainsbury's, 1997). The proposal was published in a climate (both political and social), of enthusiasm and excitement that prevailed in the last years of the century leading up to the start of the new Millennium. Legislation in relation to issues of sustainable development was vague at the time, the Climate Change Levy was not introduced until 2001, and many important issues in this area were unresolved. However, awareness of the problems associated with global ecology and the environment, widely publicised since the 1992 Earth Summit, created an atmosphere in which public opinion was beginning to expect government, particularly local authorities and large corporations, to consider and respect public concern over environmental

issues. The development brief issued by English Partnerships stated that the design should be *'in keeping with the concept of the whole of the Greenwich Peninsular; and should be innovative and sympathetic to environmental issues'* (Sainsbury, 1997).

In the light of these issues and concerns, and in an atmosphere of fierce competition from rival supermarket companies, close attention to and emphasis on 'green issues' was likely to be a popular element in any planning proposal. Sainsbury's published document emphasises *'Our aim is to deliver the MOST ENVIRONMENTALLY RESPONSIBLE SUPERMARKET IN BRITAIN'* (their caps) (Sainsbury's, 1997). A BREAM rating of 75 is claimed for the proposed store, 25 being a more usual score for a 'modern superstore' (Sainsbury's, 1997).

The Calor Gas Refrigeration Newsletter reports in 1998 the use of hydrocarbons in the Greenwich store. They comment that unlike the Dome, for which NMEC specified HFC134a, Sainsbury's has chosen HCs. They suggest that subject to thorough energy evaluations, the Greenwich solution may provide the basis for a longer-term strategy. They further comment that *'NMEC's choice of HFC134a resulted in considerable controversy, as it is known to have a GWP over 1,3000 times higher than CO2. In comparison, HCs have a negligible GWP'* (*Calor Gas Refrigeration Newsletter*, Summer 1998, from Sainsbury's archive). The design of the proposed supermarket, referred to as the 'Food store' is discussed in detail over eight pages. Emphasis is almost exclusively placed on the 'green' features of the architectural design and related landscaping.

The choice of Sainsbury's to develop the supermarket store was a controversial decision. *Sunday Business* reported on 10 May 1998 that the Deputy Prime Minister, John Prescott, would be facing questions from Conservatives about the choice of Sainsbury's, which they suggest will rekindle a political row about Lord Sainsbury's influence on government policy. They report that Shadow Conservative Planning Minister, Tim Yeo, had previously questioned Prescott on his relationship with the supermarket company and would be challenging the government to demonstrate the 'transparency' of the decision. They further record that the competition had been fierce and that Asda, Tesco and Sainsbury's had all

been short-listed the previous October. The expected decision in February had not materialised and it was understood that after selecting the Asda design the *'deal had foundered'*. (*Sunday Business*, 10 May, 1998).

In the same article Tim Yeo is quoted as saying that those involved should be prepared to demonstrate that the decisions were taken in an impartial way and that although *'We are not suggesting that they are not, but Sainsbury's has had a fairly close relationship with John Prescott and under these circumstances I think it very important that the transparency which Labour says it is committed to is put into practice'* (*Sunday Business*, 10 May, 1998). They further record that Lord Sainsbury who, they had previously reported, donated £2m to the Labour Party in the run up to the last election, had announced that he was stepping down as Chairman of the group and was expected to be offered a government job.

5.4.2. The Site

The nature of the site and the brief given to English Partnerships as to its regeneration was a major influence on the design of the supermarket building. Unlike the other three case studies there were no local objections to the store design or its presence. The Greenwich Peninsular was a 300 acre site of derelict land once occupied by British Gas Works, reported to have been the largest gas works in Europe and was acquired in February 1997 by the Government Urban Regeneration Agency English Partnerships, to be developed as a regeneration project (*National Building and Industrial Guide* June/July 1999).

The ground was not only derelict but also heavily contaminated by previous industrial activity, it was therefore necessary to decontaminate the site and provide new roads and services within extensive landscaping. It was estimated that this would require an investment of around £180 million. The total cost of the completed project being in the region of £1.5bn, invested by public and private sectors under the direction of English Partnerships (NBIG June/July 1999 p.2).

The journal *Building* reported in 1998 that the developers, led by Countryside Properties and Taylor Woodrow were negotiating with English Partnerships over

a discount on the price because of the site's contamination (*Building*, 24 April, 1998).

Sainsbury's had gained a reputation for developing contaminated sites. Their store in Craigleith, Edinburgh was built on the site of a quarry resulting in contamination from methane gas, which necessitated constant filtering. The trees used in landscaping the site had to be planted in huge containers, at great cost, to protect them from the methane (Sainsbury archive).

The retail site containing the Sainsbury store was adjacent to the Millennium Dome and was to include four non-food retail outlets including Homebase, and a leisure centre with a Multiplex Cinema. The *Gas and Refrigeration Newsletter* reported in the summer of 1998 that Sainsbury's were planning to construct 120,000 square feet of non-retail space, which would include 60,000 square feet, dedicated to a Sainsbury's Homebase store. They record that Sainsbury's paid more than £30 million for the site and that the food store, covering 55,000 square feet including 33,000 square feet of trading space, would cost around £13 million, 30% more than an average supermarket building. In addition to the retail sites, a mixed housing development was also to be part of the English Partnerships scheme. Known as the 'Eco-Village' the residential area was to comprise around 1,300 mixed tenure energy-efficient homes as well as local shops, education, recreation and commercial facilities (David, Sept. 1999). It was proposed that every home in the Millennium Village would be linked by computer to a village fibre optic network (NBIG, July 1999).

5.4.3. Access and Transport

Essential road and public transport schemes were also planned to allow access to the site. Sainsburys 'Director's Handover Report' distributed in September 1999, describes the site as being bordered by the A102 (M) Blackwall Tunnel Approach to the south, the new Horn Lane Link to the east and Bugsby's Way to the north. The new Horn Lane link is described as one of the improvements implemented by English Partnerships to meet anticipated traffic movements and facilitate access to and within the Peninsular. Three access points to the retail food and non-food areas were provided, two for potential customers and one for delivery vehicles

(Sainsbury's, Sept 1999). The National Building and Industrial Guide describes the site more graphically as

Having flowed east through the City of London, the River Thames swings south, then round to the north, encircling the Isle of Dogs on its left bank. On the map it looks like a plumber's U bend and the Greenwich Peninsula is on the right, like a finger pointing north with the Blackwall Tunnel and the Dome at its tip. (June-July 1999 p.2).

The new North Greenwich Jubilee Line underground station is claimed, in a lavishly illustrated publication issued by English Partnerships, to be the largest in Europe and to connect the Greenwich Peninsular to Central London in 14 minutes (Greenwich Peninsular: Investing in the 21st century-undated). In an attempt to encourage environmentally friendly transport links, public transport and a network of cycle paths were proposed for access to the site and travel within the development. *The Eltham and Greenwich Times* report in 1998 the concerns of Greenwich and Lewisham Friends of the Earth, who suggested that there was no need for a supermarket, which would encourage car use (May, 1998). In answer to their comments Sainsbury's replied that people using their cars to go shopping was a reality that has to be accepted and that the concept of using other modes of transport was one that had to be introduced slowly (*Eltham and Greenwich Times*, May, 1998) (see Case Study Four, Orpington).

5.4.4. Store Landscaping

In their comprehensive presentation document for the project development Sainsbury's proposes that the landscaping scheme will create a diverse environmentally responsible landscape. The area behind the store, it is suggested, will not only shield the service yard but will, in addition, *'provide an area where there is the potential to work with local schools and community groups to manage and study the area'* (Sainsbury's Archive). English Partnership's literature describes the store landscaping as comprising various habitats, **(see picture 51)** Including woodland, wildflower meadow, wetland pond and reed bed that will be watered with recycled water from the roof of the building. The walls are constructed from waste building materials from the site. Although 'nature' areas

have been established on other store sites (Plymouth, 1995), English Partnerships claims that Sainsbury's nature area on the Greenwich site is unique (Sainsbury's Archive).

5.4.5. The Architectural Design

Design Week reporting in July 1999 describes the 'futuristic' building as having the look of 'buildings from Gerry Anderson's 1960s sci-fi show *Captain Scarlet and the Mysterons*' (*Design Week*, 2 July 1999 p.36). (see picture 50 and 52)

The futuristic character of the building is emphasised more widely in reports published in 1998 where analysis is based largely on computer generated aerial views of the store, an angle not visible from the ground once the store was completed. *The Financial Times* describes; (see picture 50)

... a silver-topped spaceship, half buried in a parkland of firs and a man made lake. The building, with a bizarre ridged roof will entice passers by with a vast open hall topped by a glass canopy. Wind and solar-powered signs over the entrance will declare the spaceship to be J. Sainsbury's supermarket for the new millennium. (FT, 9-10 May 1998, p.20)

The building is described by Sainsbury's as a '*passively ventilated, naturally lit building containing under floor heating, with reclamation of heat from the refrigeration system to water rather than air*' (Sainsbury's Archive). The sales area is lit largely by natural daylight. Artificial light is used to illuminate the products and during hours of darkness. The roof profile is serrated with windows on the north facing section of the roof (see below). (see picture 53)

The roof lights are fitted with blinds that control the light levels and can be closed at night to prevent heat loss and can control the amount of light entering the sales area. The roof lights are also designed to vent excess heat from the building. The journal *Building* reported in 1999 '*Most impressive of all, the interior is awash with daylight, as the sales floor is covered in a series of large curving north lights that seem to span unsupported from one side to the other*' (*Building*, 10 Sept. 1999 p.1). The article adds that the energy saving systems should result in savings of £60,000 a year, justifying the high cost of the building, £3m more than a

standard store. The journal names the companies involved in the development of the project. Concept engineer Max Fordham & Partners, services engineer Oscar Faber Partnership, structural engineer WSP and construction manager RGCM (Building, 1999). Paul Hinkin in a radio interview describes the lighting systems, explaining, *'We have two levels of lighting in the building. The high level ambient lighting which adjusts automatically to daylight levels and is turned off when daylight is sufficient ...and then we bring display lighting local to the produce'* (Drivetime, BBC GLR radio, 14 June 1999, 6.00pm).

The walls and floor of the store are described as being constructed with reinforced concrete, enabling the structure to act in the same way as a storage heater, absorbing heat in the day and releasing it at night. In summer the building mass absorbs the heat helping to cool the building. The American oak cladding is made from properly managed forests and the panels in the nappy changing room are made of recycled plastic bottles. Outside the building's side elevations are earth mounded to contribute to insulation these *'give the store its dramatic curved appearance'* (Sainsbury's Archive). A similar effect is achieved at the American Aircraft Museum at Duxford designed by Norman Foster.

In the final construction, however, the earth banking had to be breached in order to provide emergency exits from the building in the event of fire and this breached the insulation barrier and altered the intended appearance of the building from the outside (Chetwood, 2004).

Like most modern stores the building is sealed to allow temperature control within the store environment. Under floor ducts control ventilation, drawing air from outside the building and releasing it into the store through grills in the gondolas and cabinets. A network of pipes, also sunk into the floor, will allow hot or cold water to be circulated in order to cool or heat the building. In cold weather heated water reclaimed from the refrigeration system will be circulated to heat the building. A borehole, sunk beneath the building can draw ground water from the chalk aquifer below; heat from refrigeration systems is rejected into this water rather than into the air and can be used to heat the rest of the sales area as required (Sainsbury's Archive). Alterations later had to be made to this system as

the contaminated earth corroded the piping, piping, polluted the ground water, and became unusable (Chetwood, 2004).

Publicity concerning the competition for the site and the subsequent opening of the store laid much emphasis on the concept that the 'eco friendly design' was to be a benchmark for future supermarket developments. *The Greenwich Peninsula News* suggested in 1999 that the store would 'set new standards of energy saving in the retail field'. *Retail Week* (30 July 1999 p.13) quotes Sainsbury's environmental manager's comment that the design of the Millennium store will prepare the company for the energy tax, known as the Climate Change Levy, which will start in April 2001. She suggests that the store design is '*...is a very important educational project for us, from which we will learn how to save energy and design stores for the 21st century*' (*Retail Week*, 1999 p.13). The article suggests that the 50% energy reduction achieved by the store will cost an extra £1.5 million over the usual build cost for a supermarket. Adding that energy is the third greatest cost in running a supermarket after rents, rates and staffing (*Retail Week*, 30 July, 1999).

The dominant illuminated sign masts on either side of the entrance were designed to be powered by a combination of wind and solar power, achieved through the installation of wind turbines and solar panels. (see **picture 54**) These 'totems' were designed to be symbols, standing both for the company and the eco-friendly ethos of the building. Insufficient sunlight and wind to power reduced the number of hours the signs were illuminated and they have since been connected to the national grid (Chetwood, 2004). Descriptions and computer images of the design were well publicised long before building commenced. Sainsbury's and English Partnerships' lavish advance and launch publicity, along with the eccentric nature of the design, ensure maximum media interest. Visual images of the building focus on an aerial perspective of the roof, which emphasises the zoomorphic character of the design. The entrance to the store is a less prominent image featured in the publicity material than the images of the roof, but, in these, the solar powered front banners are given particular emphasis. (see **picture 55**)

More than 20 press reports in spring 1989 and over 40 reports, including radio interviews in September 1999, emphasised the ‘environmentally friendly’ aspect of the building. Repeated aspects of media coverage in 1999 were strongly based on Sainsbury’s publicity material (*Checkout*, Sept 1999). The Birmingham Post report is typical, they suggests that the building ‘breaths’ air in and out *‘Utilising the laws of nature, hot air rises through the 35,000 sq.ft. store while cool air will be drawn in at ground level at the same rate, allowing the store to “breath”, similar to the system used for central heating in Roman times’* (Birmingham Post, 13 Sept 1999 p.6). *The Aberdeen Press and Journal* of September 1999 also suggests in their headline that the Building ‘Breathes’. *Time Out* report *‘We’ve seen the future, and it breathes’* (*Time Out*, Sept 1999 p.15).

The design itself has proved to be a ‘one off’ that has not been repeated or directly copied by other companies, almost certainly because of cost and limitations of size. In September 1999 Rowan Moore reporting in the *Evening Standard*, while approving of the systems that allow natural light into the store, questions the validity of the much publicised energy saving schemes, suggesting that they are perhaps ‘green wash’ projects installed as a publicity stunt. Under the headline *‘Great, so long as it’s not a PR stunt’* he suggests that the eco-friendly aspect of the store is outweighed by the pollution caused by cars in the large car park.

He writes that *‘hard as the building tries to save energy and reduce pollution, it generates an awful lot of polluting, energy consuming traffic’* he further suggests that *‘The words “ecological” and “superstore” go together like “celibate” and “whore”’*. He continues *‘For all the oil by-products saved by the panels in the nappy-changing rooms, rather more will come out of the thousands of exhaust pipes that will come and go everyday’* (*Evening Standard*, 14 Sept 1999 p.13).

Whilst criticising the ethos of car-based shopping, Moore does concede that the days of high street shopping are past, and questions whether anyone would want to return to the days of *‘dusty shelves bearing overpriced packets of suet’*. He concludes that *‘If the Greenwich Sainsbury’s turns out to be a statement of intend and not a PR stunt, we might even one day recognise supermarkets as a fore for*

civilisation' (Evening Standard, 14 Sept, 1999 p.13). Chetwood's architect, Paul Hinkin, suggests that '*New thinking has refreshed the idea of form following function ...the shape is a one off for the millennium, but the underlying thinking isn't. It will influence the section*' (Evening Standard, 14 Sept 1999 p.13).

The original design adapted by Paul Hinkin for Chetwood was intended to be a prototype building that, because of its circular design could be fitted on any site. In particular its glass saw-tooth roof, based on pre-war factory roofs, was designed to be placed on any site on a north south axis in order to allow maximum daylight into the building. The design by one of Chetwood's architects²⁷ was considered by the company to be too eccentric for a supermarket building but was included in a selection of designs presented to Sainsbury's board who unanimously chose the design as the most likely to win the competition for the prestigious site.

Although the prototype design was drafted by hand, the detailed drawings were developed and completed using AutoCAD14. In Store Marketing reported in July 1999 that the complex shape could not have been achieved without 3D cad. They quote Chetwood's architect, Paul Hinkin, who explains that '*The design was heavily influenced by cad technology*' and '*The building would almost certainly have been more difficult if there was not that technology*' (In Store Marketing, July 1999 p.6). Hinkin reports that Chetwood's spent nine months brainstorming, at Sainsbury's request, to produce a new concept for supermarket design and that the final design was presented to the company prior to Millennium competition for the Greenwich site. The article continues '*By coincidence, Sainsbury's was involved in English Partnership's competition for a green supermarket on the Greenwich Peninsula. Chetwood's design gave the chain the winning entry.*' (In Store Marketing, July 1999 p.2).

²⁷ Interview with Roy Collado (employed by Chetwood 1998) March 2003

5.4.6. Return Visit to Millennium Site, April 2004

Development of the Greenwich Peninsular site is still far from complete. English Partnerships' literature suggests that building will continue on the 'Village' until 2005. It appears likely that it will continue far beyond this date. The Sainsbury's store, that was the first building to be completed on the Sainsbury's site, is now dwarfed by the two large 'shed' buildings occupied by B&Q and Comet. B&Q now occupies the building formally used by Homebase, now no longer owned by Sainsbury's, this is now a wholesale garden suppliers and is housed as an extension to the adjacent B&Q main store. **(see picture 56)**

The two 'totems' bearing the Sainsbury name are now the most prominent indication of the stores presence. These, notwithstanding, the banking around the building, give a very low profile to the roofline that makes the store almost invisible from the road. The design of the roof that allows daylight into the store is possibly its most successful innovation. Kathryn Morrison writes of the *'rediscovery of the old perception that daylight adds to the pleasure of the shopping experience'* (Morrison, 2003 p.190).

The store's 'eco-garden' intended to provide a *'diverse environmentally responsible landscape'* (Sainsbury's Archive, 1998), is after four years growth looking sadly neglected.²⁸ Although the screen of trees has matured, the remainder of the site has not been maintained and does not meet the 'Blue Peter Garden' aspirations of the original press statement. **(see picture 57)** Unlike the 'park' surrounding Sainsbury's store in Winchmore Hill (Case Study One), which is well maintained.

5.4.7. Conclusion

As one of Sainsbury's high profile supermarkets and, due to its high cost, almost certainly the last, (in 1995 Tesco's had overtaken Sainsbury's as Britain's number one retailer) the Greenwich Millennium store has been the company's most

widely publicised development and proved to be a very successful public relations exercise. The computer generated illustrations produced for the 1998 publicity material, emphasised the ‘spaceship’ characteristics of the design. This fitted well with the concept of the much publicised Millennium Dome and the modernist ethos and enthusiasm of the forthcoming millennium celebrations. The competition brief for the site emphasised the necessity for an eco-friendly design that was, since the 1992 Rio Summit, an issue already being promoted by government bodies and in consequence addressed by many engineers and architectural practices. These considerations were possibly also encouraged by the financial implications regarding impending government legislation viz. the Climate Change agreements (Apr. 2001).

The architectural design of the building was clearly influenced by both these issues. Both government initiatives and public opinion concerning ecology issues, were almost certainly more influential than the prediction, that the excessive cost of the building would be recouped by savings in energy costs. The nature of the overall plans for the site and the fierce competition to win the food store site can also be seen to have influenced the focus on sustainable development. Although, in retrospect, many of these elements appear to have been ‘green wash’ others are successful energy saving strategies. Atmospheric controls within the building also appear to have been successful, although as pointed out by Friends of the Earth, the provision for 500 cars largely outweighs this success. The most successful area of the design is arguably the roof that allows natural light into the building. The issue of natural light is one that has been taken up by other supermarket architects, who for some time have been aware that customers find artificial lighting in supermarkets unpleasant (Royal Fine Art Commission, 1996).

The store is relatively small and lacks the storage space necessary for a supermarket to function efficiently. Although many of the ‘eco friendly’ ideas successfully promoted the company’s ‘caring’ attitude, many had been in place in supermarkets for some years (Co-op, 1988). The use of some recycled materials also appears to have been developed largely as a visible sign that demonstrated

²⁸ Third visit to the store April 2004

the company's attitude towards the environment. Although not directly influencing supermarket architecture the widely publicised 'green' character of the building has, through pressure of public opinion, government legislation and competition between rivals, resulted in some of the sustainable design concepts being taken up by other companies. Thereby influencing design styles and attitudes towards supermarket architectural design. As suggested in the introduction to this study, at the time of its conception the building design appeared to be part of Sainsbury's design re-launch, in retrospect this seems even more to be the case. The run down appearance of the building and particularly the wild life garden give the impression of a publicity campaign that is now past its climax.

5.5 Case Study Four

Tesco, Orpington, Kent

This building has been selected as a subject for the fourth case study, as it provides both an example of how the nature of supermarket design has changed and developed since the early standalone stores of the late 1970s, and gives a positive indication of how stores are likely to develop in the future, in that it includes housing as part of the development. The architectural design of this store is not unique, but is representative of a variety of themes in one building. The supermarket and the mixed housing scheme situated above it have been designed by Tesco, partly in respect to a London housing development programme initiated by Ken Livingstone and by government housing and economic initiatives.

It is unlikely that the building will be completed before this study is submitted, therefore as a case study it is likely to be incomplete, for example there are no photographs of the finished building included in the study. However, the nature of the development and the concept of a supermarket as the core of a new community is an important landmark in the evolution of the phenomenon.

Through contact with Tesco's Head of Development Planning, access has been available to detailed documentation related to the design and development of this store material from which will be included in the case study as an illustration of the complex issues involved in supermarket planning and construction. **(see pictures 58-63)**

A mixture of housing and supermarket buildings have in the past been avoided, since companies have considered that housing attached to a store would prevent or make alteration, expansion or demolition of the supermarket building, difficult or impossible (RFAC, 1996). Social and economic changes and scarcity of sites for supermarket expansion are currently (2005) causing companies to include housing in their store developments. These changes, which are significant in a consideration of store architecture, are further discussed below.

5.5.1. The Brief

As with other Tesco stores discussed in the study, there was no written brief, as such, from the company to the architect. The design was produced, following e-mails and verbal communications, in a very short space of time in order to coincide with the purchase of the site and to ascertain the likelihood of gaining planning permission (Aukett, 2005), the local press gives unconfirmed information that Tesco paid Bromley Council £20 million for a 125 year lease (*Bromley Express*, 21 Oct 2004 p.5).

5.5.2. Document Review

Necessary plans, drawings and reports from the architect and specialist consultants were presented in order to secure detailed planning permission and included detailed architectural plans of the store design produced by Aukett Architects²⁹ and the Planning and Design Statement produced by the planning Consultants, Nathaniel Lichfield and Partners.³⁰ The latter document was submitted in support of the application by Tesco for full planning permission, and is a revision of the outline application refused in April 2004. It also contains an access statement and a statement on sustainability. Other necessary documents were the travel plan (produced by Boreham Consulting Engineers Ltd) the aim of which, as outlined by government guidelines, is to address ways of encouraging the use of alternative means of travel. The Landscape and Tree Statement (produced by Epcad Ecology and Landscape Planning) which gives very detailed plans and descriptions of mature and significant trees on and around the site. An Environmental Noise Assessment was prepared by Sharps Redmore Partnership (SRP) who were asked to consider the residential element of the development, and to *'make proposals, where necessary, to provide an acceptable internal noise climate for these properties'* (SRP p.3). The Transport Assessment document, also produced by Boreham, advises on highway and transportation issues relation to the Development Plans and details of the buildings construction were produced, after planning permission was granted, by the civil engineers Pinnacle. A

²⁹ Interview at Aukett Architects

³⁰ Interview with Steve Butterworth of Nathaniel Litchfield (Jan 2005)

Daylight and Sunlight study by Delva Patman Associates was not available for study.

5.5.3. The Proposal

The description of the proposal as it appears on the Town Planning Application Form issued by the London Borough of Bromley states: (their caps)

DEMOLITION OF EXISTING MULTI-STOREY CAR PARK AND HEALTHCARE BUILDING AND ERECTION OF A PART 5/PART 6 STOREY BUILDING AND FOR A MIXED USE DEVELOPMENT COMPRISING A1 RETAIL, C3 RESIDENTIAL AND D1 NON-RESIDENTIAL INSTITUTION USES TOGETHER WITH ASSOCIATED CAR PARKING, SERVICING AREA, FORMATION OF NEW VEHICULAR ACCESS TO STATION ROAD, LANDSAPING AND OTHER RELTATED WORKS.

(Nathaniel Lichfield & Partners (NLP) Aug. 2004)

The Planning and Design Statement sets out details of the building's size and how the spaces will be allocated and states that the store will have a sales area of 3,971 sq. m. and includes checkouts, circulation and bakery. The rest of the area *'includes the travelator mall areas, coffee shop, bulk store, staff rooms and other ancillary floor space'* (NLP, 2004 p.6).

This is by no means one of Tesco's largest stores, but is considerably bigger than Ludlow, which is set on a similar site to Orpington in relation to the town centre, and whose retail floor area is only 1,950 square meters. Included in the development above the store are seventy-three residential units. Also detailed in the Planning Design Statement is the amount of space occupied by the new medical centre (see below) 172 square meters gross internal area, and the seventy-three flats, of which forty-three are for sale and thirty 'affordable'. These occupy less space than the store- over 6,150 square meters gross internal area (excluding balconies) (NLP, 2004 p.6). **(see picture 64)**

The problem of providing space for cars, has been approached by including parking facilities within the development. Increasingly town centre stores occupy sites that, unlike stores in other case studies, are not big enough to allocate space

on the site for external parking. The planning statement lists that total parking provision at Orpington comprises 924 spaces, (in comparison the Sainsbury's development in Winchmore Hill had provision for only 475 vehicles), with the majority serving Tesco short stay customers. The rest divided between Tesco staff, office leasehold spaces (263 at basement level), residential spaces (level 2) and the public car parking (210 at level 2 to 4) (NLP, 2004 p.6).

The Planning and Design Statement documents a breakdown of the residential units to be sited above the store. It states that of the seventy three residential units forty three are for private sale, some of which will have '*provision for outside amenity space*' (NLP, 2004 p.6).

Fifteen will be one bedroom apartments and twenty eight two bedroom apartments. The 'affordable' units will be a mixture of social rented and key worker dwellings, comprising eleven one bedroom and nineteen two bedroom apartments. '*The "affordable" housing will be transferred to and managed by Tower Housing (part of the London Quadrant Housing Association)*' (NLP, 2004 p.6).

5.5.4. The Site

Orpington lies within the London Borough of Bromley; the planning application document describes the town centre as large and apparently thriving.³¹ The retail area is focused on the High Street, which they suggest provide a mixture of shops and services including both independent retailers and national multiples.

There is a Shopping Centre (The Walnuts Shopping Centre) located on the eastern side of the High Street that includes a car parking facility above, which serves the town centre. The planning document states that the local high street shops have been badly affected by the Bluewater Development, five miles from the town centre. This is made very apparent by the number of charity shops in the town and the badly maintained condition of many standard retail outlets both in

³¹ Visit to the site January 2005

the high street and within the Shopping Centre. Although very busy the town does not appear prosperous or progressive. (see picture 65)

The proposed site for the Tesco store is located at the southern end of Orpington town centre, is approximately 1.3 hectares in size and is at present occupied by a five level multi-storey car park built in 1968. (see picture 66) Also on the site is a building occupied by a health trust, which is used as a base for peripatetic nurses. On the western side of the site is a wooded area (approx. 2,000 meters square) beyond which is Orchard Grove, on the opposite side of which is a row of detached houses. The character of the area is mixed and includes 1970s office buildings, the high street shops and houses appear to date from the beginning of the 20th century. The New Village Hall and a residential development (Chevening Court) are described in the planning document as being modern in design concept. Augustus Lane is densely parked and very busy.

5.5.5. The Architect

The company asked to produce the design for the store were Michael Aukett Architects (Kings Road, London) and the architect handling the project was Peter Johnson. In an interview with him it became clear that he admired and was influenced by Dutch architects, in particular MVRDV based in Rotterdam, and the Borneo Project. The use of colour in the design for Orpington may reflect this influence, although Johnson claims that the red, white and blue panels were a tribute to his wife who is French. The basic design is, however, based on Tesco's Concept Store (see History section) and is adapted to fit the site and, in its construction (see below), made sufficiently robust to allow the development of living accommodation and car parking above the sales area. Although given freedom to design the store, the architects are closely monitored by Tesco's in-house architects and planning consultants (see below).

5.5.6. Objections to the development

Bromley Borough Council refused outline planning permission in April 2004 on the grounds that:

The proposal, by reason of excessive bulk of the building and resulting visual impact and loss of prospect, would be harmful to the amenities currently, enjoyed by the occupiers of adjacent residential properties on Orchard Grove and Station Road, contrary to policy E1 of the adopted UDP (March, 2004) and Policy BE1 of the Second Deposit Draft UDP (Sept. 2000). (quoted by NLP, 2004 p.1)

The architect reported that like many Local Councils, although the officers accepted the modernist style of the building, the elected members wanted a ‘traditional Essex Barn’ design which they felt would merge more sympathetically into the local street scene (see History section). On the 11th of February the local press headlined ‘*Anger at plans for “carbuncle” store*’ (*Bromley Express*, 2004 p.4).

The local Tory MP, John Horam, (re-elected in 2005) opined that Mayor Ken Livingstone’s London Plan to accommodate an extra 800,000 people in the capital could be a boost for the developer ‘*There is a worry that the long finger of Ken Livingstone is reaching down to Orpington*’. He further comments ‘*We all know Ken likes tall buildings and is also in favour of flats, and part of the problem here is that there are too many flats*’ (*Bromley and Beckenham Express*, 2004 p.1). Local political opinion suggested that The Liberal Democrats, who hotly pursued the seat in the 2005 general election (see below), would not support the development publicly because of the involvement of Shirley Porter in the Tesco family (Johnson, 2005).

Tesco’s Public Relations Officer, Kathryn Edwards,³² reports that the first application for planning permission was welcomed by Orpington planning officers, but despite strong support from the Chief Planning Officer the proposal was rejected by the elected members, largely due to opposition from local residents. The local press reported on 23 April that ‘*members of Bromley Council’s development control committee were warned by residents that they would be “thrown out” if they backed the scheme*’ (*News Shopper*, 21 Apr. 2004 p.4). It is later reported, however, that at a meeting of the Development Control

³² Interview with Kathryn Edwards January 2005

Committee 'Bromley Chief Planner Stuart Macmillan recommended approval for the scheme' (*News Shopper*, 2004 p.4).

Edwards states that the Tesco development became a political issue due to the imminent 2005 election. The council was Conservative led, but the Ward Councillor for the proposed development was a Liberal Democrat and lived opposite (Orchard Grove) the proposed site. The planning application was at first not opposed, but following selection as the Liberal Democrat Councillor's parliamentary candidate for the Ward, which was a marginal seat, opposition to the proposed development was used as part of the Liberal Democrats election campaign. The current MP, who at first supported the scheme, eventually joined the opposition in order not to lose votes from the vociferous local objectors (Tesco, Edwards, May 2005).

As in most controversial supermarket developments an exhibition was held for local residents to explain the proposals in December 2003, from which consultation forms showed that the majority of those attending were in favour of the development (Tesco, Edwards, 2005). A series of stakeholder meetings with local residents and a public meeting (15 April), chaired by one of Tesco's directors, were met by some strong, but minimal, opposition to the scheme, which was reported at length in the local press (see below). In order to appease the local opposition and elected council, Tesco made changes to the proposal, which are listed below (Tesco, Edwards, May 2005). The revised detailed proposal was submitted in August 2004 and passed on 9 November 2004.

Taking this into account, the revised Planning and Design Statement submitted by Tesco suggests that the revised scheme improves Orpington's street scene. It advocates that although it is a large building it is similar in height to the structure it replaces and will be '*much more interesting ...in contrast to the "dead" façade currently existing*' (NLP, 2004 p.19). It is further suggested that the '*thoughtful and modern design of this new development will greatly enhance the landscape and views from around the site*', replacing as it does the existing unattractive multi-storey car park (NLP, 2004 p.19). Other revisions were made to the first proposal in answer to objections from local groups. The building would be set

back away from Orchard Grove by 6 meters so that the building lies 28 – 36.5 meters from the residential properties in Orchard Grove. The height of the Orchard Grove elevation (visible from the street) is reduced by 2 meters and the multi-storey car park by 3.7 meters; this is 7 meters lower than the original proposal. The additional residential floor increases the height by 0.58 meters, but as this is now set back there is very limited visibility from the Orchard Grove houses (NLP, 2005 p.5).

The local press reported that the local MP, John Horam, had stated that the changes to the scheme were *'something but not a lot'* and continued that *'The plans have not changed very much ...the development is still too big'* (*Bromley Express*, 7 April 2004 p.5). Ward Councillor, Grace Goodland, was reported as saying *'The changes are purely cosmetic and show Tesco has not been listening to people at all'* (*News Shopper*, 7 Apr. 2004 p.4).

5.5.7. The store and the Housing

Unlike a conventional standalone store the construction of the Orpington development is complicated by having several floors designed for different purposes, therefore the building is constructed on a 12 x 16 meter grid system with a transfer slab used to support the upper floors. Because of initial objections to the development the store design was altered to allow the structure to be sunk below ground level in order to lower the overall height of the building. The 4/5 meter excavation provides an additional basement level car park. This alteration has added to the cost of the development but was necessary in order to obtain planning permission.

The Planning and Design Statement (see above) discusses planning policies that affect the eventual design of the store (NLP, 2005). The Statement discusses the principle and merits of the proposed store design and cites Policy E.1 of the UDP and BE1 of the draft UDP, both of which deal with general design and development, encouraging a high quality of environment in town centres. These policies are described as being *'designed to ensure that developments respect*

their surroundings and that residential amenities are not harmed by the development' (NLP, 2004 p.17).

The scheme is described in the planning application as a *'thoughtful design and layout, which maximises the potential of this site without compromising visual or residential amenities'* (NLP, 2004 p.18). It is suggested that the design, although bold, fits in with the surrounding post-war architectural styles and provides the town with a 'fresh face' appropriate for the 21st century. The council's Supplementary Planning Guidance (SPG) which cover detailed issues supplementary to Development Plans is cited in the planning application as stating *'that modern design and architectural treatment could be appropriate on this site ...and it is intended to embrace this proposal'* (NLP, 2004 p.18).

The proposal continues that the size of the scheme has been carefully thought out in relation to the adjacent buildings and the town centre itself. The materials proposed for the construction of the store are described as forming a modern expression *'incorporating steel, glass, aluminium, metallic panel cladding and render'* (NLP, 2004 p.18). The travelator malls it describes, as being highly visible, dynamic spaces. These will be shaded by blinds at night to prevent disturbance from light spillage.

The planning document, which was prepared after the first application was refused, explains the sinking of the store into the ground by suggesting that,

On Orchard Grove the building has a lightness in quality, with the apartments appearing to hover above the store, and is careful not to cast an unwelcome, oppressive influence upon those dwellings opposite. It is for this reason too that the design has been sunk into the ground, and as many trees as possible will be maintained along the length of the elevation (NLP, 2004 p.18).

Although the store has been designed to be relatively transparent it is likely that the Tesco signage will be highly visible from the approaches to the store.

5.5.8. Planning requirements

Supermarket developments are now subject to many Government Planning Guidance papers as well as the restrictions imposed by Local Authority and, in this case, London Assembly requirements. Many of these have predictably evolved in tandem with the development of supermarket commerce. These are included those where applicable to this development in order to illustrate the framework around which planners, engineers and architects must work. I have recorded above the reports that are required for a planning application to be submitted (see document in bibliography). Within these submissions the necessary conditions appropriate to this development are documented.

The Planning and Design Statement prepared for Tesco's application lists twenty-nine items from Bromley's Unitary Development Plan (UDP), which are relevant to the development and support the company's application for the proposed store. The UDP is a legal document, which sets out the land use policy framework used to determine applications for planning permission (Boreham, 2004, p13). The items listed include housing design, which requires '*Good design respecting [the] character of the area in which it is located*', (NLP, 2005). Residential density and the promotion of development transport demand and effects and parking standards are included along with public transport and consideration of the needs of cyclists and pedestrians. The design of new development requires '*high standard of design and layout*'. The need for affordable housing is listed and the need for new dwellings in the Borough up to 2016. The item concerned with the landscape is also pertinent to the Tesco development and requires the '*retention of trees where important to [the] character of the area*' (NLP, 2004 pp.9-10). The site for the proposed development is included in the UDP as a 'Proposed Site' and is described as an '*underused car park within Orpington Town Centre*'. The objective is described as '*to enhance the vitality of the southern end of the town centre, with the provision of retail/leisure facilities and car parking*' (NLP, 2004 p.10).

The directives contained in the Mayor's Ken Livingstone) London Plan (2004) also directly support and, within the terms of the Plan, justify Tesco's proposed

development. The Plan includes policy guidance in respect of retail development, housing and transport. The thirteen sections that are significant to the proposed Tesco development are summarised in NLP's Planning and Design Statement and include '*2.4.5 Town Centres – Promoting economic growth within existing town centres – prioritises the development of previously developed sites and buildings in urban areas*' (NLP, 2004 p.11). Other objectives itemised from the plan, that support Tesco's application are the promotion of a range of housing choices, affordable housing targets, encouraging retail use in town centres and '*improvement to quality thereof*'. The last item summarised 4B.1 suggests '*Design principles for a compact city*'. This item suggests that the potential of sites should be maximised, sustainable and provide mixed-use developments, which are '*inspiring, exciting, delighting, practical and legible*' (NLP, 2004 p.11 quoted from The London Plan). Health objectives, relevant to the inclusion of a medical facility on the site, and the consideration of a parking strategy and parking in towns are also listed in the application.

Sections from National Policy Guidance Notes (PPG) 1, 3, 6 and 13 are also included in the submission where they refer to and support the planning application. These notes address issues such as planning and design, housing, town centres, shopping and transport. PPG6 issued in 1996 was particularly relevant to supermarket development as it discouraged the development of stores on green-field sites at a time when companies were competing for sites suitable for developing increasingly large stores. The use of such sites was only permitted if a sequential approach had shown that there was no suitable brown field or town centre site available. In this context (Orpington) PPG6 is used to support the application of a town centre store. The section cited in the application refers to town centres and retail developments which emphasises the importance of town centres as locations for retail developments and the encouragement, in the Notes of mixed use developments in town centres including housing. The application also quotes from PPG6, which '*confirms that local authorities should particularly focus on the opportunities for urban design strategies for large sites in or on the edge of town centres*' (NLP, 2004 p.12 quoting PPG 6 para 2.13).

PPG1 is included as further justification in support of the application,

[It] affirms the role of the planning system to meet the needs of a growing and competitive economy in providing for new development ... The Government's approach to planning strongly encourages development of major sites to provide sustainable mixed use development of good quality design. (NLP, 2004 p.12)

PPG3 is also quoted as it demonstrates the need for affordable housing and emphasises the importance of the 'best use' of land to be developed (NLP, 2004).

PPG13 is also relevant to supermarket development and discusses the government's objectives on transport and sustainable choices, reducing the need to travel by car and encouraging the use of public transport, walking and cycling. This is answered in the Tesco Transport Assessment document (Boreham, 2004), which cites policies from the London Plan to illustrate the focus in the application on pedestrian access (policy 3c.2) and '*Matching development to Transport Capacity*' (policy 3c.2) and '*Matching development to Transport Capacity*' (policy 3c.2). This section in addition to discussing that development only occurs where there is sufficient transport capacity also states the need for a Transport Assessment and Green Plan as part of the application. Tesco's application lists six objectives relating to transport, which include '*to reduce reliance on the private car and encourage the greater use of public and alternative transport*' (Boreham, 2004 p.14). Alternative methods of transport are discussed further on in the document, focusing on pedestrian accessibility, cycle accessibility and access to the store by public transport (Boreham, 2004 p.16). The 106 planning agreement (planning gain) which compensates the Council for any detrimental effects the development might have, has yet to be finalised (May, 2005) will partly finance (£100,000) an electric messaging system guiding drivers to store and council car parks.

5.5.9. Conclusion

Tesco's proposed development in Orpington can be seen to comply with and correspond to many of the objectives set out in both the Orpington's UDP, Ken Livingstone's London Plan and government issued Policy Planning Guides.

Objections to the development became a political issue due to the imminent 2005 election. It is likely that had this not been the case the initial application would have been accepted. Although objectors received support from the local Tory MP and some elected members of the council, the council officers, Orpington's Planning Department, were in full support of the site being used for a purpose that complied with local and regional planning guidance. It is clear from the evidence cited by the Planning Consultants that a proposal for a mixed use development could not be refused in principle, if it complied with the complex web of planning guidance and local and national policies that were required for any development, particularly within a town centre.

Reports in the local press indicate levels of objection from local residents that have become familiar in respect of many supermarket developments. These are often prompted by a dislike of change and a distrust of supermarket trading. The inclusion of housing in the development was of prime importance in securing planning permission to build the Orpington store. The lack of suitable sites available for supermarket development in the UK has put pressure on companies to both use and comply with local regional and national guidance policies in order to secure sites for store development, particularly on sensitive or crowded town centre and edge of town areas. This study demonstrates the partnership that now exists between government and commercial enterprise where both participants benefit from a mutual need to resolve social and economic exigencies.

Because of these issues, it is certain that in the immediate future this kind of mixed development, which groups housing and retail stores together, will become familiar (Tesco, West London, 2005) in both supermarket and other retail projects, where there is a need both for housing and the commercial development, or expansion of stores on brown field sites or town centre areas. The need for supermarket architectural design to merge with surrounding landscapes, to become "transparent" and externally almost non-existent is now, with the endorsement of government legislation, moving towards establishing increasingly prominent buildings in town and high street locations. The development in Orpington illustrates this significant evolution.

5.6 Conclusion to Case Studies

The four case studies detailed above were selected from the diverse portfolio of store designs developed between 1991 and 2006 in the UK. During this period the impact of supermarket commerce both on high street and neighbourhood retailing and on the patterns of social and economic change was prodigious. Increasing affluence and developments in the areas of technology and the media resulted in rapid change in social and commercial enterprise (see History section 4.13.). It can be seen from these studies that supermarkets are responsible both for new kinds of shopping experience and for changing attitudes towards consumption. These changes are reflected in the building design and opposition to such shifts as can be seen in the attitudes of those who consider the sites and buildings themselves as an unwelcome force for change. This impact is reflected in the increasingly complex process of architectural design and supermarket development illustrated in the case study material.

The architectural design that is exemplified in these studies demonstrates how store design changed, both through innovative designs developed by supermarket companies and in response to demand both from consumers and government directives. Changes in consumer expectations and perceived lifestyles compelled supermarket companies to produce buildings that were more considerate of customer' needs and aspirations and, more significantly, developments that answered the demands of local authorities and fulfilled the increasingly ambitious programmes of supermarket commerce. Supermarket buildings must now provide what is a communal space where new kinds of consuming rituals can take place. This is a very different experience from restrictive high street retailing, supermarket shopping will often involve family groups and can take place at all times of the day and night. Although, most recently of minimalist appearance, in comparison with the robust early department stores, supermarket buildings provide a similar distinctive experience to these buildings, providing a visible manifestation of choice in a public yet private space. Like the department stores of the 19th century, the supermarket could be said to have revolutionised the retailing of clothes, toys, music, films, electrical goods and many other non-food articles and services.

The evolution of change in the public perception of shopping is reflected in the changes that can be seen in supermarket building design. Samuel writes that “*the ruling fears today are those of insecurity*” and the necessity of providing ‘defensible’ or ‘protected’ space (Samuel, 1994 p.130). That the early brick faced rural farm building supermarket design fulfils this need can explain why this style is clung to by those who resist the concept in the shopping experience. The developments at both Winchmore Hill and Orpington were subject to strong local opposition, however, while the ‘Essex Barn’ design of Winchmore Hill was not a strong reason for objection the modernist design of Orpington was seen as a major cause of opposition to the proposed development.

Like the department stores, the barn like supermarket buildings let in little natural light making the shopping experience a somewhat covert and personal experience, comparable to that of pre-war high street shops. As can be seen in the Ludlow and Orpington stores, out of town supermarket design by the end of the century, was opening up buildings to let in natural light and provide a space which allowed customers to see into and through the store, while at the same time reducing the visual impact of the structure. Apart from prominent signage the most recent stores could be described as ‘stealth’ buildings, the external structure becoming transparent and focusing attention on the products and activities within. Ludlow is made more transparent by the blending of its contours into the surrounding landscape, which is reflected in its glass surfaces. Winchmore Hill is made invisible in a different way by lowering the building into the existing landscape. In both these examples the ‘transparency’ was the result of protest and intervention. At night the impact of the buildings are altered by internal and external lighting that redefines the structure and its retail function.

The escalating challenges of store developments on the environment and the impact made on small traders are made clear in the issues discussed in all four of the case studies (see also History section). Fear or resistance to change expressed by many local groups and elected councils can be seen to be ineffectual in the context of already established political planning and legislation. Even though in some cases dissension could be seen to be justified as protecting invaluable assets.

The studies confirm that access by shoppers and suppliers to stores and their impact on the environment have become important issues in obtaining planning consent, particularly on sensitive sites.

It is clear from the research material that the nature and location of the site is probably the most significant element in determining the outcome of the design process. Government support and the anxiety of local government bodies to keep retailing alive in towns and cities are also an important consideration in store developing and design. Ludlow exemplifies this.

Branding is also shown to be an important issue in the design of supermarket buildings, although this aspect is not as overt as might be expected in the context of companies with very positive corporate identity schemes (see 5.1). The design of the Greenwich and Ludlow stores both carry strong branding messages of company status and, particularly in the case of Greenwich, of contemporary social attitudes and concerns. Tesco, in particular, are insistent that their supermarket design and facilities are led by customer demand which is tested in depth for both new and established stores (Tesco archive). Size is also dictated by economic issues but in many cases it has been found that new stores, which at the planning stage have been criticised for being too big, later receive complaints that they are not big enough to satisfy customer demand (Tesco archive). This is at present (2006) presenting a problem in the design of the Orpington store which, having been reduced in size in order to placate local objectors, is now felt to be too small to accommodate the number of customers it is estimated will use it.

Government Guidance requires new stores to make provision for pedestrians and cyclists in addition to public transport links. However, despite the increase in on-line shopping, the lifestyles of most shoppers, particularly in urban areas, have become increasingly reliant on private transport and supermarket shopping has become part of this pattern. The advent of the home fridge and deep-freeze along with private transport, facilitating fewer food shopping trips. Out of town or edge of town stores must, therefore, be designed to accommodate the needs of large numbers of motorists and, in addition, provide the necessary space and accommodation for the free passage of delivery trucks. The 21st century

supermarket is a new kind of building that has evolved over the past 40 years; its success as a building has been reliant on the design responding directly to increased mobility and changing lifestyles, which incorporate new domestic technologies. As can be judged by the case study statistics the size and siting of car parking space represents a significant part of a store development, and can be identified as a constant feature in all standalone stores. It is an important element in any attempt to define the supermarket as a 'building type'. Venturi, referring to supermarkets in Las Vegas writes, *'the building itself is set back from the highway and half hidden ...by parked cars. The vast parking lot is in front, not at the rear, since it is a symbol as well as a convenience'* (Venturi, 1998 p.9). The car park can be as much a symbol of choice, abundance and efficiency as the displays within the store.

Acquiring the material included in these studies was reliant on the interest and goodwill of those involved in the development of the projects. As with much research it has not in all cases been possible to produce a complete picture, particularly when material was lost or access to protagonists not possible. The extraordinary success of supermarket companies has subjected this area of commerce to close scrutiny, increasingly over the past thirty years. Their effects on suppliers and the perceived destruction of local environments, ecology and local economies, particularly small local traders, possibly explains why they are reticent to discuss company issues.

However, of the companies who became interested in the research findings, their architects and planners were increasingly prepared to provide archive and current material related to the studies. Therefore it was possible to gain access to research data through a combination of mutual trust and interest that evolved with the companies involved.

6. CHAPTER SIX

DISCUSSION AND CONCLUSION

6.1. Introduction

This chapter again considers the three main objectives of the study. (see 1.3.2.) The first objective concerns the changing architectural design of supermarkets and the significance of these changes in the context of shifting social conditions and expanding retail commerce.

The second objective is to understand how supermarket sites have been perceived by the retail stakeholders, and the environmental impact of supermarket developments. This question is highly relevant in terms of design and attitude towards supermarket buildings and is often a crucial factor in the location of commercial developments.

The third objective of the study is to evaluate the extent to which branding and corporate identity influences the design of supermarket buildings. Although branding schemes are clearly apparent in many areas of supermarket design, for example in logos and advertising slogans, there appears to be no clear evidence of such schemes in building design. This area is therefore explored as part of the research question.

Supermarkets are the essential link in the distribution chain that transfers goods from manufacturers and suppliers via distribution centres and transport systems to customers. The research shows that supermarket commerce since its emergence in the post-war period has become an increasingly complex and cost effective system offering customers services and advice as well as food and non-food goods. Supermarkets have become increasingly important to the customer by offering services such as banks, baby clubs and opticians. To be successful, the design of these buildings must appear not merely welcoming but also serious, trustworthy, respectable and abundant as well as suggesting the qualities that a customer buying food would expect, wholesome and hygienic.

In this chapter the key elements of the research findings are discussed in relation to the three main objectives of the study (see above).

6.2. Architecture

All architecture has meaning and demonstrates how a society organises itself. The history of supermarket architecture suggests how the evolution from high street grocers to hypermarkets communicates the change in economic and social patterns in the UK.

It has become clear that between 1950 and 2006 much has changed both in the appearance of supermarket buildings and their place in retail commerce, the influences on this phenomenon although complex can be defined.

6.3. Key findings

Key findings extracted from the research are concerned with the relationships between supermarket companies, their architects and local planning authorities (both elected members and officers), these are important and influential in the design process. This is demonstrated throughout the text, the third case study (Orpington) remains unbuilt (2006) due to continuing friction between Tesco, the planning authority and the elected members of the council.

Local planning authorities, who are under pressure to fulfil their obligations to provide appropriate retail outlets within their jurisdiction, are compelled to compromise on the design of stores in order to placate local amenity groups and elected councillors. The architects submitting the design on behalf of the supermarket company, in this case Tesco, are also under pressure to fulfil the needs of their client and gain approval for their design. It is in this context that the submitted design becomes distorted and often far removed from the original concept.

The examples of Tesco's stores in Beverly and Oakham show the effect of intervention in the design process, and the comments by Tesco's Chief Executive clearly illustrate the complex relationship between the company and their architects and the local authority, again in this case the elected members. (see below).

This research also shows that regional differences in design occur where intervention in a plan for a red brick or modernist structure has resulted in the additions of 'local' features or vernacular characteristics. Thus the same basic design may be faced with red brick or Cotswold stone according to the location. The strongest regional identities are created where familiar local buildings, already part of the region, are adapted for supermarket use, for example Morrisons in Hillsborough, St George's church in Wolverhampton.

Another key finding of the research is the influence of public opinion or the current zeitgeist on the design of a supermarket building.

The influence of public opinion on store architecture is demonstrated in the design of Sainsburys Millennium store in Greenwich (Case study 3). At the time of its construction, public concern for the global environment was clearly a major Issue in the design of the building and was an important element in the acquisition of the site by Sainsbury's.

As discussed the 'state of the art' design has never been repeated, largely due to cost and size. The building was used as a major part of a Sainsburys design 'make over' publicity campaign in 1999, how much the architectural design of this store was part of an overall publicity plan is not clear.

The philosophy behind Sainsburys' design programme pinpoints another key research finding. Glancey, writing in the *Guardian* before the Greenwich store was opened, records that the architect Richard MacCormac (See Case Study Two, Ludlow) was asked to design a store for Sainsbury's, the design he produced included the design of the interior. The company rejected his design for the inside of the store and was told that; *'his job was to style the façade. In other words, the architect was effectively designing a giant advertising poster and pasting it over a shopping shed'* (Glancey, *Guardian*, 1998 p.12). This comment, made 14 years after Sainsburys first flag ship store opened in Canterbury supports a conclusion that these stores were primarily 'advertising posters' for the company as well as clearly defined demonstrations of their status and success. Tesco had overtaken Sainsburys as the UK's leading grocers in 1995, which suggests that in the design for the Greenwich store, the company were attempting to demonstrate their affinity with public, concerns, specifically with environmental issues, rather than publicise their economic status. The site itself had high profile focus but was

unlikely to raise public protest in terms of a supermarket presence, as for had example had been the case in the Camden High Street development ten years earlier.

Two examples of published work have been discussed that can both support the concept of supermarket architecture as a suitable subject for academic study and demonstrate how the research data is accommodated, within the discourse of design history. This area of discussion is focused on the work of Venturi and Pawley who are recognised as unconventional in that their analysis of architectural design and their attitude to architectural history, which is often controversial in its innovative approach (see Literature Review).

Forty, discussing design history, suggests that history is concerned with the explanation of change and the causes of change (Forty, 1986). This discussion is then concerned with an explanation of change and the causes of change with reference to supermarket design and the research material.

Much supermarket architecture, apparently designed to be short lived, could be classified as ephemera and as such of little interest to the 'serious' historian. A dictionary definition describes ephemera, as a collection of things not originally intended to last for more than a short time. At the start of this study consensus of opinion from supermarket planners placed the expected life of a supermarket building as between ten and fifteen years. However many of the buildings seen during the research period have exceeded this estimate, for example Camden built in 1988 and Canterbury in 1984. Although some stores have been refurbished with extensions to accommodate coffee bars and other non-food facilities most of those built since the 1980s have survived with necessary maintenance. This research suggests that some supermarket buildings cannot be defined as 'short life' structures, although further research over a longer period of time is needed to clarify this and ascertain which buildings are likely to subsist.

In the field of architectural design both bus garages and petrol stations have been the subjects of academic study and are recognised as having historic significance. The architecture of Las Vegas (1977) is almost certainly the most concrete argument for academic recognition of the value of these categories of popular

architectural design styles. The architectural design of supermarkets can be legitimately studied and explored in this context. Venturi's study suggests that the symbolism of architecture criticised as ugly and ordinary should not be discounted and that its significance must be acknowledged. He cites historical instances of architecture developed from the commonplace or mundane. The influence of folk art on fine art, conventional rustic architecture on eighteenth century architects and industrial buildings on early modern designers. This Research has shown that these are all areas relevant to the study of supermarket architectural design, particularly the observations regarding rustic and eighteenth century architecture, which relate to the Essex Barn design of many stores and the High-tec qualities of industrial buildings that can be seen to relate to some supermarket designs.

Pawley's futuristic vision of the future could suggest the future of supermarket design. His theories relating to basic shed design and the need for honesty in architectural design can apply to supermarket structures both now and possibly in the future. His work contributes to a discussion of the history of supermarket architecture and confirmation of its importance. Pawley's contempt for building conservation and the heritage industry is well known (*The Guardian*) and not ill founded (1998). He argues that we are too concerned with the aesthetic qualities or historic pedigree of buildings and suggests that 'authentic' architecture is manifest in buildings designed for practical use, for example petrol stations and factories, not those designed to be monuments. Supermarket architecture fits well into this definition of 'authentic'. Pawley also comments on the future status of the architectural profession and suggests that;

The architectural profession that survives into the twenty first century has the opportunity to become a producer of instruments, not a creator of monuments. It need no longer be enslaved by ideas of value drawn from the "treasure houses" and museums of antiquity. Instead it will be free to exploit the products of research and development in every developing field of technology. (Pawley, 1998 p.208).

This research has revealed that the history of supermarket architecture has involved many high profile architects in the design of supermarket buildings.

Both in the past and present centuries (see case studies). In fact the ‘shed’ buildings that Pawley refers to have been designed by architects and possess both aesthetic and monumental qualities. Glancey includes in his study of twentieth century architecture the Reliance Controls Factory in Swindon, designed in 1965 by Foster and Rogers (Team Four). In an appreciation of an equally practical building, Buckminster Fuller’s railway wagon repair shop in Louisiana built in 1958, Glancey writes;

The geodesic dome meant the provision of the greatest possible volume of enclosed space in relation to the surface area of the enclosed form. Which wasn't just clever: in Fullers hand the idea had its own beauty. (Glancey, 1998 p.343)

In an issue focusing on factory and workshop design *The Architectural Review* (January 1994) comments in an editorial on the reasons for the indifferent design of industrial building produced in the thirties and forties. It is suggested that this is not entirely due to the slump and the Second World War, but in part due to the philosophy and attitude summed up by Pevsner in his unfortunate distinction between the cathedral, described as ‘architecture’ and the bicycle shed, described as ‘mere building’ (see introduction). The irony of functional buildings is also dismissed as being without interest by modernists whose byword was functionalism. Commenting on ‘shed’ design it is suggested that;

In the 1980s and 1990s the evolution of suspended structures made the lightweight shed into an interesting subject for architectural exploration, and a series of buildings by British Hi-Tec architects, particularly Richard Rogers, showed how comparatively cheap and extensible production space could acquire a certain nobility and, in doing so, add a degree of dignity to the lives of those who have to tend the machines. (Architectural Review, 1994).

Used to illustrate this technology and architectural design, is an analysis of the customs and public health building for British Rail at Willesden (architects Architecture and Design Group). Named Silver Streak the building is described as bringing ‘*dignity and presence to a most unpromising railway location in North London*’ (*Architectural Review*, Jan. 1994).

Although he writes extensively about Big Shed architecture for supermarket distribution centres, Pawley does not mention supermarket stores, which are most often long one-storey buildings that could be described as retail Sheds. These would seemingly fit into much of his plan for easily recyclable technology, but many contradict his claim that Big Sheds are only found outside cities. He discusses the 'tangential' relationship of architects with Big Sheds citing as example a distribution centre 'scaled down' by the addition of fascia boards and advertising panels (Pawley, 1998).

While criticising the disinterest of architects in functional buildings Pawley also describes the RVI (Retail Visual Identity) programme launched by Shell in 1989. Suggesting that it was the architectural profession who wanted petrol stations based on rustic themes and Gothic buildings, while planners gave approval to the RVI designs. He also suggests, however, that architects don't want petrol stations at all- they want Georgian houses. These observations are pertinent in the future development of supermarket architectural design, particularly in the structure and technology described;

All the components of an RVI filling station, from its subtly curved, light-reflecting acrylic fascia to its flat-not corrugated-canopy underside, are fitted together as neatly as the body panels of a car. Here Shell's global reach helps, for economies of scale have enabled RVI to be based on precision 'production line' plastics, like satin acrylic, instead of locally hand laid-up glass fibre. (Pawley, 1998 p.201)

6.3.1.Branding

As discussed in the history sections of this study, although some shoppers still call for the return of high street retailing, few would be prepared to give up time and private transport, to shop at expensive and often inferior outlets and return to the 'good old days' that, probably, never existed. The feeling of nostalgia, particularly in the 1980s, possibly explains the popularity of the 'traditional' Essex Barn design. The nature of the fantasy past perceived by many consumers is discussed by Hughes, writing in the *Guardian* about the reintroduction of 'ugly' fruit and vegetables into Waitrose stores, she suggest that;

The fact that, as a consuming nation we hanker after the “authentic” products of our agriculture yet recoil in horror when they turn out not to be the smooth faced, easy to love babies that we expected, says an awful lot about our contradictory feelings about the countryside. (Hughes, Guardian, 21 June 2006 p.30).

It could be argued that few commercial chains use architecture alone as direct branding, apart from McDonalds. It is almost certainly easier to get planning consent for a building that can be adapted to fit local requirements and a variety of sites than one with a uniform identifiable design.

Such buildings do not contribute favourably to individual supermarket company branding or to the branding of supermarkets as a successful and recognisable building type. Supermarket architectural designs considered to be the most successful are those produced by high profile architects, which are therefore largely protected from intervention and alteration. These buildings are often the focus of enthusiastic press or media attention, for example Sainsbury’s flagship buildings, Tesco’s store in Ludlow (See Case Study), Waitrose in Oxfordshire. Other buildings can escape design alterations if located in an area with well-informed planning committees, for example Tesco’s stores in West London and Sheffield. both of which have received design awards.

In the field of supermarket commerce, architecture alone rarely becomes the symbol of a brand; the external application of a familiar logo or company name is in most cases essential to conveying identity. For example, as discussed below, the design of both Tesco and Sainsburys’ stores vary according to their location and the date of their construction (see also case studies).

Public interest some buildings become a brand in their own right, for example the Pompidou Centre or the Swiss Re ‘Gherkin’. Venturi (1998) suggests that; *‘The sign is more important than the architecture. This is reflected in the proprietor’s budget’* (Venturi, 1998 p.13). With a few notable exceptions this comment is particularly relevant to supermarket buildings, many of which it is difficult to identify without the company name or logo. However, architectural design can reinforce corporate identity, Forty writes that *‘buildings recognisably Roman, rather than local style’*, helped to impress Roman supremacy upon subject

nations. In a similar way he suggests that monastic orders of the early Middle Ages *'used architecture to impress upon monks the supremacy of their order'* (Forty, 1986 p.222). In the same way large modernist or unique supermarket buildings represent the attitudes, status and power of the companies whose products they house.

Lamacraft in her report for the FT emphasises the importance of architecture in conveying brand identity, she writes that; *'The store is now a three dimensional brand statement, it is the personality of the retailer writ large'* (Lamacraft, 1989 p.3).

Although they reported that there was no visual archive of external store architecture, both Morrisons (see 2.7.4.) and Somerfield displayed framed sepia images of early 20th century high street shops on their office walls. In contrast the two major chains (Tesco and Sainsbury) displayed large dry mounted coloured commercially produced blow-ups of new or prestigious store designs on the walls of their open plan offices, keeping both staff and visitors up to date with current projects and awards for excellence. These differing choices were significant in that they each reflected the relationship of the executives interviewed towards their company brand image.

Samuel in his essay on the 20th century use of brick cites the work of the post modernist Charles Jenks who posits the concept of 'double-coding', that is meanings that could be seen as referring simultaneously to the future and the past. The Essex Barn design of supermarket buildings can be analysed in this way (Samuel, 1994 p.130).

Venturi suggests that *'dressed in historical styles, buildings evoked explicit associations and romantic allusions to the past'* (Venturi, 1998 p.7).

The concept of the barn (by the 1980s, a popular subject for conversion for domestic use) associated with images of plenitude and abundance are easy to deduce. Less obvious is the concept of the supermarket store as comparable to that of a rural home with pitched roof and dormer windows, the most defining

and common features of this style of architecture were incorporated into the Essex Barn design, the coat of arms of the family being replaced by the company logo over the entrance.

Sainsbury's reported in their journal of 1991 that the new store at Burpham was 'reminiscent of a rural manor house' and praised the 'Surrey Style' of the architect (*J.S. Journal*, Sept 1991 p.9). The latter was perhaps an attempt to elevate the status of the Essex Barn. Although they possess many architectural features often associated with an English country house, supermarket buildings designed in this style are, simplistically, a rectangular box (barn shaped) as opposed to a square box (house shaped). The familiar clock tower or cupola found on supermarket buildings during the 1980s and early 1990s does appear in the architecture of some large country houses of the past (Hatfield House, Hertfordshire) but is more often a characteristic of stables, churches and civic buildings. In both contexts this is used to mark the position of the building in addition to telling time.

There are other similarities between the barn like supermarket building and a country mansion. Like the detached 'rural manor house' where the stables and other services were situated behind the house the delivery areas of the supermarket are out of sight at the rear of the main buildings. The road systems necessary to reach a modern supermarket echo the rural roads and driveways necessary to reach a country house. The site or park embellished with tree planting and contemporary landscaping. Both carefully designed to view the building to greatest effect. Work areas in both buildings are separate from the public, or family, domain. Supermarket staff can bear comparison with the servants in a nineteenth century mansion, obliged to wear uniforms and confined to separate spaces when not performing their duties. The supermarket car park can also be analysed in an historical context. Venturi discussing the significance of the Las Vegas parking lot suggests that it can be viewed as;

The parterre of the asphalt landscape. The patterns of parking lines give direction much as the paving patterns, curbs, borders and tapis vert give direction in Versailles;

grids of lamp posts substitute for obelisks, rows of urns and statues as points of identity and continuity in the vast space. (Venturi, 1998 p.13)

The origins of the late twentieth century supermarkets could be traced to the design philosophy of the Arts and Crafts movement. Although setting down many of the ideals of quality construction and functionality that were later adopted by modernist architects, their architectural design was based on the concept of a rural idyll that employed traditional building crafts and local materials combined with a high standard of craftsmanship (Fleming, Honour, Pevsner, 1996). Glancey suggests that the Arts and Crafts Movement was;

Both an aesthetic and moral crusade. It was part and parcel of a peculiarly English sentiment in which a primitive form of socialism, nostalgia for a medieval world of knights in shining armour and damsels in distress, fear of new technology, love of hand-made objects and a sense of decency and air play combined to create a recognisable yet informal style of architecture that acted as a rustic stick to beat formal artistic decadence. (Glancey, 1998 p.10)

In the same way that designers in the nineteenth and early twentieth century felt threatened by the effects of the industrial revolution, it is possible that by the 1970s there was a suspicion that vernacular traditions were being lost to innovative technology and the need for mass housing developments. Samuel suggests that;

Brick represents a craft material in an age of mass production. In recoil from the 'faceless' buildings of functional architecture, they invest brickwork with almost human qualities. It is tactile, textured and grainy where modern surfaces are flat. It is individual and quirky where modernism's surfaces are flat. (Samuel, 1994 p.120)

The popularity of designers such as Laura Ashley that supported a fashion for nostalgia and rural imagery coincided with the increased national interest in preserving and making available to the public buildings and collections that were starting to be regarded as national heritage. The expansion of the tourist industry also reinforced this interest that by its nature discouraged a move towards

modernism, particularly in the field of architecture, already damaged by the disastrous cheap building schemes of the 1960s.

The more recent style of supermarket architecture, which began to emerge in the mid-1990s, is a modernist or neo-modernist design that includes the use of large areas of glass supported by a steel framework, often leaving structural elements and service ducts exposed.

Like the English mansion or the Palladian villa, the detached supermarket occupying a large complex site is comparable with these design concepts from the past. Majestic English houses of the 18th century displayed overt images of plenitude and abundance. Inside, large gilt-framed, still life paintings of fruit, flowers and game decorated the walls and appeared in architectural detail, that often conveyed symbolic meaning. A comparison can be seen in the vast displays of fruit and often exotic produce displayed at the entrance of a supermarket, designed to impress the customer with boundless choice and opulent variety. In many stores the customer is met at the entrance by a 'greeter', as in the past a visitor would be welcomed to a stately home where they would be invited to share the abundance, if only visual, of the family estate.

Other comparisons can be made, the vocabulary used to describe the architecture of the most recent supermarket designs are found in the descriptions of classical designs. Pillars, columns, colonnades, clerestory and porte-cochere are found in supermarket design (see case studies). Although the wheeled vehicles that pass under the porte-couchere of supermarkets are shopping trolleys rather carriages or limousines. Other features represent a simplified minimalist, interpretation of classical features. Like classical architectural design supermarket buildings are subject to rules and conventions of design and construction, although these differ in the nature of their influence. Sainsbury's modernist design store in Hedge End is described in their journal as aiming '*to create a classical feel particularly through the colonnade*' (*J.S. Journal Dec 1991 p.11*).

It is a 21st century irony that, as the followers of William Morris and the Arts and Crafts Movement deplored classical architecture, so many groups in the 21st

century protest against the introduction of modernism into supermarket architectural design, demanding instead 'traditional' design, by which they mean rural vernacular.

Many large stately homes have, since the Second World War, become either wholly or in part museums, open to the public. Museum visiting becoming both a leisure activity and educational is comparable to visiting the supermarket. Shopping in the 21st century has been recognised as a leisure activity (Lury, 1996 p.29) while the partnership between leading supermarkets and the media have produced informative television programmes, books and journals that inform and instruct customers how and what to cook. In store guides to wine, food preparation and health advice reinforce the programme of education and guidance. As national museums have become, through necessity, commercial enterprises the importance of their design and interaction with visitors has become increasingly significant. This situation is comparable with the development of supermarket design, branding and customer expectation.

It is the lack of a clear branding policy in any supermarket architectural design that is the most surprising element revealed by this research.

Most of the companies examined revealed a portfolio of designs that were largely a confused collection of styles and materials. Conan Doyle wrote of the significance of the '*curious incident of the dog in the night-time*' ("Silver Blaze", 1894/1981 p.347), in the case of supermarket buildings it was a question of why were there no identifiable brands.

The reuse of buildings for supermarket use raises another key finding confirmed by the research material, the concept of inheriting a brand from a significant or listed building that was previously used by another company or for another purpose. This 'occupation' can import an element of prestige to the new company who inherits the original brand. For example the Hoover Building in West London whose Art Deco design gives it a distinctive appearance and Tesco the status of occupying a grade one listed building.

Apart from signage and the branded store logo, it is the lack of a clear branding policy in any supermarket architectural design that is the most surprising element revealed by this research.

Most of the companies examined revealed a portfolio of designs that were largely a confused collection of styles and materials. Conan Doyle wrote of the significance of the '*curious incident of the dog in the night-time*' ("Silver Blaze", 1894/1981 p.347), in the case of supermarket buildings it was a question of why were there no identifiable brands.

As discussed above, Sainsbury's flagship stores designed during the 1980s and 1990s are agreed, by the architectural press, to be significant well designed buildings in their own right. If it is accepted that good individual buildings are recognisable as Sainsbury stores then these can be said to be part of the Sainsbury brand image. However, as other companies succeed in producing buildings of a similar quality and interest (Tesco, Waitrose) it is unlikely that this definition will continue to apply.

The early history of individual supermarket companies can be seen to have been influential in the subsequent realisation of the company brand.

Tesco's humble beginnings and their founder's unorthodox methods of trading has, despite the company's meteoric success, encumbered the company with the 'pile 'em high sell 'em cheap' epithet. This inherited brand image has hampered the company in many of its planning applications and thereby the design of its buildings. Conversely the projected image of Sainsburys as a family business, assured quality and cleanliness and a promise to provide the 'best butter in London'. Similarly Waitrose' relationship with John Lewis and their reputation as 'never knowingly undersold' established their brands as trustworthy and dependable. Research indicates that these two companies receive a more positive response to their planning applications than Tesco or the less well-established stores. This is exemplified by a comment from a resident to Tesco's Ludlow enquiry who admitted that if the application had come from Waitrose there would be no problem.

The single architectural design of supermarkets that is a key issue in the consideration of design and retail branding is that of the style widely known as The Essex Barn. The research has clarified this design style as being initially associated with Tesco (although the original was designed for Asda) and later with supermarket design in general. This is the most likely store design to be classed as a specific building type and is referred to by local authorities and supermarket companies as the 'traditional' supermarket design. This definition and the effect its popularity has on store design is discussed above. The conclusion therefore is that the Essex Barn design and the related belief that it has qualities associated with tradition, has dictated the design of supermarkets from its conception to the present day. Although since the turn of the century the large supermarket companies have moved away from this design style, it has been taken up by companies at the lower end of supermarket commerce, for example Lidl and Aldi.

6.3.2 Tradition

Giddens writing in 1999 suggests that what we consider to be traditional is, in fact, *'a product at most of the last couple of centuries and is often more recent than that'* (Giddens, 1999 p.44). This opinion informs the definition of 'traditional' as used in the design of supermarket buildings. Giddens cites the example of the Scottish kilt, not a symbol of antiquity but invented by an English industrialist from Lancashire in the eighteenth century. While recognising that traditions are needed in society Giddens suggests that when commercialised, tradition becomes 'either heritage or Kitsch' (Giddens, 1999 p.44). In retrospect the Essex Barn style of supermarket architectural design could be termed Kitsch, in that the hybrid mixtures of modernist designs with 'traditional' embellishments have no identity or meaning. Discussing the obsessive restoration of ancient buildings Giddens further suggests that, *'the heritage that is thereby protected is severed from the lifeblood of tradition which is its connection with the experience of everyday life'*. (Giddens, 1999 p.44).

These observations are relevant to the use of so-called traditional materials or designs in the development of supermarket buildings. The mandatory insistence

and obsessive inclusion of vernacular materials and detailing in the design of what has become known as 'traditional' have little to do with the experience of everyday life in the 21st century. Glancey writing in 1998 describes the modern design of Tesco's store in Ludlow (see Cast Study Two).

The building is unmistakably modern but draws on the locality for inspiration. Not in terms of aping Georgian details, nor of slavishly matching brickwork ...for these things are rarely convincing or effective ...he has taken a step back looked at the way the town fits into the surroundings and shaped his building so that it evokes the flow of local topography rather than historic style and detail. (Glancey – Guardian, 27 April 1998 p.12).

As discussed in the History section, public disquiet regarding the growth of supermarket commerce and the increasingly large and numerous developments of supermarket sites, resulted in government intervention, which attempted to control this expansion and regenerate town centres.

6.3.3 Environment

The fourth case study in this thesis explores how this legislation, specifically PPG6 (Planning Policy Guidance 6), along with the local authority development plans, was used to justify the development of a supermarket in a town centre. PPG6 advised a sequential approach to development, suggesting that the local authorities should not allow out of town development of supermarkets if sites in town centres were available. This, therefore, supported development in town centres (see Cast Study Four, Orpington). The document emphasises that; *'local plans must make adequate provision for supermarket sites in towns if stores are not to be built out of town'* (PPG6 revised 1996, para 10).

As recorded in the History section, the revised version of PPG6 entitled 'Environmental Impact of Supermarket Competition attempted to influence the architectural design of supermarket buildings. This study is concerned about the significance of architecture in a social, economic and technological sense rather than with making value judgements regarding what may or may not be good architecture. However, the opinions of others are valuable in judging the

significance of the design concepts. The revised version of PPG6 voices a concern that the first version of the report that advised on supermarket design had not given specifically clear advice. Particularly regarding the need for good design and that therefore this had not been sufficiently effective. They, therefore, recommend that stronger supplementary guidance to the first report should be issued *'to make it very clear to local planning authorities and to developers the need for better design for supermarkets which is appropriate to the surrounding buildings.'* (PPG6 revised version 1996, para 13).

The advice that supermarket architectural design should be *'appropriate to surrounding buildings'* has had a far-reaching influence on the design of stores since the late 1990s. This government intervention has not resulted in *'better design for supermarkets'* but has, in practice, had a detrimental effect on the design and thereby, the identity of supermarket buildings in the UK. The design of Tesco's store in Oakham illustrates clearly the results of intervention by a local authority who insisted that the building should have 'local features'. The planning committee's insistence that the street facing section of the store should be of a 'Traditional' design has resulted in a hybrid building, half modern (Tesco, Concept design) and half 'traditional' (Tesco archive). **(see pictures 67 and 68)**

In 2001 Tesco's Chief Executive, Sir Terry Leahy, following criticism of the design of a Tesco store in Beverley, was reported as being concerned that changes had been forced on the design team in order to satisfy the council's demands for 'traditional' features (see History section). *The Architect's Journal* quote him as saying:

In my own opinion I prefer other designs which we have used successfully in other locations ... The local authority would only give support to a more conservative design with more "traditional" features ... whenever a new building incorporates decoration to reflect local architecture the result can look like something of a compromise and opinions as to whether it has been successful do vary.
(*Architect's Journal*, 18 Jan. 2001 p.4).

Tesco's architects, Smith Smalley, based in Harrogate, were strongly criticised for the building's contemporary design and *'failing to adapt its entrances and*

facades to the urban fabric of Beverly' (AJ, 18 Jan. 2001 p.4). East Riding strategic development control manager (John Crook) is quoted as saying that the planning committee has called for greater use of '*brick and traditional materials and for new features such as bay windows, to dress up the box a little bit*' (AJ Ibid). Attempts by local, elected, councillors to 'dress up the box a little bit' can be seen in the picture archive to have resulted in what many consider to be dishonest and often ugly supermarket buildings. As in the case of Beverly, alterations to original designs are often the result of decisions made by planning committees either independently or influenced by local protest groups. These examples and the criticisms of architects and planning groups illustrate the complexity of elements that together influence the design of supermarket buildings. **(see pictures 69 and 70)**

The design of Tesco's store in Ludlow (Case study 2) illustrates another key research finding, that is the effect of location on the design of a store. The location of the Ludlow development both in terms of its position in the UK and its site within the town was the most important element in determining the design of the building. The research has confirmed that the reputation and status of the town, both in terms of its history and as a landmark tourist destination dictated that to gain planning permission the design must be unique, sympathetic to the surrounding area and from a prestigious architectural practice. The influence of historic sites, listed buildings and conservation areas on supermarket design is in all cases a major issue and a key finding in respect of building design. Other developments such as Sainsbury's store in Camden High Street and Tesco's re-use of the Hoover Building in West London are exemplars of this finding. Like Ludlow, the nature and significance of the site in Winchmore Hill for the 1991 Sainsburys store is demonstrated in the case study. Although sited in a North London suburb without the status of the Shropshire site research has shown that in this case the concern at the loss of green space and for what was felt to be the violation of a historic site, is a common reaction by stake holders to proposed supermarket development.

While needing planning consent to develop stores on strategic sites, the consideration of cost and company identity has to be balanced against securing

approval for the design of a building that is acceptable to customers, staff and the local authority. In many cases of store development discussed in this study, the architectural design is considered to be a key issue in what is, in fact, a fear of a supermarket 'presence' within a particular community. As sited above it is the resulting intervention in the design process that often produces an unsatisfactory hybrid building

Despite public and government disquiet, there is a lack of focus in official guidance, which is vague and at best ambiguous about design and environmental issues in the context of supermarket design. Guidance notes PPS, which followed and superseded PPG6 makes only brief mention of retail design and no reference to supermarkets. A government publication, *'Design in the Planning System'* described in PPG6 as 'long awaited' appears never to have been produced (PPG6).

6.4. Conclusion

This chapter has focused on significant strands of interest that are discussed with reference to the research material and the three main research objectives.

Although examined in the Literature review, the work of Venturi and Pawley are reassessed as being the most apposite in the context of this study. The subjects of popular architecture discussed by Venturi and the previously negative attitudes towards a popular architectural style, can be related to the design of supermarket buildings. Pawley's discussion of the "big shed" and his vision of futuristic architectural styles is important in the consideration of supermarket design. His preference for functional buildings and interest in cheap lightweight structures can be directly related to UK store design.

The importance of environment is also discussed in terms of the influence of planning authorities and local stakeholders in design outcomes.

The ubiquitous Essex Barn style is discussed throughout this study, related to this design the concepts of 'tradition' and 'heritage' are discussed and their relationships in the context of supermarket design are clarified. Although the concept of branding has been related to corporate store design within the text of this study. It is again discussed in this chapter in order to underline the

implications of this area of commerce in relation to the design of supermarket architectural design.

6.5. Key contribution to research

The three main objectives defined in the introduction to the study overlap in many instances when the research findings are considered. The research has shown that there are several definable key issues related to the changes that have occurred in supermarket design in the post war period.

It has become clear that the involvement of local planning authorities and stakeholder groups in the design process has been highly influential in many supermarket developments. Similarly public opinion and contemporary zeitgeist has influenced the design and siting of many stores, while site history and the nature of the surrounding environment has also determined many design outcomes. Branding and company identity is also a key issue in store design, while the influence of a high profile individual can determine the outcome of an architectural style.

Le Corbusier considered that a house should be a 'Machine for living in'. A well-designed supermarket will be a successful 'machine for shopping in' (Douglas: Tesco archive) positioned within a more extensive mechanism that facilitates production, delivery, purchase and consumption on a vast scale.

Historically, the interpretation of some store design is clear, but the confusion of altered images produced by intervention in the design process makes it difficult to analyse the meaning of composite design styles. For supermarket buildings in the 21st century to succeed as buildings, with honest and clear identities, but which also offer pleasurable consumer experiences, it will be necessary for government and advisory bodies to give non ambiguous and well founded advice and support to architects and supermarket design teams as to how such design outcomes can be achieved.

This research has shown that an important key to this problem lies in advice given in PPG6 '...the need for better design for supermarkets which is appropriate to the surrounding buildings' (PPG6, para 13). It is clear that protest groups and

local planning authorities felt that adding local 'features' to modernist designs would allow buildings to merge into the local landscape. In fact the effect was and still is, to produce stores that were neither modern nor 'traditional'; these are often felt to be ugly and dishonest in their final design. Looking neither like a shop (which they were) or a local vernacular building. Few buildings displayed uniform features that could be recognised as belonging to a specific company. Size clearly does matter in the context of supermarket development and, although related largely to economic and regional issues, has become an element of supermarket identity. The relationship between size and power is particularly evident in, for example, Tesco's most recent 'Tesco Extra' hypermarkets, which cover 100.000 sq.ft and are being developed at a time when the company is recognised as *'Britain's biggest retailer ...In the last financial year Tesco opened 18 Extra hypermarkets and 115 Express convenience stores in Britain, with a total sales space of two million square feet'* (Evening Standard, 25 April 2006 p.1)

6.6. Limitations of the research

As discussed in chapter one this research has been limited firstly by the lack of relevant data retained by most supermarket companies and secondly by the practical restraints of a thesis, which restricts the number of subjects that can feasibly be explored from the very wide selection of possible choices. For these reasons therefore many buildings and some companies have had to be omitted from the study. Some architects and local authorities were not prepared to give interviews while others although interested were unable or unwilling to offer useful information. There are difficulties in writing about supermarket buildings because of the way in which they are over determined by so many different kinds of commercial, health and safety, and functional needs and legislative and planning requirements. These are themselves determined by aesthetic and political considerations, which, as this research shows are constantly shifting.

6.7. Themes for future research

This study has explored the phenomenon of supermarket architecture in the UK from the post-war period (1950s) to the present day. There are many rich areas of interest within this field of architecture, commerce and design history that are available for further research. For practical purposes this research has been

concentrated chiefly on large freestanding stores constructed by the major companies. This field of architectural design continues to develop and diversify, the largest stores are increasingly resembling shopping malls or department stores, while corner shop formats have become familiar in town centres.

Electronic selling and the production of software by supermarket companies will be another strand apposite for academic study. These and questions concerning visual identity and consumer perceptions of store architectural design need to be further explored, as do the future developments of supermarket buildings in the context of climate change and the need for sustainable development.

CHAPTER 7

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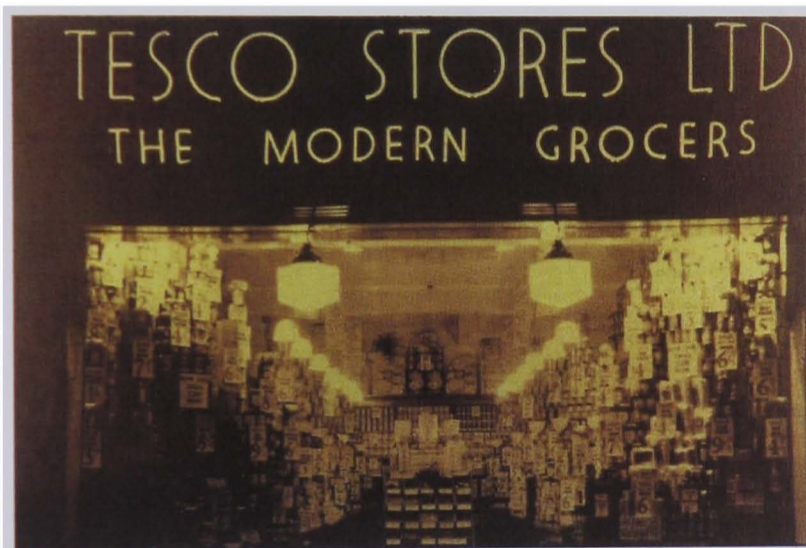
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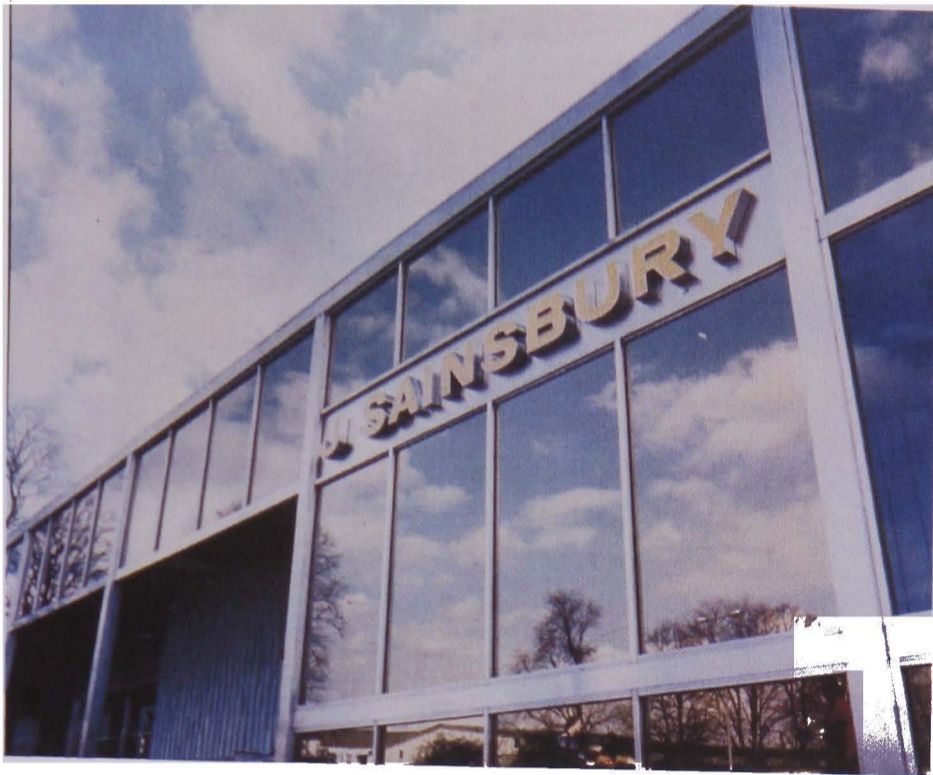
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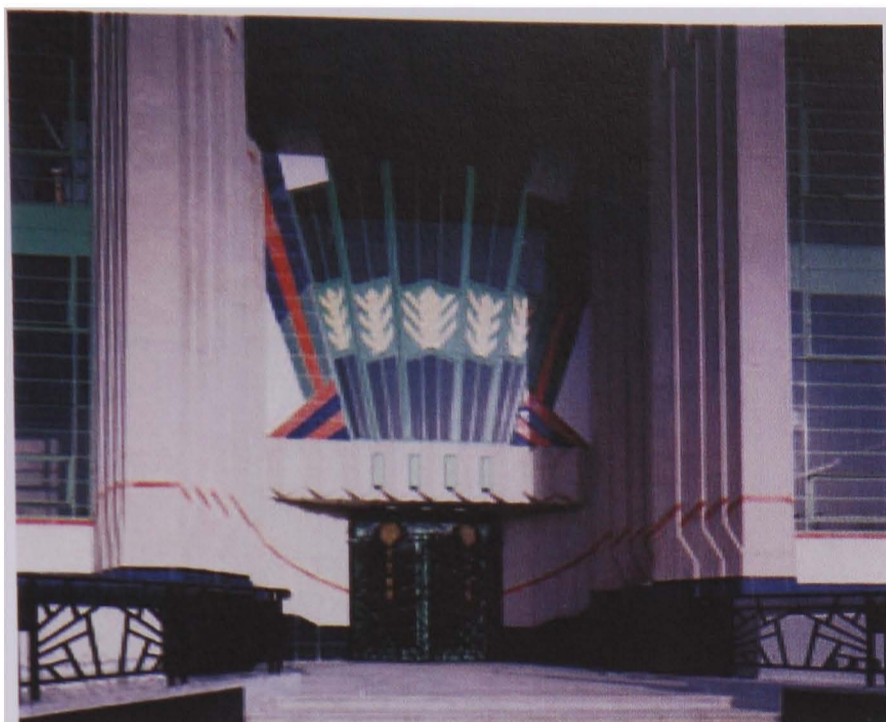
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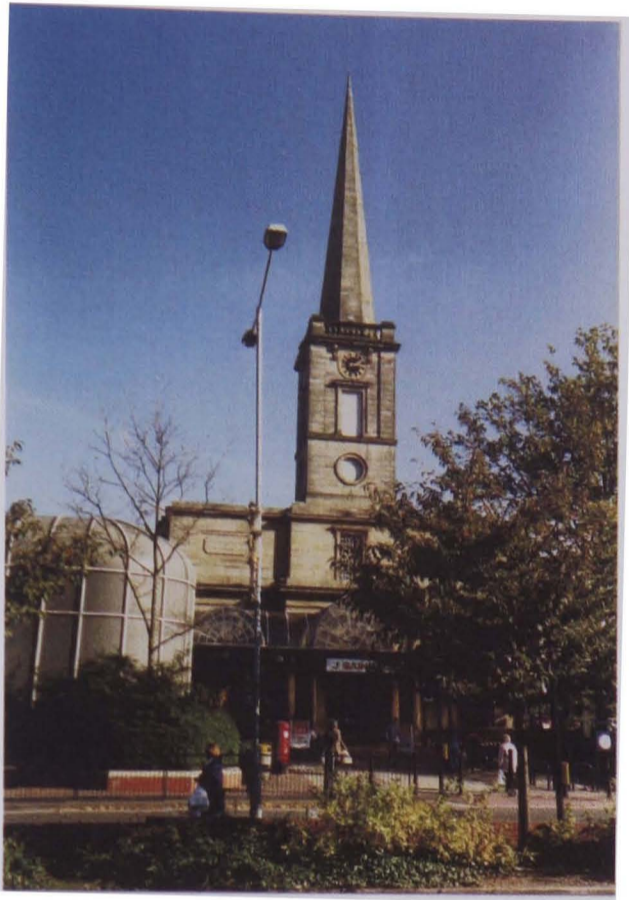
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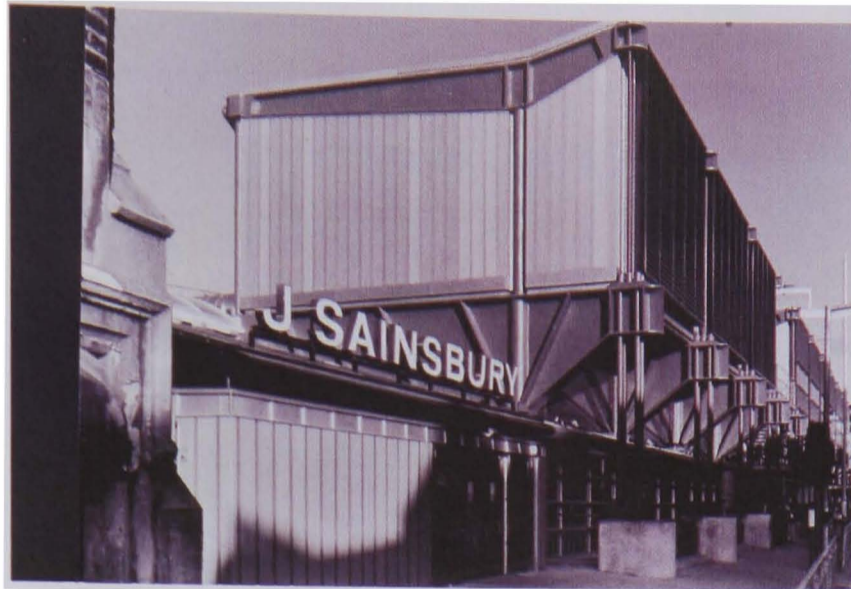
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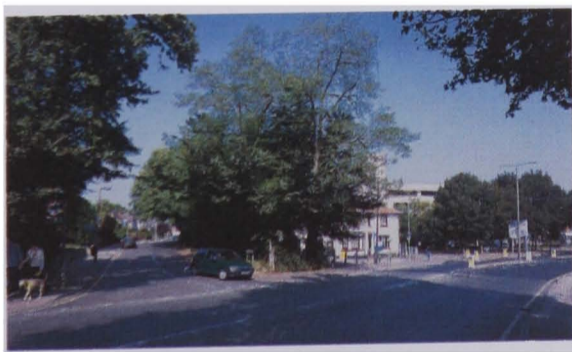
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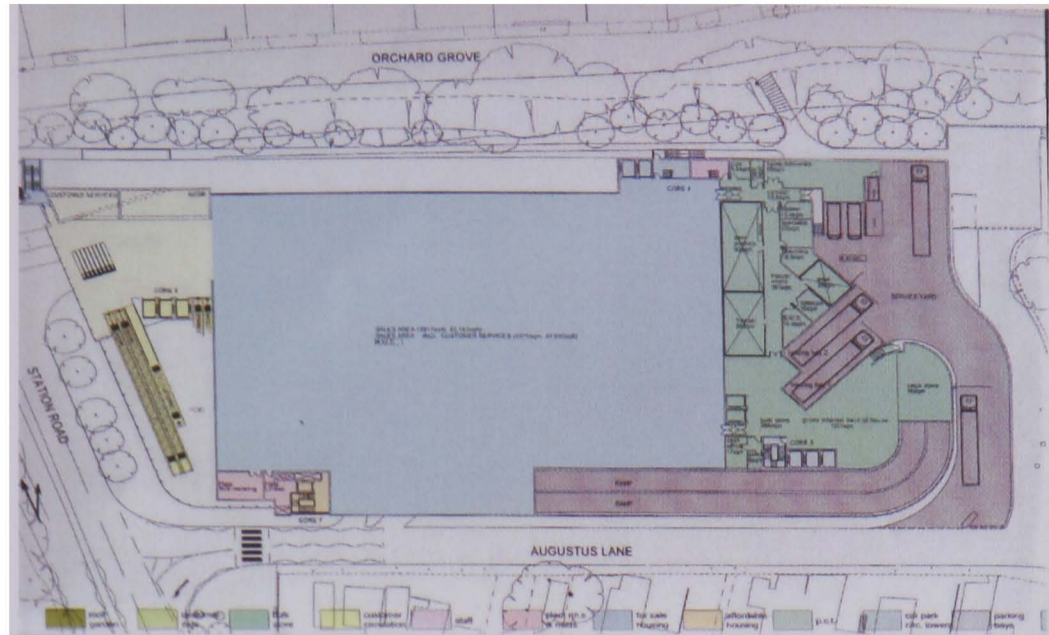
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