The south-east of england: land development issues

Pressure on development land in the South-East of England: The need for sustainable architecture.

Introduction

Chapter One – Literature Review

Chapter Two – Development Land

Chapter Three – Sustainable Architecture

Chapter Four – South-East of England

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The purpose of this dissertation is to discuss and evaluate the pressure on development land in the South- East of England, and how that pressure relates to the need for sustainable architecture. The reasons for there being pressure on development land in the South-East of England will be described and analysed, as will any differences with the other regions of Britain. The reasons for setting aside or using the available development land and why sustainable architecture should be adopted in the South-East of England will be fully evaluated.

As will be demonstrated there are various and competing factors that apparently increase the pressure to make full use of all available development land in the South-East of England. The available development land in the South-East of England is in high demand to be used for the construction of domestic housing, as well as for commercial, leisure, and industrial building programmes. To a large extent central government and

local authorities have attempted to control the construction of such new building programmes through systems of urban planning, as well as building regulations that have applied across the whole of Britain. The reasons why the South-East of England should have a need for sustainable architecture will also be examined in depth. The case for making all the new construction projects designed around the concepts of sustainable architecture shall also be examined, to discuss whether more environmentally focused building designs will lessen the impact of new construction programmes, as well as reducing long-term pollution.

Introduction

Sustainable architecture and the use of development land are closely linked with the practices and theories of what form the basis of urban and rural planning, as well as ideas concerning the necessity for long-term environmental sustainability. Urban, and to a lesser extent rural planning, became more widespread in their application throughout Britain after 1945, when increased levels of central government intervention were experienced in many social and economic fields. Planning was deemed to be the best way of solving Britain’s housing problems (Taylor, 1998 p. 3). Increased levels of urban and rural planning were justified at the end of the Second World War due to the need for extensive post-war reconstruction. The South-East of England in general, and London in particular had suffered from widespread bomb damage, which meant that fully or partially destroyed houses, factories, and retail units had to be replaced by well planned buildings which would be an improvement upon the previous buildings. In the immediate post-war period it was believed that a systematic use of town and country

planning would be essential for the reconstruction of Britain, with a much higher standard of building to match higher employment, the welfare state, and the National Health Service. The purpose of these policies and institutions was to prolong life and promote good health throughout the whole population (Meller, 1997 p67).

The increased use of urban and rural planning was not intended to protect the environment in an ecological way, or indeed to promote sustainable architecture, rather it was greatly expanded in scope to make the most rational use of scarce development land. However, there would be measures adopted which would conserve large areas of countryside, and give protection despite the need to re-house millions of families in 1945 (Southall, 2000 p. 336). There were groups that wished to conserve specific areas that supported rare forms of animal and plant life, and even groups that wished to preserve old historical buildings, as well as buildings distinguished by their architectural styles (Meller, 1997 p67). When added together such groups did not equate to an ecological lobby that intended to change agricultural, architectural, or industrial practices to protect the environment. These groups however, were able to heavily influence the decision to restrict urbanisation taking over the countryside. Post-war reconstruction was the catalyst for the largest programmes of publicly funded construction in Britain. Public expenditure was needed due to the sheer scale of reconstruction required, with London and the South-East of England being a major beneficiary of those programmes. Architecture and planning were used for these large-scale programmes rather than just for individual buildings. The involvement of central government in the promoting and

funding of large-scale public building programmes and the use of development land was high until the early part of the 1970s (Greed, 1996 p. 35).

Such wide-ranging building programmes were not only intended to replace the buildings destroyed during the Second World War. The post-war building programmes were also intended to replace the slums in the inner cities of London, Birmingham, Liverpool, as well as elsewhere. The construction programmes were intended to make the South-East of England a much more hospitable place to live in, just as the rest of Britain was also intended to be like (Sheail, 2002 p. 62). New construction and renovation of existing houses was an imperative, as “ 2 million of them condemned and another 3 million lacking in essentials” (Southall, 2000 p. 337). The South-East of England also benefited from the construction of new towns such as Milton Keynes and Stevenage that were planned as entire towns with purpose built domestic housing and business premises. The Atlee government was so keen upon the creation of new towns to solve the post-war housing shortages that it regulated such construction through the New Town Act of 1946 (Sheail, 2002 p. 62). The construction of the New Towns was considered to be essential for both high economic growth and for solving the national post-war housing shortage. The Atlee government regarded the new towns as being highly beneficial to people’s health as they moved away from major cities and industrial areas to places with cleaner air (Meller, 1997 p67). In ecological terms such construction was harmful to the environment as more land was built upon and it meant a greater amount of pollution from traffic emissions, though of course nobody understood such implications at that time.

Improvements in transport infrastructure and increasing levels of car ownership meant that the new towns were economically viable, as well as allowing their inhabitants to commute to the major cities to work in them (Daniels, Bradshaw, Shaw, & Sidaway, 2005 p. 147). Urban planning was thus considered to be very useful for the progress and development of London and the South-East of England, which traditionally has been the most populous and prosperous region of Britain. Urban planning was also intended to increase the prosperity levels of the other regions in Britain to be as high as possible to match the levels achieved in the South-East of England (Southall, 2000 p. 337). Controlled expansion of urban areas into the new towns was intended to solve the immediate post-war housing shortage and revive the British economy, whilst leaving the great bulk of the countryside untouched by new housing construction (Taylor, 1998 p. 3).

Previous improvements in agricultural techniques meant that farming became more efficient nationally which had quickened the pace of urbanisation in Britain as a whole. Urbanisation in Britain had already had a strong impact upon the environment that went beyond the replacement of the countryside with polluting factories and unhealthy slum housing (Southall, 2000, p. 335). Higher crop yields from less land had the consequence that more land in rural areas became available to be used as development land. The greater availability of former agricultural land meant that is was easier to find enough land to construct new towns or expand existing cities across Britain. Urbanisation was a process that was accelerated by the need of industrial towns and cities to find workers to continue their expansion (Goudie & Viles, 1997 p. 5).

To begin with, the majority of new homes were traditional style houses that formed large council house estates right across the country, in architectural terms there was very little innovation or thought given to making the new housing stock architecturally sustainable or environmentally friendly. More attention was instead devoted to making all new houses comfortable, clean, and ensuring they were being built to last (Greed, 1996 p. 35). The new homes were intended to be better and larger than the ones that they had replaced. The majority of large cities and the new towns in Britain had millions of council houses built in their areas between 1945 and the early 1970s. However, it was much harder to find adequate amounts of development land in inner city areas which led to the building of high rise tower blocks which allowed a greater number of people to be housed without increasing the total area of the development land required (Sheail, 2002 p. 62). Unfortunately, high rise tower blocks constructed during the 1960s and the 1970s in the South-East of England, as well as nationally failed to be an adequate form of long- term and sustainable architecture that allowed people to be housed in safety or comfort. The failure of many high rise tower blocks to be sustainable forms of housing had the affect of increasing the pressure on development land. It has also meant that tower blocks have had to be refurbished or more frequently demolished (Meller, 1997 p. 63). As the picture below shows the 1950s and the 1960s also witnessed the construction of low-rise apartment blocks which have proved to be longer lasting than tower blocks built during the same period of time. The picture is of apartment flats constructed in Ham Common in Richmond between 1955 and 1958 (Frampton, 1997 p. 266).

Although the amount of new housing construction was considerable not all the available land had been developed or built upon. Land remained set aside for agricultural purposes, whilst other land was left un-built upon and not always used for farming. The land that was left alone and was set aside and thus not allowed to be used for domestic housing or industrial sites were referred to as the green belt. The green belt was created to act as a buffer zone between urban and rural areas as a means to limit urbanisation (Greed, 1996 p. 82). Central government set aside areas that were designated as green belt zones to preserve the countryside nationally as well as solely in the South-East of England. Although, it was possible to build on green belt land the process of gaining planning permission from central government and the relevant local authority was a long drawn out one which deterred most property developers and construction firms from doing so. Local interest groups have often being highly vocal in their opposition to any schemes that have been suggested (Clapp, 1994 p. 138). Clapp estimated that with national parks and designated green belt zones that in England and Wales “ more than a fifth of the countryside now has stringent protection against development” (Clapp, 1994 p. 140).

Therefore, the bulk of available development land was concentrated in urban areas, often referred to as brown field sites (Greed, 1996 p. 82). For central government there are advantages for using brown field sites (Kim & Rigdon, December 1998 p. 5). For instance, using such sites allows for economic regeneration, employment creation as well as less pressure to build on green belt land. Recycling land on brown field sites is a method of preserving rural areas being used as development land (Clapp, 1994 p. 139).

The pressure to use greater amounts of development land has arguably increased significantly in recent years throughout Britain as a whole. The pressure to use development land has risen due to a combination of social, economic, and political factors. For instance, in social terms the demographic changes to the British population have had significant, and it could even be argued, profound effects upon the demand for development for new construction programmes. These demographic changes have occurred as a consequence of the British population ageing, the increasing number of adults who live on their own, as well as the major increase in the number of immigrants who have settled in Britain in the past decade or so. These changes have meant that more people within Britain are seeking a higher number of places to live in. Another reason for the raised levels of pressure upon development land is caused by the potential financial gains from building new houses, as well as new retail or industrial complexes. The level of financial gains that could be made has been boosted since 1979 by the shifting away from the publicly funded housing programmes to a market led approach to determining the rates of new housing construction and the ownership of existing housing (Allmendinger and Thomas, 1998 p. 5).

Of course even greater numbers of domestic homes and retail premises has a knock on effect on the amount of infrastructure such as schools, hospitals, and roads which are required in Britain as a whole. The building of new forms of infrastructure will only increase the environmental impact of new construction programmes (Kim & Rigdon, December 1998 p. 5). A fuller explanation and a more comprehensive examination of the increased pressures on the development land in Britain in general will be presented in

the specific chapter on development land. The more detailed evaluation of the pressures upon development in the South-East of England will be presented in the specific chapter about the South-East of England.

Not only has there been pressure to use more development land in Britain generally and in the South-East of England in particular, there has been more pressure for new construction programmes to use building techniques and technology linked with sustainable architecture. Sustainable architecture may have been a concept, which started in the United States, yet it could be very important to put its ideas into action across the globe (Kim & Rigdon, December 1998 p. 5). The notion of sustainable architecture is in itself influenced by ideas about making or enabling architecture maximise the utility and the subsequent life span of all new construction, whilst minimising the amount of resources needed in the initial construction and the maintenance of buildings. Sustainable architecture, when possible, uses resources that is renewable, recyclable, and biodegradable. There are various motivations for adopting sustainable architecture when it comes down to the construction and the completion of all new building programmes. Motivations that include the minimising of development land used, as well as making use of new technology to conserve energy, the conservation or recycling of finite resources, as well as reducing the levels of water consumption. Reducing the level of pollution and attempting to slow down the consequences of global warming are also factors in the promotion and implementation of sustainable architecture (Kim, Rigdon, & Graves, August 1998 p. 5). Of course, there is the influence of legislation upon the use of sustainable architecture techniques to reduce the environmental and

ecological impact of new construction programmes. Property developers and construction firms have to comply with measures to protect the environment introduced by the British government and the European Union (Hough, 2004 p. 190).

As will be shown in the specific chapter about sustainable architecture the majority of methods used to improve environmental sustainability are relatively straightforward to incorporate into the designs of new building programmes, and in some cases into existing buildings. Sustainable architecture could be achieved by using construction materials that are less damaging to the environment, or materials that have been obtained from recycled and renewable resources. Making buildings as environmentally sustainable as possible during new construction projects (as will be examined in greater depth) will achieve the over all objectives of those that practice and argue for the implementation of sustainable architecture. It is most practical to install features or equipment which enhances environmental sustainability during new construction projects rather than afterwards. The pressures to adopt sustainable architecture in many ways are contradictory, yet are also connected with the pressures to raise the levels of development land used up for new building programmes.

Other motivations for adopting sustainable architecture include applying measures that are requirements for gaining planning permission, as well as ensuring that all new buildings comply with all the minimum standards for safeguarding the environment set by the British government and also by the European Union. The British government has set standards for domestic and retail buildings since the 1950s. For instance, to rid London of its previously

renowned smog and fog by reducing smoke emissions from domestic homes and factories alike under the auspices of the Clean Air Act. The European Union has taken a greater interest in promoting environmental sustainability since the 1980s, believing that such actions to protect the natural environment on a regional rather than a national basis would be far more effective in doing so (Hough, 2004 p. 190).

Chapter One – Literature Review

‘ Urban Planning and the British New Right’, by Allmendinger and Thomas was primarily used as a source of reference for the ways in which the Conservative governments between 1979 and 1997 altered housing and economic policies in Britain. This book also contained information about the introduction of more extensive government environmental protection policies, which were started during that period of Conservative administration. The book demonstrates the contradictions between the strong Conservative support for free market economics and the increasing understanding that central government needed to act to protect the environment.

Brian Clapp’s ‘ An Environmental History of Britain from the Industrial Revolution’ is a good source of information with regard to development land and the impact of the green belt zones on limiting building programmes to already urbanised areas. The book provides a useful insight into the establishment and the continued maintenance of green belt zones in modern Britain.

‘ An introduction to Human Geography – Issues for the 21 st century’ by Daniels, Bradshaw, Shaw, and Sidaway proved a useful source of information about development and the environmental impacts of human activity such as constructing buildings and using fossil fuel in buildings. The book assists in explaining why such impacts on the environment would provide a catalyst for sustainable architecture.

‘ Modern architecture – a critical history’ by Kenneth Frampton was used as a source of pictures and reference for information about architectural styles and building materials. There was also a brief section concerning the planning of the new town constructed at Milton Keynes during the early 1970s.

‘ The Earth Transformed – an introduction to Human Impacts on the Environment’ by Goudie and Viles was used to obtain information about development land and the impact of unsustainable architecture and building techniques upon pollution levels and global warming. The book contained information about the harmful consequences of global urbanisation and industrialisation.

‘ Cities & Natural Process – A basis for sustainability’, by Michael Hough was a useful reference book for discussing development land and issues that relate to enhancing environmental sustainability. This book was also useful because there was a greater focus upon Britain within it. The book contained suggestions and examples of how sustainability could be achieved with the help of sustainable architecture.

‘ Postwar – A history of Europe since 1945’ by Tony Judt was solely used for information about immigration into Britain in the last decade or so.

‘ Sustainable Architecture: Introduction to Sustainable Design by’ Kim and Rigdon is an article which explores the theoretical and practical background to sustainable architecture. It was used to gain information for the chapter, which dealt with sustainable architecture specifically. That information was also for the chapter concerning the need for any new construction programmes in the South-East of England to embrace sustainable architecture.

‘ Pollution Prevention in Architecture – Introductory Module’ by Kim, Rigdon, and Graves provides further theoretical and practical insights into the ideas contained within the notion of sustainable architecture. This article contained strong arguments as to why sustainable architecture should be implemented across the world and not just in a single specific region of one particular country. This article proved a sound reference for the chapters concerning sustainable architecture and the necessity of its use in the South-East of England.

‘ Towns, plans, and society in modern Britain’ by Helen Meller was used to gain background knowledge of the establishment of a more vigorous and restrictive planning regulatory framework brought into operation after the end of the Second World War. That information was then included within the introduction and the specific chapter dealing with the pressures upon the use of development land.

‘ Urban and Environmental Planning in the UK’, by Yvonne Rydin provides useful information concerning the protection of the environment through planning regulations and restrictions. Provides good reference material as to how the British government and the European Union have attempted to reduce environmental damage through restrictions on development land and building or other regulations to cut pollution and enhance sustainability.

‘ A History of Britain 3, End of Empire 1776 – 2000’, by Simon Schama was used to gain information as to why the Conservative party did not overturn the extended provision of council houses introduced by the Atlee government until after 1979. The book also had information about the ideological changes that Margaret Thatcher brought into Britain and the consequences of such changes.

‘ An Environmental History of Twentieth Century Britain’ by John Sheail was a book, which discussed the developments within the environment of Britain between 1900 and 2000. Sheail examines how the understanding of environmental issues in Britain developed in the latter part of the twentieth century. The book was informative in relation to the development of policies that were intended to protect the environment and promote sustainability.

‘ The City – In time and space’ by Aidan Southall was a book used to assist with the description and evaluation of the use as well as the restrictions placed upon the availability of development land within Britain. Southall’s account in particular provided information concerning the effective regeneration of brown field sites within the immediate vicinity of London

besides providing an insight into the construction of the new towns in the aftermath of the Second World War.

‘ Ecological Architecture: A critical history’ by Steele provided some useful practical and theoretical information about the concepts and the designs of sustainable architecture.

‘ Life Cycle Analysis for Automobiles’, by Sulivan and Hu was used solely for the data concerning the amount of energy needed to produce aluminium, polyethene, PVC and steel, comparing the consumption to produce the materials new with when those products are recycled.

‘ Urban Planning Since 1945’ by Nigel Taylor was a highly useful source of information with regard to the development and the continuation of planning restrictions as well as building regulations. The information about the uses of town and country planning besides the motivations for the establishment and the continuation of green belt land areas was of great use. Taylor also included some succinct information about environmental sustainability within this book.

Brenda Vale’s ‘ Green Architecture: Design for a Sustainable Future’ is a good introduction to the concepts and the designs most strongly linked with sustainable development.

Chapter Two – Development Land

Prior to the start of the twentieth century there was very little formal or legal regulation or planning undertaken when it came down to the use of development land. There was in effect little to prevent the construction of

new building programmes, let alone notions about limiting the size and the scope of such programmes to protect the environment or promote ecological sustainability (Taylor, 1998 p. 3). Central government by and large did not intervene to prevent individuals, businesses of various sizes, or indeed local authorities from using development land in any way that they wished to do so. The central government was willing to permit any parties to construct new buildings upon such development land, especially if the party responsible for constructing such buildings already owned the land, which was been built upon (Greed, 1996 p. 2). The freedom with which new buildings could be built was demonstrated by the ability of the majority of landowners to choose the style of architecture in the construction of their homes, factories, or shops. Landowners had the option of making their buildings as grand as possible or as cheap to construct as possible (Kim & Rigdon, December 1998 p. 5). They did not have to consider that their right to build on their land would be restricted by the location of that land in relation to the nearest city or its place in the countryside. Landowners and their architects did not believe that there was any profound need to change what they built or how they built it in order to protect the environment and promote sustainability (Sheail, 2003 p. 2).

Those building regulations that did exist were generally very minimalist in their actual nature, and were usually introduced on an ad hoc basis. Architecture and the development of land were more likely to be influenced by changes in technology or improvements in economic development, as well as change in fashion and styles (Meller, 1997 p. 63). For instance, these houses started to have gas, electricity, and water supplies installed. These

supplies of utility services were regulated by the central government (Daniels, Bradshaw, Shaw, & Sidaway, 2005 p. 115). Those services were also supplied to factories and shops, which were increasingly subject to health, and safety standards that were intended to prevent accidents, yet paid no attention to the land that they happened to be constructed on (Sheail, 2003 p. 2). The nineteenth century witnessed a quantum leap forward in the amount of land, which was built upon due to a raising population as well as increased levels of industrialisation. These factors happened to coincide with the development of improved infrastructure such as roads, railways, sewage systems, public hospitals, and schools. The development of such infrastructure required large quantities of land, labour, and resources to be successfully completed, whilst in turn promoting higher levels of industrialisation and the migration of people from the countryside to the expanding cities. Some cities and regions benefited economically from such industrialisation more than others did. In Britain, industrialisation benefited the regions surrounding Birmingham, Manchester, Liverpool, and Glasgow. Over all though London and the South-East of England retained their position as the most prosperous region within Britain. Industrialisation came at a cost, namely pollution and greater levels of social inequality (Southall, 2000 p. 335). The development of gas, electricity, and water supplies alongside sewage systems made domestic houses more comfortable to live in and factories more productive due to having greater efficiency (Daniels, Bradshaw, Shaw, & Sidaway, 2005 p. 115).

Before a system of urban and rural planning were introduced there was no specifically set aside development land. Market forces determined the use of

land and what if anything was built upon it. If landowners found that their land was most profitably used for agricultural purposes then it would remain as agricultural land (Taylor, 1998 p. 3). If, however more money could be made from building houses, shops, or factories on their land, then that is what usually happened to that land. Landowners could also be tempted to sell their land to property developers, construction firms, or industrial enterprises if they were lucky enough to own land that those other parties felt in urgent need of developing (Meller, 1997 p. 62). It was market forces that drove the industrial revolution in Britain as well as also promoting the process of urbanisation. The processes of industrialisation and urbanisation meant that cities such as London, Birmingham, Manchester, and Glasgow greatly expanded in terms of both their geographical areas and their total population levels, which led to shrinkage in the size of rural areas in Britain as a whole (Southall, 2000 p. 335). It was also market forces that determined the location, size, and scope of housing, factories, and commercial buildings. There were no limitations to the size, location or scope of such buildings, and absolutely no attention was given to the environmental consequences of these building programmes (Sheail, 2003 p 2).

The absence of building regulations and restrictions on the use of land meant that there was a great deal of unhealthy and substandard slum housing, which caused widespread illness. Illness occurred besides reflecting the poverty of those people that were unfortunate enough to have to live in such areas (Daniels, Bradshaw, Shaw, & Sidaway, 2005 p. 115). Planning regulations would have undoubtedly improved conditions, for instance introducing proper sanitation into the slums or having substandard housing

replaced by higher quality houses for people to move into (Southall, 2000 p. 335). In rural areas fears that heavy industry and unsightly slums would eventually over take all the land within their close proximity prompted the foundation of organisations dedicated to the physical preservation of the countryside, the rural way of life, and its wildlife (Clapp, 1994 p. 138). The countryside preservation organisations would eventually have a strong influence on the establishment of the green belt zones and the restricted availability of development land in the more predominantly rural areas of Britain (Allmendinger and Thomas, 1998 p. 55).

It was after the end of the First World War that the central government and local authorities took a greater interest in the construction of housing and how land was actually being used in domestic housing and industrial or commercial construction programmes. The role of the market in deciding how many houses were built and the location of where those houses were constructed was reduced with the development of council houses (Taylor, 1998 p. 3). The provision of affordable housing built by local authorities and subsidised by central government funding meant that there was increased public involvement in the determination of land usage. The use, abuse, or the non-use of land was no longer solely determined by market forces. The involvement of central government and local authorities was intended to reduce poverty, ill health, and social exclusion. At no point in the inter-war period were measures taken to introduce town and country planning with the intention of protecting the environment or promoting sustainability as nob