THE INTERSECTIONS BETWEEN ECONOMY, ENVIRONMENT AND LOCALITY: THE LONDON 2012 OLYMPIC AND PARALYMPIC GAMES

By

SADIE FRANCESCA SUSANNE HOLLINS

School of Sport, Tourism and The Outdoors

University of Central Lancashire

A thesis submitted in partial fulfilment for the requirements for the degree of Doctor of Philosophy at the University of Central Lancashire

August 2013

DECLARATION

I declare that while registered as a candidate for the research degree, I have not been a registered candidate or enrolled student for another award of the University or other academic or professional institution

I declare that no material contained in the thesis has been used in any other submission for an academic award and is solely my own work

Signature of Candidate   _____

Type of Award   _____

School   _____

ABSTRACT

Despite a growing body of literature concerned with the sustainability of sports mega-events, there is relatively little analysis examining environmental sustainability commitments at the Olympic Games, and the environmental impact of the Olympics on the host communities. Research to date has lacked an explicit theoretical underpinning and in particular, the use of theoretical perspectives from the sociology of the environment literature to analyse the intersections between the economy, the environment and locality at the Olympic Games, and the environmental impact of the Games on the host communities. This thesis develops a theoretical framework that combines elements of a 'Critical/Marxist' perspective, Næss' philosophical conceptualisation of 'shallow' and 'deep' ecology, and Ecological Modernisation Theory (EMT) in order to better understand the relationship between the environment, sustainability and the Olympic Games. Adopting a three-phase qualitative approach which utilises interviews, focus groups and an analysis of secondary sources, the thesis investigates three main topic areas pertaining to environmental sustainability and the Olympics: the International Olympic Committee's (IOC) recent commitment to the environment; local governmental perceptions of the environmental impact of the London Games; and local residents' and businesses' perceptions of the environmental impact of the London 2012 Olympic Games. The research critically assesses the 'shallow' ecology/light green and EMT perspective historically adopted by Olympic Games organisers and the power relations that have helped to shape this. Within the context of London 2012 there was a perceived shift in priorities as the Games drew closer with the prioritisation of economic concerns and corporate interests over those of local people. Most notably, the ambiguity of 'sustainability' was identified as a key factor which influenced local perceptions of the environmental impact of the Games. This original theoretically and empirically informed study makes a contribution to the

growing body of research on sustainability and the Games, and to our understanding of

the environmental impact of the Olympics on host communities.

TABLE OF CONTENTS

LIST OF FIGURES

(Numeration of figures represents sequence in relevant Chapter)

LIST OF TABLES

(Numeration of tables represents sequence in relevant Chapter)

ACKNOWLEDGEMENTS

DEDICATION

This thesis is dedicated to the memory of my late Great Nan

Violet May Saunders (1926 - 2012)

GLOSSARY OF ABBREVIATIONS

ACOG   Atlanta Committee of the Olympic Games

BOA   British Olympic Association

BOCOG   Beijing Olympic Committee of the Olympic Games

DCMS   Department for Culture, Media and Sport

EMT   Ecological Modernisation Theory

GLA   Greater London Authority

GSW   Guard Fox Watch

IOC   International Olympic Committee

LLDC   London Legacy Development Corporation

LOCOG   London Organising Committee of the Olympics Games

LOOC   Lillehammer Olympic Organising Committee

NAOC   Nagano Olympics Organising Committee

NOGOE   No to Greenwich Olympic Equestrian Events

OCOG   Organising Committees for the Olympic Games

ODA   Olympic Delivery Authority

OGGI/OGI   Olympic Games Global Impact programme

ORN   Olympic Route Network

SLOC   Salt Lake Organising Committee

SRF   Strategic Regeneration Framework

TOP   The Olympic Partner Programme

TOROC   Turin Organising Committee

UNCED   United Nations Conference on Environment and Development

UNEP   United Nations Environment Programme

VANOC   Vancouver Organizing Committee for the 2010 Olympic and Paralympic Winter Games

WCED   World Commission on Environment and Development

WWF   World Wildlife Foundation

CHAPTER ONE: INTRODUCTION

It has been asserted that since the Olympic Games' inception in Ancient Greece, the Games have been associated with the worshipping and protection of the environment (Balderstone, 2001). From this, a somewhat fractured relationship between sport and the environment seems to have grown. This thesis explores how commitments to addressing environmental issues grew within the context of the Games between 1992 and 2012. It builds upon the work of Chappelet (2008) who investigated the environmental implications within the context of the Winter Olympic Games, and provides a critical and theoretically informed interpretation of environmental developments and the Olympics up until London 2012.

The title of the thesis is 'The Intersections between the Economy, Environment and the London 2012 Olympic and Paralympic Games' and as such my thesis provides a critical analysis of environmental sustainability within the context of the Olympics whilst drawing attention to the role of economy within this. The overarching aim of the thesis is to examine attempts made by the International Olympic Committee (IOC) and the Organising Committees for the Olympic Games (OCOGs) to become recognised as environmentally sustainable, with a specific focus on the 'greening' of the London Games. In this regard it should be noted that 'greening' is used throughout the thesis as shorthand for the relations and intersections between the economy, environment and locality. In order to achieve, the thesis has three specific objectives: (1) to establish a theoretical and conceptual standpoint from which to critically examine the relationship between the IOC and the environment; (2) to provide a socio-historical analysis of the IOC's recent commitment to the environment by examining environmental statements and commitments made by all Olympic host cities between 1992-2012; and (3) to investigate the views of key stakeholders involved in the debates about environmental sustainability in the context of the London Games. In doing this, the thesis makes four

important contributions to knowledge with respect to research on sustainability and the Olympic Games. These are:

1. The development and adoption of a unique theoretical framework which utilises a combination of perspectives from literature on the sociology of the Olympics and sociology of the environment to examine environmental issues within the context of the Olympic Games (as shown in Chapter Three)

2. A theoretically informed analysis and unique periodisation of the key developments relating to issues concerned with the environment, sustainability and the Olympic Games over the past twenty years (as shown in Chapter Five)

3. A critical interpretation of the perceptions of local government representatives on the environmental impact of the London Games (as shown in Chapter Seven)

4. A critical interpretation of the perceptions of local residents and businesses on the environmental impact of the London Games (as shown in Chapter Eight)

In recent years, the Olympic Games have developed into a socio-cultural spectacle that is unrivalled by any other (Seppänen, 1984; Preuss, 2004). Every four years since the 1996 Atlanta Games, the Summer Games has attracted over 10,000 athletes representing more than 200 countries competing in a two-week sporting contest broadcast to billions worldwide (Olympic.org, 2013; Toohey and Veal, 2007). This quadrennial event has been charged with playing a major role in the development of sport as one of the largest contemporary cultural and social institutions (Földesi, 1992).

The scale of the modern Games means that they are now assessed in terms of huge expenditure on extravagant facilities, disruption of host city communities and the environment, political interest and involvement, global media coverage, terrorist threats, and scandals of bribery and corruption from within the Olympic organisations. The Games have survived World and Civil Wars, globalisation of economies, and revolutions to become a site where the cultural, political, and economic interests of

various different actors intersect. Moreover, the positive connotations associated with sporting participation are contrasted against the sometimes sexist, racist, and Eurocentric agendas of particular nations and organisations. All of this has arguably made the Games one of the most compelling contemporary phenomena (Tomlinson, 2005a; Wamsley and Young, 2005), and a highly contested area of academic investigation.

The Olympic Games as an entity is very much a product of its time. As such, it is influential both socially and sociologically whilst also being vulnerable to different structural and agency-related influences (Theodoraki, 2007). This is undeniable when looking at the Games' rich history which has been a site that has demonstrated differing degrees of elitism, nationalism, sexism, racism, and more recently environmentalism. With such a rich and eventful history, the Olympic Games are perhaps unsurprisingly a magnetic site for multidisciplinary research. Academics from multiple disciplines have investigated different aspects of the Games including sociologists, historians, geographers, economists, and political scientists (Toohey and Veal, 2007). A bibliography on the Olympic Games compiled by Veal (2011) now boasts over 2000 entries, which has grown exponentially from the bibliography amassed by Burkhardt and colleagues in 1995 which consisted of approximately 600 entries (Burkhardt et al., 1995; Veal, 2011). Historians have arguably been the biggest contributors to Olympic literature. Work on the history of the modern Games is littered with debates over social and economic issues, such as race and gender, and the costs and benefits of hosting the Games. Subsequently, the sociological and/or economic aspects and interpretations of historical events steal the analytical limelight (Toohey and Veal, 2007). Sociological interest in the Olympic Games has grown substantially in recent years and is evident in the rise in specialist publications concerning the Games (Coffey et al., 2011; Girginov and Parry 2005; Toohey and Veal, 2007).

The growth of Olympic knowledge has expanded with and reflected wider societal socio-political changes. Early works were primarily the territory of archaeologists, anthropologists and historians, and as such sought to provide accounts of the growth of the Games through ancient Greek civilisation and explain the physical differences between nations. After World War I and II, Olympic studies were consumed by the relationship between politics, nationalism and global ideologies, in particular the tension between Communism and Capitalism. Following this, the focus of Olympic studies expanded as a result of the introduction of television broadcast and the subsequent discussions around the mediatisation of the Games emanating from the Rome 1960 Olympics. The interconnectedness and interdependence on the economic, social and transport capacities of host cities initiated studies examining the political economy of the Games (Girginov, 2010a). The gigantic expansion and commercialism of the Games from the 1980s onwards made the Games subject to what Girginov (2010a, p. 3) terms an 'economy of ideas'. This has included the Games on the one hand as a potential movement for social change, and on the other hand as an unsustainable entity which calls to question the infrastructural, environmental, and socio-cultural legacies of the Games.

Research offers not only historical accounts of the Games, but also different aspects of the Olympic cycle. This ranges from bid preparation, the seven-year preparation stage, the brief period of athletic competition, to the undefined post-Games period (Cashman, 2002; Toohey and Veal, 2007). Areas of continuing critical debate that tend to arise during the Olympic cycle include the complexities involved in deciding to bid for the Games, the degree of community consultation regarding its impact, the costs and benefits of hosting the Games, anti-Olympic alliances and lobbies, and the impact and 'legacy' of the Games (Cashman, 2002). Horne (2010) notes that the discourses pertaining to the legacy of sports mega-events have been a prevalent form of

discussion over the past twenty years. The legacy of the Games, whether material or symbolic, has now become a major site of contestation between boosters and sceptics. As such, the potential environmental legacy of the modern Games has become a symbolic weapon for Olympic advocates to draw upon during legacy debates. This has seemingly occurred as 'legacy has mutated from a concern with more material outcomes into a quest for more representational and sustainable results.' (Horne, 2010, p. 855).

As the London 2012 Olympic and Paralympic Games (henceforth: the London Games) strive to become the first sustainable Olympic and Paralympic Games, Horne's (2010) observation is realised. The above comment also represents one of the tensions within the Olympic Games and its sustainability agenda, in terms of whether or not there will be material outcomes, and whether this commitment is nothing more than a symbolic gesture. In order to be better positioned to answer this question, it is important to examine emerging discourses relating to environmental issues and sustainability within the Olympic context. As such, it is essential to gain an understanding of the history of the relationship between the environment and the Olympic Games, and the research into this area.

Despite some earlier episodes of environmental consciousness within the context of hosting the Olympic Games during the 1960s and 1970s (London East Research Institute of the University of East London, 2007), not much attention was paid to environmental issues within an Olympic context until the 1990s. Arguably it was not until the environmental destruction caused by the hosting of the 1992 Albertville Games, in parallel with an increasing global awareness of the need to deal with environmental concerns, that environmental issues within the context of the Games were paid attention to. The emergence of the concept of 'sustainable development' as a progressive solution to increasing environmental concerns became an integral part of the environmental position adopted by Olympic organisations.

The concept of 'sustainability' and 'sustainable development' first emerged with the publishing of *Our Common Future*, otherwise known as 'The Brundtland Report' in 1987 by the United Nations World Commission on Environment and Development (WCED, 1987). This report stated that sustainable development was 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs.' (UN-documents.net, 1987, p. 1). The report called for 'a new era of economic growth - growth that is forceful and at the same time socially and environmentally sustainable' (WCED, 1987, p. xii). In 1992, Rio de Janeiro was host to the United Nations Conference on Environment and Development, alternatively referred to as the 'Earth Summit'. This conference brought together delegates from most of the world's countries and pursued an agenda headlined by sustainable development. The adoption of Agenda 21 also occurred at the 'Earth Summit' and provided a blueprint for national governments, and regional and local organisations on sustainable development (Lück, 2008). In 1999 following an invitation emerging from the conference, the IOC replied to this request and formally adopted its own Agenda 21. The IOC's implementation of Agenda 21 enabled the exhibition of their alleged promise to ensure the protection of the environment, in addition to the pursuit of sustainable development (IOC, 2010).

For several years it has been argued by advocates that the hosting of the Olympic Games impacts hugely and contributes to a lasting legacy for host cities (Furrer, 2002). A key consideration during the bidding process to host the Olympic Games now, is how the Games hosts intend to leave behind a legacy. The IOC first registered the significance of legacy, environmental protection and sustainable development in 1994 at the Centennial Olympic Congress in Paris. These concerns were formally introduced into the Olympic Charter in 1996 (Olympic Review, 2005). The 13th aim of the IOC included in the Olympic Charter now reads, 'to encourage and

support a responsible concern for environmental issues, to promote sustainable development in sport and to require that the Olympic Games are held accordingly' (IOC, 2011a, p. 15). However, this has not always been the case and for many years the IOC did not mention sustainability. Furrer (2002) contends that this may be because of the contradiction in terms between 'sustainability' and 'development' that an Olympic context presents. The Olympics and Paralympics together consist of a six-week event, gathering together thousands of athletes and spectators in a relatively small space, which costs billions of pounds to stage. This appears to contradict with what sustainable development represents; a fairer and more equitable distribution of economic, social and environmental resources and benefits (Furrer, 2002).

In parallel with the rise of environmental consciousness, sociological research on mega-events such as the Olympic Games and the environment has grown in recent years. In 1998, Vanreusel and Weiss (1998) argued that this would become a fruitful area of research due to conflicts of opinion over sports mega-events exploiting the environment. Vanreusel and Weiss called for academics to re-consider concepts of the environment, nature and ecology in relation to their area of sporting interest. This was done in the hope of encouraging production of research on this relatively new but important topic area within the sociology of sport. However ten years later, Frey et al. (2008) maintained that there was still a lack of studies examining the long-term social and environmental impacts of the Olympics. Mallen et al. (2011) further highlighted the paucity of sports-related environmental sustainability articles. A content analysis performed on 21 sports-related academic journals, 6 of which made reference to the Olympic Games, between 1987 and 2008 revealed only 17 articles concerned with environmental sustainability, out of a total of 4,639 articles, which were published during this period. However, the literature is set to grow with institutes such as Umanotera, the Slovenian Foundation for Sustainable Development, undertaking

research on the position of sustainable sport events within national legislation

(Umanotera, Slovenian Foundation for Sustainable Development Foundation, 2013).

However, to date research in this area has generally concentrated on scientific analyses

of environmental conditions within the context of the Games (Friedman et al., 2001;

May, 1995; Peiser and Reilly, 2004; Zhou et al., 2010), critical and interpretive analyses

of the relationship between the Olympics and the environment (Cantelon and Letters,

2000; Chappelet, 2008; Hayes and Horne, 2011; Holden et al., 2008; Horton and Zakus,

2010; Lenskyj, 1998a; Loland, 2006; Mol, 2010; Paquette, et al., 2011), and perceptions

of the impact on stakeholder groups and communities (Kearins and Pavlovich, 2002;

Konstantaki and Wickens, 2010; Ritchie et al., 2009).

This thesis aims therefore to contribute to filling the current gap in the literature

whereby there is a lack of research that has employed the use of theoretical perspectives

from the sociology of the environment literature (with the exception of Karamichas,

2012). This is achieved through the amalgamation of perspectives from the sociology of

the Olympics and sociology of the environment to create a theoretical framework

through which to examine environmental sustainability within the context of the Games.

It also offers a critical and interpretive analysis of the relationship between the

Olympics and the environment, and perceptions of how the Games are impacting upon

stakeholder groups and local communities. It is important to attempt to fill this gap for

two reasons: firstly because it is becoming increasingly evident that paying attention to

environmental concerns has become an ever more important element in winning the

right to host the Olympic Games dating back to Lillehammer 1994 (Steiner, 2006, as

cited in United Nations Environment Programme, 2006). Secondly, it has been

suggested by the United Nations Environment Programme (UNEP) that sports mega-

events such as the Olympics have the potential to reach a global audience through a

popular medium (UNEP, 2006). Therefore they may harness the capacity to

demonstrate environmentally minded projects, and encourage a greater level of environmental management that surpasses the realm of sport. It is imperative to discover whether this grand claim is true, and if so specifically what is the importance of London 'getting it right' with respect to advancing sustainable development.

The research in this thesis has utilised and built upon the methodology adopted by Kearins and Pavlovich (2002), and Chappelet (2008) who both examined different environmental aspects within the context of the Olympic Games. Kearins and Pavlovich sought to examine the role of different stakeholders in the creation of the Sydney 2000 Summer Olympics as the 'green Games'. Kearins and Pavlovich utilised secondary data analysis of the official Sydney 2000 website and other documented material available in the public domain from stakeholder groups, and critics of the Games. Chappelet (2008) offered a historical and descriptive account of how notions of sustainable development and environmental protection have been gradually incorporated into Olympic rhetoric, with a specific focus upon environmental concerns of the Winter Olympics. Taking these approaches into consideration, the research methodology employed in this study seeks to blend Chappelet's historical overview of the relationship between the Olympic Games and the environment, with the interpretivist examination of a group of stakeholders, as used by Kearins and Pavlovich. The result is a three-stage qualitative research design involving secondary data analysis, semi-structured interviews, and a focus group with three stakeholder groups who are both boosters and sceptics of the London Games; Olympic Borough Council representatives, local residents, and local businesses. The organisation of the thesis will now be outlined.

Organisation of the Thesis

The thesis is divided into nine chapters. In the introduction the organisation and content of the thesis is explained. Chapter Two provides a sociological critique of the Olympic Games. It explores the academic work undertaken in the five key area of Olympic study

which are identified as politics and nationalism, commercialism and corruption, media and identity formation, security and surveillance, and legacy, sustainability and environment. More specifically, the chapter identifies and critically examines the key areas of academic investigation of the Games that are relevant to this thesis. These are identified as literature concerned with the experiences and impact on the host communities, the 'politics' of the Games and local protest, and environmental sustainability and the Games.

Chapter Three outlines the theoretical approach adopted in this thesis to examine the 'greening' of the London Games, the environmental impact of the Games on the host communities, and the role and influence of economy within this. It demonstrates the need for the bringing together and borrowing of perspectives from the sociology of the Olympics, and sociology of the environment in order to provide a more adequate theoretical framework for understanding the relationship between the Olympic Games and the environment. The chapter is divided into three parts; the first part identifies the three main perspectives employed in sociological analyses of the Games, these are; 'Functionalist/Managerialist', 'Critical/Feminist', and 'Critical/Marxist' perspectives. These perspectives are discussed in terms of the types of Olympic-related issues they are used to examine, and their methodological implications. Through this discussion the 'Critical/Marxist' perspective is identified as the most relevant to this research in terms of how it is able to make sense of environmental issues within an Olympic context, and the type of methodology it endorses. However, the inability of these theoretical perspectives to fully deal with environmental issues is also highlighted.

The second part of the chapter focuses on theoretical perspectives used in the sociology of the environment. Firstly, it provides a discussion of what is meant by 'environment', and then it examines the emergence of 'sustainable development' as a highly contested and ambiguous term, in order to help to understand the environmental

agenda pursued by the IOC and OCOGs within the proceeding chapters. It then outlines the development of the sociology of the environment, and identifies and explores the two key theoretical perspectives pertinent to understanding environmental issues within an Olympic context. These are; Næss's (1989) philosophical conceptualisation of 'deep' and 'shallow' ecology, and Ecological Modernisation Theory (EMT). An examination of each of these perspectives highlights their applicability to issues concerned with the environment and the Games, but also demonstrates their inability to understand environmental sustainability within the context of the Games in isolation. As such, the third part of the chapter outlines the theoretical framework adopted in this thesis. This framework draws upon a 'Critical/Marxist' perspective, and the understandings offered and arguments put forth by Næss's (1989) philosophical conceptualisation of 'shallow' and 'deep' ecology, and the EMT perspective in order to critically examine the relationship between the IOC and the environment.

Chapter Four outlines and justifies the three-phase comparative, historical and qualitative mixed methods approach adopted, and details the research process undertaken in order to provide a socio-historical analysis of the IOC's recent commitment to the environment, and to investigate the views of different stakeholders involved in the debates about environmental sustainability in the context of the London Games. Research phase one refers to the process of producing a twenty-year critical overview of the Olympic Games and environmental sustainability through the analysis of secondary data sources. Research phase two refers to the investigation of views and experiences of the environmental impact of the Games at the local governmental level through the use of semi-structured interviews with Olympic Borough Council representatives. Phase three shifts focus to the process of obtaining the views and experiences of people both positively and negatively affected by the hosting of the London Games, local residents and businesses, through the use of semi-structured

interviews and one focus group. Further, the process of thematic analysis undertaken in order to provide a critical interpretation of the environmental impact of the Games on the host communities is discussed.

Chapter Five presents the results of secondary data analysis of the relationship between the environment and the Olympic Games held between 1992 and 2012. Data has been collected through secondary literature databases, official documentation from Olympic host city Organising Committees, and websites. Each Olympic Games (both Summer and Winter) that took place between 1992 and 2012 is assessed in chronological order. Further, three significant time periods through which key changes have occurred are proposed: (1) between 1992-1996 whereby local Organising Committees demonstrated to varying degrees a 'growing respect for nature', (2) between 1996-2002 which saw the 'race to be a green Games', and (3) between 2002-2012 and the evolution of the 'sustainability agenda'. This enables a broader picture to emerge of how the Olympic Games' commitment to the environment has developed and evolved to London 2012 and the first sustainable Olympic Games. This chapter also discusses the potential influences of broader environmental debates and locates the way in which the Games have been organised within this.

Chapter Six provides an introduction to the case study of economy, environment and locality, and the London Games through a presentation of the geographics of the London Games and the socio-demographic profiles of the six London Olympic Boroughs. Chapters Seven and Eight provide a discussion of the findings of the primary data collection conducted with London Olympic Borough Council representatives, and local residents and businesses respectively. More specifically, these chapters offer an interpretation of how the hosting of the London Games have environmentally impacted upon different stakeholder groups within the Olympic Boroughs, and discusses the key issues and findings that emerged. The findings are interpreted using the combination of

theoretical perspectives outlined in Chapter Three. The themes identified were; the importance of location; the true impact of the Games is yet to be realised; the ambiguity of the definition of 'sustainability'; corporate versus local; and a lack of community consultation.

Chapter Nine concludes the thesis by drawing together the findings of the research in relation to the three thesis objectives, and future avenues of relevant research are identified. This includes monitoring residents' perceptions of the meaning of 'sustainability' throughout the preparation period for the Games, examining any fluctuations in host city budgets for environmental initiatives throughout this same period, and investigating the role of host city governments and local level Councils in delivering sustainability within the context of the Games. The chapter also discusses the intersections between economy, environment and locality within the context of the London Games. Further, an update on reactions to the sustainability of the Games post-event is offered.

Having provided the context of the London Games in terms of the location of Olympic venues, I now turn to exploring how the Olympics have been discussed within social sciences. In this regard, the next chapter provides a critical examination of the key social issues that have been examined by social scientists with the context of the Games.

CHAPTER TWO: THE OLYMPIC GAMES – A SOCIOLOGICAL CRITIQUE

One of the contemporary issues encountered by the Olympic Games that this thesis seeks to examine is the IOC's commitment to environmental concerns, and the protection and preservation of the host city environment. The purpose of this chapter is to provide an overview of how the social sciences have examined various social issues and the Games, and to explore the academic work undertaken on aspects of the Games that are relevant to this study. In order to achieve this, the chapter: (1) provides an overview of the social science literature on the Olympic Games; (2) identifies and evaluates the key social issues explored and methodological approaches used; and (3) identifies and critically examines more specifically the key areas of academic investigation of the Games that are most relevant to this thesis.

An Overview of Olympic Studies

As noted in Chapter One, the Olympic Games to differing degrees have historically been a site of elitism, nationalism, sexism, racism, and more recently environmentalism, and as such they have been a magnetic site for multidisciplinary research. (Theodoraki, 2007; Toohey and Veal, 2007). Whilst sociological work on the Games has grown substantially over the past twenty years arguably in parallel with the physical expansion of the Games, Olympic studies literature remains dominated by historical contributions (Veal, 2011). However, this expansion has also led to the increased use of sociological perspectives, and more contemporary examinations of the impact of the Games on the host city in terms of urban regeneration, and social and environmental legacies (Girginov, 2010b).

The huge wealth of literature on the Games has undoubtedly covered every sporting issue and therefore it can be difficult to gain an understanding of the literature as a whole (Dart, 2006). As Tomlinson explained (2005a, p. 62), 'making sense of the Olympics is no straightforward task. Much depends on where you look.' To provide an

overview of all the aspects researched and academic approaches used would be both too large a task for the purpose of an overview in this thesis and would be unhelpful in trying to comprehend the literature. Therefore through reviewing journal articles and recently published books on the sociology of the Games (Horne and Whannel, 2012; Girginov, 2010c; Girginov and Parry, 2005; Sugden and Tomlinson (eds), 2012; Roche, 2000; Toohey and Veal, 2007; Young and Wamsley (eds), 2005) I have identified five key areas of academic study; (1) politics and nationalism; (2) media and identity formation; (3) commercialism and corruption; (4) security and surveillance; and (5) legacy, sustainability and environment. Although these areas have been identified as some of the key areas of academic inquiry, it must be noted that academic work has also investigated other enduring issues pertinent to the Games such as women at the Olympics and doping. Chapter Three seeks to add to this overview of the literature by offering an insight into the theoretical perspectives used to make sense of these issues. Further, it is worth noting that despite the identification of five main areas of academic study of the Games; the sheer volume of Olympic-related work from multiple disciplines means that there are few truly discrete areas of study (Dart, 2006). Nevertheless this chapter attempts to navigate the broader literature in order to help identify literature on the Games which is relevant to this study; that is, literature pertaining to the experiences and impacts on the host communities, the 'politics' of the Games and local protest, and environment, sustainability and the Games

To begin with, Table 2.1 provides a 50-year timeline of key events that have occurred at the Olympic Games. This table provides a rationale for the five main areas of academic study that I have identified. Table 2.2 offers an overview of the key research areas identified. The first key areas of Olympic studies identified, politics and nationalism, and commercialism and corruption, are two of the main criticisms of the Games studied by Olympic scholars. Media and identity represents a more enduring

area of academic debate, whereas security and surveillance, and legacy, sustainability and environment have been identified as the more recent areas of Olympic research. The academic output and research methodologies used in each of these key areas are now explored in greater detail.

Politics, Nationalism and the Olympic Games

The promotion of nationalism, which can be seen as early as the 1936 Berlin Games, contradicted former IOC President Avery Brundage's vision that politics had no place in sport and refuted the idea of internationalism within Olympic rhetoric (Guttmann, 2002). Many books have been devoted (Espy, 1981) or have included chapters dedicated to politics and nationalism at the Games (Guttmann, 2002; Toohey and Veal, 2007; Young, 2006). In particular, the events of the 1936 Berlin Games, the 1980 Moscow Games and 1984 Los Angeles Games (see Table 2.1) have offered case studies of politics and nationalism at the Games. A significant amount of scholarship has examined the tensions and representation of the USA and USSR at the latter two Games (Edelman, 2006; Mertin, 2012; Sarantakes, 2010). These works tended to be descriptive and retrospective in nature and either provided a historical overview of politics and nationalism and the Games, or focused on the events of one particular Games.

Table 2.1. 50-Year Timeline of Events at the Olympic Games

Period in Olympic History	Features	Events
1960s	• Drugs testing • Gender verification testing • 'Race' and discrimination	• The 1968 Mexico City Summer Games were the first Games to be broadcast in colour. • Introduction of drug testing and gender verification testing at the 1968 Mexico City Summer Games • The Black Power Salute by John Carlos and Tommie Smith at the 1968 Mexico City Summer Games highlighted racial issues in the United States at this time
1970s	• Terrorism • Public debt	• Munich Massacre – Attack by Palestinian terrorist group, Black September, on members of the Israeli team at the 1972 Munich Summer Games, resulting in the deaths of 11 Israeli athletes and coaches • The excessive public debt caused by the hosting of the 1976 Montreal Summer Games nearly led to the demise of the Games
1980s	• Commercialisation • Politics and nationalism • Performance enhancing drugs	• The beginning of the commercialisation of the Games as a response to the extreme debt of the Montreal Games; the 1984 Los Angeles Summer Games signalled a new era whereby corporate sponsors became a key revenue source. These Games also represent the first profitable Olympics. • Cold War politics led to political boycotts at the 1980 Moscow Summer Games and the 1984 Los Angeles Summer Games • The positive drug test of Canadian sprinter Ben Johnson at the 1988 Seoul Summer Games made the drug abuse by athletes a key priority on the sporting agenda
1990s	• Corruption • Expose of Olympic scandal • Change in Olympic cycle • Environment • Terrorism	• Reputation of the Games tarnished by the bribery scandals surrounding the awarding of the 2002 Winter Games to Salt Lake City • Publication of *The Lords of the Rings : Power, Money and Drugs in the Modern Olympics* by Simson and Jennings (1992) provided an expose of the corruption within the IOC under former IOC President, Juan Antonio Samaranch • The 1992 Barcelona Summer Games and Albertville Games were the last Summer and Winter Games to take place in the same year. The 1994 Lillehammer Games marked the inauguration of the two-year Olympic cycle • Key environmental developments take place: the 1992 Albertville Winter Games become renowned for the environmental destruction caused, the 'environment' is adopted as the third pillar of Olympism in 1994, the Olympic Charter is modified to make reference to environmental concerns in 1996, and the creation of an Olympic-specific Agenda 21 • Centennial Park bombing during the 1996 Atlanta Summer Games

Period in Olympic History	Features	Events
2000s	- The rise of 'emerging economies' - Securitisation 'Green Games'	- Following the arguable successes of the 2008 Beijing Summer Games there is a growing trend for the Games to be hosted by emerging countries, or BRICS, with the awarding of the 2016 Summer Games to Rio de Janeiro on 2nd October 2009 - Post-'9/11' attacks the Games entered a new era of securitisation - The Sydney 2000 Summer Games became the first 'green Games' and set an environmental benchmark for future cities/regions
2010s	- Sustainability - Legacy and urban regeneration	- The Vancouver 2010 Winter Games and London 2012 Summer Games make commitments to be the first sustainable Olympic and Paralympic Games - The London 2012 Summer Games represented a shift towards utilising the hosting of the Games for urban regeneration and ensuring sustainable social, environmental, economic, and sporting legacies

Table 2.2. Overview of Key Research Themes

Key Research Area	Research Conducted	Methodology Used
Politics and Nationalism	Billings, 2008; Elder et al., 2006; Espy, 1981; Hargreaves, 1992; Hill, 1992	• Review of literature • Descriptive • Historical analysis • Analysis of media sources • Predominantly qualitative
Media and Identity Formation	Billings and Eastman, 2002; Billings and Eastman, 2003; Eastman and Billings, 1999	• Mixture of quantitative and qualitative approaches • Content and textual analysis • Growing use of mixed methods
Commercialism and Corruption	Barney et al., 2002; Gruneau and Cantelon, 1988; Jennings, 1996; Simson and Jennings, 1992	• Review of literature • Descriptive • Historical analysis • Analysis of media sources • Predominantly qualitative
Security and Surveillance	Boyle and Haggerty, 2009; Buntin, 2000;Charters, 1983; Cottrell, 2003; Fussey and Coaffee, 2011; Hinds and Vlachou, 2007; Reeve, 2000; Sanan, 1996; Sugden, 2012; Taylor and Toohey, 2007; Simons, 1998	• Historical • Descriptive • Reflective • Individual case studies • Focus on terrorism-related threats • Fewer longitudinal studies • Growing literature using the application of theory • Analysis of official documents • Interpretative •Predominantly qualitative
Legacy, Sustainability and Environment	Cantelon and Letters, 2000; Cashman, 2006; Chappelet, 2008; Davies, 2012; Mol, 2010; Holden et al., 2008; Preuss, 2004; University of East London and the Thames Gateway Institute for Sustainability, 2010	• Historical • Descriptive • Majority of literature focuses on the economic benefits of hosting the Games which have employed economic impact analyses • Lack of theoretical application

The issue of nationalism at the Games has also been scrutinised by academics in terms of the media coverage of the Games. According to Billings (2008), nationalism is the biggest issue relating to identity and Olympic broadcasts. The fundamental contradiction between Olympism, nationalism and internationalism has as a result inspired inter-disciplinary work by sports media scholars. Research has focused upon the construction of identity and nationalism at the Games, and has sought to quantify nationalistic sentiment of the broadcast of the Games through content analysis of newspaper and television coverage (Billings, 2008; Billings and Eastmann, 2002). In particular, researchers have examined the nationalistic media narratives of the opening and closing ceremonies, medal presentations, and the Olympic torch relay (McDaniel and Chalip, 2002; Tomlinson, 1996). Literature on nationalism and the Games continues to be produced, with the most contemporary work examining issues such as Team Great Britain and contemporary nationalism of the Games (Marks, 2011).

Research on politics and the Games in this sense refers to big 'P' whereby the Games have been used as a political platform from which to draw attention to an issue and/or promote a cause that is external to the Games. To date this has been the dominant focus within this area of research. Whilst issues such as nationalism are not directly relevant to this thesis, issues concerned with little 'p' politics in are relevant. This second type of politics is concerned with issues that directly emanate from the hosting of the Games, for example the displacement of local people, and has to date received limited attention (Cooke, 2009). To differing degrees both types of politics relate to the thesis in the sense that they both refer to issues of power relations, and the use of the Games to pursue different social and political agendas. As will be shown, the power differential between Olympic organisers and the different stakeholders of the Games was pertinent to understanding the 'greening' of the Olympics, and more specifically the London Olympics. This thesis contributes to this area of Olympic studies by

extending the reach of the examination of Olympic politics (both big and little 'p') by highlighting the role of power in addressing environmental concerns within the context of the Games. This chapter now turns its attention to one of the most enduring areas of Olympic studies, media, identity formation and the Games.

Media, Identity Formation and the Olympic Games

The media in its traditional form and increasingly through new forms of communication have played a significant role in the overall expansion of the Olympic Games (Ridgley, 2009). With the Games attracting a viewership often in the billions, of which only an extremely small portion are able to travel to Olympic events, the majority of people experience the Games through different media outlets and most notably television (Billings, 2008). The Games are considered by some to 'go beyond news and entertainment, and also can be said to 'make history'' (Roche, 2004, p. 167). The mediatisation of the Games is responsible for the depiction of the identity of athletes in terms of gender, ethnicity, country affiliation, and disability to the viewing public. As such, the importance of the relationship between the media and the Games is undeniable, and this has been reflected in the wealth of literature which has expanded greatly over the past twenty years (Billings, 2008). Ridgley (2009) posited that research on the media and the Games is focused around three different areas; examining the content of media output on the Games, investigating the process used to transmit an Olympic event, and identifying the audience of these broadcasts and how and where the media output is consumed. More specifically, scholars working in this area attempt to ascertain how the stories of Olympians are depicted in terms of their demographics and national affiliation, and who and/or what is and is not broadcast (Billings, 2008).

The research methods most suited to answering these questions and to scrutinising media output continues to be debated within sport media scholarship. On one hand some scholars have adopted quantitative empirical approaches to examining

different aspects of media and the Games and have utilised textual and content analysis, and surveys of athletes' attitudes. One particular focus on the Games that has utilised this approach is research concerned the representation athletes of different identity groups at the Games (Billings, 2008). One of the most prolific authors on Olympic broadcast who has employed quantitative methods to examine the representation of different groups is Andrew Billings. Billings' various work has included analysing gender parity in the discourse of television coverage of the Games (Eastman and Billings, 1999), representation of gender, ethnicity and nationality of athletes within American television coverage at the Sydney 2000 Games (Billings and Eastman, 2002), and the gender, ethnicity and national identity parity of television commentary during the 2002 Salt Lake City Games (Billings and Eastman, 2003). However, quantitative approaches have been criticised for cataloguing athletes into distinct identity groups in an increasing multicultural society (Billings, 2008).

On the other hand, qualitative approaches have been used by work that has adopted a critical/cultural studies approach to researching media and the Games. Works using these perspectives have examined the role and use of power in the broadcasting of the Games by taking into account the ideological, economic and political practices that exist both in sport and television. In other words, critical research which favours a more qualitative approach attempts to understand the power relations involved in the construction of gender, ethnicity, and national identity (Billings, 2008). Billings' more recent work (Billings, 2008; 2009) has adopted an interpretivist mixed methods approach with the use of surveys and interviews to explore the thoughts and feelings of those people (sports casters and producers) in power who help to construct the identity of athletes who are broadcasted (Billings, 2008).

Similarities can be drawn with Billings' (2008; 2009) more recent work and this thesis in the employment of a mixed methods approach, namely the use of interviews to

try and gain an insight into the thoughts and feelings of relevant stakeholders. Whilst

Billings' work has attempted to understand the perceptions of an issue (identity) from

those who have the ability to influence change (broadcast) and relate this to the themes

identified during content analysis; this thesis attempts to understand the perceptions of

an issue (environmental sustainability) by those directly impacted upon (local residents

and businesses) by the decisions made by those in power by the IOC, the London

Organising Committee of the Olympics Games (LOCOG), and the Olympic Delivery

Authority (ODA). In this regard, Billings' work on the media and the importance placed

the role of power to affect people's perceptions of an issue is relevant to this thesis. In

relation to this, the media plays a key role in educating and communicating information

pertaining to the agenda of environmental sustainability and the Games, to the public,

and more specifically to the host communities. As such, media inevitably influences to

different degrees the framing of the environmental agenda of the Games, and the

public's perception of it. Despite the importance of media, there is a current lack of

research examining the role of the media in influencing people's perceptions of the

environmental impact of the Games. Whilst this thesis does not comment on the role of

media directly, I acknowledge that media and its communication of the environmental

efforts of the London Games will have to differing degrees influenced residents'

perceptions of them. This chapter now focuses upon two of the key issues associated

with the Games, commercialism and corruption.

Commercialism, Corruption and the Olympic Games

Research on the commercialisation and corruption of the Games are perhaps two of the

biggest criticisms of the Games and as such are a key area of academic work. According

to Brohm (1978, p. 117) 'The primary aim of the organizers of Olympic competitions is

not sport for its own sake but sport for capitalist profit'. Prior to the 1984 Los Angeles

Games, the Games relied heavily upon financial support from government funding and

local businesses. This was due in part to the 'amateur spirit' of the Games demanding that the event be 'free from the evils of commercial ventures.' (Magdalinski and Nauright, 2004, p. 180). After the financial success of the 1984 Games (see Table 2.1), the potential of the Olympic Games as a commercial channel was realised. From this, The Olympic Programme (TOP) was created in order to offer official sponsors exclusive rights to showcase their products using the Olympic logo and its associated philosophies (Magdalinski and Nauright, 2004). The academic work resulting from this during the 1980s focused on the incompatibility between elite sport and the products of sponsors (Gruneau and Cantelon, 1988). In addition, scholars have tended to document the rise of commercialism during the history of the modern Games. Perhaps one of the most detailed accounts of this rise can be found in Barney et al.'s (2002) *Selling the Five Rings: The International Olympic Committee and the Rise of Olympic Commercialism*. MacRury (2009, p. 43) contends that the 'commercial feel' of the Games will continue to attract on-going critique and analysis. MacRury's (2009) assertion relates to this thesis in relation to the commercialisation of the Games, and the subsequent prioritisation of corporate interests over environmental and local interests. This was found to be a key issue which affected both the environmental perspectives adopted by Olympic organisers, and the perceived environmental impact of the Games (explored in more detail in Chapters Five, Seven and Eight).

Another key area of research is the corruption of the Games and has largely been the remit of investigative journalism. Perhaps the most renowned work in this area was proffered by Andrew Jennings (1996) and Vyv Simson (Simson and Jennings, 1992). These authors have exposed the corruptive political and economic practices that have steered the Games since the inauguration of former IOC President Juan Antonio Samaranch in terms of the bidding process, bribery, and concealment of positive drug test results (Horne and Whannel, 2012). These works utilised investigative journalistic

techniques such as 'doorstepping' in order to gain an insight into the exploitative practices of the IOC (Tomlinson, 2008).

Research into both the commercialisation and corruption of the Games has been of a qualitative nature whereby author interpretations of events are offered. Although this thesis does not examine issues of commercialism and corruption directly, some connections can still be drawn. Firstly, the commercialisation of the Games has undoubtedly impacted the environmental practices of the IOC and OCOGs (see Chapter Five). In this regard, the perceived prioritisation of the economic needs of the official sponsors of the Games has conceivably influenced how environmental concerns have been addressed. In addition, the increasing scale of the Games on the one hand provides a global platform from which demonstrate a commitment to environmental concerns and can potential inspire others to do the same. On the other hand, the expansion of the Games may have also influenced the urgency in which the IOC and host city organisers needed to be seen to be incorporating environmental concerns. Secondly, the critical stance and general theoretical perspective used to analyse issues such as commercialism and corruption is the same as the perspective adopted in this thesis (see Chapter Three). This chapter now focuses on one of the most contemporary issues within Olympic studies, the security and surveillance of the Games.

Security and Surveillance at the Olympic Games

The Games 'offer a multitude of targets, human and otherwise, global publicity, [and] potential opportunities to embarrass or humiliate a superpower' (Charters, 1983, p. 44-45). As such, the securitisation of the Games has undoubtedly become the biggest concern for organisers of the Games in the 21st Century. The 'Black September' terrorist attacks of the 1972 Munich Games, in addition to the Centennial Park bombing at the 1996 Atlanta Games, and the '9/11' attacks have made the 'defence of the spectacle' of the Games the key consideration for Olympic planners (Fussey et al., 2011, p. 2). This

was perhaps most evident at the 2004 Athens Games, the first Summer Games to be hosted post-'9/11', where the cost of securing the Games rose to $1.5billion compared to just $179.6million at the previous Summer Games of Sydney 2000 (Giulianotti and Klauser, 2010). The issue of securitisation was made even more acute in the case of the London Games when the '7/7' London bombings occurred only twenty hours after the IOC's announcement to award the XXXth Olympiad to London (Fussey et al., 2011).

Despite Olympic security being a key concern of the modern Games, Fussey et al. (2011) contend that this area has received relatively little academic investigation to date. The literature produced has tended to be retrospective in nature and have concentrated on terrorism-related threats, and has only focused on one particular event. Examples of this include Reeve's (2000) in-depth account of the attacks of the 1972 Munich Games; Charters' (1983) analysis of the nature of the terrorist threat to the 1984 Los Angeles Games; Buntin's (2000) post-Games analysis of the security preparations for the 1996 Atlanta Games; Simons' (1998) review of terrorism-related concerns and the implications for the hosting of the Sydney 2000 Games; Decker et al.'s (2005) analysis of the challenges and effectiveness of developing temporary security organisations at large-scale events using the 2002 Salt Lake City Games as a case study; Yu et al.'s (2009) discussion of the security risks, partnerships, and the security and surveillance strategies at the 2008 Beijing Games.

Fewer studies have adopted a more longitudinal and systematic approach to examining Olympic security (Cottrell, 2003; Hinds and Vlachou, 2007; Sanan, 1996; Sugden, 2012). However, these longitudinal studies have tended to lack theoretical underpinning and interpretation (Fussey et al., 2011). More recent work has adopted a more critical approach to exploring issues of Olympic security through the application of theoretical concepts (Boyle and Haggerty, 2009; Fussey and Coaffee, 2011). Boyle and Haggerty's (2009) article reviewed mega-events and the security complex through

the problematisation of Foucalt's delineation of spectacle and surveillance. Fussey and

Coaffee's (2011) chapter provided an examination of London's security strategy and

use of surveillance, and its impact and legacy. Other factors associated with security at

the Games that have been examined include the impact of terrorist threats to the

Olympics on media reporting (Atkinson and Young, 2003), and tourism (Taylor and

Toohey, 2007). Research on security, surveillance and the Games has been

predominantly qualitative and historical in nature with the analysis of official Games

security documents and author interpretations of historical events. The exception to this

was Taylor and Toohey's (2007) research which utilised the survey method to measure

perceptions of risk and terrorism of attendees at the 2004 Athens Games. Although

security and surveillance along with legacy, sustainability, environment and the Games

are some of the most contemporary issues investigated within the context of the Games,

they have tended to date been treated as separate entities within academic study.

However, in reality these issues compete with each other in terms of the budget

allocated to them by host city organisers. This subsequently impacts upon how these

issues are addressed within the context of the Games, and public perceptions of them.

As such, I argue that one of the weaknesses of the literature is the fact that these issues

are investigated in isolation, and as a result research to date has not examined how these

contemporary issues impact upon each other. The rest of the chapter now examines the

literature most relevant to this thesis on the legacy, sustainability and environment of

the Games.

Legacy, Sustainability, the Environment and the Olympic Games

Areas of continuing critical debate within Olympic studies include the degree of

community consultation regarding the impact of the Games, the costs and benefits of

hosting the Games, the dissemination of these costs and benefits, anti-Olympic alliances

and lobbies, the corrosion of the human rights of host city/country citizens, the size of

the Games, and the impact and 'legacy' of the Games (Cashman, 2002). Horne (2010) contended that the discourses pertaining to the legacy of sports mega-events have been a prevalent form of discussion over the past twenty years. The legacy of the Games, whether material or symbolic, has now become a major site of contestation between 'boosters' and 'sceptics' of the Games (Horne, 2010).

Historically, studies investigating the impacts of mega-events such as the Games have been underpinned by a need to investigate the positive and negative impacts of hosting an event, and subsequently justify enormous public expenditure (Faulkner et al., 2003). In addition, there has also been a need to find out how to leverage the benefits of hosting the Games to leave a legacy following the Games (Ritchie, 2000). Legacy has become an increasingly important concern for the IOC and host cities since 2003 with the creation of the Olympic Games Global Impact Study (OGGI, now referred to as OGI) which measures social, economic, and environmental impacts before, during and after the Games (Cashman, 2009). Following this and the IOC conference on the 'Legacy of the Olympic Games, 1984-2000' in 2002, a convincing case was made for research to be conducted on the outcomes of the Games (Moragas et al., 2003).

The concept of 'legacy' has become synonymous with events such as the Games in recent years. In this regard, there is the expectation that host cities will deliver social, physical, economic and sporting 'legacies' post-event (Davies, 2012). Although 'legacy' as a concept is highly contestable with multiple definitions, a general understanding of the term is 'a tangible or intangible thing handed down by a predecessor; a long-lasting effect of an event or process; the act of bequeathing' (Mangan, 2008, p. 1869). In reality the creation of a 'legacy' is often used to refer more specifically to a positive long-term tangible impact on the host city landscape and 'regeneration' is an aspect of legacy (Davies, 2012). Regardless of the definition adopted, the IOC's Olympic Studies Centre (IOC, 2013) provides a further

simplification of the terms. This document explains that whilst 'legacy' and 'impact' are used interchangeably, 'impact' within an Olympic context is often employed to denote negative or adverse effects of a policy or programme on society, the economy or the environment; whereas 'legacy' is used to describe mainly positive and longer-lasting effects. 'Sustainability' or 'sustainable development' more specifically refers to environmental legacies and impacts (IOC, 2013). Despite this simplification, there is a lack of consensus over the term 'legacy', an issue which can also be seen with the definition of sustainability (as shown in Chapter Three). Regardless of the definition adopted, the positive connotations attached to both 'legacy' and 'sustainability' can 'mask developments on the ground affecting those people most directly involved…and so render invisible the impact of staging large scale events on other people's lives' (Cashman and Horne, F/C). This thesis will help to provide an understanding of the 'unseen' impact of sustainability on the host communities of the London Games.

Research on the impact and legacy of the Games has been dominated by the economic aspect in order to help justify event expenditure (Dickinson and Shipway, 2007; Hiller 1998). The literature detailing the economic impact of the Games includes both retrospective studies of past economic impacts, and prospective studies forecasting the potential impact of future Games. Humphreys and Zimbalist (2008) proposed that there are four types of research on the economic impact of the Games; retrospective research using econometric analysis; research using computable general equilibrium (CGE) models; forecasts of future economic impact using 'multiplier-based' estimates; and case studies of individual Games. The scope of this thesis means that it is not necessary to explore these four types of research in detail, although it should be noted that research using 'multiplier-based' estimates is prospective whilst the other three types of research are retrospective (Humphreys and Zimbalist, 2008). From the research conducted in this area, there appears to only be a relatively small amount of objective

evidence pertaining to the economic impact of the Games. The majority of the literature has been conducted by organisations/institutions within the host city/region and these pieces of research are arguably what Humphreys and Zimbalist (2008, p. 114) term as 'promotional' studies. An example of this type of research in the case of the London Games is arguably Blake's (2005) study, funded by the Department of Culture Media and Sport, Greater London Authority and the London Development Agency, the positive economic impact forecast in this study may be called into question. However, there are a small number of studies examining the economic impact of the Games which have been published in peer-reviewed journals. These arguably offer more reliable data due to the fact that these researchers appear to have no vested interest in the outcome of the research and include Hotchkiss et al. (2003), Lybbert and Hilmany (2000), and Teigland's (1999) papers.

Another contemporary area of academic interest related to the legacy of the Games is event impact and urban regeneration. Regeneration has become increasingly connected to mega-events such as the Olympics due to the growing demand to justify both public and private investment in infrastructure necessary to host such events (Davies, 2012). Historically this relationship between regeneration and the Games has focused upon the physical redevelopment of dilapidated areas of a city, but more recent understandings of regenerations have grown to incorporate social, economic and environmental improvements brought to an area as a result of hosting the Games. Despite the concept of regeneration becoming an increasing focus for organisers of sports mega-events and it being a nascent area of research, the relationship between sports mega-events and regeneration has received little scrutiny from the academic literature (Davies, 2012). The literature concerned with urban regeneration and the Games has largely been historical and has tended to emphasise the (potential) positive impacts associated with the Games. Essex and Chalkley (1998; 2004) and Gold and

Gold (2011) have offered historical overviews of urban developments and regenerations associated with the hosting of the Games, whilst others have written on the potential for host cities to enhance infrastructure and promote and accelerate widespread urban regeneration at both the Winter Games (Essex and Chalkley, 2004; Ritchie, 2000) and Summer Games (Essex and Chalkley, 1998; Searle, 2002). This trend of providing historical overviews of developments can also be found in literature concerned with the environmental sustainability of the Games.

Despite a growing amount of literature concerned with the sustainability of sports mega-events (VanWynsberghe et al., 2012a), there is relatively little analysis examining environmental sustainability claims and performance at Games, and even less literature commenting on the impact of this on host communities (Hayes and Karamichas, 2012). From reviewing the literature I suggest that there are three main types of research on environmental sustainability and the Games; single case studies; comparison of multiple case studies; and historical overviews.

The production of literature has tended to coincide with and been directly related to those Games which focused more upon environmental issues (Sydney 2000, Beijing 2008, Vancouver 2010 and London 2012). Sydney's 'green Games' incited many publications including Cashman and Hughes' (1998) edited collection, Lenskyj (1998a; 1998b), Chalkley and Essex (1999), and Kearins and Pavlovich (2002). Following this, the 'Green Olympics' concept (UNEP, 2007) underpinning the 2008 Beijing Games inspired another wave of research including Beyer (2006), Mol (2010), and Jin et al. (2011). The goal of becoming the first sustainable Olympic Games for Vancouver 2010 led to the production of numerous official reports and publications on the environmental sustainability of the Games including Vancouver Organizing Committee for the 2010 Olympic and Paralympic Winter Games (VANOC) (2010) and Holden et al. (2008). However, a review of the literature arguably points to a greater focus on the social

sustainability of the Vancouver Games (VanWynsberghe et al., 2012a; VanWynsberghe et al., 2012b). The London 2012 Games have given rise to numerous publications such as Konstantaki and Wickens (2010), Horton and Zakus (2010), and Hayes and Horne (2011). Most recently, as the London Games have passed, research focus has started to turn towards the Rio 2016 Games (Pentifallo and VanWynsberghe, 2012; Reis and DaCosta, 2012). Additionally, research has also compared the environmental aspects of multiple Games. Karamichas' (2012) chapter provided an examination of the Games as opportunities for ecological modernisation through comparing the cases of the Sydney 2000 Games and Athens 2004 Games. London East Research Institute of the University of East London's (2007) research on the legacy of the Games with a focus on the potential legacy of the London Games provides a comparative examination of the legacies (including environmental) of the 1992 Barcelona, 1996 Atlanta, 2000 Sydney, and 2004 Athens Games.

Research pertaining to environmental sustainability and the Games has also invited historical overviews of Games-related developments (Chappelet, 2008; Paquette et al., 2011). For example, Chappelet's (2008) overview explores the key events leading to the incorporation of sustainable development and environmental protection within Olympic rhetoric, through focusing on environment-related developments at the Winter Games. A further example is Paquette et al.'s (2011) examination of the interpretation of environmental sustainability by the IOC and OCOGs between 1994 and 2008.

However, research on the environmental sustainability of the Games to date has tended to lack an explicit theoretical framework (as discussed further in Chapter Three), is predominantly qualitative, and has involved either author interpretation of events and/or the analysis of secondary data sources. The research conducted to date has provided useful insights to the development of the environmental agenda of the IOC and how this agenda has been addressed at different Games. However, with the exception of

Jin et al. (2011) and Konstantaki and Wickens (2010), research has not utilised empirical data. As such, this thesis will add to this area of research.

Previous studies on the environmental sustainability of the Games have tended to report negative environmental impacts of hosting a sports mega-event, the impacts reported include traffic congestion as a result of transport infrastructure improvements (Cashman, 2002), parking problems at Games-time (Ritchie et al., 2009), environmental pollution from event-related construction, and traffic congestion during the preparation of the event (Mihalik and Cummings, 1995; Fredline, 2004). These large-scale environmental impacts have knock-on effects for people of the host communities (Tatoglu et al., 2002). As such, it is relevant to explore the literature of the impact of the Games on host communities, and more specifically the research conducted on the environmental impact of the Games on these communities.

There is an optimistic tendency to assume that these events attract widespread support, however the reality is that there is actually little information about the views and perceptions of the public (Bull and Lovell, 2007). As such, Bull and Lovell (2007) identified some of the key groups whose viewpoints are important to explore within the context of sports mega-events, these are: local governments, local residents, and local businesses. One of the unique contributions of this thesis is the investigation of the views of local government representatives. Bull and Lovell (2007) highlighted the role and importance of local government in gaining local support for sports mega-events in their research on the impact of hosting the Tour de France on local residents. In terms of the London Games, Horne and Whannel (2012) contended that the 'host Boroughs' and their respective Councils are one of the key stakeholders along with the official Olympic bodies (ODA, LOCOG, the British Olympic Association (BOA), the Greater London Authority (GLA), and the Department for Culture, Media and Sport (DCMS).

However, Cashman (2002) noted that the views of local governments have not been taken into consideration in the hosting of sports mega-events. In the case of the 2000 Sydney Games, local Councils were largely excluded from decision-making processes, and also received limited information on key issues around the hosting of the Games, for example transport (Cashman and Hughes, 1999). Further, there is a distinct lack of academic studies which have obtained the views and experiences of government, and more specifically local government of hosting a sports mega-event (with the exception of Burbank et al., 2001). Rather, the research which has taken into consideration the viewpoints of this stakeholder group tend to be Olympic or government commissioned (PricewaterhouseCoopers, 2009).

Arguably one of the only works to date that has directly investigated government perceptions is Zhou's (2006) PhD thesis on government and residents' perceptions of the Beijing Games. In this regard, Zhou (2006, p. i) noted that 'Studies on government's motivations for involvement in mega-events and their perceptions towards the impacts of event development are noticeably lacking.' The author argued that research comparing and contrasting government aims and perceptions, and residents' perceptions of the impact of an Olympics is essential as it has the potential to 'enhance the success of mega events by satisfying the host population, and by keeping government/organiser's aims/motivations and residents' perceptions in harmony with each other.' (Zhou, 2006, p. 3). Whilst this thesis contributed to research on stakeholder perceptions of the impact of the Games, Zhou's work interviewed government representatives who either had involvement with the Organising Committee for the Beijing Games, or were representing city-level government. As such, this thesis makes an important contribution to research on this area by investigating the views of local Council members.

A unique feature of my thesis is its focus on obtaining the views and experiences of local residents and businesses within the Olympic Boroughs. As Gursoy and Kendall (2006, p. 606) contended '. . .for a mega event to be successful, the understanding and participation of all stake-holders in the process is crucial.' A greater understanding of the impacts of hosting the Games can help to identify ways of developing local support of future events which is important for a successful Games (Fredline, 2005). Further, in understanding the reasons behind local support or opposition, research can be used to help improve the experiences of the host communities by creating developments which will have a minimal impact on the host community (Gursoy et al., 2002; Ritchie et al., 2009). As such, research into resident perceptions of the Games is an important and growing area of literature (Ritchie et al., 2009). However, to date only a small number of studies on resident perceptions have been produced. Smith (2008, p. 14) argued that the lack of research concerned with how host communities perceive and respond to the hosting of the Games reflected the 'interests of experts in the field of Olympic studies, who are geared more towards making broad statements about cities and legacy than social analysis.'

The studies that have examined residents' perceptions of sports mega-events, such as Deccio and Baloglu (2002), Fredline and Faulkner (2000), and Ritchie et al. (2009) in the context of the Games, have tended to focus upon the socio-economic impacts and have largely been the remit of 'sport and tourism' studies (Konstantaki and Wickens, 2010). Most of the research conducted has been single case studies that have utilised a cross-sectional research design (see Ritchie et al., 2009). However, there have been a number of studies that have adopted a more longitudinal approach to examining residents' perceptions which account more for changes in perceptions over time (Ritchie and Aitken, 1984; 1985; Ritchie and Lyons, 1990; Ritchie et al., 2009). Research on resident perceptions of the impacts of the Games has been investigated using

predominantly quantitative methods, more specifically through the use of surveys (Ritchie at al., 2009).

Research to date has reported a negative environmental impact from hosting a sports mega-event. The issues reported to date have included; traffic congestion as a result of transport infrastructure improvements (Cashman, 2002), parking problems at Games-time (Ritchie et al., 2009), environmental pollution from event-related construction, and traffic congestion during the preparation of the event (Mihalik and Cummings, 1995; Fredline, 2004). In terms of the research into the environmental impact of the London Games more generally, most of this to date has tended to consist of objective impact assessments. For example, work commissioned by the Department for Culture, Media and Sport (PricewaterhouseCoopers, 2005) which identified a possible decline in air quality, damage to ecosystems and soil and water contamination as concerns during the construction phase. In addition to this, the environmental concerns during Games-time were identified as the transport movements (athletes, spectators, officials and media), and the congestion and pollution emanating from this. Although these findings provide a point of reference from which to compare the views of residents in this piece of research; the findings were drawn from planning applications rather than residents' perceptions of the environmental impact of the Games (PricewaterhouseCoopers, 2005).

The large-scale environmental impacts of hosting sports mega-events have knock-on effects for people of the host communities (Tatoglu et al., 2002). However, to date the only pieces of research to directly examine residents' perceptions of the environmental impact of the Games were that conducted on the Beijing Games by Jin et al. (2011), and the London Games by Konstantaki and Wickens (2010). However, in line with the dominant methodological approach in this area, both these pieces of research employed the use of surveys as a means of data collection. Although these

pieces of research contribute to the literature on environmental sustainability and the Games, it is my contention that a more qualitative approach to understanding the views and experiences of people within the host communities is needed.

In addition to local residents, this thesis sought to gain the views and experiences of local businesses as one of the key public stakeholders of the Games (Kaplanidou and Karadakis, 2010). Much of the research on the impact of the Games has tended to view business owners as one of the main beneficiaries Games in terms of the increased economic activity associated with the event (Smith, 2008), and the opportunity the Games present for these businesses to acquire new business and develop contacts (Preuss, 2004). The research concerned with local businesses of host communities has tended to focus upon the leveraging of the benefits of the Games for long-term economic outcomes (Chalip and Leyns, 2002), and has thus neglected the social and environmental impacts. Local businesses have also been discussed in the literature in terms of urban regeneration associated with the Games. In this regard, the strengthening of existing economic sources, including local businesses, has been identified as key to successful event regeneration (Smith, 2007). However, the positive benefits associated with the Games have not always 'trickled down' to local people, and more specifically to local businesses. As Raco (2004, p. 35) pointed out, there is a danger that 'existing forms of employment… may be overlooked and undervalued' when event strategies are devised and put into practice. As such there has been a darker side to the Games whereby local businesses have been displaced or no longer able to operate as a result of increased competition (Evans, 2011).

Girardet (1999) noted that local business, along with civic leaders and the general public play an important role in achieving sustainable development. Despite this contention, there has been no research conducted to date which has examined the environmental impact of the Games on local businesses, and much of what is known

37

about the environmental impact on local businesses is derived from media sources. However, within the literature on sports mega-events more broadly, a study by McKenna and Bob (2010) investigated local business perceptions of the perceived economic, social and environmental impacts of the 2010 FIFA World Cup and the development of related infrastructure. This study used quantitative data in the form of surveys to investigate the perceived impact of the event on a small group of business (N = 30). Whilst this study contributes to this area of research, I argue that it is limited in its scope due to its employment of quantitative research methods, and the fact that the perceptions of the environmental impact was based on only three survey items (pollution, excessive land degradation resulting from the development of infrastructure, and whether or not environmental issues will receive greater attention during 2010). As such I argue that this thesis provides an important contribution to this area of research by enabling a more critical interpretation of the perceived environmental impact on local business, and also offers a viewpoint from which to examine understandings about the environmental impact of the Games on local businesses for future research.

Another key area of literature relevant to this thesis is that which investigated the views of those negatively impacted by the Games. The history of the Games has been littered with protests against the hosting of the event within host cities/regions which have been initiated by both local and international pressure groups. These protests are concerned with the small 'p' politics of the Games and have been fuelled by changes in ideas about the ethics and responsibilities of mega-events particularly within host communities, competing priorities in times of global recession, and the use of internet. During the preparation phase for the London Games, anti-Olympic protests and demonstrations were organised by groups such as War on Want and Occupy London as well as local environmental groups (Press Association, 2012a). As such it is helpful to

examine the nature and presence of anti-Olympic protest at previous Games and how they have been researched.

Drawing on Tomlinson's (2005a; 2008) identification of three historical phases through which the Games have been used as a platform to protest (1896-1928, 1932-1984 and 1984-present), Timms (2012) explained how the current phase of Olympic history is concerned with global consumerism and corporate finance. As such the current phase of Olympic protest is born out of opposition to the prioritisation of corporate interests above the needs of ordinary citizens. Anti-Olympic campaigns and watchdog groups focus upon the impacts of the Games on the host city/region and include threats to civil rights, the forced evictions of local communities, and environmental damage (Lenskyj, 2000; 2002; 2008; Shaw, 2008). Olympic-related literature on anti-Olympic movements, resistance and local protest has utilised predominantly qualitative methods to provide historical overviews of Olympic protests (Boykoff, 2011; Cottrell and Nelson, 2011), and case studies of one particular cause or Games (Dansero et al., 2012; Lenskyj, 2002; Timms, 2012; Whitson, 2012).

One of the most prolific authors on anti-Olympic movements and protest is Helen Lenskyj. To date Lenskyj has produced three books (2000; 2002; 2008) that have directly questioned the assumptions underpinning Olympic rhetoric and writes critically about the threats that the Games pose to the civic rights of host communities. Lenskyj's (2000) book entitled *Inside the Olympic Industry: Power, Politics, and Activism* provided detailed documentation on the extent to which IOC practices meet its rhetoric. Through analysing media output and official Olympic documents pertaining to the decision to bid, the process of being a bid city and the outcome of this bid process, Lenskyj was able to demonstrate the gap between the promises and actualities of Olympic bids. Lenskyj's (2008, p. 4) more recent work explicitly adopted a radical perspective to understanding the Games, and her research was in part informed by her

experiences as a community-based activist. Lenskyj champions this 'outsider' approach to looking at the Games and questions researchers use of 'insider' sources 'whether human or documentary, as evidence that their work has special legitimacy and validity'. She argued that 'In a democratic society…it should not be necessary to have direct access to Olympic "insiders" in order to obtain sufficient information to evaluate their activities.' (Lenskyj, 2008, p. 4). Whilst this thesis has not adopted a radical approach to examining the Games wholesale (the theoretical position adopted is explained in Chapter Three), I agree with Lenskyj's methodological rationale in the sense that more can be learnt about the Games (and environmental sustainability) by going beyond the examination of 'insider' or official Olympic information.

Conclusion

From a review of Olympic texts this chapter has identified five main research areas within Olympic studies; (1) politics and nationalism; (2) media and identity formation; (3) commercialism and corruption; (4) security and surveillance; and (5) legacy, sustainability and environment. Each of these areas of literature have been discussed in terms of the types of issues examined within them, the main methodologies used, and some of the key authors and research within them. Under the broader theme of legacy, sustainability and environment, more specific areas of research relevant to the thesis were discussed; these were the perceptions of the impact of the Games by local government, local residents, and local businesses; and anti-Olympic movements and protests.

In addition, relevant research approaches to this thesis from the other main areas of research were identified. These were the general critical theoretical framework adopted when examining issues of commercialism, corruption and the Games (discussed in detail in the next chapter), the mixed methods approach employed by authors such as Billings in examining issues concerned with media and identity

formation, and perhaps most importantly Lenskyj's methodological rationale for not just concentrating on 'insider' information.

The next chapter provides an overview of the key theoretical perspectives used within both the sociology of the Olympic Games, and the sociology of the environment. The chapter then explores how issues of environmental sustainability and the Games have been understood in terms of theoretical frameworks applied, and proposes the adoption of a framework that draws upon a combination of theoretical perspectives to help understand and interpret the evolving relationship between the environment, sustainability and the Games, and the environmental impact of the Games on the host communities.

CHAPTER THREE: THEORETICAL PERSPECTIVES ON THE OLYMPIC GAMES AND THE ENVIRONMENT

The purpose of this chapter is to outline the theoretical approach adopted in this thesis to examine the intersections between the economy, the environment and locality at the London Games, and the environmental impact of the Games on the host communities. The chapter demonstrates the need to bring together theoretical perspectives from the sociology of the Olympics, and sociology of the environment in order to provide a more adequate theoretical framework for understanding the relationship between the Olympic Games and the environment. As such the chapter has three aims; (1) to identify the main sociological perspectives which have been employed to investigate different issues relating to the Games, and different issues relating to the environment, (2) to discuss the extent to which these perspectives have been applied to literature concerned with environmental issues and the Games, and (3) to critique the extent to which these perspectives have been able to explain environmental issues within the context of the Games. In order to achieve this, the chapter is divided into three parts, the first part examines theoretical perspectives used in the sociology of the Olympics, and the second part focuses on the theoretical perspectives used in the sociology of the environment. The third brings together the theoretical perspectives relevant to this thesis and outlines the theoretical framework adopted. The social scientific perspectives used to examine the Games are now examined.

Social Science Perspectives and the Olympic Games

Horne and Manzenreiter (2006, p. 16) contended that sociological analyses of sports mega-events such as the Olympic Games enable the investigation of overlapping and interconnected contemporary social issues. These key social issues include the examination of the media-sport-business complex; the centre-periphery relations of power in the global governance of sport; the power relations that exists between sports

businesses, international sports associations, and nation states, and the production of ideologies to counteract the 'emergent fissures' of hosting the Games. More recently, Silk (2011) highlighted some of the potential avenues of sociological analyses of the London Games; these included examining the role of local, national, and international politics within the Olympic Movement, media portrayals of gender, class, and race relations, protests and resistance movements against the Games, and more recently, the environmental impact and sustainable legacy of the Games. What Horne and Manzenreiter (2006) and Silk (2011) both demonstrate is that there are a variety of sociological issues that warrant further research.

Historically, sport sociologists have largely drawn upon mainstream sociological theories to examine and critically analyse the complex nature of sport. The use of theories in sport studies is now commonplace but what about theoretical perspectives on the Olympic Games? Toohey and Veal (2007) identified three main paradigms within which they considered Olympic-related research has been conducted: a descriptive/pragmatic paradigm; a critical paradigm; and a managerialist paradigm. The descriptive/pragmatic consists of mainly historical research which sets out to understand the ancient and modern Games through teasing out thematic issues, and ensuring a complete record of the Games' history. The critical paradigm situates analyses of the Games within a broader research agenda that is critical of society, and as such tends to employ one or more theoretical perspectives. These include neo-Marxism, feminism, environmentalism, communitarianism, and an ethical/cultural perspective. The managerialist paradigm comprises of commissioned research by either host city governments and/or Olympic Games Organising Committees, and tends to be conducted by researchers from marketing, management, and/or economics disciplines. Research belonging to this paradigm can be identified as either evaluative or reformist, and is

often concerned with calculating the likely economic impacts of hosting the Games and assessing the governance and organisation of the Games respectively.

The classification of research paradigms relating to Olympic studies by Toohey and Veal (2007), demonstrated that a substantial amount of Olympic research is largely descriptive. This view was supported by Curtis (2008, p. 319) for example who observed at the Ninth International Symposium for Olympic Research in China in 2008 that 'some research presentations were not underpinned by theoretical knowledge and, at times, were overly descriptive.' This reflected the current state of international research into the Olympic Games of a balance of contributions to the area between theoretically underpinned work, and that offering knowledge on the Olympic Movement more generally. It can be argued that it is research situated within the critical paradigm that mainly offers and contributes to theoretically-informed interpretations of the Games.

In addition to the helpful categorisation of Olympic work asserted by Toohey and Veal (2007), Warning et al. (2008) presented a visual representation of the different areas of focus within Olympic studies through a cluster-enhanced map. In order to achieve this, the authors conducted a co-citation analysis of prolific authors within the area of Olympic studies during the 1990s. Based upon their results and the authors' interpretation, the following key and peripheral clusters of studies were identified: critical feminists, critical reformers, sport policy and international relations, ideals and questions, drugs, the revival of the Games, athletic performance, the legality of the Games, the history of women's involvement in the Games, the ancient Games, the North American perspective, and Olympism. Whilst this piece of research is useful in offering an overview of the academic field and an objective categorisation of Olympic studies, it also possesses some faults. For example, the authors limited themselves to the co-citation of particular authors, and only included research published during the 1990s.

Perhaps most confusingly is that clusters have been formed both in terms of researchers that adopt a particular theoretical perspective, and of the researchers that write on a similar topic. I suggest that this conflicts with the very purpose of providing an overview of the current state of Olympic studies, as it does not help us to understand the type of work that has been produced on the themes identified. Further, it does not explain the impact of theoretical perspectives on different themes in terms of how they have been researched. I suggest that a more analytically-informed list of topics is needed where information is offered on not only what is being researched but how it is being researched and through which theoretical perspective.

From her extensive critical sociological work on the Games (Lenskyj, 2000; 2002; 2008), Lenskyj's (2012) latest book on *Gender Politics and the Olympic Industry* provided a useful insight into the current state of Olympic studies when helping to explain the theoretical and methodological approach adopted in the book. Although this book is concerned with issues of gender and the Olympics more specifically, Lenskyj critiqued the majority of research within Olympic studies which has failed to investigate different aspects of oppression and discrimination at the Games, which I argue reflects the Managerialist paradigm identified by Toohey and Veal (2007). Lenskyj (2012, p. 6) also highlighted areas of critical Olympic research that she deemed to be of most importance, these were gender and 'Olympic hegemony' and aligns with Toohey and Veal's Critical paradigm. Taking into account Lenskyj's (2012) observations and the categorisations of Olympic studies made by Toohey and Veal (2007) and Warning et al. (2008), I propose that there are three key social scientific perspectives that have been used to examine the Olympic Games. I call these the 'Functionalist/Managerialist', 'Critical/Feminist', and 'Critical/Marxist' perspectives. Although this categorisation draws upon that made by Toohey and Veal, I felt that slight modifications were needed to keep in line with the evolving literature. Further, I contend that Lenskyj's main areas

of focus (gender and power relations within the Games) needed to be treated as separate entities in order to more accurately reflect the different literature produced within Olympic studies. The rest of this part of the chapter explores what these three theoretical perspectives entail, the types of Olympic-related issues they have examined, and the extent to which these perspectives have been applied to literature concerned with environmental issues and the Games.

The Olympic Games through a 'Functionalist/Managerialist' Lens

Functionalist theory contends society operates in a similar fashion to the human body or system. In this sense, different phenomena exist to serve a function and contribute to the normal and smooth operation of society. If a problem occurs in one part of the system, one must be careful in correcting the issue otherwise it could have an unintended negative impact upon other parts of the system. In terms of sport, a functionalist perspective views it as an inherently positive activity that contributes to the wider society through reinforcing dominant values. Functionalism also posits that sport helps people to adapt to external economic and social pressures, and to any changes in the social order. As such, sport is seen to provide a solution to social problems (Giulianotti, 2005). However, according to a functionalist perspective, society can only deal with social change if it occurs in a slow, gradual manner. In this regard, the perspective provides some justification, for example, to the slow progress of minority groups gaining more equal access to sport as it would cause too much disruption to the equilibrium. Perhaps one of the key perspectives on sport using this theory is the idea that sport requires strict rules and regulations to ensure the safety of its participants (Anderson, 2010; Jones, 1992).

I argue that the amalgamation of two similar perspectives, functionalist and managerialist, provides a better way of portraying most Olympic literature. With respect to the 'managerialist' part, I use the definition from the 'managerialist' paradigm set out

in Toohey and Veal (2007) rather than the concept of managerialism found in business studies. Toohey and Veal assert that research within this paradigm is a melting pot of research which includes marketing, economics and management disciplines. Research tends to be either evaluative and attempts to quantitatively measure the likely impact of hosting the Games, or reformist whereby research seeks to assess the effectiveness of the organisation and governance of the Games and the Olympic Movement more generally. This type of research demonstrates a preference for survey and economic data to provide 'proof' of the benefits of the Games (Woods, 2011).

Within research on the Olympic Games, I suggest that a functionalist perspective has typically examined the benefits of hosting the Games (tangible and intangible) and the benefits of Olympic Education. In terms of the tangible benefits of hosting the Games, these benefits include the various different 'legacies' associated with hosting the Games such as increased capital, enhanced tourism, the global promotion of a city or region, and the construction of new facilities and improved infrastructure. Perhaps unsurprisingly, these types of benefits have received considerably more scholarly attention due to their measurability and appeal to Olympic organisations and sponsors (Cashman, 2006). This type of literature is often commissioned by government or Olympic agencies, or is heavily concentrated within tourism and management journals. The intangible benefits of hosting the Games include creating a 'feel good' factor within the host communities, instilling a sense of national and civic pride, promoting healthy lifestyles, and arguably most relevant to this piece of research, environmental education (PricewaterhouseCoopers, 2005). It is worth noting that not all research into 'legacies' of the Olympic Games is inherently positive and uncritical, however, legacy-based research tends to highlight the positive contribution of sport and the Games and is thus appealing to functionalist thinkers.

The 'Functionalist/Managerialist' approach has also been employed to illustrate and champion the benefits of Olympic Education. In this regard, this perspective views Olympic Education as a possible solution to human corruption by creating well-rounded and educated individuals. Authors such as Parry (1998, p. 153) and Brownell (2009) have endorsed the notion of 'Physical Education as Olympic Education' and as an alternative to a nationalistic and politicized education system.

'Functionalist/Managerialist' Perspectives on the Olympics, Sustainability and the Environment

In terms of environmental and sustainability issues, a 'Functionalist/Managerialist' perspective posits that technological advancements and innovations can provide the necessary solutions to environmental problems. As such, this perspective lends support to the highly contested notion of 'sustainability'. These practical solutions however must be incorporated gradually so as to not disturb the equilibrium. As a result this perspective assumes a positivist epistemology which seeks to quantify environmental issues and generalise the outcomes of the research (Boshier, 1998; Magnaghi, 2005). Research using this perspective to examine environmental issues and the Games tends to be inherently positive (see Table 3.1). Xu and Yang's (2010) research into environmental issues and policies within the context of the Beijing Games utilises this perspective. In order to gain an insight into the proposed topic, Xu and Yang performed policy analysis on official government and Olympic documents, in addition to measuring local people's perceptions of a 'green' Olympics. Through seeking to quantify and measure environmental concerns, the authors concluded that the Olympics harnessed the potential to promote sustainable practices and environmental campaigns. Another piece of environmental research on the Olympic Games by Jin et al. (2011) examined residents' perceptions of the environmental impacts of the Beijing Games. In doing this the authors employed questionnaires to measure attitudes, behavioural

intentions, actual behaviour, level of awareness and perceived environmental impact towards the environmental initiatives of the Beijing Games. Overall the authors concluded that effective environmental management during the entire Olympic cycle can aid the development of positive environmental attitudes and behaviours. Again, this research conceives the Games to contribute to the environmental good.

Chappelet's (2008) article on 'Olympic Environmental Concerns as a Legacy of the Winter Games' also proffers a 'Functionalist/Managerialist' perspective which utilises a descriptive paradigm. It provides a useful historical overview which details the slow incorporation of environmental protection and sustainable development within the Olympic Games. It further demonstrates how these principles were developed through the concerns raised by local organisers of the Winter Games. The article contends that environmental protection is one of the key Olympic legacies to have emanated from the Winter Games. Whilst Chappelet provides a valuable overview of environmental developments within the Games (which is built upon in Chapter Five), it lacks a theoretical underpinning and criticality with regards to the extent to which these benefits are experienced by the host communities.

Aside from Chappelet's (2008) paper, a 'Functionalist/Managerialist' perspective has tended to be used to measure residents' perceptions on environmental issues related to the Games. The research by Xu and Yang (2010) and Jin et al. (2011) only examined the Beijing Games. These Games in particular were notorious for placing extreme pressure on Chinese citizens to embrace the Games as part of their civic duty, with anything less deemed as unpatriotic (Broudehoux, 2009). In contrast with this, Konstantaki and Wickens (2010) research on London residents' perceptions of security and environmental issues before the 2012 Games displayed less favourable results. The results showed that the older group of residents that completed a self-administered survey demonstrated consistently more negative attitudes towards

environmental issues, such as traffic and pollution. Further, Konstantaki and Wickens concluded that stakeholders of the London Games needed more consultation in order to instil confidence in residents through raising awareness of these issues and the work being done.

Overall, the 'Functionalist/Managerialist' perspective is not compatible with the aims of this thesis. Although a significant part of it involves collecting local residents' perceptions on issues of environmental sustainability within the context of the London Games, I argue that the positivistic and quantitative approach endorsed by this perspective is unable to fully gain an insight into the residents' thoughts and feelings. Moreover, my research sought to understand sustainability in the context of the London Games at the local level. As such, this is inherently unsuited to a functionalist approach which assumes a macro-perspective on societal issues (Stolley, 2005).

In addition, the 'Functionalist/Managerialist' approach is unable to provide critical comment on the relationship between the Games and the environment. The creation of protest groups and the use of different media outlets (for example Gamesmonitor.org.uk and the Counter Olympic Network) to draw attention to issues (including environmental degradation) during the build-up to the Games, contradicts one of the key tenets of Functionalism that society works cooperatively towards common goals (Shepard, 2010). As such there is a need for a theoretical framework which is able to discuss the Games critically. Further, the grand statements about society made by this perspective do not specifically or adequately address environmental concerns directly. Moreover, the 'Functionalist/Managerialist' perspective's promotion of technological advancements and innovations reflects the environmental position assumed by the IOC (this is discussed in part two of this chapter and Chapter Five). However, it is my contention that Ecological Modernisation Theory (EMT) from environmental sociology is better equipped to discuss the environmental

position adopted by the Olympic Games, and has most recently been explored within the context of the Games by Karamichas (2012). This is discussed in more detail later in this chapter.

The Olympic Games through a 'Critical/Feminist' Lens

The second main theoretical perspective which has been used to examine social issues and the Olympic Games is the 'Critical/Feminist' perspective. At the core of any feminist theory lies the assumption that women are at a disadvantage to men. Feminist theory was derived primarily from a social movement which aimed to address these disadvantages whilst simultaneously empowering women (Delaney and Madigan, 2009; Harrison and Fahy, 2005). This theory proposes a framework through which to expose sexual discrimination based on socially constructed notions of gender, or utilises content analyses of different media outlets to highlight this. There are many different forms of feminist theory including Marxist feminism, critical feminism and liberal feminism. The different perspectives propose different solutions and causes of oppression in order to end societal patriarchy which is present in many cultures around the world (Delaney and Madigan, 2009; Walby, 2011).

Feminist theory did not consider the institution of sport as a site for the production and reproduction of sexual discrimination until the 1970s. Prior to this, socio-political issues such as women's role in the home and employment were the key areas of attention. In the USA the instatement of Title IX (of the *Education Amendments to the Civil Rights Act of 1974*) opened the floodgates to 'a decade that would forever alter the role of women in sports.' (Delaney and Madigan, 2009, p. 3). Although this impact was not immediate, sport was soon recognised as a site where sexual inequality could be recorded and measured (Delaney and Madigan, 2009). The Olympic Games has thus offered an interesting case study to examine the prevalence of sexual inequality in sport on an international stage. Feminist research on the Games is one of the largest

areas of Olympic studies and work has tended to centre around three main themes: the inclusion of women in the administration and participation in the Games (Pfister, 2010; Teetzel, 2011), the representation of women in the media (Eastman and Billings, 1999; Higgs et al., 2003), and gender verification testing (Olsen-Acre, 2007; Schweinbenz and Cronk, 2010).

Despite the great prevalence of this perspective within Olympic studies, feminist theory possesses some flaws. As a social theory it has been criticised for failing to take into account other important variables when examining discriminatory practices, such as race and class, although these factors have started to be questioned. It has also been argued that the different strands of feminist theory demonstrate a lack of coherence as there is no single theory (Delaney and Madigan, 2009).

'Critical/Feminist' Perspectives on the Olympics, Sustainability and the Environment

Whilst there has been no research to date that has adopted an explicitly feminist perspective to examine the relationship between the environment and the Games, scholar and activist, Helen Lenskyj, adopts a critical perspective when examining the Olympic Games, and its degree of environmental sustainability. Lenskyj (1986; 2003; 2012) has written prolifically from a critical feminist perspective on issues around sport, sexuality and gender, and most recently on gender politics within the context of the Olympic Games. Lenskyj's work has also focused on critiquing the 'Olympic industry' and the Sydney Games in particular (Lenskyj, 2000; 2002; 2008).

In addition to this, Konstantaki and Wickens' (2010) research sought to take into account different socio-demographic influences on environmental issues, including gender, when examining residents' perceptions of security and environmental issues within the context of the London Games. However, due to the low number of female respondents no such analysis could take place. As such there is no research to date that

examines whether gender is an influencing factor affecting the perceived environmental impact of the Games.

The 'Critical/Feminist' perspective is the most underdeveloped in terms of its application to environmental issues and the Olympic Games (see Table 3.1). Nevertheless, the critical feminist underpinning of Lenskyj's work has helped to inform a useful way of framing approaches to environmental concerns within the context of the Games. Lenskyj's (1998b) notion of 'corporate environmentalism' emanates from the light green/'shallow' ecology concepts from the sociology of the environment which are discussed in greater detail in Part Two of this chapter. However, Lenskyj's approach is more 'Critical' than 'Feminist', and a more 'Feminist' approach to examining Olympic-related environmental issues is currently missing from the literature. I suggest three reasons for the absence of this perspective; firstly, gender equality within the context of the Games in terms of participation and media portrayals is a significant issue within itself, and demands much of the 'Feminist' attention from sport sociologists. Secondly, environmental research on the Olympic Games more broadly is still a relatively new area of academic enquiry and is subsequently yet to be explored by a 'Critical/Feminist' perspective. Thirdly, the perspective is arguably the least appropriate to examining environmental issues within the context of the Games. Although the literature on environmental issues and the Games only boasts a modest amount of work today, the work that has been done has mainly adopted a 'Critical/Marxist' perspective.

The Olympic Games through a 'Critical/Marxist' Lens

The third main theoretical perspective used to explore the Games and the most pertinent to this piece of research is the 'Critical/Marxist' perspective. The power relations between the organisers and sports participants manifest themselves in sport from the elite level down to the grassroots 'lend itself to critique and deconstruction.' (Carrington and MacDonald, 2009, p. 1). As a result, Marxist theories are perhaps the most

pervasive form of critical research within sociological analyses of sport, and work using this perspective is predominantly analytical and historical in nature (Anderson, 2010; Carrington and MacDonald, 2009). Within the sociology of sport, Marxist theories consist of two major elements: a political economy whereby sport is seen to be utilised as a tool to advance capitalism and the problems associated with it, and a cultural aspect whereby sport can be used to create alienated consciousness with individuals and society more broadly.

The problems associated with the first element of Marxist theory relating to sport include the notions of profit, concentration of wealth, and the commodification and exploitation of athletes. Marx understood the capitalist-based market system as consisting of two different classes. A ruling class, the bourgeoisie, who retain the complete ownership of the means of production; and the working class, the proletariat, who only have their own labour. Marx argued that the development of capitalism would lead to a reduction in the opportunities for profitable investment; therefore the bourgeoisie would continually endeavour to find new areas of investment. In addition, in order to maintain continued growth and profitability, workers' wages would be reduced. Due to these clear power imbalances between the two classes, the relationship between the bourgeoisie and the proletariat is inherently antagonistic. Workers are also subject to ideological control, but as the proletarian community expands and their restricted access to education and rights at work is realised, pressure between classes intensifies. Marx contended that this would lead to the formation of large unions and instigate a revolution with the aim of an overthrow of the capitalist state in favour of a socialist social order (Giulianotti, 2005; Toohey and Veal, 2007).

The second major element associated with Marxist analysis of sport is Cultural Marxist analysis. This is typically concerned with notions of solidarity, alienation and false consciousness and examines how the commodification of sport enables a false

sense of solidarity to be developed between not only workers and owners to the means of production, but also between different racial groups, political systems and nations (Young, 1986).

For many modern Marxist thinkers within sport sociology (Brohm 1978; Rigauer, 1981), the mode of production is the greatest structural influence upon individual consciousness. Here, sport and leisure activities are considered as tools of social control which are used to replenish worker's energy levels, and to broaden consumer markets. Both methods of social control are used to dull worker's ability to think critically about their own class oppression. Further, Marxist analysis contends that all humans share universal needs which are prevented from being realised through a capitalist system. It is believed that the only way for social progress is to eradicate the current exploitative class structure through the initiation of class action (Rojek, 1992).

Perhaps the largest area of Marxist analysis of sport is its domination by global commercialisation, and the way in which sport has been used to enable the perpetuation of social relations being key to a capitalist system. In this regard modern sport has been seen to replicate industrial production with regards to the labour production dynamics, via the instillation of values that lead to a compliant and obedient work force. Contemporary sport represents an accumulation of sources of dominant ideologies such as elitism, nationalism, sexism and racism (Hargreaves, 1994). Further, sport has been viewed as being one of the areas of investment exploited by the bourgeoisie to ensure the continuation of the capitalist system (Toohey and Veal, 2007).

Table 3.1. 'Functionalist/Managerialist', 'Critical/Feminist', and 'Critical/Marxist' Perspectives on the Olympics, Sustainability and the Environment

Theoretical Perspective	Perspective on Environment Issues and the Olympics	Research on Environmental Issues and the Olympics	Research Methodology Used
Functionalist/Managerialist	• The Olympic Games enable the opportunity for new environmentally-friendly technologies to be developed	• Inspiration/demonstrative impact of hosting a 'green' Games (Wang, 2001) • Environmental considerations of athletic performance (Borresen, 2008) • Residents' perceptions of environmental impacts of hosting the Olympic Games (Jin et al., 2011) • Environmental legacies of the Olympic Games (Chappelet, 2008)	• Quantitative analysis • Questionnaires
Critical/Feminist	• The environmental damage caused by the Olympic Games is linked to the oppression and lack of representation of women within the Olympic Movement	• Corporate environmentalism and the Olympic Games (Lenskyj, 1998b)	• Descriptive • Largely unexplored area of research
Critical/Marxist	• The commercialised nature of the Olympic Movement exploits the environment in order to ensure make a profit	• 'Greenwashing' and the Olympic Games • Interpretation of environmental sustainability by Olympic bodies (Paquette et al., 2011) • The degree of compatibility between Olympic sport and the notion of sustainable development (Loland, 2006) • The incompatibility between the nature of sports mega-events and the notion of sustainable development (Hayes and Horne, 2011)	• Descriptive

As such, it is arguably unsurprising that the Olympic Games have been subject to the grasp of capitalism. This view was encapsulated by Gruneau (1984, p. 5) who stated 'No matter what the intentions of the founders of the modern Olympics, the actual possibilities open to them were limited by the nature of the economic system as a whole and the network of social institutions associated with it'. Marxist theory provides a useful insight and framework from which to analyse the evolving status of the commodification of sport, and is evident in the growing number of publications employing this perspective since the 1970s (Hargreaves, 1994) and has much relevance to studies of the Olympic Games (Toohey and Veal, 2007). Toohey and Veal (2007) explain that despite many facets of Marxist theory being brought into question due to the demise of many communist regimes, an extensive amount of work has been developed using this perspective over the past three decades. Further, this perspective has shed light and provided useful interpretations on the commercialism, nationalism, and amateurism associated with the Olympic Games (Gruneau, 1984).

'Critical/Marxist' Perspectives on the Olympics, Sustainability and the Environment

A 'Critical/Marxist' perspective has arguably been the theoretical position most employed when examining issues around the Games, sustainability and the environment to date. At a general level, this position posits that the commercialised nature of the Olympic Movement has led to the exploitation of the environment in order to make a profit. Olympic-related works on environmental concerns using this perspective centre around three main themes. These are: (1) the 'greenwashing' practices and nature of the Games and the prioritisation of profit over environmental protection, (2) the gap between the proposals made by the IOC and/or OCOG's to tackle environmental issues, and the extent to which these are achieved, and (3) the incompatibility between the nature of sports mega-events and the notion of sustainable development. It must be noted that work using this perspective often discusses a combination of these three

issues in order to provide a comprehensively critical account of the Games, sustainability and the environment. Moreover, discussions have centred around notions of sustainability and sustainable development and as such contributors are somewhat critical of the technocratic approach to the environment assumed by the IOC (this is explored in more detail later in this chapter).

The first key issue that has been examined using a 'Critical/Marxist' perspective is the use of 'greenwashing' practices by Olympic bodies. 'Greenwashing' is an inherently critical term and refers to the 'disinformation disseminated by an organization so as to present an environmentally responsible public image.' (Oxforddictionaries.com, 2012, p. 1). Perhaps the most prolific author to comment on the 'greenwashing' practices of the Games is Sharon Beder. Beder's (1993) article on '*Sydney's Toxic Green Olympics*' critically discusses the ways in which Sydney was awarded the 2000 Olympic Games on the basis of its proposed environmental credentials. In an era when addressing environmental concerns was high on the Olympic agenda, Beder argued that the 'green' aspects of the Sydney bid were aggressively marketed in order to supress public discussions about the contamination of the proposed Homebush Bay site. According to Beder (1993, p. 17), this suppression of public discussion arose from 'the desire of the government to win the Olympics and the desire of some environmentalists to be seen as "positive"'. Beder continued her strong criticism of the 'greenwashing' practices of the Sydney Games throughout their seven-year build-up. Beder's (1996, p. 210) article details the toxic cover-up of the Olympic site and highlights the prioritisation of economic profitability over genuine environmental measures. She contended that 'the world is likely to discover that Australia boasts of running a green 2000 Olympics are built on short-cut, low-cost remediation measures that are anything but green.' In addition to Beder, Lenskyj's (1998a; 1998b) works on the Sydney Games also assumed a critical perspective as

previously mentioned, in order to highlight and critique the 'corporate environmentalist' strategies, of which 'greenwashing' is a key orientating concept (Katyal, 2009).

The second key issue which has been examined using the 'Critical/Marxist' perspective is the gap between the proposals made by the IOC and/or OCOG's to tackle environmental issues, and the extent to which these are achieved. Paquette et al.'s (2011) paper on the interpretation of environmental sustainability by the IOC and OCOG's between 1994 and 2008 examined how the IOC had defined concepts of sustainability, and how OCOG's defined and addressed issues of environmental sustainability. This article is unique in the sense that it employed a qualitative case study in order to demonstrate that the definitions and actions of the IOC and OCOG's are incongruent. Whilst this piece of research is useful in highlighting the inconsistencies between key Olympic organisations, it analyses the issue from a top-down approach in terms of the language and discourses employed. As such, it does not show how these inconsistencies have been perceived by the people directly affected by the Games, the local residents and businesses. Hence this thesis investigates the disconnect demonstrated in the article through gaining insights from the host community.

The third key issue brought to light using the 'Critical/Marxist' perspective is the incompatibility between the nature of sports mega-events and the notion of sustainable development. Specifically in the case of the London Games, Hayes and Horne (2011) highlight the disconnect between the elitist nature of sports mega-events and redistributive and participatory nature of sustainable development. The authors argue that despite the advances made in environmental stewardship and technological innovation as a result of hosting the Games, the sustainable development model adopted prioritised economic concerns. This thesis adds to the arguments made in the article

with regards to the London Games through seeking to find out whether local people have experienced a 'hollowed-out' form of sustainable development.

Overall, I found the 'Critical/Marxist' perspective most useful in understanding the relationship between the Games and the environment, as it examines the different power relations and dynamics involved in defining and subsequently addressing environmental issues. It may be argued that the profitable nature of the Games has often taken precedence over genuine environmental protection. In this sense, the Games have historically benefitted the few powerful organisations and sponsors over the people of the host cities. Authors such as Beder have demonstrated this by highlighting how Olympic bodies have tended to choose cost over quality when tackling and/or addressing these concerns. Whilst at the macro-level this perspective is useful in helping to expose the IOC's somewhat superficial approach to the environment, it has been noted that it can be deterministic by contending that the economic and ideological power of sport are key in all situations, and some Marxist accounts fail to adequately account for the role of struggle and individual action in human history (Jarvie and Maguire, 1994). Further, it lacks the ability to examining how environmental problems are defined by Olympic organisations, and how and why different approaches to dealing with environmental issues are adopted by these organisations. It is for these reasons that I propose a theoretical framework which draws upon a combination of theoretical perspectives from the sociology of the Olympics, and the sociology of the environment, in order to better understand the relationship between the environment, sustainability and the Games. As such I embrace Horne and Manzenreiter's (2006, p. 16-17) contention that 'greater advances are possible through a more eclectic theoretical approach.' I draw upon not only 'Critical/Marxist' ideas but also utilise relevant concepts from environmental sociology. The environmental sociology concepts chosen

aid further understanding of the problems identified and these are now discussed in the second part of this chapter

Sociology, Sustainability and the Environment

As mentioned previously, the overarching aim of this thesis is to examine attempts made by the IOC and OCOGs to become recognised as environmentally sustainable, with a specific focus on the 'greening' of the London Games. In order to examine this effectively, it is important to not only to understand the concept of 'sustainability' and the 'environment', but also the way in which sociology has typically theorised about environmental issues. As such, the purpose of this part of the chapter is threefold: (1) to discuss the emergence of the concepts of 'sustainability' and 'sustainable development', (2) to provide an overview of the development of environmental sociology, (3) to consider how the relationship between the human and non-human has been theorised. This part of the chapter begins with a discussion of the origins of the highly contested notion of 'sustainability'. However, in order to be able to discuss issues of environmental sustainability within the context of the Olympics, it is first important to highlight the multifaceted nature of the 'environment' and 'environmental'.

In the broadest sense, 'environment' can be defined as 'external conditions or surroundings…particularly those in which people live or work' (Sutton, 2013, p. 1). This most simplistic definition takes people as the central concern and as such the 'environment' is a condition that surrounds humans, and without further clarification could allude to a range of very different environments; including the 'economic' environment, the 'work' environment, and the 'political' environment'. However, when discussing the state of the 'environment' more specific meanings are attached which typically refer to natural non-human conditions. Such definitions of the 'environment' are bound up with notions of 'nature' and discussions of environmental issues are wide-ranging; these include pollution, climate change, resource depletion, renewable energy,

overpopulation, and environmental organisations. In this regard I agree with Macnaughten and Urry's (1998, p.1) assertion that there is 'no singular 'nature' as such, only a diversity of contested natures'. Although it is not necessary for this thesis to provide an in-depth discussion of the contested nature of what constitutes the 'environment' and 'environmental issues' (Please see Macnaughten and Urry, 1998 for a detailed account), it is important to highlight that discussions of the 'environment' and more specifically 'environmental sustainability' are extremely broad and individualised (as will be shown in Chapter Five, Seven and Eight). According to Macnaughten and Urry (1998, p. 2) 'it is specific social practices, especially of people's dwellings, which produce, reproduce and transform different natures and different values.' As such this thesis provides an interesting case study through uncovering the nature and understandings of environmental sustainability within the context of the London Games and its host communities. The next part of the chapter will now discuss the origins of the highly contested notion of 'sustainability' and how this relates to the IOC's growing commitment to environmental concerns.

Sustainability, Sustainable Development and the Environment: Origins and Definitions

Providing an adequate definition of 'sustainability' has led to much debate within academic work. Stubbs and Cocklin (2008, p. 104) encapsulated the elusiveness of 'sustainability' when they explained:

> *Sustainability itself is a contested concept…there are many terms used in the literature such as sustainable development, human sustainability, social sustainability, ecological sustainability, environmental sustainability, and corporate sustainability as well as aligned concepts of corporate social responsibility and corporate citizenship.*

In addition to the variety of interchangeable terms alluding to different aspects of 'sustainability', producing a universal definition of this term remains a highly debated area. The fact that the goal of 'sustainability' is adopted by different governmental and non-governmental, public and private organisations, as well as academic institutions which often have opposing philosophies and objectives, reflects its inherently ambiguous nature (Holden, 2008). Despite this, the concept of sustainable development has been incorporated into government and business policies and Dale (2005) notes that as of 2005 there were in excess of 1,200 definitions. The most widely accepted definition is that offered by the Brundtland Report, and is often charged with causing much of this ambiguity (Holden, 2008).

At the most fundamental level, sustainable development is arguably concerned with three key elements: intergenerational equity with respect to the need to pass on the earth's resources to future generations in the same condition, intra-generational equity in terms of sustainable development methods taking into account the diverse needs of people from around the world, and transfrontier responsibility in the sense that people must live within limits of local resources (Selman, 1996; Maguire et al., 2002). The concept of sustainable development emerged as a possible solution to more modern concerns relating to the degradation of the environment. In terms of its origin, the publication of the highly influential book, *Silent Spring*, by Rachel Carson (1962), is often considered to have instigated the modern epoch of environmental awareness, activism, and rationalising the need for sustainable development. Through her writing Carson exposed the destruction and damage to ecosystems that resulted from the utilisation of agricultural pesticides (Dresner, 2008; Hannigan, 2006).

Following this, the United Nations Conference on the Human Environment in Stockholm in 1972 highlighted the protection of the environment as an imperative part of the broader development agenda for the first time. From this conference, the

Stockholm Declaration on Human Environment came into fruition at the conference and the United Nations Environment Programme (UNEP) was born in the same year (Dresner, 2008). The Stockholm Declaration is seen as the first document to acknowledge people's right to a healthy environment. The Declaration called for a common stance and a collective set of agreed principles to help ensure the preservation and enhancement of the human environment. As a result 26 principles and 109 recommendations were proposed which have since been formalised through the development of international environmental law. Despite these advances, it is worth noting that no legally binding actions resulted from Stockholm (Earth Summit 2012, 2012).

It was not until the 1980s that the goal of 'sustainability' truly gained momentum due to the 1987 Brundtland Report. This report, also known as *Our Common Future* by the United Nations, is often considered to have launched the term 'sustainability' and also offers the most widely accepted definition of the term. This report was chaired by former Norwegian Prime Minister, Gro Harlem Brundtland, and published by the World Commission on Environment and Development. The objectives for the report were threefold: to improve worldwide understanding of environment and development issues, to re-assess developmental and environmental issues and propose practicable policies, and to foster international cooperation in order to address these concerns (Coyle and Morrow, 2004). This breakthrough document represented modern environmental thinking in the sense that addressing environmental issues could not occur in isolation. Rather, they require examining more closely in connection with the role of technology, and the organisation of economies, societies and political institutions (Coyle and Morrow, 2004). The report defined sustainability as 'Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.' (WCED, 1987, p. 43).

Despite its simplistic appeal, O'Riordan (1988) argues that the vagueness of 'sustainability' could lead to it being rendered useless as it is possible for virtually anything being declared part of sustainable development. Further, its definitional simplicity glosses over what is a set of complex and intertwining issues, which mask the seriousness and possibility/probability of an ecological breakdown (Porritt, 2007).

Stripped down to its core, Porritt (2007, p. 34) posited that this surrounding ambiguity meant that the term 'cannot possibly carry the intellectual weight required of it at this crucial turning point in human history.' Despite concerns over the usefulness of 'sustainability' and 'sustainable development', the success of the Brundtland Report inspired the United Nations to host the 1992 UN Conference on Environment and Development (UNCED), otherwise known as the 'Earth Summit' in Rio de Janeiro. Taking place twenty years after the Stockholm Conference, the main purpose of this event was to focus global attention on the rapidly growing environment and development issues (Dresner, 2008). The conference brought together over 15,000 members of NGOs and 130 heads of states, and became renowned as being the first time that 'sustainable development' was promoted on a global scale. The result of this was the non-binding Rio Declaration on Environment and Development and Agenda 21 action plan (Dernbach, 2002). The principle aim of this global gathering was to persuade governments to consider alternative ways to achieve economic growth, whilst minimising pollution and destruction of non-renewable resources. (Dresner, 2008). The Rio Declaration consisted of a total of 27 principles which dictated the rights and responsibilities of member states. The principles covered aspects and issues such as environmental protection as part of the development process, the precautionary approach whereby measures to prevent environmental damage should not be delayed, and the inclusion of subordinate groups such as women, youth and indigenous people in environmental management and development roles (Collin and Collin, 2009).

The next section of the chapter explores how sociological analyses of the environment have made sense of environmental concerns, more specifically how the relationship between the human and non-human has been theorised. To begin with an overview of the discipline of the sociology of the environment is provided.

Sociology of the Environment: An Overview

Environmental issues are undoubtedly one of the twenty-first century's biggest concerns. As such, work on this area has encouraged diverse and interdisciplinary collaboration between the natural sciences, humanities, and the social sciences. Sociological offerings have gained increasing recognition in part from the acknowledgement that environmental problems are inherently social. In this regard, environmental issues are the result of human action and in turn environmental conditions impact on human behaviour (Dunlap and Marshall, 2007).

Despite some of the forefathers of classical sociology such as Marx, Weber and Durkheim expressing an interest in the relationship between society and the environment, this remained a dormant area of investigation until after World War One (Vaillancourt, 1995). Hannigan (2006, p. 1) contends that it was not until 'Earth Day 1970' that the modern environmental movement and the subsequent 'Environmental Decade' of the 1970s truly began. Buttel (2003) asserts that there have been two main stages of environmental sociology since its inception in the 1970s. The first stage was concerned with the identification of key causes of the environmental crisis. The second stage has shifted focus towards finding methods of environmental improvement and reform which will lead to a socially and environmentally secure world (see Table 3.2 for a timeline of the key environmental events).

In addition to the growth of environmental sociology as a discipline, sport sociologists have contributed to an increasing body of knowledge on sport and environmental problems. Different degrees of environmental activism have been

produced in this area and include Wheaton's (2008) work on the 'Surfers Against Sewage' Movement, and Wheeler and Nauright's (2006), and Briassoulis' (2010) work on the anti-golf movement. This emerging literature has typically examined issues concerned with power relations, environmental issues and sport (Wilson, 2012). This work is joined by authors who have examined power relations and environmental issues specifically within an Olympic context (Beder, 1993; Lenskyj, 1998b).

Prior to this, sociological attention to environmental matters was somewhat scattered. Dunlap (2002, p. 160) called this neglect a 'disciplinary blindness' which resulted from the Durkheimian influence of explaining different social phenomena in terms of external influences or 'social facts'. Further, sociologists were at this point opposed to the inclusion of biological and geographical factors, which were felt to be the sole property of the natural sciences. Sociologists made the observation that modern industrialised societies and its people were not constrained by the biophysical environment. Humans were considered exceptional species and 'exempt' from these constraints due to the possession of science, technology, language and culture which differentiated humans and from nonhuman species. This is often referred to as the 'Human Exemptionalist Paradigm' (HEP). As such, mainstream sociology was ill-equipped to adequately theorise about environmental issues. Efforts to establish environmental sociology as an independent discipline addressed this criticism of sociology through the creation of the 'New Ecological Paradigm' (NEP) which was developed by Dunlap and Catton (1979). NEP contended that whilst humans are undoubtedly exceptional, they are not exempt from environmental constraints (Catton and Dunlap, 1978; Dunlap, 2002).

Although the sociology of the environment has existed in some form since the 1920s, environmental sociology did not truly gain momentum until the late 1960s and early 1970s. Prior to this, a concrete theoretical perspective that could examine the

underlying social, economic and political processes had not been offered (Huber, 2001). The Club of Rome's *Limits to Growth* report by Meadows et al. (1972) offered arguably the first key environmental discourse. The study was conducted by a group of internationally renowned individuals who met on an informal basis because of their concern of the problems facing the world. This study concluded that the earth has a capacity limit and that the limits of growth would be met within the next 100 years, which would in turn lead to a dramatic and irrepressible reduction in industrial capacity and human population (Das et al., 1998). Whilst a prominent study within the history of researching into environmental problems, it was compiled by computer scientists and economists. As such it did not advance the growth and direction of environmental sociology but nonetheless it brought environmental issues to the forefront of academic attention.

Initially sociological enquiry was limited to examining societal responses to environmental problems, however, this remit gradually expanded to include investigating the underlying relationship between modern and industrial societies, and the natural environment. As a result environmental sociology emerged as an independent discipline (Dunlap and Marshall, 2007; Buttel, 1987; Dunlap and Catton, 1979). As an offshoot of sociology, environmental sociology has departed greatly from its parent discipline through the use of ecological explanations rather than the typical sociological explanations (Dunlap and Marshall, 2007).

In a relatively short period of time environmental sociology has expanded to include a diverse range of sociological perspectives dedicated to examining the natural environment (Dunlap et al., 2002; Hannigan, 2006; Næss, 1989). The following two theoretical perspectives were deemed to be the most applicable and useful to understanding the environmental position assumed by the IOC, and with the focus of this thesis; Arne Næss' 'shallow' and 'deep' ecology, and EMT. This part of the chapter

now examines these perspectives and how they are relevant to understanding the growing environmental consciousness of the IOC.

Arne Næss' 'Shallow' and 'Deep' Ecology

Although this thesis examines the environmental commitments made by the IOC and OCOGs with a specific focus on the London Games from a sports sociology perspective, useful understandings can be gained from applying constructs used in environmental sociology. One particular theoretical approach taken from environmental sociology and applied to sporting contexts in a useful and interesting manner is the concept of a light/shallow/technocratic to dark/deep/ecocentric continuum (Beder, 1993; Chernushenko, 1994; Lenskyj, 1998; Loland, 2006). Beder (1993) discusses the notion of 'light' and 'dark' green, Loland (2006) utilises ecophilosopher Arne Næss' (1989) philosophical conceptualisation of 'shallow' and 'deep', or 'technocratic' and 'ecocentric' ecological positions (Lenskyj, 2000; Beder, 1993).

Despite the terms above often being used interchangeably, the Norwegian philosopher, Arne Næss is often recognised as conceiving the concept of 'shallow' and 'deep' ecology. Næss coined these terms in his presentation at the Third Futures conference in Bucharest in 1972 and later developed the theoretical perspective in his article entitled 'The Shallow and the Deep Long-Range Ecology Movement. A Summary' (Næss, 1973). The 'shallow' ecological position refers to the environment being viewed as an economic resource, whereby cost-benefit analyses of using the earth's resources are performed. Further, it views issues such as resource depletion, pollution and human health from an anthropocentrically-motivated position. The 'deep' ecological perspective on the other hand attributes intrinsic worth to environmental resources, and insists that existing economic and political systems need to be challenged in order to prevent environmental degradation. This position is often considered as controversial as it views 'humans as part of nature' as opposed to 'humans in nature'. In

69

this regard 'deep ecologists' contend that non-human species have the same intrinsic worth and rights as humans (Lenskyj, 1998; O'Hara, 1999, p. 233). These two different perspectives advocate different solutions to the ecological crisis. The 'shallow' position calls for a human mastery of nature through the implementation of green technology and enhanced environmental management. The 'deep' position calls for a restructuring of power dynamics and social relationships both formally and informally in order to place greater importance on the environment and nonhuman species (O'Hara, 1999).

Table 3.2. A 60-Year Timeline of the Environmental Movement

Time Period	Features	Events
1960s	• Birth of the environmental movement	• The publication of *Silent Spring* by Rachel Carson in 1962 highlighted the damaged being caused to the environment by insecticides and pesticides. Most importantly this book created a greater public awareness about the environmental damaged caused by humans
1970s	• International cooperation • Birth of environmental philosophy/sociology	• 1970 'Earth Day' • Birth of Environmental Philosophy/Sociology • 1972 UN Conference on the Human Environment
1980s	• The birth of 'sustainability'	• Creation of the UN World Commission on Environment and Development in 1983 • Publication of *Our Common Future* or 'Brundtland Report' in 1987 • 1982 Earth Summit held in Nairobi, Kenya – generally considered ineffective due the events of the Cold War taking precedence
1990s	• The prominence of global warming	• 1992 UN Conference on Environment and Development (Earth Summit) held in Rio de Janeiro • Creation of Agenda 21 in 1992 • Introduction of the Kyoto Protocol to the United Nations Framework Convention on Climate Change in 1997
2000s	• The rise of developing nations	• 2002 World Summit on Sustainable Development (Earth Summit 2002) held in Johannesburg, South Africa • The Kyoto Protocol came into force in 2005 • 2009 United Nations Climate Change Conference held in Copenhagen, Denmark
2010s	• Sustainable development	• 2012 UN Conference on Sustainable Development (Rio+20 Earth Summit) held in Rio de Janeiro

(Source: Reynolds, 2002)

This approach is useful in framing and mapping different individual and organisational attitudes to environmental issues in a simplistic way. It enables the comprehension of the different environmental positions of Olympic organisations, and also is able to highlight where tensions may lie. Lenskyj (1998b) drew upon the light green concept to highlight the environmental positions of organisations involved in the organisation of the Sydney Games. Wilson (2012) also uses the light green concept to describe the response to issues concerned with sport and the environment. More specifically, Wilson refers to the environmental position adopted by David Chernushenko (1994) and the publication of *Greening Our Games* in 1994. This was the first text to identify the relationship between sport and environmental issues, and outlined the link between the globalisation and commercialisation of sport, and environmental degradation. This book appealed greatly to event organisers, managers and sponsors as it offered guidelines to dealing with environmental issues which were based on the notion that 'responsible sport is good business' (Chernushenko et al., 2001, p. 96). Whilst drawing attention to a movement opposing 'environmental destruction through sport', Lenskyj's (1998b) article also criticised the light green approach adopted by Chernushenko, whereby the environment is viewed as an economic resource which needs to be protected in order to ensure future economic growth. Chapter Five will discuss the framing and mapping of Olympic organisational attitudes towards environmental issues within the context of the London Games further.

Although the light/dark green distinction is useful in mapping out different organisational positions on environmental issues within the context of the Games, it is not suitable on its own to understand the environmental proposals and actualities of the Games for several reasons. Firstly, it fails to take into account other complex and contributing factors including gender, class and economy (Bookchin, 1991). Secondly, the Games present an extremely unique mega-event which consists of a complicated

web of governmental and non-governmental governance. As such, the environmental agenda of the Games is shaped by a number of competing organisational positions on the issue (IOC, OCOGs, national/local government, ODA, official sponsors). As a result, there is the need to draw upon a range of theoretical approaches in order to fully understand the environmental impact of the Games. In this regard, I empathise with Coakley (2009, p. 26) who suggests 'Because those of us who study sports in society come from diverse academic backgrounds, and because social life is so complex, we use multiple theories to guide our work.' The second theoretical perspective which has been identified as pertinent to the study of the Olympics and the environment is EMT.

Ecological Modernisation Theory

Originating in the 1980s, EMT has become one of the most prominent theories within environmental sociology and is generally associated with the various works of Mol and Spaargaren, Jänicke, and Huber (Buttell, 2000; Huber, 1985; Mol and Spaargaren, 2000). Over a relatively short period of time this theory has evolved greatly, and during the 1990s the growth of ecological modernisation thought was meteoric. Huber (1985), one of the earliest advocates of this perspective proposed three different stages of industrialisation in modern societies. There is (1) an initial industrial advancement which leads to (2) the birth of on an industrial society, followed by (3) the creation of a super-industrialised society and the conception of environmentally-friendly technologies (cited in Hannigan, 2006, p. 25).

Essentially, '[e]cological modernization indicates the possibility of overcoming the environmental crisis without leaving the path of modernization.' (Mol, 1995, p. 37). As such, the 'ecological modernisation hypothesis' contends that capitalist liberal democracy has the ability to modify its impact on the environment, and the further 'modernisation' of these industrial societies will lead to positive ecological impact. In this regard, the role of science and technological development can minimise adverse

73

environmental impacts and address environmental concerns (Buttel and Gijswijt, 2004; Huber, 1985). This perspective has evolved to take into account institutional designs and societal behaviours, but the role of technology remains at the core of EMT (Nishant et al., 2012).

There are differing degrees of ecological modernisation. On one hand, proponents of the 'strong' version of EMT acknowledge the need for public consultation and continual reflections about the positive and negative impacts of emerging 'green' technologies. Further, this position concedes a need for governmental and non-industry support to monitor the ways in which industry is attempting to become more sustainable. On the other hand, advocates of the 'weaker' versions of EMT contend that industry and consumer-demand are self-regulating and will be able to advance environmental change autonomously (Wilson, 2012).

Ecological modernisation is very much in line with tenets of 'sustainability' and 'sustainable development' in the sense that environmental enhancement and economic development are mutually achievable. Gibbs (2000, p. 11) argues that these terms promote the same principles to the extent that 'sustainability' is the marketable headlining concept of ecological modernisation within policy discourse. For these reasons, this perspective and in particular the 'weaker' versions of it are often adopted and championed by businesses and corporations. This is due to the fact that 'weaker' versions of EMT endorse policies which support modernisation processes (Yearley, 2002), and subscribe to the notion that the adoption of environmentally-friendly practices are compatible with continued economic growth (Wilson, 2012). Spaargaren and Cohen (2009) in fact drew upon the 'shallow'/'deep' ecology, light/dark green positions when illustrating the position of EMT. The authors suggested that the challenge of EMT is to navigate between dark green opposition of modernisation processes, and the naïve advocacy of the market-driven light green approaches to

environmental concerns. The early EMT work was in fact criticised for adopting this latter position which Hajer (1995, p. 294) termed 'techno-corporatist'.

This theoretical perspective presents many similarities with the 'shallow' ecological perspective, which I suggested earlier in this chapter is the position assumed by the key Olympic organisations. Olympic economist Preuss (2012, p. 16) asserted that the main advantage of hosting a sports mega-event in terms of environmental concerns is its visibility, and subsequent ability to inspire 'a stronger commitment to ecological modernization.' This quote arguably encapsulates how EMT is utilised by the IOC and the OCOGs in how they address environmental concerns.

Despite its vast appeal, EMT has been subject to various criticisms. One such criticism is its embrace of capitalism, science and technology, and the modernisation of industrial societies, which arguably contradicts the creation of a 'greener' society. In this sense, it has been asserted that EMT may act as a rhetorical scam to enable the dominant groups in society to continue with just minor reforms. It also focuses on sustainability at the expense of the rights and aesthetics of a habitat. Further, it provides both a theoretical argument for addressing environmental concerns and suggests how this can be put into action. Whilst this offers solutions and a direction in which progress can be made, it also possesses inherently positive connotations. In this regard it may be difficult to challenge ecological modernistic ways of thinking without seeming to want to stump progression and environmental improvements (Bell, 1998).

The 'strong' EMT position fails to take into account the different power dynamics between stakeholder groups, and subsequent shaping of the environmental agenda (Wilson, 2012). An Olympic-specific study by Kearins and Pavlovich (2002) on the role of stakeholder groups in the creation of Sydney's 2000 'green Games' demonstrates this problem. The authors demonstrated how the less powerful environmental groups involved with the organisation of the Games had to make

undesired compromises. This finding only fuels critics of this perspective as it highlights the superficiality of public consultation when corporate stakeholders are involved (Wilson, 2012). Another weakness of this perspective is its inability to explain 'greenwashing' practices often employed by businesses. Gibbs (2003) argues that this theory is in fact 'greenwash' and is used to provide justification for the environmentally destructive practices employed by corporations.

In its entirety EMT theory is useful in understanding the creation and employment of new technologies in the pursuit of 'sustainable development'. As such it provides a rationale for the 'shallow' ecology or light green perspective that has seemingly been adopted by the IOC and the OCOGs (Karamichas, 2012). Rather than promoting a radical change in consumption behaviours, the Games have been utilised to develop and showcase green technologies and materials (Gold and Gold, 2011).

Prior to outlining the theoretical framework adopted in this thesis, it is first important to understand the environmental position assumed by the IOC. This will help to provide the context from which to apply the theoretical framework outlined, to how host cities have addressed environmental concerns, and how different stakeholder groups have perceived the environmental impact of the London Games in particular.

The Theoretical Framework of the Thesis

The official position adopted by the IOC on sustainability is underpinned by the Agenda 21 action plan which emanated from the 1992 'Earth Summit'. Agenda 21 was originally created in order to offer a blueprint of global action for sustainable development. This action plan is arguably the most significant document in terms of the Olympic Games as it has had a direct impact on the way in which the IOC addresses environmental concerns. In its original form, Agenda 21 was an extremely long and complex piece of documentation which consisted of a 40 chapter-long action plan which built upon the principles set out in the Declaration. At the heart of this agenda was the

acknowledgement that unsustainable patterns of consumption and methods of production, primarily of industrialised societies, lay at the root of environmental degradation (Collin and Collin, 2009). This document emphasised citizen and NGO involvement, and highlighted the importance of businesses and trade in finding new ways to attain sustainable development (Dresner, 2008). The responsibility of implementing Agenda 21 lay with national governments who were meant to lead their citizens in the pursuit of sustainable development (Dernbach, 2002).

In 1999 the IOC formally adopted their own Agenda 21 at the IOC Session in Seoul following its examination at the third IOC World Conference on Sport and the Environment in Rio in 1999 (Furrer, 2002; IOC, 2012a; Theodoraki, 2007). The Olympic Agenda 21 aimed to ensure all of its members played a part in the sustainable development of the planet, and guided the activity of the IOC through the proposal of basic concepts and general actions. These proposals included utilising energy-saving technologies, reducing the use of non-renewable resources, and conducting an environmental impact assessment pre and post-Games (Furrer, 2002). The agenda offered suggestions at both an organisational level (international governing bodies of sport) through integrating sustainable development into policies, and at an individual level through encouraging sustainable lifestyles. In accordance with the principles set out in Agenda 21, the IOC proposed an action plan with the following three objectives: to enhance socio-economic conditions, to preserve and sustainably manage the use of resources, and to improve and consolidate the role of major groups within this (Theodoraki, 2007). Following this, the IOC produced its own 'IOC Guide to Sport, Environment and Sustainable Development'. This guide was the result of collaborative work between the IOC and Olympic International Federations and proffered more specific recommendations. The guide subsequently aimed to bridge the gap between theoretical concepts and the employment of programmes and initiatives (IOC, 2012b).

Whilst each of the theoretical perspectives discussed offer some insight into understanding environmental issues and the Games in isolation, they are unable to fully understand the issues being examined in this thesis. Taking into consideration the key tenets of the theoretical perspectives discussed in this chapter, and the environmental position assumed by the IOC, the theoretical adopted in this thesis consists of an amalgamation of three theoretical perspectives: a 'Critical/Marxist' perspective, Næss' philosophical conceptualisation of 'shallow' and 'deep' ecology, and EMT, in order to examine attempts made by the IOC, and more specifically the London Games, to become recognised as environmentally sustainable. Table 3.3 provides an overview of the explanation of the theoretical positions employed and the themes relating to this thesis that they explore (as will be shown in Chapters Five, Seven and Eight). Wilson (2012, p. 105) called for a more theoretically eclectic approach to understanding environmental issues in sport; he explained 'reactions to vital issues like those raised about the environment require creative and multifaceted strategies informed by a variety of perspectives.' More specifically, Wilson (2012, p. 97) endorsed the use of a Marxist-inspired theoretical framework to understanding issues concerned with sport and the environment, he wrote:

> *The main argument is that existing research and theory that describe how power inequalities are maintained and reinforced would offer a foundation from which to explain why EM* [Ecological Modernisation] *responses to environmental problems…would likely be manipulated in ways that ultimately favour economic growth.*

The theoretical framework used in this thesis represents that proposed and advocated by Wilson. In this regard, a 'Critical/Marxist' perspective is used as the general framework through which a critical account of environmental sustainability and the Games is

provided. A 'Critical/Marxist' perspective is used in order to help understand the extent to which economic concerns (relating to that of the host city and/or the economic interests and influences of corporate sponsors) impact upon how environmental concerns are addressed by host city organisers. This perspective is further used to draw attention to the power differential between Olympic bodies and the host communities, and how this may impact upon the perceived environmental impact of the Games. The philosophical conceptualisation of 'shallow' and 'deep' ecology is used map different stakeholder attitudes to environmental issues, and how they are subsequently addressed, or perceived to be addressed. In terms of EMT, this perspective will be shown to be the dominant position assumed by different Olympic organisations. These three theoretical perspectives in combination will help to provide a critical interpretation of the gap between environmental proposals and realities, and the subsequent impact upon the host communities.

More specifically, through using these three theoretical perspectives in combination, this thesis provides; a critical interpretation of the relationship between environmental sustainability and the Games through historical analysis (see Chapter Five); and a critical insight into the environmental impact of the Games on local residents and businesses through examining sustainable claims and actualities (see Chapter Seven and Eight), thus it uncovers the everyday perspective of people located in the Olympic Boroughs, and investigates the apparent disconnect and exploitation between Olympic organisations and host communities.

Table 3.3. Overview of Theoretical Perspectives Adopted

Area of literature	Theoretical Perspective	Themes Explored
Sociology of the Olympics	'Critical/Marxist'	• The extent to which money and power can shape the environmental agenda of the Games • Power relations between Olympic organisers and host communities, and extent to which this impacts upon the treatment of local residents and businesses
Sociology of the Environment	'Shallow' and 'Deep' Ecology	• The environmental positioning of key stakeholders
	Ecological Modernisation Theory	• The environmental position assumed by different Olympic organisations, more specifically in terms of the extent to which the creation and employment of new 'green' technologies is advocated.

Conclusion

The first part of this chapter identified the key theoretical perspectives used in social sciences to examine the Olympic Games. Three broad perspectives were identified: 'Functionalist/Managerialist', 'Critical/Feminist', and 'Critical/Marxist'. These perspectives were then discussed in terms of their application to social issues and the Games more generally, and then more specifically to the relationship between the environment and the Games. Overall, I argue that the 'Critical/Marxist' perspective has the most relevance to this thesis in terms of the way it identifies power and money as key factors that shape the environmental agenda. However, one of the key contributors to 'Critical/Marxist' research on sustainability, the environment and the Games is Helen Lenskyj, whose critical work on the Games is undoubtedly underpinned by her critical and feminist politics. The 'Functionalist/Managerialist' perspective represents the environmental position assumed by the IOC and various OCOGs (as will be shown in Chapter Five) through its endorsement of environmental management and technological

advances, and corresponds to the concept of light green/'shallow' ecology from the sociology of the environment.

Despite the attractions of these theoretical perspectives, this part of the chapter has also demonstrated the inability of these perspectives to fully enable the analytical assessment of environmental concerns. From reviewing the literature concerned with the Games, sustainability and the environment, it is clear that research has only just begun to draw upon environmental sociology concepts (see Karamichas, 2012). Hence I argue that by combining concepts from both the sociology of the Olympics and environmental sociology literature, a much more comprehensive understanding of environmental sustainability and the Games can be achieved.

As such, the second part of the chapter examined the emergence and associated ambiguity of the concepts of 'sustainability' and 'sustainable development'. It has also provided an overview of the development of environmental sociology, and how the relationship between the human and non-human and environmental problems have been theorised through the philosophical conceptualisation of 'shallow' and 'deep' ecology, and EMT. Further, how these theoretical perspectives have been employed to help understand the environmental agenda pursued by the IOC and OCOGs was discussed. However, the inability of these theoretical perspectives to understand environmental sustainability within the context of the Games in isolation has also been demonstrated. As a result, the third part of this chapter outlines the theoretical approach that I have developed which combines elements of a 'Critical/Marxist' perspective, Næss' philosophical conceptualisation of 'shallow' and 'deep' ecology, and EMT, in order to provide a critical interpretation of environmental sustainability and the Games.

The next chapter outlines the three phase comparative, historical and qualitative mixed methods approach adopted to provide a socio-historical analysis of the IOC's

recent commitment to the environment, and an examination of the intersections between

the economy, environment and locality at the London Games

CHAPTER FOUR: RESEARCH METHODOLOGY

As previously outlined in Chapter One, the thesis has three specific objectives: (1) to establish a theoretical and conceptual standpoint from which to critically examine the relationship between the IOC and the environment; (2) to provide a socio-historical analysis of the IOC's recent commitment to the environment by examining environmental statements and commitments made by the IOC and all Olympic host cities between 1992-2012; and (3) to investigate the views of different stakeholders involved in the debates about environmental sustainability in the context of the London Games. This chapter presents the comparative, historical, and qualitative mixed methods approach adopted in order to achieve the second and third aim of the thesis. As such, the chapter has three aims: to explain the research design adopted; to justify the methods of data collection and analysis used; and to detail the research process.

As highlighted in Chapter One, the research in this thesis utilised and built upon the methodology adopted by Kearins and Pavlovich (2002), and Chappelet (2008) and the way in which these authors examined different environmental aspects within the context of the Olympic Games. This result was a historical overview of the environment, sustainability and the Games, blended with an interpretivist examination of the views and experiences of different stakeholder groups. In order to achieve this a three-phase qualitative research design was employed. Phase one involved secondary data analysis, whilst phases two and three utilised semi-structured interviews and a focus group. The participants in phases two and three were both 'boosters' and 'sceptics' of the London Games from different stakeholder groups; Olympic Borough Council representatives, local residents, and local businesses.

A Historical Review of the Relationship between the Environment, Sustainability and the Games from 1992-2012

Dating back to the late 1950s, the prolific sociologist C. Wright Mills asserted that for sociologists to perform their occupational obligations and produce high-quality research, they must incorporate a 'historical scope of conception' in their work (Mills, 1959, p. 146). More specifically, within sport sociology Sugden and Tomlinson (1999, p. 387) also stressed the importance of the use of historical research. They explicated that 'In order to fully make sense of what happens today we must come to understand why it happened, at least in part, in terms of yesterday's events.' The use of historical research when studying the Games has been further endorsed by Gold and Gold (2011, p. 10) who asserted that the 'The staging of the Olympics positively invites historical analysis.' However, this is not unproblematic as Essex and Chalkley (1998, p. 204) highlighted when they explained that 'the further back in time the researcher wishes to stretch, the more fragmentary the evidence is likely to be.' In terms of research on the Games, Essex and Chalkley (1998, p. 204) contended that 'There may therefore be a case for concentrating enquiries on the more recent Games.' In terms of the aims of the thesis, and from reviewing the literature on the relationship between the environment, sustainability, and the Games, I would agree with this assertion. As such, Essex and Chalkley's advice has, in part, informed why this thesis explores the environmental aspect of the Olympic Games between 1992 and 2012.

My reasoning for concentrating on the environmental aspects of the Games from 1992 to 2012 is three-fold. Firstly, although environmental sustainability was not a central feature of the bidding process or the hosting of the Games until the 'green Games' of Sydney 2000, the regenerative nature of the Barcelona 1992 Games showcased environmental improvements to the area (London East Research Institute of the University of East London, 2007). Since the success of the Barcelona Model of city-

wide regeneration, Olympic-led regeneration has shifted from focusing on the improvement of physical infrastructure, to the targeting of economic, social, physical and environmental problems. These coordinated efforts to address a range of different problems prevalent in a host city have been linked to the fashionable notions of 'legacy' and 'sustainability'. Despite environmental concerns not forming a key part of the regeneration agenda at the Barcelona Games, these Games nonetheless represent a shift towards environmental consciousness by host cities (Gold and Gold, 2011). Secondly, the negative media coverage of the irreversible environmental damage caused by the hosting of the Albertville 1992 Winter Games played a significant part in the inclusion of environmental protection within the Olympic Charter (Higham and Hinch, 2009; IOC, 2012b) . Thirdly, 1992 was an extremely important year in terms of a movement towards creating a more environmentally sustainable world more generally with the creation of Agenda 21 at the 'Earth Summit' in Rio de Janeiro. This global action plan concerned with sustainable development later became a significant part of the IOC's approach to addressing environmental issues, as we have seen and will look at in the next chapter.

These three reasons combined justify the starting point from which to examine environmental issues within the context of the Games. The latest Olympic edition, London 2012, provides the primary focus for this thesis. The duration of this thesis has enabled an observation of environmental issues in the year leading up to the Games, the Games time activities, and the early stages of the legacy processes. Through examining a twenty year period, this thesis provides a detailed context from which to examine the experiences of those directly affected by the Games in research phase two and three.

Historical accounts of the development of environmental concern within the context of the Games have typically been built upon a descriptive/pragmatic paradigm. The key examples of historical accounts pertinent to this thesis are Chappelet's (2008)

and Cantelon and Letters' (2000) articles which document the development of environmental concern within the Winter Games, and the conditions surrounding the creation of an Olympic environmental-specific policy respectively. However, this thesis seeks to move beyond a completely descriptive historical account and offer a unique contribution to this area of research. In order to do this, I adopt a more critical paradigm and apply the theoretical perspectives discussed in Chapter Three to examine attempts made by the IOC and host city organisers to become recognised as environmentally sustainable, with a specific focus on the 'greening' of the London Games.

In order to undertake this historical examination of the Games, I followed a systematic process which consisted of analysing three types of documents: official Olympic host city bid documents, official Olympic documents, and 'other' literature. I initially consulted official Olympic bid documents and reports and was able to locate all official bid documents from 1992 to 2010 from the LA84 Foundation website (LA84 Foundation, 2012). I used the London 2012 website to access the official bid document for these Games. For the Games that took place between 2008 and 2012 I used the gamesbid.com as a reference tool. Although the official bid documents from these Games were not available from this website, I still found it useful in enhancing my overall understanding of the bid process for these Games through various official Olympic documents. In addition, I used the Olympic Museum website (Olympic-museum.de, 2012) for Olympic bid documents and official reports for the Summer Games between 1992 and 2012.

In terms of the second type of sources, I drew upon official Olympic publications, these included: *Olympika,* the *Olympic Review*, IOC Factsheets, Centre for Olympic Studies publications, proceedings from the International Centre for Olympic Studies, and periodical Sustainability Reports from the official London 2012 website (all other official Games' websites are now defunct). My participation in the

International Olympic Academy's 18th International Seminar on Olympic Studies for Postgraduate Students in September 2011 gave me access to and developed my awareness of these documents and archives. These sources helped provide me with an overview of the evolving relationship between sustainability, the environment and the Games, rather than commenting on specific Games. With respect to the third type of sources, 'other', I drew upon a range of different types of documents which included academic articles, unofficial/protest websites (often anti-Olympic websites such as Comitato Nolimpiadi! 2006, 2006a and No to Greenwich Olympic Equestrian Events (NOGOE), 2012), and online newspaper articles.

The identification and selection of relevant sources was further aided by the utilisation of bibliographies such as that compiled by Veal and Toohey (2008) at the Australian Centre for Olympic Studies (ACOS), the British Library's 'Olympic and Paralympic website collection' (UK Web Archive, 2012), The 'Winning Endeavours' website, compiled by Archives for London Ltd, London Metropolitan Archives, and the British Library (London Metropolitan Archives, 2012), and 'The People's Record' (2012) website (the first coordinated record of the public's reaction to the Olympic Games by a host nation).

Using the three types of secondary data sources, I followed a systematic process where the data was manually managed in order to uncover the environmental promises made by OCOGs and the reality of these promises. Initially I searched the official bid documents for key terms which included 'environment', 'sustainability', 'nature', and 'green' in order to establish the environmental aims of the OCOGs. I then drew upon other Olympic literature such as the *Olympic Review*, IOC Factsheets, and materials produced by the host city organisers, for example, sustainability reports. These documents were analysed in order to gain an understanding of the official position adopted by host cities by uncovering the different environmental initiatives and

programmes proposed and implemented to try and achieve the aims set out in the bid document. I then used academic material (books and journal articles), online newspaper articles, and unofficial/protest websites, to gain different interpretations of whether or not these aims had been met, and the impact of the environmental work undertaken at an international, national, and local level. I used the theoretical perspectives previously outlined to inform my interpretation of the environmental position adopted and promises made by the IOC and OCOGs. Further, these perspectives were used to help interpret the promises made by the host city organisers, the reality of these promises, and the motivations behind them. From systematically reviewing the different environmental positions employed by the organisers of the Games, I was able to produce a narrative of the evolving relationship between the environmental, sustainability, and the Games. From this I was able to able to compare and contrast the key themes and trends in terms of how environmental concerns were addressed, how they were received, and whether or not the aims proposed were met.

Upon reflection I agree with Essex and Chalkley's (1998) assertion that evidence is more fragmented and disjointed the further back in time the Games took place. Although there was commentary on the hallmark Games of Barcelona 1992, Lillehammer 1994 and Sydney 2000, it proved difficult to identify and select relevant sources which commented on the environmental aspect of Games that took place earlier then this twenty-year period. Further, I found that there was less information available for the Atlanta 1996, Nagano 1998, and Salt Lake City 2002 Games. This is perhaps understandable as the Atlanta and Nagano Games took place prior to the adoption of the Olympic Movement's Agenda 21, and the Salt Lake City Games were overshadowed by narratives of corruption. However, overall the analysis of secondary data sources helped formulate the questions used in the subsequent interviews and focus group which took place in research phase two and three.

Interviews with Olympic Borough Council Representatives

Social life is duplicitous and people/groups often create and project images of themselves which hide social realities (Douglas, 1976). As such, it is important to adopt a research methodology that goes beyond observations of a phenomenon. The second and third phases of research was informed in part by Sugden and Tomlinson's (1998) utilisation of archival research and interviews in order to seek out a more truthful representation during their research into an international sports governing body (FIFA).

The second and third phases provided a case study of the environmental sustainability of the London Games. A case study was deemed most appropriate in order to gain a holistic and comprehensive understanding of the context of the issue and how it has developed over time (Gratton and Jones, 2010). An inherent problem of case study research is the difficulty in defining the exact temporal context within which the phenomena is being examined (Yin, 2003). In order to delineate the period examined, I draw upon the Department for Culture, Media and Sport's (2008, p. 1) discussion of the legacy of the London Games in terms of 'Before, During and After'. The 'Before' stage refers to the seven years of preparation after the awarding of the Games (Preuss, 2004). This is followed by the 16 days of Olympic and 12 days of Paralympic competition, and the 25-30 year legacy period of the Games (London Legacy Development Corporation, 2012). Due to the timing of this thesis, all data collected and materials used with respect to the London Games has been taken during the 'before' period.

The purpose of the second phase was to investigate the views of Olympic Borough Council representatives in order to gain an understanding of the interpretation of environmental sustainability and the Games at a local governmental level. As such a qualitative research methodology was employed. The rationale behind the conducting research with this stakeholder group was part in formed by a lack of previous research into understanding the role of local government in the hosting of the Games, as well as

to try and gain an interpretation of the environmental impact of the Games at the Borough-wide level. In combination with research phase three, these two phases sought to uncover the everyday person's perspective of the Games and environmental sustainability, and to go beyond uncritical generalisations about the environmental impact of the Games offered by official Olympic literature. During research phase two, semi-structured interviews were conducted with representatives from the six Olympic Boroughs Councils between December 2010 and May 2012. The semi-structured interview method was chosen in order to try and understand that which is not directly observable such as thoughts, feelings and intentions of others by 'enter(ing) into the other person's perspective' (Patton, 2002, p. 341). By using the semi-structured interview method, I was able to devise an interview guide which included questions around themes relating directly to my research aims and objectives. It also enabled me to be flexible in terms of the order in which the questions were asked, and the inclusion of new questions to help explore unexpected answers further (Bryman, 2004; Saunders et al., 2009). Further, the use of the interview method enabled the gathering of experiences and information which has not been documented via press releases and the publishing of documents such as annual reports on the internet from relevant organisations (for example the Commission for a Sustainable London 2012, the ODA, and LOCOG).

Although the use of qualitative interviewing was deemed most appropriate for the purposes of this research, it must be acknowledged that interviewing still 'has its own issues and complexities, and demands its own type of rigour' (O'Leary, 2004, p. 162). Semi-structured interviews as a form of in-depth interview imply to an extent 'an egalitarian relationship between the interviewer and interviewee which contrasts the imbalance of power in structured interviewing.' In this regard, 'Rather than focusing on the researcher's perspective as the valid view, it is the informant's account which is

being sought and highly valued.' (Klenke, 2008, p. 127). In order to do this successfully, it was important for me to not only develop the social, emotional and communicative skills integral to interviewing, but also the ability to comprehend and reflect on the interview process (Klenke, 2008).

All participants who took part were assured of their complete anonymity. The only identifiers used during analysis were the Borough the participant worked in and their general job role. Through reviewing the responses given, the participant's job role/area of work appeared to be a key determining factor. As such, using this identifier enabled me to contextualise and offer interpretations on the responses given.

Participants in research phase two (see Table 4.1) were identified through initially contacting the Olympic Borough's dedicated Olympic and Paralympic Units via their respective websites. From this base contact, I was either able to identify the most suitable person to arrange an interview with or was informed that the Unit was too busy to deal with my research request at this time. As detailed later in this chapter, this led to widening the scope of suitable of participants from those working within these specialist Units, to those who were able to comment on issues concerned with the environment, sustainability and the Games, hence the inclusion of participants working within town planning, environment and regeneration.

Table 4.1. Interviews with Olympic Borough Council Representatives

Borough	Role	Date of Interview
Barking and Dagenham	Volunteer Coordinator – Olympic Ambitions Unit (worked on a voluntary basis)	08/06/2012
Greenwich	Senior Managerial Level – Regeneration, Enterprise & Skills Department	03/12/2010
Hackney	Managerial Level – Olympic and Paralympic Unit	13/01/2011
Newham	Director Level – Environmental Department	21/03/2011
Tower Hamlets	Managerial Level – Sustainable Development/Environmental Department	13/07/2011
Waltham Forest	Managerial Level – Olympic and Paralympic Unit	21/03/2011

The duration of the interviews ranged from between 30 minutes to one hour depending upon the willingness of the participants and the time they were able to offer during their working day, and all interviews were conducted in the participants' respective workplaces. Prior to the interviews, ethical clearance was sought and agreed by the relevant University of Central Lancashire's ethics committee. The research thus conformed to both the British Sociological Association's ethical guidelines (British Sociological Association, 2002), and the University of Central Lancashire's practices, policies and regulations. Matters concerned with privacy such as participant anonymity, maintaining restricted access to data collected, explanation of the purpose of the study, issues relating to confidentiality and the right to withdraw at any point during the research process were explained to interviewees prior to their interviews, as well as obtaining their informed written consent. Additionally, participants were asked whether they had any objections to the digital recording of interviews and all of the subjects except for one agreed. The one particular participant who did not agree did not offer any explanation as to why they did not want to be recorded. However, there was another

potential interviewee who I had established some contact with but who subsequently declined to be interviewed. This was due to a conflict of interest with their role working for an Olympic host Borough Council. Due to the fact that the views offered by participants could conflict with their job, it was in hindsight unsurprising that this participant did not want to be recorded. In this instance I continued to conduct the interview and made field notes. Despite this, I felt that the participant was still forthcoming with information useful to the study.

After choosing to use the semi-structured interview method of data collection, I developed an interview guide which consisted of four main topic themes and questions. These were environmental sustainability within the context of the London Games, the environmental impact of the hosting of the London Games on the Borough, local residents, and local businesses respectively (see Table 4.2). The interview guide was developed in accordance with recommendations in the literature (Robson, 2002; Rubin and Rubin, 2005; Tod, 2006). The interview guide utilised three types of questions suggested by Rubin and Rubin (2005): main questions, follow-up questions and probes. Main questions were used to ensure that all aspects of the research problem were investigated. For example, one of the topics I wished to cover was 'environmental sustainability'. One of the main questions designed to cover this area was 'Within the context of the London Olympic Games, what does environmental sustainability mean to you and your Borough?' Follow-up questions and probes were used to gain greater depth and detail from the participant. Follow-up questions asked the participant to explain further any concepts or events which they mentioned in conversation. Probes were used to help direct the conversation by ensuring participants remained on topic, that answers were clarified, and examples were given where necessary (Rubin and Rubin, 2005). With respect to follow-up questions, when asking about the impact of the London Olympic Games on the Borough, local residents and local businesses and the

types of responses the participant had received from these groups, I then asked what type of dialogues/relationships had been established if any. I then probed this area of questioning further by asking for examples of any dialogues/relationships.

The sequence of questions involved an introduction, warm-up, main interview questions, wind down and close (Tod, 2006). During the introduction, the purpose of the study was explained and informed consent was obtained. During the warm-up, factual information regarding the participant's job role at the relevant Olympic host Borough Council was gathered. Although Bryman (2004) recommends the collection of socio-demographic information in order to help to contextualise the participant's answers, I asked questions to extract factual information regarding the participant's job role which I later highlight in this chapter, and refer to in more detail in Chapter Seven to contextualise the answers given. Following the main questions which centred on the four main themes previously mentioned the interview began to 'wind up'. Here I asked if there was anything else that the participant would like to add, for what reasons were they interested in talking to me, and if there was anything else that they would like me to tell them about my research. Further to this, I thanked the participant for their help and cooperation.

Table 4.2. Interview Guide for Olympic Borough Council Representatives, and Local Residents and Businesses: Themes and Questions

Theme	Question
1. **Personal Information**	a. What are your work responsibilities?
	b. To what extent does the Olympics impact upon your work(load)?
2. **Environmental Sustainability**	a. Within the context of the London Games, what does environmental sustainability mean to you and your Borough?
	b. How is your Borough addressing environmental sustainability in the run up to the London Games?
	c. What are your thoughts and feelings with regards to the London Games and environmental sustainability?
3. **Impact on Borough**	a. So far what do you think the preparation of the London Games is having on your Borough?
	b. What types of responses have you received from the local community?
4. **Impact on Residents**	a. What impact do you think the London Games is having/has had on the residents of your Borough?
	b. What types of responses have you received from local residents?
5. **Impact on Local Businesses**	a. What impact do you think the London Games is having/has had on the local businesses within your Borough?
	b. What types of responses have you received from local businesses?

This guide enabled me to prepare for the interviews by helping me to consult the most current literature and news stories prior to meeting with the participants. Due to being a relatively inexperienced interviewer initially and interviewing people whom I considered to be 'experts', I relied heavily upon the exact structure and questions in the guide. As I gained more experience in conducting these interviews, I felt more confident in creating more of a conversational dialogue as opposed to an entirely formal interview. In this regard, I felt more comfortable in adjusting not only the order of the

questions, but building upon the answers given, rephrasing new questions and exploring emerging themes (Daymon and Holloway, 2002).

The creation of the questions used in the interview guide were informed in part by my review of the literature. Overall, the majority of research on the environment, sustainability and the Games did not use qualitative data collection. Berlemann and Rhodes (2005) wrote an interesting piece of work that was submitted as a Master's thesis on the ways in which the IOC could contribute towards a more socio-ecologically sustainable society. Whilst this piece of work was written as an Engineering and Strategic Management Master's thesis, it utilised qualitative interviews to better understand the role of the IOC in creating a sustainable society. I drew upon the interview guide used for this piece of research, in particular the way in which the authors question an organisation's definition of sustainability, and how they address sustainability accordingly.

Whilst a general interview guide was used for all participants, I tried to individualise the guide for each participant in order to try and uncover information which was Borough and context-specific. For example I asked the Greenwich respondent about their experience dealing with the community action group NOGOE. I also attempted to facilitate a greater level of rapport with some participants by sharing my experiences of spending some of my childhood living in the Borough of Newham, more specifically Stratford. This strategy proved most useful when interviewing local residents and businesses who were negatively affected by the hosting of the Games during research phase three. Many of the research participants appeared perplexed that I was a PhD researcher based at university in Preston but studying the impact of the Games on host communities in London. I felt that by sharing this personal information, the participants understood my reasons for wanting to conduct the research. The

majority of participants in the second and third phases of research invited or welcomed further communication regarding my research findings.

At the start of the PhD there were only five Olympic Boroughs (Greenwich, Hackney, Newham, Waltham Forest and Tower Hamlets) and interviews were conducted with relevant persons from these Boroughs between December 2010 and May 2011. However, Barking and Dagenham was officially approved as a sixth Olympic Borough in April 2011 (Clark, 2011). Although this Borough was new to experience the different advantages and disadvantages associated with being an Olympic Borough, its role previously as a 'Gateway Borough' meant that it had been subject to Olympic-related changes (London Borough of Barking & Dagenham, 2012). As a result it was felt necessary to conduct a sixth interview with a representative from this Borough which took place in May 2012. It must be acknowledged that the sixth interview took place approximately 12-18 months after the initial five interviews, and two months prior to the start of the Games. Due to the impending hosting of the Games, events that may have conceivably influenced the sixth interviewee's views could have taken place. However, this was taken into account when carrying out thematic analysis on the data. The findings from this interview are explored in Chapter Seven.

Initially Olympic Borough Council representatives from the dedicated Olympic and Paralympic Units were identified as participants for interview. As part of the preparation for the Games, the Olympic Borough Councils set up their own specialist '2012 Olympic and Paralympic Units'. These Units were set up after London was awarded the right to host the Games in 2006 in order to ensure effective cooperation between the different Olympic Boroughs, to coordinate activities relating to the Games within and across the Borough, to act as a focal contact point for Olympic organisations, and to maximise the benefits and legacy of hosting the Games for the people living and residing within the Boroughs (RoyalGreenwich.gov.uk, 2012). It was felt that these

persons would be best placed to give an overview of environmental sustainability and the London Games within a particular host Borough and as such I considered them to be experts. Conducting 'expert' interviews poses several challenges particularly in terms of time restrictions which tend to be greater with these persons, confidentiality, and the need for the interviewer to possess a high level of expertise in the area (Flick, 2009). The rationale behind using 'expert' interviews is to complement the whole research by helping to uncover themes that could be discussed during phase three, the largest phase of research, and to compare and contrasts the perspectives offered with the literature and the experiences of local residents and businesses (Flick, 2009).

In order to identify the most suitable person or 'expert' within each dedicated Olympic and Paralympic Unit I contacted the Units directly with the aim of identifying a key 'gatekeeper' whom could help me gain access to a useful informant. Although the role of 'gatekeepers' is arguably most pertinent to ethnographic research (Cohen et al., 2007), 'gatekeepers' played a crucial part in gaining access to suitable participants in this research. Initial contact with these Units to identify a 'gatekeeper' was made via email to the team addresses that were advertised on the six Council websites. This email offered a brief introduction of myself as a PhD researcher, a brief overview of my research project, and asked to be advised on who would be most appropriate to address future correspondence with. Gaining access to participants through these persons is often dependent upon 'establishing interpersonal trust' (Lee, 1993, p. 123), and I felt that I was able to do this through developing a rapport with these persons after this initial email. Developing this trust led to the dissemination of information regarding my study, and these persons vouching for my research and me personally. Building a relationship with 'gatekeepers' and research participants is crucial as 'the quality of the research outcome could well be dependent upon the way in which such a relationship is established, directed, sustained and continued or terminated' (Tomlinson, 1997, p. 245).

In order to do this effectively I integrated the advice put forth by Buchanan and Bryman (2009) on gaining access to organisations and institutions. These were to enable enough time for this to take place within my scheme of work, to utilise relationships with friends and family where possible, to use accessible language to explain the nature and purpose of my research, to address any participant concerns in terms of confidentiality and time in a positive manner, and to offer a summary of my research findings once completed. The Olympic Borough Council representatives welcomed the opportunity to see a report of my research findings as they were particularly interested in discovering the views expressed by representatives from the other Olympic Boroughs, which I sent to them post-analysis.

Local Councils fundamentally consist of a political system (Pfeffer, 1992), therefore researching this type of institution and identifying key 'gatekeepers' can be problematic (Buchanan and Bryman, 2009). As Flick (2009, p. 109) explained, 'A research project is an intrusion into the life of the institution to be studied.' Research can cause much disruption to daily operations with no perceived short or long-term benefits (Flick, 2009), and gaining access can be problematic in terms of negotiating research objectives, gaining permission to access research participants, managing the dynamics of different stakeholder groups, and attempting to publish research findings (Buchanan and Bryman, 2009). Due to the complexities involved in researching institutions, 'enough trust must be developed in the researchers as persons, and in their request [to research], that the institution – despite all reservations – gets involved in research' (Flick, 2009, p. 109)

From the initial contact made with these institutions, I was able to arrange and conduct an interview with a representative from Greenwich Borough Council in December 2010. This individual was not situated within the Olympic and Paralympic Unit but their remit covered planning applications pertaining to the London Games.

Unfortunately I did not receive any responses from the other Olympic and Paralympic Units so I adapted my approach and sought to identify individual members of staff through internet searches and telephoned the Units directly. This also led to a second interview with a Hackney Borough Council representative in January 2011 and a Waltham Forest Borough Council representative in March 2011.

Establishing contact with members of the dedicated Olympic and Paralympic Unit for the Boroughs of Newham and Tower Hamlets became unachievable through several declines from the invitation to take part in my research due to time restrictions and workload difficulties. As such, I decided to take a different approach and contact the Environmental Departments for these two Boroughs in order to get environmentally framed views on the sustainability and environmental impact of the London Games. This eventually proved fruitful and interviews were conducted with Newham and Tower Hamlets representatives in March and July 2011 respectively.

As previously mentioned, the elevation of Barking and Dagenham to 'Olympic Borough' status led to a sixth interview with a Council representative from this Borough. In comparison with the other Boroughs, establishing contact with a suitable representative from Barking and Dagenham was an easier process. A local resident whom was interviewed during research phase three utilised her connections as a 'Gateway to the Games' volunteer within the Borough to make contact with a Volunteer Coordinator from the Borough's Olympic Ambition Team. Following this initial contact, I conversed with this representative through email and shortly after arranged and conducted an interview with this person at the local town hall. This representative was the only participant who worked for their respective Council on a voluntary basis. As such it was perhaps unsurprising that this participant shared an inherently positive outlook on the Games and the benefits of becoming an Olympic host Borough. This was arguably due to the fact that they contributed a substantial amount of their own time

without pay to manage an Olympic project. This was the only participant that had a very specific Olympic-related role, in terms of her role in recruiting and organising Olympic-themed volunteering events within the Borough. Due to this, the participant felt that they were unable to comment on matters concerned with the environment, sustainability and the Games. However, I found this interesting as it demonstrated a disparity between the emphasis on the 'sustainability' of the Games from LOCOG, and the extent to which this emphasis was being fed through to those working as part of the Games at the community level.

I encountered several challenges during this phase of qualitative research. I concur with the common problems of qualitative fieldwork highlighted by Polit and Beck (2008). These include gaining trust, the pace of data collection, reflexivity and recording and storing data. In addition to trying to develop a rapport with each of these participants prior to their interviews, I tried to establish a degree of credibility with the participants by gaining a balance between 'be(ing) like' the participants whilst maintaining a relative distance' (Polit and Beck, 2008, p. 384). On one hand I felt that I was able to 'be like' the people I was interviewing by talking about either my experience of the Olympic Gamesmaker volunteer scheme, and as previously mentioned by sharing my experience of spending some of my childhood living in Stratford. This in turn helped me yield insightful facts and thoughts pertaining to the research project. With regards to the interview with the Waltham Forest representative I felt that a good level of rapport was established, and this may be partly due to perceived similarities in terms of socio-demographics, such as gender, ethnicity and level of education. Klenke (2008, p. 121) supports this notion and contends that sharing similar socio-demographic characteristics can favourably 'influence the likelihood that significant insights will be revealed.'

One of the difficulties I encountered was the refusal by one of the interviewees to be recorded. As previously mentioned, one of the problems associated with interviewing 'experts' is their confidentiality. This can be a particular problem when the 'expert' is attached to an organisation or institution, as this participant was, and can lead to reservations or refusal to be recorded (Flick, 2009). To overcome this problem I made field notes during the interview (Holloway and Wheeler, 2009). However, this was not ideal and as a result I was unable to support or contrast the ideas emanating from this interview with direct quotes. Another common problem associated with 'expert' interviews that I experienced was time (Flick, 2009). In this regard I was made aware of the time period the participant was able to speak for; as a result I focused on the key themes of the interview guide to make sure that the participant was able to comment on these main areas. However, this prevented me to a degree from exploring unexpected responses and tangential information.

A key observation that I have made since the interviews were conducted is that the participants' job role greatly influenced the type of responses given. Overall, there were three participants who were directly involved with their Council's Olympic and Paralympic Unit. The other three interviews were conducted with persons with an environmental or town planning remit. The participants involved directly with the Games were generally better able to recall the ways in which the Games were attempting to address environmental concerns. On the other hand, the participants whose job roles were non-Olympic related tended to refer to more generic environmental and governmental-related initiatives and regulations. This observation will be illustrated and explored further in Chapter Seven.

Interviews/Focus Group with Local Residents and Businesses

Research phase three shifted focus to obtaining the views and experiences of people both positively and negatively affected by the hosting of the London Games. The aim

was to gain a balanced view of both 'boosters' and 'sceptics' with regards to the sustainability and the environmental impact of the Games. Initially I proposed to conduct focus groups with residents and businesses located within the five original Olympic Boroughs that were either benefitting (for example businesses' participating in the London 2012 Olympics 'CompeteFor' initiative – CompeteFor, 2012) or suffering (for example those displaced as a result of the construction of the London 2012 Olympic venues) as a result of the hosting of the London Games, and with activists campaigning on environmental issues associated with the Olympics. The rationale behind selecting these groups of people was two-fold: (1) to obtain a comprehensive view of environmental issues and the Games, the effect on the local area, and its citizens and businesses, and (2) to gain insight into the interpretation of the 'sustainability' of the London Games at the local level. Additionally, the use of a qualitative approach was informed in part by a current lack of research into the views and experiences of local people in terms of the environmental impact of the Games.

Websites, national and local newspapers and email were of key importance in helping to identify potential participants. Participants were also identified through examining 'word of mouth' recommendations from local contacts and key gatekeepers which included Olympic Borough Council representatives, and through links already established by my Director of Studies. Purposive sampling was required due to the fact that it was necessary for the participants of the research to provide informative data (Edwards and Skinner 2009). The utilisation of purposive sampling also enabled the facilitation of snowball sampling via the referral of suitable subjects from the original participants. In terms of the overall recruitment of participants for this part of the research, the snowball method was the most effective in helping to access local residents and businesses. This was timely, as potential new participants were identified on a regular basis as events developed in the lead up to the Games. For example, the

development of events concerned with the controversial land grab of Leyton Marshes to construct a temporary basketball arena led to many local residents being vocal about the issue in the national press (Save Leyton Marsh, 2012).

The snowball sampling method required great persistence. Through keeping a record of the successes and failures experienced during the recruitment process I was able to learn more about the sensitive nature of the hosting of the Games and the life-changing impact it was having on people's lives. On two separate occasions, an email disseminated by one of the key gatekeepers I had established contact with led to fierce criticisms and opposition to my research. After reading my advertisement for research participants one of the respondents assumed that I was researching on behalf of the Olympic organisations and was therefore very defensive and unwilling to have any part in my research. Another respondent interpreted my role and research as attempting to find evidence which supported the ideal of the first sustainable Games. As such, they felt that there was no need for my research as the Games were inherently unsustainable. As a result of this I reviewed my research advertisement (see Appendix One) to check for any phrases that could be misinterpreted and discussed this with my supervisory team. The use of 'The Greening of the London 2012 Olympic and Paralympic Games' as a working title was a subject of discussion. However, it was decided that the ambiguity of the phrase was important and that participant's interpretation of this was key to the research.

Through the conducting of semi-structured interviews with Olympic Borough Council representatives in the second phase of research, useful insights were obtained into both experiences pertaining to environmental sustainability within the context of the Games, and thoughts and feelings about the environmental impact on the Boroughs. Based upon research completed in research phase one and two, the following themes were included in the interview guide for the interviews and focus group: perceived

differences between environmental initiatives proposed and those experienced, how these environmental programmes have been communicated, and how the preparation of the London Olympics has impacted upon the Borough and people's daily lives.

As previously mentioned, focus groups were the original method chosen to collect data during research phase three. The rationale for this was to explore the interaction between different local residents and businesses that had been either positively or negatively affected by the hosting of the London Games. In addition, Morgan and Krueger (1993) contended that the use of focus groups is advantageous when attempting to find out the degree of consensus on an issue. In the case of this piece of research, this method might be useful in discovering the level of agreement as to whether the Games can be truly sustainable. However, there has been much discussion about when the use of focus groups is more effective than the interview (Amis, 2005). As Gaskell (2000) explained this is dependent upon many factors such as interviewer preference and skill, the type of participants required, and the nature and aims of the research. Unlike individual interviews, focus groups emphasise group interaction and the construction of meaning as a collective. In this case, the interest in using this method is found in the way that a group discusses a specific topic and how people respond to different views from individuals within the group (Bryman and Bell, 2007).

In order to help the facilitation of a successful group discussion, I referred to Morgan's (1998) and Stewart et al.'s (2007) guides on conducting focus groups. I drew upon these sources to help prepare and conduct the focus group. In terms of the research guide I incorporated the questions used in the interview guide for interviews with the Olympic host Borough Councils representatives, and tried to keep them as open to interpretation as possible. With regards to the interviewing style used I tried to adopt both a directive and nondirective style as recommended by Stewart et al. (2007). In this

sense I tried to use a directive approach and exert some level of control over the group discussions to make sure proposed themes in the interview guide were covered. However, I also tried to give enough opportunity for participants to talk about what was important to them. I feel I had some success in doing this but I perhaps utilised more of a nondirective interviewing style due to my inexperience in facilitating a focus group.

However, it quickly became apparent that it was going to be logistically quite difficult to find a suitable time and location in which to conduct all the focus groups I originally intended, especially with a group of persons who had no prior contact with each other. Despite this, I did carry out one focus group with an already established group based in Waltham Forest. This group was set up to help seniors in the six Boroughs benefit from free activities offered as result of the Games. As a relatively inexperienced researcher and focus group facilitator I found this task daunting but this fear was eased by facilitating discussions between an already established group. This was further aided by the key gatekeeper and convenor of the group being present and attempting to include every member in sharing their experiences. Overall, the focus group conducted amassed rich and useful data and the uncovering of information that may have not been unearthed through individual interviews. I felt that all members did contribute and there was no one member of the group that was overpowering and dominant during the discussions. I also felt that whilst the nature of the group was inherently positive as they sought to share the benefits of hosting the Games, they were also able to give a balanced view and offer critical opinions on the sustainability of the Games.

Table 4.3. Interviews/Focus Group with Olympic Borough Residents and Businesses

Borough	Participants	Date of Interview/Focus Group
Greenwich	Interview: Greenwich Resident_1	31/03/2012
	Joint Interview: Greenwich Resident_2 and Greenwich Business_1	28/04/2012
	Interview: Greenwich Business_2	07/05/2012
Hackney	Interview: Hackney Resident_1	19/03/2012
	Interview: Hackney Resident_2	19/03/2012
	Interview (over the phone): Hackney Resident_3	19/04/2012
	Interview (over the phone): Hackney Business_1 (Food service supplier)	02/05/12
	Interview (over the phone): Hackney Business_2 (Restaurant owner)	15/05/2012
Newham	Interview: Newham Resident_1	17/04/2012
	Interview: Newham Business_1 (Estate Management Services)	17/04/2012
	Interview (over the phone): Newham Business_2 (Online learning – participated in the CompeteFor initiative)	03/05/2012
	Interview (over the phone): Newham Business_3 (Construction company – displaced business)	16/05/2012
Waltham Forest	Focus Group: Waltham Forest Resident_1 to _8	30/03/2012
	Joint Interview: Waltham Forest Resident_9 and Hackney Resident_4	30/03/2012
	Interview: Waltham Forest Resident_10	01/04/2012
	Interview: Waltham Forest Resident_11	07/06/2012
Tower Hamlets	Interview: Tower Hamlets Resident_1	10/04/2012
	Interview: Tower Hamlets Resident_2 (displaced resident)	16/04/2012
Barking and Dagenham		06/05/2012
	Interview: Barking and Dagenham Resident_1	07/06/2012
	Interview: Barking and Dagenham Resident_2	

It must be noted that whilst the focus group conducted did reveal some very interesting

insights, I am aware that the selection of research participants in terms of different

demographic factors significantly influences the outcomes of a group discussion. In this

instance, all eight members of the group were senior women from a range of different ethnic backgrounds who met socially on a regular basis. When individuals in a group already know each other there is the possibility that the different members may not feel comfortable in speaking critically about an issue in front of each other (Wilkinson and Birmingham, 2003). Additionally, there were instances where the familiarity between group members meant that they did on several occasions move off topic. However, the convenor of the group was very helpful in posing questions to the group to bring them back on topic. Ideally I would have embraced the opportunity to conduct one focus group in each of the six Boroughs so I could be better positioned to comment about the effectiveness of using this method in my research.

There were two other attempts to organise and conduct focus groups. Firstly, a potential participant responded to my advert for research participants whom worked with a group of young mothers and children from disadvantaged sectors of the community in Tower Hamlets. As part of this programme, the group were learning about the London Games and visiting the site. Despite several attempts to find a suitable date and location, no focus group was conducted. On a separate occasion, a potential research participant responded to my research advert and explained that she ran a Neighbourhood Watch meeting in Hackney and had a meeting coming up which would be discussing the impact of the Games on the Borough. After attending this meeting I obtained the contact details of six people willing to take part in my research. I sent follow-up emails regarding my research and asked the group to suggest dates and times which would be suitable to them to arrange a focus group. Only two people responded and attended the proposed focus group. Due to the two participants arriving at different times and being restricted on the time they were able to give, two separate interviews were conducted.

As explained above, semi-structured interviews became the default research method employed in the third phase of research. The interview method helped to reveal a range of different insights and experiences and the flexibility in terms of the medium through which the interview was conducted meant that I was able to access a greater variety of people. Overall 29 participants (see Table 4.3) took part in the third phase of research with between two and eleven people interviewed within each of the six Olympic Boroughs in addition to a relevant Olympic Borough Council representative. Ideally I would have liked to interview approximately six persons per Borough but it proved difficult to get people to speak with me in person. I had to try and group together interviews during visits to London and I was not in the position to conduct interviews at short notice. However, all the interviews lasted between 20 minutes and one hour and therefore enabled me to obtain a comprehensive view of environmental issues and the London Games, and the effect on the local area and its citizens and businesses, and insight into the interpretation of the 'sustainability' of the London Games at the local level.

The interviews were conducted both face-to-face and via telephone, and the interview guide used for the focus group was used during the individual interviews, and the same interview guide from research phase two was used (see Table 4.2). The telephone interview method was particularly useful in gaining insights from local businesses, the majority of which I was not able to establish contact with initially via email. Due to the low response rates from local businesses willing to participate in a face-to-face interview, I adapted my approach to recruiting participants by making telephone calls to the identified persons. This was met with much greater success. However, these phone calls were not recorded but notes were made throughout the interview. Whilst it is arguable that the conducting of a face-to-face interview and its subsequent transcription could enable a greater level of honesty and accurate analysis, I

believe that this method contributed greatly to my research. In this regard I agree with Denscombe's (2003) contention that telephone interviewing is still able to create a healthy personal interaction between the researcher and the research participant despite lacking visual contact. Further, there is 'no general reason to think that the measures obtained by telephone are less valid' (Thomas and Purdon, 1994, p. 4).

In addition to these two forms of interviewing, I was able to conduct a spontaneous interview during a research trip to London. During a visit to Leyton Marshes, a site of local protest against the construction of a temporary Olympic venue, a conversation with one of the protestors and a user of the Marsh led to the conducting of a joint interview. Upon reflection, I felt that this interview was very beneficial to my overall research as it involved experiencing first-hand the negative impact of the Games on the local environment.

Data Analysis

The combination of theoretical perspectives that I adopted do not stipulate or recommend any particular techniques of data analysis. Rather, due to my subjective epistemology this research places a 'much stronger emphasis on understanding individual meaning making within a social, political, historical and economic context.' (Markula and Silk, 2011, p. 109). Due to this I have drawn upon the suggestions put forth by Markula and Silk (2011, p. 109) to analyse the interview transcripts. This includes the identification of key themes, overlapping themes and discrepancies between themes, and establishing any connections between these and 'power relations, theory, and previous literature'. I integrated the findings with the constantly evolving events associated with the hosting of the London Games. However, the theoretical perspectives outlined were integral in my interpretations of the environmental impact of hosting the Games on the different stakeholder groups identified. In this regard, the

perspectives underpinned to an extent the questions asked and the identification of key themes through the use of thematic analysis.

Thematic analysis was chosen as the appropriate method of data analysis due to the interpretivist nature of the thesis. This refers to a method of 'identifying, analysing, and reporting patterns (themes) within data. It minimally organises and describes your data set in (rich) detail.' (Braun and Clarke, 2006, p. 79). Whilst this method of data analysis has been criticised for its lack of a clearly-defined process of analysis (Boyatzis, 1998; Howitt and Cramer, 2007), it generally consists of three key components; the data, coding the data, and identifying key themes (Howitt and Cramer, 2007).

It is worth noting that whilst the use of thematic analysis is advantageous in terms of its flexibility and its ability to manage and organise the data, it has been criticised for a lack of transparency in terms of how and at what stage themes and sub-themes were identified (Pope et al., 2007). However, I argue that a degree of transparency was achieved by drawing upon Braun and Clarke's (2006) guide to thematic analysis which consisted of the following six steps: (1) familiarisation with the data; (2) initial coding generation; (3) searching for themes based on the initial coding; (4) review of the themes; (5) theme definition and labelling; and (6) report writing. Here it is worth noting that these six steps do not represent a linear process, rather it is a continually evolving process where I constantly went back and forth between these steps. In terms of the familiarisation of the data, I began developing ideas and themes throughout the interview process itself. Additionally, all but one of the interviews, and the focus group that were conducted face-to-face were digitally recorded and transcribed verbatim. Despite being an extremely lengthy process, this enabled me to conduct a more thorough examination of the responses given, as well as a more accurate analysis than just an intuitive interpretation of the views offered (Heritage, 1984). Key

themes were then generated through the initial coding process. Here I systemically reviewed the data and divided the data in smaller chunks data as I deemed suitable so as to 'capture the essence of a segment of the text' whilst simultaneously organising the text in a meaningful way (Howitt and Cramer, 2007, p. 343; Tuckett, 2005). Braun and Clarke (2006) contended that there are two different approaches to coding the data. In this regard the authors posited that the identification of themes are either 'data-driven' where the identification of themes was predominantly guided by the data, or 'theory-driven' whereby the themes created reflect the key aspects of the theoretical perspective adopted. However, I agree with Howitt and Cramer's (2007) contention that it is often difficult to differentiate between the two, and as such the coding of the data in this thesis was both 'data-driven' and 'theory-driven'.

I then sorted the codes and grouped them into 'themes' whilst also establishing how they related to each other (Williamson and Whittaker, 2011). In this regard, a theme 'captures something important about the data in relation to the research question, and represents some level of patterned response or meaning within the data set.' (Braun and Clarke, 2006, p. 82). In order to do this I created mind-maps of the different themes and then organised the data into distinct themes and sub-themes (see Table 4.4 for a sample theme and associated sub-themes). During this process, some themes were seen to relate more directly to the aims of the research and the theoretical perspectives adopted. As such, new themes were created whilst others were disregarded or 'collapsed down' into one key theme in order to accurately reflect the data, and to ensure that more coherent arguments could be made. Further, the themes identified were also dependent upon whether or not there was sufficient raw data to provide sufficient evidence. In this regard, I initially included 'local protest' as a separate theme, however, after reviewing the responses given I did not feel that they provided enough evidence for this, therefore responses relating to this were subsumed within the themes of the 'lack of community

consultation' and 'corporate versus local'. Following this, the different themes and sub-themes were labelled, and used to help organise the presentation of the material in keeping with the overall narrative of the data (Braun and Clarke, 2006; Williamson and Whittaker, 2011). For interviews with Olympic Borough Council representatives the key themes identified were: the importance of location; the true impact of the Games is yet to be realised; the negative impact of the economic climate; and the ambiguity of the definition of 'sustainability'. For interviews/focus group with local residents and businesses the following themes were identified: the importance of location; shifting priorities; corporate interests versus local interests; the lack of community consultation; and the ambiguity of the term 'sustainability'.

Conclusion

This chapter has discussed the three phases of qualitative research adopted in order to achieve the second and third aims of the thesis: (2) to provide a detailed comparative historiographical insight into the relationship between environmental sustainability and the hosting of the Games between 1992 and 2012, and (3) to investigate a range of different stakeholder views with respect to the environmental sustainability of the London Games. Research phase one refers to the second aim of the thesis and consisted of a historical review of the relationship between the environment, sustainability and the Games from 1992-2012, undertaken using published research and archive material. Research phases two and three were designed in order to satisfy the third research objective. This involved interviews with Olympic host Borough Council representatives, and interviews and one focus group with local residents and businesses located in the six Olympic Boroughs. This chapter has outlined, discussed and justified the research design, methods and data analysis technique used, which has been illustrated through my experience of the research process.

Table 4.4. Sample Theme and Evidence from Thematic Analysis

Theme	Sub-themes	Summary	Evidence
Importance of Location	• Those living closest to the Olympic Park experience the greatest impact • Those located furthest from the Olympic Park are indifferent to the impact of the Games • Number of Olympic Boroughs	The environmental impact of the Games was experienced differently according to geographical location, and was thought to be greater nearer to Olympic venue constructions. Some participants felt that those living closest to the Olympic Park were most negatively impacted, whilst other participants argued that there were more economic benefits for those living closest to Olympic venues. In addition, interviews with the Olympic Borough Council representatives more specifically drew attention to the perceived number of Olympic Boroughs. In this regard, the Boroughs without Olympic venues and located furthest away from the Olympic Park tended not to be acknowledged as an official 'Olympic Borough'	'You've got the people who live right next door to it and so people living in Hackney Wick particularly have had the construction site opposite their windows for 5 years and they've got a lot more to come' (HOBU) 'I can see a lot of focus around Stratford and I still feel worried that in Hackney we're going to be the kind of poor neighbours' (Hackney Resident_1). 'I think Waltham Forest just feels a bit like out on a limb....and you know originally it was going to have the Velodrome and it was going to have a few other events and venues, and they didn't happen. We're not getting the wind turbine....I think people just feel a bit like not you know just indifferent really' (WFOBU) 'There are other Boroughs that feel that I suppose they are paying something that they don't get anything for…the country seems to feel they are paying for something that they don't get anything for' (Greenwich Resident_1). 'Because we are one of the first five or four host Boroughs, depends how you look at it, it does impact quite a lot because there's much interaction between sort of the planning side of things' (THOBC)

So far this thesis has outlined its aims, objectives and limitations. A sociological critique of literature on the Olympic Games has been provided, and the research conducted in the thesis has been located within this body of knowledge. The key theoretical perspectives used in with the sociology of the Olympic Games, and the sociology of the environment which were identified as relevant to this study have also been discussed, and the theoretical framework of the thesis explained. Further, the methodology used has been explained and justified within this chapter. The second part of this thesis now turns its attention to the research findings. Chapter Five provides a theoretically informed analysis of the relationship between the environment, sustainability and the Games between 1992 and 2012. Chapter Seven and Eight offer a theoretically informed interpretation of the views from Olympic Borough Council representatives, and local residents and businesses respectively on the perceived impact and understanding of environmental sustainability and the Games. Chapter Nine concludes the thesis by drawing together the key findings of the research and identifies potential avenues of future research, as well as providing an update on reactions to the sustainability of the Games post-event.

CHAPTER FIVE: THE OLYMPIC GAMES AND ENVIRONMENTAL

SUSTAINABILITY – A TWENTY YEAR CRITICAL OVERVIEW

This chapter provides an examination of the historical relationship between the environment, sustainability and the Olympic Games from 1992 to 2012. The purpose of this chapter is three-fold: to investigate the environmental promises, tangible realities and new developments that occurred between 1992 and 2012; to present a theoretically informed analysis of the evolution of the relationship between sustainability, the environment and the Games over this 20-year period; and to locate the development of environmental discourses of the IOC, and the organisation of the Games within broader environmental debates. In order to do this, an analysis of secondary data sources pertaining to the environmental promises made by host cities and the outcomes of these promises, was conducted. The rationale behind this is to enable a broader understanding of how the Olympic commitment to the environment has developed and evolved to the pursuit of London 2012 becoming the first sustainable Olympic Games. Rather than examining these developments through solely exploring each individual Games, I identify three significant periods through which key changes have occurred: between 1992-1996 whereby local Organising Committees demonstrated to varying degrees a 'growing respect for nature'; between 1996-2002 which saw the 'race to be a 'green' Games; and between 2002-2012 and the evolution of the 'sustainability agenda'. First, however, this chapter provides a brief overview of the relationship between the IOC and environmental issues in order to help provide context to the three periods outlined.

The International Olympic Committee and the Environment

Despite some earlier episodes of environmental consciousness within the context of hosting the Olympic Games during the 1960s and 1970s (London East Research Institute of the University of East London, 2007), not much attention was paid to environmental concerns by the IOC until relatively recently. However, the shift towards

incorporating environmental concerns within the context of the Games did not occur within a vacuum. It was arguably not until the re-birth of environmental issues in the 1970s and 1980s and the emergence of the concept of 'sustainable development' that these issues were paid more attention. Therefore it is necessary to provide an overview of the progressions made within both the Olympic realm and society with respect to the environment more generally, in order to understand the IOC's stance on this area today. Holden et al. (2008) produced a useful timeline of the historical landmarks pertaining to environmental sustainability and the Games (see Table 5.1) that I use as a reference point from which to discuss Olympic-related developments.

Since the 1984 Los Angeles Games it has been argued by advocates that the hosting of the Olympic Games impacts hugely and contributes to a lasting legacy for host cities (Furrer, 2002). A key consideration during the bidding process to host the Olympic Games now is how the Games intend to leave behind a legacy. The IOC first registered the significance of legacy, environmental protection and sustainable development in 1994 at the Centennial Olympic Congress in Paris. These concerns were formally introduced into the Olympic Charter in 1996 (Olympic Review, 2005). The 13th aim of the IOC included in the Olympic Charter now reads, 'to encourage and support a responsible concern for environmental issues, to promote sustainable development in sport and to require that the Olympic Games are held accordingly' (IOC, 2011a, p. 15). When referring to the IOC's position on environmental concerns, former Canadian IOC member Richard Pound felt that just by the organisation 'raising the environmental issue' through the bidding process, the IOC possessed the ability to 'create an increased level of awareness throughout the world' (Pound, 1993, p. 19).

Table 5.1. Historical Landmarks: Environment, Sustainability and the Olympic Games

Year	Event
1964	Citizens of Tokyo voice concerns about pollution and water quality
1974	Denver citizens turn down the Games for environmental reasons
1987	Release of the Brundtland Report
1991	Lillehammer decides to formally pursue a 'green' Games
1992	IOC signs the Earth Pledge
1994	Lillehammer hosts the first 'green' Games; the environment is adopted as the third pillar of focus; UNEP/IOC sign an agreement on sport and the environment
1995	2002 bid cities are the first to be officially evaluated on their environmental plans during the bidding process; UNEP/IOC host the first World Conference on Sport and the Environment
1996	Creation of the Sport and Environment Commission; the Olympic Charter is modified to refer to the environment
1997	UNEP/IOC host the second World Conference on Sport and the Environment
1999	Creation of Olympic Agenda 21
2000	Sydney sets a new global Olympic standard by hosting the 'green' Games
2001	IOC begins the process of setting economic, social, and environmental indicators
2003	Vancouver is selected as host city of the 2010 sustainability Games
2005	LOCOG wins the rights to the 2012 One Planet Olympics'; Beijing Organising Committee of the 2008 Olympic Games signs agreement with UNEP for the 'greenest ever' Games and completes its initial Olympic Games Global Impact Study (OGGI) report
2006	Turin hosts the 2006 Winter Games in an urban setting for better use of city centres and a recycling of sports infrastructure, and purchases carbon credits; UNEP signs an agreement to make the 2008 Beijing Games 'the greenest ever'; London 2012's sustainability policy is approved and LOCOG submits the OGGI study structure; VANOC completes its initial OGGI report

| 2007 | UNEP names IOC and President Jacques Rogge 'Champions of the Earth 2007', |
| | citing Turin as a shining example |

However, as mentioned previously, the IOC has historically avoided issues of environmental sustainability due to an inherent incompatibility between notions of 'sustainability' and 'development' (Furrer, 2002). This raises the question as to whether the Olympics can ever be truly sustainable, and whether efforts to limit negative environmental outcomes of the Olympics are made in vain? However, through a more critical standpoint, the question should be asked; what is the exact role of the IOC as a sports organisation in contributing to the broader environmental agenda? In this regard, is it perhaps unrealistic to expect that half a dozen cities around the world hosting the Games every four years can seriously contribute to raising global awareness of environmental issues?

Nevertheless it is important to reflect upon how the Games have historically attempted to address environmental concerns through the hosting of the Games. This will help to shed light on the environmental position that the organisers of the London Games have assumed. Liao and Pitts (2006, p. 1233) asserted that due to the Official Reports for each Games being 'couched almost exclusively in the rhetoric of economic growth, social renaissance and environmental enhancement', a historical and theoretically informed examination of the Games' commitment to sustainability, and more specifically environmental sustainability is necessary. As such, the combination of theoretical perspectives outlined in Chapter Three: a 'Critical/Marxist' perspective, Næss' 'shallow' and 'deep' ecology, and EMT perspective, are employed in order to make sense of these environmental commitments made by the IOC and Olympic host

cities. This chapter now turns its attention to the first significant period in the history of

the Games' commitment to environmental issues.

A 'Growing Respect for Nature' - 1992-1996

The first significant period in the development towards the first sustainable Olympic

and Paralympic Games took place between 1992 and 1996. In 1992 the Barcelona and

Albertville Games were the last Summer and Winter Games to take place in the same

year (Theodoraki, 2007), and represent a polarity of environmental impacts on the host

city/region. Cantelon and Letters (2000) identified this two year period, more

specifically the Albertville and Lillehammer Games, as integral in the development of

the IOC's environmental policy. They argue that due to the environmental destruction

caused by the Albertville Games, 'the IOC was pressured into developing an

environmental policy' (Cantelon and Letters, 2000, p. 294). However, at this point in

time the IOC 'had little understanding of how to address this global issue.' (Cantelon

and Letters, 2000, p. 294). In this regard, the period was also a time for exploration by

the IOC and Organising Committees to discover the future environmental position to be

adopted. The key environmental elements of the Games during this period are now

explored.

Barcelona 1992 Summer Olympics: The 'Regeneration Games'

Barcelona is believed to have inspired the use of the Games as a means of urban

regeneration and destination promotion for future host cities (Gold and Gold, 2008).

The rejuvenation that took place in Barcelona is often deemed as the 'model' for

effective Olympic-led regeneration. It is worth noting that the infrastructural

improvements that took place were part of a city-wide strategy, which used the publicity

and popularity of the Games to showcase these transformations (Brownill, 2010). In

terms of environmental developments, the hosting of the Barcelona Games coincided

with the 'Earth Summit', and as a result the IOC invited all National Olympic

Committees and International Federations to sign the 'Earth Pledge' which prescribed the Olympic Movement to 'contribute, to the best of their ability, to making the Earth a safe and hospitable home for present and future generations.' (IOC, 2005a, p. 43). Despite the timely hosting of the Games with respect to a wider societal movement towards environmental preservation, environmental protection did not feature as a key focus of the Barcelona bid that was submitted in 1985 (London East Research Institute of the University of East London, 2007).

As a result of years of neglect under the Franco regime, Barcelona was a derelict industrial city full of dilapidated factories and warehouses (London East Research Institute of the University of East London, 2007). The primary objectives behind the organisation of the Games were to not only pursue the goal of sporting excellence, but to also initiate huge urban transformations in order to enhance the magnetism and appeal of the city as a destination (Brunet, 2005). As such, the developments associated with the Barcelona Games can be understood through a 'Critical/Marxist' lens. In this regard, the rationale behind the hosting of the Games appeared to be underpinned by economic concerns, above social and environmental concerns. Here the Games were used as a catalyst for urban transformation to improve the appearance of the city arguably for the benefit of visitors and not the host communities themselves. Degen (2004, p. 131) highlighted the importance of global concerns in the regeneration of the city. The author explained: 'The 1992 Olympic Games catapulted Barcelona onto a global stage and into the heart of the world's urban tourism network' and as such it is 'celebrated as a textbook example of how to turn a city into a global player.' I would therefore argue that the major capitalist investment in the city was for the benefit of large corporations and not for the city's citizens.

The Olympic-related developments in the city consisted of the construction of fifteen new venues, with the main competition centre built around the pre-existing

facilities of Montjûic Park (London East Research Institute of the University of East London, 2007). In addition, the beaches were substantially extended and made accessible for public-use, the subway system was expanded, a ringway road system was constructed, and public spaces were created (Garcia-Ramon and Albet, 2000). The question whether or not these venues were sustainable has had mixed answers. On the one hand the Olympic sailing dock, Porto Olimpico, has arguably stood the greatest test of time with the port now being home to a collective of yacht owners, and food and drink outlets. On the other hand, Olympic venues such as the Horta Velodrome, and the Olympic Stadium have not done so graciously with them being close to abandonment, and in £33 million debt respectively (Keeley, 2006).

Albertville 1992 Winter Olympics

Chappelet (2008, p. 1891) asserted that the first two Winter Olympic Games of the 1990s signalled a change whereby the IOC and Olympic Organising Committee's developed 'an awareness of the importance of environmental questions', which led to subsequent attempts to try and 'tackle the issue of sustainable development.' The Albertville Games were unique in the sense that the venues were incredibly regionalised, taking place across 13 resorts and over an area measuring 1657 kilometres square in Albertville and the Savoie region of France (Cantelon and Letters, 2000). From the outset, the Albertville Games promised to deliver Games with minimal environmental impact. At a quick glance the Albertville Organising Committee could be seen to be sticking to this grand claim through making environmental progress with the relocation of the cross-country tracks on the Les Saisies site, as a consequence of the need to preserve turf-beds in higher-altitudes. Additionally, great care appeared to be taken when building the motorway between Chambéry and Albertville in order to shield the fragile and delicate surroundings (Chappelet, 2008). Despite this, Cantelon and Letters (2000, p. 300) contend that the Albertville Games 'will go down in history as an

environmental disaster.' Albertville's environmental failures caused the IOC a great amount of embarrassment with environmental demonstrations taking place during the opening ceremonies, and the negative media coverage of the poor environmental record of the Games. This arguably led to the prioritisation of environmental sustainability in the eyes of the IOC (Weiler and Mohan, 2008).

The Official Olympic Report for the Albertville Games candidly documented these environmental successes and failures. It explained that the damage to the surrounding countryside from excavation work around the venues was made without long-term foresight as to how these sites would be permanently altered. Further, whilst a 'respect for nature' was possible at the sites for the downhill racing (Méribel and Val-d'Isère), the report admitted that 'the natural environment was treated with scant respect at Les Arcs and Tignes.' (Organising Committee of the XVI Olympic Winter Games of Albertville and Savoie, 1992, p. 123). These Games highlighted the danger of adopting a 'shallow' ecology/light green approach to the environment whereby it was believed that the use of green technology and enhanced environmental management could mitigate environmental damage (O'Hara, 1999). The environmental approach to these Games adopted by the organisers, and the subsequent damage caused provide evidence to support the notion that the 'shallow' ecology/light green position is too managerialist and short-term in focus to contribute to the wider sustainability agenda (Sharma, 2003).

Lillehammer 1994 Winter Olympics: The 'White-Green' Games

In contrast to the environmental failings of the Albertville Games, the 1994 Lillehammer Games is historically renowned as the first 'green' Games or the 'white-green' Games due to its promotion of sustainable practices and its environmentally-conscious approach (Olympic.org, 2010). This is perhaps unsurprising considering not only Norway's strong historical and cultural affiliation with nature (Myrholt, 1999), but the fact that during the time of the Games the Norwegian Prime Minister was Gro

Harlem Brundtland, former President of the World Commission on Environment and Development (Chappelet, 2008).

The governmental influence on the environmental position of the Games was extremely powerful with funding for the Games being in part dependent of the Games aiming to be an 'environmental showcase' (LOOC, 1995, p. 70). To achieve this, the Lillehammer Olympic Organising Committee (LOOC) expanded objectives for the Games to include five 'environmental goals'. These goals required the Games: (1) to increase awareness of environmental issues; (2) to protect the environmental qualities of the region, (3) to contribute to and promote sustainable development and growth; (4) to construct environmentally-friendly venues which are in keeping with the landscape; and (5) to preserve the life and quality of the environment throughout the Games (Chappelet, 2008; LOOC, 1995). The Lillehammer Games were instrumental in the environmental approach adopted by the IOC, and the 'environment' became formally known as the third pillar of 'Olympism' in 1994 (MacKenzie, 2006). In addition, the public outcry from the environmental destruction caused by the Albertville Games led to the adoption of environmental principles by the IOC (Holden et al., 2008). Fawcett (2010, p. 23) contended that the most important contribution that the Lillehammer Games made was that it 'opened the IOC's eyes to the importance of green issues, and started the IOC and host city organisers down the path to sustainability.' Following on from this, an environmental theme became an official requirement for all bid documents in 1995, and the 2002 bid cities were the first to be officially evaluated according to this (Holden et al., 2008).

Aside from the key environmental milestones that occurred as a result of the Games, perhaps their most unique feature was the collaboration between environmental groups and the LOOC in the daily planning processes (American University, 1997). Aligned with the strong Norwegian affiliation to nature and environmental issues, local

residents and environmental groups worked together to pressure the LOOC to take account of environmental issues in their operations (IOC, 2012b). However, this was not as straightforward as official Olympic records may show, and this collaboration grew out of a bitter dispute over plans to construct the speedskating venue on an internationally recognised bird sanctuary. Following relentless protests, which became apparent to the former IOC President, Juan Antonio Samaranch, during a visit Samaranch suggested mediation regarding the chosen site, and the venue was subsequently relocated (American University, 1997; Maloney, 2004). Following this incident, an independent watchdog group, Project Environmentally-Friendly Olympics, was established. In conjunction with the LOOC, the Project Environmentally-Friendly Olympics inaugurated over 20 environmentally-based projects (American University, 1997).

The coordinated efforts between the Games' organisers, environmental agencies and community groups in delivering a 'white-green' Games arguably provided the 'deepest' ecological model of an Olympic Games at the time. As Cantelon and Letters (2000, p. 303) suggested, the organisation of the Lillehammer Games 'was done with little patience for those who might suggest a compromise on environmental issues.' Interestingly, Cantelon and Letters (2000) argue that the Lillehammer Games demonstrated conflicting 'shallow' ecology/light green and 'deep' ecology/dark green positions. Whilst some of the environmental claims made exemplified the 'shallow' ecological position, and more specifically the goal of 'corporate environmentalism' discussed by Lenskyj (1998a); the 'shallow' ecology/light green approach to environmental issues within a Norwegian context is perhaps 'deeper' than the 'shallow' ecological approach identified by Lenskyj (1998a) within an Australian context at the Sydney Games. In this regard, the socio-historical context in which the Games take place is a determining factor in the perceptions of the degree to which actions are

considered as relating to the 'shallow' or 'deep' ecological positions (Cantelon and Letters, 2000). Nevertheless these Games offered a model of best practice for its commitment to environmental protection.

The 'Race to be a 'Green' Games' - 1996-2002

Following the 'green' successes of the Lillehammer Games, the protection of the 'environment' became formally adopted by the IOC. Despite the 'environment' being given a greater status, the next Olympic editions (Atlanta and Nagano) did not seem to continue the Lillehammer momentum. It was not until the Sydney Games that the 'environment' became a key focus and unique selling point, which arguably occurred as a result of Sydney winning the Games one year before Lillehammer.

This period has been demarcated as it represents a shift from Games that demonstrated a 'respect for nature' towards a 'race to be a 'green' Games. During this period, some significant moves were made to formalise the IOC's commitment to environmental concerns. In this regard, the IOC adopted its own form of Agenda 21 in 1999, and in 2001the IOC inaugurated the use of economic, social, and environmental indicators to measure the sustainability of the Games. However, also during this time the Salt Lake City corruption scandal came to light and seriously tarnished the IOC's reputation, and overshadowed the environmental progress being made. As such I would argue that the formalisation of environmental concerns into official Olympic documentation partly represented a means of damage limitation. Here the IOC was seen to be making a positive contribution to the host city and the world of sport more generally, through the vehicle of environmental sustainability. The concept of a 'green' Games arguably helped to create a smokescreen behind which the IOC could continue its everyday practices whilst being seen to be addressing environmental concerns.

Atlanta 1996 Summer Olympics

The 1996 Atlanta Games, perhaps overshadowed by the Centennial bombings, can be seen as faced with an environmental dilemma considering not only because of the huge and perhaps daunting 'green' successes of the Lillehammer Games, but the fact that the environment was adopted as the third pillar of Olympism two years prior to the Atlanta Games (Holden et al., 2008). Interestingly it was in Atlanta in July 1996 at the 105th IOC Session that the Study Commission of the Centennial Congress was created; following the Centennial Olympic Congress held in Paris in 1994, the commission put forth recommendations concerning the environment which were subsequently approved.

However, due to the IOC's decision to formally evaluate environmental plans as part of the bidding process (See Table 5.1) in 1995, the Atlanta Committee of the Olympic Games (ACOG) was not obliged to address environmental concerns (Holden et al., 2008). MacKenzie (2006) suggests that Atlanta did just this, and demonstrated very little commitment to protecting the environment. This was also reflected in the lack of information produced on what steps were taken to address environmental concerns (if any) by ACOG. Further, the London East Research Institute of the University of East London (2007) believes that Atlanta suffered an environmental shortfall in terms of the living and working conditions and the quality of public transport. This is considered to have occurred because the primary focus was on pursuing profit-making activities and as such this critique lends itself to a 'Critical/Marxist' perspective of the Games.

In spite of this, Girginov and Parry (2005) did make note of environmental initiatives and successes at the Atlanta Games in the following areas; environmental protection, resource management, transportation, and waste management. Environmental protection measures were evident at Lake Lanier, the venue for rowing and canoeing, whereby temporary seating took form on floating barges as a solution to cutting down trees and shoreline erosion to provide seating areas. In terms of resource management and waste management all competitive venues had energy-efficient

lighting and 'More than 10 million cans and bottles, 500,000 wood pallets and 50,000 kilograms of scrap metal were recycled.' (Girginov and Parry, 2005, p. 103)

Arguably the biggest environmental step that Atlanta made was in using pre-existing venues and 'recycling' purpose built facilities. Examples included the Olympic Village which was situated within a university campus and post-Games became a 2,700 bed university dorm. Additionally the Centennial stadium was transformed into the Atlanta Braves baseball stadium, renamed the Turner Field (London East Research Institute of the University of East London, 2007). Further, the Olympic Village left behind a huge green space for public use, including parks, beaches and avenues (East Thames Group, 2010). These successes arguably signalled a 'shallow' ecology/light green approach, which is characterised by technological innovation, scientific resource management, and minor lifestyle changes (Drengson and Inoue, 1995). In this regard, the majority of the environmental achievements claimed fall into these three categories with the exception of the creation of new green space. Regardless of the environmental position adopted by the Games' organisers, Liao and Pitts (2006) contended that it would be a mistake for researchers to critique the Atlanta Games based on its environmental commitments. They stated that 'This is a false critique, as 'environment' was not introduced as an element to be considered by the bid groups until the bid process related to the 2000 Games of the Olympiad.' (Liao and Pitts, 2006, p. 1233).

Nagano 1998 Winter Olympics

The Nagano Games were the last Games that were not subject to any specific environmental requirements (Bowdin et al., 2010). One year prior to the Games DaCosta (1997, p. 102) highlighted the significance of environmentalism as a new value of Olympism. He explained that 'The short period of five years taken by the IOC to be adapted to the main environmental challenges may be contrasted with the long-standing discussion on the gigantism of the Games (since 1910s), [and] amateurism (since the

1920s)'. Despite this lack of obligation but in line with the emerging importance of environmental concerns, the Nagano Games sought to build upon the environmental successes of the Lillehammer Games, and expressed this in the Official Report for the Games. The Report stated, 'As we head into the 21st century, the importance of protecting our home, the Earth, from environmental damage grows ever more vital' (The Organizing Committee for the XVIII Olympic Winter Games, 1999, p. 17). As such environmental protection was embodied within the vision for the Games through the ideals of 'furtherance of peace and goodwill' and 'respect for the beauty and bounty of nature' (The Organizing Committee for the XVIII Olympic Winter Games, 1999, p. 11). The Nagano Olympics Organising Committee (NAOC) contended that co-existence with nature was of particular importance to the Winter Games, and as such a 'respect for nature' was a key priority throughout the preparation of the Games (The Organizing Committee for the XVIII Olympic Winter Games, 1999).

In line with this vision, the Nagano Games were organised around four key environmental considerations: sensitive planning, preserving habitats, preserving the natural landscape, and recycling programmes. In terms of sensitive planning, existing courses and venues were used where possible. For example, original plans proposed during the bid process involving the construction of a new downhill course at Mt. Iwasuge in Shiga Kogen were abandoned as this would have cut through a national park. Instead, the alpine ski events were moved to an existing course in Happo'one in Hakuba, therefore eliminating the need to construct a new course. Further to this, the original start point of the newly selected Happo'one course was an environmentally sensitive area with the growth of alpine flora. Two months prior to the start of the Games, the starting point was raised in order to ensure the protection of this fragile ecosystem, whilst still providing a challenging course for the athletes (The Organizing Committee for the XVIII Olympic Winter Games, 1999).

On the theme of relocation and in terms of the second key consideration, the preservation of habitats, the biathlon venue was moved from its originally proposed site in order to not disturb existing animal habitats. Environmental surveys prior to the construction of the original site in Hakuba uncovered the nests of protected animals under the Washington Convention (goshawks and buzzards). Resulting from this was the relocation of the biathlon events to an existing course in Nozawa Onsen. With respect to the third objective of 'preserving the natural landscape', the bobsleigh/luge track, the spiral, was the first ever track built consisting of two uphill sections which followed the mountain's natural contours. Further, the unique indirect cooling method utilised less than 1/60 of the ammonia for ice making, than the direct cooling methods used at the 'white-green' Games of Lillehammer (Olympic.org, 2010). Finally, the organisers sought to utilise recyclable, recycled, or environmentally-friendly materials where feasible. Examples of successful recycling programmes include the construction of the venue for the alpine giant slalom events in Shiga Kogen. A total of 122,000 plastic PET bottles, collected by children locally, were recycled and used to help build part of the course. Also, approximately 900,000 plates made from recycled materials were used in the Main Press Centre and Athletes Village, and collected and recycled after the Games. Additionally, a four year follow-up study to examine the effectiveness of the environmental policies adopted and began in 1996 by the Nagano Prefectural Nature Conservation Research Institute. This results of which were proposed to be made available to future host cities (The Organizing Committee for the XVIII Olympic Winter Games 1999). However, it is unclear whether or not this study was completed as no report was found when searching for this document.

The Games also came under strong criticism from environmental groups and anti-Olympic groups both nationally and internationally. The environmental destruction caused by the Games was recorded by several environmental groups, which included

Japan-based Anti-Olympics People's Network (Lenskyj, 2000), Italian-based Comitato Nolimpiadi! 2006, and American-based Planet Drum Foundation (Bowdin et al., 2010; Comitato Nolimpiadi! 2006a, 2006; Planet Drum Foundation. 2004).The claimed environmental success by NAOC in terms of the relocation of the alpine ski events to an existing course in Happo'one was criticised for the environmental destruction caused as a result of the felling of trees, the rerouting of a stream, and greater environmental damage caused by the elevation of the original starting point (Comitato Nolimpiadi! 2006, 2006b). Further, the bulldozing of land and trees to make way for 75-miles of newly constructed roads in order to make the venues accessible caused significant disruption to native plants, as well as the forcible removal of various species including red monkeys, eagles, and hawks from their natural habitats (Lee, 2001).

Sydney 2000 Summer Olympics: The 'Green' Games

The Sydney 2000 Olympics are often considered to have brought the concept of sustainable sport to the forefront of public attention both in Australia and globally (Cashman, 2006). Similarly, Smith and Westerbeek (2004) contended that Sydney's 'green' Games represented a shift in attitude towards the ways in which sports mega-events should be organised. The race to host the 2000 Summer Games took place in an optimal climate for bid cities to latch on to the idea of environmental protection. Sydney were awarded the 27th Olympiad on 24th September 1993, two years after the inclusion of environmental concerns in the Olympic Charter, and one year after the UN Conference on Environment and Development which collectively brought together different industry sectors, governments and communities from around the world in the pursuit of advancing the international environmental agenda. Moreover, it is important to note that the IOC's adoption of Agenda 21 took place one year prior to the hosting of the Sydney Games. This was an instrumental milestone with respect to the IOC's shift towards environmental promotion, and according to UNEP, the 'green' Games of

Sydney were one of the fruits stemming from this (UNEP, 2010a). Agenda 21 sought to incorporate the social, economic and environmental by enhancing the role of major groups, improving socio-economic conditions, and working towards the goal of sustainable development. However, the significance of this document in terms of the IOC's overall commitment to sustainability was somewhat overshadowed by the controversy surrounding the Salt Lake scandal which unfolded in 1999 (Chappelet, 2008).

From the offset Sydney made grand environmental claims which was encapsulated by Bruce Baird in 1993, Minister of the Sydney Olympic Bid, when he claimed that 'No other event at the beginning of the 21st century will have a greater impact on protecting the environment than the 2000 Olympic Games in Sydney' (cited in Lenskyj, 1998a, p. 175). Further, the Sydney Games were the first Olympics to officially incorporate the IOC's environmental agenda (London East Research Institute of the University of East London, 2007). The notion of Sydney as the 'green' Games developed from the design competition for the Olympic Village during the bidding process, which required environmental considerations to be incorporated. Five winners emerged who subsequently worked collectively on the actual design for Olympic Village, one of which was Greenpeace Australia. The Environment Committee was born out of this alliance, which went on to create the Sydney Games' Environmental Guidelines. Resulting from this eco-friendly bid was the Games becoming known as the 'green' Games, a label which was subsequently utilised as a promotional tool in throughout the preparation of the Games (Powerhouse Museum, 2003).

Perhaps the most controversial debate surrounding the environment and the Sydney Games was concerned with the remediation of the 760 hectare Homebush Bay site, which was home to the majority of the Olympic venues. The Homebush Bay site was a former state abattoir, Navy armament depot, brickworks, landfill and industrial

waste dumping ground (Beder, 1993), and potential was seen in the development of clean-up technologies in order to remediate the site. This in turn was seen to not only benefit the environment but also offer new investment and business opportunities (Kearins and Pavlovich, 2002). In this regard, the Games offered a clear example of the 'shallow' ecology/light green and EMT perspective at the planning level as the economic and environmental gains were seen as mutually compatible.

However, upon closer inspection the organisers of the Sydney Games appeared not to solely concentrate on economic concerns by giving greater priority to environmental concerns, for example through the organisers cooperative work with environmental organisation, Greenpeace. Whilst the Games' work with Greenpeace could be argued to represent a shift towards the incorporation of 'deeper' ecological/darker green interests, the degree to which even environmental organisations promote the protection of the environment for its own sake is questionable. This argument is supported by Notion (1990) who contended that Greenpeace as an organisation have jumped on the 'shallow' ecological/light green bandwagon. Notion (1990, p. 36) asserted:

> *To put the activities of Greenpeace into perspective one has to see them as becoming increasingly a lighter shade of green but with dark green roots. The shift has occurred with the maturing of the small upper echelon of original leaders who still hold power. As a light green organisation integrated into the new environment industry one can see them as packagers and marketers of a new product; environmental theatre. This product is sold by subscription to suburban householders who use it as a palliative for environmental anxiety. Regular doses appear to allow suburbanites to continue normal producer/consumer lifestyles.*

This quote lends itself to a 'Critical/Marxist' perspective view on the environment in the sense that the move away from a 'deep' ecological/dark green approach by organisations such as Greenpeace is underpinned by the views of the few in power. This shift in turn has resulted from the creation of an 'environment industry' by capitalist forces in which these organisations now package and market their approach to environmental protection as a 'product' for consumption. In this regard, even the 'greener' achievements of the Games, in this instance the cooperative work with a major environmental organisation, is ultimately underpinned and influenced by economic concerns. Sharon Beder, arguably one of the biggest critics of Sydney's 'green' Games, shared this view. In addition to questionable environmental work undertaken with one of the world's largest environmental NGOs, Beder (1993, p. 1) felt that the lack of public debate around environmental issues, in conjunction with the short-term 'shallow' ecological measures to addressing environmental concerns were anything but 'green'. She argued that 'The claim that the 2000 Olympics will be green should be seen in the same light as other green marketing claims, as a superficial attempt to sell a product rather than a genuine attempt at change.' Lenskyj (2000) also supported Beder's view when she critiqued the 'corporate environmentalist' strategy employed during the preparation of the Sydney Games. In this regard, Lenskyj (Lenskyj, 2000, p. 8) argued that the events surrounding the remediation of the Homebush Bay site illustrated the 'low priority placed on authentic community consultation'.

The Build-up to the 'First Sustainable Olympic and Paralympic Games' - 2002-2012

Similar to the transition between Period One and Two, following a relatively successful Games in terms of the environment, the next two Olympic instalments did not achieve or demand the same level of environmentalism. In addition, the first Games of Period Two and Three, Atlanta and Salt Lake City, were overshadowed by external factors

(terrorism). However, the Turin Games seemed to have kick-started the 'green' wheel which led to the challenge by Vancouver and London to become the first sustainable Olympic and Paralympic Games. After some level of environmental consciousness at the Beijing Games, this period then became characterised by the 'sustainability agenda'. In particular, the Vancouver and London Games represented a shift away from the 'green' to the 'sustainable' with the incorporation of the social and economic with the 'environmental' and the race to become the first sustainable Games. This period also signified a more explicit shift towards the application of the EMT perspective and subsequently affirmed the IOC's 'shallow' ecology/light green position towards environmental concerns. As will be shown, the emphasis on the host cities ability to deliver a sustainable Games concentrated on minimising the carbon footprint of the Games, and the design and construction of Olympic venues.

Salt Lake City 2002 Winter Olympics

After the 'green' successes of the Sydney Games, the IOC claimed 'a rapid evolution in the environmental element of the Olympic Games bidding and delivery processes.' (IOC, 2012a, p. 4). The Salt Lake City Games were the first host city obligated to outline their proposals to address environmental concerns during the bid process (Essex, 2011). However, these Games were very much overshadowed by allegations of the bribery of IOC members in return for votes for Salt Lake's bid to host the Games, and the intensified securitisation of the Games following the '9/11' terrorist attacks in New York five months before the Games took place (Essex, 2011; SLOC, 2004).

Aside from this, the Salt Lake City Games attempted to integrate an environmental element to the Games and proposed 'To promote environmental awareness and encourage innovative techniques of environmental protection in the practical application of staging the Olympic Winter Games.' (SLOC, 2004, p. 14). The Salt Lake Organising Committee (SLOC) prided itself on being the first Games to win

the right to host the Games based on commitments made to environmental preservation, and successfully achieved its four 'aggressive objectives'. These were: (1) zero waste, (2) net zero emissions, (3) urban forestry advocacy, and (4) zero tolerance for environmental and safety compliance errors (Essex, 2011; SLOC, 2004, p. 195). In terms of 'zero waste', 95.6% of all waste produced during the Games was either recycled or composted (SLOC, 2004; IOC, 2012a). With regards to 'net zero emissions' the Games managed to successfully offset its carbon footprint of 240,000 tonnes of pollutants and 121,000 tonnes of greenhouse gas emissions through its Olympic Cleaner and Greener programme. The advocacy of urban forestry, SLOC and partners endorsed tree planting initiatives which led to approximately 100,000 trees in Utah and 15 million trees being planted worldwide through a range of programmes and educational initiatives (Lee, 2001; SLOC, 2001). Finally, SLOC were successful in attaining 'zero tolerance' in terms of environmental and safety compliance errors (Essex, 2011).

In addition to these commitments, the environmental commitment of the organisers of the Games were incorporated through the design, construction, and location of venues, and as such demonstrate the continuation of the 'shallow' ecological/light green and EMT perspective. The Olympic Oval highlighted the incorporation of sustainability into venue design and construction. The venue's low white roof reduced the building's overall volume and subsequently reduced the amount of energy required to keep it at an optimal temperature (Vinyl in Design, 2012). Also, the biathlon and cross-country skiing venues had to be relocated from their originally proposed site, Mountain Dell Golf Course to Soldier Hollow, to alleviate environmental pressures placed upon Parley's Canyon. This was following several test events on the site which discovered an inadequate amount of snow to host the Games (SLOC, 2004). The SLOC also established a voluntary group, the Environmental Advisory Committee, to liaise with government officials and environmental groups on various issues. This

was done with some success on issues such as the identification of an environmentally suitable pathway to Snowbasin, and the protection of vulnerable canyons in the Wasatch Mountains. As a result of these successes, Essex (2011, p. 68) contended that 'The environmental and sustainable development agenda had been clearly cemented as part of the organization of the Winter Olympic Games following those in Salt Lake City.'

Despite the claimed successes in the four areas stated and unsubstantiated claims of 'the greenest Games ever' by Diane Conrad Gleason, Director of Environmental Programmes for the SLOC, Lee (2002, p. 1) claimed that the only legacy left behind from these Games was one of 'profound ecological consequences.' One of the biggest criticisms aimed at the Games was the lack of money channelled into environmental measures. The original $6 million budget was reduced to just $1.5 million in 1999, which equated to just 1% of the overall budget of the Games. Arguably due to this relatively small budget, the organisers failed to produce a 'model for future Olympics and other outdoor sports spectacles' through alternative green technologies, for example the use of solar panels, and dual-use plumbing systems (Berg, as quoted in Lee, 2002, p. 1). Another criticism was the reneging on plans to emphasise the use of public transport to travel to events. This was replaced with a transportation plan that relied heavily upon the use of private transport, and the subsequent increase of vehicular emissions from a greater influx of traffic (Lee, 2002). From a 'Critical/Marxist' perspective the shifting from the original environmental plans proposed by the organisers of the Games can be understood in terms of the prioritisation of economic concerns relating to the reduction in budget. Here the environmental work that could have been undertaken through the employment of green technologies was undermined as a result of financial constraints. As such it could be argued that the environmental work undertaken was done so in reaction to the change in situation (reduction in budget), rather than proactive.

Athens 2004 Summer Olympics

After winning the right to host the Summer 2004 Olympics in 1997 (Girginov and

Parry, 2005), Athens continued on the Olympics 'environmental bandwagon' and

pledged to host the 'greenest Games yet' (Davis, 2004, p. 1). Within the Athens 2004

bid file, the Athens Bid Committee claimed that they were 'determined to proceed with

preparation and celebration of the Olympic Games bearing the existence of the

problems in mind and incorporating environmental principles into all the projects it

undertakes.' (Athens 2004 Olympic Bid Committee, 1996, p. 52). The bid document

expressed an understanding of the current environmental issues facing the world,

including pollution, the greenhouse effect, and the consumption of finite resources.

Following this awareness, the Bid Committee produced a set of environmental

guidelines; these directives for example vowed to improve the environment and not just

merely protect it, using environmentally-friendly technologies in the construction and

completion of projects, and where possible using existing infrastructure for

accommodation purposes, and in the instances of requiring the building of new

facilities, construction would abide by environmental stipulations (Athens 2004

Olympic Bid Committee, 1996). On the basis of the bid put forth, Karamichas (2005, p.

135) argued that this suggested 'a very strong case for Athens becoming a capable

inheritor of Lillehammer and Sydney in terms of environmental sustainability.'

According to the IOC (2012a, p. 4) some of the environmental successes

included the planting throughout Athens of 'over a million large bushes, 290,000 trees

and 11 million small trees'. A range of environmental initiatives and programmes were

also introduced, such as vehicles that operated according to ecological requirements,

and the establishment of the Olympic Environmental Alliance which created a network

of communication and decision-making procedures for all bodies and organisations

involved. Furthermore, Greenpeace contended that one of the promising environmental

progressions that occurred at Athens was a commitment made to using Greenfreeze by

some of the Olympic sponsors (Unilever, Coca-Cola, and McDonalds). However, Greenpeace also argue that this occurred more as a result of activist pressure, rather than as a result of recommendations made by organisers of the Games (Greenpeace, 2004).

Although Athens did achieve a small level of environmental success, there were substantial criticisms of the Games. The organisers came under fire from Greenpeace who felt that the Athens Games had taken a step backwards on environmental issues when compared to the Sydney Games. Nikos Charalambides of Greenpeace stated, 'Athens is well behind Sydney regarding the environmental performance of the Games.' Charalambides felt so strongly about Athens' environmental failures with regards to fulfilling environmental promises and striving to host the 'greenest Games yet' that he believed that 'The distance from environmental excellence and sustainability is so big that Athens is disqualified from this race' (Greenpeace, 2004, p. 1). According to Greenpeace, one of the main environmental failures of the Games was the lack of green energy using renewable resources, which Greenpeace contended was close to zero (Greenpeace, 2004). The relationship with Greenpeace during the preparations of the Athens Games stood in stark contrast with the cooperative relationship seen at the Sydney Games. In this regard, there appeared no relationship and/or guidance from Greenpeace or any other environmental organisations which arguably reflects a lack of concern for environmental issues by the organisers of the Games and the Greek government.

In relation to this lack of concern at the governmental level, in response to the IOC's stipulation that all construction work comply with national and international regulations, the Greek government revised its Constitution in 2000 and subsequently relaxed regulations concerned with forest protection to aid the planning process (Karamichas, 2005; Karamichas, 2012). According to Karamichas (2005, p. 136) this represented 'a move that could be perceived as an attempt by the Greek government to

strip the environmental movement of its most potent weapon [national environmental legislation] against environmentally destructive Olympic projects'. As a result Karamichas (2005, p. 136) posited that the revision to the Constitution was 'extremely detrimental to the activities of environmental organizations and citizen initiatives opposing certain Olympic projects' (Karamichas (2005, p. 136). In this situation a 'Critical/Marxist' perspective is pertinent to understanding the environmental destruction caused by the Games. Here the pressure of meeting an immovable deadline for an event that enables host cities that opportunity to showcase their ability to host a mega-event was given greater importance than environmental and social concerns, so much so that national legislation was modified. The modification of national legislation in order to help a host city produce the necessary infrastructure to host a successful Games is arguably for the benefit of those with political and economic power, and not the citizens of the host city.

Turin 2006 Winter Olympics

According to Essex (2011, p. 70), the 2006 Turin Games 'were notable for their emphasis on environmental protection and sustainable development', which may in part have been influenced by their coinciding with the first anniversary of the Kyoto Protocol. During the candidacy phase, the Turin Organising Committee (TOROC) devised its environmental plans, known as the 'green card'. Subsequently the organisers conducted a strategic environmental assessment and adopted a Charter of Intents, as required by Italian law, prior to the Games taking place. The organisers also worked in collaboration with UNEP to produce annual sustainability reports, which helped to communicate the environmental commitments of the Games and provide verification on whether these commitments had been achieved (Chappelet, 2008).

Perhaps one of the most unique environmental features of the Games was the development of the HEritage Climate TORino (HECTOR) programme by TOROC, in

order to attempt to make the Games carbon neutral by offsetting the 100,000 tonnes of carbon dioxide generated throughout the 16 days of competition. This was proposed to be achieved through raising awareness of climate change issues, carbon offsetting programmes, energy efficiency, forestry, and renewable energy schemes around the globe (Essex, 2011; GreenBiz, 2006; IOC, 2012a). This project enabled the direct and indirect greenhouse gas emissions to be calculated for all aspects of the Games, from waste management to transport infrastructure (IOC, 2012b). In addition, the Turin Games developed an environmental management system which led to the Games to be the first in Olympic history to attain the ISO 14001 environmental management certification, and becoming registered with the European Union Eco-Management and Audit Scheme (Chappelet, 2008; IOC, 2012b). All of these measures indicate a subscription to an EMT perspective.

Despite a seemingly strong commitment to environmental issues, international ecological monitoring group Guard Fox Watch (GSW) claimed that insufficient measures were put in place to prevent significant environmental damage (Planet Drum Foundation, 2004). GSW argued that TOROC had proposed 'similar methods for monitoring environmental conditions and establishing controls that were proven inadequate at previous Winter Games.' (Planet Drum Foundation, 2004, p. 1). This view was supported in part by the environmental assessment of the impact of the Games conducted by the World Wildlife Foundation (WWF), which awarded the Games a 'satisfactory' grade. Although the Games were commended for the construction of venues which had a long-term use post-Games, recycling programmes in the Olympic Village, and 'clean' public transport, the Games also caused significant environmental damage to the mountain region. The construction of the bobsleigh track and two ski jumps took place in environmentally sensitive areas, in conjunction with the use of artificial snow which caused great damage. Further, the WWF were critical about the

Games' energy consumption patterns. The 57 metre high Olympic flame epitomised the excessive energy consumption, and the amount of methane gas used to light the flame for 16 days of competition was equivalent to that needed to serve a community of 3,500 inhabitants for one year (WWF, 2006).

In similar fashion to the previous Games, the Turin Games have continued the adoption of an EMT perspective whereby the technological innovation required in the design and construction of venues were held up as the key environmental successes. However, like other Winter Games in particular, extensive environmental damage was caused in order to make space for these venues to be constructed, which therefore counteracts the effect of creating environmentally-friendly venues. Through a 'Critical/Marxist' lens, it could be argued that especially in the case of the Winter Games, the desire by the Olympic organisers to host an event in a location deemed suitable them (both practically and economically) was at the expense of local and environmental concerns. Further, from a 'deep' ecological/dark green position it could be argued that the employment of similar environmental monitoring and control measures which were seen to be ineffective and inadequate at previous Games, demonstrates both a disingenuous commitment to environmental concerns by the organisers, and highlights the need to challenge the IOC's and OCOGs approach to these concerns.

Beijing 2008 Summer Olympics

Beijing submitted a bid in 1993 to host the 2000 Olympics, marginally losing out to Sydney. Environmental aspects of the bid were lacking but appeared to feature heavily within the bid put forth by Sydney's Organising Committee (Mol, 2010). In 2000, Beijing along with several other cities (Istanbul, Osaka, Paris, Toronto, Bangkok, Havana, Cairo, Kuala Lumpur and Seville) began their bid to host the 2008 Summer Olympics. After the initial round during the bid city application process, the candidate

cities were narrowed down to Paris, Osaka, Istanbul and Beijing and were subject to inspections from the IOC Evaluation Commission. With respect to environmental concerns, the Evaluation Commission noted that Beijing was confronted with several 'environmental pressures and issues, particularly air pollution.' Nevertheless, it was felt that Beijing proposed 'an ambitious set of plans and actions' that were believed to be suffice in order to create better overall environmental conditions. Post-Olympics the Evaluation Commission felt that Beijing's plans would leave behind a 'major environmental legacy' both with respect to infrastructure and individual awareness (UNEP, 2007, p. 24). Beijing was successful in its pursuit of hosting and was announced on 13th July 2001 as host of the 2008 Olympic and Paralympic Games (UNEP, 2007). In addition to this, in 2003 the IOC formally introduced the Olympic Games Global Impact Study (OGGI) and was completed for the first time after the Beijing Games (Poynter, 2009b). This report aimed to promote the sustainability of the Games whilst objectively measuring its impact on the host city through a range of social, economic and environmental indicators over a twelve year period (two years prior to host city selection until three years post-Games) (Miah and García, 2012). However, it is worth noting that this study arguably does not provide a completely independent assessment of social, economic and environmental indicators. In this regard, the study is devised by the IOC, from which the host city organisers contract the study to a selected university in order to conduct the relevant assessments. As such, the 'environmental' indicators featured in the study are framed by the IOC's EMT definition of 'sustainability'. Further, whilst the selected university is an independent institution, it still received financial support from the organisers of the Games which has the potential to influence the results produced.

The original Beijing bid referred explicitly to the preservation and protection of the environment and the 'Green Olympics' was mentioned as one of the three key

themes which was an integral part of both the planning and staging of Beijing Games (UNEP, 2007). According to the bid document, this environmental aspect owed to its prevalence to Chinese philosophy and the appreciation of the relationship between environmental sustainability and human existence for approximately 2200 years. In the bid book, the Olympic Games were believed to possess catalytic qualities and achieve the Republic of China's broader aims of the city's 'Master Plan for Development' three years in advance. This plan included a total of 20 major projects costing $12.2 billion with the goal of environmental enhancement (tree plantation, anti-pollution methods, removal/modification of factories, etc) (UNEP, 2007). The IOC Evaluation Commission felt that this, in addition to the 'Olympic Green' project, were the two key components of Beijing's environmental plans (UNEP, 2007). The overarching aims of the Beijing Olympics with respect to environmental concerns were threefold: to ensure that the Games took place in a clean and pleasant environment, to host a successful Games without damaging ecosystems, and to host a 'green' Games. The environmental priorities of the Games were to enhance overall air quality, to increase the pace at which construction of waste water treatment and reuse were built, to inhibit pollution originating from solid waste, to safeguard cultural heritage and improve the ecosystem as an entirety through the plantation of trees (UNEP, 2007).

As part of the more general concept 'One World One Dream', the Beijing Olympic Committee of the Olympic Games (BOCOG), in conjunction with the Beijing Municipal Government, launched the 'Green Olympics' concept in 2000 in order to endorse environmental sustainability as a key ideological underpinning of the Games (UNEP, 2007). In 2005 BOCOG and UNEP signed a Memorandum of Understanding which pledged to make the 2008 Games 'environmentally-friendly'. The role of UNEP within this context was to aid the implementation of environmental projects and perform an independent review of BOCOG's environmental promises (UNEP, 2010b).

It is clearly evident from the commitments mentioned above that Beijing had a strong understanding and commitment to preventing/keeping to a minimum environmental concerns and problems surrounding the hosting of the Games.

Beijing achieved some significant environmental improvements which included the elimination of ozone-depleting substances at a national level in advance of deadlines, renovation of public transportation, and the construction of many waste water treatment plants (UNEP, 2007). Although environmental concerns appeared to feature heavily and explicitly within the bid book, the 'green' realities of the Games may be considered to be questionable. Environmental non-governmental organisation, Greenpeace, established advisory communications with BOCOG in 2006. In 2008 Greenpeace China compiled a report titled *'China after the Olympics: Lessons from Beijing',* which detailed what they considered the triumphs and missed opportunities of the Games. Overall Lo Sze Ping, Greenpeace China's Campaign Director, praised the Beijing Olympics for its improvements made in public transport, water treatment, home heating techniques, and its reliance placed upon fossil fuels. On the other hand, Beijing was found to be guilty of not taking an aggressive enough approach to controlling industry pollution, not following-through with a zero-waste policy and not seizing the opportunity to adopt world-wide 'best environmental practices' (Greenpeace, 2008). In this regard, the Beijing Games offer a further example of a departure from the original environmental promises by organisers of the Games. It could be argued that the environmental issues which received greater focus and subsequent success were those under most scrutiny from the international media, in particular Beijing's highly publicised air-quality problem, and as such these environmental achievements were underpinned by a desire to prevent international backlash in a Games that sought to present a 'new China' to the world.

Vancouver 2010 Winter Olympics

The Vancouver Games appeared to represent a shift away from the 'environmental' to the 'sustainable' with the proposal of becoming the world's first sustainable Olympic Games (Holden et al., 2008). The Vancouver Organising Committee for the 2010 Olympic and Paralympic Winter Games (VANOC) clearly placed sustainability at the heart of its plans both during the candidacy and preparatory phase through their performance goals: (1) accountability, (2) environmental stewardship and impact reduction, (3) social inclusion and responsibility, (4) Aboriginal participation and collaboration, (5) economic benefits from sustainable practices, and (6) sport for sustainable living (Chappelet, 2008; VANOC, 2010). With regards to the 'environmental stewardship and impact reduction', VANOC aimed to address the following five areas: biodiversity and habitat, energy and climate change, air quality, water quality and conservation, and waste management (VANOC, 2010). VANOC's performance goals integrate the traditional 'environmental' themes with the more modern concerns surrounding social responsibility, diversity and accountability (Chappelet, 2008), and signalled the marrying of the benefits of the social, economic, with the environmental (IOC, 2012b). As a result, the IOC (2012b, p. 46) claimed that 'the commitment and support of its partners reached a new level of sustainability performance for the Olympic Games.'

The Games 'increased awareness and set new standards for sustainability' in many respects including venue construction, community consultation, and carbon management (IOC, 2011b, p. 3). In terms of the construction of venues, VANOC won various environmental awards which included the Globe Foundation's Excellence for Green Building and the World Green Building Council awards. Vancouver also became the first host city where all venues achieved a minimum of the Leadership in Energy and Environmental Design (LEED) silver award. One of the key venues that showcased

sustainable thinking was the Richmond Oval speed-skating arena. This venue was constructed from salvaged timber which had been eaten by mountain pine beetles. In doing this, VANOC helped local communities which had suffered economically as a result of the infestation and prevented the wood from becoming waste (IOC, 2011b; IOC, 2012b).

Ensuring the Games were climate-neutral was at the centre of VANOC's environmental plan for the Games (VANOC, 2010). To help achieve this target, venues were organised in clusters in order to reduce transportation demands and energy use. An emphasis was placed upon energy efficient transport and was achieved through the use of a fleet of hydrogen-fuelled buses, an extended public transportation system, as well as a 30% reduction of cars on the roads surrounding the venues by Games-time. One of the major achievements by these Games was the calculation of indirect emissions by competitors which was added to the overall calculations, a first in Olympic history (IOC, 2012b).

Christopher Shaw's (2008) book entitled *Five Ring Circus: Myths and Realities of the Olympic Games* was highly critical of the 'greenwashing' practices of the Games, and in particular the Vancouver Games. The ultimately unsuccessful campaign to save Eagleridge Bluffs was a starting point for the author from which to examine the Olympic 'greenwash'. In order to enable a shorter travel time by car between Vancouver and Whistler for the Games, the 'Sea to Sky Highway' was extended through Eagleridge Bluffs, home to an endangered ecosystem. According to Whitson (2012, p. 219), this was the cheapest and most simple way in terms of engineering, that Whistler could be brought 'into the 21st century' and be able to cope with increasing traffic flows. The environmental destruction of Eagleridge Bluffs is even more pertinent due to its contradiction of Vancouver's promise to be the 'greenest Olympics ever' (Whitson, 2012, p. 220). In protest of the extension of the 'Sea to Sky Highway', the

'Coalition to Save Eagleridge Bluffs' group set up a tent city on 10th April 2006 for a total of 39 days until the arrest of 23 people (Hiller, 2012; Horne and Whannel, 2012; Lenskyj, 2008). In relation to this, one of the key criticisms of the Vancouver Games was the overriding of citizen concerns and opposition by the government of British Columbia in order to ensure that the infrastructure necessary for the Games was completed on time. In this regard, Whitson (2012) argued that the BC Ministry of Transport did not explore alternative options offered by civil society groups to try and minimise the environmental destruction caused to the Eagleridge Bluffs. Whitson also observed a lack of support for concerns raised by local environmentalists from public agencies, as well as a disregard for Canadian Laws in place to try and protect wildlife, an issue also observed at Athens. These events can be understood through a 'Critical/Marxist' lens in terms of the triumphing of economic concerns over environmental in the preparation and delivery of the Games. This view was encapsulated by Whitson (2012, p. 220) who explained that in the case of the Vancouver Games, environmental laws were ignored when they 'conflict[ed] with commercial contracts, or with the development agendas of provincial governments, and that this privileging of economic rights and obligations also extends to the Canadian courts, adding to the challenges faced by civil society opposition.'

London 2012 Summer Olympics: The 'First Sustainable Olympic and Paralympic Games?'

The London Olympics has continued the environmental trend of the Games with grand claims being made about the 'green' power of London 2012. For example, David Higgins, chief executive of the ODA expressed, 'Ensuring a sustainable approach to building the Games will help ensure London 2012 is remembered not only as two weeks of fantastic sporting action, but also as the greenest games to date.' The overarching aim of the London 2012 bid presented to the IOC was to make London the first sustainable

Olympic and Paralympic Games (London 2012a, 2009, p. 5). According to the London 2012 Sustainability Plan (2009a, p. 67), the concept of sustainability was at 'the heart of every stage of the London 2012 programme.' In order to help demonstrate and achieve this, the London 2012 bid adopted and modified the 'One Planet Living' concept which was originally created by WWF and Bioregional and rebranded it as 'Towards a One Planet Olympics'. This approach contended that if we continue living and following the consumption patterns that we are currently pursuing in the UK, then we would require three planets worth of resources. Therefore we need to alter our way of living in order to stay within the earth's current regenerative capacity. London's sustainability plan was predicated upon this concept and incorporated the following five themes; climate change, waste, biodiversity, inclusion, and healthy living (London 2012, 2010a). London 2012's sustainability agenda which was underpinned by these five themes, sought to be transformative through its legacy promises in four different ways; (1) ensuring that the park presents a 'blueprint for sustainable living' (DCMS, 2007, p 16); (2) the strategic development and construction on part of the Thames Gateway Project; (3) inspiring to volunteer and lead healthier lifestyles (Girginov and Hills, 2008); and (4) encouraging people to make personal changes to become more environmentally-friendly (Hayes and Horne, 2011). Further, the Games pledged to be sustainable through the utilisation of existing facilities where feasible, the construction of permanent venues where they will serve a long-term purpose after the Games, and temporary structures where there was no viable long-term use (London 2012, 2010a).

Further to this, London's sustainability goals aimed to be achieved through the support of two key bodies, namely the Commission for a Sustainable London 2012 and the London Legacy Development Corporation (LLDC). In 2007, resulting from a promise made during the bidding phase for the Games an independent body, Commission for a Sustainable London 2012, was set up to monitor and ensure that

London delivered a sustainable Games, which would be a first for any Olympic Games (Commission for a Sustainable London 2012, 2012). However, the degree to which the Commission is independent is questionable due to the fact that it is part funded by LOCOG and the ODA (60% jointly), which subsequently has the potential to influence the level of criticality offered. In May 2009 the Olympic Park Legacy Company (OPLC) was established by the government as the body responsible for managing the legacy of the Queen Elizabeth Olympic Park after the Games (Parliament.co.uk, 2011). This body was replaced in April 2012 by LLDC, a Mayoral Development Corporation, which took over the responsibility of OPLC to ensure the regeneration legacy of the Olympic Park following the Games. This shift to creating a legacy body that was part of the Mayoral Development Corporation meant that the LLDC would be given greater planning powers which would in turn help achieve Mayoral objectives (LLDC, 2012).

Despite an explicit approach to addressing sustainability concerns as part of the Games, London had mixed success in terms of its environmental record (see Table 5.2). Some of the environmental successes to date have included the 98% of waste from the construction of the Games has been recycled or reused, which exceeded the original target of 90% (ODA, 2010; Commission for a Sustainable London 2012, 2009). The Games also succeeded in achieving its target of sending zero waste to landfill during Games-time and approximately 70% of all waste was recycled, reused or composted (Commission for a Sustainable London 2012, 2012). The publication of 'The London 2012 Carbon Footprint Study' marked the first time a host city of any major event has attempted to measure the carbon footprint throughout the duration of the project (London 2012, 2008).

In terms of venue construction, the post-Games report published by the Commission for a Sustainable London 2012 (2012) asserted that the design and construction of the venues and the Olympic Village met the highest sustainability

standards. These venues also demonstrated exceptional levels of water and energy efficiency. Perhaps the biggest sustainability success story in terms of venues was the construction of the Olympic Stadium which was the most lightweight to have ever been built, using approximately half the amount of steel that can be found in stadia of similar proportion. The stadium was also claimed to be the first in Olympic and Paralympic history to offer adequate seating capacity during Games-time, and then be reduced in order to provide a smaller and more economically viable venue post-Games. This was achieved through the construction of a permanent 25,000 seat stadium with a removable 55,000 seat extension (Howells, 2012; London 2012, 2009b). Prior to the Games there were aspirations of a portion of seating being recycled and passed on to Chicago when it was a candidate city to host the 2016 Summer Olympic Games (Booth, 2008). Booth (2008, p. 1) argued that these aspirations represented a 'first step in a new approach to the Games' which had the potential to be a cost-saving strategy, as well possibly enabling poorer countries to host the Games.

Table 5.2. Environmental Milestones and the London 2012 Summer Olympic and Paralympic Games

Date	Event
November 2004	Agreement signed between London 2012, WWF and BioRegional to produce the first sustainable Olympic and Paralympic Games. The proposal of the 'One Planet Olympics' in London's Candidacy File
January 2007	Establishment of the Commission for a Sustainable London 2012, the independent body responsible for monitoring the sustainability efforts of the London Games
January 2007	Publication of the ODA's Sustainable Development Strategy
October 2007	Manor Garden Allotments demolished
December 2009	Publication of London 2012's Sustainability Plan
March 2010	London 2012's first Carbon Footprint Study report published detailing the reference footprint and the methodology adopted
June 2010	Plans scrapped to build a 130m-high wind turbine in the Olympic Park which was set to provide 5% of the energy needed for the operation of the Olympic Park
June 2011	Plans to develop a low-carbon Olympic torch were abandoned
July 2011	Completion of the construction of the six main Olympic venues
September 2011	LOCOG became the first Organising Committee to be awarded the British Standard specification for a sustainability management system for events certification (BS 8901)
October 2011	BP launches Target Neutral campaign which sought to offset the carbon emissions of Games-related travel of all London Olympic ticketholders
March 2012	Save Leyton Marsh group and the Occupy Movement set up protest camp on Porter's Field, Leyton Marsh, campaigning against the construction of a temporary basketball training facility
March 2012	Proposals for the Indian Olympic Team to boycott the Opening and Closing Ceremonies in protest of Dow Chemical company sponsoring the Olympic Stadium wrap
April 2012	The launch of the Greenwash Gold campaign which highlighted the human rights abuses and environmental pollution caused by official Olympic Sponsors: BP, Rio Tinto and Dow Chemical

However, upon closer inspection, London was not the first host city to make these proposals. Rather, the Atlanta 1996 Summer Olympic Games proposed a similar initiative in which capacity of the Olympic stadium was to be reduced from 85,000 seats to 45,000 seats. The conversion of the stadium to the home for the Atlanta Braves baseball team was deemed an economic success (London East Research Institute of the

University of East London, 2007). In the case of the London Games, the exact use for the temporary seating still remains unknown despite West Ham United becoming the new tenants of the stadium in March 2013, and the confirmation of a reduction in seating capacity from 80,000 to 60,000 in order to accommodate this move (Bond, 2013). Through a 'Critical/Marxist' lens this shifting away from originally proposed plans which were underpinned by a degree of concern for the environment, arguably signify the prioritisation of economic concerns. In this regard initial environmental plans are dependent upon where they fit in with the future use of the stadium. Further, the rationale behind the temporary seating design was concerned with the economic viability of an 80,000 seat stadium rather than ensuring the recycle and reuse of materials.

The Games have also come under 'green' fire for a variety of different reasons. In October 2007 the 100-year old Manor Garden Allotments were demolished despite local protests, to make way for the construction of a 4-week walkway which contradicted London aim of being the most sustainable Games to date. Coinciding with the destruction of the Manor Garden Allotments, in October 2007 promises were made by the London organisers to develop a carbon-neutral Olympic torch (Bond, 2007). However, these plans were scrapped in June 2011 due to 'technical issues' in developing the technology in time for the torch relay (Virtue, 2011). Further, in June 2010 plans to build a 130m-high wind turbine in the Olympic Park were abandoned, after the preferred contractors withdrew as the health and safety measures in the original design were no longer feasible. This was a huge setback to the potentially green credentials of the Games, as the turbine was expected to significantly contribute to the Olympic site's 20% target of deriving energy from renewable sources (Sherman and Hamilton, 2010).

In addition to protest at the local level against the impact of the Games, forms of 'deep' ecological/dark green protest also occurred at the national and international level. In March 2012 there were talks of an Indian boycott of the London Opening and Closing Ceremonies in protest at the approval of Dow Chemical's sponsorship of the Olympic Stadium wrap. Following the government's comprehensive spending review, plans to encircle the stadium with a plastic wrap costing £7million were scrapped in 2010 (Magnay, 2010). However, in 2012 Dow Chemical agreed to underwrite this cost and the wrap was produced (Davis, 2012). Campaigners were protesting against the decision to enable the sponsorship by Dow Chemical due to their on-going liabilities associated with the Bhopal chemical disaster of 1984. The events surrounding the sponsorship by Dow Chemical company also led to the resignation of Meredith Alexander in January 2012, one of the 12 commissioners of the Olympic sustainability watchdog, the Commission for a Sustainable London 2012 (Gibson, 2012a). Additionally, in April 2012 protest group Campaign for a Sustainable Olympics (CAMSOL), impersonated LOCOG online and issued a hoax press release which stated that BP had been terminated as an official London Olympic Sustainability Partner (Olympixx, 2012).

The sustainability achievements relating to venue design and construction were also arguably undermined in the process to find a new tenant for the Olympic stadium, and more specifically the initial consideration of Tottenham Hotspurs' bid which proposed to demolish the £400 million stadium and rebuild one more suited to the club's needs. The environmental consequences of which were heavily condemned by former Mayor of London, Ken Livingstone, who asserted that the carbon cost and environmental footprint of such an action was 'horrendous' and 'not acceptable'. Consequently, this would also damage the athletic legacy which was previously promised by London's Olympic bid committee (Williamson, 2011, p. 1). Interestingly,

IOC President Jacques Rogge elucidated that with respect to this debate, 'The position of the IOC is very clear: this is not our business. The IOC has no say on what is going to happen with the London stadium.' (Radnedge, 2011, p. 1). This is perhaps not what one would expect to hear from the leader of an organisation striving towards creating sustainable legacies. From a 'Critical/Marxist' perspective, the devolution of responsibility highlights the power differential within the organisation of the Games even at the highest level. The responsibility of the environmental sustainability of the Games despite laying with the host city organisers, contradicts with the fact that the 'IOC has legal power over an OCOG, which, in its extreme, can be expressed as withdrawal of the organisation of the Games from the city, and consequently from the OCOG' (Malfas, 2003, p. 7). In this sense, despite LOCOG being controlled by the IOC, and the IOC ultimately influencing how the Game are organised (for example through the host city contract), LOCOG ultimately has to take responsibility ownership for all matters that occur after Games-time without any support from the IOC.

The bid to take over the Olympic stadium was plagued with delays and controversies, and the decision about who would be the new tenant for the stadium still remained undecided at the time of completing the writing of this thesis. Whilst West Ham United were initially selected as the preferred bidders to take over the stadium, Tottenham Hotspurs, Leyton Orient, and an anonymous party launched legal proceedings following complaints made against the impartiality of the bidding process to the European Commission in April 2011 and this led to the subsequent collapse of the deal with West Ham United and their partner Newham Council in October 2011 (BBC, 2011a; BBC, 2011b; Kelso, 2011). The tendering process was launched again in December 2011. Four bidders were short-listed in March 2012: West Ham United, Leyton Orient F.C., UCFB College of Football Business, and Formula One (Sale et al., 2012). Although the decision was due to be announced in October 2012, the process

was again delayed. West Ham were again announced the preferred bidder in December 2012 but official approval to move into the stadium was further delayed in February 2013. However, West Ham were finally confirmed as the future tenants of the stadium in March 2013, and are set to move into the stadium in August 2016, some four years after the London Games took place (Bond, 2013; Gibson, 2012b; Sale et al., 2012; Riach, 2013). I contend that the economic priorities of finding a viable future tenant and their subsequent plans to transform the stadium overshadowed the sustainability achievements of the initial design and construction of the stadium. Arguably the delay in finding a permanent tenant post-Games also contradicted the aim of making the Olympic park a 'blueprint for sustainable living'. Rather it raises the question as to whether or not the stadium will become another one of the Olympic Games' 'white elephants'.

Overall I would argue that London did host the 'greenest' Games since Lillehammer. In this regard, London appeared to make strides in terms of venue design and construction, the recycling of construction materials, and the creation of a carbon footprint for the entire project. Whilst it may be argued that this could be due to multiple factors, I would argue that location conceivably played an important role in how environmental sustainability is understood and addressed by the organisers, and which 'environmental' concerns are prioritised. Here, generally speaking the UK has a developed sense of environmental awareness, and as such it could be argued that the London Games were subject to a greater level of public and media scrutiny than perhaps the Athens Games. An interesting article by Pentifallo and VanWynsberghe (2012) discusses the concept of isomorphism, environmental protection and the Olympic Movement. The authors argue that due to isomorphic pressures within the organisational context of the Games, when faced with the uncertainties associated with how to develop a successful bid, Bid Committees tend to mimic and prescribe to

environmental measures that have been successful in previous bids. Pentifallo and VanWynsberghe (2012, p. 427) explained that using the analytical framework of isomorphism, the coercive, mimetic and normative pressures experienced by Olympic organisations have 'created an environment in which BOCs [Bid Organising Committees] are motivated to not only take up similar environmental programmes of previously successful Olympic bids but also surpass sustainability and environmental considerations.'

Using this analytical framework it is perhaps unsurprising that London could be seen to be the 'greenest' Games to date with each Bid Committee and then later Organising Committee seeking to build upon and enhance the environmental promises made at previous Games. As such according to the framework we should expect to see greater environmental advances at every Olympic Games. Whilst on one hand the attitude of the host city Organising Committees and the support of the IOC could be seen as positive and progressive, on the other hand this could conceivably lead to challenges for future host cities. As Pentifallo and VanWynsberghe (2012, p. 443) posited 'If BOCs continue to duplicate and enhance the environmental initiatives and sustainability programming promised in the bid phase by previously successful BOCs, can a ceiling for such promises be reached?' This is an interesting question because utilising the same types of environmental commitments and programmes (recycling, tree planting, environmentally-friendly design and construction of venues, and transport) for each Olympic Games fails to take into the feasibility of attaining those commitments. In this regard, the environmental culture of the host city and the geographical location in which the Olympic venues are located (city vs. mountain region, proximity of venues, and existing infrastructure) varies greatly and are significant factors that should be taken into account but are perhaps not done so until after the awarding of the bid.

Another interesting issue raised by Pentifallo and VanWynsberghe (2012) that is worthy of consideration is the rise of external individuals and consultancy companies who form an integral part of the BOCs communication strategies and have gained greater importance following the removal of IOC member visits to prospective host cities. With bid cities drawing upon one or several individuals/firms who have worked on previous successful bids, the collection of bid consultants or 'bid gypsies' continue to refine previously successfully used strategies which in turn reinforces the need to use these environmental strategies without adequate critique (Mickle, 2008).

Taking into account the different environmental commitments and realities discussed in this chapter, the demarcation of the three key periods of environmental change and the Games, and using the 'shallow'/'deep' ecology continuum outlined in Chapter Three, Figure 5.1 presents a visual representation of my proposed environmental positioning of each Olympic Games between 1992 and 2012.I have placed the Albertville and Athens Games towards the 'shallow' end of the spectrum due to the fact that despite the proposal of numerous environmental commitments (for example the relocation of venues and the use of environmentally-friendly technologies), these Games have been widely criticised by the media and academics alike (for example Karamichas, 2013) for their environmental failings. Still located towards the 'shallow' spectrum but located further along towards the 'deep' end are the Barcelona 1992, Atlanta 1996, Salt Lake City 2002 Games. Whilst these Games demonstrated less of a commitment towards environmental improvement arguably due to external circumstances (the preparations for the Barcelona Games taking place prior to the Games inclusion of environmental requirements, and issues relating to security due to terrorism-related concerns for the Atlanta and Salt Lake City Games), these Games did demonstrate some environmental improvements (city-wide regeneration, use of pre-existing venues and waste management).

Next along the continuum between 'shallow' and 'deep' are the Nagano 1998, Turin 2006, and Beijing 2008 Games. These Games appeared to make more explicit commitments to protecting the environment, for example Turin's HECTOR programme which attempted to offset emissions and make the Games carbon neutral, and the introduction of the OGI study as well as the huge reduction in ozone-depleting substances at the Beijing Games. At the 'deepest' end of the ecology continuum I have placed the Sydney, Vancouver, London and Lillehammer Games. The preparations of the Sydney Games took place at an opportune time in terms the inclusion of the environment in the Olympic Charter and the UN Conference on Environment and Development being hosted just prior to the awarding of the Games, and the IOC's adoption of Agenda 21 just one year prior to the hosting of the Games. As a result of this focused attention on environmental issues and their commitment to hosting the 'green' Games, I would argue that Sydney did initially lead the way in terms of environmental sustainability, in particular the consultation of governmental and key organisations, and the inclusion of NGOs in the planning processes (Pentifallo and VanWynsberghe, 2013). However, I agree to some degree with Beder's (1999) contention that the Games were a large-scale 'greenwashing' campaign. In this respect, Beder (1999) reveals that the winning design for the Olympic Village which was partly designed by Greenpeace commissioned architects and was championed for its environmentally-friendly design was discarded. Further the decontamination of the Homebush Bay site on which much of the 'green' credentials of the Games was predicated upon was largely unsuccessful and superficial at best.

The Vancouver and London Games represented a shift away from the 'environmental' to the 'sustainable' with the inclusion of 'economic' and 'social' considerations, in particular the inclusion of minority groups, employment, and housing. Both Games were celebrated in terms of their venue designs and construction, for

example the design of the Richmond Oval speed-skating arena and the London Olympic stadium. Whilst these Games were completely different in terms of geographical location, and they faced very different challenges with respect to Vancouver being a winter event taking place across a mountainous area, and London taking place in a compact urbanised area with much in place in terms of transport infrastructure and pre-existing facilities (Wembley Stadium, Wimbledon, and the ExCel centre), both countries have a relatively strong culture of environmental awareness. As such I would expect that due to the strong cultural awareness that these Games would already have the knowledge, resources and motivation in place to enable the hosting of a 'sustainable' Games. Interestingly both Games faced opposition from the host communities relating to environmental concerns with the construction of the 'Sea to Sky Highway' and demolition of the Manor Garden Allotments. Although Vancouver's opposition was on a larger scale, it could be argued that these issues received more media and public attention due to a greater level of environmental awareness and education in these cultures.

At the 'deepest' point on the continuum I have placed the Lillehammer Games which have widely been considered as the original 'green' Games and the 'greenest' Games to date. Somewhat incidentally these Games have been celebrated for the inclusion of environmental organisations in every stage of the planning of the Games. Whilst I consider the Lillehammer Games to have had the 'deepest' ecological approach to hosting the Games due to their inclusion of local environmental concerns, I argue that the London Games have provided a model for future 'sustainable' Games and have demonstrated the most progressive approach to environmental concerns to date by setting standards in sustainability event management, venue design and construction. It must be noted that due to the fact that the Lillehammer Games took place 18 years prior to the London Games, a more technological approach is both arguably necessary and

inevitable, and more appropriate to Games taking place in a urban setting. For these reasons I have located Lillehammer at the 'deepest' point of the continuum but that is not entirely reflective of the Games I consider to be the most sustainable to date.

It must be noted that Figure 5.1 presents a simplistic overview of my environmental positioning of the different Games between 1992 and 2012. It predominantly takes into account the environmental commitments made and the outcomes of both the preparation and hosting period, and is based on the promises made in bid documents and secondary evidence from media and sources and academic accounts. As such it is not a comprehensive representation of the environmental positioning of each Games. As Pentifallo and VanWynsberghe (2012, p, 443) explained 'The follow-up into the post-Games period has been historically neglected, with neither the IOC nor the OCOGs volunteering to report on long-term outcomes once the Olympic flame has moved on to the next host.' Also, despite the introduction of the Olympic Games Global Impact study, there is a lack of consistency in how sustainability indicators are measured as the host city Organising Committee are responsible for contracting an institution to conduct the studies. As such the researchers reporting on these indicators change for every Games and so do the interpretations and subsequent scoring of these indicators.

Taking these factors into consideration, this thesis will contribute to understanding how the environmental sustainability of the Games is understood and will help to offer a more comprehensive account of the issue in combination with media and official reports. However, as noted above further research is necessary in the post-Games period in order to assess the real environmental impact of hosting the Games in its entirety.

Figure 5.1. 'Shallow' and 'Deep' Ecology Continuum: The Environmental Position of each Olympic Games between 1992 and 2012

'Shallow' Ecology

'Deep' Ecology

Albertville 1992

Athens 2004

Barcelona 1992, Atlanta 1996, Salt Lake City 2002

Nagano 1998, Turin 2006

Beijing 2008

Sydney 2000, Vancouver 2010

London 2012

Lillehammer 1994
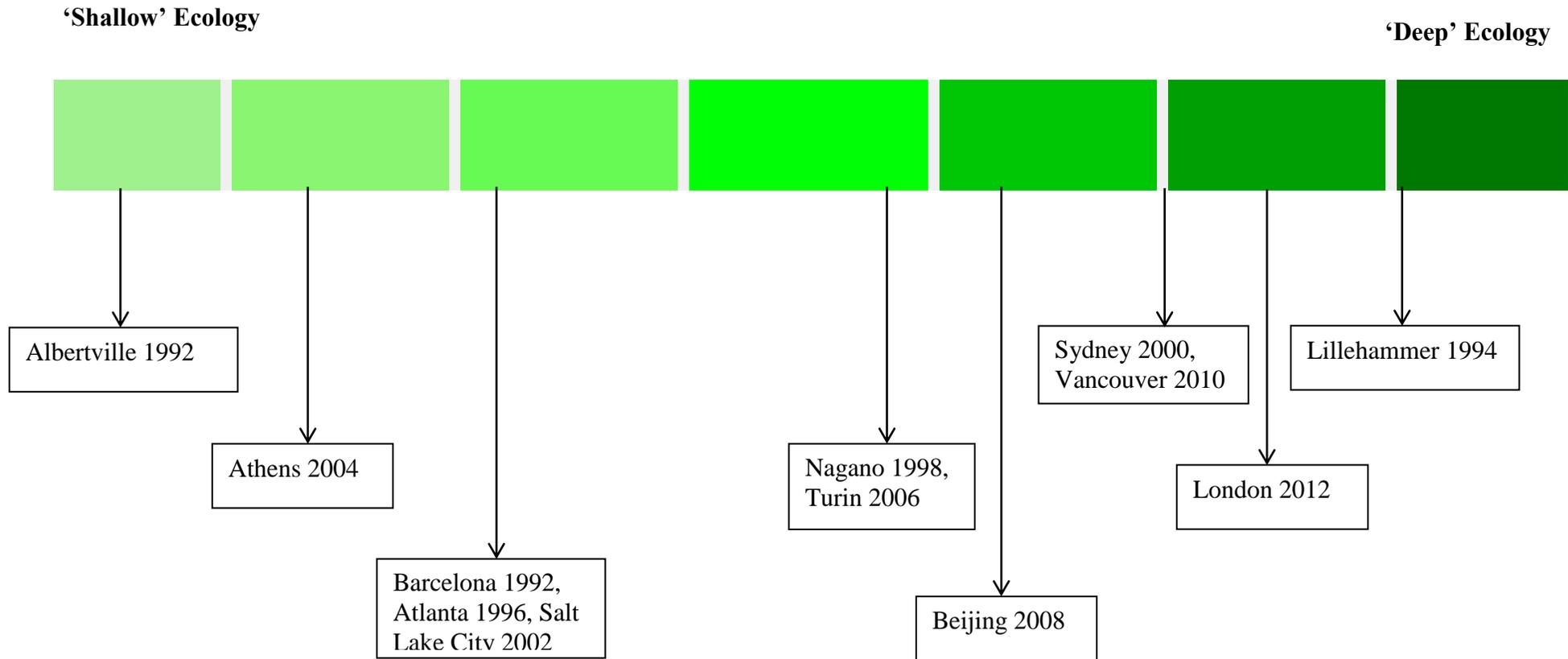
Conclusion

This chapter has examined the evolving relationship between the environment, sustainability and the Olympic Games from 1992 to 2012. Between 1992 and 1996 there was great polarity in the impact of the Games on the environment. Whilst the Barcelona Olympics provided a successful model of city-wide regeneration and subsequent environmental improvements, and the Lillehammer Games boasted many 'green' successes, the environmental destruction of Albertville severely tarnished the Games' reputation. Between 1996 and 2002 there was a shift from Games that demonstrated a 'respect for nature' to the 'green' Games, with a race to be the 'greenest' ever Games which hit its peak with the 'green' successes of the Sydney Games. These Games perhaps mirrored the Lillehammer Games to an extent and incorporated environmental organisations from the offset, and attempted to clean up a chemically contaminated site for the construction of venues.

In the decade leading up to London 2012, progress relating to environmental concerns was inconsistent, with relatively little achieved at the Salt Lake City and Athens Games and Athens receiving strong criticism for its failure to fulfil its environmental pledges. The Turin Games in 2006 seemed to attempt to fill the absence of the 'environmental' at the previous two Games with its HECTOR project, with the following Games at Beijing, Vancouver and London following suit. The Vancouver and London Games represent a shift from the 'green' to the 'sustainable' and a new race to be the first sustainable Olympic and Paralympic Games. Each edition of the Games has adopted a 'shallow' ecology/light green and EMT perspective to tackling environmental concerns. This has become increasingly so since the initial environmental successes of the Lillehammer Games which it could be argued represented the 'deepest' ecological position/dark green position to date with the cooperative work between the Games' organisers, environmental agencies and community groups in delivering a 'white-green'

Games. Despite differences in terms of the exact environmental approach, initiatives, geographic location, and historical context in which the different Games have taken place, a common theme woven throughout them has been a disparity between the environmental promises and the realities experienced by host cities. Through the use of a 'Critical/Marxist' perspective in particular, this chapter has demonstrated that the deviation from these promises came primarily as a result of the prioritisation of economic concerns over environmental concerns. In this regard, the different Games have demonstrated that the needs of those in power, the IOC, host city organisers, and corporate sponsors, have largely been placed above the needs of local people and a desire to protect the environment.

This chapter has also offered my interpretation of the environmental positioning of the different Games between 1992 and 2012 using the 'shallow' to 'deep' ecological continuum. Here I discussed Pentifallo and VanWynsberghe's (2012) concept of isomorphism and the replication of similar environmental initiatives between Games, which is significantly influenced by the use of the same external consultants in the creation of a successful bid to host the Games. I then provided a visual representation of this in Figure 5.1 which demonstrated a general linear progression for every Games from 'deep' to 'shallow' with the notable exceptions of the Lillehammer and Athens Games, which for the time at which they were hosted demonstrated greater levels of environmental achievement and environmental failings respectively. However, it must be noted that similarly to the issues concerned with definition of 'environment' and 'sustainability', similar problems can be associated with understandings of 'shallow' and 'deep' ecological positions. On one hand the 'shallow' position refers to a more anthropocentric approach and some may argue superficial approach whereby a price is placed on the earth's resources. On the other hand the 'deep' ecological position attributes intrinsic worth to environmental resources and requires substantial changes to

the existing economic and political systems to be made in order to protect the environment. With this in mind it could be argued that it is not feasible or necessary for the Games' approach to environmental concerns to challenge the current socio-political situation as a short-term event. Neither is it realistic to expect the earth's resources to take place over economic concerns for the organisers of the Games due to other competing priorities such as improvement of infrastructure, provision of new facilities, and the creation of new employment opportunities. In this regard I consider Games that have adopted a 'deeper' approach to be those which have sought to set new standards of sustainability and have placed great importance on environmental concerns.

Overall I concluded that the Lillehammer and London Games have been the most sustainable Games to date. That is not to say that they were void of environmental failings but in comparison with previous Games these Games demonstrated a greater concern for the environment. The remainder of this thesis will place the environmental sustainability of the London Games under greater scrutiny through discussion of primary research with Olympic Borough Council representatives, and local residents and businesses from the host Boroughs. In this regard it is important to understand how the environmental goals of the London Games were understood and experienced by the host communities, and whether or not London demonstrated a continuation of the prioritisation of economic concerns, and disregarded the views and concerns of local people. As such, Chapter Seven and Eight investigate the views of different stakeholders involved in the debates about environmental sustainability in the context of the London Games. However, it is firstly important to provide an overview of where the London Games took place in order to gain a better understanding of the social, economic, and environmental context. This is of particular importance to understanding the impact of the London Games on the host communities due to its high level of socio-economic deprivation and the potential significance that Olympic-related developments

could pose. Hence the next chapter provides a brief history of the development of the official Olympic Boroughs in which the research for this thesis was conducted and a guide to the location of the London Olympic venues in relation to these.

CHAPTER SIX: A SOCIO-DEMOGRAPHIC PROFILE OF THE SIX OLYMPIC BOROUGHS

The Development and Location of the Six Olympic Boroughs

The original five London Olympic Boroughs: Greenwich, Hackney, Newham, Waltham Forest and Tower Hamlets, were identified as some of the most deprived communities in England. Nevertheless, this area of London has been identified as possessing social and economic opportunity which if realised could significantly contribute to London's overall economy (Strategic Regeneration Framework, 2009). Arguably it was due in part to the ambition to regenerate these socially deprived and culturally diverse areas through hosting the Olympic Games that helped London's bid team to gain the IOC member's support (Poynter, 2009a).

The Olympic Boroughs were originally selected following proposals put forward by London Boroughs stating their potential to benefit from the hosting of the Games both economically and socially. These proposals were evaluated against criteria set by the Greater London Authority (GLA) and the five initial Olympic Boroughs were chosen as they were deemed to be able to benefit most from the new and enhanced infrastructure and facilities, and employment and housing opportunities (Fussey et al., 2011). Following the awarding of the bid to London, an Inter Authority Agreement was signed by the five Olympic Boroughs in 2006 to work cooperatively in order to ensure sustainable benefits and legacies (Barking-Dagenham.gov.uk, 2011). In 2009 the Olympic Boroughs' Strategic Regeneration Framework (SRF) was published which outlined the principle of 'Convergence'; to ensure that these five Boroughs would experience the same social and economic opportunities as the rest of the London Boroughs in the period leading up to 2012 (GLA, 2012; Hackney.gov.uk, 2012). More specifically the SRF aimed to reduce the inequalities experienced by Olympic Borough

residents in terms of educational achievement, crime rates, poverty and life expectancy through a prioritising framework of agreed action (GLA, 2012; SRF, 2011a).

Following proposals for the addition of a sixth Olympic Borough, Barking and Dagenham was awarded 'host Borough' status in April 2011. However, it was argued that the awarding of 'host Borough' status was more of a consolation for the Borough after plans for rhythmic gymnastics, badminton and equestrian events on a proposed brownfield site in Barking and Dagenham were rejected (Beard, 2010). Nevertheless, the SRF was amended and Barking and Dagenham were fully incorporated into this vision of creating better conditions in these Boroughs (SRF, 2011a). The exact location of the six Olympic Boroughs within London, and more specifically the location of the Olympic Park, can be seen in Figure 6.1.

It is important to understand the location of the Olympic Boroughs in relation to the Olympic venues. The London 2012 Organisers sought to host one of the most compact Games to date (London 2012, 2004a). In order to achieve this, the majority of Olympic venues were located within three zones within Greater London: the Central Zone, the River Zone and the Olympic Zone (Figure 6.2). These zones consisted of a mixture of temporary, existing and newly-built facilities. The Olympic zone was the main area of interest for this research project as it included the Olympic Park and the main concentration of Olympic venues. In terms of the Olympic Boroughs, the Olympic Park was primarily located in Newham with 60% of the overall site located there. The remaining portion of the site was located on the edges of Waltham Forest and Hackney, and bordered Tower Hamlets (Ryan-Collins and Sander-Jackson, 2008). Within the Olympic Park (Figure 6.3) the Olympic Stadium, Aquatics Centre, Water Polo Arena, London Velopark (indoor velodrome and outdoor BMX track), Riverbank Arena, Eton Manor, Basketball Arena and the Copper Box were all developed (Zuo et al., 2012). Now that the area in which the majority of the hosting of the Games has been outlined, I

will provide a socio-demographic profile of the people living within the Olympic Boroughs.

Figure 6.1. Map of London 2012 Olympic Borough Councils

1 - City of London
2 - Hammersmith & Fulham
3 - Kensington and Chelsea

Olympic Park Boundary

This product includes mapping data licensed from Ordnance Survey with the permission of HMSO © Crown Copyright 2010. All rights reserved. License number. 100019635. 2010 ©Bartholomew Ltd.Reproduced by permission, Harper Collins Publishers 2009

(Strategic Regeneration Framework, 2011b)

169
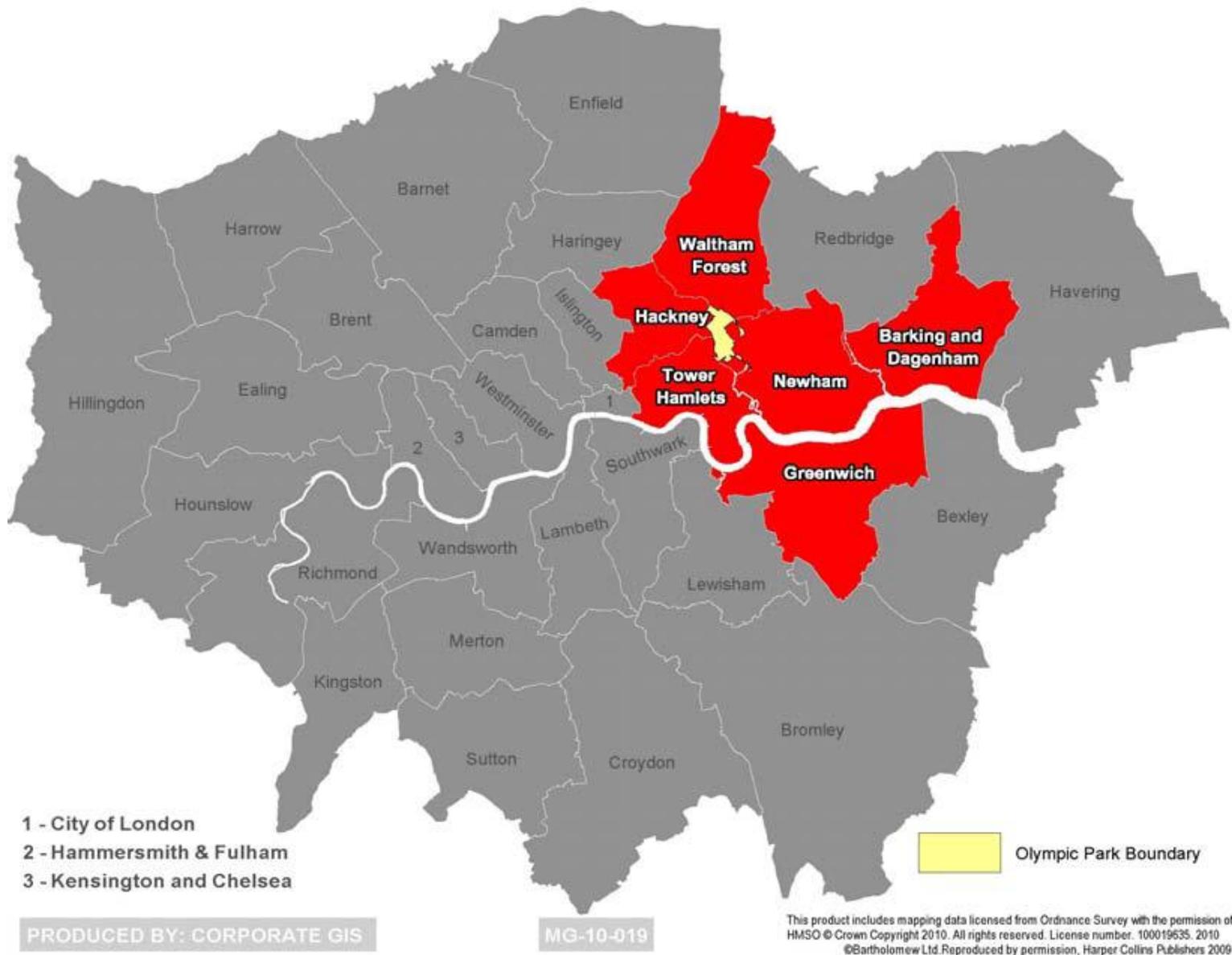
Figure 6.2. Map of London 2012 Olympic and Paralympic Venues
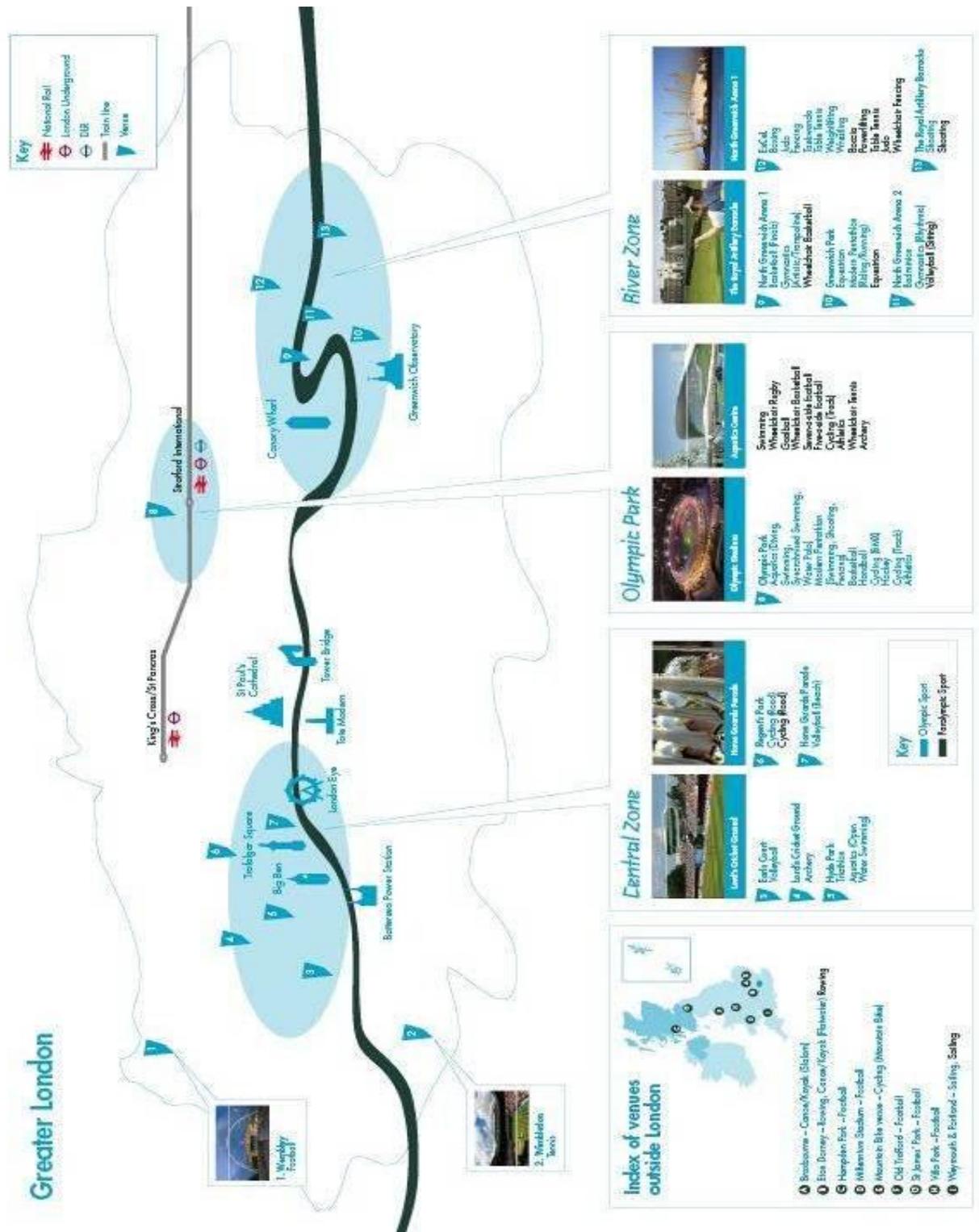
(London 2012, 2012a)

Figure 6.3. Map of London 2012 Olympic and Paralympic Park

Indicative map of the Olympic Park during the Games
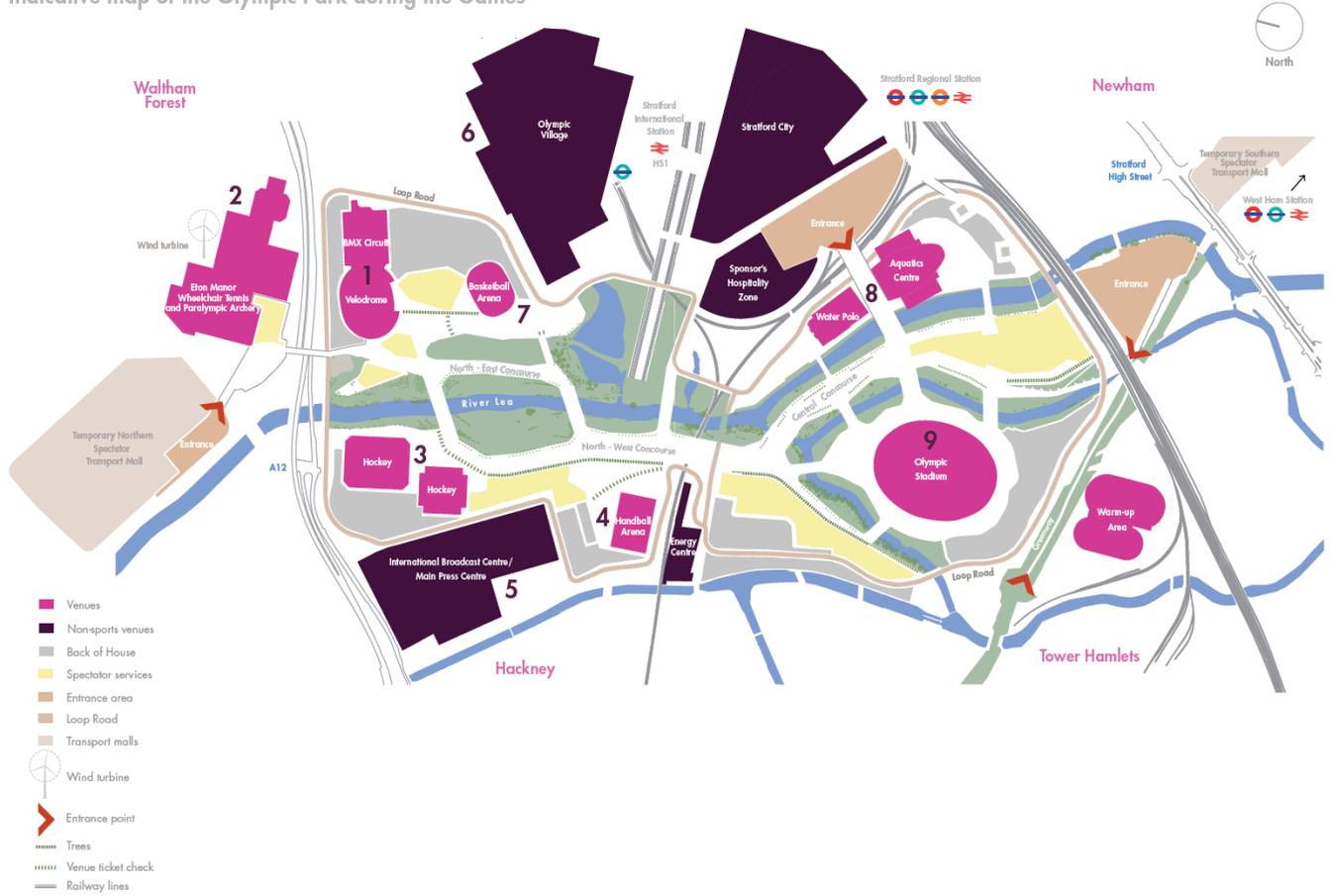
(London 2012, 2012b)

A Demographic Profile of the Six Olympic Boroughs

As can be seen from the data in Table 6.1, when compared to the average age of communities across England, the populations of the six Boroughs are relatively young (Mayhew et al., 2012). As shown in Tables 6.1 and 6.2, the different Olympic Boroughs have distinctive features in terms of their ethnic minority populations. There are a greater proportion of British Black or Black residents within Hackney and Newham (24.7% and 21.6%) when compared to the UK and more specifically London (2.0% and 10.9%). There are also a significantly higher percentage of Asian and Asian British citizens within Tower Hamlets and Newham (36.6% and 32.5%) when compared to the UK and London (4.0% and 12.1%). In addition to the figures shown, there is also a high level of migration of deprived families into the Olympic Boroughs that contributes to a constant flow of transient populations into them (House of Commons Culture, Media and Sport Committee, 2010a).

The Olympic Boroughs have historically seen high levels of economic deprivation. This is perhaps unsurprising considering the Boroughs were home to working-class communities who provided labour to the manufacturing industry and the docks, and were also typically the first destination for migrant groups (MacRury and Poynter, 2009). The Boroughs are also the site of great social deprivation with typically lower educational attainment and poor job prospects, high numbers of families in receipt of benefits, lower life expectancy rates, greater risk of childhood obesity, and higher violent crime incidences, when compared to the rest of London and the UK as a whole (Host Boroughs Unit, 2010). One comprehensive measure that demonstrates the level of social deprivation is the Index of Multiple Deprivation (IMD). The IMD score takes into account seven main areas of deprivation: crime, health, employment, income, education and skills, housing and living environment. As shown in Table 6.3, since the IMD was first published in 2004 Newham, Hackney and Tower Hamlets have remained

amongst the most deprived Boroughs in England of which there are 354 (MacRury and

Poynter, 2009).

Table 6.1. Population, Age and Ethnicity in the Six Olympic Boroughs 2001-2010

Population	Unit	Greenwich	Hackney	Tower Hamlets	Newham	Waltham Forest	Barking and Dagenham
Population Estimates	000s	228.5	219.2	237.9	240.1	227.1	179.7
Age Structure: **0-15**	000s	49.1	47.9	47.2	60.4	50.1	44.7
16-64	000s	153.8	153.1	174.6	159.9	153.2	115.0
65+	000s	25.6	18.2	16.1	19.8	23.8	20.0
Ethnic Composition:							
White	%	77.2	59.4	51.4	39.4	64.4	85.3
Mixed	%	2.7	4.2	2.5	3.4	3.6	1.9
Asian or Asian British	%	6.8	8.6	36.6	32.5	14.7	5.1
Black or Black British	%	11.1	24.7	6.6	21.6	15.5	6.9
Chinese or Other Ethnic Group	%	2.3	3.2	3.0	3.1	1.8	0.9

(Londoncouncils.gov.uk, 2011)

Table 6.2. Percentages of Ethnic Groups in the UK and London

	UK	London
White	92.1%	71.2%
Mixed	1.2%	3.2%
Asian or Asian British	4.0%	12.1%
Black or Black British	2.0%	10.9%
Chinese or Other	0.8%	2.7%

(Office for National Statistics, 2003)

More specifically, the key commonalities in terms of social deprivation across the Olympic Boroughs are the low rates of physical activity, high rates of childhood obesity, and the high rate of unemployment. As shown below in Table 6.4, all of the Boroughs have significantly higher rates of unemployment rates when compared to London and the UK, with rates of unemployment in Newham nearly double that of the UK as a whole. Tackling unemployment was one of the main aims of the regeneration plans for this part of East London. Ironically, the relocation of approximately 200 local businesses within the Olympic Zone in the build-up to the Games in order to make way for the Olympic site added an extra pressure on the availability of work in the Boroughs (Ryan-Collins and Sander-Jackson, 2008).

Table 6.3. Index of Multiple Deprivation and the Olympic Boroughs 2010

Local Authority	Rank of Average IMD Score
Greenwich	28
Hackney	2
Newham	3
Tower Hamlets	7
Waltham Forest	15
Barking and Dagenham	22

(Corporate Research Unit, 2011)

Table 6.4. Unemployment Rates in the Six Olympic Boroughs (Oct 2008 – Sept 2009)

	Greenwich	Hackney	Newham	Tower Hamlets	Waltham Forest	Barking and Dagenham	London	UK
Unemployment Rate	10.2%	10.5%	13.1%	13.0%	10.3%	10.5%	9.3%	7.8%

(GLA, 2010)

At a general level, the socio-demographic information above highlights the cultural diversity and social inequalities that exist within the Olympic Boroughs. According to UNEP (2012, p. 1), the demographic profile of an area serves as 'a critical influence on consumption patterns, production, lifestyles and long-term sustainability.' The influence of the demographics of an area can further impact upon how Olympic-related environmental programmes are received. Preuss (2004, p. 82) highlighted this when he stated: 'Depending on the situation in the host city, the Olympics may have an overall surplus of ecological costs or ecological benefits.' Former industrial land which is either disused or requires decontamination is often chosen for the construction of Olympic Parks due to the high cost of acquiring land located within a close vicinity of the city centre. This type of land is often run-down with high levels of social deprivation. The redevelopment and decontamination of these areas can conceivably leave long-term ecological benefits to an area (Preuss, 2004).

However, to make way for new infrastructure, the Games have historically displaced a number of local residents and businesses from these areas in a process Harvey (2008, p. 34) entitled 'accumulation by dispossession'. In this regard the host city population often consists of marginalised groups with great ethnic diversity and high levels of social deprivation; it is these same groups which have been targeted by urban regeneration projects associated with the Games. As such the demographic profile of the Olympic Boroughs is an important consideration and influence when exploring the different stakeholder views in this thesis, these of which will now be explored in the following two chapters.

CHAPTER SEVEN: LONDON 2012, ENVIRONMENTAL SUSTAINABILITY AND OLYMPIC BOROUGH COUNCIL REPRESENTATIVES

The next two chapters relate to the third objective of this thesis; to gain a comprehensive insight into the views of key stakeholders involved in the debates about environmental sustainability within the context of the London Olympics. As mentioned previously, the primary data collection took place in research phase two and three. Phase two consisted of in-depth semi-structured interviews with representatives from the six London Olympic Borough Councils (hereafter 'Olympic Boroughs'): Greenwich, Hackney, Newham, Waltham Forest, Tower Hamlets and Barking and Dagenham. Phase three consisted of a focus group and a series of interviews with residents living close to the Olympic sites, and businesses located within the six Olympic Boroughs. This chapter therefore offers an interpretation of the views obtained from representatives from the six Olympic Boroughs Councils on issues of environmental sustainability and the perceived environmental impact on their respective Boroughs, communities and businesses.

As noted in Chapter Two, in addition to local residents and businesses, local governments have been identified as a key group whose viewpoints within the context of sports mega-events need exploring (Bull and Lovell, 2007). Despite this, the views of local government have tended to be ignored in terms of decision-making processes pertaining to the Games (Cashman, 2002). In addition there has been a lack of research which have obtained the views and experiences of government, and local government representatives (with the exception of Zhou, 2006). As such, this chapter makes an important contribution to research in this area by investigating the views of local Council members from the six Olympic Boroughs.

It is worth noting that whilst representatives from the Olympic Borough Councils represent the respective communities in which they work, they are also subject

to external pressures from the official Olympic Bodies. The Olympic Borough Councils, and more specifically the Olympic Borough Units, acted as a hub for the Olympic bodies and the local community. As such, they helped to disseminate information about the Games, whilst promoting the Olympics to local residents and businesses (RoyalGreenwich.gov.uk, 2012). In this regard I acknowledge that interviewing local Council representatives might be of limited value regarding their personal views, as they represent a wider organisation and therefore their views on environmental issues and the London Games may be distorted. It is for these reasons that I kept in mind the conflicting pressures that the Council representatives might be impacted by when I analysed the responses given. The views obtained from local residents and businesses, discussed in the next chapter, will help to build a more accurate assessment of the understanding of sustainability generated by the London 2012 Olympic and Paralympic Games.

As discussed in Chapter Three, Næss' philosophical conceptualisation of 'shallow' and 'deep' ecology is useful in mapping different organisational positions towards environmental issues within the context of the Games. In this regard, it enables the comprehension of the different environmental positions of Olympic organisations, and also is able to highlight where tensions may lie. As a result I have incorporated this theory (see Figure 6.1) to help illustrate the positions of key stakeholders involved in environmental issues arising from the London Games. As I have argued in Chapter Five, the IOC and OCOGs have adopted a 'shallow' ecology/light green position and EMT perspective wherein technological innovation is seen as one of the main solutions to counteracting environmental concerns relating to the Games, and environmental concerns are seen as compatible with economic concerns. I build upon this philosophical perspective here by suggesting that rather than using the two distinct environmental positions of 'shallow' and 'deep' ecology as put forth by Næss, it is

necessary to utilise a continuum. As Lenskyj (2000) has argued, using a spectrum as theoretical framework can be an extremely useful and a valuable explanatory tool when understanding social and environmental movements. The adoption of a continuum using these polarised positions is perhaps somewhat controversial as it contradicts Beder (1993) and Lenskyj's (2000) view that these positions are too different to be placed on a continuum together. However, I believe the external social, economic and political pressures have the ability to influence the position of an individual or organisation, especially in the age of heightened environmental awareness, and therefore the position adopted may change over time.

The diagram demonstrates my interpretation of the different environmental positions of key Olympic stakeholders. At the 'shallow' end of the spectrum I have placed the key organisations involved with the hosting of the London Games; the IOC, ODA, LOCOG, and the TOP Sponsors (such as Coca-Cola and EDF). The IOC creates the conditions which promote the development and implementation of sustainable technologies and materials through its planning recommendations for sustainable legacies (Kassens-Nor, 2012; Toyne, 2009). The London 2012 organisers and delivery authority, LOCOG and the ODA, provided the opportunities and enabled the showcasing of new technologies and materials which was exemplified in the design and operation of venues (Gray, 2012; Lane, 2012).

Next I have placed the environmental organisations involved with the London Games, BioRegional and the World Wildlife Foundation (WWF), and the Commission for a Sustainable London 2012 towards the 'shallow' end of the spectrum but not to the same degree as the stakeholders mentioned above. Environmental charities, BioRegional and WWF helped to develop the 'One Planet Olympics' framework which broadly aims 'to create a new sustainable blueprint for future global sports events and leave a sustainable legacy for London.' (BioRegional and WWF, 2012). The reasoning

for this is threefold; firstly, these organisations are not-for-profit and as such do not need to use the Games as a marketing platform to promote new technologies. Secondly, these organisations have been established with the goal of environmental protection and sustainability in mind. Thirdly, these organisations arguably represent a cog within the Olympic machine. As such they are subject to the overriding powers possessed by the powerful members of the IOC.

In relation to these key Olympic organisations, I have initially placed the Olympic Boroughs Councils towards the 'shallow' end of the continuum. Whilst on the one hand, LOCOG and the ODA depend on the effective cooperation and coordination of local government order to ensure successful preparation and hosting of the Games (Theodoraki, 2007). On the other hand, local government is seeking to benefit from opportunities presented by the Games, especially in relation to the boosting of the local economy, for example, job creation, improved transport infrastructure, attracting new investment into the area (Wisdom, 2011). As a result of this symbiotic relationship between the Olympic organisers and local government, I would argue that local government representatives, in particular Olympic Borough Council representatives, tend to adopt a similar EMT perspective and as such reiterate the dominant IOC perspective. Although I have positioned this group towards the 'shallow' end of the spectrum, I believe that the positions are not fixed and therefore there is the ability for Olympic Borough Councils and their representatives to move dynamically along the continuum. The themes identified during the analysis of interviews with Olympic Borough Council representatives and their potential to impact the positioning of the participants and their respective Boroughs is highlighted.

Figure 7.1. 'Shallow' and 'Deep' Ecology Continuum

'Shallow' Ecology

'Deep' Ecology

IOC, ODA, LOCOG, TOP Sponsors

Commission for a Sustainable London 2012, BioRegional, WWF, Olympic Borough Councils
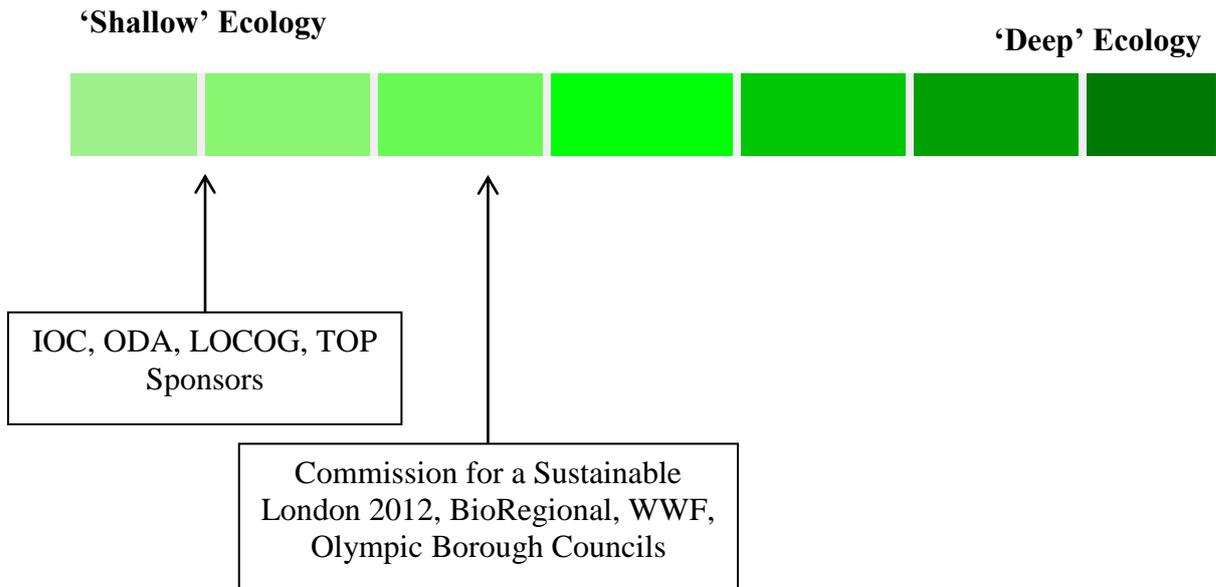
The topics covered within the interviews with Olympic Borough Councils included environmental sustainability within the context of London 2012, and the environmental impact on the Borough, local residents, and local businesses. Thematic analysis of the interview transcripts identified four main themes: the negative impact of the economic climate on the environmental sustainability of the London Games; the importance of location; residents and businesses were yet to realise the full impact of hosting the Games; and ambiguity over the definition of 'sustainability'. In addition to these, several sub-themes emerged; these were: the prioritisation of the interests of local businesses; 'business as (un)usual'; great uncertainty with respect to the role and lifespan of the Olympic Borough Units; and a concern over the future impact of the Olympic Route Network (ORN) on local residents and businesses. From reviewing these findings I contend that the themes identified can be located under two broad umbrella themes; these are economic concerns and the possibility of achieving environmental sustainability. In this regard, I argue that the negative impact of the economic climate on the environmental sustainability of the London Games, the importance of location, residents and businesses yet to realise the full impact of hosting

the Games are underpinned by economic concerns; whereas, the ambiguity over the definition of 'sustainability' relates to the possibility of achieving environmental sustainability. In light of the combination of theoretical approaches adopted and the categorisations proposed, the potential negative impact of the economic climate on the environmental sustainability of the London Games is now discussed.

The Negative Impact of the Economic Climate

With the hosting of the London Games caught between reductions in public spending resulting from new 'austerity' government measures, and commitments to hosting an Olympic spectacle (Fussey et al., 2012), it is perhaps unsurprising that economic concerns featured heavily throughout the interviews conducted. More specifically the economic aspect of environmental sustainability was a key theme that weaved throughout the series of interviews. Two recurring themes splintered off from this: that the impact on environmental initiatives proposed by LOCOG had been affected by the deteriorating economic situation after the credit crunch in 2007 and 2008, and the (economic) sustainability of local businesses was one of the greatest priorities for Olympic Boroughs.

Several of the respondents felt that the pressure of a difficult economic climate coupled with the immovable deadline of hosting the Olympic and Paralympic Games between 27 July - 9 September 2012 negatively impacted the proposal of environmental initiatives, and the overall potential of London to host the first sustainable Olympic and Paralympic Games. Strong financial support is a prerequisite to creating any major 'green' event (Roper, 2006), and when the budget for such a large sporting event is under continuous public scrutiny with more visible and competitive priorities, environmental objectives can conceivably be abandoned. As mentioned in Chapter Five, plans to construct a wind turbine on the Olympic Park were scrapped in June 2010 (BBC, 2010a). Although the reasons given for the abandonment of this plan were the

unsuitability of location, inability to comply with new industry regulations within the given time period, and limited commercial interest of the project, it is interesting that one month prior to this decision the government announced £27million was to be cut from the London Olympic budget (BBC, 2010b).

Nevertheless, it is difficult to identify any planned environmental programmes that were scrapped as a direct result of economic pressures within the context of the London Games, as London's environmental programmes and environmental budget were integrated within other functional areas and the OCOG budget. Further, the proposed non-OCOG budget for environmental actions was $700million of the total of the infrastructure budget (IOC, 2005b). As a result it is difficult to detect whether or not the budget allocated for environmental measures and programmes for the London Games changed over the preparation period. However, a statement from the Waltham Forest respondent encapsulated the potential of the economic climate to negatively impact upon the environmental initiatives of the Games. They explained that although environmental sustainability was very important, their overriding concern lay with the economic sustainability of the Games. They stated:

> *There are competing priorities, environmental sustainability is really important but certainly for our Borough where local business isn't exactly thriving if compared with others, it is the economic element. Environmental sustainability is really key but I'd say that the economic aspect is really important as well definitely for this Borough, and in terms of the sort of economic climate that we always talk about that too is quite important and where they can meet is great but I would say it's a priority to develop the local economy really.* (WFOBU)

When asked what environmental sustainability meant to their Borough, the Hackney respondent openly confessed that in terms of the environmental work being done,

'ultimately as ever it will become the balance between that [environmental sustainability] and then money.' (HOBU). The prioritisation of economic concerns over environmental concerns in the hosting of the Games relates to the 'Critical/Marxist' perspective whereby the economic basis is the key determinant of the outcomes and productivity of other spheres of social life (Hughson et al., 2005). In addition, the apparent incompatibility of economic concerns with environmental sustainability expressed by the Hackney representative also contradicts one of the key tenets of EMT, that economic growth is compatible with the preservation of the environment (York et al., 2010). The criticality expressed by the Hackney respondent may signify a slight shift towards the 'deep' ecology position. In this regard, it could be argued that the existing economic structure is seen as not conducive to environmental protection and progress.

This tension in prioritisation between the 'economic' and the 'environmental' is not a novel finding, and one that was apparent in the Brundtland Report (WCED, 1987), which gave birth to the modern definition of 'sustainable development'. This report asserted that the goal of 'sustainable development' is to ensure environmental protection in parallel with human and economic development (Holden et al., 2008). Collins et al. (2009, p. 830) termed this exploring the 'trade-offs between the achievement of economic, socio-cultural and environmental goals.' They explain how event managers and organisers are often posed with the complex dilemma related to this of 'how far losses in one 'area' can be made up in others.' The literature also reflects the prioritisation of economic concerns as economic impact assessments dominate the literature investigating the overall impacts of the Games (Dickinson and Shipway, 2007; Hiller 1998).

The Hackney respondent provided a further example of competing economic and environmental objectives when talking about how the construction materials are

transported on to the Olympic site, and the missed opportunity of using the waterways to transport the materials. They explained:

> *The ODA marketing machine themselves will probably say they haven't quite achieved what they want to do….is how the site has been accessed and how the materials that have come along have been accessed….and I think there's been some use of rail but the real opportunity because the link straight down the Thames was to use water freight and for whatever reason that's not really happened…I guess that's something that still remains a challenge. How the waterways get used for any kind of use be it the freight side, construction, leisure, even commuting use is something where we're still trying to see what those opportunities are…A lot if it still comes down to money ultimately.*
> (HOBU)

The ODA's original commitment concerned with the transportation of materials to the Olympic site was that approximately 50% of construction materials (according to weight) would be transported to the Olympic site via rail and water in order to minimise pollution and increased traffic that would be caused by vehicle transport (ODA, 2011). Although the ODA (2011) claimed that it was successful in achieving this, the majority of materials were transported via rail. The ODA contended that the distribution of the water network and the excessive cost involved in transporting the materials via water, limited the use of this mode of transport. Again this highlights the demotion of more environmentally-friendly practices due to the costs involved. In this instance a 'Critical/Marxist' critique of environmental action within the context of the Games is relevant. The shifting of the means in which this environmental goal was attained presents an example of how 'the interests of economic use of nature and its resources

appear to predominate [today] over the interests of protection and sustainable use of natural resources.' (Kotov and Nikitina, 2001, p. 218).

Interestingly, one of the respondents from the London Borough of Newham which was host to the majority of the Olympics facilities perceived the economic downturn to be a positive occurrence. They stated:

In the economic downturn and if the Olympics hadn't have happened, some of these things would have probably been delayed further. So the development has probably kept pace even though there's been an economic downturn because we actually had to make sure Stratford and the venues were ready for the Olympics, so that's given them momentum to it to keep them going which has been beneficial. (NOBC).

Rather than seeing the Games as a huge strain on already tight public resources, this respondent viewed the Games as an unstoppable catalyst for urban regeneration. This particular participant was at a managerial level within the environmental department at Newham Council, and seemed to re-articulate the suggestion contained in London's Olympic bid book about the power of the Games to accelerate regeneration. The bid book stated: 'Without the Games, change would still happen, but it would be slower, more incremental and less ambitious from a sporting, cultural and environmental perspective' (London 2012, 2004b, p. 23).

However, as Vigor et al. (2004, p. 14) explained, there has been a tendency for Olympic host cities to state that the Games have enabled resources to be mobilised, and development to be fast-tracked which may ordinarily have been 'slow in its progress or terminally stalled'. In order to counteract concerns regarding the fast-tracking of Olympic-related developments, the social, economic and environmental benefits are often exaggerated (Coaffee and Johnston, 2007). Whilst these developments are framed

as positive outcomes of hosting the Games, they also raise questions pertaining to the extensiveness of environmental impact assessments, and the degree of community consultation on Olympic development issues (Lenskyj, 2000; Silvestre, 2009). With respect to the latter, it has been argued that a perceived lack of community consultation and subsequent understanding of Olympic-related developments can lead to negative social impacts for the host community, and can negatively affect the overall success of the event (Fredline, 2004; Lenskyj, 2002). The potential overriding of local concerns in order to serve the interests of Olympic organisations raises issues of power relations, and therefore lends itself to a 'Critical/Marxist' perspective of the Games. The next chapter will explore whether or not this has been the case for the residents and businesses interviewed for this thesis.

Unlike the Hackney representative, the Newham respondent provided evidence that Newham as a Borough had adopted the dominant EMT perspective assumed by the IOC, LOCOG and the ODA. This compatibility between urban regeneration, associated economic growth and environmental sustainability through EMT is encapsulated by Tallon (2010, p. 171) who stated that 'the ecological modernisation perspective suggests that economic development is compatible with sustainable development…[and] Sustainable urban regeneration can be delivered through development, planning, housing and design policies'. In light of these comments I would suggest that Newham as a Borough adopted the most 'shallow' ecological position. This was further evidenced when the respondent explained that they would find it difficult to state whether there had been any missed opportunities. In this sense there was an acceptance that the work being undertaken by the ODA was environmentally sustainable or beneficial which has contributed to the overarching environmental aim of London 2012 to be the first sustainable Olympic and Paralympic Games.

After the interviews had taken place it became apparent that three out of the six participants who worked within an environmental or sustainable development type role (which also happened to be at a managerial level), were largely more positive about the impact of the Games on the Olympic Boroughs. An example of this occurred when I asked what the participant's thoughts and feelings were about environmental sustainability within the context of the London Games. The Tower Hamlets respondent, a manager within the Sustainable Development Team, felt that all the environmental promises made by the Olympic bodies had been delivered. The respondent explained 'I don't think there have been any negative impacts but that's probably because the only Olympic-related thing we've got in the Borough is the energy centre. I don't know of any sort of negative impacts other than the cost of the Games.' (THOBC). With reference to criticisms over the cost of the Games, the participant further felt that this was somewhat unjustified. They stated:

> *For me personally you can't sort of look at the cost of putting the Games on and then just compare that to three or four weeks of Olympics and then the following Paralympics. You can't sort of relate the cost to just that month because you've got to look at things that's going to happen and is happening on that* [Olympic] *site, and what you are getting in terms of infrastructure.* (THOBC)

When questioned further on this matter, the Tower Hamlets respondent felt that there had not been any missed opportunities in terms of environmental action by the Games' organisers. Whilst also being linked to the impact of the Games in term of location to the Olympic site, these quotes reiterate the rhetoric espoused by the Olympic organisers in terms of the Games leaving behind a positive physical legacy. Similarly, the Greenwich respondent who worked at a senior management level within a Regeneration, Enterprise and Skills remit, was inherently positive about the

environmental work being undertaken by the Olympic bodies. The Greenwich respondent felt that Olympic-related works had made the sites rich in habitat and biodiversity, and that they now exuded a 'Sylvanian atmosphere' (GOBC). Further, the respondent felt that as part of the legacy programme the areas being used in the Games, more specifically Greenwich Park, would be restored to a better condition after the Games. These comments arguably referred to more superficial environmental work that had been carried out which visually had made the Games appear to be having a positive environmental impact. I would argue that the views offered by the Newham, Tower Hamlets and Greenwich representatives highlighted their 'shallow' ecological positions and their acceptance of EMT practices.

Another theme that emerged in terms of the negative impact of the economic climate on the environmentally sustainability of the Games, was the notion of the Boroughs operating on a 'business as (un)usual' basis. This term was expressed by several participants who explained that the Boroughs were seeking to aim to achieve normal function of the Borough and its businesses but just on a much larger scale. The Newham respondent explained:

> *The phrase you will probably have heard 'business as unusual', so basically we would do what we normally do but the scale of it and the arrangements and preparations are much bigger because obviously the Olympics is such a big deal… we are trying to do an education for residents, we are doing separate collections for recycling, we're looking to reduce the amount of waste across the Borough in terms of fly tips, trade waste, businesses. We are trying to improve the cleanliness of the Borough, planting lots of trees in the Borough, which some of that has been funded by us, some of that has been funded by central government. So we are very much looking at continuing to invest in our parks*

and open spaces and making them a welcoming place by improving the environment for everybody. (NOBC)

The Waltham Forest respondent also explained that their Borough was aiming to operate on a 'business as (un)usual' basis. When discussing their role in their Boroughs Games-time operations programme, they explained that they were concerned with the:

Look and feel of the environment which is about making sure that the Borough is clean, and Council services operate properly so things like we're going to have massive disruption in terms of movement around the Borough, how we are going to make sure that meals on wheels is you know delivered residents that need it, that kind of thing so it's about making sure that the Borough functions properly, that it looks good for visitors, that sort of thing and that it is business as usual, and usual circumstances essentially. (WFOBU)

These quotes concerned with the Boroughs operating on a 'business as (un)usual' can be construed in two different ways. Firstly, it could be argued that these quotes demonstrate the desire of the Boroughs to be seen to be operating normally to those externally, more specifically to the visitors of the Games. Secondly, that the main concern is with the physical appearance of the environment of the Borough. These interpretations can be both seen to be concerned with the beautification of the host city, and prioritising the views and experiences of visitors over local people (Gold, 2011). The beautification of the East End of London through the hosting of the Games is done so with the goal of making the area more attractive to tourists, and perhaps most importantly to attract new business and investment (Chen and Spaans, 2009). This again demonstrates the prioritisation of economic concerns over environmental concerns.

In relation to the theme 'business as (un)usual', it also emerged that the Boroughs were seeking to build upon the environmental good work already being undertaken by the residents in conjunction with the environmental work associated with the Games. In this sense it could be argued that the sustainability of the Games, and more specifically the extent to which they can be seen as environmentally sustainable, is in part determined by the action of local people. As the Hackney respondent explained:

> *Hackney's got a pretty* [not necessarily as a Council] *pretty strong reputation in terms of its residents and its businesses I think of being very aware of kind of environmental issues and doing their best to promote their own kind of individual or company sustainability…I think there's a general ethos that we should be trying to support what basically our residents are already doing.* (HOBU)

This quote arguably demonstrates a shift away from the top-down technocratic approach which the London organisers have assumed in which sustainability is quantifiably measured in terms of venue construction and energy efficiency targets which are set out in the London 2012 Sustainability Plan (London 2012, 2009a). This shift could be interpreted in different ways; on one hand the respondent could be seen as being in support of a bottom-up approach to environmental sustainability which focuses on individual and local action towards environmental concerns (Cairns, 2003). On the other hand, it could be seen as mirroring the devolution of responsibility for environmental sustainability within the context of the Games from the IOC to the city, the National Olympic Committee (NOC), and the OCOG (as set out in the host city contract - IOC, 2005c) at the local level. In order to develop this area of knowledge and uncover the exact environmental positioning and role of local governent in the pursuit to host a

sustainable Games, I contend that future research should seek to build upon the work of Paquette et al. (2011) and investigate the different interpretations of environmental sustainability and how it is subsequently addressed by government, local government, as well as delivery bodies.

The Importance of Location

The second major theme to emerge from the interviews was that the environmental impact of the Games was being experienced differently according to geographical location, and was thought to be greater nearer to Olympic venue constructions. This finding was supported by existing literature. For example, Buch (2006) explained that those living the closest to sporting event venues tend to have stronger perceptions of the impact of an event, whether positive or negative. The Hackney respondent felt that some of the residents in their Borough who were located close to the Olympic site were negatively impacted by the preparations of the Games, they explained:

> *You've got the people who live right next door to it and so people living in Hackney Wick particularly have had the construction site opposite their windows for 5 years and they've got a lot more to come. And for them in terms of the environmental-health side of things it's been a bit of a nightmare to say the least, the noise, dust, light and everything else, you know it's not a positive experience for quite a few of those residents. From their point of view this is something that's happened to them and they really don't want it to be there and they'd like the world to go back to be what it was.* (HOBU)

This quote provides some evidence for the notion that Olympic-related developments can lead to negative social impacts for people within the host communities (Fredline, 2004; Lenskyj, 2002). It further demonstrates a power differential and disconnect

between Olympic organisers and local people, as the Games are seen as something that have 'happened' to local people. The demonstration of the overriding of local concerns is therefore compatible with a 'Critical/Marxist' perspective of the Games. On the other hand, Buch (2006) also contended that those living further away from venues tend to offer more ambivalent views regarding the impact of an event. This notion was supported by the Waltham Forest respondent who felt that people within their Borough had feelings of indifference towards the hosting of the Games arguably due to its location, and the fact that it was not host to any of the Olympic venues or events. They explained:

> *People are going to be going to Stratford, and then Greenwich is obviously you know sort of got quite a big tourism economy anyway and it's going to have quite a few events going on there. Hackney and Tower Hamlets less so but they're a bit more central, and a bit more visible, and I think Waltham Forest just feels a bit like out on a limb....and you know originally it was going to have the Velodrome and it was going to have a few other events and venues, and they didn't happen. We're not getting the wind turbine....I think people just feel a bit like not you know just indifferent really.* (WFOBU)

In terms of the importance of location, this quote also demonstrates the notion that there are more economic benefits for those living closest to Olympic venues. As a result those living furthest away from Olympic venues may feel that there are not able to access these benefits. An Economic Update Report produced by Waltham Forest (Neal, 2006, p. 1) reiterated this point, explaining that official reports on the legacy of the London Games 'suggest that people and businesses located closest to the main Olympic development will be in pole position to benefit from these opportunities.' As a result 'residents in or near the main Olympic development will be equipped with the highest

possible skills, knowledge and expertise to take advantage of the Olympic project.' This finding provides a further example of the prioritisation and consciousness of economic concerns by the Olympic Boroughs, above environmental concerns.

Interestingly, the Barking and Dagenham representative (the Borough located furthest away from the Olympic Park) was the most positive about the impact of the Games on the Borough, and its local residents and businesses. This respondent felt that the preparation of the Games had been a positive experience; they explained: 'For me personally it's been pretty positive, the transport has improved, the facilities within the transport, the stations have improved, and that kind of thing so I see the positives' (BDOBU). In terms of the environmental impact on the Borough as a result of hosting the Games the respondent asserted that 'From a pure environmental point of view there can only be positive impacts' and 'From a physical environment point of view you've only got improvements because obviously the Borough wants to present itself as this is what we can do, what we're prepared to do'. With reference to the impact on local businesses, the respondent explained that although there were news stories about businesses having to be relocated in order to make way for the Park, and 'again any kind of change you'll always have resisters to that change but the majority of people tend to find that what they're offered is better and it's improved their businesses' (BDOBU).

In relation to understanding more about resident perceptions of a sports mega-event according to distance from event locations, Deccio and Baloglu (2002) called for further research to be conducted. Several authors such as Standeven and deKnop (1999), Waitt (2003), and Konstantaki and Wickens (2010) support the notion that the closer proximity to major tourist attractions such as Olympic venues that residents live, the more they are exposed to the negative externalities associated with the venues (for example, litter, traffic, and noise pollution), and this is evidenced in the Hackney

respondent's quote above. Ritchie et al.'s (2009) research into non-host city residents' perceptions of the London Games also provided some empirical evidence to support this. The study found that residents located the furthest away from the sailing academy event site in Weymouth were the most likely to support Olympic-related development.

The theme of the importance of location and proximity to Olympic venues also raised the question during earlier stages of analysis of 'how many Olympic Boroughs are there?' Despite it being most commonly acknowledged that there were five host Boroughs prior to the formal induction of Barking and Dagenham as an official Olympic Borough in April 2011 (Fussey et al., 2011; Keogh, 2009; MacRury and Poynter, 2009), two of the respondents working in the host Boroughs did not share this view at a time when there were officially five host Boroughs. For example the quote above from the Waltham Forest respondent highlights a slight disconnect from other Olympic Boroughs due to Waltham Forest's location on the outer edge of the Olympic Park and also due to the fact that it did not host any Olympic venues. Similarly the respondent from Tower Hamlets felt that there were four and not five Olympic Boroughs on a couple of occasions during the interview by disregarding Waltham Forest as an official Olympic Borough. This was arguably due to the same reason given by the Waltham Forest respondent in terms of the lack of Olympic venues located there. When questioned on the impact of the London Games on the participant's workload the respondent answered, 'Because we are one of the first five or four host Boroughs, depends how you look at it, it does impact quite a lot because there's much interaction between sort of the planning side of things.' (THOBC). At another point in the interview when discussing the additional funding that the Olympic Boroughs had received due to the abandoning of plans to build a wind turbine in the Olympic Park, the respondent explained how the money was being divided between the 'four' Boroughs.

Following the formal decision to grant Barking and Dagenham Olympic

Borough status in April 2011, there appeared to be an absence of both local and national

media coverage detailing the decision. Local media, both in print and online, is integral

to disseminating information and promoting a greater awareness of local issues (House

of Commons Culture, Media and Sport, 2010b). However, after conducting internet

searches on the announcement of Barking and Dagenham's membership of this select

group of London Boroughs, there were very few news stories covering this

development. Aside from the story being covered in the London daily free newspaper,

The Evening Standard (Beard, 2010), it only appeared to be reported on the Barking and

Dagenham Council website (Clark, 2011) and alternative London news online outlet

'Snipe' (Chamberlain, 2011).

A further puzzling factor is that *The Evening Standard* published an article

detailing this development in April 2010 (Beard, 2010) despite the official inclusion of

the sixth Borough taking place one year later in April 2011. Instead, the shift of the

media referring to six host Boroughs as opposed to the original five after April 2011 has

been very subtle. As such it is perhaps unsurprising that there was ambiguity over the

actual number of Olympic Boroughs even from those working for these Councils. This

uncertainty was expressed by the Barking and Dagenham representative after being

asked if they had perceived any differences between Barking and Dagenham being a

'Gateway' Borough and a 'host' Borough. The participant responded:

> *No 'Gateway to the Games' I think was coined probably when the talk of us*
>
> *being a 'host' Borough first started off. Whether it was done as almost another*
>
> *selling point to try and ensure that we were given it…I really don't know the*
>
> *chronology of when 'Gateway to the Games' and everything else was started, I*
>
> *wasn't involved in it then so I don't know the history of it. But certainly*
>
> *'Gateway to the Games' is on every…Everyone has a 'Gateway to the Games'*

badge, all the volunteers still get 'Gateway to the Games' badges. So for us this is Barking and Dagenham's gateway to the Games because we're here, we're part of it and we're involving others. So I imagine that was just the phrase that was coined. (BDOBU)

This ambiguity raises a question about how are local authorities, residents and businesses expected to understand the impact of the London Games if they do not know accurately whether they are fully part of the Games? I believe that this question warrants further investigation than is possible within the scope of this thesis, although I return to it in the concluding chapter.

The True Impact of the Games

The third major theme that emerged was that residents and businesses were at the time of the research yet to realise the full impact of hosting the Games. Again it is important to highlight that the interviews with representatives from the original five host Boroughs were conducted between December 2010 and July 2011, at least one year prior to the start of the Games. Although the disruption caused by hosting an Olympic Games can commence seven years prior to the Games when a city is awarded the right to host them; the closer to the Games we get, the impact of hosting them becomes more intense and far reaching. For example, alterations can be seen in public transport timetables, road access, and even school and university terms (Waitt, 2003). As the Waltham Forest respondent said:

what we've done in every department that will be impacted through Games-time, we've asked them to complete a strategy outlining how they're going to deal with the challenges and we're still waiting....I'm not going to name names but we are still waiting for a couple of them you know from quite key services and

197

that's after six months so yeah we're even sort of struggling in terms of yeah

make people internally realise what the impact is going to be. (WFOBU).

The same person explicitly referred to the ORN as something that was likely to significantly impact on the experiences and perceptions of the Games by both local residents and local businesses. The respondent explained:

I think it's not hit here properly yet, it will do but I know the Olympic Route Network....there's going to be quite a few key closures in this Borough but it's just not kicked in yet so people aren't really that bothered. (WFOBU)

Conceivably one of the biggest disruptions caused by the Games would be the operation of the ORN, which had been designed to ensure the transportation of the 'Olympic Family' (athletes, sponsors, officials, media, and VIPs). This network resulted in the modification of traffic regulations over a total of 109 miles of London roads, and 170 miles of road outside of London. This was in full operation between July and September (Hirst, 2012). In this regard the concern over the impact of the ORN expressed appeared to lie with the potential negative economic impact on business. These concerns included the extent to which businesses would be able to receive services and deliveries, and staff themselves adequately. However, there was no mention of the potential environmental impact of the ORN, despite concerns being raised elsewhere that the congestion resulting from the ORN would lead to breaches in air pollution law (BBC, 2012).

Another issue that was identified relating to the idea that the impact of the Games was yet to be realised was the notion that once people become more familiar with the site and what it is trying to achieve; the environmental impact in terms of the facilities will become clearer. The Hackney respondent stated:

When this [the Olympic Park] *opens up and people start be able to get into the*

area when there's use of space and access into the buildings and so on I think

how it actually works and the principles behind will become more widely

known…you know 'why the hell has that building not achieved this standard or

why is there not decent public transport for this area?'…Those kinds of things,

realisation and appreciation. (HOBU)

This quote demonstrates to some extent an acceptance of the idea that the work being

undertaken by the Olympic organisations is environmentally beneficial, especially in

terms of the construction of facilities, and as such implicitly supports the 'shallow'

ecological position and EMT perspective of the Olympic bodies. However, it also

highlights the fact that the ways in which the London Games are attempting to be the

most sustainable Games to date has perhaps not been adequately communicated in the

lead up to the Games, and is therefore potentially misunderstood by the local

community. This was an issue also raised by Konstantaki and Wickens (2010), and the

extent to which the environmental work of the Games has been understood by local

people taking part in this research is examined further in the next chapter.

In relation to the notion that the impact of the Games is yet to be realised, due to

the timing constraints of conducting this PhD I was unable to conduct a cross-sectional

longitudinal study of the perceptions of the identified stakeholder groups. As such, I am

only able to offer a snapshot of how the preparation of the London Games has impacted

upon the lives of the stakeholder groups identified at one particular point in time prior to

the London 2012 Olympics. Although the interview conducted with the sixth Olympic

host Borough representative from Barking and Dagenham took place in May 2012,

approximately ten months after the last interview during this phase of data collection

was not ideal, it enabled views to be obtained from Olympic Borough representatives

over a 17 month period. As shown in Chapter Five there were many events related to

the environmental impact of the Games that occurred during this time period that could have potentially influenced the views given. I contend that the last interview with the Barking and Dagenham representative did not reveal the same level of uncertainty about the impact of the Games. This participant felt that Olympic-related developments had occurred over a steady period and therefore the impact on local people was minimised. The participant explained that 'things have been talked about slowly and introduced slowly' and for these reasons 'there really isn't going to be anything too massive that's going to affect local residents because most of the stuff is put in place now anyway' (BDOBU).

Under the broader theme of the 'uncertainty' associated or caused by the hosting of the Games, several respondents felt a level of uncertainty in terms of the role and lifespan of the Olympic Borough Units. A respondent from Hackney highlighted this when explaining that the Olympic Borough Units were originally set up during 2006/07. However, only 'some of them have still got dedicated teams. Greenwich still has but most of them especially in this climate have got rid of them.' (HOBU). Additionally, concern was expressed over the lifespan of the dedicated Olympic Units. The Hackney respondent who worked within the Olympic Unit as a Regeneration Manager explained:

> *Initially when I came in....and I've been here just over a year and the intention was it would carry on afterwards. At the moment we all know that we are contracted until the end of October 2012 and that is a direct result what's going on, and cuts and everything else.* (HOBU)

This view was supported by both the Waltham Forest and Barking and Dagenham respondents who also worked within the dedicated Olympic Units. When questioning the Waltham Forest participant about their role within the Unit and how long it would be likely to continue, the participant responded:

But you know we are already starting to downsize which is the challenge of you know having our budgets reduced. So the capacity of the team has actually been cut by a third. We're expecting....It's not been sort of said explicitly that sort of come March 2013 at the latest that there won't be a 2012 team anymore. (WFOBU)

The Barking and Dagenham respondent also confirmed this uncertainty; the participant explained 'We're looking at carrying on until at least December with a view to be taken as to what's going to happen'. The members of the Olympic Unit within this Borough consisted of Barking and Dagenham Council employees but following the termination of the Unit, 'what happens to them [Olympic Unit members] after I don't think they're 100% sure but we know that the Olympic Ambition Team which is what we're called, does come to a natural end around September' (BDOBU). The downsizing and closure of these dedicated Units provides another example of economic concerns potentially overriding environmental objectives.

I argue that the uncertainty of the exact place that the Olympic Units assume in their respective local Councils was reflected in the elusive nature of establishing contact with these persons. As previously mentioned in Chapter Four, contact was attempted with these Units via email and telephone. However, I was either met with emails stating that the Units were too busy at that point in time to offer any help, or more often I received no reply at all. In addition to this, I observed over the period of this PhD when periodically researching the local Council sites and their dedicated Olympic webpages that one of the Borough's Olympic Unit section no longer existed. Often when they did exist, the information on the roles of the Units and contact details was extremely minimal. Due to the great-level of publicity surrounding the Games and London, I found this to be very surprising. It also made me question how local residents and

201

businesses would know where to go and who to contact if they required any information from their local Councils about the Games.

In spite of the lack of clarity over the number of Olympic Boroughs, they were identified as one of the key organisations responsible for helping the 'Five Legacy Commitments' of the London Games (OPLC, 2012a; OPLC, 2012b). The five commitments put forth by the Mayor of London were published by the Greater London Authority in 2008, these were: (1) to increase sporting opportunities and make the UK a leading sporting nation, (2) to create new job, businesses and volunteering opportunities, (3) to transform the heart of East London, (4) to deliver a sustainable Games and make the Olympic Park a blueprint for sustainable living, and (5) to showcase London as an inclusive, diverse and hospitable city (House of Commons Culture, Media and Sport Committee, 2010a). These legacy commitments subsequently expanded to include a sixth in December 2009; (6) 'To develop the opportunities and choices for disabled people'. (University of East London and the Thames Gateway Institute for Sustainability, 2010 p. 15).

However, the downsizing, and in some cases termination of dedicated Olympic Units seemed to contradict and negatively impact on the role that the Olympic Boroughs could play in delivering an Olympic legacy. As the Barking and Dagenham representative told me, their dedicated Olympic Unit consisted of only three paid members of staff, and three full and part-time volunteers. It is difficult to comprehend how such a small team, of which half were volunteers, could be in a position to be able to help deliver the legacy promises of the Games. Further, several respondents expressed the notion that the Olympic Borough Councils had minimal involvement in decision-making processes pertaining to the hosting of the Games, and supports Cashman's (2002) observation mentioned previously. The Tower Hamlets respondent explained the ODA was responsible for leading consultations with different stakeholder

groups about the impact of the Games. Further, the Newham respondent explained that in terms of community consultation regarding the impacts of the ORN:

> *We're waiting for that information* [ORN] *to come out from central government and when it comes out to us we'll help consult residents around it but that hasn't happened yet. As a Local Authority we're not responsible for it, somebody else makes the decisions about what happens.* (THOBC)

Interestingly despite the equivocal nature of the dedicated Olympic Borough Units, research conducted by the Local Government Information Unit cited local Council workers as the 'unsung heroes of the Games' (Dale, 2012, p. 1). This research praised local government and Council workers for the additional hours and Olympic duties undertaken. It also affirmed the role of local government in creating a 'feel good' factor around the Games (Dale, 2012). For me this helped to further validate the selection of Olympic Borough Council representatives as a key stakeholder to be interviewed.

The negative impact of the economic climate on the environmental sustainability of the London Games was also inherently linked to the uncertainty faced by Olympic Borough Units. This was expressed clearly by the Hackney representative above (p. 191). The participant explained that their particular team had been reduced by a third due to budget cuts within the Council. However, the participant from Greenwich, who worked at a managerial level within the Planning and Development remit, found the opposite to be true. When discussing the impact of the London Games upon the participant's workload, the respondent explained that previously the Council would outsource in terms of planning applications. However, as a result of the public sector budget cuts, the large planning applications associated with the Games (among other applications) had to be dealt with internally and thus increasing the stability of this

particular department. The chapter now turns to the final key theme to emerge, the ambiguity of 'sustainability' within the Olympic Borough Councils.

The Definition of 'Sustainability'

Throughout the interviews conducted, there was no clear definition of 'sustainability' amongst the Olympic Boroughs. This finding is also reflected in the literature whereby it is evident that there is no single universally accepted definition of 'sustainability' (Please refer to Chapter Three, p. 62). Instead, the definition of 'sustainability' is often moulded to fit the needs of those employing the term and their subsequent behaviour. The Hackney respondent felt that environmental sustainability needed to be understood within the context of the 'economic' and the 'social' as well. The respondent also tied the concept of 'sustainability' with 'legacy' and how that would develop after the Games and appeared to mirror the definition put forth in the Brundtland Report (WCED, 1987).

The Newham respondent felt that sustainability referred to incorporating environmental sustainability principles in the construction and management of venues, and the legacy of the venues post-Games. They stated: 'We are very keen in terms of the environmental and sustainability that we get the legacy for the residents in terms of anything that is produced. We want to make sure that they've got a long-term use post the Games' (NOBC). This participant however, stressed the economic and social aspects of sustainability more than the environmental. They explained:

> *We want to inspire not so much the environmental but we want residents to be*
>
> *inspired by the Games and have the opportunities to get into work and get into*
>
> *training and hopefully you know get a job which can help them live their lives*
>
> *more effectively. We want to make sure that the Borough is showcased, that*
>
> *people know about the Borough, and they want to come back and establish*

businesses here and there's opportunity then for local people to get jobs. So they

are the areas for us. (NOBC)

This quote highlights the importance of economic sustainability for the Borough, possibly at the detriment of environmental initiatives. It could be argued that this provides evidence of Marxist thinking whereby sport is used as a governmental tool, and in this case a local governmental tool, which is in turn influenced by capitalist forces. Here the Games are seen as an opportunity to attract economic development and 'appease local capitalists' within this area of East London as a priority over environmental preservation (Phillips, 2012, p. 5).The Barking and Dagenham respondent however, placed a greater emphasis on the environmental and social aspects of sustainability, as well as the legacy of the Olympic venues. This view is representative of the dominant 'shallow' ecology/light green position whereby the participant felt that the environmental impact of the Games was in part determined by the ability of Olympic authorities to design and construct venues in an environmentally sensitive way. They contended:

> *Just that phrase itself would to me mean that London is actually looking to*
> *ensure that there are no detrimental effects being left with any of the building*
> *work that's going on, that any planning that was done would have had a brief to*
> *actually make sure that there's no environmental impact afterwards, that there's*
> *a lasting legacy afterwards…So it's environmental, it's human, and looking to*
> *actually continue that feeling that's been generated from being involved in*
> *something, and to really continue that. That's what it would mean to me anyway.*
> (BDOBU)

These views are also reflected in Fussey et al.'s (2011) contention that previous notions of sustainability concerned with the Games have emphasised the environmental aspect and the post-event legacy. This quote also arguably demonstrates the acceptance at the local governmental level of the integration of ecological modernisation principles within IOC and LOCOG's planning and construction processes, as an acceptable way of ensuring environmental sustainability within the context of the Games.

The respondents from Greenwich and Tower Hamlets referred to more general environmental policies such as the London Mayor's Energy Strategy and the 'One Planet Olympics' philosophy when explaining what environmental sustainability meant. The Greenwich respondent referred to the Borough's sustainable commitment in general when being asked to define environmental sustainability, the 'One Planet' philosophy, and the Mayor for London's environmental framework. Further, the Greenwich participant referred to a Planning Board Report (Royal Borough of Greenwich, 2010) produced by the Borough which was made available to me, to provide examples of how Greenwich was attempting to address environmental sustainability within the context of the Games. These initiatives included planting 2,012 trees, investments and improvements to parks within the Boroughs, and enhancements to street furniture within Greenwich town centre. In addition, the participant explained that the legacy programme was aiming to restore the areas used to a better condition after the Games. The Tower Hamlets respondent referred to Mayor of London Energy Strategy and other similar policies when being asked to define what sustainability meant to them and their Borough.

The reference to environmental policies and the 'One Planet Olympics' concept more specifically, placed great importance on the 'physical' aspect of environmental sustainability, and goals that could be quantitatively measured. This was evident in the *Toward a One Planet Olympics* London 2012 sustainability strategy (WWF and

Bioregional, 2005) through the objectives set for the different 'One Planet Olympics' principles; these included sustainable transport, zero waste and zero carbon. The importance given to the 'physical' aspect of environmental sustainability of the Games by the participants reflected the 'shallow' ecology/light green view adopted by the organisers of the Games. It is also reflective of the way in which environmental sustainability and the Games have been discussed in much of the academic literature. For example, Essex (2011) discussed the Winter Games in terms of the sustainable and environmental protection and highlights the more objective and 'shallow' ecology/light green environmental legacies, rather than the subjective and 'deep' ecology/dark green legacies. The importance of these 'dark' green legacies was identified by Vigor et al. (2004, p. xiii) who stated that London needed to go 'beyond the minimum of a one-off greening of the Olympic site and facilities'. Instead the London Games needed to strive to achieve environmental targets, which was less of a technical issue and 'more of a matter of breaking through cultural and institutional inertia'. The extent to which the 'shallow' ecology/light green philosophical perspective of the Olympic Borough Council representatives has been understood and embraced by local residents and businesses will be explored in the next chapter.

The Waltham Forest respondent best encapsulated the ambiguous nature of defining (environmental) sustainability and how that impacts on behaviour when they stated: 'I suppose it depends how you define environmental sustainability' (WFOBU). The participant then continued to talk about more environmental modes of transport and public green spaces in their definition of environmental sustainability within the context of the Games. This section demonstrates the varying interpretations of environmental sustainability by organisations that perform the same roles. It should also be noted that no single participant provided a coherent definition of the term. The fact that there was no clear idea amongst Council workers of what was meant by 'sustainability' was most

remarkable considering that these persons played a role in helping to deliver a sustainable Games. Rather, examples of environmentally sustainable practices were offered, which perhaps again highlights the elusive nature of this concept. Undoubtedly this underpins how the respondents viewed the environmental impact of the Games on local residents and businesses, and what the role of Olympic Boroughs was in helping to achieve the first sustainable Olympic and Paralympic Games. Despite the lack of consensus, the notion and ability of the Games to become 'sustainable' was not questioned by any of the participants. This demonstrates to an extent the acceptance of the 'shallow' ecology/light green perspective and incorporation of EMT principles at the London Games at the local governmental level.

Conclusion

This chapter has explored the key themes that emerged during interviews with Olympic Borough Council representatives. These were: the negative impact of the economic climate on the environmental sustainability of the London Games; the importance of location; the fact that residents and businesses were yet to realise the full impact of hosting the Games; and ambiguity over the definition of 'sustainability'. Within these broader themes, further sub-themes were discussed: the greatest concern of Olympic Borough Councils lay with local businesses; Olympic Boroughs were attempting to operate on a 'business as (un)usual' basis; there was great uncertainty with respect to the role and lifespan of the Olympic Borough Units; and great concern over the likely impact of the ORN on local residents and businesses during Games-time. These themes and sub-themes were explored and understood using a combination of the key theoretical perspectives identified in this thesis: a 'Critical/Marxist' perspective, Næss' philosophical conceptualisation of 'shallow' and 'deep' ecology, and EMT.

Upon reflection about these interviews and using Næss' philosophical conceptualisation of 'shallow' and 'deep' ecology as a theoretical continuum, I would

argue that whilst highlighting how the different themes identified may cause the Olympic Boroughs to shift their environmental positions, I would still locate them towards the more 'shallow' end of the spectrum. Overall, I contend that the representatives interviewed conformed to and reiterated the environmental positions assumed by the Olympic bodies, and the adoption of the EMT perspective as a solution to the environmental concerns arising from the Games. Further, the power relations between Olympic bodies, local government, and the host communities were also highlighted with reference to evidence of the overriding of local concerns. The use of the 'Critical/Marxist' perspective was applicable to the prioritisation of economic concerns over environmental concerns in the hosting of the Games which weaved throughout the interviews conducted.

These interviews helped to provide a better understanding of how the Olympic Boroughs were addressing environmental sustainability in the lead up to the Games, and how the Boroughs were environmentally impacted by the Games from a Borough-wide perspective. The most significant finding to emerge from the interviews was the ambiguity over the definition of 'sustainability.' No single participant was able to provide a clear and coherent definition of 'sustainability', instead they offered examples of sustainability when defining the term. The participants predominantly drew upon the design, construction, and energy efficiency of the Olympic venues to highlight the environmental good work being done. For the first Summer Games that has been built upon the notion of 'sustainability', it was surprising that the people working within the Boroughs whose role it has been to bridge the gap between the official Olympic bodies and the people living in the Olympic Boroughs, were not able to identify what the goal of 'sustainability' was in relation to the Games.

In critiquing the Olympic Boroughs for not having a clear idea of what 'sustainability' was, this finding is perhaps not surprising as the Olympic Borough

Councils were largely absent from official Olympic publications concerned with sustainability. Aside from the Strategic Regeneration Framework (SRF) which presented a vision of social equality conceived by the Olympic Boroughs and the Mayor of London, the official sustainability plans only highlighted the role of LOCOG and the ODA in achieving sustainability objectives under the supervision of WWF and Bioregional. These sustainability objectives were very much concerned with quantitative measures relating to infrastructure and energy efficiency standards which arguably ignored the more 'social' aspect of environmental sustainability, such as education around environmental issues and behaviour change, where local Councils could have arguably played a more significant role. This combined with the unclear organisation of the dedicated Units in particular made it difficult to say with any certainty what the 'sustainability' objectives of the Olympic Boroughs were, and whether or not they had been achieved. The focus of the next chapter shifts towards a critical interpretation of the views of Olympic Borough residents and businesses on environmental sustainability and the Games, and enables a comparison of whether the issues raised by Olympic Borough representatives are shared and evidenced by other people in the host communities.

CHAPTER EIGHT: LONDON 2012, ENVIRONMENTAL SUSTAINABILITY AND THE LOCAL RESPONSE

In combination with Chapter Seven, this chapter provides insight into the views of key stakeholders involved in the debates about environmental sustainability within the context of the London Olympics. This chapter offers an interpretation of the views obtained from local residents and businesses located within the six Olympic Boroughs on issues of environmental sustainability, the environmental impact of the preparation of the London Games on their Borough, and themselves as residents or business owners. Residents' perceptions of the impacts of sports mega-events, especially those located within a close proximity of sporting venues have largely been neglected within the literature (Bob and Swart, 2009). The studies that have examined residents' perceptions of sports mega-events (Deccio and Baloglu, 2002; Fredline and Faulkner, 2000; Ritchie et al., 2009) have tended to focus upon the social and economic impacts of the event. Whilst research on the economic impact of such events is plentiful, there is a lack of research on the environmental impacts and even fewer studies that have investigated local people's perceptions of these. According to Konstantaki and Wickens (2010, p. 339), this lack of research is 'contrary to calls for environmental sustainability [and event security] often reported in the literature.'

As highlighted in Chapter Two, previous research has generally reported a negative environmental impact on the host city of a sports mega-event (Cashman, 2002; Fredline, 2004; Mihalik and Cummings, 1995; Ritchie et al., 2009). The negative environmental impacts reported have knock-on effects for people of the host communities, this of which poses a significant issue for host city organisers as local support is crucial in determining the overall success of a Games (Konstantaki and Wickens, 2010; Tatoglu et al., 2002). Despite this, there has been a lack of research to

date investigating the perceptions of local residents and businesses on the environmental impact of the Games.

As mentioned in Chapter Four, due to logistical problems associated with conducting the originally proposed focus groups with local residents and businesses, a series of joint and individual semi-structured interviews were conducted both face-to-face and over the phone. The rationale for adopting a qualitative approach to researching the local response to environmental sustainability and the Games was to help gain a more detailed insight into interpretations of the 'greening' of the Games, and more specifically to extract a greater understanding of the intersections between economy, the environment and locality at the London Games. With the aim of gaining a representative view of both 'boosters' and 'sceptics' of the Games, the participants were identified through various means including their participation in schemes such as the 'CompeteFor' initiative, their presence in local and national media coverage on the local impact of the Games, and through advertisements on Games-related forums. The topics covered within the focus group and interviews were informed by the literature, and the responses obtained during research phase two. These included environmental sustainability within the context of London 2012, the environmental impact on the Borough, local residents and local businesses from their own individual perspective. The following five key themes emerged from the data collected: the importance of location; shifting priorities; corporate interests versus local interests; the lack of community consultation; and the ambiguity of the term 'sustainability'.

The themes that emerged during this phase of research resemble those identified by the Olympic Borough Council representatives. As such, I contend that the themes identified can be located under the same two broad umbrella themes; these are economic concerns and the possibility of achieving environmental sustainability. In this regard, I argue that the following themes are underpinned by the prioritisation of

economic concerns: importance of location, shifting priorities, and corporate versus local interests. The lack of community consultation and the ambiguity of the term 'sustainability' themes relate to the possibility of achieving environmental sustainability. In light of the combination of theoretical approaches adopted and the categorisations proposed, the importance of location is discussed first.

The Importance of Location

Similarly to the interviews conducted with Olympic Borough Council representatives, the importance of location in terms of the environmental impact of the Games was also identified as a factor affecting the experiences of local residents and businesses. As explained in Chapter Seven, the literature supports the notion that those living in close proximity to event-related construction are most likely to be effected by the hosting of a sports mega-event (Fredline, 2004; Fredline and Faulkner, 2000). As such, those living closest to venues associated with a sports mega-event are more prone to stronger perceptions of the impact of an event, whether positive or negative (Buch, 2006). Generally, previous studies have supported the notion that negative perceptions of the impact of an event are proportional to residents' proximity to event venues, with those living closest to venues perceiving to be more negatively impacted (Standeven and deKnop, 1999).

In terms of location, there were mixed views about the perceived impact according to the proximity to Olympic venues. The views of a Hackney resident supported Buch's (2006) contention that those living further away from event related-construction have more ambivalent views regarding the impact of an event. This resident explained that they perceived a disparity in terms of benefits emanating from the hosting of the Games with those living in Newham receiving the greatest benefit. They explained: 'I can see a lot of focus around Stratford and I still feel worried that in Hackney we're going to be the kind of poor neighbours'. (Hackney Resident_1). This

view supported the notion that there were greater perceived benefits for those located nearest to the Olympic site, and also corroborated the view of the Waltham Forest Council representative. It also supports Rustin's (2009, p. 20) contention that despite the regeneration benefits of the Games expected to benefit the host city as a whole, the reality is that they are often confined to a small proximity around the Olympic venues. He explained that 'the spatial location of most of it within a very small area, undermines the idea that the Games will be an engine of urban regeneration on anything but the most local scale.'

Two of the business owners located within Newham (Newham Business_1 and 2) supported the view that many of the benefits and opportunities emanating from the Games were concentrated within Newham. However, one Newham business owner felt that the Borough had often been overlooked previously in terms of the developments of sporting facilities within London. Therefore the concentration of benefits from the Games was perhaps justified as it would afford Newham the same sporting opportunities as those found in other London Boroughs. When being asked what they thought was meant by London proposing to be the first sustainable Games, they explained:

Well I think it's supposed to be that it's going to leave behind a heritage afterwards, that there will be things for people in Newham which they never had previously with sporting facilities. I mean if you look at Newham they only have the West Ham football ground and it's not an easy place to get to, it hasn't got modern facilities although they spent fortunes on bringing it up to date and it's extremely expensive…and what they've now built is affordable, people will have a good seat and be able to see what's going on, and they'll have the infrastructure built and proper facilities that normally you would see in a

London Borough which it lacked before but I mean it was the Cinderella, it

didn't have anything…all we would ever get would be the cast-offs from

somebody else. (Newham Business_1)

In combination with similar views offered by Olympic Borough Council representatives, these views support the notion that there are more economic benefits for those living closest to Olympic venues. This view was encapsulated by a Greenwich resident who explained: 'there are other Boroughs that feel that I suppose they are paying something that they don't get anything for…the country seems to feel they are paying for something that they don't get anything for' (Greenwich Resident_1). I would also argue that the views offered here demonstrate that the economic gains are the biggest concern for host communities. In this regard, a 'Critical/Marxist' perspective is relevant to the views of local residents and businesses whereby the economic basis is the key determinant of the perceived outcomes of the Games.

In addition, there was some evidence to support the notion that those living furthest from Olympic venues demonstrated a greater level of indifference in terms of the perceived impact of the Games. An example of this was offered by a Barking and Dagenham resident who explained that they did not experience any difference after the Borough became an official Olympic Borough in April 2011. It may be argued that this was due to the fact that this Borough is geographically located the furthest away from the Olympic site. They explained:

I got an email saying that we're a host Borough for the Olympics and I thought

they got their promotion wrong. When I initially enrolled on the [volunteering]

programme I knew they weren't an official host Borough but they would call

themselves a 'Gateway to the Games' Borough just to show that they're there,

215

they're next to the Borough that's hosting but not quite a host Borough but I didn't notice a difference, I didn't notice that change. (Barking and Dagenham Resident_1)

In relation to location, one of the Waltham Forest residents expressed a level of cynicism over the improvements made to their Borough as a result of its location and identification as an official Olympic Borough. In this regard, the Waltham Forest resident criticised the environmental improvements made and believed that they were done to try to pacify and appease local people, rather than for purely environmental reasons. They explained:

I always felt that we were being appeased by having all this lovely buildings being done. Look at Lloyd Park that's been done up, why wasn't it done before then? Suddenly we're important. We have a right to have beautiful places to live… once the Olympics and Paralympics was mentioned, everything started to get better. (Waltham Forest Resident_4)

In line with Marxist thinking, this Waltham Forest resident alludes to the notion that the Games have been used as a form of coercion and social control (Volkwein-Caplan, 2004). In this regard, the physical developments of the Olympic Boroughs have arguably been used to distract the local residents and businesses from critical thought and action against the hosting of the Games. Several other participants noted superficial improvements to their environment when being asked if they had seen any environmental improvements as a result of the Games. These participants observed that these changes had not occurred gradually over the preparation period for the Games; rather they had occurred over a short period of time in the months leading up to the

Games. A Waltham Forest resident noted: 'it's only become apparent in the last few months that lots of work is being done to the streets, pavements be relayed, railway bridges are being painted, shops are being painted. So that's quite an obvious impact' (Waltham Forest Resident_11). Further, a Barking and Dagenham resident observed:

> *I think they have done a lot, they've tried a lot to try and improve the area…they did up a certain part of the town and it looks a lot cleaner and nicer…I think you're starting to notice it all of a sudden. You wasn't necessarily aware of the plans but then all of a sudden these buildings just kind of pop up from nowhere and you're kind of like 'oh where did that come from' you know.* (Barking and Dagenham Resident_1)

I would argue that the superficial improvements made to the environment that were highlighted by the Waltham Forest and Barking and Dagenham residents supported the notion that the Olympic organisers have adopted the dominant 'shallow' ecology/light green position. Here the concern for organisers arguably lied with wanting to appear 'green' and environmental-friendly, rather than a genuine commitment towards environmental sustainability. This view is seconded by a Tower Hamlets resident when they explained:

> *I don't know how much it has been sustainable but I think one of the difficulties that I find very difficult is that there has been a relentless public relations exercise going on which has been about we're doing all the good things and any questioning behind that public relations persona face I don't think has been allowed, so there's been a real kind of whitewashing, a real kind of making it*

look good. So what the reality is I genuinely don't know, I don't think anybody

who is outside it does (Tower Hamlets Resident_1)

In this regard, the visual improvements made to the environment arguably make it difficult for local people to decipher whether or not the environmental work associated with the Games represents a genuine attempt to become the first sustainable Olympics. Another issue concerned with location that was discussed was the fact that the Olympic Park was located within, and bordered four of the most deprived Boroughs in London and the UK as a whole. As highlighted in Chapter Six, the Olympic Boroughs were characterised as having a lower average level of educational achievement. Although this does not directly relate to the environmental impact of hosting the Games, it can impact on people's perceptions of environmental education and management, and perceptions of the environmental impact. This view was expressed by a Newham business owner, when asked whether or not there had been any attempts by the organisers to address environmental sustainability within the context of the Games. They explained:

It's not something necessarily understood by the people in the area. They don't

understand what it really means. If you talk to the majority of people they would

be unable to tell you… They don't see that it has built them a future… People

within Newham don't actually realise, it hasn't probably been explained to them

properly. Especially when you take into account there are an awful lot of people

who don't speak English… those who can't read and write. (Newham

Business_1)

This business owner illustrated the problem of lower educational achievement and perceptions of the impact of the Games when speaking about an employee who had

lived in Newham all their life. When referring to their employee, the participant explained, 'All he keeps on saying is 'when they finish with the Olympics are they going to turn it into a theme park like Disney?'' (Newham Business_1). The average level of educational achievement of an area can impact upon how messages concerned with sustainability and the Games are received as illustrated by the above quote. It can also impact upon the likelihood of people adopting more environmentally-responsible behaviour. This view is supported by Bimonte (2002) who argued that higher educational attainment was positively related to a greater preference towards environmental services and goods. Further, Rivera-Batiz (2002) argued that higher educational achievement was conducive to a more democratically governed society with a more educated workforce. As a result in a more educated society lower levels of pollution are generated (Jha and Murthy, 2006). In relation to this, research has also shown that those who participate in protest movements more generally tend to possess a greater level of educational attainment (Sherkat and Blocker, 1997). According to the research conducted by Bimonte (2002), Rivera-Batiz (2002), and Jha and Murthy (2006), it would be conceivable that the lower level of educational achievement within the Olympic Boroughs may affect the uptake of more environmentally-friendly behaviour post-Games. Moreover, based on Sherkat and Blocker's (1997) contention, it could be argued that the average lower level of educational attainment could negatively impact upon the level of protest seen at the London Games. However, these arguments ignore the opportunity structures that can help enable environmentally-friendly behaviour. They also generalise the level of interest and limit the possibility for individual action in addressing environmental concerns and protest against environmental impacts solely on the basis of educational attainment. The key theme that emerged in both the interviews with Olympic Borough representatives, and local

residents and businesses, was concerned with shifting priorities, and the subsequent demotion of environmental concerns in light of other pressing issues.

Shifting Priorities

Similar to the interviews conducted with Olympic Borough representatives, time appeared to be a factor which influenced not only the sustainability rhetoric and commitments at an organisational level, but also the environmental impact experienced by local residents and businesses. With respect to the significance of 'time' at an organisational level, the *London 2012 Pre-Games Sustainability Report* published in April 2012 protested the strong sustainability commitments associated with the Games. The report contended 'London 2012's relentless pursuit of sustainability has been part of every bold and challenging decision we have made, in the development of the Olympic Park and the staging of the Games.' (London 2012, 2012d, p. 7). However, the view of one of the residents from Tower Hamlets contradicted this when they expressed how they had perceived sustainability to become less of a concern as the Games drew nearer. They explained:

> *I think there was a huge statement about sustainability and what they would do to maintain that sustainability. Now I may be wrong but it seems to me that there has been a constant decrease in the amount of those statements that have been made.* (Tower Hamlets Resident_1)

One of the Greenwich businesses supported this view when they were talking about an associate who was involved with LOCOG in conducting research on the London Games. The business owner explained how the associate had never spoken about the 'sustainability' aspect of the Games despite that being a key priority for the Games. The participant felt that this demonstrated, 'how low down it [sustainability] is in terms of

its profile in people's minds' (Greenwich Business_1). Instead this business owner felt that environmental concerns were overshadowed by security concerns surrounding the Games. They explained:

> *I think one of problems is in a sense is that because we live here we're much more concerned about what the impact is going to be upon the experience of living here during that period and of operating business. Then we've just had other things that are much more headline grabbing like the missiles on the hill and the HMS Ocean on the Thames, and that for us is far more dramatic and powerful than anything to do with sustainability because you think sustainability in a way won't affect us because we'll just be walking around here as it is, we won't be taking transport to the Games or getting near to it on that level so it kind of passes us by I guess.* (Greenwich Business_1)

The view of this Greenwich business owner can be linked to the gap in literature identified in Chapter Two in relation to the narrow focus of work concerned with contemporary issues, such as security and environmental sustainability at the Games. Here I argued that one of the weaknesses of the literature was that issues such as security and the environment were treated as separate entities, and as such have been investigated in isolation; whereas in reality these issues are in competition with each other in the minds of the organisers and the public, as well as in the division of the budget for the Games. As such, research to date has not acknowledged what does not get prioritised as a result of the prioritisation of contemporary issues. The quote above provides evidence of these competing concerns and suggests that more headlining issues become the key focus for the public. In this case the participants suggested that amongst other things, the surface-to-air missiles installed on the roof of a residential tower block

as part of the security strategy employed at the Games grabbed the attention of local people arguably more so than environmental concerns (Press Association, 2012b).

The shift from and lessening focus on environmental issues and the Games was explored by Davis (2009). Davis explained that sustainability was originally at the core of the London bid with its 'Towards a One Planet Olympics' concept. This translated into making the Games carbon-neutral through carbon offsetting programmes in developing nations. However, a wave of criticism about the actual benefits of these programmes and the subsequent shift in attitude has contributed to Olympic officials trying to detach themselves from such schemes. In its place, the Games have utilised the concepts of 'mitigating' and 'reducing' waste and emissions. I would argue that a clear example of the shift away from sustainability as one of the key aims of the Games was visible when examining the aims of the Host Borough Unit. The Unit was responsible for the creation and implementation of a Strategic Regeneration Framework to ensure that within 20 years the communities of the six Olympic Boroughs would have the same social and economic opportunities as the rest of the London Boroughs. Despite London's vision and underpinning commitment to becoming the first sustainable Games, the Unit professed that the environment was not a concern for the organisation. As such, it may be questionable whether the sustainable aims of the Games will trickle down to the people directly impacted by the Games (Black Neighbourhood Renewal and Regeneration Network, 2010). This again demonstrates how environmental concerns were demoted in favour of more pressing economic concerns. The fact that the Summer Games have had a history of being hosted in socially deprived neighbourhoods may have conceivably had an impact of how environmental sustainability initiatives are viewed. As such, an interesting avenue of future research would be to build upon the work of Konstantaki and Wickens (2010), and compare the socio-demographic

composition of Olympic host cities with how the environmental sustainability initiatives associated with the Games have been received and understood.

Another theme that emerged linked to shifting priorities was a perceived change in attitude towards the Games as they drew nearer. One of the Waltham Forest residents felt that local people would become more positive about the potential impact of hosting the Olympic during Games-time and potentially afterwards. They explained:

My feeling is that London as a whole has been quite negative about it, and I know people that have got left-wing political views and they will tend to be rather negative about it. I think when it happens most people will actually get into the spirit of it, that's what I've always thought. (Waltham Forest Resident_11)

The shift in the attitude of local people towards more positive perceptions of the Games as they drew nearer is supported by Hiller's (2012) longitudinal examination of public opinion polling of attitudes towards the Games. Hiller contended that there is a shift towards mass interest in the Games by the conclusion of events, which results in the captivation of the city through continually evolving Games-related events. Interestingly, a Tower Hamlets resident found the opposite to be true. They felt that their initial excitement of the Games had gradually been replaced by feelings of anxiety over the outcomes of the Games. They explained:

There are a lot of people like me that were excited about it at the beginning, who want to go, and were looking forward to going…My feeling that I get at this period of time was that there was a lot of positive feelings, and then those became unsure as some of the immediate hopefulness about it has gone, and in

the end what has replaced it is a sort of watchful anxiety and apathy from what

will happen. (Tower Hamlets Resident_1)

It is worth noting here that temporal shifts in attitudes towards the Games can be affected by multiple factors, and as Waitt (2003, p. 196) contended, 'Residents constantly re-evaluate the perceived consequences of the exchange transaction [between the hosting of the Games and themselves] within a dynamic social setting.' As such, the evolving events surrounding the Games will have different levels of significance and influence upon these perceptions. I would argue that economic concerns are a major driver behind change in perceptions towards the Games. Several participants were critical of the expenditure of public money on the Games, and as the Games draw nearer more media attention is paid to stories of Games-related spending spiralling out of control. As such, this can impact upon the perceived impact of the Games as well as the prioritisation of different issues relating to them. This was evidenced in a view offered by a Barking and Dagenham resident who was critical of the superficial improvements made to the environment of the Boroughs as a result of the Games. They felt that the environmental improvements made to their Borough jeopardised the allocation of governmental budgets to tackle other social issues. They stated:

> *I got annoyed as well because they are decorating all as you come out of the*
>
> *station there are these great big plant pots. Everywhere I drive in the Borough*
>
> *are these plant pots and I said well you know that's costing money and they are*
>
> *cutting people's care... So they are doing all this again for the Olympics... So yes*
>
> *even I was negative on that, you don't have to plant and then someone has got to*
>
> *maintain it, and then they are cutting down on everything else. So that's people's*

negativity with it and what is going to happen after. (Barking and Dagenham

Resident_2)

This criticism was also highlighted by Horne (2007, p. 84) who explained that tensions
have historically arisen at the local level due to 'the fact that developers have been able
to extract public subsidies and tax holidays from governments desperate for their
business, while the same governments have been cutting back, sometimes severely, on
social welfare spending.' The apparent incompatibility of economic concerns (relating
to social issues) with the goal of environmental sustainability suggested by the Barking
and Dagenham resident arguably contradicts the notion that the EMT perspective
adopted by the organisers of the Games is compatible with the current economic
system. As such this view demonstrates the need for a combination of a
'Critical/Marxist' perspective, in addition to the use of environmental perspectives such
as EMT, in order to better understand the factors affecting the 'greening' of the London
Games. I now turn to the third main theme that emerged within this phase of research,
the perceived prioritisation of corporate interests over local concerns.

Corporate versus Local

One of the most fundamental concerns for critics of the Games is the prioritisation of
the interests of powerful organisations, namely International Sporting Federations and
corporate sponsors, over local interests (Burbank et al., 2012; Lenskyj, 2000; Shaw,
2008).Throughout this phase of research, several respondents expressed concerns and
discontent over the corporate nature of the Games. Many people felt that there had been
a missed opportunity to engage local people in the Games and therefore present a 'real
London' to the viewing world. One of the Waltham Borough residents strongly
expressed their disapproval of the organisation of the Games in the way that they have
caused environmental destruction at the expense of local people. They explained 'They

[Olympic organisers] are taking everything that's green away from us. They've taken practically everything we have in the Borough. I know that unless we put up a good fight we're not going to get any of it back' (Waltham Forest Resident_1). Further, this participant highlighted how they felt that it was going to be unlikely for the Boroughs, and particularly the sites of Olympic-related use, to be returned to normal following the Games. The participant argued that the organisers would view the ability of local communities to adapt and cope with changes as reason enough to not return these sites to their original condition.

Throughout the preparation period of the Games, there were a number examples where open green space being taken away from local communities. One example was the purchasing of ancient common ground that was part of the 'Lammas Land' on Leyton Marshes, Waltham Forest, to make way for access points to enable the construction of the Olympic Park. Grievances arose due to the breaching of the covenant protecting the land which had stipulated for over 1,000 years that it be used freely for public consumption, and has led to protests against the use of this site primarily organised by the 'New Lammas Lands Defence Committee' (Fussey et al., 2012; New Lammas Lands Defence Committee, 2008). Perhaps the most controversial loss of land due to Olympic developments was the forcible eviction of holders of the Manor Garden Allotments in October 2007 to make way for the Olympic site. The loss of this green space led to local protests and a visible contradiction of London seeking to host the first sustainable Games, with claims that it was 'a betrayal of the thousands of people on allotment waiting lists in the local area, who were hoping for a genuine example of sustainability and response to local needs in the Olympic 'legacy'.' (Lifeisland.org, 2010). Jenny Jones, Green Party London Assembly Member, explained that despite legacy plans for the Games claiming to compensate for the loss of green space due to Olympic-related developments, there have been great concerns that these

planned reparations will be inadequate. Further, in response to Olympic planning applications, Newham Council responded: 'In ecological terms the Legacy Park does not deliver…it is a mere shadow of that stated in the 2004 application and does not deliver sustainable ecological sites or significant green corridors of much note beyond the river system' (London.gov.uk, 2007, p. 1).

These examples of the loss of green space due to Olympic-related developments lend themselves to a 'Critical/Marxist' view of the Games. Here the economic viability of the Games has arguably taken precedence over local environmental concerns. Further, it demonstrates the overriding of local concerns and forceful seizure of property in order to serve the interests of Olympic organisations, and as such gives rise to issues of power relations. In relation to this, the forced eviction and displacement of local residents and businesses is a recurrent theme of the hosting of the Games (Miah and García, 2012). The Beijing Games arguably provides the most notorious example of forceful evictions with approximately 1.5 million people displaced to enable Games-related construction to take place (Centre for Housing Rights and Evictions, 2007). These examples of the forceful seizure of property as a result of Olympic-related developments exemplify the power that the IOC and host city organisers hold over the relatively powerless host populations.

In relation to the theme of corporate versus local, another sub-theme that emerged was the employment of 'greenwashing' practices by Olympic bodies. The tension between the aims of corporate sponsorship and the goal of environmental sustainability had been growing throughout the preparation of the London Games. Boykoff (2012, p. 1) encapsulated this conflict when he stated that 'it's green versus green, the green ideas of environmentalism versus the greenbacks of corporate capitalism'. In this regard, Boykoff felt that the 'greenwashing' practices of large corporations were winning in favour of real sustainability practices. An example of this

tension can be found in the 'Greenwash Gold 2012' campaign launched in April 2012, which sought to find the most environmentally destructive sponsor of the London Games (Greenwashgold.org, 2012). However, research adopting more of a 'booster' position towards the Games has defended the employment of what Lenskyj (2000) termed 'corporate environmentalism' within an Olympic context. For example, a report by Yang (2009) argued that a corporate model of sustainability could be successful within the context of the Games. Yang contended that overall corporate sponsors do add to the sustainability outcomes of the Games through using a progressive management approach to sustainability concerns. As such, the report supports the IOC and host city organisers' adoption of a 'shallow' ecology/light green and EMT perspective as a means of addressing environmental issues.

One business owner from Hackney whose business was under threat of being closed due to the access restrictions resulting from the Games, believed that claims to be the first sustainable Olympics was nothing more than 'greenwash' (Hackney Business_1). Another business owner from Hackney who was displaced and successfully relocated as a result of the Games also expressed similar criticisms. They felt that talk about legacy within the context of the Games was used to promote the interests of corporate Olympic sponsors, and that the Games were actually about corporations and profits, rather than sustainability and sport (Hackney Business_2). The concept of 'greenwashing' has become almost synonymous with the 'greening' practices of the Games since the 1990s, and is typically a term associated with a 'shallow' ecology/light green and EMT perspective towards the addressing of environmental issues. 'Greenwash' refers to when an organisation hides or misinforms their environmental performance behind 'green' publicity (Greer and Bruno, 1996; Welford, 1997). Phrased differently, 'greenwash' is 'the cynical use of environmental themes to whitewash corporate misbehavior.' (Greenpeace, 2012, p. 1). Many critics

and sceptics of the Games have employed this term, these include Lenskyj's (1998a; 1998b) and Beder's (1999) work on the Sydney Games, Shaw's (2008) work on the Vancouver Games, and the work undertaken at the time of writing this thesis by the Greenwash Gold campaign at the London Games (Greenwashgold.org, 2012, 2012). Shaw (2008, p. 239) highlighted the relationship between 'greenwashing' practices and the Games when he argued that 'The IOC and local bid organizers have become quite slick in producing "greenwash" to make the Olympics appear to be not only environmentally friendly, but even a leader in preserving the natural world.' Although every Games to some extent since 1992 has included and professed some element of environmental protection or enhancement, the 'greenwashing' of the Games has become a common criticism by people adopting a 'deep' ecology/dark green positioning on environmental issues and the Games since explicit environmental commitments have been made by organisers of the Games, who have been seen to have prioritised economic concerns and capitalist interests (as documented in Chapter Five).

Another issue relating to the theme of corporate versus local that was highlighted was the tension and degree of compatibility between global and local interests. This tension was best encapsulated by Andrews and Grainger (2007, p. 487) when they stated: 'Global in reach and philosophy, the Olympic Games are inveterately local in performance.' Due to the mass appeal of the Games, major infrastructure development is necessary within host cities in order to provide 'an appropriate socio-economic and planning context for staging the Olympic event, while also being capable of transforming the Games from a 'local event' into 'global spectacle'' (Chatziefstathiou and Henry, 2012, p. 63). 'Boosters' of the Games have argued that this extensive transformation of the host communities significantly contributes to local development in terms of job creation, the development of new infrastructure, and business growth (OECD LEED Programme, 2010). 'Sceptics' of the Games have

argued that there are huge social and environmental costs of these developments on the host communities particularly when it involves the displacement of local people (Centre for Housing Rights and Evictions, 2007). One of the Tower Hamlets residents highlighted this tension and displayed an acceptance that local interests are secondary to global interests. They explained:

I think it will hit thousands of people in thousands of different ways, and I think kind of for those people who are negatively affected it is awful, and for those that are positively affected that's really great. For those who are negatively affected I heard somebody describe it 'well I suppose we are just collateral of the Olympics, we are the losers', it's a big thing, it's worldwide, we live in E3, E9, wherever you are... If it doesn't work for you and you suffer, you're collateral. There is a reality to that that I can understand and I don't particularly find offensive, you know you cannot do it for everybody. (Tower Hamlets Resident_1)

Whilst the Games are a global spectacle, they are hosted in a localised environment. The extent to which it is acceptable to override local concerns in the pursuit of global issues is highly debateable. Even more debatable is the extent to which a sports mega-event can help to achieve this. However, a Barking and Dagenham resident felt that some of the resistance towards the Games in terms of strategies to counteract global concerns of terrorism, which had led to the temporary loss of open green space, were unjustified. They explained:

Another thing people are moaning that there is going to be a temporary police station going up at Wanstead Flats to help with the Olympics because they can't

walk the dog, I said that I would sooner have the police station there making sure everyone is safe...and some people with their posh flats in London said they don't want anyone [Olympic-related security] *sitting on top, get a policeman sitting on top of my roof and I would feel very safe...* [In terms of the erection of a temporary police station on open green space]*...It will be taken down after and they're worried about where they will walk their dog.* (Barking and Dagenham Resident_2)

In this instance the participant felt that there were more pressing concerns than those pertaining to the environment. This arguably links to the notion that as the Games draw nearer there is perceived to be gradually less discussion of environmental sustainability, which may be as a result of more newsworthy concerns such as issues around national security.

A further sub-theme that emerged was a disconnect between corporate and organisational interests, and those of local people was the way that regeneration was justified through areas being identified as in need of redevelopment. A Tower Hamlets resident encapsulated this when they explained:

The impression that is now being given is that this place [The Greenway] *was just a completely devastated area. There was a guy lecturing these people saying 'ah it was full of shopping trolleys'... just complete rubbish. The trouble is that this is the myth that has gone into the public imagination... This is the kind of attitude these people have in order to justify what they're doing.* (Tower Hamlets Resident_2)

A business owner from Hackney expressed a similar view when they explained that terming the site a 'derelict wasteland' was a commercial move. They explained that it was like when you 'purchase a house you wouldn't call it a palace otherwise it would hold more monetary value' (Hackney Business_2). Similar to the way in which the definition of sustainability is moulded to fit the needs of an organisation, I would argue that the framing of the Olympic site as a former derelict wasteland in need of redeveloping has be done to help justify the regeneration of this area. This presents an example of the issue of power relations, highlighted in the 'Critical/Marxist' perspective. Here the Olympic organisers have been seen to define the land being used in a way that reduces the value to the land both in economic and social terms, especially to those unfamiliar with the area. As a result the organisations involved in hosting the Games can attempt to counteract public concerns which may lead to a greater level of local resistance. With reference to the degree in which local concerns, particularly those relating to environmental issues, were taken heed of is now discussed.

Lack of Community Consultation

The fourth key theme to emerge from interviews with local businesses and residents was the lack of community consultation from the organisers of the Games, particularly in terms of sustainability issues. In relation to community consultation, gaining 'public' and 'community' support is key to the success of any Olympic bid. In order to do this, Olympic organisers must 'sell' the Games to the host neighbourhoods (Fussey et al., 2011). Fussey et al. (2011) explained that according to interviews conducted with Londoners, the 'championing' of the Games by community groups was often embellished or fabricated. In this regard, mass turnouts of local residents at community consultations falsely translated into strong 'community support'. As Cashman (2002) highlighted, the lack of community consultation with respect to the impact of hosting the Games as one of the controversial issues which is characteristic of the organisation

of the modern Games. Cashman (2002, p. 6) suggested that due to the Games having an immovable deadline and the fast-tracking of Olympic construction projects in order to meet this, 'there is usually limited community consultation and the over-riding of local concerns are justified as being in the city and national interest', or critically, justified as being in the interest of global corporations.

Lenskyj (2002, p. 155) termed this type of consultation as 'community consultation: Olympic industry-style' wherein the consultation process involved 'Excessive secrecy, withholding of information, and exclusion from real decision making'. The lack of community engagement experienced by the participants interviewed in this research similarly reflected Lenskyj description of community consultation processes, and centred around two sub-themes: the withholding and late notice of information detailing Olympic-related developments; and the tokenistic nature of the consultation process. These problems were highlighted by the majority of participants, and therefore the issue of the lack of community consultation was not Borough-specific. In terms of the censorship and/or withholding of information regarding Olympic-related developments, a Greenwich resident felt that the organisers were selectively presenting information to the public in order to try and avoid conflict with local people. They stated:

> *The information's trickling out almost like they don't want to admit to some of the decisions they've made….You know they've said 'we won't be cutting trees down' and the decision that they would be, that the Park would only be closed for a limited period and now we've discovered it's going to be closed to local residents for longer than we thought. Everything's been sort of little adjustments made sort of fairly last minute so it's too late to do anything.* (Greenwich Resident_2)

The lack of community consultation arguably provides a more high-handed approach to defending the Games from protest against the developments made. However, I contend that Raco's (2004) assertion that a 'bottom-up' process involving local people on development issues would help to avoid high levels of protestation around the Games, and could also enable a 'darker' green approach to tackling environmental concerns from the organisers (Timms, 2012). One of the Waltham Forest residents also highlighted the issue of withholding and late notice of information detailing Olympic-related developments. When being asked if they thought an Olympic Games could be sustainable they explained: 'It's for the big businesses, not for the residents, let's face it. What have we got? They are pushing the leaflets and before you've finished reading it they've already started work.' (Waltham Forest Resident_8). Another Waltham Forest resident added: 'We are in the dark about so much. There would be suddenly something going on… we never saw the plan, we were never told that that big building was going to be there or that they would take away a bit of the park' (Waltham Forest Resident_4). Further, two Greenwich and Newham business owners (Greenwich Business_1 and Newham Business_1) explained that they had had very limited consultation with Olympic organisers on Games-related issues. In order to achieve the most positive responses from the local community, the Olympic organisers have been seen by these residents to have manipulated the information given to local people. As Srinivasa (2006) has stated, the withholding or selective release of information is key to the effective communication of information in order to gain the best possible outcomes. This issue lends itself to a 'Critical/Marxist' perspective as this 'trickling' of information to the public indicates to a 'us' versus 'them' situation. Here there is a clear power differential between the economic power (the organisers), and those without power (the public) in terms of the power to select what information is made public and

when. Access to information can be very powerful but it seemed that residents and businesses were either denied this or at least not provided with it. Further, the decision of those in power are impacting upon the population and the censorship and/or withholding of information is used as a way of minimising disruption in an attempt to gain acceptance for these changes.

In terms of the consultation processes associated with the Games, Poynter (2009a, p. 147) contended that 'tokenistic forms of community consultation' have been the 'predominate mode of local participation' at the London Games. One of the Hackney residents confirmed this when they explained:

[The community consultation was] *Awful….They weren't genuinely interested in the problems that the development was having. They have a way of dealing with it which is to just to overwrite it. I mean they were just incredibly difficult to deal with. I feel that they relied heavily on doing things like sweetening up people who they thought were key people in the community to try and get people on board for the havoc and disruption that was being caused. Frankly, I don't think they got to the key people. They spent a lot of money sort of entertaining and taking people around on trips….it was all badly organised, it was very tokenistic. I found it patronising, ineffective, and a complete waste of money.* (Hackney Resident_1)

Interestingly, Dunn (1999) observed (in the case of the Sydney Games) that the consultation of local government on Olympic-related development issues was also tokenistic even though the cooperation of this stakeholder group was necessary in order to host a successful Games. In this regard I would argue that the degree to which these stakeholder groups can influence and contribute towards the 'greening' of the London

Games is minimal. As such, the lack of community consultation expressed during the interviews over issues concerned with Olympic-related developments and the overall sustainability of the Games, supports the notion that the Games adopted a top-down EMT perspective. In light of the responses, I agree with Konstantaki and Wickens' (2010, p. 337) contention that the organisers of the Games need to 'improve communication and public consultation to raise public awareness and instil confidence' of issues concerned with environmental sustainability and the Games. I now turn to the fifth key theme that emerged in this phase of research, the ambiguity expressed over the term 'sustainability'.

The Definition of 'Sustainability'

When designing the interview guide for this phase of primary data collection, I decided to ask participants what sustainability meant to them more generally, and then asked them to elaborate more specifically on what they believed was meant by 'environmental sustainability'. The reasons for this were twofold: firstly in research phase two (interviews with Olympic Borough Council representatives) participants expressed difficulty in defining what they felt was meant by sustainability. Secondly, it enabled me the opportunity to observe which aspect of sustainability, economic, social or environmental, appeared most important to the participant. In addition to Olympic Borough Council representatives, several residents and businesses also highlighted the ambiguity of 'sustainability'. A number of participants either did not know what was meant by the term 'sustainability', asked me to clarify what I meant by the term, or felt that it was an empty word without any real meaning. A resident from Tower Hamlets encapsulated this ambiguity when they explained:

> *I don't really know what it means because I think sustainability is one of those*
> *words that's now touted around now without any real meaning at all….These*

are almost completely meaningless concepts and I don't just mean that within

the context of the Olympics. (Tower Hamlets Resident_2)

Within an Olympic context, Stuart and Scassa (2011, p. 12) contended that commitments to Olympic legacies are often ambiguous and unstructured and as a result 'evaporate with the end of an Olympic event.' The vagueness of these commitments perhaps leave themselves open to less scrutiny both to academics and the general public as they are difficult to verify and hold people/organisations accountable. Jenny Jones, London Assembly Green Party member also highlighted the lack of any clear and intelligible commitments to sustainability. With reference to the ODA's draft sustainability principles which were first made available in 2006, Jones explained that 'This document makes the right noises on greening the Olympics but stops short of any binding commitments'. Jones further intimated that the main reason for the lack of comprehensible commitments to sustainability was due to the ambiguity of the term. Jones expounded that she was 'concerned that by the time they make up their mind what they mean by sustainable, it will be too late' (Bennett, 2006, p. 1).

One resident from Tower Hamlets felt that by claiming the Games to be sustainable questioned the very essence of what sustainability is meant to be. The view shared by the resident below echoes that of Kathryn Molloy, Executive Director of the environmental NGO Sierra Club of British Colombia when she stated that 'The most sustainable Olympics would be no Olympics' (Nicoll, 2010). The resident stated:

When you think about the project itself, the project requires I don't know how

many millions of people to travel around the world….now if that is a sustainable

project then I have no idea what they mean by this because if you want to have a

237

sustainable project, you do something that's local which doesn't require lots of movement and which serves local needs. (Tower Hamlets Resident_2)

Several other residents also expressed similar cynicism, more specifically toward proposals to be the first sustainable Games. A Waltham Forest Resident explained:

I think it is hypocrisy. I think they're just trying to defend themselves against accusations that an event as large as the Olympic Games might not be sustainable. I think it's a defensive reaction rather than a genuine commitment to principles. (Waltham Forest Resident_11).

In addition when asked what they thought London 2012 becoming the first sustainable Games meant, a Hackney resident stated that it was:

Bulls**t, sorry to use the vernacular. I can't see how it's in any way supposedly sustainable. I've not read any propaganda about it and I'd probably be resistant to it. I really have to question some of this you know for a three-week event and if it's supposed to be 'green'…you're getting all the politicians preaching about carbon dioxide that all the visitors will be flying there from all around the world, all the corporate people will be spending all this money and therefore there's pollution and other things associated with that…I mean just how is it sustainable? (Hackney Resident_2)

This quote questions the perceived incompatibility between the short-term nature of the Games and the pursuit of environmental sustainability. Further, this resident argued that the actions of key figures and organisations involved with the hosting of the Games

238

have contradicted the claimed goal of environmental sustainability. In this regard, the resident is critical of the Games' employment of carbon offsetting schemes (Toyne, 2009), which is one of the key environmental strategies employed by the organisers of the Games. This view highlights one of the key arguments of environmentalists and critics of the Games' sustainability achievements. It therefore questions of the ability of the 'shallow' ecological perspective assumed by the organisers of the Games to genuinely contribute to the protection of the environment. A resident from Waltham Forest who was part of the Occupy London group campaigning against the construction of a basketball training facility at Leyton Marshes critiqued the proposal of the first sustainable Games. The participant argued that it was done to try and create a distraction during a time of economic recession in order to justify the public expenditure associated with the Games. They explained:

> *I think it's just a corporate tagline... There is a lot of concern about the environment* [but] *it's just kind of a way of counteracting the feeling that people will inevitably have especially at a time of recession… It's just kind of mind-boggling because there are so many things that so obviously need attention and need our action to make better. So this is like the Roman Games at the Coliseum and trying to keep everyone ignorant, throwing them a few crumbs and then somehow we* [Olympic bodies] *retain our power as an authority.* (Waltham Forest Resident_9)

This quote highlights the power differential between organisers of the Games and local people. It also suggests that goals such as that to become the first sustainable Games help to mask other deep-rooted social issues especially at a time of heightened awareness of these. This view lends support to Wilson's (2012) call for more Marxist-

inspired analyses of environmental issues relating to sports and sports events. This view also supports the notion that organisers of the Games adopt a top-down approach to environmental sustainability. Top-down approaches to environmental sustainability are characterised by plans and regulations being developed at the highest level of decision-making which are then implemented through responsible organisations further down the hierarchy. In this approach, sustainability plans are created with little or no public input and then imposed upon the wider population (Mariam, 2001). One of the main criticisms of the top-down approach is that it does 'not relate sufficiently to local peoples' perceptions of the problems.' (Evans and Theobald, 2003, p. 78).

It is clearly evident from the views pertaining to this theme that the Games had adopted a top-down 'shallow' ecological and EMT perspective towards environmental sustainability and the Games wherein the vision of the organisers was imposed on the public, and the Olympic Boroughs in particular. It is worth noting here that whilst EMT has been characterised by 'ambiguity in outlook' in terms of whether it is 'prescriptive or analytical in its intentions', I would argue within the context of the Games it is both a theoretical perspective and a policy prescription (Karamichas, 2012, p. 153). In this regard, EMT as a theoretical perspective endorses the use of technology to help solve environmental problems (Hajer, 1995), and as a policy prescription it promotes the development and implementation such technologies. However, the implementation of EMT has been criticised for its exacerbation of 'the dichotomous divide between nature and society, social and scientific knowledge, expert and non-expert knowledge' (Bäckstrand, 2004, p. 707). Several participants highlighted not only the ability of the technological approach of the Games' organisers to alienate people, but also the lack of access to this information. The use of technical language to explain environmental objectives and achievements also raises the issue of trust. In this regard, local residents and businesses that do not have an appropriate level of knowledge about sustainability

issues have to trust that the work being done is conducted in an environmentally friendly way. One of the Tower Hamlets residents explained:

> *the question is can you believe much of what they say even about things that may be true because this is the problem with trying to establish that what they say is true about anything, because they are lying about so much, and they are distorting the evidence about so much. So if they are telling non-technical people like me and you and all the rest of it that these buildings are constructed in such and such a way, to such and such a standard, how do I know that that is true? Because actually I don't. Now it may be that those people who have written those parts of the documents are more honest and straightforward than the others, I'm sceptical about that.* (Tower Hamlets Resident_2)

Evans and Theobald (2003, p. 78) proposed that the solution to overcoming this problem is 'to ask local people to define the problems as they perceive them, and thus produce relevant and innovative solutions.' However, as shown earlier in this chapter, the lack of community consultation and incorporation of local concerns regarding issues of environmental sustainability was one of the main criticisms against the organisation of the Games.

An interesting point made by MacKenzie (2006) was that the ambiguity of 'sustainability' is necessary when hosting an itinerant event such as the Games. This is due to the fact that different environmental technologies and methods of environmental protection change in suitability according to the location of the Games. The ways in which environmental sustainability is addressed within the context of the Games is at the discretion of the organisers, and as can be seen in Chapter Five, host cities have chosen a variety of different approaches to try and mitigate the environmental impact of

the Games. This ambiguity often contrasts with the specific sustainability goals set by the organisers which can often alienate the general public. This was an observation made by a Tower Hamlets resident (as shown in the above quote). They felt that the way in which technical language and standards are referred to when speaking about sustainability, can confuse and isolate the general public from becoming more actively involved in helping to create the first sustainable Games.

In terms of what was meant by the proposal of the London Games to be the first sustainable Olympic and Paralympic Games, there was a similar level of confusion and ambiguity. Some participants were extremely critical of the statement, one of the Waltham Forest residents stated that it was 'absolutely meaningless to say that'. When probing this participant to expand and explain what the Olympic organisers meant in making this claim, the participant answered 'They meant they were ticking the boxes… this is the 'in' thing, we're going to be sustainable' (Waltham Forest Resident_10). These quotes signify that the environmental improvements made as a result of the Games are perhaps nothing more than 'greenwash'.

Further, similarly to the definitions of 'sustainability' offered by Olympic Borough Council representatives, many of the participants linked the proposal to be the first sustainable Games with the ability of the organisers with notions of 'legacy', and the ability of the Games to ensure a post-Games use for the facilities. When being asked these exact questions, a resident from Barking and Dagenham explained:

> *Well they keep going on about this leaving a legacy after the Olympic Games so environmental sustainability just means to me just keep using the facilities for its purposes after the Games to make sure that the Olympic Park is being used by nearby residents, make sure that it's fully accessible for them to use.* (Barking and Dagenham Resident_1)

Through speak of sustainability bound up with notions of 'legacy' and 'sustainable legacy', there is an inherent positive message emanating from Olympic discourse. As MacAloon (2008, p. 2065) explained, 'Speaking just of Olympic Games legacy, who could be against commitment to and careful planning for how to leave something good and reasonably long-lasting behind for both the local community and the international Olympic Family?' A Greenwich business owner argued that the positive connotations attached to terms such as 'legacy' and 'sustainability' and the pursuit of achieving them played a part in London winning the Games, but they are not sure what it means beyond that. They stated:

> *Right what I think it meant was it was the reason that they got the Games in the first place, sustainability and legacy apparently were the two things that really sort of swung the committee behind them. What it actually means beyond that…well the cynical thing is that it's a good way of getting the London Olympics.* (Greenwich Business_2)

Despite claims to be the first sustainable Games that leave behind a 'legacy', a host Borough survey conducted by the DCMS (2012) does not substantiate these claims. When asking local residents whether the London Games had had an impact on their behaviour in terms of green issues and sustainability, over three quarters (79%) of the residents surveyed (N = 380) stated that the Games had had no impact on their behaviour, compared to just 21% of residents who had seen a change in their behaviour. Out of the small percentage of residents that had seen their own behaviour change, only 3% confirmed a change in their attitude towards sustainability. Although this is just one survey conducted with a relatively small group, the lack of commitment towards 'sustainability' is alarming considering the overarching aim of the Games. The lack of

impact that the Games have had in terms of promoting environmentally-friendly behaviour was encapsulated by a Greenwich business when asked if there had been any missed opportunities within the context of the Games. They stated:

Well there's a big one obviously missing is somebody like myself who is not hugely environmentally sensitive, I mean it's not a big deal for me really at all but I have a level interest in it…the extent to which that could have been made something exciting and meaningful about the Games just hasn't got through to me. I haven't seen anything that stands there and says this is a virtue that reflects sustainability at all. I mean I suspect that there's a shooting gallery that's up there in Woolwich has been made in a way that would be but there's nothing that's made me feel that that's been a virtue at all. (Greenwich Business_1)

This quote also alludes to the lack of communication and access to information regarding the environmental sustainability objectives of the Games. This issue was also highlighted by a Waltham Forest and Barking and Dagenham resident. A Waltham Forest resident felt that positive environmental work associated with the Games may well have been undertaken but it was difficult to find this information out. They explained that:

It could be that the construction companies are putting solar panels on roofs and stuff like that but not everyone is privy to all the information so really nobody knows if it is sustainable. (Waltham Forest Resident_9)

A Barking and Dagenham resident supported this view and felt that this information was not adequately communicated. They stated:

> *Yeah you don't know* [of environmental sustainability initiatives] *unless you've searched for it. I'm the kind of person that would be intrigued to know and would probably go to search for it at some point but I haven't looked for it yet so I don't know what their specific plans are.* (Barking and Dagenham Resident_1)

Overall I would argue that there was a lack of understanding about what was meant by sustainability, and more specifically environmental sustainability, within the context of the London Games from both local residents and businesses, and this significantly impacted upon the views offered. On one hand this could be due to the ambiguity of sustainability found at the local governmental level, and how actors at this level have communicated aspirations to be the first sustainable Games. On the other hand, this lack of understanding could be due to the alienation of local people due to the technical nature of the EMT perspective adopted by the organisers of the Games.

Conclusion

In combination with Chapter Seven, the findings explored in this chapter have helped to gain a better insight into the views of different stakeholders involved in the debates about environmental sustainability within the context of the London Olympics. As highlighted at the beginning of the chapter, there has been a lack of research on local residents' and businesses' perceptions of the environmental impact of hosting the Games. Despite this, these people are often portrayed as being the main beneficiaries of the Games within Olympic rhetoric and host city plans. The key themes that emerged during primary data collection with local residents and businesses in the Olympic Boroughs were discussed. These included: the importance of location; shifting

priorities; corporate interests versus local interests; the lack of community consultation; and the ambiguity of term 'sustainability'.

Similar to the interviews conducted with Olympic Borough Council representatives, the ambiguity of 'sustainability' was the most prominent theme to emerge. Unlike the Council representatives, local residents and businesses did question the ability of the Games to be 'sustainable'. Issues relating to the accessibility of information pertaining to the sustainability of the Games and the alienation of local people through the adoption of technical EMT perspective to addressing environmental concerns, and the power relations involved in defining how the Games are being 'greened' were discussed. On the one hand it has been argued that a travelling event such as the Games requires some level of ambiguity to enable different cultural interpretations of environmental commitments. On the other hand, the ambiguity around the term can lead to a lack of accountability as to who is responsible for attempting to deliver the first sustainable Games. Whilst not all the participants were critical of this ambiguity, differing interpretations of the term conceivably influenced perceptions of the environmental impact of the Games. It is my contention that this was the key influence on residents' and businesses' perceptions. As such, I argue that perceptions of what is meant by sustainability by host communities should be monitored throughout the preparation phase of the Games in future research.

I would also argue that the location of the residents and businesses is the next significant influence upon perceptions of the sustainability and environmental impact of the Games according to the data obtained in this research. As highlighted above, the influence of the proximity to venues on residents' perceptions has been relatively well documented. However, the impact of location on local businesses has not been as well documented. Whilst the data collected from representatives of local businesses in this research does tend to echo and support residents perceptions that has been more widely

discussed in the literature, there is currently scant literature by which to directly compare the findings discussed in this chapter.

Drawing upon the combination of theoretical perspectives derived from the sociology of the environment and the sociology of the Olympic Games, the findings discussed in this chapter support the notion that the IOC and the London organisers have adopted a 'shallow' ecological and EMT perspective towards addressing environmental concerns. This became clear when the participants were asked what was meant by environmental sustainability within the context of the Games. Here, the majority of participants referred to and provided examples of physical improvements, and more specifically the venues and their post-Games legacy. Further, the 'Critical/Marxist' perspective is relevant to understanding the criticality expressed by many of the residents and businesses in terms of the meaningless of the concept of 'sustainability', and its incompatibility with the 'mega' nature of the Games. This more critical perspective arguably represents a 'deeper' ecological perspective adopted by some residents and business owners who drew attention to the overriding of local needs, and a lack of genuine commitment to addressing environmental concerns. The concluding chapter will draw together the key findings of the thesis in order to reflect upon the intersections between economy, the environment and locality and the London Games, and the implications for future research.

CHAPTER NINE: CONCLUSION

The thesis sought to examine attempts made by the IOC and host city organisers to become recognised as environmentally sustainable, with a specific focus on the intersections between economy, the environment and locality and the London Games. The thesis makes an important contribution to the growing body of research on sustainability and the Games through the adoption of a unique theoretical framework, and the critical interpretation of qualitative data relating to perceptions of the environmental impact of the London Games at the local level. The thesis adopted a combination of theoretical perspectives, a 'Critical/Marxist' perspective, Næss' (1989) philosophical conceptualisation of 'shallow' and deep' ecology, and EMT, through which the relationship between the environment, sustainability and the Olympics was critically examined.

The first objective of the thesis was to establish a theoretical and conceptual standpoint from which to critically examine the relationship between the IOC, host city organisers and the environment. The thesis highlighted that research to date has tended to lack an explicit theoretical underpinning and in particular, the use of theoretical perspectives from the sociology of the environment literature to analyse the 'greening' of the Olympic Games, and the intersections between economy, the environment and locality within an Olympic context . As such, the thesis aimed to help fill this gap in literature and developed a theoretical framework which drew upon theoretical perspectives from two types of literature: the sociology of the Olympics, and the sociology of the environment. In this regard, Chapter Three identified the main perspectives employed in sociological analyses of the Games and sociological analyses of the environment. The extent to which these perspectives have been applied to literature concerned with environmental issues and the Games, and the ability of these perspectives to explain environmental issues within the context of the Games was

examined. Through the use of the theoretical framework developed in the thesis, it is my contention that research into the sustainability of the Olympic Games can benefit considerably from drawing on these two fields of research. In this regard, I argue that literature on the Olympics to date has suffered from neglecting the contribution that theories and concepts within the sociology of the environment can make to our understanding of the relationship between the Olympics and the environment. As the thesis has shown, there are multiple ways in which the IOC and host city organisers have attempted to address environmental concerns. Using theoretical perspectives from the sociology of the environment can help us to understand not only how environmental issues affect the preparation and hosting of the Games, but also how they are framed, and which issues are focused on. In this sense, through utilising these perspectives future research that draws upon these perspectives can help to put 'environmental' issues at the heart of analyses concerned with the environment, sustainability and the Games.

In terms of the theoretical perspectives used in sociological analyses of the Games, I drew upon Lenskyj's (2012) observations and the categorisations of Olympic studies made by Toohey and Veal (2007) and Warning et al. (2008) and proposed three key social scientific perspectives that have been used to examine the Olympic Games. I called these the 'Functionalist/Managerialist', 'Critical/Feminist', and 'Critical/Marxist' perspectives. Overall, I argued that the 'Critical/Marxist' perspective was the most relevant to the thesis in terms of the acknowledgement of power and money as key factors that shape and influence the environmental agenda of the IOC and host city organisers. Further, from reviewing the literature, Olympic-related works on environmental concerns using this perspective have tended to have examined one or more of the following themes: (1) the 'greenwashing' practices and nature of the Games and the prioritisation of profit over environmental protection, (2) the gap between the

proposals made by the IOC and/or OCOG's to tackle environmental issues, and the extent to which these are achieved, and (3) the incompatibility between the nature of sports mega-events and the notion of sustainable development. All of these three themes were investigated through the fulfilment of the second and third aims of the thesis.

Although the 'Critical/Marxist' perspective is most compatible with this research, I argued that this theoretical perspective is unable to understand environmental issues and the Games in isolation. In this regard, I argued that this perspective was too economically deterministic in terms of understanding environmental issues within the context of the Games, and as a macro-sociological perspective it is not able to understand the complexities associated with understanding environmental issues and the Games at the local level. Further, it is unable to examine the different definitions of environmental problems and how they are subsequently addressed by Olympic organisers. However, through drawing upon the 'Critical/Marxist' perspective as the general theoretical framework, the thesis was able to highlight the role power relations had in not only shaping how environmental concerns are addressed, but also how the concerns of local people were superseded by those of the Olympic organisers and corporate sponsors involved. It also highlighted how economic concerns at the level of Olympic organisations and local government took precedent over environmental concerns, and provided empirical data to support these observations.

Due to the inability of the 'Critical/Marxist' perspective in its entirety to understand environmental issues within the context of the Games, I embraced Horne and Manzenreiter's (2006) contention that the adoption of a more eclectic theoretical approach can enable a better understanding of an issue. As such, I utilised Næss' (1989) philosophical conceptualisation of 'shallow' and 'deep' ecology, and EMT, in order to examine attempts made by the IOC, and more specifically the London Games, to become recognised as environmentally sustainable.

250

The use of Næss' (1989) philosophical conceptualisation of 'shallow' and 'deep' ecology as a continuum offered a useful theoretical tool through which to map different individual and Olympic organisational attitudes towards environmental issues. However, it was acknowledged that this approach was unable to account for other contributing factors such as gender, class, and perhaps most importantly economic concerns. Further, this perspective was also unable to understand the competing organisational (governmental and non-governmental) positions which have differing degrees of influence in the shaping of the environmental agenda of the Games. As such, this theoretical approach was not suitable for understanding the environmental impact of the Games on the host communities on its own. As a result, a second theoretical perspective was drawn upon, EMT. This perspective was shown to be the dominant position assumed by different Olympic organisations in terms of the way in which it contends that environmental problems could be overcome without abandoning the goals of modernisation, and that environmental enhancement and economic development are mutually achievable. In this regard, EMT theory was useful in understanding the creation and employment of new environmental technologies and provided a rationale for the 'shallow' ecology/light green perspective that has historically been adopted by the IOC and host city organisers.

The origin and development of 'sustainability' and 'sustainable development' were discussed. As noted in Chapter Seven and Eight, the definition of 'sustainability' adopted is integral to understanding how the IOC and host city organisers have addressed environmental sustainability and perceptions of this. Whilst the Brundtland Report offers the most widely accepted definition of 'sustainability' to date, the notion of 'sustainability' remains a highly contested concept whereby the vagueness of the term is often altered to meet the needs of the definer. Nevertheless the definition offered by the Brundtland Report has been adopted and subsequently attempted to be addressed

by the IOC and host cities organisers. In this regard, Chapter Five offered a socio-historical analysis of the IOC's and host city organisers' recent commitment to environmental sustainability concerns. This chapter provided the findings of my analysis of secondary data sources pertaining to the environmental promises made by host cities and the outcomes of these promises. It helped to contextualise the evolving relationship between the environment, sustainability and the Games, and more specifically the pursuit of London 2012 becoming the first sustainable Olympic Games. Further, the chapter offered a unique way of understanding how host cities have historically addressed environmental issues through the identification of three distinct periods: Period One (1992-1996): a 'growing respect for nature'; Period Two (1996-2002): the race to be a 'green' Games; and Period Three (2002-2012): the 'sustainability' agenda.

The demarcation of these three periods help to encapsulate the main Games-related and environmental developments more generally, which have influenced the relationship between the environment, sustainability and the Games. In addition, the application of the theoretical framework developed in the thesis enabled this socio-historical anaylsis to move beyond the descriptive work of authors such as Chappelet (2008), and provide a critical and theoretically informed interpretation of environmental developments and the Olympics up until London 2012. Here, the environmental positions adopted by the different host city organisers were examined in light of the environmental work achieved, and the problems that occurred during the different Games. It also demonstrated the environmental journey of the organisation of the Games, and the development of the dominant 'shallow' ecology/light green perspective that has culminated in the London Games. Further, it enabled a critical examination of the role of the power and money of Olympic organisations and sponsors in the shaping of the sustainability agenda of the Games.

Period One included the 1992 Albertville and Barcelona Games, the 1994 Lillehammer Games and the lead-up to the 1996 Atlanta Games. This period was characterised by the birth of environmental concern following the signing of the Earth Pledge by the IOC in 1992 and Lillehammer's formal pursuit of a 'green Games'. Following the environmental devastation of the 1992 Albertville Games, significant organisational changes were made in order to minimise the future environmental impact of the Games. In 1995, future host cities from the 2002 Games onwards were to be officially evaluated on their environmental plans during the bidding process. Additionally, the Olympic Charter was modified to refer to the importance of the environment in 1996. The period became most renowned for the 'green' successes of the Lillehammer Games which were the first to cooperate with and integrate the concerns of local environmental groups into their planning. These Games arguably presented the 'deepest' ecological/darkest green Games in Olympic history to date as they demonstrated the potential flexibility of Olympic organisers to incorporate environmental concerns and goals other than their own.

Period Two included the 1996 Atlanta Games, the 1998 Nagano Games, the 2000 Sydney Games, and the lead up to the 2002 Salt Lake City Games. This period was characterised by the lead up to Sydney's 'green' Games. Despite the environmental progress made at the Lillehammer Games, the momentum was not carried on from these Games, and it wasn't until six years later that a similar level of environmental commitment was seen. Arguably due to unforeseen external circumstances, namely the Centennial Park bombing at the Atlanta Games, the environment became less of a focus at the beginning of this period. The Sydney Games seemed to mirror the Lillehammer Games to an extent and through working with environmental organisations during the preparation phase of the event. However, in contrast to the dark green approach of the Lillehammer Games, the Sydney Games arguably epitomised the 'shallow'

ecology/light green approach. In this regard, work with environmental organisations, in particular Greenpeace, seemed to be used as a promotional tool to market the 'green' Games rather than a genuine shift to place environmental concerns at the heart of the Games.

Also during this period, the IOC adopted its own form of Agenda 21 in 1999, and in 2001 the IOC inaugurated the use of economic, social, and environmental indicators to measure the sustainability of the Games. In addition, in 1998 the image of the IOC was greatly tarnished following the revelation of the Salt Lake City corruption scandal. During this time the IOC was subject to external pressures to keep up with the environmental movement more generally, and to manage the reputational damage caused by the corruption scandal. The formalisation of environmental concerns into official Olympic documentation signalled a move by the IOC to construct 'environmental' problems and address them in a way which did not conflict with the 'gigantic' nature of the Games. In addition, at this time the IOC needed to be seen to be making a positive contribution to the host city and the world of sport more generally. Addressing sustainability and environmental concerns offered a vehicle through which to mitigate the negative publicity that the IOC was experiencing at this time. The creation of the 'green' Games arguably helped to create a smokescreen behind which the IOC could continue its everyday practices whilst being seen to be addressing environmental concerns.

Period Three included the 2002 Salt Lake City Games, the 2004 Athens Games, the 2006 Turin Games, the 2008 Nagano Games, the 2010 Vancouver Games, and the London 2012 Games. Similar to the transition between Period One and Two, following the debatable 'green' successes of the Sydney Games, the transition between Period Two and Three did not continue the environmental momentum with the Salt Lake City and Athens Games. Again these Games were overshadowed by external factors, namely

the '9/11' terrorist attacks, which shifted the focus towards the securitisation of the Games. Despite this, the 2006 Turin Games became the first Games during this period to pick up the environmental 'baton' from the Sydney Games. After some level of environmental consciousness at the Beijing Games, this period then became characterised by the 'sustainability agenda'. In particular, the Vancouver and London Games represent a shift away from the 'green' to the 'sustainable' with the incorporation of the social and economic with the 'environmental' and the race to be the first sustainable Games. Following the environmental benchmarks set by the Lillehammer and Sydney Games, this period affirmed the IOC's adoption of the 'shallow' ecology/light green position. More specifically, this period and the Vancouver and London Games more specifically, signified a shift towards the adoption of the EMT perspective. Here the emphasis on the host cities ability to deliver a sustainable Games concentrated on minimising the carbon footprint of the Games, and the design and construction of Olympic venues. In addition to this, I used Næss' (1989) philosophical conceptualisation of 'shallow' and 'deep' ecology in order to map my interpretation of the environmental positioning of the different Games between 1992 and 2012. Drawing upon Pentifallo and VanWynsberghe's (2012) concept of isomorphism I argue that there has been a gradual shift from 'deep' to 'shallow due to the dependence on technological solutions and the increasing desire for compatibility with economic concerns. Although not without issues, overall I contended that the Lillehammer and London Games have been the most 'sustainable' date.

The thesis then shifted its attention to the second and third phases of research and investigated the intersections between economy, the environment and locality within the context of the London Games through a critical interpretation of the views of the different stakeholders identified in the thesis; Olympic Borough Council representatives, and local residents and businesses located within the six Olympic

Boroughs. This was achieved through a two-stage primary data collection that involved the use of semi-structured interviews and a focus group with these different stakeholder groups in order to gain an insight into how the preparation of the first sustainable Games impacted upon the everyday experiences of the host communities.

It was noted that the views of local government have often been ignored in terms of decision-making processes relating to the Games. There has also been a lack of research into the views and experiences of government, and local government representatives on the impact of the Games. In this regard, Chapter Seven investigated the views of Olympic Borough Council representatives from the six Olympic Boroughs. As such, this chapter makes an important contribution to research in this area by investigating the views of local Council members within the context of London Games, and provides a point of comparison for future research. The interviews with Olympic Borough Council representatives helped to provide a better understanding of how the Olympic Boroughs were addressing environmental sustainability, and perceptions of the environmental impact of the Games from a Borough-wide perspective. From the interviews conducted four main themes emerged: the negative impact of the economic climate; the importance of location; residents and businesses were yet to realise the full impact of hosting the Games; and ambiguity over the definition of 'sustainability'.

The most significant finding from this set of interviews was there was no clear definition of 'sustainability' amongst the Olympic Boroughs. This highlighted the fact that there was no clear idea amongst Council workers of what was meant by 'sustainability' more broadly and within the context of the Games. This left questions regarding how those people working for Olympic Borough Councils are meant to bridge the gap between official Olympic bodies and the people living in the Olympic Boroughs when they were not able to identify what the goal of 'sustainability' was in relation to the Games, or how it should be achieved. The ambiguity of the notion of 'sustainability'

gives support to the literature whereby it is evident that there is no single universally-accepted definition of the term. However, in critiquing the lack of coherence of 'sustainability', it was also noted that the finding was arguably not surprising when considering the fact that Olympic Borough Councils were largely absent from official Olympic publications which discussed sustainability issues. Despite this, the interviews conducted with these Council representatives demonstrated for the most part, an uncritical acceptance of the dominant 'shallow' ecology/light green perspective adopted by the Olympic organisers as a suitable way of addressing environmental concerns.

Another theme that emerged was that the economic climate negatively impacted upon the environmental sustainability of the Games. Here participants felt that the environmental initiatives proposed by LOCOG had been negatively affected by the deteriorating economic situation following the economic crisis, and that the economic sustainability of local businesses had become an increasingly important priority for the Olympic Boroughs Councils. However, due to the fact that London's environmental programmes and environmental budget were integrated within other functional areas of the OCOG budget, it was too difficult to identify whether any planned environmental programmes were scrapped as a direct result of economic pressures. The prioritisation of economic concerns over environmental concerns lent itself to a 'Critical/Marxist' understanding whereby the economic basis is the key determinant of the outcomes of other aspects of social life. It further demonstrated an apparent incompatibility between economic and environmental concerns. In this regard, it could be argued that the existing economic structure was not seen by the Council representatives as conducive to environmental protection and progress. An interesting avenue for future research relating to this finding would be to examine host city budgets allocated to environmental initiatives, and whether or not this changed in the lead up to the event. This finding in particular helped to demonstrate what does not get prioritised

257

(environmental concerns) in light of other arguably more attention-grabbing concerns (for example security) in times of austerity, with respect to the division of the host city budget and the capture of the public imagination. As such, the thesis contributes towards filling the gap identified within the literature relating to how the prioritisation of certain Games-related concerns impacts upon other concerns. I therefore argue that future research needs to examine these competing priorities more closely within the context of Games.

The importance of location was also identified by Council representatives as a factor affecting the environmental impact of the Games on the host communities. The proximity to sports mega-event venues has been identified in previous research as a factor affecting residents' perceptions of an event where the closer to a venue one is located, the greater the impact (either positive or negative) of the event. In addition to this well documented finding, these interviews unearthed confusion over the exact number of Olympic Boroughs and the roles that the Boroughs play in delivering the Games. This is a significant finding in terms of the fact that the workers of local government involved in coordinating the efforts of the host communities to deliver and receive benefits from the Games, felt a disconnect and subsequently question their role and place as an Olympic Borough. In this regard, the ownership of Olympic venues within the Boroughs significantly influenced perceptions of being an 'Olympic Borough' and the roles associated with it. In this regard I argue that in order for London and future host cities to deliver a sustainable Games, more needs to be done to cultivate the imagination of people, especially those who are not within a close proximity to Olympic venues, to feel that they have a part in delivering and influencing the environmental impact of the Games.

The final key theme to emerge was that residents and businesses were yet to realise the full impact of hosting the Games. This may perhaps seem unsurprising

considering the fact that the interviews took place in the year or so leading up to the Games. At this point local residents and businesses were yet to experience the sheer influx of visitors and the restrictions put in place by the ORN. Linked to this was the uncertainty of the role and span of the dedicated Olympic Borough Units. This finding in conjunction with the ambiguity and confusion over what constituted 'sustainability' by the Olympic Borough representatives raise questions over the effectiveness of this intermediary organisation (Olympic Borough Councils) in helping to try and deliver the first sustainable Games. As such future research into the different organisations involved in the hosting of the Games (OCOGs, host city governments, local Councils, etc) and their role in delivering sustainability within the context of the Games would be extremely insightful. The numerous uncertainties highlighted by the research participants in both Chapter Seven and Eight highlight the lack of communication over not only the sustainability of the Games, but the operations of the Games more generally. As such, I argue that a greater level of communication and consultation with host communities could significantly impact both the perceptions of the environmental impact, and the actual sustainability outcomes of the Games.

The second stage of primary data collection moved its focus to those directly impacted by the hosting of the Games, local businesses and residents, and involved semi-structured interviews and one focus group being conducted with a combination of both 'boosters' and 'sceptics' of the Games. The use of qualitative data collection techniques with these two stakeholder groups makes a significant contribution to research on the sustainability of the Games where there has been a distinct lack of research investigating the views of local people within Olympic literature. This is particularly the case for local businesses who are often discussed uncritically in terms of how they are set to be one of the main beneficiaries of the opportunities brought by the hosting of the Games.

Through speaking with a diverse group of participants, similar themes emerged to those that were drawn from speaking with Olympic Borough Council representatives. These included the importance of location; shifting priorities; corporate interests versus local interests; the lack of community consultation; and the ambiguity of the term 'sustainability'. Perhaps unsurprisingly, the prioritisation of corporate interests over community interests was highlighted by local people, which arguably signified the 'shallow' ecology/light green approach adopted by Olympic organisers. This theme provided evidence for one of the main criticisms aimed at the organisers of the Games, the lack of community consultation regarding Olympic-related developments. Where community consultation did take place it was arguably tokenistic and superficial, and was never organised with the intention of taking local peoples' views into account. In addition, participants felt that consultation took place after it was too late for their views to affect change. Further, the hosting of the Games has led to the eviction and displacement of local residents and businesses, and the loss of green space in order to make way for Olympic-related developments. Here, a 'Critical/Marxist' perspective lent itself to this theme in the sense that the economic viability of the Games was seen to have taken precedence over local environmental concerns. It also demonstrated the overriding of local concerns and forceful seizure of property in order to serve the interests of Olympic organisations and thus provides evidence to contradict the environmental and sustainability successes broadcast by London 2012 and the Commission for a Sustainable London 2012. It also highlights the great disparity between Olympic organisers and host communities and reinforces the critical notion that the Games are thrust upon local people who are left to pick up the pieces after the Games have finished.

Similar to the interviews conducted with Olympic Borough Council representatives, location was identified as a factor affecting the perceptions of the

environmental impact of the Games. Like the Council representatives, several participants from Olympic Boroughs outside of Newham viewed themselves as the 'poor neighbours' of the Games. Location in this respect was viewed as negatively affecting the benefits received as a result of the Games. Additionally, location was linked to the socio-demographic characteristics of the host communities. As Chapter Six demonstrated, the six Olympic Boroughs were some of the most deprived areas of the UK. Inherent in this deprivation is a lower educational achievement, which has been argued by some to impact upon peoples' perceptions of environmental education and management, and perceptions of the environmental impact. In combination with similar views offered by Olympic Borough Council representatives, these views support the notion that there are more economic benefits for those living closest to Olympic venues. In this regard, I argued that these views demonstrated the prioritisation of economic concerns at both a local governmental and local level. Here, a 'Critical/Marxist' perspective was relevant to understanding the views of local residents and businesses whereby the economic basis is the key determinant and influence affecting perceived outcomes of the Games. As such, it is my contention that future research should investigate the extent to which socio-demographic characteristics influence perceptions of environmental sustainability within the context of the Games. This is a particularly pertinent avenue of research considering the tendency for the Games to regenerate economically deprived areas to arguably help justify the mass expenditure of public monies to support the infrastructural developments necessary. In addition, the importance of location also raises questions of how have the 'first sustainable Games' impacted upon those living in the rest of London and the UK. An interesting avenue of future research would be to compare the extent to which the Games have inspired people to become more environmentally-conscious both inside and outside of the Olympic Boroughs during the legacy phase of the Games.

Similar to the interviews conducted with Council representatives, time was also identified as a key theme relating to the shifting of priorities by the organisers of the Games. In this regard, the time period during the preparation phase of the Games appeared to influence not only the sustainability rhetoric and commitments produced at an organisational level, but also the environmental impact experienced by local residents and businesses. Here, as the Games drew closer, the focus of the Games was perceived to have shifted away from environmental concerns to concerns more directly related to Games-time. The shifting of priorities was also identified by Council representatives whereby the dedicated Olympic Units had changed its focus (due to financial and resource reasons) away from issues of sustainability and legacy to those considered with Games-time operations. This finding further highlighted how environmental concerns were demoted in favour of more pressing economic concerns. Due to the time constraints placed upon this PhD I was only able to offer a snapshot of the views and experiences of local people and local Council representatives. In light of this finding I would advocate a more longitudinal approach to examining the intersections between economy, the environment and the Games within host communities for future Games, and how environmental concerns are discussed and experienced over time. This would help to provide empirical evidence as to whether or not environmental concerns were prioritised differently over time.

The most prominent theme that emerged during both the second and third phases of research was the ambiguity of the term 'sustainability'. Whilst not all the participants were critical of this ambiguity, differing interpretations undoubtedly impacted upon perceptions of the environmental impact of the Games. Definitions echoed the 'shallow' ecology/light green perspective which was seen to have been historically adopted by host city organisers. In this sense, the majority of participants referred to examples of physical improvements relating to Olympic-related infrastructure and their use post

Games in their definitions of 'sustainability'. In this regard, a 'Critical/Marxist' perspective was relevant to understanding the criticality expressed by many of the residents and businesses in terms of the meaningless of the concept of 'sustainability', and the power relations involved in defining the term in a way that benefits those in power.

In relation to the identification of the ambiguity of 'sustainability' at the local level, the research in the thesis moved beyond measuring resident perceptions through the use of quantitative data collection techniques, and uncovered arguably one of the biggest factors affecting how the environmental impact of the Games is understood, how the environmental sustainability agenda is defined and interpreted. This finding also reinforced the pervasiveness of the top-down approach to sustainability and its acceptance as the norm in the public imagination. As such, it is my assertion that perceptions of what is meant by sustainability by host communities should be monitored throughout the preparation phase of the Games in future research. Further, by understanding what is meant and what is understood by sustainability can help to provide more of an assessment of whether or not it has been achieved.

Intersections between Economy, Environment and Locality at the London 2012 Games

Through critically exploring the relationship between the environment and the Games between 1992 and 2012, and through investigating local perceptions of the environmental sustainability of the London Games, the intersections between economy, environment and locality were found to be the three key determinants influencing the 'sustainability' of the Games. As highlighted in Chapter Three, 'sustainability' as a concept refers to the intersections between the environment, economy and society. Whilst these are often considered as separate but connected autonomous entities, in reality the relationship between these aspects is fractured, and different viewpoints will

prioritise different entities (Giddings et al., 2002). This thesis more specifically examined perceptions of the 'environmental' aspect of sustainability, and in particular how the Olympic Games have evolved to the environmental position adopted by the London Organisers.

Through the use of Næss' (1989) 'shallow' and 'deep' continuum and EMT perspective the thesis has highlighted that economic concerns have been prioritised over environmental concerns and local concerns in two respects. Firstly, through the prioritisation of corporate interests over local interests. This was epitomised in the demolition of the Manor Garden Allotments, a strong example of local environmentalism, where 'environmental' and 'local' concerns were placed secondary to the economic concerns of hosting the Games in that location. Secondly, due to the difficult economic climate in which the preparations for the Games took place, the participants in both phases of primary research had expressed that there had been a shift in priorities with the 'environmental' aspect of the London Games being negatively impacted by the economic climate. In addition, with the exception of the Lillehammer Games, an increasingly 'shallow' ecological position has been adopted by host city organisers since 1992 which has used a more technocratic approach to environmental concerns. Here I would argue that a more progressive approach to the environment has been adopted when it is economically viable and profitable (for example the lightweight London Olympic stadium and the reduction in seating capacity which helped to minimise costs and make the venue more attractive to potential bidders as the capacity of the stadium could be modified to meet their needs).

From the findings in this thesis and from critically reviewing the literature concerned with the sustainability of the London Games, Figure 9.1 presents my interpretation of the intersections between economy, environment and locality in the case of the London Games which attempts to visually encapsulate the 'shallow'/light

green and EMT perspective adopted. Here I would argue that economy was the biggest concern for the organisers with the economic viability of the venues and the event as a whole, the appeasement of sponsors, and the pressure of keeping within budget heavily shaping the environmental proposals and outcomes of the Games. I argue that the environment presents the second biggest entity with the Games being won in part due to the environmental commitments made and the Games taking place within a period of heightened global awareness of environmental issues.

The locality/host community aspect I would argue presents the smallest influence to the environmental agenda of the Games. This has been evident in the displacement of small communities to make way for the Olympic site, an issue that has also been seen at previous Games. Further, the 'shallow'/light green and EMT perspective adopted by the London organisers has approached environmental concerns from a top-down perspective and I would argue that there has been a lack of inclusion of local concerns since the Lillehammer Games. For this reason 'environment' and 'locality' barely overlap in the diagram. In the case of the London Games I propose an overlap between 'economy' and 'locality' whereby the host communities do receive some employment and infrastructural benefits from the Games, but for the most part the development of the location is due to the construction taking place on relatively inexpensive land with the long-term vision of regenerating and increasing the attractiveness of the area.

In sum, whilst the intersections between economy, environment and locality are clear and mutually dependent to a degree, the London Games has demonstrated a clear prioritisation of economic concerns. Although the 'economic' aspect of these intersections remains the key determinant and has been throughout the past twenty years, the 'locality' in which the Games takes place holds the biggest influence on the role of 'economy' and 'environment' within the context of hosting the Games. In this

regard, the cultural awareness, education and receptiveness to environmental concerns will differ greatly according to location. However, I would argue that in the case of the Summer Games which take place in an urbanised setting, the continuation of the selection of derelict land in areas of relative deprivation may enable the perpetuation of the prioritisation of 'economic' concerns, and may prevent the dominant 'shallow'/light green and EMT approach from being challenged.

Figure 9.1. Intersections between Economy, the Environment and Locality: Olympic-Style

Economy   Environment

Locality (host communities)
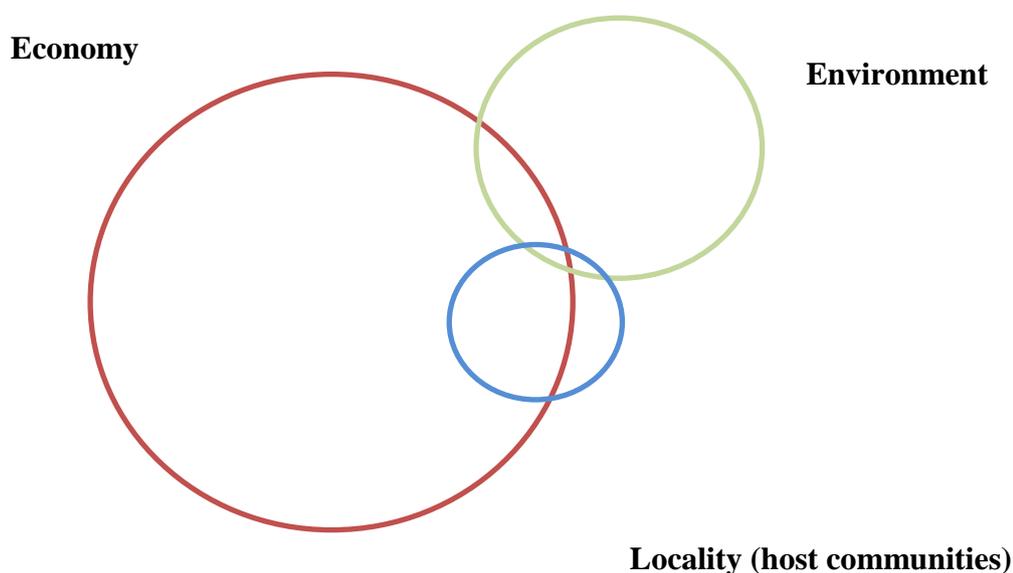
Overall, the thesis sought to examine attempts made by the IOC and the host city organisers to become recognised as environmentally sustainable, with a specific focus on the intersections between economy, the environment and locality within the context of the London Games. The three different aspects of this thesis combined provide an original theoretically and empirically informed study that makes a contribution to the growing body of research on sustainability and the Games, and to our understanding of the environmental impact of the Olympics on host communities. This thesis has highlighted that whilst the Games have demonstrated a growing concern for addressing

environmental issues, it is often done at the expense of the host communities. Whilst, the 'shallow' ecology/light green and EMT perspective adopted by the organisers of the London Games is clear, what is meant by the pursuit of the first sustainable Games to the participants involved in this research remained unclear. This critical interpretation of the local environmental impact of the Games raises questions over not whether London achieved the first sustainable Games, but what are the first sustainable Games? And who are they for?

An Update on the 'Greening' of the London Games

Although the focus of the thesis was to examine local perceptions of the 'greening' of the London Games during the lead up to the event and to gain an understanding of the intersections between economy, the environment and locality, the time period in which the thesis was written up enabled observations to be made during the 10-month period following the Games. The preparation and hosting of the Games were widely hailed as a success with Mayor of London, Boris Johnson, claiming that it demonstrated London's place as the 'capital of the world', whilst Prime Minister David Cameron contended that London had 'delivered' (Topping, 2012). In particular, the securitisation of the Games and London's transport system were two key success stories of the Games with heightened fears of international terrorism threats unfounded, and visitors of the Games being able to move around London with relative ease (Peachey, 2012; Rawlinson, 2012).

So what about the 'greening' of the London Games? The post-Games report published by the Commission in November 2012 claimed that London had broadly delivered on the sustainability objectives put forward by the organisers of the Games. Shaun McCarthy, Chair of the Commission for a Sustainable London 2012, confirmed this when he stated that 'London 2012 has delivered the most sustainable Games ever' (cited in Commission for a Sustainable London 2012, 2012, p. 2). In particular, the

report celebrated the design and construction of Games-related infrastructure, effective planning and operation of the transport system, zero waste being sent to landfill during Games, and 70% of waste produced being recycled, reused or composted (Commission for a Sustainable London 2012, 2012). The official London 2012 post-Games sustainability report published in December 2012 echoed the environmental successes outlined on the report published by the Commission. Jonathon Porritt, Chair of the London 2012 Sustainability Ambassadors Group, continued the sentiment of Shaun McCarthy and claimed that London was 'the most sustainable Olympic and Paralympics of the modern era' (London 2012, 2012, p. 6). The report detailed similar successes relating to waste management, and also claimed savings of approximately 400,000 tonnes of carbon dioxide when compared to the estimates made in the initial reference footprint (London 2012, 2012).

However, despite London's bid being underpinned by the ambition to become the first sustainable Games, compared with concerns such as security and transport relatively little media attention was paid to the 'green' achievements of the Games post-event. Generally speaking, the media response to the sustainability of the Games during and post-event was predominantly positive (Gray, 2012; Degun, 2012; Shankleman, 2012), and was generally uncritical of the official line taken by the organisers of the Games and that of the Commission. In fact, according to McCarthy (2012) one of the criticisms relating to the sustainability of the Games was the fact that the success of the Games in terms of sustainability was scarcely publicised.

However, one of the key criticisms aimed at the sustainability of the Games was the lack of information made available to the public during the event which detailed the sustainability of the venue and infrastructure (Commission for a Sustainable London 2012, 2012). In this regard, the Commission argued that the lack of communication with the visiting public regarding the sustainability credentials of the Park was one of the key

opportunities missed by organisers. In addition, the report also highlighted the fact that there were no specific targets or commitments made by the organisers of the Games in terms of public perceptions of the sustainability of the event. This is despite one of the promises of the Games being to 'inspire a generation'. Conceivably public understandings of the sustainability agenda are key in order to try and uncover whether or not this has been the case. As such, future research should critically examine the level of community consultation and education offered by host city organisers, and the impact of this on the shaping of the environmental agenda and outcomes of the Games.

Depending on where on the 'shallow'/'deep' ecology continuum one is situated and the definition of sustainability accepted, the environmental sustainability of the London Games is highly contestable and requires critical thought. In light of the discussions that have taken place in terms of the sustainability of the London Games, I would argue that London has demonstrated a greater concern towards the environment than previous Games. However, what is missing is the inclusion of local people in the sustainability agenda of the Games, and this has been demonstrated through the findings in the thesis. I would argue that in this sense a bottom-up approach to sustainability in conjunction with the top-down approach adopted by Olympic organisers would have a further reaching and longer lasting effect and would help to create a more meaningfully 'sustainable' Games.

References

American University (1997). 'TED Case Studies: Lillehammer Olympic Games'.
Available at: http://www1.american.edu/TED/lille.htm. [Accessed 25 October 2012].

Amis, J. (2005). 'Interviewing for Case Study Research'. In: D.L. Andrews, D.S. Mason and M.L. Silk (eds) *Qualitative Methods in Sports Studies*, pp. 104-138. Bloomsbury Publishing PLC: London.

Anderson, E. (2010). *Sport, Theory, and Social Problems: A Critical Introduction.* Routledge: New York.

Andrews, D.L. and A.D. Grainger (2007). 'Sport and Globalization'. In: G. Ritzer (eds) *The Blackwell Companion to Globalization*, pp. 478-497. Blackwell Publishing Ltd: Oxford.

Athens 2004 Olympic Bid Committee (1996). *Athens 2004*. Athens 2004 Olympic Bid Committee: Athens.

Atkinson, M. and K. Young (2003). 'Terror Games: Media Treatment of Security Issues at the 2002 Winter Olympic Games', *Olympika: The International Journal of Olympic Studies*, **XI**, pp. 53-78.

Bäckstrand, K. (2004). 'Scientisation vs. Civic Expertise in Environmental Governance: Eco-feminist, Eco-modern and Post-modern Responses', *Environmental Politics*, **13**(4), pp. 695-714.

Balderstone, S. (2001). 'Agenda 21 and IOC Requirements'. Available at: http://multimedia.olympic.org/pdf/fr_report_638.pdf. [Accessed 3 May 2011].

Barking-Dagenham.gov.uk. (2011). 'Olympics – Host Borough Membership'. Available at: http://moderngov.barking-

dagenham.gov.uk/documents/s29045/Olympics%20Host%20Borough%20Membe
rship%20Report.pdf. [Accessed 19 November 2012].

Barney, R.K., S.R. Wenn and S.G. Martyn (2002). *Selling the Five Rings: The
International Olympic Committee and the Rise of Olympic Commercialism*. The
University of Utah Press: Salt Lake City.

BBC. (2010a). 'London Olympic Games Site Wind Turbine Scrapped'. Available at:
http://www.bbc.co.uk/news/10234665. [Accessed 1 March 2013].

BBC. (2010b). 'London 2012 Olympic Games Budget cut by £27m'. Available at:
http://news.bbc.co.uk/1/hi/england/london/8701126.stm. [Accessed 10 February
2013].

BBC. (2011a). 'West Ham Chosen as Preferred Olympic Stadium Tenant'. Available at:
http://www.bbc.co.uk/news/uk-england-london-12424549. [Accessed 3 March
2013].

BBC. (2011b). 'West Ham Legal Action over 2012 Stadium Claims'. Available at:
http://www.bbc.co.uk/news/uk-england-london-14005191. [Accessed 1 March
2013].

BBC. (2012). 'London 2012: Games 'No Significant Impact on Air Quality'. Available
at: http://www.bbc.co.uk/news/uk-england-london-17266009. [Accessed 13
February 2013].

Beard, M. (2010). 'Barking and Dagenham made Sixth "Olympic Borough"'. Available
at: http://beard.standard.co.uk/2010/04/barking-and-dagenham-made-sixth-
olympic-borough.html. [Accessed 20 November 2012].

Beder, S. (1993). 'Sydney's Toxic Green Olympics', *Current Affairs Bulletin*, **70**(6),
pp.12-18.

Beder, S. (1996). 'Sydney's Olympic Landscape: A Toxic Cover-Up', *Search*, **27**(7), pp.
209-211.

Beder, S. (1999). 'Greenwashing an Olympic-Sized Toxic Dump', *PR Watch*, **6**(2), pp. 1-6.

Bell, M.M. (1998). *An Invitation to Environmental Sociology*. Sage Publications Ltd: Thousand Oaks, CA.

Bennett, E. (2006). 'Olympic Sustainability Targets are too Vague'. Available at: http://www.building.co.uk/news/olympic-sustainability-targets-are-too-vague/3072056.article. [Accessed 2 December 2012].

Berlemann, B. and M. Rhodes (2005). 'Sustainable IOC – Sustainable Society', Electronic Ph.D. Thesis, School of Engineering, Blekinge Institute, Sweden. http://www.bth.se/fou/cuppsats.nsf/all/3f26ba91d8896b45c12570ff0052dd68/$file /Sustainable_Olympics.pdf. [Accessed 20 October 2012].

Beyer, S. (2006). 'The Green Olympic Movement: Beijing 2008', *Chinese Journal of International Law*, **5**(2), pp. 423-440.

Billings, A.C. (2008). *Olympic Media: Inside the Biggest Show on Television*. Taylor and Francis Ltd: London.

Billings, A.C. (2009). 'Conveying the Olympic Message: NBC Producer and Sportscaster Interviews Regarding the Role of Identity', *Journal of Sports Media*, **4**(1), pp.1-23.

Billings, A.C. and S.T. Eastman (2002). 'Selective Representation of Gender, Ethnicity, and Nationality in American Television: Coverage of the 2000 Summer Olympics', *International Review for the Sociology of Sport*, **37**(3/4), pp. 351-370.

Billings, A.C. and S.T. Eastman (2003). 'Framing Identities: Gender, Ethnic, and National Parity in Network Announcing of the 2002 Winter Olympics', *Journal of Communication*, **53**(4), pp. 569-586.

Bimonte, S. (2002). 'Information Access, Income Distribution, and the Environmental Kuznets Curve', *Ecological Economics*, **41**(1), pp. 145-156.

BioRegional and WWF. (2012). 'Towards a One Planet Olympics Revisited'. Available at: http://www.bioregional.com/files/publications/towards-a-one-planet-olympics-revisited.pdf. [Accessed 9 September 2012].

Black Neighbourhood Renewal and Regeneration Network. (2010). 'Policy Briefing: The 2012 Olympic and Paralympic Games'. Available at: http://www.bdcvs.org.uk/documents/Briefing%20Paper%20Olympics%20Final.pdf. [Accessed 20 June 2012].

Blake, A. (2005). 'The Economic Impact of the London 2012 Olympics'. Available at: http://epress.lib.uts.edu.au/research/bitstream/handle/10453/19780/Impact%202005_5.pdf?sequence=1. [Accessed 10 February 2013].

Bob, U. and K. Swart (2009). 'Resident Perceptions of the 2010 FIFA Soccer World Cup Stadia Development in Cape Town', *Urban Forum*, **20**(1), pp. 47-59.

Bond, D. (2007). 'London Olympic flame to be Carbon Neutral'. Available at: http://www.telegraph.co.uk/news/uknews/3311731/London-Olympic-flame-to-be-carbon-neutral.html. [Accessed 10 December 2012].

Bond, D. (2013). 'West Ham get Olympic Stadium after Government ups Funding'. Available at: http://www.bbc.co.uk/sport/0/football/21889864. [Accessed 22 March 2013].

Bookchin, M. (1991). *The Ecology of Freedom: The Emergence and Dissolution of Hierarchy*. Black Rose Books: Montreal, Quebec.

Booth, R. (2008). 'For Sale: Flatpack Stadium Suitable for Olympic Games. One Careful Owner…'. Available at:

http://www.guardian.co.uk/uk/2008/may/27/olympics2012.london. [Accessed 27 October 2012].

Borresen, J. (2008). 'Environmental Considerations for Athletic Performance at the 2008 Beijing Olympic Games', *International SportMed Journal*, **9**(2), pp.44-55.

Boshier, R. (1998). 'Sage on Stage is not Sustainable: Participatory Pedagogy for a Change', *Natural Resources and Environmental Issues*, **7**(1), pp. 14-27.

Bowdin, G., J. Allen, W. O'Toole, R. Harris and I. McDonnell (2010). *Events Management*. Routledge: London.

Boyatzis, R. (1998). *Transforming Qualitative Information: Thematic Analysis and Code Development*. Sage Publications Ltd: Thousand Oaks, CA.

Boykoff, J. (2011). 'The Anti-Olympics', *New Left Review*, **67**, pp. 41-59.

Boykoff, J. (2012). 'Has London 2012 been Greenwashed?' Available at: http://www.guardian.co.uk/commentisfree/2012/apr/22/has-london-2012-been-greenwashed. [Accessed 20 June 2012].

Boyle, P. and K.D. Haggerty (2009). 'Spectacular Security: Mega-Events and the Security Complex', *International Political Sociology*, **3**, pp. 257-274.

Braun, V. and V. Clarke (2006). 'Using Thematic Analysis in Psychology', *Qualitative Research in Psychology*, **3**, pp. 77-101.

Briassoulis, H. (2010). '"Sorry Golfers, This Is Not Your Spot!": Exploring Public Opposition to Golf Development', *Journal of Sport & Social Issues*, **34**(3), pp. 288-311.

British Sociological Association. (2002). 'Statement of Ethical Practice for the British Sociological Association'. Available at:

http://www.britsoc.co.uk/media/27107/StatementofEthicalPractice.pdf. [Accessed 20 October 2012].

Brohm, J. M. (1978). *Sport: A Prison of Measured Time*. Ink Links Ltd: London.

Broudehoux, A-M. (2009). 'Seeds of Dissent: The Politics of Resistance to Beijing's Olympic Redevelopment'. In: M. Butcher and S. Velayutham (eds) *Dissent and Cultural Resistance in Asia's Cities*, pp. 14-32. Routledge: London.

Brownell, S. (2009). 'Beijing's Olympic Education Programme: Re-Thinking Suzhi Education, Re-Imagining an International China', *The China Quarterly*, **197**, pp. 44-63.

Brownill, S. (2010). 'Literature Review: Olympic Venues - Regeneration Legacy'. Available at:

http://www.brookes.ac.uk/schools/be/staff/resources/Olympic%20Venues%20Rep ort.pdf. [Accessed 16 October 2012].

Brunet, F. (2005). 'The Economic Impact of the Barcelona Olympic Games, 1986-2004: Barcelona: The Legacy of the Games, 1992-2002'. Available at:

http://olympicstudies.uab.es/pdf/wp084_eng.pdf. [Accessed 25 October 2012].

Bryman, A. (2004). *Social Research Methods*. Oxford University Press: Oxford.

Bryman, A. and E. Bell (2007). *Business Research Methods*. Oxford University Press: Oxford.

Buch, T. (2006). 'Resident Perceptions of Event Impacts: Taupo & Ironman New Zealand'. Available at:

http://aut.researchgateway.ac.nz/bitstream/handle/10292/190/BuchT.pdf?sequence =2. [Accessed 3 December 2012].

Buchanan, D.A. and A. Bryman (2009). 'The Organizational Research Context: Properties and Implications'. In: D.A. Buchanan and A. Bryman (eds) *The Sage*

Handbook of Organizational Research Methods, pp. 1-18. Sage Publications Ltd: London.

Bull, C.J. and J. Lovell (2007). 'The Impact of Hosting Major Sporting Events on Local Residents: An Analysis of the Views and Perceptions of Canterbury Residents in Relation to the Tour de France 2007', *Journal of Sport & Tourism*, **12**(3-4), pp. 229-248.

Buntin, J. (2000). *Security Preparation for the 1996 Centennial Olympic Games (A)*. John F. Kennedy School of Government, Harvard University: Cambridge, MA.

Burbank, M.J., G. Andranovich and C.H. Heying (2001). *Olympic Dreams: The Impact of Mega-events on Local Politics*. Lynne Rienner Publishers Inc: Boulder, CO.

Burbank, M.J., G. Andranovich and C.H. Heying (2012). 'Mega Events and Local Politics'. In: W. Maennig and A. Zimbalist (eds) *International Handbook on the Economics of Mega Sporting Events*, pp. 162-176. Edward Elgar Publishing Limited: Cheltenham.

Burkhardt, A., K. Toohey and A.J. Veal (1995). *The Olympic Games: A Bibliography*. Centre for Leisure and Tourism Studies, University of Technology: Sydney.

Buttel, F.H. (1987). 'New Directions in Environmental Sociology', *Annual Review of Sociology*, **13**, pp. 465-488.

Buttel, F.H. (2000). 'Ecological Modernization as Social Theory', *Geoforum*, **31**, pp. 57-65.

Buttel, F.H. (2003). 'Environmental Sociology and the Explanation of Environmental Reform', *Organization Environment*, **16**(3), pp. 306-344.

Buttel, F.H. and A. Gijswijt (2004). 'Emerging Trends in Environmental Sociology'. In: G.J. Blau (eds) *The Blackwell Companion to Sociology*, pp. 43-57. John Wiley and Sons Ltd: Oxford.

Cairns, J. (2003). 'Integrating Top-Down/Bottom-Up Sustainability Strategies: An Ethical Challenge'. Available at: http://www.int-res.com/articles/esep/2003/E26.pdf. [Accessed 13 February 2013].

Cantelon, H., and M. Letters (2000) 'The Making of the IOC Environmental Policy as the Third Dimension of the Olympic Movement'. *International Review for the Sociology of Sport*, **35**(3), pp.294-308.

Carrington, B. and I. McDonald (2009). 'Marxism, Cultural Studies and Sport: Mapping the Field'. In: B. Carrington and I. McDonald (eds) (2009) *Marxism, Cultural Studies and Sport*, pp. 1-12. Routledge: New York.

Carson, R. (1962). *Silent Spring*. Houghton Mifflin: Boston.

Cashman, R. (2002). 'Impact of the Games on Olympic Host Cities'. Available at: http://olympicstudies.uab.es/lec/pdf/cashman.pdf. [Accessed 29 October 2011].

Cashman, R. (2006). *The Bitter-Sweet Awakening: The Legacy of the Sydney 2000 Olympic Games*. Walla Walla Press: Sydney.

Cashman, R. (2009). 'Regenerating Sydney's West: Framing and Adapting an Olympic Vision'. In: I. MacRury and G. Poynter (eds) *Olympic Cities: 2012 and the Remaking of London*, pp. 133-144. Ashgate Press: London.

Cashman, R. and A. Hughes (eds) (1998). *The Green Games: A Golden Opportunity*. Centre for Olympic Studies, University of New South Wales Press: Sydney.

Cashman, R. and A.Hughes (1999). *Mosman Council: Forum on the Impacts of the Olympics*. Centre for Olympic Studies, University of New South Wales Press: Sydney.

Cashman, R. and J. Horne (F/C). 'Managing Legacy'. In: S. Frawley and D. Adair (eds) *Managing the Olympics*. Palgrave Macmillan: Basingstoke.

Catton, W.R. and R.E. Dunlap (1978). 'Environmental Sociology: A New Paradigm', *The American Sociologist*, **13**, pp. 41-49.

Centre for Housing Rights and Evictions. (2007). 'Fair Play for Housing Rights: Mega-Events, Olympic Games and Housing Rights: Opportunities for the Olympic Movement and Others'. Available at: http://www.ruig-gian.org/ressources/Report%20Fair%20Play%20FINAL%20FINAL%20070531.pdf. [Accessed 12 February 2013].

Chalip, L. and A. Leyns (2002). 'Local Business Leveraging of a Sport Event: Managing an Event for Economic Benefit', *Journal of Sport Management*, **16**(2), pp. 132-158.

Chalkley, B.S. and S.J. Essex (1999). 'Sydney 2000: The 'Green Games'?', *Geography*, **84**(4), pp. 299-307.

Chamberlain, D. (2011). 'Barking Climbs on Board Olympic Bandwagon'. Available at: http://snipe.at/scoop/barking-climbs-on-board-olympic-bandwagon. [Accessed 12 November 2012].

Chappelet, J-L. (2008). 'Olympic Environmental Concerns as a Legacy of the Winter Games', *International Journal of the History of Sport*, **25**(14), pp.1884-1902.

Charters, A. (1983). 'Terrorism and the 1984 Olympics', *The Journal of Conflict Studies*, **3**(4), pp. 37-47.

Chatziefstathiou, D. and I.P. Henry (2012). *Discourses of Olympism: From the Sorbonne 1894 to London 2012*. Palgrave Macmillan: Basingstoke.

Chen, Y. and M. Spaans (2009). 'Mega-Event Strategy as a Tool of Urban Transformation: Sydney's Experience'. Available at: http://newurbanquestion.ifou.org/proceedings/2%20The%20New%20Urban%20Economy/A006_Chen_Yawei_Spaans_Marjolein_Mega-event%20strategy%20as%20a%20tool%20of%20urban%20transformation.pdf. [Accessed 10 February 2013].

Chernushenko, D. (1994). *Greening Our Games: Running Sports Events and Facilities that Won't Cost the Earth*. Centurion: Ottawa.

Chernushenko, D., A. van der Kamp and D. Stubbs (2001). *Sustainable Sport Management: Running an Environmentally, Socially and Economically Responsible Organization*. United Nations Environment Programme: Nairobi, Kenya.

Clark, N. (2011). 'Decision Details: 2012 Olympics - Host Borough Membership'. Available at: http://moderngov.barking-dagenham.gov.uk/ieDecisionDetails.aspx?AIId=35459. [Accessed 21 October 2012].

Coaffee, J. and L. Johnston (2007). 'Accommodating the Spectacle' In: J.R. Gold and M.M. Gold (eds) *Olympic Cities: Urban Planning, City Agendas and the World's Games, 1896 to the Present,* pp.138-149, Routledge: London.

Coakley, J.J. (2009). *Sports in Society: Issues and Controversies*. McGraw-Hill: London.

Coffey, A., T. Hall, S. Power and A. Robinson (2011). 'Editors' Foreword', *Sociology*, **45**(5), pp. 731-732.

Cohen, L., L. Manion and K. Morrison (2007). *Research Methods Education*. Routledge: London.

Collin, R. M. and R. W. Collin. (2009). *Encyclopedia of Sustainability: Volume 1*. ABC-CLIO: California.

Collins, A., C. Jones and M. Munday (2009). 'Assessing the Environmental Impacts of Mega Sporting Events: Two Options?', *Tourism Management*, **30**(6), pp. 828-837.

Comitato Nolimpiadi! 2006. (2006a). 'Intro'. Available at: http://nolimpiadi.8m.com/maineng.html. [Accessed 10 October 2012].

Comitato Nolimpiadi! 2006. (2006b). 'The Nagano Olympics and the Destruction of

Nature'. Available at: http://nolimpiadi.8m.com/enolim01.html. [Accessed 12

February 2012].

Commission for a Sustainable London 2012. (2009). 'Swimming Upstream: Sustainable

in Challenging Times? Commission for a Sustainable London 2012 Annual

Review 2008'. Available at: http://www.cslondon.org/wp-

content/uploads/downloads/2009/04/2008_Annual_Review.pdf. [Accessed 18

January 2011].

Commission for a Sustainable London 2012. (2012). 'London 2012 - From Vision to

Reality: Commission for a Sustainable London 2012 Post-Games Report'.

Available at: http://www.cslondon.org/wp-

content/uploads/downloads/2012/11/CSL_Post%20Games%20Report_Final.pdf.

[Accessed 12 February 2013].

CompeteFor. (2012). 'About'. Available at:

https://www.competefor.com/business/visionAndObjectives.html. [Accessed 15

October 2012].

Cooke, I. (2009). 'Anti-Olympics Protests'. Available at:

http://www.bl.uk/sportandsociety/exploresocsci/politics/articles/protest.html.

[Accessed 10 February 2013].

Corporate Research Unit. (2011). 'Indices of Deprivation 2010'. Available at:

www.towerhamlets.gov.uk/idoc.ashx?docid=7d09b443-cc9a-4913-bb2b-

b0a88c654f49&version=-1. [Accessed 20 November 2012].

Cottrell, M.P. and T. Nelson (2011). 'Not just the Games? Power, Protest and Politics at

the Olympics', *European Journal of International Relations*, **17**(4), pp. 729-753.

Cottrell, R. (2003). 'The Legacy of Munich 1972: Terrorism, Security and the Olympic

Games'. In: M. de Moragas, C. Kennett, and N. Puig (eds)*The Legacy of the*

Olympics Games 1984-2000, pp. 309-313. International Olympic Committee: Lausanne.

Coyle, S. and K. Morrow (2004). *The Philosophical Foundations of Environmental Law: Property, Rights and Nature*. Hart Publishing: Oxford.

Curtis, H. (2008). 'Ninth International Symposium for Olympic Research', *Journal of Sport & Tourism*, **13**(4), pp. 315-320.

DaCosta, L. (1997), 'The Olympic Movement Today and Environmental Protection'. In: International Olympic Committee and the International Olympic Academy (eds) *International Olympic Academy: Thirty-Seventh Session 7th July - 22nd July 1997*, pp. 100-106. International Olympic Committee: Lausanne.

Dale, A. (2005). 'Social Capital and Sustainable Development: Is There a Relationship?'. In: A. Dale and J. Onyx (eds) *A Dynamic Balance: Social Capital and Sustainable Community Development*, pp. 13-30. UBC Press: Vancouver.

Dale, R. (2012). 'Council Workers Deserve more Credit for Successful Olympics'. Available at: http://www.lgiu.org.uk/2012/08/16/councils-deserve-more-credit-for-successful-olympics/. [Accessed 24 November 2012].

Dansero, E., B. Corpo, A. Mela and I. Ropolo (2012). 'Olympic Games, Conflicts and Social Movements: The Case of Torino 2006'. In: G. Hayes and J. Karamichas (eds) *Olympic Games, Mega-Events and Civil Societies: Globalization, Environment, Resistance*, pp. 195-218. Palgrave Macmillan: Basingstoke.

Dart, J. (2006). 'Resource Guide to the Olympic Games'. Available at: http://www.heacademy.ac.uk/assets/hlst/documents/resource_guides/olympics.pdf . [Accessed 26 January 2012].

Das, R.C., J.K. Baral, N.C. Sahu and M.K. Misra (1998). *The Environmental Divide: The Dilemma of Developing Countries*. Ashish: New Dehli.

Davies, L.E. (2012). 'Beyond the Games: Regeneration Legacies and London 2012', *Leisure Studies*, **31**(3), pp. 309-337.

Davis, J.A. (2012). *The Olympic Games Effect: How Sports Marketing Builds Strong Brands*. John Wiley & Sons: Singapore.

Davis, M. (2004). ''Nature Loses' at Athens Games'. Available at: http://news.bbc.co.uk/1/hi/world/europe/3607910.stm. [Accessed 21 October 2012].

Davis, T.H. (2009). 'A Mixed Record so far on Environmental Issues'. Available at: http://www.ft.com/cms/s/0/31503024-77eb-11de-9713-00144feabdc0.html#axzz1yqPUTTTR. [Accessed 15 June 2012].

Daymon, C. and I. Holloway (2002). *Qualitative Research Methods in Public Relations and Marketing Communications*. Routledge: London.

Deccio, C. and S. Baloglu (2002). 'Non-Host Community Resident Reactions to the 2002 Winter Olympics: The Spillover Impacts', *Journal of Travel Research*, **41**(1), pp. 46-56.

Decker, S.H., J.R. Greene, V. Webb, J. Rojeck, J. McDevitt, S. Varano, T. Bynum and P.K. Manning (2005). 'Safety and Security at Special Events: The Case of the Salt Lake City Olympic Games', *Security Journal*, **18**(4), pp. 65-74.

Degen, M. (2004). 'Barcelona's Games: The Olympics, Urban Design, and Global Tourism'. In: M. Sheller and J. Urry (eds) *Tourism Mobilities: Places to Stay, Places in Play*, pp. 131-142. Routledge: London.

Degun, T. (2012). 'The Final Chapter on a Sustainable London 2012'. Available at: http://www.insidethegames.biz/sustainability/1012222-the-final-chapter-on-a-sustainable-london-2012. [Accessed 1 March 2013].

Delaney, T. and T. Madigan (2009). *The Sociology of Sports: An Introduction*. McFarland & Co Inc: Jefferson, NC.

Denscombe, M. (2003). *The Good Research Guide: For Small-scale Social Research Projects*. Open University Press: Milton Keynes.

Department for Culture, Media and Sport. (2007). *Our Promise for 2012: How the UK will Benefit from the Olympic Games and Paralympic Games*. Department for Culture, Media and Sport: London.

Department for Culture, Media and Sport. (2008). 'Before, During and After: Making the Most of the London 2012 Games'. Available at: http://webarchive.nationalarchives.gov.uk/+/http:/www.culture.gov.uk/images/publications/2012LegacyActionPlan.pdf. [Accessed 10 February 2012].

Department for Culture, Media and Sport. (2012). 'Olympic and Paralympic Host Borough Survey 2012'. Available at: http://www.culture.gov.uk/images/research/Olympic_Host_Borough_Survey_2012_Report.pdf. [Accessed 1 December 2012].

Dernbach, J. C. (2002). 'Sustainable Development: Now More Than Ever'. In: J.C. Dernbach (eds) *Stumbling Toward Sustainability*, pp. 45-62. Environmental Law Institute: Washington, DC.

Dickinson, J. and R. Shipway (2007). 'Resource Guide: The Impact of Events'. Available at: http://www.heacademy.ac.uk/assets/hlst/documents/resource_guides/the_impact_of_events.pdf. [Accessed 10 February 2013].

Douglas, J. (1976). *Investigative Social Research: Individual and Team Field Research*. Sage Publications Ltd: Thousand Oaks, CA.

Drengson, A. and Y. Inoue (1995). 'Introduction'. In: A. Drengson and Y. Inoue (eds) *The Deep Ecology Movement: An Introductory Anthology*, pp. xvii-xxviii. North Atlantic Books: Berkeley, CA.

Dresner, S. (2008). *Principles of Sustainability*. Routledge: London.

Dunlap, R.E. (2002). 'Environmental Sociology'. In: B. Bechtel and A. Churchman (eds) *Handbook of Environmental Psychology*, pp. 160-171. John Wiley and Sons Ltd: New York.

Dunlap, R.E. and B.K. Marshall (2007). 'Environmental Sociology'. In: C.D. Bryant and D.L. Peck (eds) *21st Century Sociology: A Reference Handbook*, pp. 329-340. Sage Publications Ltd: Thousand Oaks, CA.

Dunlap, R.E., W. Michelson and G. Stalker (2002). 'Environmental Sociology: An Introduction'. In: R.E. Dunlap and W. Michelson (eds) *Handbook of Environmental Sociology*, pp. 1-32. Greenwood: Westport, CT.

Dunlap, R.E., and W.R. Catton (1979). 'Environmental Sociology', *Annual Review of Sociology*, **5**, pp. 243-273.

Dunn, K.M. (1999). 'Auburn under the Olympics: Lessons from Globalisation'. In: R. Cashman and A. Hughes (eds) *Auburn Council Olympic Forum*, pp. 20-29. Centre for Olympic Studies, The University of New South Wales: Sydney.

Earth Summit 2012. (2012). 'Stockholm Declaration'. Available at: http://www.earthsummit2012.org/about-us/historical-documents/91-stockholm-declaration. [Accessed 5 September 2012].

Eastman, S.T. and AC. Billings (1999). 'Gender Parity in the Olympics: Hyping Women Athletes, Favoring Men Athletes', *Journal of Sport and Social Issues*, **23**(2), pp. 140-170.

East Thames Group. (2010). 'Home Games'. Available at: http://www.east-thames.co.uk/assets_cm/files/pdf/post_olympic_booklet.pdf. [Accessed 30 October 2012].

Edelman, R. (2006). 'Moscow 1980: Stalinism or Good, Clean Fun?' In: A. Tomlinson and C. Young (eds) *National Identity And Global Sports Events: Culture, Politics, And Spectacle in the Olympics And the Football World Cup*, pp. 149-162. State University of New York Press: Albany, NY.

Edwards, A. and J. Skinner. (2009). *Qualitative Research in Sport Management*. Elsevier Science & Technology: Oxford.

Elder, C., A. Pratt and C. Ellis (2006). 'Running Race: Reconciliation, Nationalism and the Sydney 2000 Olympic Games', *International Review for the Sociology of Sport*, **41**(2), pp. 181-200.

Espy, R. (1981). *The Politics of the Olympic Games: With an Epilogue, 1976-1980*. University of California Press: Berkeley.

Essex, S. (2011). 'The Winter Olympics: Driving Urban Change, 1924-2014'. In: J.R. Gold and M.M. Gold (eds) *Olympic Cities: City Agendas, Planning and the World's Games, 1896-2016*, pp. 56-79. Routledge: London.

Essex, S. and B. Chalkley. (1998). 'Olympic Games: Catalyst of Urban Change', *Leisure Studies*, **17**(3), pp. 187-206.

Essex, S. and B. Chalkley (2004). 'Mega-Sporting Events in Urban and Regional Policy: A History of the Winter Olympics', *Planning Perspectives*, **19**(2), pp.201-232.

Evans, B. and K. Theobald (2003). 'Local Agenda 21 and the Shift 'Soft Governance''. In: S. Buckingham and K. Theobald (eds) *Local Environmental Sustainability*, pp. 74-92. Woodhead: Cambridge.

Evans, G. (2011). 'London 2012'. In: J.R. Gold and M.M. Gold (eds) *Olympic Cities: City Agendas, Planning and the World's Games, 1896-2016*, pp.359-389. Routledge: London.

Faulkner, B., L. Chalip, G. Brown, L. Jago, R. March and A. Woodside (2003). 'Monitoring the Tourism Impacts of the Sydney 2000 Olympics', *Event Management*, **6**(4), pp. 231-246.

Fawcett, M. (2010). 'Swifter, Higher, Stronger. Greener?'. Available at: http://static.corporateknights.ca/CK-Olympics.pdf. [Accessed 22 October 2012].

Flick, U. (2009). *An Introduction to Qualitative Research*. Sage Publications Ltd: London.

Földesi, G. S. (1992). 'Introduction to Olympism in Sport Sociology', *International Review for the Sociology of Sport,* **27**(2), pp. 103-106.

Fredline, E. (2004). 'Host Community Reactions to Motorsports Events: The Perception of Impact on Quality of Life'. In: B. Ritchie and D. Adair (eds) *Sport tourism: Interrelationships, Impacts and Issues*, pp. 155-173. Channel View Publications: Clevedon.

Fredline, E. (2005). 'Host and Guest Relations and Sport Tourism', *Sport in Society*, **8**(2), pp. 263-279.

Fredline, E. and B. Faulkner (2000). 'Host Community Reactions - A Cluster Analysis', *Annals of Tourism Research*, **27**(3), pp. 763-784.

Frey, M., F. Iraldo and M. Melis (2008). 'The Impact of Wide-Scale Sport Events on Local Development: An Assessment of the XXth Torino Olympics through the Sustainability Report'. Available at: http://portale.unibocconi.it/wps/wcm/connect/resources/file/eb04fc0efc01b1a/WP _IEFE_10_2008.pdf. [Accessed May 3 2011].

Friedman, M.S., K.E. Powel, L. Hutwagner, L.M. Graham and W.G. Teague (2001). 'Impact of Changes in Transportation and Commuting Behaviors during the 1996 Summer Olympic Games in Atlanta on Air Quality and Childhood Asthma', *The Journal of the American Medical Association*, **285**(7), pp. 897-905.

Furrer, P. (2002). 'Sustainable Olympic Games: A Dream or a Reality?'. Available at: http://www.omero.unito.it/web/Furrer%20(eng.).PDF. [Accessed 3 May 2011].

Fussey, P. and J. Coaffee (2011). 'Olympic Rings of Steel: Constructing Security for 2012 and Beyond'. In: K. Haggerty and C. Bennett (eds) *The Security Games*, pp. 68-101. Routledge: London.

Fussey, P., J. Coaffee, G. Armstrong and D. Hobbs (2011). *Securing and Sustaining the Olympic City: Reconfiguring London for 2012 and Beyond*. Ashgate: Aldershot.

Fussey, P., J. Coaffee, G. Armstrong and D. Hobbs (2012). 'The Regeneration Games: Purity and Security in the Olympic City', *The British Journal of Sociology*, **63**(2), pp. 260-284.

Garcia-Ramon, M-D. and A. Albet (2000). 'Pre-Olympic and Post-Olympic Barcelona, A 'Model' for Urban Regeneration Today?', *Environment and Planning A*, 32(8), pp.1331-1334.

Gaskell, G. (2000). 'Individual and Group Interviewing'. In: M. Bauer and G. Gaskell (eds) *Qualitative Researching with Text, Image and Sound: A Practical Handbook*, pp. 38-56. Sage Publications Ltd: London.

Gibbs, D. (2000), 'Ecological Modernisation, Regional Economic Development and Regional Development Agencies', *Geoforum*, **31**, pp. 9-19.

Gibbs, D. (2003). 'Reconciling Economic Development and the Environment', *Local Environment*, **8**(1), pp. 3-8.

Gibson, O. (2012a). 'Possibility of Indian Boycott of Olympic Opening Ceremony Grows'. Available at: http://www.guardian.co.uk/sport/2012/mar/01/india-boycott-olympic-opening-ceremony. [Accessed 20 November 2012].

Gibson, O. (2012b). 'West Ham given Three Months to Seal Olympic Stadium Bid'. Available at: http://www.guardian.co.uk/sport/2012/dec/05/west-ham-highest-ranked-bidder-olympic-stadium. [Accessed 1 March 2013].

Giddings, B., B. Hopwood and G. O'Brien (2002). 'Environment, Economy and Society: Fitting them Together into Sustainable Development', *Sustainable Development*, **10**, pp. 187-196.

Girardet, H. (1999). *Creating Sustainable Cities*. Green: Dartington.

Girginov, V. (2010a). 'Introduction'. In: V. Girginov (eds) *The Olympics: A Critical Reader*, pp. 1-6. Routledge: London.

Girginov, V. (2010b). 'Studying Olympism'. In: V. Girginov (eds) *The Olympics: A Critical Reader*, pp. 9-22. Routledge: London.

Girginov, V. (eds) (2010c). *The Olympics: A Critical Reader*. Routledge: London.

Girginov, V. and J. Parry (2005). *The Olympic Games Explained.* Routledge: London.

Girginov, V. and L. Hills (2008). 'A Sustainable Sports Legacy: Creating a Link between the London Olympics and Sports Participation', *International Journal of the History of Sport*, **25**(14), pp. 2091-116.

Giulianotti, R. (2005). *Sport: A Critical Sociology*. Polity Press: Cambridge.

Giulianotti, R. and F. Klauser (2010). 'Security Governance and Sport Mega-Events: Toward an Interdisciplinary Research Agenda', *Journal of Sport and Social Issues*, **34**(1), pp. 49-61.

Gold, J.R. and M.M. Gold (2008). 'Olympic Cities: Regeneration, City Rebranding and Changing Urban Agendas', *Geography Compass*, **2**(1), pp.300-318.

Gold, J. R. and M. M. Gold (2011). 'Introduction'. In: J.R. Gold and M.M. Gold (eds) *Olympic Cities: City Agendas, Planning, and the World's Games, 1896 to 2016*, pp. 1-16. Routledge: London.

Gold, M.M. (2011). 'Athens 2004'.In: J.R. Gold and M.M. Gold (eds) *Olympic Cities: City Agendas, Planning and the World's Games, 1896-2016*, pp. 315-339. Routledge: London.

Gratton, C. and I. Jones (2010). *Research Methods for Sport Studies*. Routledge: London.

Gray, L. (2012). 'London 2012 Olympics: How Green are the 'Most Sustainable Olympics Ever?''. Available at: http://www.telegraph.co.uk/earth/earthnews/9447915/London-2012-Olympics-How-green-are-the-most-sustainable-Olympics-ever.html. [Accessed 12 November 2012].

Greater London Authority (2010). 'Unemployment in London: July 2010'. Available at: http://www.london.gov.uk/sites/default/files/dmag/Update%2015-2010%20Unemployment%20in%20London.pdf. [Accessed 20 November 2012].

Greater London Authority. (2012). 'Strategic Regeneration Framework - East London'. Available at: http://www.london.gov.uk/publication/strategic-regeneration-framework-east-london. [Accessed 20 November 2012].

GreenBiz. (2006). 'Winter Olympics Get Green Seal of Approval'. Available at: http://www.greenbiz.com/news/2006/02/09/winter-olympics-get-green-seal-approval. [Accessed 2 November 2012].

Greenpeace. (2004). 'Athens 2004 Disqualified from Green Olympics'. Available at: http://www.greenpeace.org/international/en/news/features/athens-disqualified-from-green/. [Accessed 21 October 2012].

Greenpeace. (2008). 'China after the Olympics: Lessons from Beijing'. Available at:
http://www.greenpeace.org/china/en/news/green. [Accessed 20 October 2012].

Greenpeace. (2012). 'Introduction to StopGreenwash.org'. Available at:
http://stopgreenwash.org/introduction. [Accessed 3 December 2012].

Greenwashgold.org. (2012). 'Vote for the Greenwash Gold 2012!' Available at:
http://www.greenwashgold.org/. [Accessed 20 June 2012].

Greer, J. and K. Bruno (1996). *Greenwash: The Reality Behind Corporate
Environmentalism*. Bootstrap Press: Croton-on-Hudson.

Gruneau, R. (1984). 'Commercialism and the Modern Olympics'. In: A. Tomlinson and
G. Whannel (eds) *Five Ring Circus: Money, Power and Politics at the Olympic
Games*, pp. 1-15. Pluto Press: London.

Gruneau, R. and H. Cantelon (1988). 'Capitalism, Commercialism and the Olympics'
In: J.O. Seagrave and D. Chu (eds) *The Olympic Games in Transition*, pp. 345-
364. Human Kinetics: Champaign, IL.

Gursoy D., C. Jurowski and M. Uysal (2002). 'Resident Attitudes: A Structural
Modeling Approach', *Annals of Tourism Research*, **29**(1), pp. 79-105.

Gursoy, D. and K.W. Kendall (2006). 'Hosting Mega-Events: Modelling Locals'
Support', *Annals of Tourism Research*, **33**(3), pp. 603-623.

Guttmann, A. (2002). *The Olympics: A History of the Modern Games*. University of
Illinois Press: Baltimore.

Hackney.gov.uk. (2012). 'The Host Boroughs and the Strategic Regeneration
Framework'. Available at: http://www.hackney.gov.uk/srf.htm. [Accessed 15
February 2012].

Hajer, M.A. (1995). *The Politics of Environmental Discourse: Ecological
Modernization and the Policy Process*. Oxford University Press: Oxford.

Hannigan, J. A. (2006). *Environmental Sociology*. Routledge: London.

Hargreaves, J. (1992). 'Olympism and Nationalism: Some Preliminary Considerations', *International Review for the Sociology of Sport*, **27**(2), pp. 119-137.

Hargreaves, J. (1994). *Sporting Females: Critical Issues in the History and Sociology of Women's Sports*. Routledge: London.

Harrison, K. and K. Fahy (2005). 'Postmodern and Feminist Qualitative Research: Methodology, Methods, and Practice'. In: G. Tenenbaum and M.P. Driscoll (eds) *Methods of Research in Sport Sciences: Quantitative and Qualitative Approaches*, pp. 702-740. Meyer & Meyer: Aachen.

Harvey, D. (2008). 'The Right to the City', *New Left Review*, **53**, pp. 23-40.

Hayes, G. and J. Horne (2011). 'Sustainable Development, Shock and Awe? London 2012 and Civil Society', *Sociology*, **45**(5), pp. 749-764.

Hayes, G. and J. Karamichas (2012). 'Introduction: Sport Mega-Events. Sustainable Development and Civil Societies'. In: G. Hayes and J. Karamichas (eds) *Olympic Games, Mega-Events and Civil Societies: Globalization, Environment, Resistance*, pp. 1-29. Palgrave Macmillan: Basingstoke.

Heritage, J.C. (1984). *Garfinkel and Ethnomethodology*. Polity Press: Cambridge.

Higgs, C.T., K.H. Weiler and S.B. Martin (2003). 'Gender Bias in the 1996 Olympic Games: A Comparative Analysis', *Journal of Sport & Social Issues*, **27**(1), pp. 52-64.

Higham, G. and T. Hinch (2009). *Sport and Tourism: Globalization, Mobility and Identity*. Elsevier Ltd: Oxford.

Hill, C.R. (1992). *Olympic Politics: Athens to Atlanta, 1896-1996*. Manchester University Press: Manchester.

Hiller, H.H. (1998). 'Assessing the Impact of Mega-Events: A Linkage Model', *Current Issues in Tourism*, **1**(1), pp. 47-57

Hiller, H.H. (2012). *Host Cities and the Olympics: An Interactionist Approach*. Routledge: London.

Hinds, A. and E. Vlachou. (2007). 'Fortress Olympics - Counting the Cost of Major Event Security', *Jane's Intelligence Review*, **19**(5), pp. 20-26.

Hirst, M. (2012). 'How will Games Lanes affect Olympics?' Available at: http://www.bbc.co.uk/news/uk-16277688. [Accessed 16 February 2012].

Holden, A. (2008). *Environment and Tourism*. Routledge: London.

Holden, M., J. MacKenzie and R. VanWynsberghe (2008). 'Vancouver's Promise of the World's First Sustainable Olympic Games', *Environment and Planning C: Government and Policy,* **26**(5), pp.882-905.

Holloway, I. and S. Wheeler (2009). *Qualitative Research in Nursing and Healthcare*. John Wiley and Sons Ltd: Chichester.

Horne, J. (2007). 'The Four 'Knowns' of Sports Mega-Events', *Leisure Studies*, **26**(1), pp. 81-96.

Horne, J. (2010). 'Material and Representational Legacies of Sports Mega-Events: The Case of the UEFA EURO™ Football Championships from 1996 to 2008', *Soccer & Society*, **11**(6), pp. 854-866.

Horne, J. and G. Whannel (2012). *Understanding the Olympics*. Routledge: London.

Horne, J. and W. Manzenreiter (2006) 'An Introduction to the Sociology of Sports Mega-Events', *The Sociological Review*, **54**, pp. 1–24.

Horton, P. and D. H. Zakus (2010). 'How Green Will My (Lea) Valley Be? Olympic Aspirations: Rhetoric or Reality', *The International Journal of the History of Sport,* **27**(16-18), pp. 2677–2709.

Host Boroughs Unit. (2010). 'Written Evidence from the Host Boroughs Unit (OLL 27)'. Available at: http://www.publications.parliament.uk/pa/cm200910/cmselect/cmcumeds/memo/olympics/ucm2702.htm. [Accessed 20 November 2012].

Hotchkiss, J.L., R.E. Moore and S.M Zobay (2003). 'Impact of the 1996 Olympic Games on Employment and Wages in Georgia', *Southern Economic Journal*, **69**(3), pp. 691-704.

House of Commons Culture, Media and Sport Committee. (2010a). *Olympic Games and Paralympic Games 2012: Legacy Oral and Written Evidence*. TSO: Norwich.

House of Commons Culture, Media and Sport. (2010b). *Future for Local and Regional Media: Fourth Report of Session 2009-10, Volume 1*. TSO: Norwich.

Howell, R. (2012). 'Is Green the New Gold in Sustainable Olympics?'. Available at: http://www.forbes.com/sites/sap/2012/07/23/is-green-the-new-gold-in-sustainable-olympics/. [Accessed 10 February 2013].

Howitt, D. and D. Cramer (2007). *Introduction to Research Methods in Psychology*. Pearson Education: Harlow.

Huber, J. (1985) *Die Regenbogengesellschaft. Ökologie und Sozialpolitik*. Fisher Verlag: Frankfurt am Main.

Huber, J. (2001). 'Environmental Sociology in Search of Profile'. Available at: http://www.soziologie.uni-halle.de/huber/docs/environmentalsociology02.pdf. [Accessed 2 September 2012].

Hughson, J., D. Inglis and M.W. Free (2005). *The Uses of Sport: A Critical Study*. Routledge: London.

Humphreys, B.R. and A. Zimbalist (2008). 'The Financing and Economic Impact of the Olympic Games'. In: B.R. Humphreys and D.R. Howard (eds) *The Business of Sports: Volume 1,2 and 3*, pp. 101-124. Praeger Publishers: Westport, CT.

International Olympic Committee. (2005a). 'Manual on Sport and the Environment'.
Available at:
http://www.olympic.org/Documents/Commissions_PDFfiles/manuel_sport_enviro
nment_en.pdf. [Accessed 28 October 2012].

International Olympic Committee. (2005b). 'Report of the IOC Evaluation Commission
for the Games of the XXX Olympiad in 2012'. Available at:
http://www.olympic.org/Documents/Host_city_elections/2012_OG-
Report_of_the_Evaluation_Commission.pdf. [Accessed 16 November 2012].

International Olympic Committee. (2005c). 'Host City Contract: Games of the XXX
Olympiad in 2012'. Available at:
http://www.gamesmonitor.org.uk/files/Host%20City%20Contract.pdf. [Accessed
20 February 2013].

International Olympic Committee. (2010). 'Olympic Movement's Agenda 21: Sport for
Sustainable Development'. Available at:
http://multimedia.olympic.org/pdf/en_report_300.pdf. [Accessed 3 May 2011].

International Olympic Committee. (2011a). 'Olympic Charter - In Force as from 8 July
2011'. Available at: http://www.olympic.org/Documents/olympic_charter_en.pdf.
[Accessed 2 May 2012].

International Olympic Committee. (2011b). 'Factsheet: Vancouver Facts & Figures
Update February 2011'. Available at:
http://www.olympic.org/Documents/Games_Vancouver_2010/Factsheet_Vancou
ver_legacy_February_2011_eng.pdf. [Accessed 3 November 2012].

International Olympic Committee. (2012a). 'Factsheet: The Environment and
Sustainable Development Update – July 2012'. Available at:
http://www.olympic.org/Documents/Reference_documents_Factsheets/Environme
nt_and_substainable_developement.pdf. [Accessed 5 September 2012].

International Olympic Committee. (2012b). 'Sustainability Through Sport: Implementing the Olympic Movement's Agenda 21'. Available at: http://www.ourplanet.com/ioc/IOC_Chapter_4.pdf. [Accessed 27 October 2012].

International Olympic Committee. (2013). 'Olympic Games: Legacies and Impacts – Bibliography'. Available at: http://www.olympic.org/Assets/OSC%20Section/pdf/LRes_7E.pdf. [Accessed 10 February 2013].

Jarvie, G. and J. Maguire (1994). *Sport and Leisure in Social Thought*. Routledge: London.

Jennings, A. (1996). *The New Lords of the Rings: Olympic Corruption and How to Buy Gold Medals*. Simon & Schuster: New York.

Jha, R. and K.V.B. Murthy (2006). *Environmental Sustainability: A Consumption Approach*. Routledge: London.

Jin, L., J. J. Zhang, X. Ma and D. P. Connaughton (2011). 'Residents' Perceptions of Environmental Impacts of the 2008 Beijing Green Olympic Games', *European Sport Management Quarterly*, **11**(3), pp. 275-300.

Jones, S. G. (1992). *Sport, Politics and the Working Class: Organised Labour and Sport in Inter-war Britain*. Manchester University Press: Manchester.

Kaplanidou, K. and K. Karadakis (2010). 'Understanding the Legacies of a Host Olympic City: The Case of the 2010 Vancouver Olympic Games', *Sport Marketing Quarterly*, **19**, pp. 110-117.

Karamichas, J. (2005). 'Risk Versus National Pride: Conflicting Discourses over the Construction of a High Voltage Power Station in the Athens Metropolitan Area for Demands of the 2004 Olympics', *Human Ecology Review*, **12**(2), pp. 133-142.

Karamichas, J. (2012) 'Olympic Games as an Opportunity for the Ecological Modernization of the Host Nation: The Cases of Sydney 2000 and Athens 2004'. In: G. Hayes and J. Karamichas (eds) *Olympic Games, Mega-Events and Civil Societies: Globalization, Environment, Resistance*. pp. 151-171. Palgrave Macmillan: Basingstoke.

Kassens-Nor, E. (2012). *Planning Olympic Legacies: Transport Dreams and Urban Realities*. Routledge: London.

Katyal, S. (2009). *Critical Management Studies: Perspectives on Information Systems*. Global India Publications: New Delhi.

Kearins, K. and K. Pavlovich (2002). 'The Role of Stakeholders in Sydney's Green Games', *Corporate Social Responsibility and Environmental Management*, **9**(3), pp. 157-169.

Keeley, G. (2006). 'Olympic Bosses Hope to Learn from Barcelona's Mistakes; Chiefs to see Failing Legacy of 1992 Games'. Available at: http://www.thefreelibrary.com/Olympic+bosses+hope+to+learn+from+Barcelona's+mistakes%3B+Chiefs+to+see...-a0154466016. [Accessed 1 November 2012].

Kelso, P. (2011). 'London 2012 Olympics: West Ham Bid again as Olympic Stadium Deal Collapses'. Available at: http://www.telegraph.co.uk/sport/olympics/8819455/London-2012-Olympics-West-Ham-bid-again-as-Olympic-stadium-deal-collapses.html. [Accessed 3 March 2013].

Keogh, L. (2009). 'London 2012 Olympic Legacies: Conceptualising Legacy, the Role of Communities and Local Government and the Regeneration of East London'. Available at: http://www.communities.gov.uk/documents/regeneration/pdf/1345197.pdf. [Accessed 17 February 2012].

Klenke, K. (2008). *Qualitative Research in the Study of Leadership.* Emerald Group Publishing Limited: Kidlington.

Konstantaki, M. and E. Wickens (2010). 'Residents' Perceptions of Environmental and Security Issues at the 2012 London Olympic Games', *Journal of Sport & Tourism*, **15**(4), pp. 337-357.

Kotov, V. and E. Nikitina (2001). 'Mechanisms of Environmental Security in Russia: Out of Order?'. In: E. Petzold-Bradley, A. Carius and A. Vincze (eds) *Responding to Environmental Conflicts: Implications for Theory and Practice*, pp. 209-225. Kluwer Academic Publishers: Dordrecht.

LA84Foundation. (2012). 'Official Olympic Reports'. Available at: http://www.la84foundation.org/5va/reports_frmst.htm. [Accessed 5 November 2012].

Lane, J. (2012). 'The 2012 London Olympics, Biofuels-Style: BP to Showcase its Three most Advanced Biofuels'. Available at: http://www.biofuelsdigest.com/bdigest/2012/07/23/the-2012-london-olympics-biofuels-style-bp-to-showcase-its-three-most-advanced-biofuels/. [Accessed 3 September 2012].

Lee, M.A. (2001). 'Nobody Wins if Nature Loses: Environmental Risks Posed by 2002 Winter Olympics in Utah'. Available at: http://www.planetdrum.org/nobody_wins_if.htm. [Accessed 23 October 2012].

Lee, M.A. (2002). 'Olympics; Greenest Games Ever? Not!'. Available at: http://www.planetdrum.org/nobody_wins_if.htm#Greenest Games Not. [Accessed 25 October 2012].

Lee, R.M. (1993). *Doing Research on Sensitive Topics*. Sage Publications Ltd: London.

Lenskyj, H. (1986). *Out of Bounds: Women, Sport and Sexuality*. Women's Press of Canada: Toronto.

Lenskyj, H.J. (1998a). 'Sport and Corporate Environmentalism: The Case of the Sydney 2000 Olympics', *International Review for the Sociology of Sport,* **33**(4), pp.341-354.

Lenskyj, H.J. (1998b). 'Green Games or Empty Promises? Environmental Issues and Sydney 2000'. Available at: http://www.la84foundation.org/SportsLibrary/ISOR/ISOR1998t.pdf. [Accessed 20 June 2012].

Lenskyj, H.J. (2000). *Inside the Olympic Industry: Power, Politics, and Activism.* State University of New York Press: Albany, NY.

Lenskyj, H.J. (2002). *The Best Olympics Ever? Social Impacts of Sydney 2000*. State University of New York Press: Albany, NY.

Lenskyj, H.J. (2003). *Out on the Field: Gender, Sport and Sexualities*. Women's Press of Canada: Toronto.

Lenskyj, H.J. (2004): 'Making the World Safe for Global Capital: The Sydney 2000 Olympics and Beyond'. In: J. Bale and M. Christensen (eds) *Post Olympism? Questioning Sport in the Twenty-First Century*, pp. 135-145. Berg Publishers: London.

Lenskyj, H.J. (2008). *Olympic Industry Resistance: Challenging Olympic Power and Propaganda*. State University of New York Press: Albany, NY.

Lenskyj, H.J. (2012). *Gender Politics and the Olympic Industry*. Palgrave Macmillan: Basingstoke.

Liao, H. and A. Pitts (2006). 'A Brief Historical Review of Olympic Urbanization', *The International Journal of the History of Sport*, **23**(7), pp. 1232-1252.

Lifeisland.org. (2010). 'Allotments and Displaced Plotholders Marginalised in 'Low-

    Quality' Olympic Park'. Available at: http://www.lifeisland.org/?p=582.

    [Accessed 20 February 2013].

Lillehammer Olympic Organising Committee. (1995). 'Lillehammer Olympic Official

    Report 1994'. Available at:

    http://www.la84foundation.org/6oic/OfficialReports/1994/E_BOOK1.PDF.

    [Accessed 2 November 2012].

Loland, S. (2006). 'Olympic Sport and the Ideal of Sustainable Development', *Journal*

    of the Philosophy of Sport, **33**(2), pp. 144-156.

London 2012. (2004a). 'London 2012: Response to the Questionnaire for Cities

    applying to become Candidate Cities to Host the Games of the XXX Olympiad

    and the Paralympic Games in 2012'. Available at:

    http://www.london2012.com/mm%5CDocument%5CPublications%5CCandidate

    File%5C01%5C24%5C07%5C59%5Cquestionnaire-response-english.pdf.

    [Accessed 23 November 2012].

London 2012. (2004b). 'Olympic Games Concept and Legacy'. Available at:

    http://www.london2012.com/documents/candidate-files/theme-1-olympic-games-

    concept-and-legacy.pdf. [Accessed 19 February 2012].

London 2012. (2008). 'Towards a One Planet 2012: Sustainability Plan Update'.

    Available at: http://www.london2012.com/documents/locog-

    publications/sustainability-plan-december-08.pdf. [Accessed 18 January 2011].

London 2012. (2009a). 'Towards a One Planet 2012: Sustainability Plan 2nd Edition

    December 2009'. Available at: http://www.london2012.com/documents/locog-

    publications/london-2012-sustainability-plan.pdf. [Accessed 9 June 2010].

London 2012. (2009b). 'Green Build on Track' Available at:

http://www.london2012.com/documents/oda-publications/sustainable-

construction-on-the-olympic-park.pdf. [Accessed 17 January 2011].

London 2012. (2010a). 'Sustainability'. Available at:

http://www.london2012.com/making-it-happen/sustainability/index.php.

[Accessed 1 April 2010].

London 2012 (2012a). 'Greater London'. Available at:

http://golondon.about.com/od/london2012olympics/ig/London-2012-Olympics-

Maps/London-Olympics-Venues-Map.htm. [Accessed 19 November 2012].

London 2012 (2012b). 'Indicative Map of the Olympic Park at Games-time'. Available

at: http://www.ctshk.com/london2012olympic/eng/images/venues.pdf. [Accessed

20 November 2012].

London 2012. (2012d). 'Pre-Games Sustainability Report: Delivering Change'.

Available at:

http://www.london2012.com/mm/Document/Publications/Sustainability/01/25/43/

65/pre-games-sustainability-report_Neutral.pdf. [Accessed 20 June 2012].

London 2012. (2012e). 'London 2012 Post-Games Sustainability Report: A Legacy of

Change'. Available at:

http://www.london2012.com/mm/Document/Publications/Sustainability/01/42/88/

92/London2012PostGamesSustainabilityReport_Neutral.pdf. [Accessed 1 March

2013].

London Borough of Barking & Dagenham. (2012). 'Games Time Training Venues'.

Available at:

http://www.lbbd.gov.uk/sites/London2012/Pages/TrainingVenues.aspx. [Accessed

20 October 2012].

Londoncouncils.gov.uk. (2011a). 'Barking & Dagenham – Profile'. Available at:

    http://www.londoncouncils.gov.uk/londonfacts/londonlocalgovernment/londonma

    pandlinks/barkingdagenhamstatisticalprofile.htm?showpage=2. [Accessed 21

    November 2012].

Londoncouncils.gov.uk. (2011b). 'Greenwich – Profile'. Available at:

    http://www.londoncouncils.gov.uk/londonfacts/londonlocalgovernment/londonma

    pandlinks/greenwichstatisticalprofile.htm?showpage=2. [Accessed 21 November

    2012].

Londoncouncils.gov.uk. (2012c). 'Hackney – Profile'. Available at:

    http://www.londoncouncils.gov.uk/londonfacts/londonlocalgovernment/londonma

    pandlinks/hackneystatisticalprofile.htm?showpage=2. [Accessed 21 November

    2012].

Londoncouncils.gov.uk. (2011d). 'Newham – Profile'. Available at:

    http://www.londoncouncils.gov.uk/londonfacts/londonlocalgovernment/londonma

    pandlinks/newhamstatisticalprofile.htm?showpage=2. [Accessed 21 November

    2012].

Londoncouncils.gov.uk. (2011e). 'Tower Hamlets – Profile'. Available at:

    http://www.londoncouncils.gov.uk/londonfacts/londonlocalgovernment/londonma

    pandlinks/towerhamletsstatisticalprofile.htm?showpage=2. [Accessed 21

    November 2012].

Londoncouncils.gov.uk. (2011f). 'Waltham Forest – Profile'. Available at:

    http://www.londoncouncils.gov.uk/londonfacts/londonlocalgovernment/londonma

    pandlinks/walthamforeststatisticalprofile.htm?showpage=2. [Accessed 21

    November 2012].

London East Research Institute of the University of East London. (2007). 'A Lasting

    Legacy for London? Assessing the Legacy of the Olympic Games and Paralympic

    Games'. Available at:

    http://legacy.london.gov.uk/assembly/reports/econsd/lasting-legacy-uel-

    research.pdf. [Accessed 1 December 2010].

London.gov.uk. (2007). 'Mayor Answers to London: Ecology in Olympics Legacy

    Park'. Available at: http://www.london.gov.uk/mqt/public/question.do?id=19160.

    [Accessed 10 February 2013].

London Legacy Development Corporation. (2012). 'What Our Application Covers'.

    Available at: http://www.londonlegacy.co.uk/community/legacy-communities-

    scheme/what-our-application-covers/. [Accessed 5 December 2012].

London Metropolitan Archives. (2012). 'Winning Endeavours'. Available at:

    http://www.winningendeavours.org/. [Accessed 20 October 2012].

Lück, M. (2008). *The Encyclopedia of Tourism and Recreation in Marine*

    Environments. CABI Publishing: Wallingford.

Lybbert, T.J. and D.D. Hilmany (2000). 'Migration Effects of Olympic Siting: A Pooled

    Time Series Cross-Sectional Analysis of Host Regions', *Annals of Regional*

    Science, **34**, pp. 405-420.

MacAloon, J.J. (2008). ''Legacy' as Managerial/Magical Discourse in Contemporary

    Olympic Affairs', *The International Journal of the History of Sport*, **25**(14), pp.

    2060-2071.

MacKenzie, J.D. (2006). 'Moving Towards Sustainability in the Olympic Games

    Planning Process'. Available at: http://ir.lib.sfu.ca/retrieve/2848/etd2156.pdf.

    [Accessed 5 October 2012].

MacRury, I. (2009). 'Branding the Games: Commercialism and the Olympic City'. In: G. Poynter and I. MacRury (eds) *Olympic Cities: 2012 and the Remaking of London*, pp. 43-72. Ashgate Publishing Group: Aldershot.

MacRury, I. and G. Poynter (2009). 'London's Olympic Legacy: A "Thinkpiece" Report Prepared for the OECD and Department for Communities and Local Government'. Available at: http://www.uel.ac.uk/londoneast/documents/20101008-CLG-OECD-2012.pdf. [Accessed 16 November 2012].

Magdalinski, T. and J. Nauright (2004). 'The Commercialization of the Olympics'. In: T. Slack (eds) *The Commercialization of Sport*, pp. 185-204. Frank Cass: London.

Magnaghi, A. (2005). *The Urban Village: A Charter for Democracy and Local Self-Sustainable Development*. Zed Books Ltd: London.

Magnay, J. (2010). 'London 2012 Olympics: Stadium Wrap Sponsors may be able to sell it off after the Completion of the Games'. Available at: http://tmg-homepage-appwebdb1-sc.dmz.firstclarity.com/sport/olympics/8147894/London-2012-Olympics-stadium-wrap-sponsors-may-be-able-to-sell-it-off-after-the-completion-of-the-Games.html. [Accessed 26 November 2012].

Maguire, J., G. Jarvie, L. Mansfield and J. Bradley (2002). *Sport Worlds: A Sociological Perspective.* Human Kinetics, Champaign, IL.

Malfas, M. (2003). 'An Analysis of the Organisational Configurations over the Life Cycle of the Sydney Organising Committee for the Olympic Games', Electronic Ph.D. Thesis, School of Sports and Exercise Sciences, Loughborough University, UK. http://hdl.handle.net/2134/7593.

Mallen, C., J. Stevens and L. Adams (2011). 'A Content Analysis of Environmental Sustainability Research in Sport Management Literature', *Journal of Sport Management*, **25**(3), pp. 240-256.

Maloney, L. (2004). 'Lillehammer 1994'. In: J.E. Findling and K.D. Pelle (eds) *Encyclopedia of the Modern Olympic Movement*, pp. 405-414. Greenwood Press: Westport, CT.

Mangan, J.A. (2008). 'Prologue: Guarantees of Global Goodwill: Post-Olympic Legacies – Too Many Limping White Elephants?', *The International Journal of the History of Sport*, **25**(14), pp. 1869-1883.

Mariam, Y. (2001). 'Environmental Sustainability and Regulation: Top-Down Versus Bottom-Up Regulation'. Available at: http://mpra.ub.uni-muenchen.de/413/. [Accessed 1 December 2012].

Marks, D. (2011). 'Team GB: United or Untied? Contemporary Nationalism, National Identity and British Olympic Football Teams at London 2012', School of Sports and Exercise Sciences, Loughborough University, UK. https://dspace.lboro.ac.uk/dspace-jspui/bitstream/2134/8370/2/djmarks2011thesis.pdf.

Markula, P. and M. Silk (2011). *Qualitative Research for Physical Culture*. Palgrave Macmillan: Basingstoke, Hampshire.

May, V. (1995). 'Environmental Implications of the 1992 Winter Olympic Games'. *Tourism Management*, **16**(4), pp. 269-275.

Mayhew, L., G. Harper and S. Waples (2012). 'Comparative Analysis of the Resident Population of the Six Olympic Host Boroughs - Sources and Uses of Locally Owned Administrative Data'. Available at: http://www.hackney.gov.uk/Assets/Documents/Six_borough_nkm_summary_population_analysis.pdf. [Accessed 23 November 2012].

McCarthy, M. (2012). 'So did London 2012 Pass the Olympic Test? Sustainability'. Available at: http://www.independent.co.uk/sport/olympics/news/so-did-london-2012-pass-the-olympic-test-8037290.html. [Accessed 1 March 2013].

McDaniel, S. and L. Chalip (2002). 'Effects of Commercialism and Nationalism on Enjoyment of an Event Telecast: Lessons from the Atlanta Olympics', *European Journal of Management Quarterly*, **2**(1), pp. 3-22.

McKenna, F. and U. Bob (2010). 'Business Perceptions of the 2010 FIFA World Cup and Related Infrastructure Development: A Case Study of the Moses Mabhida Stadium and the Durban Beachfront Developments', *Alternation*, **17**(2), pp. 200-224.

Meadows, D.H., D.L. Meadows, J. Randers and W.W. Behrens III (1972). *The Limits to Growth*. *Universe* Books: New York.

Mertin, E. (2012). 'The Soviet Union and the Olympic Games of 1980 and 1984: Explaining the Boycotts to their own People'. In: S. Wagg and D.L. Andrews (eds) *East Plays West: Sport and the Cold War*, pp. 235-252. Routledge: London.

Miah, A. and B. García (2012). *The Olympics: The Basics*. Routledge: London.

Mickle, T. (2008). 'Bid Advisors find a Lucrative Niche'. Available at: http://www.sportsbusinessdaily.com/Journal/issues/2008/06/200806 [Accessed 1 August 2013].

Mihalik, B. and P. Cummings (1995). 'Host Perceptions of the Olympics: Benefits and Liabilities', 1995 Travel and Tourism Research Association Conference Proceedings*, Mexico, June.

Mills, C.W. (1959). *The Sociological Imagination*. Oxford University Press Inc: Oxford.

Mol, A.P.J. (1995). *The Refinement of Production*. Van Arkel: Utrecht.

Mol, A.P.J. (2010), 'Sustainability as Global Attractor: The Greening of the 2008 Beijing Olympics', *Global Networks*, **10**(4), pp. 510-528.

Mol, A.P.J. and G. Spaargaren. (2000). 'Ecological Modernisation Theory in Debate: A Review'. In: A.P.J. Mol and D.A. Sonnenfeld (eds) *Ecological Modernisation around the World: Perspectives and Critical Debates*, pp. 17-49. Frank Cass: London.

Moragas, M., C. Kennett and N. Puif (eds) (2003). *The Legacy of the Olympic Games 1984-2000*. International Olympic Committee: Lausanne.

Morgan, D.L. (1998). *The Focus Group Guidebook: Focus Group Kit 1*. Sage Publications Ltd: Thousand Oaks, CA.

Morgan, D.L. and R.A. Krueger (1993). 'When to Use Focus Groups and Why'. In: D.L. Morgan (eds) *Successful Focus Groups: Advancing the State of the Art*, pp. 3-19. Sage Publications Ltd: Thousand Oaks, CA.

Myrholt, O. (1999). 'Greening the Olympics'. Available at: http://www.ourplanet.com/imgversn/82/myrholt.html. [Accessed 1 November 2012].

Næss, A. (1973). 'The Shallow and the Deep, Long-Range Ecology Movement. A Summary', *Inquiry*, **16**, pp. 95-100.

Næss, A. (1989). *Ecology, Community and Lifestyle: Outline of an Ecosophy.* Cambridge University Press: Cambridge.

Neal, A. (2006). 'Economic Update Report – Olympic and Paralympic Games'. Available at: http://www.walthamforest.gov.uk/documents/op-five-olympic-boroughs-aug06.pdf. [Accessed 20 February 2013].

New Lammas Lands Defence Committee. (2008). 'The New Lammas Lands Defence Committee'. Available at: http://www.lammaslands.org.uk/wwd2008.html. [Accessed 12 February 2013].

Nicoll, A. (2010). 'Vancouver 2010 Takes Gold in Sustainability'. Available at: http://www.newgreeneconomy.com/sustainable-living/item/27-vancouver-2010-

takes-gold-in-sustainability?tmpl=component&print=1. [Accessed 2 December 2012].

Nishant, R., S.H. Thompson and M. Goh (2012). 'Energy Efficiency Research and Development: Consumption- and Environment-Centric Perspectives'. Available at: http://pacis2012.org/files/papers/pacis2012_T5_Nishant_134.pdf. [Accessed 5 September 2012].

NOGOE. (2012). 'Welcome to NOGOE's Website!' Available at: http://www.nogoe2012.com/. [Accessed 10 December 2012].

Notion, H, (1990). 'Greenpeace - Getting a Piece of the Green Action', *Philosophy and Social Action*, **16**(3), pp. 33-36.

OECD LEED Programme. (2010). 'Local Development Benefits from Staging Global Events: Achieving the Local Development Legacy from 2012'. Available at: http://www.oecd.org/cfe/leed/46207013.pdf. [Accessed 10 February 2013].

Office for National Statistics. (2003). 'Census 2001: Local Authority Profiles & Population Pyramids'. Available at: http://www.ons.gov.uk/ons/rel/census/census-2001-local-authority-profiles/local-authority-profiles/index.html. [Accessed 15 November 2012].

O'Hara, S.U. (1999). 'Ecology'. In: P.A. O'Hara (eds) *Encyclopedia of Political Economy: Volume 1*, pp. 232-235. Routledge: London.

O'Leary, A. (2004). *The Essential Guide to Doing Research*. Sage Publications Ltd: London.

Olsen-Acre, H.K. (2007). 'The Use of Drug Testing to Police Sex and Gender in the Olympic Games', *Michigan Journal of Gender and Law*, **13**(2), pp. 207-236.

Olympic Delivery Authority. (2010). 'The Big Build: Completion Milestones to 27 July 2011'. Available at: http://www.london2012.com/documents/oda-publications/oda-milestones-2010-accessible.pdf. [Accessed 18 January 2011].

Olympic Delivery Authority. (2011). 'Learning Legacy: Lessons Learned from the

London 2012 Games Construction Project'. Available at:

http://learninglegacy.independent.gov.uk/documents/pdfs/sustainability/149-

transport-of-construction-materials-sust.pdf. [Accessed 13 February 2013].

Olympic-museum.de. (2012). 'Olympic Games Museum'. Available at:

http://www.olympic-museum.de/. [Accessed 5 December 2012].

Olympic.org. (2010). 'Relive the Glories of past Olympic Winter Games: Lillehammer

1994'. Available at: http://www.olympic.org/en/content/Olympic-

Games/?articleNewsGroup=-

1&currentArticlesPageIPP=10&currentArticlesPage=12&articleId=76872.

[Accessed 16 October 2012].

Olympic.org. (2013). 'Atlanta 1996'. Available at: http://www.olympic.org/atlanta-

1996-summer-olympics. [Accessed 1 February 2013].

Olympic Park Legacy Company. (2012a). 'What we Aim to Achieve'. Available at:

http://www.legacycompany.co.uk/about-us/what-we-aim-to-achieve/, Accessed

16 February 2012.

Olympic Park Legacy Company. (2012b). 'What our Application Covers'. Available at:

http://www.legacycompany.co.uk/legacy-communities-scheme/what-our-

application-covers/. [Accessed 17 February].

Olympic Review. (2005). 'Focus: IOC and Sustainable Development'. Available at:

http://www.turin2006.com/Documents/Reports/EN/en_report_1017.pdf.

[Accessed 3 May 2011].

Olympixx. (2012). 'Spoof Drops BP as Olympic Sustainability Partner'. Available at:

http://london.indymedia.org/articles/12052. [Accessed 18 November 2012].

Organising Committee of the XVI Olympic Winter Games of Albertville and Savoie.

(1992). 'Official Report of the XVI Winter Games of Albertville and Savoie'.

Available at:

http://www.la84foundation.org/6oic/OfficialReports/1992/orw1992.pdf.

[Accessed 6 December 2012].

O'Riordan, T. (1988). 'The Politics of Sustainability'. In: R.K. Turner (eds) *Sustainable Environmental Management: Principles and Practice*, pp. 29-50. Belhaven: London.

Oxforddictionaries.com. (2012). 'Greenwash'. Available at:

http://oxforddictionaries.com/definition/english/greenwash?q=greenwashing#greenwash__2. [Accessed 20 September 2012].

Paquette, J., J. Stevens and C. Mallen (2011). 'The Interpretation of Environmental Sustainability by the International Olympic Committee and Organizing Committees of the Olympic Games from 1994 to 2008', *Sport in Society,* **14**(3), pp. 355-369.

Parliament.co.uk. (2011). 'The Olympic Park Legacy Company'. Available at:

http://www.publications.parliament.uk/pa/cm201012/cmselect/cmpubacc/1716/1716we03.htm. [Accessed 9 December 2012].

Parry, J. (1998) 'Physical Education as Olympic Education'. *European Physical Education Review*, **4**(2). pp. 153-167.

Patton, M.Q. (2002). *Qualitative Research & Evaluation Methods.* Sage Publications Ltd: London.

Peachey, P. (2012). 'So did London 2012 Pass the Olympic Test? Security'. Available at: http://www.independent.co.uk/sport/olympics/news/so-did-london-2012-pass-the-olympic-test-8037290.html. [Accessed 1 March 2013].

Peiser, B. and T. Reilly (2004). 'Environmental Factors in the Summer Olympics in Historical Perspective', *Journal of Sports Sciences*, **22**(10), pp. 981-1002.

Pentifallo, C. and R. VanWynsberghe (2012). 'Blame it on Rio: Isomorphism, Environmental Protection and Sustainability in the Olympic Movement', *International Journal of Sport Policy and Politics*, **4**(3), pp. 427-446.

Pfeffer, J. (1992). *Managing with Power: Politics and Influence in Organization*. Harvard Business School Press: Boston, MA.

Pfister, G. (2010). 'Outsiders: Muslim Women and Olympic Games - Barriers and Opportunities', *The International Journal of the History of Sport*, **27**(16-18), pp. 2925-2957.

Phillips, C.A. (2012). 'Municipalities and the Mega-Event: A Comparative Urban Analysis', Electronic Ph.D. thesis, School of Graduate Studies, McMaster University, Canada. http://digitalcommons.mcmaster.ca/cgi/viewcontent.cgi?article=8497&context=op endissertations.

Planet Drum Foundation. (2004). 'Winter Olympics Won't Avoid Environmental Damage'. Available at: http://www.planetdrum.org/Toroc%20Press%20Release_3_04.htm. [Accessed 24 October 2012].

Polit, D.F. and C. Beck (2008). *Nursing Research: Generating and Assessing Evidence for Nursing Practice*. Lippincott Williams and Wilkins: Philadelphia.

Pope, C., N. Mays and J. Popay (2007). *Synthesizing Qualitative and Quantitative Health Research: A Guide to Methods*. Open University Press: Milton Keynes.

Porritt, J. (2007). *Capitalism: As if the World Matters*. Earthscan Ltd: London.

Pound, R. (1993). 'The IOC and the Environment', *Olympic Message*, **35**, pp. 14-21.

Powerhouse Museum. (2003). 'Championing the Environment: Sydney 2000: The Green Games'. Available at: http://www.powerhousemuseum.com/sydney2000games/files/modules/18414933-

2178-416A-AEDC90C6FA84D051/Green_Games_case_study.pdf. [Accessed 28 October 2012].

Poynter, G. (2009a). 'The 2012 Games and the Reshaping of East London'. In: R. Imrie, L. Lees and M. Raco (eds) *Regenerating London: Governance, Sustainability and Community in a Global City*, pp. 132-150. Routledge: New York.

Poynter, G. (2009b). 'The Evolution of the Olympic and Paralympic Games 1948-2012'. In: G. Poynter and I. MacRury (eds) *Olympic Cities: 2012 and the Remaking of London*, pp. 23-42. Ashgate Publishing Group: Aldershot.

Press Association. (2012a). 'London 2012: Olympic Protests Planned against 'Corporate Dominance''. Available at: http://www.guardian.co.uk/world/2012/jul/25/olympics-protests-planned. [Accessed 10 February 2013].

Press Association. (2012b). 'Olympic Roof Missiles: Residents to Launch Legal Action'. Available at: http://www.guardian.co.uk/sport/2012/jun/28/residents-legal-action-olympic-missiles. [Accessed 20 February 2013].

Preuss, H. (2004) *The Economics of Staging the Olympics – A Comparison of the Games 1972-2008*. Edward Elgar: Cheltenham.

Preuss, H. (2012). '№ 8: Green economy challenges for the FIFA and the Olympic Games'. Available at: http://www.sport.uni-mainz.de/Preuss/Download%20public/Working%20Paper%20Series/Working_Paper_No_8_Version_2_Green_economy_challenges_for_the_FIFA_World_Cup_and_the_Olympic_Games.pdf. [Accessed 5 September 2012].

PricewaterhouseCoopers (2005). 'Olympic Games Impact Study: Final report'. Available at:

http://epress.lib.uts.edu.au/dspace/bitstream/handle/2100/443/OlympicGamesImp actStudy.pdf?sequence=1. [Accessed 13 January 2012].

PricewaterhouseCoopers. (2009). 'Department for Culture, Media and Sport: London 2012 Olympic and Paralympic Games Impacts and Legacy Evaluation Framework Final Report'. Available at: http://www.gamesmonitor.org.uk/files/DCMS_Olympic_Evaluation_final_report. pdf. [Accessed 16 February 2012].

Raco. M. (2004). 'Whose Gold Rush? The Social Legacy of a London Olympics'. In: A. Vigor, M. Mean and C. Tims (eds) *After the Gold Rush: A Sustainable Olympics for London*, pp. 33-49. London: IPPR and Demos.

Radnedge, K. (2011). 'Rogge insists IOC will not intervene in Row over London Olympics Stadium'. Available at: http://www.sportsfeatures.com/olympicsnews/story/48033/rogge-insists-ioc-will-not-intervene-in-row-over-london-olympics-stadium. [Accessed 28 October 2012].

Rawlinson, K. (2012). 'So did London 2012 Pass the Olympic Test? Public Transport'. Available at: http://www.independent.co.uk/sport/olympics/news/so-did-london-2012-pass-the-olympic-test-8037290.html. [Accessed 1 March 2013].

Reeve, S. (2000). *One Day in September: The Full Story of the 1972 Munich Olympics Massacre and the Israeli Revenge Operation "Wrath of God"*. Arcade Publishing, Inc: New York.

Reis, A.C. and L.P. DaCosta (2012). 'Sustainability Dilemmas for Brazil in Hosting Mega-Sport Events'. In: G. Lohmann and D. Dredge (eds) *Tourism in Brazil: Environment, Management and Segments*, pp. 60-76. Routledge: London.

Reynolds, A. (2002). 'A Brief History of Environmentalism'. Available at: www.public.iastate.edu/~sws/.../HistoryofEnvironmentalism.doc. [Accessed 10 December 2012].

Riach, J. (2013). 'West Ham's Move to Olympic Stadium Stalls Again over Approval Process'. Available at: http://www.guardian.co.uk/sport/2013/feb/18/olympic-stadium-west-ham-ldcc. [Accessed 1 March 2013].

Ridgley, G. (2009). 'The Media and the Olympics'. Available at: http://www.bl.uk/sportandsociety/exploresocsci/sportsoc/media/articles/landmarks.html. [Accessed 27 January 2013].

Rigauer, B. (1981). *Sport and Work.* Columbia University Press: New York.

Ritchie, J.R.B. (2000). 'Turning 16 days into 16 years through Olympic Legacies', *Event Management*, **6**(11), pp. 155-165.

Ritchie, J.R.B. and C.E. Aitken (1984). 'Assessing the Impacts of the 1988 Olympic Winter Games: The Research Program and Initial Results', *Journal of Travel Research*, **22**(3), pp. 17-25.

Ritchie, J.R.B. and C.E. Aitken (1985). 'Olympulse II-Evolving Resident Attitudes Towards the 1988 Olympic Winter Games', *Journal of Travel Research*, 23(**3**), pp. 28-33.

Ritchie, J.R.B. and M. Lyons (1990). 'Olympulse VI: A Post-Event Assessment of Resident Reaction to the XV Olympic Winter Games', *Journal of Travel Research*, **28**(3), pp. 14-23.

Ritchie, B.W., R. Shipway and B. Cleeve (2009). 'Resident Attitudes Towards Mega-Sporting Events: A Non-Host City Perspective of the 2012 London Olympic Games', *Journal of Sport and Tourism*, **14**(2-3), pp. 143-167.

Rivera-Batiz, F.L. (2002). 'Democracy, Governance, and Economic Growth: Theory and Evidence, *Review of Development Economics*, **6**(2), pp. 225-247.

Robson, C. (2002). *Real World Research: A Resource for Social Scientists and Practitioner-Researchers*. John Wiley and Sons Ltd: Oxford.

Roche, M. (2000). *Mega-events and Modernity: Olympics and Expos in the Growth of Global Culture*. Routledge: London.

Roche, M. (2004). 'Mega-Events and Media Culture: Sport and the Olympics'. In: D. Rowe (eds) *Critical Readings: Sport, Culture and the Media*, pp. 165-181. Open University Press: Milton Keynes.

Rojek, C. (1992). 'The Field of Play in Sport and Leisure Studies'. In E. Dunning and C. Rojek (eds) *Sport and Leisure in the Civilising Process*, pp. 1-35. Macmillan: London.

Roper, T. (2006). 'Producing Environmentally Sustainable Olympic Games and 'Greening' Major Public Events'. Available at: http://www.globalurban.org/GUDMag06Vol2Iss1/Roper.htm. [Accessed 16 February 2012].

Royal Borough of Greenwich. (2010). *2012 Olympic Games at Greenwich Park, Greenwich, SE10*. Royal Borough of Greenwich: London.

RoyalGreenwich.gov.uk. (2012). 'Greenwich Olympic and Paralympic Unit'. Available at: http://www.royalgreenwich.gov.uk/info/200126/greenwich_2012_business/1027/greenwich_olympic_and_paralympic_unit. [Accessed 15 October 2012].

Rubin, H.J. and I. Rubin (2005). *Qualitative Interviewing: The Art of Hearing Data*. Sage Publications Ltd: London.

Rustin, M. (2009). 'Sport, Spectacle and Society: Understanding the Olympics'. In: G. Poynter and I. MacRury (eds) *Olympic Cities: 2012 and the Remaking of London*, pp. 3-22. Ashgate Publishing Group: Aldershot.

Ryan-Collins, J. and P. Sander-Jackson (2008). 'Fools Gold: How the 2012 Olympics is Selling East London short, and a 10 Point Plan for a more Positive Local Legacy'. Available at: http://www.bl.uk/sportandsociety/exploresocsci/businesseconomics/economics/articles/fools_gold08.pdf. [Accessed 16 October 2012].

Sale , C., A. Edwards and S. Cass (2012). 'West Ham United Win Three-Year Battle for £429m Olympic Stadium after being named Preferred Bidder'. Available at: http://www.dailymail.co.uk/news/article-2243382/West-Ham-handed-Olympic-Stadium-Club-wins-year-battle-arena.html. [Accessed 1 March 2013].

Salt Lake Organising Committee. (2001). 'Tree Programs'. Available at: http://pdf.wri.org/sloc_tree_programs.pdf. [Accessed 2 November 2012].

Salt Lake Organising Committee. (2004). 'Official Report of the XIX Winter Olympic Games'. Available at: http://la84foundation.org/6oic/OfficialReports/2002/2002v1.pdf. [Accessed 3 November 2012].

Sanan, G. (1996). 'Olympic Security Operations 1972-94'. In: A. Thompson (eds) *Terrorism and the 2000 Olympics*, pp. 33-42. Australian Defence Force Academy: Sydney.

Sarantakes, N.E. (2010). *Dropping the Torch: Jimmy Carter, the Olympic Boycott, and the Cold War*. Cambridge University Press: Cambridge.

Saunders, M., P. Lewis and A. Thornhill (2009). *Research Methods for Business Students*. Pearson Education Limited: Harlow, Essex.

Save Leyton Marsh. (2012). 'History of Our Campaign: The Story of Save Leyton Marsh'. Available at: http://saveleytonmarsh.wordpress.com/history-of-our-campaign/. [Accessed 20 October 2012].

Schweinbenz, A.N. and A. Cronk (2010). 'Femininity Control at the Olympic Games'. Available at: http://www.thirdspace.ca/journal/article/viewArticle/schweinbenzcronk/329. [Accessed 11 December 2012].

Searle, G. (2002). 'Uncertain Legacy: Sydney's Olympic Stadiums'. *European Planning Studies*, **10**(7), pp. 845-860.

Selman, P.H. (1996). *Local Sustainability: Managing and Planning Ecologically Sound Places*. Paul Chapman Publishing Ltd: London.

Seppänen, P. (1984). 'The Olympics: A Sociological Perspective', *International Review for the Sociology of Sport*, **19**(2), pp. 113-127.

Shankleman, J. (2012). 'London 2012 Olympics were 'Greenest Ever', Report Claims'. Available at: http://www.guardian.co.uk/environment/2012/nov/15/london-2012-olympics-greenest-ever. [Accessed 1 March 2013].

Sharma, R.C. (2003). *Gandhian Environmentalism*. Global Vision Publishing House: Delhi.

Shaw, C.A. (2008). *Five Ring Circus: Myths and Realities of the Olympic Games*. New Society Publishers: Gabriola Island.

Shepard, J.M. (2010). *Sociology*. Cengage Learning: Belmont, CA.

Sherkat, D.E. and T.J. Blocker (1997). 'Explaining the Political and Personal Consequences of Protest', *Social Forces*, **75**, pp. 1049-1076.

Sherman, J. and F. Hamilton (2010). 'Olympics Wind Turbine is Scrapped, Threatening Green Pledges for 2012'. Available at:

http://www.timesonline.co.uk/tol/sport/olympics/article7143826.ece. [Accessed 18 January 2011].

Silk, M. (2011). 'Towards a Sociological Analysis of London 2012', *Sociology*, **45**(5), pp. 733-748.

Silvestre, G. (2009). 'The Social Impacts of Mega-Events: Towards a Framework'. Available at: http://www.uff.br/esportesociedade/pdf/es1010.pdf. [Accessed 1 March 2013].

Simons, M.S. (1998). 'A Review of Issues Concerned with Aerial Hijacking and Terrorism: Implications for Australia's Security and the Sydney 2000 Olympics', *Journal of Air Law and Commerce*, **63**, pp. 731-758.

Simson, V. and A. Jennings (1992). *The Lords of the Rings: Power, Money and Drugs in the Modern Olympics*. Simon and Schuster: New York.

Smith, A. (2007). 'After the Circus Leaves Town: The Relationship between Sport Events, Tourism and Urban Regeneration'. In: M.K. Smith (eds) *Tourism, Culture & Regeneration*, pp. 85-100. CABI Publishing: Wallingford.

Smith, A. and H. Westerbeek (2004). *The Sport Business Future.* Basingstoke. Palgrave MacMillan: Hampshire.

Smith, M. (2008). 'When the Games Come to Town: Host Cities and the Local Impacts of the Olympics - A Report on the Impacts of the Olympic Games and Paralympics on Host Cities'. Available at: http://www.uel.ac.uk/londoneast/research/documents/WHENTHEGAMESCOME TOTOWNWORKINGPAPER.pdf. [Accessed 10 February 2013].

Spaargaren, G. and M. Cohen (2009). 'Greening Lifecycles and Lifestyles: Sociotechnical Innovations in Consumption and Production as Core Concerns of Ecological Modernisation'. In: A.P.J. Mol, D.A. Sonnenfeld and G. Spaargaren

(eds) *The Ecological Modernization Reader: Environmental Reform in Theory and Practice*, pp. 257-274. Routledge: London.

Srinivasa, S. (2006). *The Power Law of Information: Life in a Connected World*. Sage Publications Ltd: London.

Standeven, J. and P. deKnop (1999). *Sport tourism*. Human Kinetics: Champaign, IL.

Stewart, D.W., P.N. Shamdasani and D.W. Rook (2007). *Focus Groups: Theory and Practice*. Sage Publications Ltd: London.

Stolley, K.S. (2005). *The Basics of Sociology*. ABC-CLIO: Westport.

Strategic Regeneration Framework. (2009). 'Strategic Regeneration Framework: An Olympic Legacy for the Host Boroughs'. Available at: http://www.hackney.gov.uk/Assets/Documents/strategic-regeneration-framework-report.pdf. [Accessed 18 November 2012].

Strategic Regeneration Framework. (2011a). 'Strategic Regeneration Framework: Progress Report 2009- 2011'. Available at: http://www.hackney.gov.uk/Assets/Documents/SRF_Convergence_annual_report _fin.pdf. [Accessed 22 November 2012].

Strategic Regeneration Framework. (2011b). 'Convergence Framework and Action Plan 2011 – 2015'. Available at: http://www.hackney.gov.uk/Assets/Documents/Convergence_action_plan_2011-2015.pdf. [Accessed 22 November 2012].

Stuart, S.A. and T. Scassa (2011). 'Legal Guarantees for Olympic Legacy', *Entertainment and Sports Law Journal*, **9**(1). Available at: http://www2.warwick.ac.uk/fac/soc/law/elj/eslj/issues/volume9/stuart/stuart_scass a.pdf. [Accessed 12 March 2013].

Stubbs, W. and C. Cocklin (2008). 'Conceptualizing a "Sustainability Business

 Model"', *Organization Environment*, **21**(2), pp. 103-127.

Sugden, J. (2012). 'Watched by the Games: Surveillance and Security at the Olympics'.

 In: J. Sugden and A. Tomlinson (eds), *Watching the Olympics: Politics, Power*

 and Representation, pp. 228-241. Routledge: London.

Sugden, J. and A. Tomlinson. (1998). *FIFA and the Contest for World Football:*

 Who Rules the Peoples' Game. Polity Press: Cambridge.

Sugden, J. and A. Tomlinson. (1999). 'Digging the Dirt and Staying Clean: Retrieving

 the Investigative Tradition for a Critical Sociology of Sport', *International Review*

 for the Sociology of Sport, **34**(4), pp. 385-397.

Sugden, J. and A. Tomlinson (eds) (2012). *Watching the Olympics: Politics, Power and*

 Representation. Routledge: London.

Sutton, P.W. (2013). *The Environment: A Sociological Introduction*. Polity Press:

 Cambridge.

Tallon, A. (2010). *Urban Regeneration in the UK*. Routledge: London.

Tatoglu, E., F. Erdal, H. Ozgur and S. Azakli (2002). 'Resident Attitudes Toward

 Tourism Impacts', *International Journal of Hospitality & Tourism*

 Administration, **3**(3), pp. 79-100.

Taylor, T. and K. Toohey (2007). 'Perceptions of Terrorism Threats at the 2004

 Olympic Games: Implications for Sport Events', *Journal of Sport & Tourism*,

 12(2), pp. 99-114.

Teetzel, S. (2011). 'Rules and Reform: Eligibility, Gender Differences, and the Olympic

 Games', *Sport in Society*, **14**(3), pp. 386-398.

Teigland, J. (1999). 'Mega-Events and Impacts on Tourism: The Predictions and

 Realities of

the Lillehammer Olympics', *Impact Assessment and Project Appraisal*, **17**(4), pp. 305-317.

The People's Record. (2012). 'The People's Record'. Available at: http://www.peoplesrecord.org.uk/. [Accessed 20 October 2012].

Theodoraki, E. (2007). *Olympic Event Organisation*. Elsevier Butterworth Heinemann, Oxford.

The Organizing Committee for the XVIII Olympic Winter Games. (1999). 'The XVIII Winter Games Official Report I: Planning and Support'. Available at: http://www.la84foundation.org/6oic/OfficialReports/1998/1998v1p1.pdf. [Accessed 2 November 2012].

Thomas, R. and S. Purdon (1994). 'Telephone Methods for Social Surveys', Social Research Update, 8. Available at: http://sru.soc.surrey.ac.uk/SRU8.html. [Accessed 20 October 2012].

Timms, J. (2012). 'The Olympics as a Platform for Protest: A Case Study of the London 2012 'Ethical' Games and the Play Fair Campaign for Workers' Rights', *Leisure Studies*, **31**(3), pp. 355-372.

Tod, A. (2006). 'Interviewing'. In: K. Gerrish and A. Lacey (eds) *The Research Process in Nursing*, pp. 337-352. John Wiley and Sons Ltd: Oxford.

Tomlinson, A. (1996). 'Olympic Spectacle: Opening Ceremonies and some Paradoxes of Globalization', *Media Culture Society*, **18**(4), pp. 583-602.

Tomlinson, A. (1997). 'Flattery and Betrayal: Observations on Qualitative and Oral Sources'. In: A. Tomlinson and S. Fleming (eds) *Ethics, Sport and Leisure: Crises and Critiques*, pp. 245-264. Meyer & Meyer: Aachen.

Tomlinson, A. (2005a). 'Olympic Survivals: The Olympic Games as a Global Phenomenon'. In: L. Allison (eds) *The Global Politics of Sport: The Role of Global Institutions in Sport*, pp. 46-62. Routledge: London.

Tomlinson, A. (2008). 'Olympic Values, Beijing's Olympic Games, and the Universal Market'. In: M.E. Price and D. Dayan (eds), *Owning the Olympics: Narratives of the New China*, pp. 67-85. The University of Michigan Press: Michigan.

Toohey, K. and A.J. Veal (2007). *The Olympic Games: A Social Science Perspective.* CABI Publishing: Wallingford.

Topping, A. (2012). 'London 2012: Olympics Success Hailed by Politicians'. Available at: http://www.guardian.co.uk/sport/2012/aug/13/politicians-success-london-olympics. [Accessed 1 March 2013].

Toyne, P. (2009). 'London 2012 – Winning the Olympic 'Green' Medal'. In: G. Poynter and I. MacRury (eds) *Olympic Cities: 2012 and the Remaking of London*, pp. 231-242. Ashgate Publishing Group: Aldershot.

Tuckett, A.G. (2005). 'Applying Thematic Analysis Theory to Practice: A Researcher's Experience', *Contemporary Nurse*, **19**(1-2), pp. 75-87.

UK Web Archive. (2012). 'Olympic & Paralympic Games 2012'. Available at: http://www.webarchive.org.uk/ukwa/collection/4325386/page/1/source/collection. [Accessed 15 October 2012].

Umanotera, Slovenian Foundation for Sustainable Development Foundation. (2013).'Presentation of Umanotera'. Available at: http://www.umanotera.org/index.php?node=3. [Accessed 20February 2013].

UN-documents.net (1987). 'Our Common Future, Chapter 2: Towards Sustainable Development'. Available at: http://www.un-documents.net/ocf-02.htm. [Accessed 3 May 2011].

United Nations Environment Programme. (2006). 'London 2012's One Planet Olympics Policy Approved'. Available at: http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=483&ArticleID=5314&l=en. [Accessed 3 May 2011].

United Nations Environment Programme. (2007). 'Beijing 2008 Olympic Games: An Environmental Review'. Available at: http://www.unep.org/publications/ebooks/beijing-report/pdfs/BeijingReport.pdf. [Accessed 28 October 2012].

United Nations Environment Programme. (2010a). 'About UNEP, Sport and the Environment'. Available at: http://www.unep.org/sport_env/about.asp. [Accessed 25 October 2012].

United Nations Environment Programme. (2010b). 'UNEP and the International Olympic Committee'. Available at: http://www.unep.org/sport_env/Olympic_games/index.asp. [Accessed 29 October 2012].

United Nations Environment Programme. (2012). 'Demographic Dynamics and Sustainability'. Available at: http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=52&ArticleID=53. [Accessed 26 November 2012].

University of East London and the Thames Gateway Institute for Sustainability. (2010). 'Olympic Games Impact Study – London 2012 Pre-Games Report'. Available at: http://www.uel.ac.uk/geo-information/documents/UEL_TGIfS_PreGames_OGI_Release.pdf. [Accessed 3 September 2012].

Vaillancourt, J.-G. (1995). 'Sociology of the Environment: From Human Ecology to Ecosociology'. In: M.D. Mehta and E. Ouellet (eds) *Environmental Sociology: Theory and Practice*, pp. 3-32. Captus Press Inc: New York.

Vancouver Organizing Committee for the 2010 Olympic and Paralympic Winter Games. (2010). 'Vancouver 2010 Sustainability Report: 2009-10'. Available at:

http://www.la84foundation.org/6oic/OfficialReports/2010/2010v3.pdf. [Accessed 2 November 2012].

Vanreusel, B. and O. Weiss (1998). 'Editorial', *International Review for the Sociology of Sport,* **33**(4), pp. 339.

VanWynsberghe, R., I. Derom and E. Maurer (2012a). 'Social Leveraging of the 2010 Olympic Games: 'Sustainability' in a City of Vancouver Initiative', *Journal of Policy Research in Tourism, Leisure and Events*, **4**(2), pp. 185-205.

VanWynsberghe, R., B. Surborg and E. Wyly (2012b). 'When the Games Come to Town: Neoliberalism, Mega-Events and Social Inclusion in the Vancouver 2010 Winter Olympic Games', *International Journal of Urban and Regional Research.* Available at: http://onlinelibrary.wiley.com/doi/10.1111/j.1468-2427.2012.01105.x/pdf. [Accessed 13 March 2013].

Veal, A. J. (2011). 'The Olympic Games: A Bibliography'. Available at: www.business.uts.edu.au/lst/research/publications/bibliographies/index.html. [Accessed 10 November 2011].

Veal, A.J. and K. Toohey, K. (2008). 'The Olympic Games: A Bibliography'. Available at http://www.olympic.uts.edu.au/downloads/olympic_bib_update2.pdf. [Accessed 15 October 2011].

Vigor, A., M. Mean and C. Tims (2004). 'Executive Summary'. In: A. Vigor, M. Mean and C. Tims (eds) *After the Gold Rush: A Sustainable Olympics for London*, pp. xi-xv. Available at: http://www.demos.co.uk/files/AftertheGoldRush.pdf. [Accessed 24 November 2012].

Vinyl in Design. (2012). 'Sustainability & Performance Add to Utah Olympic Oval Appeal'. Available at: http://www.vinylindesign.com/HomePageContent/Innovation/UtahOlympicOval.aspx. [Accessed 5 December 2012].

Virtue, R. (2011). 'Energy Provider Defends 'Green Flame' Failure'. Available at: http://www.wharf.co.uk/2011/06/energy-provider-defends-green.html. [Accessed 9 December 2012].

Volkwein-Caplan, K. (2004). *Cultural Perspectives of Movement*. Meyer & Meyer: Aachen.

Waitt, G. (2003). 'Social Impacts of the Sydney Olympics', *Annals of Tourism Research*, **30**(1), pp. 194-215.

Walby, S. (2011). *The Future of Feminism*. Polity Press: Cambridge.

Wamsley, K.B. and K. Young (2005). 'Coubertin's Olympic Games: The Greatest Show on Earth'. In: K. Young and K.B. Wamsley (eds) *Global Olympics: Historical and Sociological Studies of the Modern Games*, pp. 1-3. Elsevier: London.

Wang, R.S. (2001). 'The Eco-Origins, Actions and Demonstration Roles of Beijing Green Olympic Games', *Journal of Environmental Sciences*, **13**(4), pp. 514-519.

Warning, P., R. C. J. Mae and K. Toohey (2008). 'Mapping the Discipline of the Olympic Games an Author-Cocitation Analysis'. Available at: http://ink.library.smu.edu.sg/soe_research/1125. [Accessed 7 November 2011].

Weiler, J. and A. Mohan (2008). '2010 Olympics: Aiming for Sustainable Development'. Available at: http://www.lawyersweekly.ca/index.php?section=article&articleid=779. [Accessed 30 October 2012].

Welford, R. (1997). *Hijacking Environmentalism: Corporate Responses to Sustainable Development*. Earthscan: London.

Wheaton B. (2008). 'From the Pavement to the Beach: Politics and Identity in Surfers Against Sewage'. In: M. Atkinson and K. Young (eds) *Tribal Play: Subcultural Journeys through* Sport, pp. 113-134. JAI Press: Bingley.

Wheeler, K. and J. Nauright (2006). 'A Green Game?: A Global Perspective on the Environmental Impact of Golf', *Sport in Society*, **9**(3), pp. 427-443.

Whitson, D. (2012). 'Vancouver 2010: The Saga of Eagleridge Bluffs'. In: G. Hayes and J. Karamichas (eds) *Olympic Games, Mega-Events and Civil Societies: Globalization, Environment, Resistance*, pp. 219-235. Palgrave Macmillan: Basingstoke.

Wilkinson, D. and P. Birmingham (2003). *Using Research Instruments: A Guide for Researchers*. Routledge: London.

Williamson, G.R. and A. Whittaker (2011). *Succeeding in Research Project Plans and Literature Reviews for Nursing Students*. Learning Matters Ltd: Exeter.

Williamson, L. (2011). 'Former Mayor of London Ken Livingstone Blasts Tottenham's Olympic Stadium Bid'. Available at: http://www.dailymail.co.uk/sport/football/article-1348267/Ken-Livingstone-blasts-Tottenhams-Olympic-Stadium-bid.html. [Accessed 18 October 2012].

Wilson, B. (2012). 'Growth and Nature: Reflections on Sport, Carbon Neutrality, and Ecological Modernization'. In: D. Andrews and M. Silk (eds) *Sport and Neo-Liberalism: Politics, Consumption, and Culture*, pp. 90-108. Temple University Press: Philadelphia, PA.

Wisdom, B. (2011). 'The Vital Role of Local Authorities in the Olympics'. Available at: http://www.guardian.co.uk/public-leaders-network/2011/may/11/olympics-customer-services. [Accessed 1 March 2013].

Woods, R. B. (2011). *Social Issues in Sport*. Human Kinetics: Champaign, IL.

World Commission on Environment and Development. (1987). *Our Common Future.*
Oxford University Press: Oxford.

WWF. (2006). 'How "Green" are the Winter Olympics?'. Available at:
http://mediterranean.panda.org/?59300/How-green-are-the-winter-Olympics.
[Accessed 28 October 2012].

WWF and Bioregional. (2005). 'Towards a One Planet Olympics: Achieving the first
Sustainable Olympic Games and Paralympic Games'. Available at:
http://www.bioregional.com/files/publications/One-planet-olympics-2005.pdf.
[Accessed 17 November 2012].

Xu, H. and L. Yang (2010). 'Environmental Concerns and Policies in the Beijing
Olympic Games'. Available at:
http://www.eventsandfestivalsresearch.com/files/proceedings/XUYANGFinal.pdf.
[Accessed 11 January 2012].

Yang, X. (2009). 'Managing Corporate Partner Relationships to Achieve Sustainability:
Case Study of the Vancouver Organizing Committee for the 2010 Olympic and
Paralympic Winter Games (VANOC)'. Available at:
http://doc.rero.ch/lm.php?url=1000,44,38,20090903132020-DX/RE_-
_X_1_._Yang_-_2008.pdf. [Accessed 15 June 2012].

Yearley, S. (2002). 'The Social Construction of Environmental Problems: A Theoretical
Review and Some Not-Very-Herculean Labors'. In: R.E. Dunlap, F.H. Buttel, P.
Dickens and A. Gijswijt (eds) *Sociological Theory and the Environment:
Classical Foundations, Contemporary Insights*, pp. 274-285. Rowman &
Littlefield: Lanham, MD.

Yin, R.K. (2003). *Case Study Research: Design and Methods*. Sage Publications Ltd:
Thousand Oaks, CA.

York, R., E.A. Rosa and T. Dietz (2010). 'Ecological Modernisation Theory: Theoretical and Empirical Challenges'. In: M.R. Redclift and G. Woodgate (eds) *The International Handbook of Environmental Sociology*, pp. 77-90. Edward Elgar Publishing Ltd: Cheltenham.

Young, C. (2006). 'Munich 1972: Re-presenting the Nation'. In: A. Tomlinson and C. Young (eds) *National Identity And Global Sports Events: Culture, Politics, And Spectacle in the Olympics And the Football World Cup*, pp. 117-132. State University of New York Press: Albany, NY.

Young, K. and K.B. Wamsley (eds) (2005). *Global Olympics: Historical and Sociological Studies of the Modern Games*. Emerald Group Publishing Limited: Bingley.

Young, T.R. (1986). 'The Sociology of Sport: Structural Marxist and Cultural Marxist Approaches', *Sociological Perspectives*, **29**(1), pp. 3-28.

Yu, Y., F. Klauser and G. Chan (2009). 'Governing Security at the 2008 Beijing Olympics', *The International Journal of the History of Sport*, **26**(3), pp. 390-405.

Zhou, Y. (2006). 'Government and Residents' Perceptions Towards the Impact of a Mega Event: The Beijing 2008 Olympic Games'. Electronic Ph.D. Thesis, School of Hotel and Tourism Management, The Hong Kong Polytechnic University, Hong Kong. http://repository.lib.polyu.edu.hk/jspui/bitstream/10397/4003/2/b21167643_ir.pdf.

Zhou, Y., Y. Wu, L. Yang, L. Fu, K. He, S. Wang, J. Hao, J. Chen and C. Li (2010). 'The Impact of Transportation Control Measures on Emission Reductions during the 2008 Olympic Games in Beijing, China', *Atmospheric Environment*, **44**(3), pp. 285-293.

Zuo, C., M. Birkin, G. Clarke, F. McEvoy, and A. Bloodworth (2012). 'Spatial

Modelling, GIS and Network Analysis for Improving the Sustainability of

Transporting Aggregates in the UK'. In: R. Stimson and K.E. Haynes (eds)

*Studies in Applied Geography and Spatial Analysis: Addressing Real World

Issues*, pp. 55-78. Edward Elgar Publishing Ltd: Cheltenham.

RESEARCH ADVERTISEMENT

'Views about London 2012 in your Borough'

Are you a local resident or business owner in one of the five London Boroughs hosting the London Olympics? I am looking for people who are willing to discuss their views and experiences (both positive and negative) of the Olympics in their local area. My name is Sadie Hollins and I am currently studying for a PhD in 'The Greening of the London 2012 Olympic and Paralympic Games' at the University of Central Lancashire. With London 2012 aiming to be the 'first sustainable Olympic Games', my research aims to talk to key groups about environmental sustainability within the context of the Olympic Games. I am really interested in finding out more with respect to the views and experiences of local residents and businesses located within the five London Olympic Boroughs (Hackney, Tower Hamlets, Greenwich, Newham and Waltham Forest).

I would very much like to arrange a series of group discussions (lasting up to an hour) with any local residents and businesses located in the five London Olympic Boroughs that are willing to share their views on this topic at a time and location suitable to you.

All information discussed will be kept anonymous and will only be used for the purposes of my study. Please feel free to contact me with any questions that you may have.

Sincerely,

Sadie Hollins

For further information please contact:

Sadie Hollins

School of Sport, Tourism and The Outdoors

University of Central Lancashire

Preston

PR1 2HE

Email: sfhollins@uclan.ac.uk

For more information regarding my research please visit this link:

http://www.uclan.ac.uk/schools/ssto/research/iriss/postgraduate_research_supervision.php

RESEARCH PARTICIPANT CONSENT FORM

The Greening of the London 2012 Olympic and Paralympic Games

Participant Information Sheet

The Research Project

The project aims to gain an in-depth understanding of a range of stakeholders' environmental views relating to the London 2012 Olympic and Paralympic Games (hereafter 'London Games'). It will involve conducting in-depth semi-structured interviews/focus groups with key people, experts, London Olympic Boroughs Unit/Council representatives, and residents and businesses residing within the Olympic Boroughs.

Your participation in the research involves taking part in an interview/focus group, which should last approximately 30-60 minutes, at a time and place convenient to you. The interview will focus on several key themes: environmental sustainability within the context of the London Games, and the environmental impact that the hosting of the London Games is subsequently having on the residents, businesses and community groups of the London Olympic Boroughs.

The results of the study will be used for academic and publication purposes in academic journals only. If you wish to be made aware of these uses please contact the researcher stated below.

The research is being organised by Sadie Hollins, who is the sole researcher on the project.

For further information please contact:

Sadie Hollins

School of Sport, Tourism and The Outdoors

University of Central Lancashire

Preston

PR1 2HE

sfhollins@uclan.ac.uk

07951059275

Your Participation in the Research Project

- You can refuse to take part in the study at any time by contacting the researcher directly.

- You are free to withdraw from the research at any time, for any reason and without prejudice.

- If you agree to participate I will seek your permission to audio-tape the interview so that I can transcribe it for analytical purposes. During the interview, you may decline to answer any question, you may request that the tape recorder be turned off, or you may withdraw from the study without consequence.

- Information provided will be treated as confidential and the audio-tapes and typed interview transcripts will be stored securely within SSTO with access restricted to the researcher only. Participants will be referred to anonymously in any written reports or articles.

YOU WILL BE GIVEN A COPY OF THIS TO KEEP

Participant Consent Form

Name of
Participant:…………………………………………………………………………….

Title of the project:

The Greening of the London 2012 Olympic and Paralympic Games

Contact details:

Sadie Hollins

School of Sport, Tourism and The Outdoors

University of Central Lancashire

Preston

PR1 2HE

sfhollins@uclan.ac.uk

07951059275

1. I agree to take part in the above research. I have read the Participant Information Sheet which is attached to this form. I understand what my role will be in this research, and all my questions have been answered to my satisfaction.

2. I understand that I am free to withdraw from the research at any time, for any reason and without prejudice.

3. I have been informed that the confidentiality of the information I provide will be safeguarded.

4. I am free to ask any questions at any time before and during the study.

5. I have been provided with a copy of the Participant Information Sheet.

Signed…………….……………………………………….

Date……………………………………………………...