NOTTINGHAM TRENT UNIVERSITY

The role of activity in shaping identity of place

The Case of the Lace Market. Nottingham

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Abstract

Urban identity is influenced by the activities that inform urban spaces; these activities, in turn, construct meanings that are embedded in urban settings and people perceive as identity. Thus, issues of identity are particularly significant in districts with variable activities, which transform the perceptions of place identity. This research answers the research question: How do activities influence the perceptions of place identity? It achieves this by examining the processes of identity transformation over the past two centuries for the Lace Market area of Nottingham, England and by tracing the effects of activity change on place identity in time. This area has faced significant changes in its activities, which shifted from predominantly industrial place, where lace was manufactured and exported around the world, to an abandoned place before becoming the prosperous and recreational location of today.

The study adopted numerous sources; documents, interviews, mental mapping, and direct observation were the main methods used to gather primary data. The documents were significant in building an understanding the overall evolutionary course of the Lace Market. They introduced insights into the collection of activities that have formed the Lace Market's historical development and issues of place identity. Further key sources of evidence were face-to-face semi-structured interviews, while cognitive maps with two different user groups (before and after the area's regeneration) were conducted. The features were indicated in the interviews and the drawings were based on users' perceptions over time and the elements of place identity that were considered important. The data provides significant descriptive and analytical insights to transform users' perceptions and experiences. The final method was the site observation method, which was used to record people's movements and interactions with physical settings. It aims to identify the characteristics of place and the kind of activities that support place identity.

The results indicate that urban activity has a meaningful role in continuing the Lace Market's identity. It is a key factor in urban regeneration within traditional settings where converted usage is significant in creating and embedding meanings within current social and urban settings. Furthermore, the study finds that a lack of activity is the major cause of weak people-place relationships and of weakened embedded meanings within a setting. It can be inferred that activities enhance the development

and maintenance of relationships between users and place, which in turn promote emotional bonds with the place. This process can be developed into perceptions of place identity. Finally, the results are used to propose recommendations to enable a more sustainable path for neighbourhood urban design.

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Chapter 1 : THE INTRODUCTION

1.1 Introduction

The issue of place identity is fundamental to urban design and has become a significant concern for a number of researchers and scholars as economic volatility leads to the transformation of the character of a place. As a result of the deindustrialization of most western cities in the last few decades, numerous neighbourhoods have tried to convert their historic industrial places into centres of fascination for businesses, residents and visitors through their restructure, revitalization and regeneration. This process reuses historical physical environments in which urban activity has changed to meet the requirements of the age. Converting the activities of historical places and land use has a profound impact on the relationship between human and area, while traces of these effects can be seen in a place's identity. However, studying the effects of converted urban activity on place identity is difficult due to their subjectivity and objectivity. Hence, it is essential to know the transformation process for all dimensions of place identity. For this research, this is achieved by conducting a case study and a chronological examination of the conversion of its dimensions, which play a crucial role in creating the identity of a place.

It is possible to distinguish a similar process in the conversion of activities within the Lace Market, which forms the historic quarter in the city centre of Nottingham. Hence, this study examines the Lace Market's change in identity over the last two centuries. It analysis physical environment, activity, and meaning as manifest elements of identity (Montgomery, 1998; Carmona, 2007; Castells, 2009; Cheshmehzangi, 2014b); moreover, it studies the evolution in these factors by studying the historical development of the Lace Market across three layers of time. These three periods, which were selected because they witnessed significant changes in activity, were: the industrial period (1844-1920); the decline of the lace industry (1921-1990); and the emergence of mixed-use (1991 to the present time). The main characteristics of the Lace Market were identified and measured during these three periods in order to understand the attributes that supported or drove changes in its identity. The influence of activities on these attributes, and thence the formation of place identity, was identified by determining the forces behind the urban evolution

and the variation in each layer of time, and by analysing individual perceptions of identity during the last two periods.

1.2 Statement of Issues

Reductions to the use of place are seen as a negative development because they can cause a damage of character and weaken the meaning of the area (Dovey, 2009), with the possible result that such places are forgotten (Crinson, 2005). This view was reinforced after manufacturing centres across the developed world experienced economic restructuring and deindustrialization (Hamnett and Whitelegg, 2007). Many industrial buildings were left vacant, while others were converted to serve new purposes. In the UK, economic restructuring over the last century left many industrial buildings under-utilized or abandoned altogether (Heffron and Haynes, 2012). In reaction to the impact of urban changes and the accompanying change of activities, and following the withdrawal of human engagement with such spaces which changed the character and image of places, new terms - such as ‘placelessness’ (Relph, 1976b) and ‘non-place’ (Augé, 2008) - were coined to reveal the importance of maintaining human relationships with the physical environment.

In the last few decades, the concept of place identity has been the subject of several empirical studies in a diversity of disciplines (Ujang and Dola, 2001; Al-Naim, 2008; Ali Madanipour, 2010; Sepe, 2013a). Urban growth and change in the context of globalisation has prompted increased concern over the identity and local character of places (Crinson, 2005; Shuhana, 2011). As a result, the creation of meaningful places has lately become a matter of concern in urban design and the sustainable reshaping of traditional places.

1.3 Research Gap and Contribution to Knowledge

It has been agreed that a change in place identity is an expression of the dynamic relationship between people and place. For example, von Wirth *et al.* (2016) found an important relationship between changes in urban use, and individuals' affective bonds with places. The continued change in use of place can precipitate a lack of place identity (Llewellyn Davies, 2007; Shuhana, 2011); thus, place function and activities are fundamental to the phenomenon of identity. Nevertheless, there have been relatively few efforts to study the effects of activity on the shaping of place identity

over time. In urban design studies, the production of meaningful places by potential activities has been a common focus (Carmona, 2010; Gehl, 2011) alongside the sense of belonging (Mazanti and Pløger, 2003), and places with their own identity (Sepe, 2009; Ujang, Moulay and Zakaria, 2018). However, the effects of changed urban activity on the perception of place identity have not yet been adequately explored. Thus, the research aims to fill a knowledge gap in place identity studies by identifying how activities are associated with other factors when forming place identity, i.e. the relationship between activities and the perception of place identity. Studying the morphological transformation of the Lace Market contributes to the debate and to recommendations for more maintainable future planning through the development of activities that encourage the continued use of such traditional environments.

1.4 Define urban activities

Urban activities are one of the key constituents that help to form the identity of a place (Carmona *et al.*, 2007; Bratina Jurkovič, 2014; Gieseking and Mangold, 2014). People become involved in activities and respond to a place that evokes their senses and emotions (Dovey, 2009); thus, the attributes of activities promote people-place relations when users' needs are fulfilled. Thus, activities can evoke people's memories and embody place meanings by meeting users' psychological needs (Montgomery, 1998). People then interpret these meanings as place identity and subsequently make the place a unique area (Ujang and Shamsudin, 2012). Therefore, activities are defined as the explicit behavioural manifestations of responses to urban place, and represent the cultural, social, and economic factors of both user and place.

1.5 Research Aim, Questions and Objectives

The main question of this PhD thesis is as follows:

How does activity influence the perceptions of place identity?

To answer the research question, this study analyse how activity is associated with the physical environment and its meanings and impacts on the process of perception

of urban identity. This aim may be broken down into the following questions and its objectives:

Research Question 1: What characteristics have influenced the Lace Market's identity over time?

Objectives 1: To document different phases in the Lace Market's transformation from the beginning of the Industrial Revolution to date, and to show how these phases have affected its identity.

Research Question 2: How can activities evoke perceptions of the physical elements?

Objectives 2: To identify how activities support the distinctiveness of the physical elements associated with place identity.

Research Question 3: How do activities contribute to the development of meanings attached to place?

Objectives 3: To identify how activity evokes meaning associated with place identity.

Research Question 4: What attributes of activity can evoke the perceptions of place identity?

Objectives 4: To determine the activity attributes that support perceptions of place identity

Overall aim:

The research aims to identify the effects of urban activities on place identity and their role in maintaining a sense of place, as experienced by users.

1.6 Methodology

The study relies on numerous sources, which include primary and secondary data, namely documents, interviews, mental mapping, and direct observation. Documents include strategies, reports, books, movies, and previous research on the Lace Market. The documents were significant in understanding the overall evolutionary course of the Lace Market, which was a crucial point in understanding the patterns, themes, and

issues of place identity in the case study. Further key sources of evidence were face-to-face interviews with 50 participants; these semi-structured interviews were conducted in two groups - 24 interviewees with present users and 26 interviewees with former users of the Lace Market. Interviewees were asked what they thought were/are the area's main distinctive elements and landmarks and why. This data was transcribed and coded from which the main themes of the research findings were identified. The interview data provides significant descriptive and analytical insights to transform users' perceptions and experiences.

In addition, the mental maps method was used to identify legible elements (Kum and Ujang, 2012) which is one of place identity features (Oliveira, 2018). The features indicated in the drawings are based on users' perceptions and are considered important elements for place identity. The final method was the site observation method, which was used to generate information by observing people's movements and their interactions with physical settings (Mat Idris, Sibley and Hadjri, 2018). It aims to observe characteristics of the physical environment and the presence activities that support place identity.

The research adopted a chronological analysis by examining the historical development; this seeks to identify the evolution of form and the manifestations of urban place over time. It also aims to identify the influence of activities that shape the processes used to revive, transform and preserve the built environment in synch with socio-cultural and economic changes over time. This was achieved by adopting a narrative account of the Lace Market's phases, while the thematic analysis compared differences in users' perceptions of place identity in parallel with the physical environment, human activity, and socio-cultural and economic change across three layers of time.

1.7 The Study Area

The Lace Market is an essential part of the historic core centre of Nottingham, which has a varied urban landscape that is still distinguished by its medieval image (Linda Monkton and Pete Smith, 2009). The name the 'Lace Market' is associated with lace manufacturing, which dates back to 1849 when wholesale lace merchants built huge warehouses in the locality (Crewe and Beaverstock, 1998). These warehouses provided a showcase for the world's most well-known manufacturing product. Lace

production flourished thanks to the presence of a large workforce, which included more than 20,000 workers(Conran, 1989). The scale of these great warehouses was significant, and most were built in red brick with some considerable architectural pretension. Industrial warehouses were grafted onto a frame of narrow medieval roads and paths, which dictated the area's character. Today, an overall predominance of late Victorian buildings marks the Lace Market where a network of medieval lanes, paths and yards, and lace warehouses combine with 20th-Century urban reorganisation to produce the distinctive quarter. These features represent some of the characteristics that relate to the prosperous 19th-Century commercial centre, which emerged from these phases of history and formed its unique identity.

1.8 Transformation of the Lace Market

The Lace Market has experienced significant urban transformation over the last two-centuries and has led to the transformation of its identity. The Lace Market was the international hub of machine lace manufacturing during the 19th Century (Oldfield, 1984). Its greatest urban transformation took place in the 1930s as lace production declined (Crewe and Beaverstock, 1998). This post-industrial decline witnessed a profound change in the area, especially in terms of its population and socio-economic activities. By the 1950s, the Lace Market was almost uninhabited (Tiesdell, 1995). Today, the Lace Market is a hub of recreation and luxury accommodation at the heart of Nottingham. As the area became mixed-use, many of these old manufacturing buildings were turned into high-end accommodation, shops and bars, and industrial activity gave way to education, shopping and entertainment. Although the image of the area arises almost entirely from the industrial period with various inspiring samples of 19th Century industrial construction (Nottingham Industrial Museum, 2018), it is used today for education, shopping and entertainment, and has become a hub of recreation.

The evaluation of these variations in Lace Market use over time offers a unique prospect to compare the impact of urban activity on urban identity, especially in the case of the Lace Market which accommodates a large number of listed buildings and construction groups of historic importance (Tiesdell, 1995). The clear difference in using these listed buildings over three periods constitutes a platform for the area's historic image and evolving modern identity. It offers a good opportunity to study the

effect of morphological transformation on individuals and communities, while social interactions with industrial settings reduced following the Second World War (Cherry, 1972). Hence, this research explores the effects of activity on district identity in three eras of the Lace Market in Nottingham. This research seeks to identify how each phase of addition, clearance or renewal has left its trace on current users' perceptions of the area, and how the identity of the area has been formed by its original functions and subsequent activities. It determines how the characteristics of various activities have an impact on emotional bonds and enhanced levels of perception of place identity over time.

1.9 Research Approach

Place identity often relies on the perception of distinctiveness of an environment's characteristics, which distinguishes it from other places (Wang and Xu, 2015); thus, people perceive a place as holding meaning for them (Antonsich, 2010). These meanings are attached to physical characteristics and result from the experience of a place through its use (White, Virden and Van Riper, 2008). Hence, places are imbued with meanings that people experience in them (Main and Sandoval, 2015). This reveals that the experiences and awareness of a place associate to place identity (Carmona, 2010); these emerge as meanings and gain strength through continued experiences (Seamon, 2013). Consequently, the concept of place is not restricted to the physical environment, but should also give more consideration to people experience and the perceptual dimension (Seamon and Sowers, 2008). Therefore, it can be argued that people's experiences and perceptions are a key source of information when exploring the concept of place identity (Figure 1.1). Hence, the human experience and the perceptual dimension will be considered in the chronological analysis of the case study to identify the impact of activity on the construction/consolidation of place identity.

Moreover, in the field of humanistic geography, space is referred to as a measurable, physical area, while place define as slices of the Earth's surface that are imbued with meanings by individual interpretations, appraisals and memories (Tuan, 1976; Dovey, 2009). The personal meanings provided by people to place settings and historical events are subjectively remembered and demonstrate that place identity is socially created (Raymond, Kyttä and Stedman, 2017). Thus, the identity of a place is a

production of people mind, which produces and perceives meanings (Lengen and Kistemann, 2012). This shows that place identity is bound between people and place as a social being and related to a personal and social experience (Gustafson, 2001). The places are dynamic because they are filled with, and maintain, past meanings (Main and Sandoval, 2015). However, the perception of place identity is bound to revolution as socio-cultures and experiences change (Sepe, 2013a). As such, this research employs person-place relationships to examine how activity is associated with place meanings and identity over time.

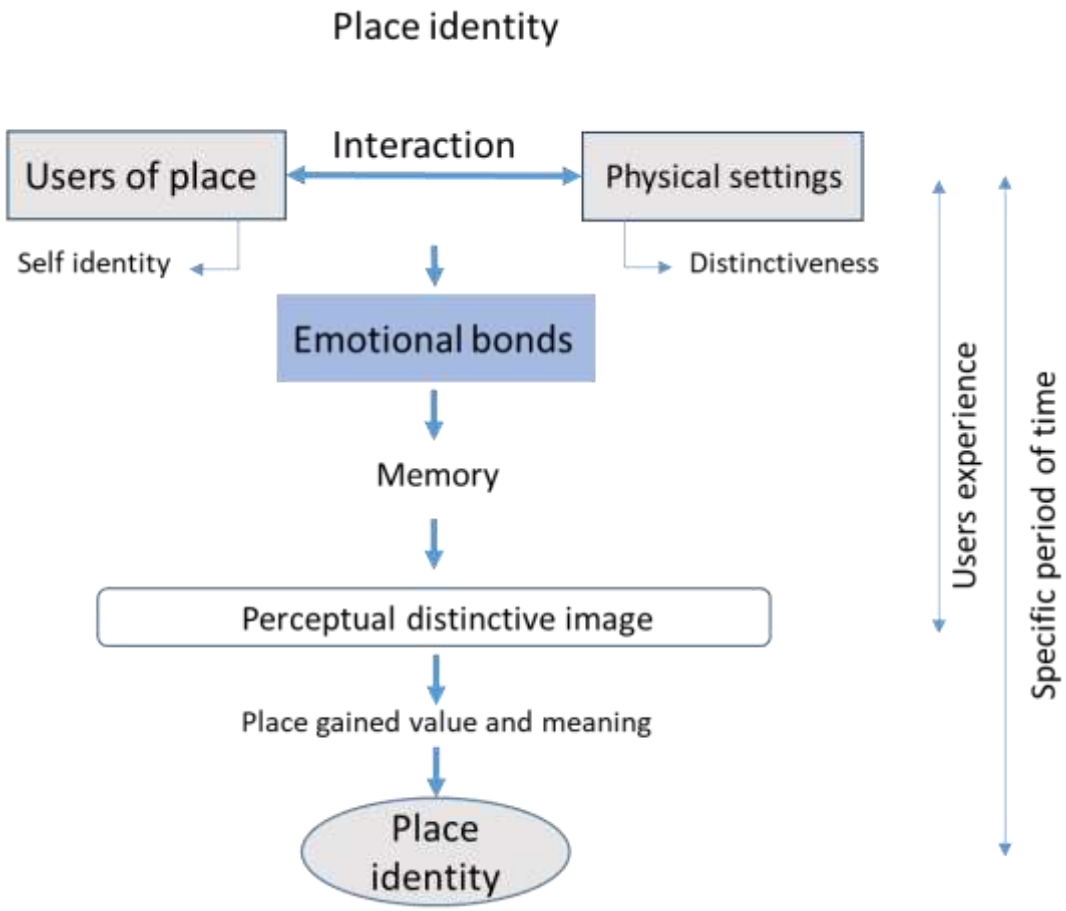


Figure 1.1: Place experience through perceptions that define place identity.

Source: Almakkas, 2018

The approach of the research is to merge the objective context and the psychology of place in order to investigate the concept of dynamic place identity. It describes how different dimensions have emerged from inherited urban place identity. This study considers identity as a product of experience that manifests in different ways amongst individual users and influences their long-term practice and interaction with spatial

structures. Hence, the study focuses on the Lace Market in Nottingham as a case of an inherited urban place. The impact of activity on experience and the perception of place identity (distinctiveness, meanings, emotional attachment and experience) have been analysed as essential dimensions of place identity throughout time (Figure 1.2). This study concentrates on the relationship of 'perception' to an urban activity, which represents users' experience. It aims to layer narratives of identity development as urban experience and posits that the identity of a place could be transformed by change its activity when accentuating new forms of people-place relationship and the demise of previous people's bonds to the place.

To examine this premise, the data analysis process conducts in a structuring approach (few elasticity), the approach to promote a consistent flow. Figure 1.2 shows the analysis approach undertaken.

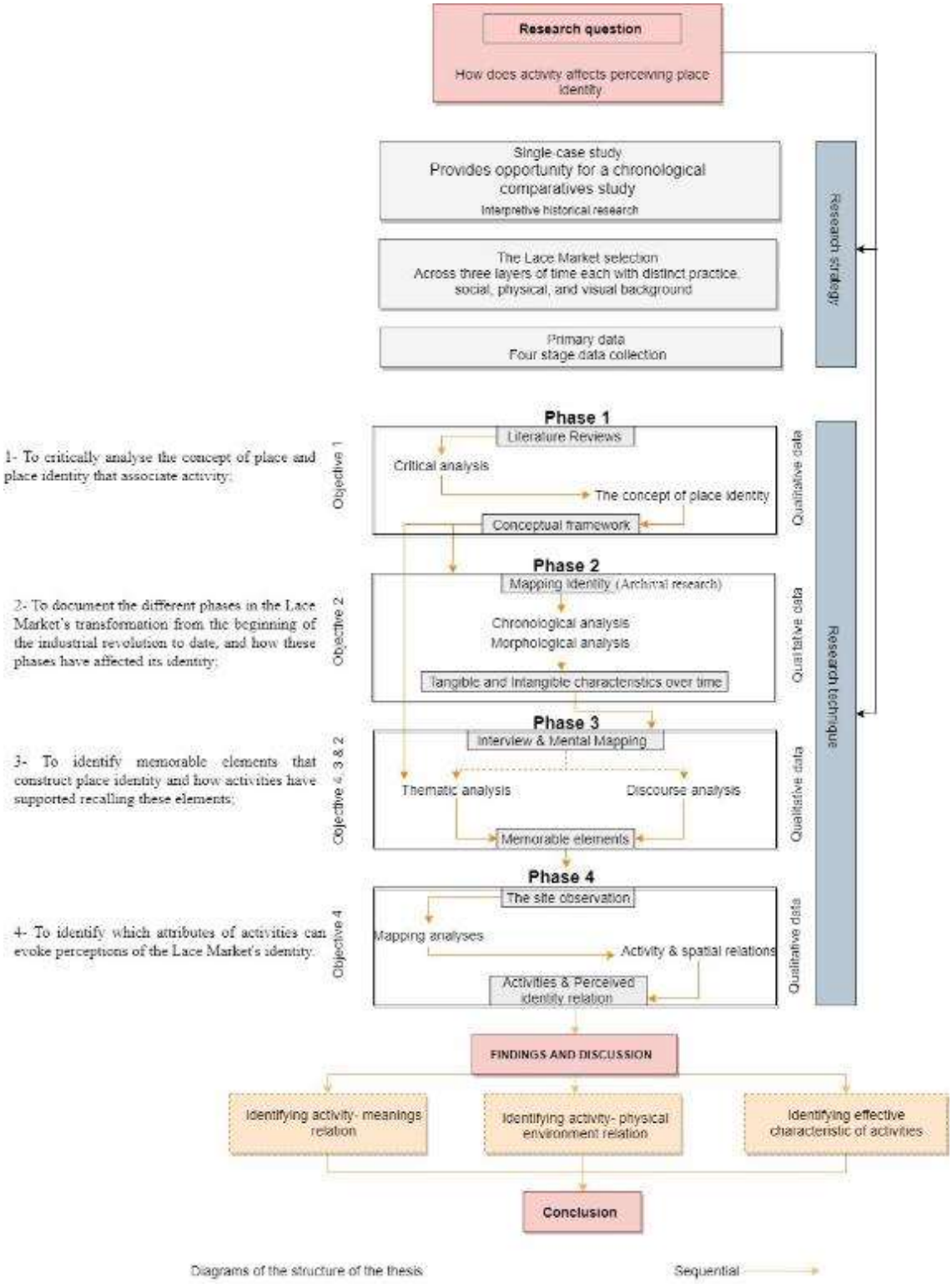


Figure 1.2: Diagram showing the structure of the thesis.

Source: Almakkas, 2018

1.10 Structure of the theses

The study is organised into eight chapters. **Chapter one** outlines the general structure of the thesis counting a review of the aims, research questions and objectives as well

as a brief description of the methodology and research approach adopted. It also highlights the importance of the case study.

Chapter two provides a review of existing literature. It offers a theoretical perspective and focuses on the concept of place, place identity and the exploration of its components. To this end, the main aim of this thesis is to identify the role that human activity plays in shaping place identity. To achieve this, the following aspects have been explored; first, the chapter specified the distinction between space and place and in doing so also scrutinizes the identity of place; second, the sense and perception of the identity of place are analysed. Finally, the components of place identity are discussed. Thus, the chapter reviews literature that addresses aspects that shape and transform place identity in order to identify the association between activity and these factors.

Chapter three presents the research methodology and seeks to review the methodological theories adopted in this research to achieve the research aim. The chapter concentrates on the methods by which data are collected and involves several decisions that have been justified. These decisions were based on the philosophical theories, which lead to the growth and adoption of the research design and analysis.

Chapter four presents the evolution of the Lace Market, the forms of continuity and the disturbance of place use by reviewing the dynamics behind their growth and change. Moreover, it investigates the force of urban activities in stimulating growth, development or change within the process of urban place transformation across three periods of time. The first is the industrial period (1844-1920), which seeks to illuminate the forces that formed the Lace Market. The second period refers to the decline of the lace industry (1921-1990), which shows the impact of the deterioration of industrial activities on the character and image of the area. The third period covers the emergence of mixed-use (1991 to the present time) activities by analysing the impact of refurbishment on the character and image of the Lace Market. The chapter maps the features of the area and its growth and evaluates the continuity of characteristics across the three layers of time.

Chapter five explores how changes in the Lace Market's activities have affected users' perceptions of its physical characteristics and landmarks. The main attention of

the chapter is to investigate changes to distinctiveness of the physical environment at different times in order to determine changes in the perception of identity of place over time. The chapter begins by examining users' experiences of changes in the physical environment and identifies the impact of these fluctuations on their perception of place identity. Moreover, it investigates how activity affects the distinctiveness of the physical environment. Particular attention is paid to the relationship of activities to distinguishing landmarks, streets and nodes in the urban environment.

Chapter six reveals the factors related to the meanings of urban places. It focuses on the effective dimensions of activities, which help to develop the meanings attached to a place. The chapter considers five main themes: changes in place meaning, sense of belonging and pride, place boundaries, sound and smell, and socio-cultural characteristics. The discussion draws on the data gathered via the documentary review, interviews and site observations to identify patterns, similarities and differences in the meanings attributed to the Lace Market by its users over time.

Chapter seven concentrates on the conduct of site observations to identify, first, the relationship between user and place, and second, the activities that evoke memories and embody meanings for users. The observations were designed to gather data on the type, variety and density of activities available in the Lace Market in order to identify how these activities contribute to the distinctive of the place. Thus, this part of the study measured individuals' activity patterns, movements, spatial interrelations, and the extent to which they interacted with the physical environment. The chapter divides the categorised attributes into three key categories, namely: diversity, active frontages, and liveability and vitality.

Chapter eight containing the conclusion to the study. It answers the research questions raised through the summary and evaluation of the principal findings and related to the main objectives. It also involves a review of the contributions of the research to knowledge. The chapter concludes by explaining the main recommendations for developing an urban place.

Chapter 2 : LITERATURE REVIEW ON PLACE IDENTITY

2.1 Introduction

The main objective of this chapter is to define the concept of place and place identity and explore their related components. Moreover, considering the key aim of this thesis (to identify the role that human activity plays in shaping place identity), this chapter seeks to identify the association between activities and place identity dimensions through outlines the difference between space and place and how activities contribute to converting space to place and develop the relationship and emotional bonds between place and people. Theories of perception in relation to the experience of place are discussed to establish the theoretical framework that underlies the transformation of space to place. This is followed by the components of place identity, which also consider the experience and perception of place.

Reviews the components of place identity start with a discussion of the physical environment, which forms the first component of place identity, after which the attributes of the physical environment are reviewed and how activities with these attributes form the identity of a place. The chapter then describes the attributes of human activity in an urban place, which comprises the second component of place identity. This is followed by a review of the attributes that confer meanings upon a place and a discussion on how human activity influences the formation of these meanings. Collectively, these sections identify how activity acts as an important stimulant for the attributes of place identity, which thereby creates a unique environment.

This chapter reviews the literature on the factors that affect the perception of place identity and their association with these activities. The literature also offers several theories regarding the factors that promote place identity in order to demonstrate their relationship with human activity, including how this form and transforms urban identity over time. Finally, the chapter concludes by presenting the theoretical framework, and by describing the influence of activity on the perception of place identity. This conceptual framework guides the research analysis.

2.2 The Concept of Place

2.2.1 Developing the notion of place

Designers and planners involved in research on urban planning and design have increasingly concentrated on the creation of urban places (Relph, 1976b; Tuan, 1976, 1991; Wheatley, 1976; Rapoport, 1990; Cresswell, 1996; Castells, 2009; Sebastien, 2020). Philosophies underpinning the formation of urban places draw attention to theories and concepts of crucial scholars in this field. The literature review reveals that researchers have explored the notion of place in two ways. The traditional view understands place by using objective terms, namely as a location with specific physical characteristics (Conzen, 1960; Wheatley, 1976). For example, Conzen (1960) defines place as the formation of the urban form and the physical patterns of the place that supports it; thus, Conzen states that place is mainly the configuration of street patterns (e.g. block/ plot patterns and buildings). In the same context, Lynch (1960) defined and evaluated place through its physical environment, stating that it is shaped by its the five distinct abstract characteristics: Paths, Edges, Districts, Nodes, and Landmarks.

However, in the 1970s and 1980s the notion of place adopted a conceptual view, which was most frequently connected with geography through investigate relationship between individual and environment. Tuan (1976) was the first geographer to formally describe place as human beings' experiences and considerations of space and the natural world. Tuan in identify a place focused on the relationships between people and space as manifest through personal and group experiences of place. The concept has been also understood in more subjective terms as something psychologically and socially constructed (Relph, 1976; Tuan, 1980; Carmona et al., 2003; Seamon and Sowers, 2008). More recent studies commonly conceptualise place as: subjectively formed, based on everyday lived experiences, involving social practice, and connected with feelings and meanings that are embedded by people within the physical environment. For example, Ramli and Ujang (2020) describe place as focusses of social relations and social interaction; similarly, Cresswell (2015) considered that place(s) comprise diverse uses and are constructed on the interrelationships between individuals and (above all) constructed meanings.

Consequently, the concept of place can be considered as both solid elements and subjective dimensions. Thus, the sense of place results from mixed physical form, activity, and meaning (Montgomery, 1998). In environmental psychology, place described is essentially by its physical environment, which include the interrelationship between individual and social interactions through involvement in place specific activities (Gehl, 2010a). Thus, a place is made by people who invest meanings in it that cannot be separated from these individuals (Ujang and Zakariya, 2015b). Gieryn (2000) explained that people interpret and imagine the place through the physical environment, whilst Ujang and Zakariya (2015b) also confirm the importance of an interpreted, narrated, perceived, felt, understood and imagined place in placemaking. Therefore, an assessment of placemaking needs to consider the importance of people's emotional connections with place.

2.2.2 Place is a space with meaning

Space and place are essential notions in Humanistic Geography (Seamon and Larsen, 2020). In geography, space is considered more abstract and mentions to a measurable, objective area that is defined by its physical environments; in comparison, place refers to districts that are formed by meanings through subjective experiences, appraisals, and memories (Madanipour, 2013). Consequently, space acquires significance and meaning via everyday practise (Dovey, 2009). Moreover, the process of developing meanings relates to individual, collective, or multi socio-cultural memories, which are gained through experiences that are lived on-site (Kudryavtsev, Stedman and Krasny, 2012). Hence, the difference between space and place lies in meanings. Leonard (2014) defined place as an abstract space that is converted into a meaningful location as a result of peoples' experiences. Although place connects with many aspects, the most important are peoples' experiences and interactions with the physical setting (Bott, Cantrill and Myers, 2003), which means that human experience is essential in the place-making process, whilst the concept of place implies human existence in which the using's of spatial structures is essential.

Table 2.1: The variety of people-place relationship concepts

Place attachment	Place attachment defined as "generally understood to refer to the affective bond or link between people and specific places" (Moulay *et al.*, 2018, p.29), which is not static as a person's identification with and dependence on place changes (Casakin, Hernández and Ruiz, 2015a). This notion merges factors associated with the psychology of the person (behavior, mental, and emotional extents) and the specificity of space (measure, and built environment) (Scannell and Gifford, 2010).
Place dependence	Place dependence relies on meeting people's needs and enables them to achieve their purposes (Raymond, Brown and Weber, 2010). A place that is judged more reliable in fulfilling people's needs will encourage greater dependence and is more likely to receive visitors (Cosco, Moore and Islam, 2010). Hence, people value places for their functional attributes (White, Virden and Van Riper, 2008).
Place identity	Place identity refers to both the dimensions of self and the objective (Wang and Xu, 2015), such as the awareness and memory of specific physical settings (Proshansky and Fabian, 1983) and the symbolic meanings related to place that are distinct from other places (Frantzeskaki, van Steenbergen and Stedman, 2018). Identity of place associate to both intangible and tangible aspects of a place. Hence, place identity is a established of place features and meanings (Lewicka, 2008) that stimulate users' memories and guarantees the place's uniqueness and continuity over time (Cheshmehzangi, 2014a).
Sense of place	The sense of place is more likely to "relate to the intangible aspects of a place in which feelings, thoughts, beliefs and sensations are key aspects" (Cresswell, 2008. p169). People sense place through emotional bonds, values, and meanings, which are formed and stored within individual minds as result of their awareness of the social features, historic event and spatial characteristics based context (Williams and Stewart, 1998; Bleam, 2018).
Belonging to place	This relation refers to people's sense of belonging to a place, which plays an integral role in creating self-identity (Saar and Palang, 2009). Consequently, it reflects everyday life and the socio-culture of the place to which they belong. The place can be an effective site for social practices throughout history for specific groups of people (Bennett, 2014).

Source: (Almakkas, 2017)

Table 2.1 shows that researchers locate the people-place relationships within the psychological dimension (emotion and feeling), particular place settings (Landmarks, distinctive elements), and involvement in the activity (experience of a place). These factors were essential in such a relationship as people identify and value a place. In all these concepts, activities were found to support the continuity of experience and offer a deep perception of place. In this context, Shuhana (2011) argued that a place is identified by human experience, which thereby confers meaning. Thus, involvement in an activity is important in the place-creation process. This suggests that place is a multi-layered aspect of individual experiences rather than an entity that can purely be described by its locating or form.

It can be argued that the concept of place, unlike space, expresses an effective durable bond between people and a precise setting (Ali Madanipour, 2010; Azmi, Ahmad and Ali, 2014). This bond develops and is reinforced over time as the individual interacts with the physical environment, thereby accumulating memories and emotions, which are the products of human experience. Continuity in the experience of place (and time) are thus essential in the transformation of space into place (Figure 2.1).

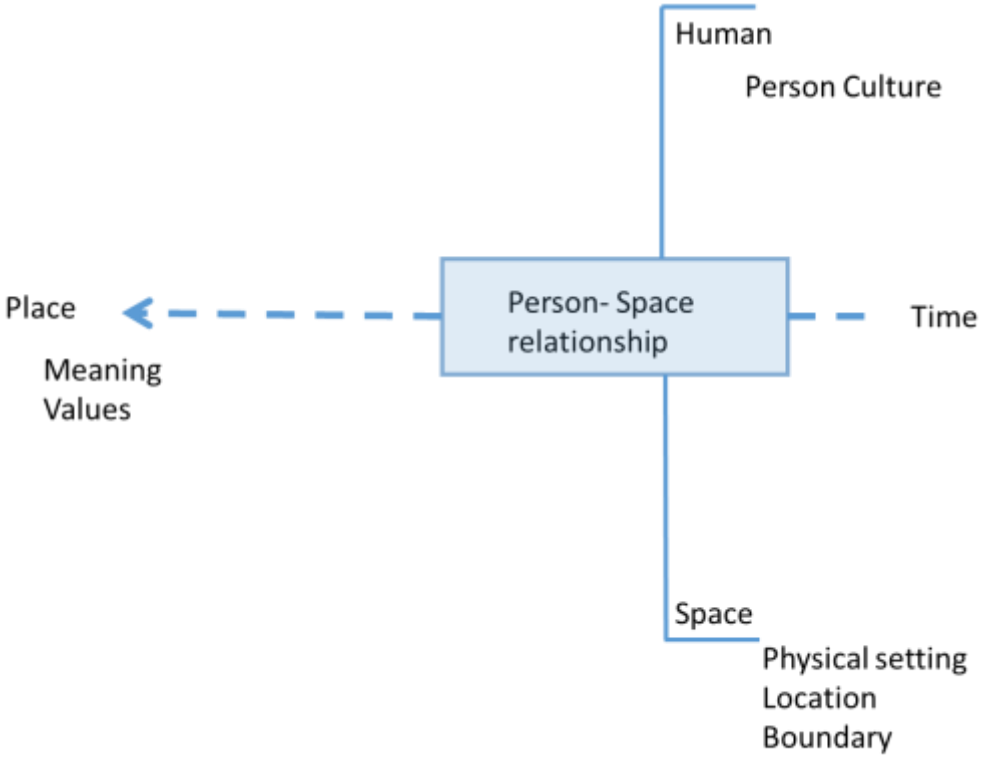


Figure 2.1: Place based on the person-space relationship

Source: (Almakkas, 2017)

2.3 Components of Place

Since the middle of last century, there has been a split of sorts amongst scholars over what makes a place and how people sense the place. On one side, there are those who consider place from a rational objective view. For example, (Cullen, 1961) places the greatest emphasis on physical characteristics including the way buildings are formed, their size, height, materiality, length of existence, street patterns and the like. Others, such as Alexander (1979) or Lynch (1960), stress the intangible aspects of place

which are bound up in the psychology of place where people rely on their senses and memory to value and sense place.

Few heurists have managed to combine these approaches; they argue that an urban place must be considered in much wider terms than the tangible attributes of settings. In their view, there are many tangible and intangible aspects of place which, if combined properly, help to study sense of place and placemaking. In this context, (Canter, 1977. p 158) asked two questions regarding the shaping of place: (1) what are the main components which integrate to create places? (2) What procedures are available for identifying places and their attributes? He answered these questions through a conceptual diagram of the components of places, in which he introduced places as a function of “activities”, “physical attributes” and “conceptions” (shown in Figure 2.2). Canter's metaphor combines the urban design perspectives of those concerned with mental maps and 'imageability' with those who consider the physical attributes of place, and those who stress the essential importance of activity. This model indicates that the potential relationships among activities, conceptions, and physical attributes lead to the creation of a place.

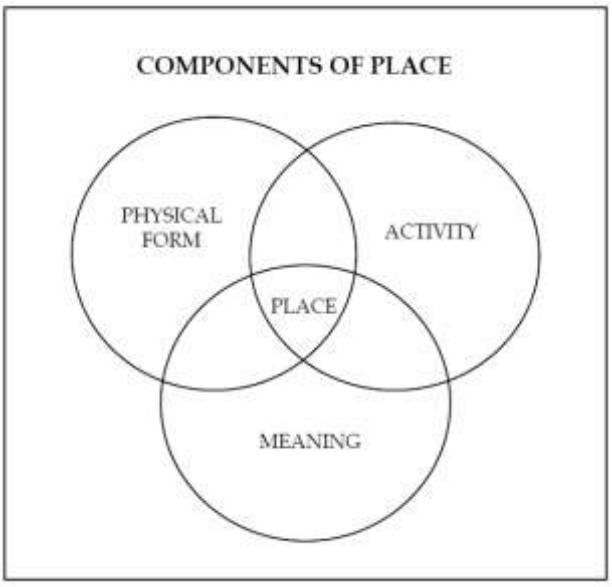


Figure 2.2: Canter’s (1977) components of place

Source: Canter (1977, p, 158)

Over the last four decades, several researchers have identified these three elements, and subsequent researchers used the term “sense of place” for the “place” component.

For example, Punter (1991) reinterpreted this conceptual diagram by showing the components of the sense of place and the relationships between them (shown in Figure 2.3). He provides rich detail on all attributes of components of place, namely: the physical setting (built form, townscape, landscape, structure, permeability), meaning or imageability (legibility, cultural associations, perceived functions and qualitative assessments) and activities (land uses, pedestrian flow, behaviour patterns, noise & smell and vehicle flow). Building on Punter's idea, the shaping of place relies on these attributes of place and he considered activities as a principle for creating place, which supports the relationship between people and place.

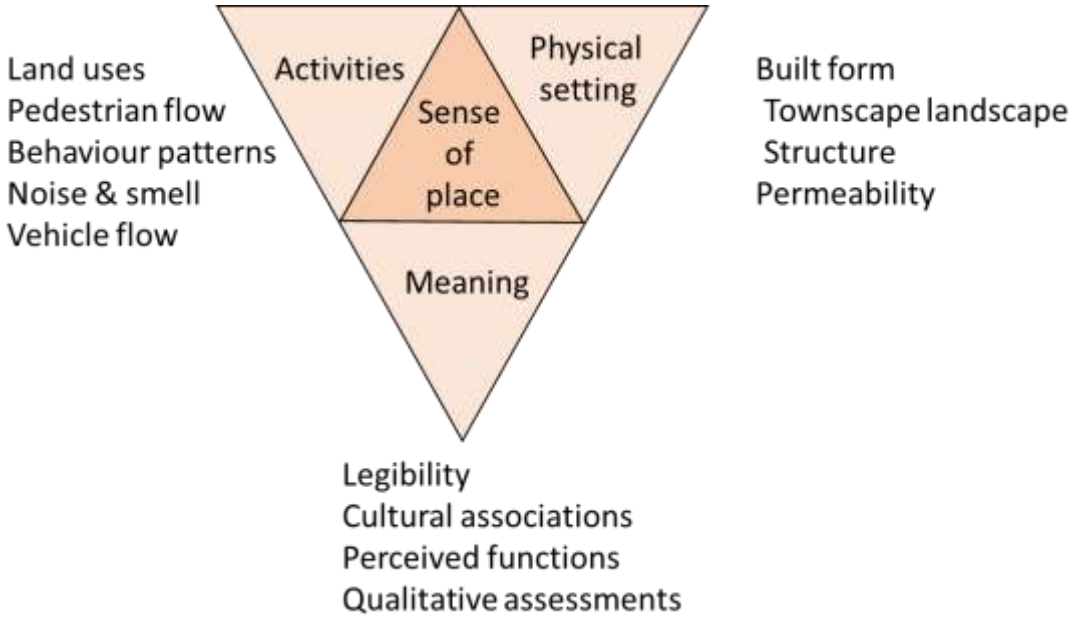


Figure 2.3: Components of a sense of place

Montgomery, (1998) studied two frameworks (outlined above), which were derived from the principles of place making and helped him to create a composite model that combined all elements of place. The Montgomery framework is distinct from previous models by considering how a place is perceived; he found that the image and meaning of a place involve peoples' sets of feelings and impressions about a place. He adds to previous models by indicating that images of place are created from amalgamations of cognition (comprehension or understanding) and perceptions, as well as individual, group and cultural 'personality' constructs or meanings. Thus, he is concerned with the role of these elements in psychological access, receptivity and knowledgeability, which, over time, came to represent the characteristics of place and produce a sense of identity for their users. His composite derived model, combining

all elements of a good place that contribute to making place, provides detail on the components of the built form in terms of scale intensity, permeability, landmarks, and space to building (illustrated in Figure 2.4). These are linked to meaning or "imageability" (symbolism and memory; imageability and legibility; experience and associations; "knowledgeability") and activities (diversity, vitality, street life, people watching, culture, and events) (Montgomery, 1998). Carmona, (2010) accepted this conceptual framework and re-emphasised the importance of people in the production of meanings given to particular spatial settings, as they receive and interpret these meanings. Hence, the place is seen as a multifaceted phenomenon of personal experiences.

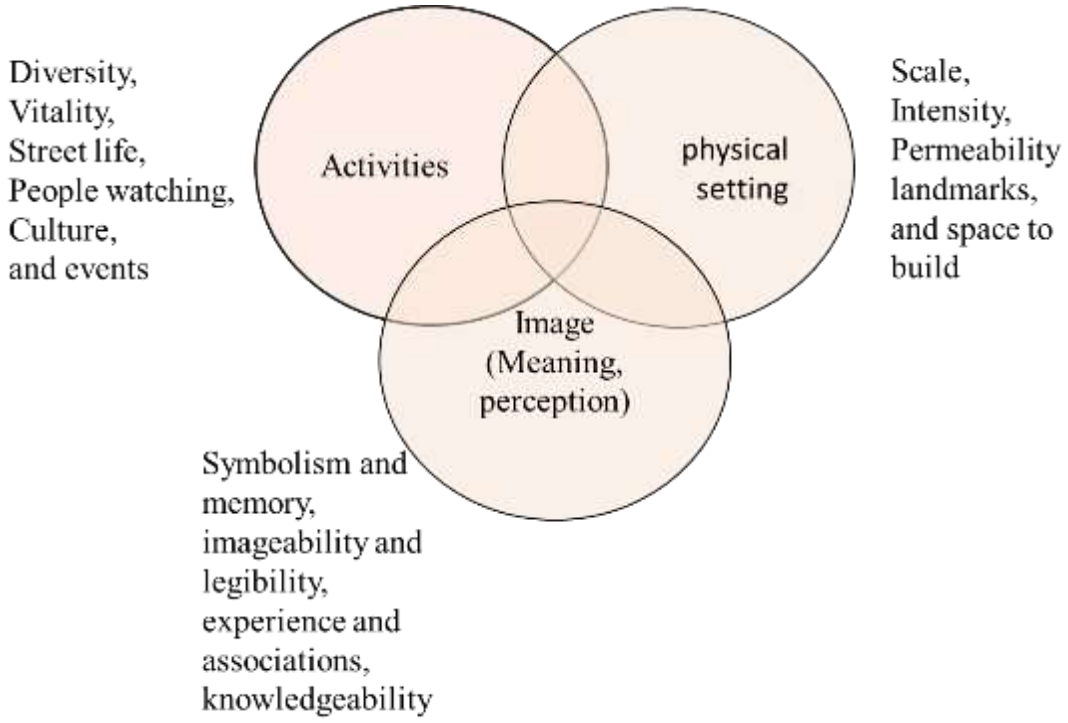


Figure 2.4: Montgomery's (1998) components of place

Source: (Montgomery, 1998, p. 96)

By reviewing these conceptual frameworks, it can be seen that the spirit of place involves topography and physical appearance, economic functions and social activities, while particular meaning derives from the past events and present situations. It can be argued that, without use, urban places become progressively more lifeless, dull and inert. Three authors, Canter, Punter and Montgomery in their frameworks, agree that without activity, there can be no urbanity. It has to be said that

whilst useful as conceptual frameworks, such models need more practical research to identify how activities integrate with other elements in shaping a place.

2.4 Perception of Place

2.4.1 Conceptualisation

Place perception has long been defined as "the process of becoming aware of our surroundings" (Canter, 1977, p. 7). Carmona et al. (2003) define perception as a process that intervenes between the stimuli and responses to a place. These stimuli may be landmarks, distinctive physical features, or activities, which individuals recognise in the course of their involvement with a place. Thus, perception is linked with mental memory, knowledge, and the intuitive cognition of a place's elements (Kaymaz, 2013). In the same context, Carmona, (2010) argues that perception is prosses of gathering, organising, and creation sense of memory about place; it is thus a biological experience involving many dimensions. Bell (1990) recognises four dimensions of the perception of place identity:

> *"Cognitive: involves thinking about, organising and keeping information. In essence, it enables us to make sense of the environment.*
>
> *Affective: involves our feelings, which influence the perception of the environment - equally, perception of the environment influences our feelings.*
>
> *Interpretative: encompasses meaning or associations derived from the environment. In interpreting information, we rely on memory for points of comparison with newly experienced stimuli.*
>
> *Evaluative: incorporates values and preferences and the determination of good or bad" (p.29).*

Accordingly, the perceptions of place identity emerge from internal, personal experiences (McCunn and Gifford, 2018). Perception involves numerous dimensions. Place identity is understood to, firstly, emerge from important (awareness) individual associations (experience); secondly, from the understanding of this experience as meaningful (cognition), and, lastly, when the identity of place is felt (perception) (Rapoport, 1990; Castells, 2009; Adam, 2012). Moreover, the sense of place is the direct and immediate response to stimuli, while 'knowing' refers to the mental

processing of this response. In comparison, perception represents a personal assessment or understanding of the environment and its constituent elements. Accordingly, the perception of a place relates to individual experience as well as collective memories, which are tied to places that individuals have interacted with or used. Experiences connected to the use of the site where users save memories in their minds (Wesener, 2016). Perception is a produce of place knowing in which the experience of place involves an essential step of awareness and appreciation for the associated elements. Therefore, experience is arguably essential to the process of knowing and perception of place, and reliant on the relationship between individuals and settings.

2.4.2 Experience of Place

Experience denotes the relationship between the subjective (e.g. feelings) and objective (the physical environment). Consequently, experience concerns users' feelings, interpretations and responses to the uniqueness of the physical environment (Castells, 2009; Gieseking and Mangold, 2014). Thus, experience pertains to a relationship between people and their environmental location (Cresswell, 2004), and to the social practices undertaken (Leonard, 2014) by people in reaction to their surroundings (Vanderhaegen and Canters, 2017).

This suggests that the initial step to learn about a place is to visit, live, or work in it. The second step is to engage in activity there and interact with the place. Indeed, during their interactions, people get to know about the surrounding environment through "sensory inputs" (Carmona, 2010). Moore (1979) observes that immediate reactions (to initial sensory impressions) and stimulus dependencies (visual stimulus of physical elements) are standard criteria for perception. These sensory inputs, which are evaluated by personal experience, influence an individual's emotional and behavioural responses to the physical environment (Sepe, 2013). Consequently, sensory inputs and immediate responses to stimuli are important factors in the evaluation and perception of place identity.

2.4.3 Sensory Stimulus of Perception

The perception of place includes gathering, organising, and interpreting information about the environment. Carmona (2010, p. 111) clarified that the vision, hearing,

smell, and touch are the most important senses for gathering and sensing the environment:

> *Vision: the dominant sense that provides more information than the other senses combined. Orientation in space is achieved visually. Vision relies on distance, colour, shape, textural, and contrast gradients in recognising the place.*
>
> *Hearing: "acoustic" space is all-surrounding, has no obvious boundaries, and emphasises space itself. Hearing is emotionally rich.*
>
> *Smell: as with hearing, the human sense of smell is not well developed. Nevertheless, while information communicated by smell is impoverished compared to that conveyed by sound, smell is probably emotionally richer.*
>
> *Touch: in the urban context, much experience of texture comes through our feet, and through our buttocks when we sit down, rather than through our hands.*

Therefore, sensation emphasises the perception of a particular place and is usually perceived and appreciated as important when gathering information about a place. For example, sound has a closer association with activities associated with the research question and reflects the density and type of activities taking place. Indeed, sounds have been found to reinforce place meaning and visual landmarks (Sepe, 2013), while Lynch (1990) explained that sounds are highly evocative of the lifestyle of places, such as bells and motorcycles. Thus, sounds emitted from activities contribute to an personality's image of a place, from which they interpret or perceive place identity. This confirms that place identity is associated with people's sensations of the distinctive aspects of place.

2.5 Non-Places

The difference between place and non-place understands by the differentiation between place and space. This distinction can be elucidated by the analysis of non-place offered by the anthropologist Marc Augé (2008, p.63) who definite that "If a place can be defined as relational, historical and concerned with identity, then a space which cannot be defined as relational, or historical, or concerned with identity will be a non-place." Accordingly, place denotes a space associated with identity that meets people's needs through enhanced social references. Conversely, non-places are not

social areas and do not reflect a specific group of people. Hence, a non-place is considered unliveable, which remains anonymous and is thus isolated from the local community.

In this sense, the loss of place can be seen in many (previously) industrial places of the Western world, which have experienced an extreme conversion in their economic, social, and land-use form as a result of the deindustrialisation that occurred around the mid-20th Century (Hamnett and Whitelegg, 2007; Net-Topic, 2012). Deindustrialisation was followed by the massive-scale abandonment of old factories, ports, associated housing and other facilities (Tallon, 2009), which meant the manifestations of life ceased through the withdrawal of people-place interaction.

Accordingly, the character and image of places changed due to deindustrialisation and the subsequent termination of human interaction. The lack of activities and change meant local governments became increasingly concerned over with the identity and local character of such spaces (Boussaa, 2017). As a result, urban design has increasingly focused on the creation of meaningful places (Madanipour, 2006; Tallon, 2009; Sepe, 2013b) in a quest to sustainably reshape traditional places through new uses and functions. Such phenomena of change of activities affect the identities of vast historical urban environment, there is a necessity to process such places with chronological sensitivity in order to maintain the meaning of places and thereby sustain and continue their identities.

2.6 Place Identity

The discussion of place identity started with place theory. As previously discussed, most research sources agree that a space convert to a place after acquires meaning and attach with memories (Tuan, 1980; Carmona, 2010; Ziyaee, 2017). Place acquires meanings through humans' emotional and symbolic attachments, which are reinforced over time as users continue to connect with this experience. These values and meanings differentiate places (Inglis, Deery and Whitelaw, 2008), and this distinctiveness forms the most important part of identity. For example, Shuhana (2011, p. 18), considered the "[…] distinctiveness of the physical environment and the ability for it to be recognized and recalled vividly by the observer". People perceive this distinctiveness as place identity. Moreover, place identity also relates to collective memories, which are tied to places and reinforced by the continuity of

experience. In this context, Jacobson-Azmi, Ahmad and Ali (2014) argue that place identity has two key dimensions – sameness (continuity) and uniqueness (distinctiveness). Thus, the two key factors related with place identity are: continuity in the experience of a place, and its distinctiveness.

2.6.1 Continuity

A place's identity is constructed as users interact with their physical context and develop an emotional bond (Manzo, 2005; Shamai and Ilatov, 2005; Ibrahim, Mushatat and Abdelmonem, 2014; van Riper et al., 2019). This emotional bond appears as a user's memory that strengthens the sense of a place's uniqueness through the recall of landmarks, events, or distinctive places (Jarratt *et al.*, 2019). Thus, the identity of a place is essentially created by continued individuals-place relations (Tran Smith *et al.*, 2015), such as the use of buildings and social interactions. This suggests that maintaining a sense of place identity relates to the continuity of users' engagement of a place, through their interactions with spatial components.

People continue to using place and develop emotional bonds when a place is seen as significant and is able to offer a condition that fulfils their functional needs (Ujang and Zakariya, 2015b). Thus, people continue to use places because they perceive that such sites fulfil their psychological needs, for example, as ideal locations for meeting, shopping, people-watching, or walking. As Williams and Roggenbuck (1989, p. 3) stated, "It is a good place to do the activities I like to do". Moreover, this can mean involvement in activities that are important for the continuity of interaction between people and place (Hernández *et al.*, 2007), and grow emotional bonds with places (Knez and Eliasson, 2017). Thus, the types of activity that evoke these emotional bonds, and the key attributes of activities that contribute to place identity should be maintained for long-term sustainability.

2.6.2 Distinctiveness

The features of the physical environment that shape place identity are "those that are characteristic and easily recalled" (Lynch, 1960, p. 133). Place identity is formed by users remembering the physical features of a given setting (Moulay *et al.*, 2018). These features or attributes distinguish the place from other places and make it easy to recognise as a separate entity (Hartanti, 2014). For Ginting, Nasution and Rahman,

(2017), these attributes enhance people's memory of the physical environment and develop an emotional bond, which leads to a sense of place. The distinctiveness principle is an important aspect for shaping place identity, as it is necessary for the construction of meaning and imbued in particular places (Gomes, 2017). Thus, that the distinctiveness principle can be used in this research as a tool to predict the physical attributes that are associated with place identity.

2.6.3 Definitions of Place Identity

Despite importance of the physical environment on place identity, the concept has been discussed more broadly in academic studies. Place identity has many interpretations (Lewicka, 2008), which means there is no general consensus on how the concept should be defined. Table 2.2 implies that place identity is constructed from a mix of objective and subjective factors; on the one hand, objective factors represent the physical environment and its spatial features (e.g. location, size, built form and furniture), which have a significant influence on generating the identity of a place. Users remember the physical characteristics of a given setting (Ujang, Moulay and Zakaria, 2018), making the place distinctive from other places in the user's mind and therefore easy to recognise as a separate entity (Hartanti, 2014). On the other hand, people produce subjective meanings (e.g. emotional bonds, feelings and memories), which they subsequently imbue physical settings with. These factors have a significant role in the perception of place identity, as individuals experience place and develop emotional bonds throughout interacting with its components (van Riper *et al.*, 2019). This emotional bond appears as memory reinforces the identity of a place by recalling landmarks, events, or distinctive places (Jarratt *et al.*, 2019). Hence, place identity involves numerous dimensions, and denotes the gathering of information about the environment through the experience a place. This enhances people's memories and enables the development of an emotional bond that leads to the production of meanings, which are perceived as the identity of the place. This process reflects the many components comprising place identity and the innumerable combinations thereof; however, the role of activities remains unclear within this process. Therefore, this study pursues to fill this gap by investigative the creation of place identity.

Table 2.2: Definitions of place identity

(Lynch, 1960, p. 131)	"…the extent to which a person can recognise or recall a place as being distinct from other places".
(Proshansky and Fabian, 1983, P.59)	"It is a sub-structure of the self-identity of the person consisting of, broadly conceived, cognitions about the physical world in which the individual lives. These cognitions represent memories, ideas feelings, attitudes, values, preferences, meanings, and conceptions of behaviour and experience which relate to the variety and complexity of physical settings that define the day-to-day existence of every human being".
(Lynch, 1990)	The place identity can measure by a place feature that an individual distinguishes or remembrance as being different from other places.
(Cuba and Hummon, 1993)	Place identity is the background of a person that determines individual identity associated with the physical setting of the place.
(Isin and Wood, 1999)	Identity of a place is a phenomenon that does not result from the repetition and similarity place to another.
(Al-Naim, 2008)	The concept of place identity has social and cultural dimensions. It established from a set of signs identified by a group of people at a specific location and period of time.
(Lewicka, 2008)	Identity of a place is a collection of place characteristics that promote the place's distinctiveness in people memory.
(Tavakoli, 2010)	Identity is defined as the construction of a town that is different, which consequently enhances the perception of that town.
(Marcouyeux and Fleury-Bahi, 2011)	Identity is how groups of people view or describe themselves in relation to the physical environment.
(Casakin and Bernardo, 2012)	Place identity is a product of collective or set of individuals memory, in which people identify place through the physical environment.
(Ujang, 2012)	Identity of place is constructed via **meaning, physical setting and bonds** which develop over time.
(Zakariya and Harun, 2013)	Identity is the **feature of environment, activity, and historical events**.
(Kaymaz, 2013)	Place identity relates to what extend material attributes and symbolic meaning of specific boundary support a person feeling of self.
(Bernardo and Palma-Oliveira, 2013, p.37)	"Place identity is a substructure of the social identity of the self, consisting of aspects of self-concepts that are based on the idea of belonging to geographically defined groups".
(de Vries, Ashton and Lee, 2018, p.4)	"Place-identity is a substructure of self-identity, like social class, composed of cognitions about the environment".
(Jarratt et al., 2019, p.3)	"Place identity is forged in the interplay between a personal identity and topographical place".
(Trąbka, 2019, p.73)	"The formation of place identity is founded basically on the sense of familiarity and social capital, which led her to feel one with the city. In other cases, this deep emotional bond may result from the fact that the new urban setting became a place of personal growth and development".

2.6.4 Place Identity as a Social Culture Aspect

The socio-culture that characterises one group from another can reflect a sort of urban identity (Harun, Fairuz and Nordin, 2015). Ways of life, habits, and knowledge are cultural principles held by particular groups of people and subsequently play a significant role in determining group of people identity. This affects the image and identity of the place with which they interact. By examining different cultural groups on their perceptions of place identity, Ujang and Zakariya (2015) stated that a change in place experience poses different forms, kinds, and degrees of perception among people of different cultures. Therefore, from culture to different the identity of place differs. People around the world have different cultures, vary in how they associate to their environment, attribute meaning to their physical settings, and characterise such settings (Tuan, 2003). Thus, identity differs from one culture to another according to an individual's beliefs and habits, biological needs, and social relations with other people.

Accordingly, the perception of identity is a social process whereby individuals produce meanings of their area (Cohen, 1994). Sargın (1989, p. 63) defined identity of place as the "particularities which determine one from others in terms of physical and social context". Hence, the association of identity with purely physical characteristics is not accurate, as it also needs to consider the culture to which users belong (Fitri and Triyadi, 2015; Eräranta *et al.,* 2016). Culture determines a community's lifestyle, and dedicated cultural phenomena are crucial to shaping a place's identity (Huovinen et al., 2017). When a physical setting and cultural characteristics meld with individuals' functional needs, places become imbued with meanings and value (Fitri and Triyadi, 2015). The meanings of a place are associated with the urban environment and users' cultures which affect people's experiences in and the identity of place (Gustafson, 2001). Thus, place identity signifies affective meanings that culturally shared, whilst the activity linked with such area arise from economic-political, and traditional sources. In the place-making and identity process, studies have tended to concentration on physical characteristics; therefore, the effects of cultural activities on place identity have not been considered.

2.6.5 Place Identity as Self-Identity

A place and its users are not separate entities in the creation of urban identity. Place identity is produced by the identity of its users as people shape their surroundings to satisfy the functional needs that suit their socio-culture habits (Sebastien, 2020). This allows a place's identity to change fallowing to users need (Proshansky and Fabian, 1983). It is widely accepted that people produce meanings of a place through collected memories of their experience of a place; from this, they embody these meanings in the form of emotional bonds to a place (Tuan, 1991; Carmona and Tiesdell, 2007; Huovinen *et al.*, 2017). Throughout time, users perceive these meanings as the identity of the place. This identity thus manifests through relevant memories, feelings, preferences, and values (Jarratt *et al.*, 2019). A place subsequently becomes "part of the person" and is "incorporated into one's concept of self" (Dixon and Durrheim, 2000, p. 36). Therefore, through experiences with the physical environment, the perception of place identity also reflects local heritage, culture and historical events, social relationships, and the identity and culture of place users.

In contrast, place identity is also seen as a supporter of self-identity, which inspires personal feelings via interactions with the characteristics of a place (Cresswell, 2015). In this sense, place identity has been defined by Butina-Watson, (2007, p. 6) as "the set of meanings associated with any particular cultural landscape which any particular person or group of people draws on in the construction of their own personal or social identities". When people identify themselves with a place, they mention to the physical settings where they live (Hauge, 2007). Consequently, the notion of place identity can be defined as the interrelationship between persons and place (Knez and Eliasson, 2017). People produce the place identity which subsequently means the identity of the place affects people when they became users. According to Kaymaz (2013, p. 745) "there is a two-way relationship between a person and a place. While place influences self-identity, people also tend to create, change or maintain their physical surroundings in ways which reflect themselves". Thus, people influence the character of place by their own identity, while places simultaneously play a important role in growing and continuing the identity of users.

2.6.6 Place Identity and Time

Besides self-identity, another influence on place identity is time. In an urban place, identity is a dynamic phenomenon and located within the cultural frame of society, meaning it can change over time (Al-Naim, 2008). People shape place identity (Luh Micke Anggraini, 2017), that place identity create by a user-experience (Butina-Watson and Bentley, 2007), following which other people at different times, collect other memories (Huovinen *et al.*, 2017). This suggests that identity of the place changes over time through change the level of individuals' interaction and way of using the place, which particularly occurs following conditions of continuous economic and technological change.

Accordingly, as place identity is a temporal phenomenon that is flexible and always evolving (Ratcliffe and Korpela, 2016), researchers have also addressed the integration between time and identity (e.g. Speller, 2002; Dixon and Durrheim, 2004; ARGIN, 2012; Sepe, 2013b; Twigger-Ross, 2013; Wang and Xu, 2015; Bailey, Devine-Wright and Batel, 2016). These authors emphasise the dynamic nature of identity, namely that it should not be seen as a fixed characteristic but as the product of knowledge and experience in a given and changing social context. Activities carried out are essential to the experience of a place and also shape its identity; therefore, as needs and subsequently activities change, place identity is also reconstructed. Time evidently plays a fundamental role in transforming identity, because, as activities change over time (in terms of type, density, and duration) the similarly affects the human-place connection.

In urban sustainability, human connection with a place is the main axis to create and maintain its identity; however, no systematic synthesis of the empirical literature on human–place connection over time currently exists. Most related research has examined the impact of existing relationships on place identity, and often leaves ‘time’ undefined (Gehl, 2010a; Azmi, Ahmad and Ali, 2014; Reads, 2016). To address this gap in knowledge, this thesis seeks to identify users’ experiences of place at different times, and how changes in activity affect the perception of place identity longitudinally. This will be achieved by a chronological analysis of the human-place relationship, and (alongside physical environment, activity, and meaning) includes time as one of the four essential elements to shape place identity.

2.6.7 Place Identity and Memory

Place memory has been seen as the key power in reinforce of place identity. It relates to the user's recall of area component (Lewicka, 2008), alongside history, social events, historical buildings, and monuments, etc (Bernardo *et al.*, 2019). People create memories on a daily basis and gradually forge a bond with place. The longer they use a place and the more memories they form, the deeper their attachment (Hidalgo and Hernández, 2001). Furthermore, social and historical events are also fundamental to the perception of place through their construction in people's memories (Hidalgo and Hernández, 2001; Mason, 2002; Bontenbal, 2016; Dymnicka and Szczepański, 2016; Morton, van der Bles and Haslam, 2017). Socio-memory concerns important actions that have happened throughout people's exists or that occurred pre-born (Connerton, 2003); hereafter, it also concerns the historical context of view (Di Masso *et al.*, 2019). Thus, place memory lies in the extent of the psyche of each person, as a result of their direct or indirect experience.

Moreover, environmental psychology investigations concerning found that the collective memory of a place developed through written, spoken, and media sources, historical documents, family stories, circulated legends, songs, and finally by historical urban traces that stimulate memory in a place (Lewicka, 2008). However, such knowledge or remembrances do not necessitate an actual presence in, or interactions with, a place. Indeed, one empirical study revealed that people may remember areas they have not visited, and that seem irrelevant to their local history (Savage et al., 2005). People may remember events that occurred in their lifetime, or before they were born through the history of their family, including important international history, etc (Lewicka, 2008). In these cases, remembrances do not depend on direct experience, but on oral stories, cultural transmission, or narratives, which thereby imbues value.

In contrast, scholars of urban design are concerned with the memories collected from people-place interactions, which are perceived as significant in creating perceptions of places (Sepe, 2013c; Cross, 2015; Sebastien, 2020). These occur through the direct experience of a place as an significant part of the identity formation process (Wesener, 2016). An empirical study carried out in New Zealand by Liu et al. (1999) state that memories of events related to place history after settlement are mentioned more

frequently than that occurred before people occupying the area. This further suggests that group memories focus more on the stories with straight interactions with place. Accordingly, it is clear that place memories are strongly associated with local history and the present situation of a place (Connerton, 2003); moreover, both contribute to a place's distinctiveness and identity over time.

2.6.8 Heritage led urban regeneration

Heritage, as the contemporary use of imagined pasts (Pendlebury 2014), is mobilized for a wide variety of present purposes. One of the most frequent overt mobilizations of heritage that has developed over recent decades is its use as a catalyst in urban regeneration (Pendlebury and Porfyriou, 2017). The link between heritage as a consumable experience and urban regeneration as an economic development activity is widely exploited (Pendlebury 2002). The instrumental use of heritage in regeneration is a global phenomenon, often linked into both strategies seeking to develop so-called cultural industries and a process of 'place-making', a term variously used by urban designers to establish attractive physical locales as part of the backdrop of successful social space (Porfyriou and Sepe, 2017). Heritage-led urban regeneration is an essentially cultural practice, which depends upon an understanding of the past and encourages people to engage with the visible and invisible factors that produce these revitalised places. The use of historical urban places demonstrates a person's relationship with the past, and aims to convert decaying places into competitive and attractive locales. Thus, their decaying historical urban fabrics are transformed into vibrant places through repurposing urban settings.

Whereas conservation aims to maintain the historical physical environment, heritage-led urban regeneration projects represent an effort to utilize the past for practical modern functions (GRAHAM, 2008). Thus, heritage-led urban regeneration projects aim to strike a balance between the conservation of historical settings and activities that fit the time, by considering acceptable degrees of change and by repurposing the physical environment. Therefore, using heritage in urban regeneration projects requires care to conserve urban architectural landmarks and the mobilization of investment through the reuse of heritage places. This has to fit with economic fluctuations and fulfil people's needs to ultimately shape a unique sense of local identity.

The use of heritage to develop urban place is, in essence, about communication. The starting point is one of the simplest and consequently most attractive definitions of heritage, namely as "contemporary uses of the past" (GRAHAM, 2008). In this process, heritage is consumed, although what is consumed does not necessarily just concern heritage in the form of an old building or a cultural landscape, but also its representation in the form of a historical narrative and what it carries in meanings (Pendlebury and Porfyriou, 2017). Together, this aims to combines past and present while its communication with history plays an important role. This means that heritage is responsible for questions of representation and the communication of original place meanings, while the role of heritage in the production of place identity is also the focus of this research. Understanding how places alter and acknowledge the importance of their history and culture is the first step in successful urban regeneration (Furlan, Petruccioli and Jamaleddin, 2019). Consequently, the communication between the past and present is an important strategy for the producers of heritage and offers a powerful way to revive place identity. If effectively communicated, heritage can be a prime marker or carrier of place identity (Kavaratzis and Ashworth, 2005). Therefore, heritage has a parallel and individual contribution to urban regeneration projects to which attention should be paid in depth when developing places.

2.7 Components of Place Identity

As with place, place identity is generally assumed to have three components, and similarly, each should be considered in relation to the others: physical environment, observable activities, and meanings (Rapoport, 1990; Carmona and Tiesdell, 2007; Najafi, Kamal and Mohd, 2011; Reads, 2016; Jarratt *et al.*, 2019). The physical environment (built and natural) is the foundation upon which place identity is constructed (Relph, 1976a; Garnham, 1985; Tuan, 2003), but equally important are users' activities (experience) and meanings (Saar and Palang, 2009; Bernardo *et al.*, 2019). Over the last four decades, researchers have broken down these components into a range of sub-elements; for example Ibrahim, Mushatat and Abdelmonem, (2014), developed a comprehensive framework of urban identity (Table 2.3) that shows place identity as a complex combination of attributes within the three components.

Table 2.3: Criteria and attributes of place identity components

Components	Criteria	Attributes
Physical features	Functionality Urban form	Land use, Mass and void, Skyline, Topography, Layout and pattern, Location, Form
Dynamics and activities	Diversity Vitality Accessibility	Street activity, Liveability, Interaction, Containment, Self-sufficiency, Access and permeability
Meanings and symbols	Distinctiveness Socio-cultural	Image, Visual access, Architecture and form, Distinction, Durability, Traditional and historical

Source : (Ibrahim et al.,2014, p. 61)

2.7.1 Physical Environment

Although there has been much discussion on the phenomenon of place identity, most of the debate focuses on one main concept: the interaction between the physical setting and the individual, namely how the user feels about and recalls the physical environment (Relph, 1976a; Lynch, 1990; Mboya *et al.*, 2004; Ujang and Zakariya, 2015b). The physical environment is commonly divided into built and natural elements. Thus, Llewellyn Davies, (2007) suggested that the spatial configuration of place comprises masses (landforms and buildings), space (parks and other open spaces), paths (movement patterns), and the natural environment (e.g. earth, sea and sky). Numerous authors have emphasised the importance of these attributes and the characteristics that distinguish these physical environments in the construction of the essence of place and place identity (Montgomery, 1998; Williams and Stewart, 1998; Bleam, 2018). Therefore, this research considers the distinctiveness of the physical environment as one affective aspect in forming identity, which can be considered in relation to the associated attributes of the physical environment, as discussed below.

2.7.1.1 Physical form and Appearance

The physical form is one of the characteristics of the physical setting that is visible, and therefore easily recalled (Rapoport, 1990). For example, users may remember a place because of its distinctive buildings (Ginting, Nasution and Rahman, 2017), whilst the distinctiveness of physical form was also found to influence users' remembrances of buildings (Gehl, 2010). Casakin and Bernardo, (2012) argued that the identification of visual appearance is essential to the process of perception, and hence the creation of place identity. Thus, appearance can influence the perception of place identity, enabling users to identify and navigate legible places according to the

organisation and rationality of design (Ibrahim, Mushatat and Abdelmonem, 2014). User perceptions of the identity of a place are associated with its physical appearance, meaning that users recall place through its distinctive forms (Carmona et al., 2003). This confirms that the visual aspects of physical form evoke users' perceptions of place.

2.7.1.2 Historical Physical Environment

The literature review revealed the importance of historic buildings in providing a sense of identity and continuity (Heath, Oc, and Tiesdell, 1996; Crinson, 2005; Shuhana, 2011; Ismail, 2012; Penića, Svetlana and Murgul, 2015). Lalli, (1992) specified that the presence of such artefacts, such as old buildings, can help users to remember, which may facilitate a recognisable image of a place (Farhan, Abdelmonem and Nasar, 2018). In this context, Said, Aksah and Ismail, (2013) stated that historic architectural elements and their associated cultural values, which increase over time, have a profound impact on people's perceptions of place. Such prominent features manifest as key elements in the formation of the cognitive structure of place identity and describe the character of places (Carmona and Tiesdell, 2007). This suggests that historic architecture is one of the key characteristics to influence user perception of place identity.

However, it is not clear how historical elements reinforce place identity. It is difficult to empirically prove the theory that memories could be ascribed to solid physical objects and, by virtue of their durability, conserve them (Forty and Küchler, 1999). Indeed, the composition of memory within physical objects has been questioned by Rosenfeld, (2000). Moreover, some critics have rejected the importance of structure as a conveyor of values and meaning through successive ages. For example, Forty and Küchler, (1999) rejected the view that memories formed in the mind can be conveyed as meanings to solid physical objects over time. They demonstrated that objects themselves cannot communicate experiences and collective memory in a way that will influence physical meanings. Areas cannot magically collect memories by virtue of their being, just as the town cannot disclose history without supporting narratives (Connerton, 2003). In this context, a building might possess a set of historic characteristics that collectively give it a unique feeling or meaning, but this alone is not enough to make it a landmark; rather, the associated activity stimulates

users' memories of the building's historical elements. Indeed, Cheshmehzangi, (2012, p.310) stated that, "Past memories and relations with particular elements can establish a signage or symbolism system in mind that can then help to enhance the perception of urban identity". Thus, effective repurposing can increase the chance that a historic building is recalled as a landmark, which confirms the importance of rehabilitative construction.

Moreover, it has been argued that great historical buildings influence users' perceptions through momentous events, while activities inspire feelings of enjoyment, appreciation, and admiration (Carmona and Tiesdell, 2007). Forty and Küchler, (1999) suggest that such historical elements may even symbolise users' memories if they are associated with past events that are significant to a place's history and epitomise the lifestyle of a group of people. This physical evidence of previous generations' lives strengthens the significance of places (Azmi, Ahmad and Ali, 2014), which provides a sense of identity and continuity (Bakri *et al.*, 2015). In this sense, attributes of physical elements offer meaningful characteristics, which are produced by people at a specific place in response to the social needs of an era. This confirms that an old physical environment can be a signifier that reflects the routine lives and social characteristics of previous users. However, what it signifies is subject to interpretation, and shaped by the perception of its value by users. Consequently, a question arises as to how activity associate's historical elements with the perception of a place, as an agent of cross-time contact in one particular place.

2.7.1.3 Distinctiveness of Physical Environment

Distinctive places tend to be imageable, recognisable, and memorable; indeed, "Distinctive places through their physical elements can capture individuals' attention and evoke impressions and feelings" (Ewing *et al.*, 2006, p. 226). Hence, the degree of imageability, or the ability of elements to be recalled or remembered, can contribute to the creation and maintenance of place identity. McCunn and Gifford, (2018) noted that the memorable features of a physical environment serve to distinguish one place from another and identify a place with a specific social group. In this way, they may represent the character of a place, as seen and felt by its inhabitants and visitors. However, imageable features may also be recalled because they evoke specific meanings or feelings (Carmona, 2010). This study seeks to

identify the features that make elements imageable by asking respondents (i.e., Lace Market users) to identify what they consider to be the most distinctive features of the Lace Market, and why they remember specific buildings. Given the range of activities that occur in the distinctive physical environment, it will be interesting to discover which are the most important in evoking and promoting the imageability of the physical environment.

2.7.1.4 Activity Supports the Distinctiveness of the Physical Environment

Urban places are shaped by the interaction between several factors, and the most important are the physical setting and activity. The people-place relationship relies on activity, which requires a physical setting; this setting is then accepted as a place because it hosts this activity. Dovey, (2009) explained that people recall a building because of the role it plays as a setting for their activities. Shuhana, (2011) argued that the more activities a place is able to host, the more vitality it will acquire; in an urban setting, the range of activities offered by physical settings plays a main role in attracting people (Ali. Madanipour, 2010), which in turn helps to create the character of that urban place (Salama, Remali and Maclean, 2017). A place is recognised as such by its users because they engage in its associated activities and interact with its components. Wynveen, Kyle and Sutton, (2012) argues that the physical environment becomes meaningful to users when its physical attributes support their usage or activity patterns, namely when they feel that these attributes meet their needs.

This research considers the relationship between the physical setting and activity as the main factor in shaping distinctive meanings of the physical environment. This can be demonstrated by identifying the distinctiveness or memorable elements of a physical environment, as perceived by its users, and by investigating the role of activity in reinforcing this distinctiveness.

2.7.2 Activity

It is widely accepted that place identity is constructed as users interact with their environmental context and thereby develop an emotional bond (Hernández *et al.*, 2007; Ibrahim, Mushatat and Abdelmonem, 2014; Williams, 2014; Bleam, 2018). Activities reinforcing these emotional bonds grow their sense of a place's uniqueness by recalling events and interactions associated with the setting, which provides a

sense of continuity. However, not all activities produce an emotional bond (Williams and Vaske, 2003; Cosco, Moore and Islam, 2010). The types of activities that influence the development of emotional bonds and memories are also able to fulfil people's needs. Ujang and Zakariya, (2015) agree that a place is seen as important or meaningful by users when it is able to better fulfil their functional needs and support wellbeing than alternative places. Thus, scholars signify that optional or recreational activities promote positive feelings and evoke perceptions of place. People may value places because they see them as ideal for meeting, shopping, people-watching or walking, and such optional activities make it "For doing the things that I enjoy most" (Jorgensen and Stedman, 2006, p. 319). Therefore, effective activities are those that produce positive feelings or memories.

Furthermore, identity is defined as "nexus of relations and transactions actively engaging a subject" (Clifford, 1988, p. 344), it concerns the interrelationship between users' activities and the physical environment. According to Rapoport (1982, p. 13) "people react to environments in terms of the meanings the environments have for them".

In this sense, the empirical study was undertaken to explore the association between activities and the physical environment. Gehl, (2011) divided the activities that occur under certain conditions in the physical environment into necessary, unnecessary, and social. Unnecessary activities are considered optional and include shopping, drinking coffee, and sitting (i.e., recreational activities). He argued that the frequency of optional activities increases when the quality of the physical environment is good, while only necessary activities occur in poor quality places (Figure 2.5). Consequently, a good physical environment provides a welcoming ambience and 'invites' people to practise their daily activities, thus generating stronger place meanings and identities. This illustrates a link between the activities that occur in a public space and the physical environment.

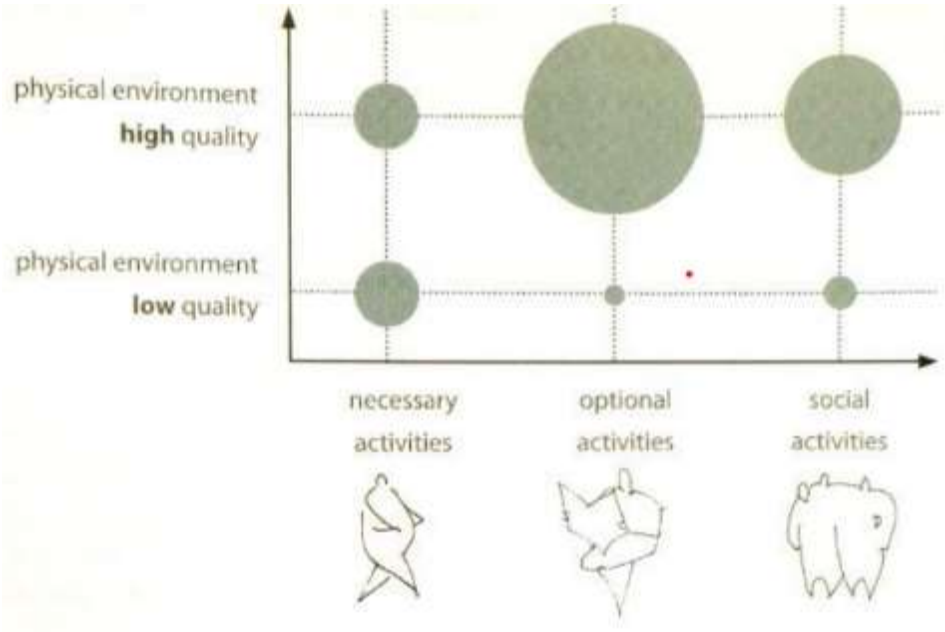


Figure 2.5: Connection between activities and physical environment

Source: (Gehl, 2011, p. 21)

Although the "interaction between people and place through sharing an activity with the place is accepted as playing a vital role in the creation of urban identity" (Gustafson, 2001, p. 6), it is unclear how such interactions contribute to the shaping of identity. However, involvement in an activity, and the attributes of activities help to develop emotional bonds with places. As such, there is a necessity to approach areas contextually and to know the role of activities in giving places their identities. The following subsections clarify the key attributes of activity that contribute to place identity.

2.7.2.1 Diversity

The spatial diversity of urban mixed use is one of the advantages of place identity (Obeidy and Dabdoob., 2017). It can enhance place experience and the perception of place identity by increasing user place interaction (Montgomery, 1998; Gehl, 2010a). Scholars commonly signify the diverse activities of places as positive distinguishing characteristics (Carmona et al., 2003, Lengen and Kistemann, 2012 Zeng *et al.*, 2018), and a distinctive place accommodating diverse users' day-to-day activities (Montgomery, 1998; Seamon, 2015). Thus, diverse activities offer a degree of choice to people which represents an significant contribution to the creation of place identity (Shao, 2014).

Moreover, mixed-use areas that accommodate a variety of shops and informal activities are perceived as important attractions to visitors (Moughtin, 2007); in comparison, more homogenous places mean that users are limited to (for example) residential or transitional streets, which can lack connectivity (Gehl, 2010a). In this regard, Jacobs, Moudon and Hinshaw (1993) noted that the most attractive places are physically, socially, and economically diverse, which may result from long periods of activity and liveliness, and contribute to a more vital and safe public realm. Thus, activity is a component of place identity, and diverse activities offer a wide choice of functions and services to enable greater satisfaction amongst users (Carr et al., 1993; Carmona, 2010). The present research strengthens the idea that diverse activities and land uses represent one of the places attributes that contribute to a better perception of urban space.

2.7.2.2 Vitality

The vitality of a place relates to the density and variety of activities conducted within it, which help to make it more imaginable (Carmona, 2010). More specifically, vitality relates to the pedestrian flow and number of people using an area throughout the day and night, cultural events, the number of facilities, and the range of festivals over the year (Montgomery, 1998). This signifies its capacity to host a range of activity choices that fulfils diverse human needs (Obeidy and Dabdoob, 2017). Shuhana, (2011) similarly confirmed that the vitality of an urban space signifies its success in attracting people and the mixture of activities available to people of different age groups. Thus, it relates to the presence of active life, and is generally associated with active and lively urban spaces.

Vitality goes to the heart of the conceptualisation of place as something beyond mere particular locations with physical attributes; instead, it also considers the provision of various activities and communications that grant opportunities for exercise (Buchanan, 1988). Sufficient densities of both activity and people are essential for vitality, and for producing and sustaining place meanings (Carmona, 2010). Moreover, the continuation of mixed-use is an essential indicator of urban identity (Ibrahim, Mushatat and Abdelmonem, 2014), whilst the density and variety of activities in urban places (i.e. vitality) contribute to the development of a place's identity.

Accordingly, as the vitality of a place relates to the number of users, it can be measured in terms of its range and volume of activities.

2.7.2.3 Walkability

In an urban environment, people develop their knowledge and perception of a place by moving about the space. A walkable area is suitable for pedestrians who are able to interact with the urban settings; this is also recognized as a core characteristic of a sustainable place. Therefore, walkability strengthens the relationship between users and place, and this relationship is mediated by coincide time, place, and normal routines (Leyden, 2003). Human communications are formed from regular walks, which also support a feeling of belonging, familiarity and emotional attachment to specific urban places, and thereby reinforce place identity (Wunderlich, 2008). Walkability contributes to the perception of place, enabling users to identify its attributes. Indeed, Lee and Talen, (2014) shows that walkability is the most critical part in ascertaining vibrant urban places.

Researchers have identified the physical features of a place that promote walking and found a relationship between the features of a physical environment and walkability (Zook *et al.*, 2012). For example, the physical characteristics, including a well-maintained walking surface (Abdulla, Abdelmonem and Selim, 2017), the transparency of frontages (Gehl, 2011), specific destination, and connectivity (Mccormack *et al.*, 2008), which influence on the level of people walkability (Forsyth *et al.*, 2008). In addition, the function of the environment also plays a significant role in encouraging walkability (Van Dyck *et al.*, 2010). Montemurro *et al.*, (2011) and Cao, Handy and Mokhtarian (2006), identified that connectivity, mixed land-use, public services and the purpose of a trip (for example, strolling as opposed to shopping) encourage walking and therefore the experience of a place.

2.7.2.4 Transparency and Active Frontages

Active frontages are classed as ground floor, transparent building façades that make activity visible from the street. They foster the relationship between the pedestrian, spatial components and the activity inside (Jacobs, Moudon and Hinshaw, 1993; Meeda, 2007) by attracting passers-by with elaborate displays and outdoor seating. Hillie, (1996) asserts that active frontages are especially important for making areas

more vital and imageable. Carmona, (2010) also support the view that an active frontage enhances lifetime and vivacity to a place whilst Lynch, (1990) states that transparency signifies that users are able to see the various special functions, social activities, and natural processes that occur in a place. The more visible or transparent of activities contribute to the identity of a place. In a public place, an active frontage includes transparency, which inspires the walker to become involved in the activity within.

Active frontages enhance the spirit and identity of streets, by helping to animate them and making them feel safer, liveable and more vital. The frontages that spill out in front of buildings offer the greatest interaction, such as teashops, bars, or market that offer some of the goods outdoor (Greed, 2014). Hence, study carried in Copenhagen in 2003 investigated the range of activities conducted, and found that walkers were more likely to slow down and interact with active than passive façades; in fact, the activity level was seven times larger than outdoor buildings with passive façades (Gehl, 2010). Along with the observational findings, everyone interviewed in Gehl's (2010) study had a great sense of the activities in and outside of the buildings (where the shops were located) and found that transparent frontages allowed people to recall the buildings. Therefore, a key finding of this empirical study revealed that, if ground floors are vibrant and diverse, the urban place inspires memory (Figure 2.6). In contrast, if the ground floors are not transparent and lack in feature, the knowledge is impersonal and not memorable. Therefore, transparent, interaction and active frontage offer an important image of a place that reinforces the perception of its identity.

Figure 2.6: Active frontage and urban activities

Source: (Gehl 2010, p. 78)

2.7.3 Meaning

The meanings of the place are one of the most significant components of place identity. Many authors see meaning as a fundamental element informing of place identity (Rapoport, 1990; Montgomery, 1998; Wynveen, Kyle and Sutton, 2012; Ziyaee, 2017). Place meaning plays an influential role in the perception of place identity (Carmona, 2010; Gieseking and Mangold, 2014) as they are based on the relationship between self and environment (Gustafson, 2001). Hence, place identity is socially produced from the individual meanings embodied by people to physical environments and subjectively remembered past (Kaymaz, 2013), thus, it is "central to individuals' perception[s] of an environment" (Nasar, 1998, p. 8). The identity of a place becomes the human ability to create and consume meanings (Eräranta et al., 2016).

Place meanings and levels of perception relate to involvement in various activities and develop users' experiences; moreover, they establish meanings through collective memory (Wójcik *et al.,* 2019), and symbols within the place (Adam, 2012). Thus, meanings are driven by a series of events, local culture, people memories of past experiences, place story, elements form, and a distinct atmosphere. However, place identity is not constant; it is formed and developed throughout time (Carmona and Tiesdell, 2007), which means it constantly changes, develops, and transforms (Huovinen et al., 2017). Given that contexts inevitably change, a question arises as to how activities create and develop meaningful places. The following section discusses the role of activity in reinforcing the meaning of place, which occurs through an examination of the relationship between activities and the main attributes that manifest meanings, such as symbols, familiarity, memories, experiences, and events.

2.7.3.1 Symbolic Meaning

Spaces become places when imbued with meaning through user's experience during their living. This idea was echoed by Ryden (1993, p.37), who asserted that "a place takes in the meanings which people assign to that identity through the process of living in it". Stedman, (2006) argued that these meanings manifest through a symbolic physical environment and are shaped through users' experiences, which in turn are related with evaluations, such as belonging. Thus, place identity is based on the symbolic meanings created by people's experiences (Hanaw Mohammed, 2018),

and shaped by the memories, thoughts, and emotions associated with such meanings (Williams and Vaske, 2003). It can be argued that interactions between users and physical environments create emotional bonds with places, which have a fundamental role in producing place meanings. Thus, users recall symbols from interactions, which evoke feelings toward the specific components of a place.

For some researchers (e.g. Saar and Palang, 2009; Leonard, 2014; Peters, Stodolska and Horolets, 2016), the symbolic meaning associated with place identity connects with a sense of belonging and functions as a container for many self-memories and emotions. Shamai, (1991, p. 350) describes meanings as part of the user's self-identity, arguing that "identity combines with the meaning of the place and its symbols to create a personality of the place". This research will identify the symbolic meanings attached to the Lace Market by asking respondents what they consider to be its most distinctive features and meanings. Since this work seeks to discover the relationship between activity and place identity, it is important to discover whether activities support the symbols and meanings of the place.

2.7.3.2 Place Meaning and Memory

Individuals associate place meaning with either their own or collective memory, and through historical and contemporary events (Lewicka, 2008). People create memories on a daily basis, to gradually forge a bond with places; as such, the longer they use a place and the more memories they form there, and the deeper their attachment to the site (Hidalgo and Hernández, 2001). Scholars of place memory often focus on meanings through social memories (Basabe, 2013) or domestic histories (McDowell, 2008). This study focuses on users' memories of the Lace Market as the centre of specific historical activities (industrial); to this end, interviewees will be asked whether they remember the former industrial activity, and how they think it influences the market's present identity. The questions will thus examine the role played by historical events in the creation of meaning. Thus, remembering the past and current functions of place could indicate the role of activities in enhancing the meaning of the Lace Market.

2.7.3.3 The Transferral of Place Meanings

Recently, place identity has been defined as the process by which people embodies a set of meanings and values to a specific district (Bleam, 2018); it is based on the memory of human experience, thoughts, feelings, beliefs and emotions (Bernardo et al., 2019), and formed by people-place relationships (Obeidy and Dabdoob., 2017). Thus, the people-place relationship lies at the core of the formation of meanings, meaning that user interactions with place influence emotions and thoughts, which are retained as memories and help to distinguish a particular place (Kandemir, 2017). Moreover, maintaining these relationships helps the continuation of such meanings (Main and Sandoval, 2015). They are produced by users' experiences and relationships with places and based on cultural, religious, lifestyle, and personal meanings, as well as power and economic relationships (Chapin and Knapp, 2015), which can change over time. Together, these aspects may build new perceptions amongst users. These could contribute to the continuation of feeling and be influenced by individual and group identities including the ways in which users interact with the place.

2.7.3.4 Meanings and Activities

Activity is important in creating memories and imbuing places with meaning (Rapoport, 1990; Sepe, 2013b). People tend to remember place features when they are associated with important events and everyday activities (Antonsich, 2010). Mowla (2004, p. 1), state that "area between and within an object is space that becomes a place when occupied by a person, and the remembrance of an event is a valuable identifier of space". Othman, Nishimura and Kubota, (2013) identified two mechanisms that enable individuals to perceive a place through memory association, namely physical and social factors (Table 2.4). They noted the length of residence and experience of place as key factors in constructing memory, suggesting that the duration of activities play an important role in shaping meaning.

Table 2.4: Factors influencing memory association in place making

Component (Individual/ Group)	Attributes	Descriptions
Physical factors	Demographic/ Socioeconomic status, Location and scale (spatial attributes)	Age, gender and ethnicity Length of residence, home ownership, employment status Building, monument
Social factors	Geographical perspectives, Place experiences	Availability, accessibility and exposure to history (public, marketable, infamous) Events and designed events: people's experiences with places Setting: permanent (memorial, ritual) or temporary (festival, fair)

Source: (Othman, Nishimura and Kubota, 2013, p. 558)

People tend to recall places due to the feelings they have towards their everyday activities and as a context for important events (rather than because of places *per se*). These feelings, which are based on the relationship between the person and their environment, help to form meanings that define place identity (Tuan, 1991; Andy Smart, 2018). This relationship is constructed by experiencing the place and developing involvement in its activities (McCunn and Gifford, 2018). Thus, user interactions with place are central to the definition of meanings as specific activities evoking particular feelings and memories.

Optional activities represent an attraction for personal and collective experience, and generate greater vitality within a place by facilitating the embedding of meanings (Sebastien, 2020), and thereby helping to form place identity (Montgomery, 1998). Thus, diverse activity gives rise to more intense pedestrian movement and social interaction. This echoes the findings of Gehl (2010), who identified diverse activity as one of the main conditions associated with increased human interaction. Therefore, it is insufficient to measure place identity through meanings alone; rather, human activity also needs to be considered, as it plays a significant role in the communication between a user and symbolic features. Moreover, it creates meanings, and offers reasons why users consider landmarks meaningful. Thus, meaning relates to the function of a place and concerns outdoor and indoor activities, which provide a rationale for the meanings associated with symbolic features (such as buildings).

2.8 Chapter Conclusion

This chapter reviewed key literature on place and place identity. It discussed the nature of the relationship between person and place and identified that a space converts a place when an individual bestows meanings to make it recognisable and distinct. Moreover, conceptual and theoretical theories of place were determined with a particular focus on the associations among place components, the most important relation between activity and the physical environment, when creating meanings. This enabled an understanding of the actual use of place and the relationship between such use and place identity.

It is clear from the breadth of research that place is far more than an area for action and a physical configuration; it is also a highly symbolic artefact that is associated with historical events and experiences, imbued with meanings, and offering a platform of human culture and identity. It is therefore essential to identify the psychological connections between people and place to increase understanding of the process of place making.

This chapter outlined the relevant concepts of place identity and extracted the common factors from all concepts that influence the term in order to define the concept. Literature on place identity was examined from two perspectives: perceptual factors (such as the experience of the place, continuity and distinctiveness), and the components of place identity (such as physical attributes, activities attributes, and meanings). Thus, place identity is the perception of the meanings that form place distinctiveness and a product constructed over time by human experience. Moreover, it was noted that human experience produces meanings of a particular place, and ultimately encourages attachment within a particular temporal context. This also suggests that place identity involves a collection of meanings related with the symbolic meanings of a place, which are created over time from the interaction between users and the physical environment. Thus, identity was noted as an attribute of the physical environment, as perceived by users.

Furthermore, it was found that urban identity is a dynamic phenomenon, which is produced from the interaction between individuals and their surroundings. The socio-cultural dimension denoted a form of self-identity and involvement in constructing the identity of place. Human users inherit societies' symbolic meanings, values, and

beliefs of a place. Thus, urban identity derives from self-identity, which is a reflection of the people-place relationship, and how people interact with the environment in the form of daily activities. However, changes emerge as communities, lifestyles, and the world economy shift, which manifest as new activities and land-uses. Urban identity thus evolves, as transformation is an inevitable process. Therefore, maintaining urban identity should not be limited to the conservation of the traditional physical fabric, but also include activities reflecting cultural heritage, and the promotion of social interaction. However, a key concern is the control of change or loss of urban identity as global economies shift and influence lifestyles including the way users engage with place.

It is apparent from the literature review that place identity concerns the distinctiveness of physical environments (landmarks) as perceived by the people experiencing them. This implies that physical aspects are essential in forming place identity, and consequently distinguish one place from others (or general sites not imbued with place meanings). Therefore, this research seeks to understand the influence of activity in distinguishing a physical environment, and to understand its impact on the recall or memorability of a distinctive place.

Place memory and degree of experience were also found to play an important role in shaping the identity of a place. Places tend to be recalled by users because of feelings they have toward the symbols and distinctive elements of the physical environment and important events. Moreover, they are acquired through everyday lived experience and collective memory. In this investigation, distinctive elements are defined as those that are memorable to users. Also, distinctiveness and landmarks were noted as symbolic meanings, which are related with the identity of place over time. Thus, elements and symbolic meaning are remembered and the reason for such remembrances could identify the role of activity in distinctive landmarks and the process by which these features are imbued with meaning.

Moreover, the literature indicated that sustainability and human connection with a place form the main axis in creating and maintaining its identity (Hartanti, 2014). This identity results from users' experiences, which influences perceptions of urban identity; in addition, the continued experience of a place manifests through interactions between users and spatial components, which can thereby sustain identity.

As the relationship between people and place forms a key inspiration in the creation of place identity, changes or pauses in this relationship impact on perceptions of this identity; however, no systematic synthesis exists within the empirical literature on human–place connections over time. Indeed, most research examines the role of the existing relationship on shaping place identity, but often leaves ‘time’ undefined. Therefore, although much has been written about the physical environment, meanings, and human activity in developing place identity, nobody has yet investigated the association between activity and the distinctive physical setting, in terms of the active creation of meanings, and the effect of time on these three components of place identity. To address this gap in knowledge, we will explore the evolution of the connection of humanity to place on place identity; this will be achieved by a chronological analysis of land use and the attributes of activities.

The framework (Figure 2.7) has extracted and categorised diverse terminologies into four parts, which contribute to the construction of identity; from this, a new conceptual framework has evolved. This framework will be used to examine Nottingham’s Lace Market over three-time periods (industrial, decline, and the present time) by integrating four concepts: human activity, the perception of distinctive physical setting, meanings, and time. The framework examines place identity by considering changes in three elements: activity, physical environments, and how the perception of identity changes over time.

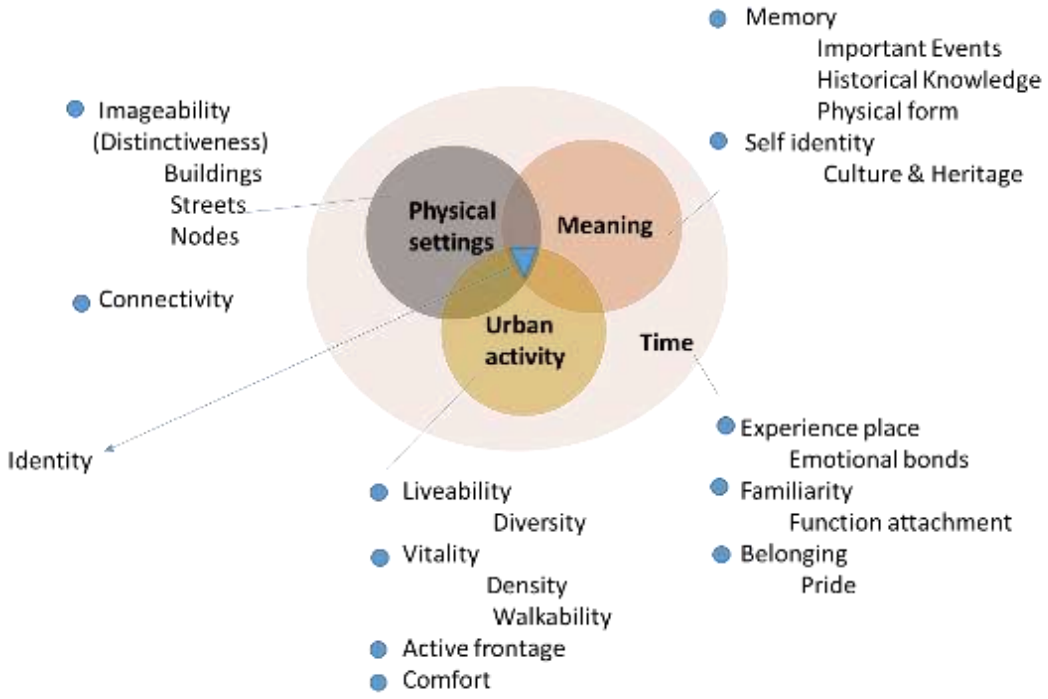


Figure 2.7: Conceptual framework

Source: (Almakkas, 2017)

This study considers place identity a composite concept that is constructed from the way in which people attach meanings to a distinctive physical setting, as perceived through experience. Therefore, this thesis is concerned with place identity as a relatively enduring people-environment relationship, relating (as follows) to perceptions of the physical setting, meanings, activity, and time:

- Perception refers to the mental processing of information about the physical environment. More specifically, perception is associated with cognition of simple stimuli, such as landmarks.
- Meaning is the production of the symbols that manifest through individuals' experiences of their environment.
- Human activity refers to the relationship between people and place and how users interact with the place components and each other.
- Time periods have a constant identity and influence how activities affect users' perceptions of identity.

These are seen as components in a dynamic relationship. As stated at the beginning of the chapter, the main aims of this study are to identify how human activity influences place identity, and to introduce time as a dynamic factor in the framework of place

identity. Consequently, it aims to combine the psychological constructs of perception and emotions with the physical setting in order to gain a better understanding of how activity influences place identity over time.

The framework considers the influence of activity on both objective and subjective perspectives in order to examine the perception of place identity throughout time. Place identity has two dimensions: the physical characteristics that make a place unique visually, and users' feelings towards, or perceptions of, these characteristics. In this study, both dimensions are considered in order to identify the influence of activity on individuals' feelings towards the physical characteristics. Hence, the main question guiding the research is:

- How does activity influence perceptions of place identity?

This question has two aspects, which are:

1. The role of activity in turning physical characteristics into distinctive and memorable landmarks.
2. The role of activity in imbuing a particular physical setting with meaning.

Chapter 3 : RESEARCH METHODOLOGY

3.1 Introduction

This chapter concerns the way in which data were collected and analysed to achieve the research aims. It justifies several decisions in the selection of an appropriate research approach and design, which depend on particular philosophical theories. This research adopted a qualitative methodology as this was the best suited to the nature of the subject matter and the research questions. It included: documentary review and data mapping, mental mapping, interviews and on-site observations. The documentary review and data mapping explored how identity was transformed over time and generated qualitative data related to the historical development of the Lace Market. The documentary review focused specifically on activity within the Lace Market, its relationship with the physical environment, and how these changed from the market's industrial heyday to the present day. In-depth interviews and mental mapping were conducted with users of the Lace Market to identify the factors they consider make the area distinct and memorable. Data were gathered by conducting semi-structured interviews with two groups of users: those who knew the Lace Market pre-1992, and the area's current users. It examined users' experiences of changes to the physical environment, including its activities and meanings, and identified the impact of these changes on users' perception of place identity. Moreover, the study investigated the influence of activity on the distinctiveness of the urban environment. Finally, the present image of the Lace Market was investigated by observing the activities that took place at key landmarks, and memorable elements.

3.2 The Research Philosophy of the Study

A research philosophy involves the approach a researcher adopts concerning the organisation of the research process. The direction and principles, which are informed by the philosophical approach, influenced the choice and adoption of research methods (Yin, 2013). Saunders, Lewis and Thornhill, (2009) created the 'Research Onion' framework, which outline the development and nature of knowledge through research (Figure 3.1). It details the key research decisions, which are influenced by different philosophical assumptions, content and research paradigms.

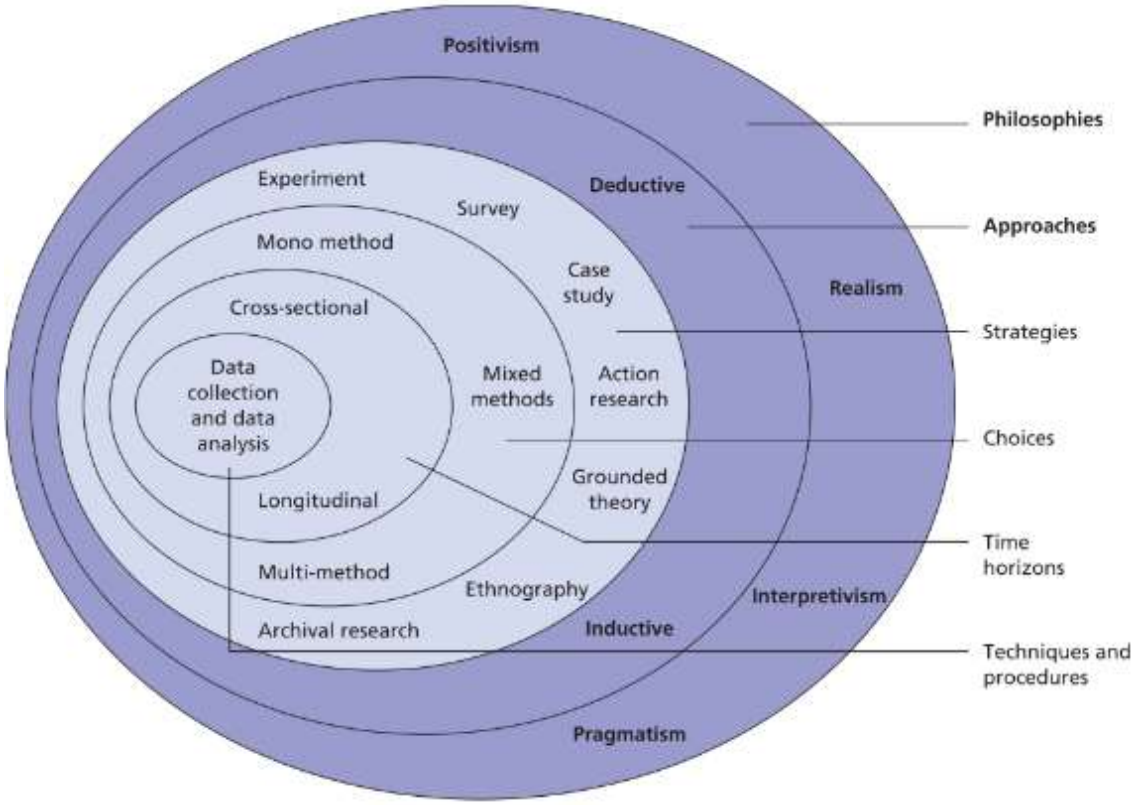


Figure 3.1: The Research Onion framework.

Source: (Saunders, Lewis and Thornhill, 2009, p.108)

3.3 Paradigms

The first step to achieve a research aim often starts with the adoption of a particular philosophical paradigm that informs the nature of reality and statements concerning knowledge (Creswell *et al.*, 2007). There are many definitions of the term paradigm (sometimes called worldview); Neuman (2014, p. 96), for example, defined paradigm as "[…] A general organizing framework for theory and research that includes basic assumptions, key issues, models of quality research, and methods for seeking answers". Neuman states that the term refers to a several of substantive concepts, variables and problems, which are associated with similar methodological approaches and tools. In general, a paradigm involves the fundamental hypotheses, research techniques and important questions to be answered (Madanipour, 2013); hence, it implies a design and framework of academic ideas and assumptions. The paradigm is informed by a particular ontology and epistemology, which are the two major facets of research philosophy.

3.3.1 Ontology and Epistemology

Paradigms are comprised of two main considerations; the first is embodied by different ideas about reality and how knowledge can be gained (referred to as ontology), which is described as "the nature of knowledge" (Creswell, 2014, p. 25). Ontology relates to things that exist in the world and concern a reality that is independent of human understanding through certainty (i.e. things that can be seen and measured). The second is epistemology that emphasises what we know and how we come to know; epistemology is associated with the nature of awareness and ways of knowing and learning about social reality. Creswell, (2014) highlights four paradigms that are broadly addressed in the literature: postpositivism, constructivism, transformative, and pragmatism (Table 3.1).

Table 3.1: Four paradigms commonly debated in the literature.

Postpositivism	Constructivism
• Determination • Reductionism • Empirical observation and measurement • Theory verification	• Understanding • Multiple participant meanings • Social and historical construction • Theory generation
Transformative	**Pragmatism**
• Political • Power and justice oriented • Collaborative • Change-oriented	• Consequences of actions • Problem-centered • Pluralistic • Real-world practice oriented

Source: (Creswell, 2014, p. 31)

As the identity of place results from users' experiences of such and develops through social perception, constructivism was selected as most appropriate for this research. A constructivist paradigm recognises that reality is socially created and supports the sight that there is no external reality independent of human knowledge (Robson and McCartan, 2016). Post-positivism was also considered because it concerns the absolute truth of knowledge, and challenges the traditional notion that reality exists independently of human understanding and interpretation (Phillips & Burbules, 2000). Saunders, Lewis and Thornhill, (2009) state that post-positivist studies are often based on direct observation and the analysis of an objective reality that exists independently in the world. However, this research cannot adopt a post-positive paradigm, as the identity of place is understood to be associated with users' experiences and perceptions. Therefore, this research studied the subjective behaviour and actions of humans. Consequently, urban design research, such as this

study, often adopts a constructivist or pragmatic paradigm, in order to study social behaviour and memory, which therefore emphasises subjective meaning and experience.

3.4 Research Design

Research design explains the consistent steps undertaken to connect the empirical and theoretical data to the study question and finding (Yin, 2018). It concerns the data collection process and ensures that it produces desired results (Neuman, 2014). Moreover, three research designs were widely discussed; qualitative, quantitative, and mixed-method (Lewis, 2007; Saunders, Lewis and Thornhill, 2009; Creswell, 2014; Yin, 2018). Quantitative relates to a post-positivist paradigm; indeed, Creswell, (2014) state that quantitative technique is approach the investigator depend essentially uses positivist claims to develop understanding (i.e. cause and effect). It tends to use particular investigative strategies, such as experiments and questionnaires, that yield statistical data and enable a deductive process of inquiry to seek cause-and-effect descriptions (Saunders, Lewis and Thornhill, 2009).

On the other hand, a qualitative approach usually concerns knowledge based on a constructivist paradigm, namely the varied meanings of personal experience, perception psychology (Creswell, 2014). This approach adopts an inductive analysis process that involves the interpretation of numerous influential factors (Saunders, Lewis and Thornhill, 2009). Finally, a mixed-methods design contains of together qualitative and quantitative methods and aims to gather and investigate deductive and inductive data. A review of these three research designs suggests that the qualitative approach was the most appropriate for measuring place identity, as inductive analysis enabled the consideration of users' experiences of place and how they perceived the urban environment. Creswell, (2014) outlines an overview of the investigator aspect of these three designs (shown in Table 3.2).

Table 3.2 Overview of the investigator aspect of three research designs

Quantitative	Qualitative	Mixed Methods
• Experimental designs • Nonexperimental designs, such as surveys	• Narrative research • Phenomenology • Grounded theory • Ethnographies • Case study	• Convergent • Explanatory sequential • Exploratory sequential • Transformative, embedded, or multiphase

Source: (Creswell, 2014, p.38)

3.4.1 Rationale for the Adopted Qualitative Approach

The broad purpose of the study is to answer the question: how does activity influence the identity of a place? This aimed to explore the phenomenon within its context; thus, giving to Yin, (2013), question that aim to identify information concerning 'how' and 'why' are more likely to require a qualitative case study. Moreover, the identity of the Lace Market over time can be studied through the examination of its context, which required chronological analysis. Thus, this research adopted a qualitative case study approach; Yin, (2018) defines an experiential examination as the study of an existing phenomenon within its real-life context. Merriam, (2002, p. 27) highlighted the importance of the qualitative case study in investigating social context, defining it as "an intensive holistic description and analysis of a single instance, phenomenon, or social unit". Hence, qualitative research collects data that prioritises the social experience, human feeling towards, and perception of a context, which is relevant to projects that explore identity.

Additional motive for the adoption of a qualitative approach is the study's acknowledgement of multiple interpretations of reality. The identity of a place is dynamic (Hartanti, 2014), and the place meanings that people ascribe are subject to social interpretation (Carmona, 2010) whilst perceptions are typically influenced by culture (Moulay *et al.*, 2018). Merriam, (2002, p. 4) explained "the key to understanding qualitative research lies with the idea that meaning is socially constructed by individuals in interaction with their world". The identity of place is not fixed or agreed upon (Seamon and Sowers, 2008; Huovinen *et al.*, 2017); as a result, it cannot be approached from a quantitative point of view (positivist). Instead, a qualitative design would embrace multiple forms and understandings of reality that are in change and thus flux over time.

3.4.2 Phenomenological Approach

Phenomenology is an approach to qualitative research. It typically involves the conduct of interviews during which participants describe a phenomenon and following which the researcher is able to better understand the lived experiences of individuals (Lewis, 2007). A phenomenological design concentrates on the meanings that people produce as a result of their experiences of a phenomenon. It is not simply information collected on the lives of people but rather attempts to find how people

relate to a concept or phenomenon. In this sense, (Moran, 2002) stated that it identifies phenomena by examining the user's direct experience.

Phenomenology is useful to this research, as it concerns users' perceptions and meanings of place, which typically involves a qualitative design. A phenomenological approach typically draws upon the observations and analyses of people's perception and experience; thus, it identifies people's perceptions toward an environmental setting (Tashakkori and Creswell, 2007). This research explores people–place relationships by investigating: users' experiences of a place (Allen, 2005), the perception of a place (formed through collective memories), and the feelings that develop through continued experience (Rapoport, 1990; Carmona, 2007). Therefore, phenomenology is useful to the study of what shapes place identity, as it allows for the engagement with people's experiences and perceptions of place identity.

3.4.3 The Rationale for a Case Study

Implementing a case study in qualitative research provides more profound knowing of the interpretations of place identity at a important points in time and in a appropriate context. Charles, (2002) distinguished three objectives when adopting a case study. The first is to collect strong data about a person or phenomenon; the second is to offer an interpretation thereof, and the third is to provide an evaluation of the data. Gualitative research has been defined by Merriam, (2002, p. 14) as "an effort to understand situations in their uniqueness as part of a particular context and the interactions there". In this study, understanding is an end in itself as it means comprehending the characteristics of the Lace Market. This includes: what it signifies for respondents in that environment; the nature of their lifestyles; the aspects that arise in their memories and their meanings thereof, and what makes a landmark in this setting.

Moreover, a case study allows for chronological analysis in order to identify the factors that influence identity over time. Neuman, (2014) explained the evolution of data by arguing that case studies are mainly useful for longitudinal studies involving significantly complex subjects. Thus, in a narrative way, the research intends to critically describe the diverse phases of the Lace Market's development whilst allowing for the identification and analysis of distinguishing elements of the case

study. Hence, a qualitative case study is more suited for the examination of a phenomenon in its background when the information between time to other are obscured (Baxter, Susan Jack and Jack, 2008).

3.4.4 The Selection of the Lace Market

The study identified two main features required of a case study. First, the case study should clearly represent the dynamic theory of place identity which means it must examine changes in identity as a result of the transformation of certain factors, namely: land use, spatial setting, users and activities. Second, the case study should contain important historical events to further enhance and enrich the tangible and intangible data. Therefore, the researcher conducted an initial study of the historical developments of a number of sites across the UK. Although the final selection was limited to Salford in Greater Manchester, and the Lace Market in Nottingham (see Appendix 2), author has chosen the Lace Market based on the following factors:

1- One important advantage of the Lace Market is that it faced significant changes in its activities and usage which makes it a good example to examine the effect of activities on place identity. The area was transformed over two centuries; after being the international centre of lace production during the 19th Century, in the 1930s as its lace production declined and the area profoundly reduced in its population and socio-economic activities (Cherry, 1972). In 1992, the Lace Market was revitalised and turned into a mixed-use quarter. Thus, the evaluation of these changes in use to the Lace Market over time offers a unique opportunity to compare the impact of urban activity on urban identity. In the case of the Lace Market evidence of these processes is apparent through the reuse of its historical physical setting. It offers the chance to study the effect of changing activities on individuals to communities, and to compare users' perception now and during the period of reduced activities following the decline of lace production.

2- The second reason for choosing the Lace Market is that it visually represents multiple periods of history through different existing architectural styles. For example, the administrative centre of 18th-Century Nottingham located in the Shire Hall building; the 19th-Century global centre of lace production, which still appears in the many lace warehouses (such as the factory of the Adams Building and the network of medieval lanes, paths and yards combine), and the 20th-century architecture, such as

Contemporary Art Nottingham & the Motorpoint Arena. The Lace Market today accommodates a large number of listed buildings and construction groups of historic importance; these constitute the platform for the area's historic image and evolving place identity. Thus, the Lace Market was chosen as a case study due to the variety of physical styles, which can help to examine user perceptions of the physical setting. This research seeks to identify how each phase of addition, clearance or renewal has left its trace on users' perceptions of the area.

3- The Lace Market has important historical value, which makes it an exceptional heritage neighbourhood at the core of Nottingham. Historical value arises from its role at the centre of the world's lace manufacturing in the mid-19th Century (Tallon, 2009). The Lace Market's history and character have been shaped by a combination of urbanisation and industrialisation. Today, it is a heritage zone with numerous important samples of 19th-Century manufacturing buildings (Council Nottingham City, 2009). Thus, it is an essential part of the historic core of Nottingham, which has a varied urban landscape that is still distinguished by its medieval image (Linda Monkton and Pete Smith, 2009). The Lace Market emerged from these phases of history, which formed its unique identity. Therefore, the Lace Market is good example to study the identity of place as it is determined by its historical origins and subsequent functional and architectural development. Moreover, it offers a chance to identify if this history still has meaning in people's minds.

The evaluation of these variations of the Lace Market use over time offers a unique prospect to compare the impact of urban activity on urban identity. In the case of the Lace Market, evidence of these processes is apparent through its historical physical setting and clear difference in activities over three periods (Figure 3.2). It offers a good chance to study the effect of morphological transformation on individuals and communities, and social interactions with the industrial setting reduced following the Second World War (Cherry, 1972).

As such, adopting the Lace Market as a case study can help to answer the research question: how does activity influence the identity of a place? This will be achieved by examining the effect of changing activities on users' perceptions of identity over time.

Figure 3.2: The three milestones of historic transformation of the Lace Market.

Source: (Almakkas, 2018)

3.4.5 Time Horizons

At the launch of the study plan, a central question was raised: Is there enough in my research to cover existing time as a 'snapshot' or do I need to link the present with the past through a sequence of snapshots and to a narrative of events over a given period? The answer needed to consider to the nature of the research question: How does activity influence users' perceptions of place identity?

Saunders, Lewis and Thornhill, (2009, p 155) indicated that "the 'snapshot' time horizon is what we call here cross-sectional while the 'diary' perspective we call longitudinal". Thus, perceptions of place identity relate to its dynamics as a constantly developing phenomenon (Main and Sandoval, 2015; Venerandi et al., 2017), meaning that urban identity cannot be completely understood without its context. Thus, a study of the relationship between people, place and memory over a longitudinal context should allow a better comprehension of the identity of a place.

The main advantage of a longitudinal investigation is the opportunity to analyse change and development of identity of place. Adams and Schvaneveldt (1991) indicate that, by tracing events over history, the research is effective to cover the variable factors and gain valuable data, which through compare important factors, can facilitates powerful insight into place development over time. In longitudinal studies, the fundamental question is "has there been any change over a period of time?" (Bouma and Atkinson, 1995, p.114) cited in (Saunders, Lewis and Thornhill, 2009, p. 154). Therefore, this study seeks to examine key memorable elements for the Lace Market regarding its evolving urban context, which means that the method is not limited to current users of the space.

3.4.6 Single or Multiple Case Study Designs

The researcher has to consider if it is wise to conduct a single case study, or if a better understanding of the phenomenon would be gained through multiple case studies. A case study can either involve a single study, multiple cases or multiple sites within a case study; however, they should be selected based on the research problem (Yin, 2013). Dyer & Wilkins (1991) writes that single case studies are better when the researcher wants to create a high-quality theory because this type produces extra and better theory. They also explain that it gives the researcher a deeper understanding of the subject. Further, Siggelkow (2007) argues that single case studies can richly describe the existence of a phenomenon.

The decision to conduct a single or multiple case studies is associated with the nature of the research questions and data analysis. Therefore, a primary consideration when designing this case study research was whether a single or multiple case design would better address the research questions. This distinction is crucial prior any data collection and requires a good understanding of the pros and cons of each. Although multiple-case studies are considered better by critics as its analytical results are usually stronger than those from the single-case study (Yin, 2013), a single case study was considered more appropriate for this study for the following four major reasons:

1- A single case design offers longitudinal possibility (Yin, 2003). The application of a single case study offers the chance to conduct a chronological analysis of the sequence of dates and events of the historical transformation of a place's urban form, meaning and activity patterns which are crucial to the construction of place identity. According to Dyer & Wilkins (1991), the researcher can question old relationships and explore new ones when a single case study is used. He adds that the number of cases is not the key issue; rather, the important issue is whether the researcher is capable of describing and understanding the context of the scene in question so that the context can be understandable to the reader and theory produced in relationship to the context. In this sense, a single case-study approach can offer an understanding of the real situation of a place's identity in its context, which is a living history of cultural meanings and events. Tracing the urban development of a single case study enables the researcher to develop a deeper understanding of the subject. A single case study strategy was used to reveal the phenomena within real-life contexts.

2- Single case designs have the potential for revelatory power (Yin, 2013), and can richly describe the existence of phenomenon (Siggelkow 2007). A single case study allows the researcher to pursue issues in greater depth and in more realistic situations. They are characterized by their high exploratory nature, which may give a generative insight with explanatory descriptions (Black 1999). According to (Oaks, Aberdeen and Psychology, 2009), the rationale for a case-study approach is the opportunity to observe spatial and socio-cultural phenomena with in-depth analysis. When creating high-quality theory, Dyer & Wilkins (1991) argue that single case studies are better than multiple cases because a single case study produce extra and better theory. An intensive single case study can provide an in-depth analysis that tests effective activity and user-place interactions in construction of place identity

3- A single case study can link the present with the past through a sequence of snapshots and to a narrative of events to pursue issues in greater depth. Indeed, one of the key features of the single case study is its ability to incorporate multiple sources of evidence (Groat and Wang, 2013). Direct observations, documentary sources, mental mapping, and interviews are amongst the sources of evidence adopted in this research. Therefore, this research used a single case study approach as it studies ‘a particular contemporary phenomenon within its real-life context using multiple sources of evidence (Robson and McCartan, 2016).

4- The limitation of time is an essential factor that needs to be taken into consideration when choosing the number of case studies. Baxter, Susan Jack and Jack, (2008) state that it is important to consider that, when a researcher conducts a multiple case study, it comes with both advantages and difficulties. Multiple case studies can be enormously expensive and time consuming to implement. The time limitation to this study made a single case study more appropriate.

Another secondary distinction was the decision between single case study designs. (Yin, 2013) describes two single case study designs; holistic (a single unit of analysis) and embedded (multiple units of analysis). A single case study with embedded units means that the researcher is able to explore the case and analyse the data within the case analysis, between the case analyses, and make a cross-case analysis. This gives the researcher the ability to look at subunits that are located within a larger case (Yin, 2018). Therefore, the design of this research adopted an

embedded approach; it has developed collections of subunits of analysis which work as essential tools to direct the research inquiry (see Figure 3.3).

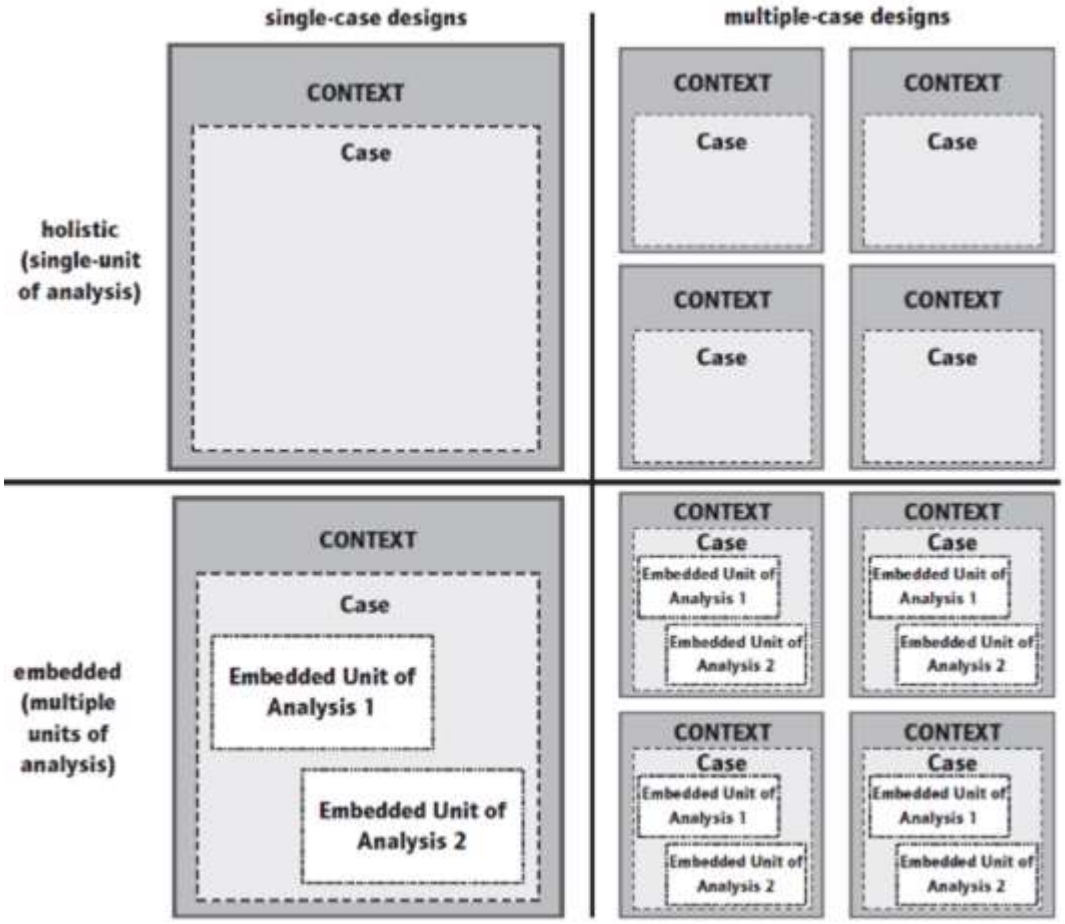


Figure 3.3: Basic Types of Designs for Case Studies

Source; Yin (2009, p. 46)

3.5 Research Methods

This section explains the techniques that have been adopted for the data collection, and includes the theoretical importance of these instruments, and how each method was analysed in the case study. The data collection incorporated numerous sources of evidence, through the selection of four main methods, as outlined in the following subsections: documentary research, semi structured interviews, mental maps, and direct observation.

3.5.1 Documentary Review

Documentary data is a crucial source of evidence in this longitudinal research. A documentary review should yield valuable data regarding the historical development of the Lace Market. According to Yin, (2018), documents and records can offer insights into significant questions and yield basic information about the transformation of a place. Similarly, (Knight and Ruddock, 2009, p. 23) described documentary evidence as "useful in laying the foundations for the study". Thus, this method has been employed to investigate the transformation of urban identity through the trace characteristics of urban place over time.

3.5.1.1 Documentary Data Collection and Analysis

The analysis will evaluate the role that activity, the physical environment and stakeholders have played in transforming the Lace Market since the mid-19th Century. The period will be divided into three key stages: the market's industrial heyday (1845-1929), the years of decline (1929-1992), and the years since the regeneration started (1992-2020). The focus will include activity and function, buildings and users, with information drawn from a range of sources including media reports (including films and pictures), administrative documents, reports, former investigations into the case study, and papers published by a series of stakeholders. Most of these documents have been identified and gathered through Internet searches, from the Nottingham Archive, the Local History section of the Central Library of Nottingham, and Nottingham Trent University Library. The gathered data will be analysed chronologically and thematically. The aim of the chronological analysis is to arrive at a narrative account of the Lace Market's transformation, while the aim of the thematic analysis is to compare how the role played by users, the physical environment and activity have changed over the three eras. Thus, documents were the main source of the case study's history and its time-related characteristics and enabled the investigator to develop the study's question and objectives.

3.5.2 Interviews

In-depth interviews formed the main data collection stage and were conducted after the documentary review. The interview is a well-known method that has been widely utilised in qualitative research, especially amongst researchers who have adopted case studies (Mendoza and Morén-Alegret, 2013). Its key feature is the subject's

expression of thoughts, feelings, experiences, and knowledge (Seidman, 2015). Therefore, the interview allows the researcher to gain an insight into participants' perspectives and to access information that cannot be directly observed (Michael Quinn Patton, 2015). Many scholars consider the semi-structured interview a valuable method for examining aspects relating to placemaking and place identity. For example, Relph (1976) argues that can researcher be obtained experience of place users through in-depth interviews, whilst Smaldone, Harris and Sanyal, (2005) also highlighted the importance of the interview and its ability to expose aspects that enrich our understanding of a specific phenomenon, such as place identity. Thus, in this research, the interview is considered the main source of data collection when identifying users' perceptions of the Lace Market.

The interviewee sample was selected to represent two user groups: those who experienced the area pre-1992 and current users. Personal experience was fundamental to the perception of place identity (Ujang and Zakariya, 2015a) as individuals create their own mental image from direct experience (Hussain and Ujang, 2014). As the two groups experienced the area at different times (before and after regeneration), it was possible to assess the ways in which perceptions had changed alongside the shift in function. More specifically, the questions seek to identify emotional bonds towards memorable elements, landmarks and events, and the reasons for this distinctiveness that make them meaningful. By analysing the transcripts of both groups at different times, the research can determine how activities evoke a user's memory and their perceptions of place identity.

3.5.2.1 The Design of the Interviews

The aim of the interview is to collect rich valuable data from respondents' experiences, memories and feelings about the Lace Market. Since semi-structured interviews are the most popular style in human geography (e.g. Buttimer, 1985; ; Mullings, 1999; Nagel, 2005; Western, 1993 Mendoza and Morén-Alegret, 2013), they were mostly designed with open-ended questions to obtain deeper answers that gave respondents time to express their feelings and memories. This approach enables flexibility; a pre-determined set of questions ensure that all relevant areas are covered but offers the freedom to provide additional instruction or explanation as required, to pursue emerging topics of interest and to allow participants to expand on issues they

think are important (Leeuw, 2008). Thus, to gather insightful temporal detail and evidence affecting the perception of identity over the two eras, the two groups of users will be interviewed.

During the interviews, the researcher avoided the use of specific academic and architectural terms to ensure participant understanding; this allowed respondents to use their own terms to express their feelings, experiences, and memories of the Lace Market. Consequently, by using a phenomenological method that aimed to describe, understand and interpret the meanings of human experience, the researcher explained and encouraged answers but was neutral with the responses.

3.5.2.2 Interviwe Sample Size

There is no agreement among researchers about the calculation of sample size in qualitative research. Therefore, to find the suitable sample size, it is recommended to consider the notion of saturation (Roland, 2016); "The concept of saturation is helpful at the conceptual level" (Guest, Bunce and Johnson, 2006, p.59). Giving to Green and Thorogood, (2018), sample sizes are affected by many factors, such as study topics and purpose. A recent study undertaken by Malterud, Siersma and Guassora, (2016) introduced the notion of "information power" to leader sample size for qualitative studies; their findings confirmed that the more relevant information the sample yielded, the lower number the participants required. They explained that a sufficient sample size depends on: "(a) the aim of the study; (b) the sample's specificity; (c) the use of established theory, (d) the quality of the dialogue, and (e) the analysis strategy" (p.1758). Figure 3.4 explains these dimensions in relation to information power and association with sample size.

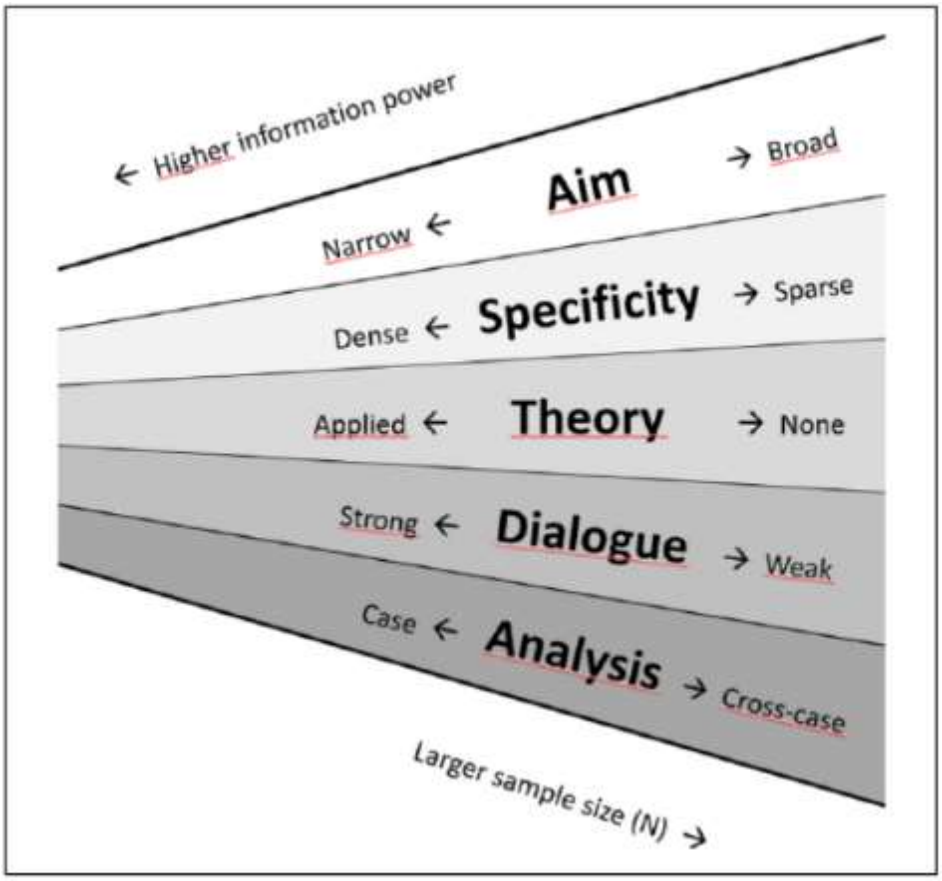


Figure 3.4: A qualitative sample size depends on data power - items and dimensions.

Source: (Malterud, Siersma and Guassora, 2016, p. 1756)

Qualitative research typically needs a smaller sample size than quantitative analysis (Creswell, 2014). The literature highlighted some sources that provide guidelines for qualitative sample sizes: according to saturation, the most common sample sizes are estimated between 20 to 30 (Griffin & Hauser, 1993; Creswell *et al.*, 2007). Nevertheless, Roland (2016) asserts that an appropriate number of interviews would consider the following qualities: meaningfulness, timeliness, and analysis quality. Roland suggests that over 30 participants in a qualitative sample size would become too unwieldy to control and analyse, while 15 would be the lowest adequate sample size for any qualitative research. Indeed, various influential factors are responsible for increasing the sample size (Mason, 2010). These findings help to guage the number of participants needed for this study, from which the researcher deduced that a sample of 25 per group would be appropriate.

This study undertoock, 50 interviews across two periods of time comprising 26 interviews with people who knew the area before its re-development, and 24 with

current users; thus, both groups fell within the appropriate sample size determined. The semi-structured interviews, each lasting between 25 to 60 minutes, were carried out by the researcher, either in the main lobby of Newton Building at Nottingham Trent University, in the city centre, or in another public place that participants found convenient.

3.5.2.3 Sampling procedure

One of the main criteria for sample selection was participant' length of using the place being studied and ability to clearly express their experience. Procedurally, these requirements translate into non-random samples in which participants are intentionally selected for their experiences and ability to articulate the subject matter (Seamon & Mugerauer, 2000). This method of sampling is called purposive or criterion sampling (Creswell *et al.*, 2007). In this study, personal experience was fundamental to the perception of place identity (Ujang, Moulay and Zakariya, 2015) as individuals create their own mental image from direct experience (Hussain and Ujang, 2014). The interviewee sample was selected to represent two user groups: those who experienced the area pre-1992 and current users. As the two groups experienced the area at different times (before and after regeneration), it was possible to assess the ways in which perceptions had changed alongside the shift in function.

Moreover, the socio-demographic profile was considered in the sampling process. The selection of interviewees was carefully determined according to socio-demographic variables. (Nasar, 2020) suggested that the selection of participants is an important variable to measure environmental perceptions, which differ with participants characteristics. Similarly, Proshansky and Fabian, (1983) assert that concepts such as cognitions, feelings, and ideas about a certain physical setting vary by personality profile such as gender, age groups and occupation. Therefore, this research considers the variations in the participants in order to achieve the target of the research and avoid any biases in the sample. in this end, an effort was made to recruit participants in order to achieve a sampling balance within the demographic range, and to ensure that the sample rationally well balanced according to the gender, the age, occupation, and level of education (see Table 3.3 and 3.4).

As a result, around 50 people were interviewed. Twenty-seven of the respondents were men and twenty-three were women in divided into two groups who experienced the Lace Market before and after regeneration (resident participant, and other sectors). However, in term of age groups, interviewees in group one that target people who experienced and know the area pre-1992, there were some difficult concerning the age variety since the age group must be over 55 years. Unlike the group two, those who experienced the area post-1992, focus on the age group was between 20-50, as elderly people volunteered in group one and hey have been asked in both past and existing their perceptions of the area. In total two groups, the sample rationally balanced according to the age groups that covered age from 20 to over 80 years.

3.5.2.4 The Personal Profile of Interviewees

A total of 50 interviewees with experience of the Lace Market were involved; this experience was between more than one-year to more than ten years. Semi-structured interviews were conducted with two groups of users: 26 interviewees formed the first group, which targeted those who knew the Lace Market before 1992 (see Table 3.3.), while the second group included 24 current users (see Table 3.4.). The pre-1992 interviewees were aged between 25-60, while the post-1992 group were aged between 20-50 years of age.

Table 3.3: The socio-demographic characteristics of the pre-1992 interviewees.

Participant No	Gender	Age	Last Occupation	Duration experience (Pre-1992)
P1	Male	Between 60-70	Office Worker	More than ten years
P2	Male	Between 50-60	Teacher	Five to ten years
P3	Female	Between 70-80	Fashion	More than ten years
P4	Male	Between 60-70	Professor, Senior Lecturer	More than ten years
P5	Male	Between 70-80	University Lecturer	More than ten years
P6	Female	Between 70-80	Teacher	More than ten years
P7	Male	Between 50-60	Retired Teacher	One to five years
P8	Male	Between 50-60	Teacher	Five to ten years
P9	Male	Between 70-80	Consultant: Business proses	More than ten years
P10	Male	Between 70-80	Post Office	More than ten years
P11	Male	Between 70-80	Project Co-Ordinator	More than ten years
P12	Male	Between 60-70	Photographer	Five to ten years
P13	Male	Between 70-80	Building Services Engineer	More than ten years
P14	Male	Between 60-70	Civil Servant	More than ten years
P15	Male	Between 60-70	NVQ Centre Manager	Five to ten years
P16	Male	Over 80	Retired	More than ten years
P17	Female	Between 60-70	Secretary	Five to ten years
P18	Female	Between 70-80	Cook/Housekeeper	More than ten years

P19	Male	Between 70-80	University Lecturer	More than ten years
P20	Female	Between 70-80	Post Teacher	More than ten years
P21	Male	Over 80	Engineer	More than ten years
P22	Female	Between 60-70	Sales Demonstrator	Five to ten years
P23	Male	Between 70-80	Teacher	More than ten years
P24	Female	Between 60-70	Office Worker	Five to ten years
P25	Male	Between 70-80	Inspector	More than ten years
P26	Female	Between 70-80	Secretary	Five to ten years

Table 3.4: The socio-demographic characteristics of the post-1992 interviewees.

Participant No	Gender	Age	Occupation	Duration experience
P1	Female	Between 30-40	PhD Student	One to five years
P2	Female	Between 20-30	Student	Five to ten years
P3	Female	Between 20-30	Student	One to five years
P4	Male	Between 30-40	PhD Student	One to five years
P5	Male	Between 30-40	Restaurant Waiter	Five to ten years
P6	Female	Between 30-40	Receptionist	More than ten years
P7	Male	Between 30-40	University Lecturer	One to five years
P8	Female	Between 30-40	Teacher	Five to ten years
P9	Male	Between 30-40	Consultant Customer	More than ten years
P10	Male	Between 20-30	Customer Service	Five to ten years
P11	Female	Between 30-40	Assistant Sales	More than ten years
P12	Male	Between 40-50	Artist	Five to ten years
P13	Male	Between 30-40	Building Services Engineer	More than ten years
P14	Female	Between 30-40	IT Engineer	More than ten years
P15	Male	Between 40-50	Security Guard	Five to ten years
P16	Male	Between 20-30	Sales Assistant	Five to ten years
P17	Female	Between 30-40	Phd Student	Five to ten years
P18	Female	Between 30-40	Unemployed	More than ten years
P19	Male	Between 30-40	University Lecturer	More than ten years
P20	Female	Between 40-50	Teacher	More than ten years
P21	Male	Between 40-50	Office Work	More than ten years
P22	Female	Between 30-40	Assistant Sales	Five to ten years
P23	Male	Between 40-50	Lecture Assistant	More than ten years
P24	Female	Between 20-30	Student	One to five years

3.5.2.5 Interview Themes

One of the main objectives of this study is to discover the factors that influence the perception of identity. Montgomery (1998) argues that perception is informed by feelings, sensations, reactions, values and impressions of physical components, activities, and meanings; in other words, place identity is shaped by the memories, thoughts and feelings related with a place, and the people with whom it is shared (Saar and Palang, 2009; Kaymaz, 2013; Wang and Xu, 2015; Kirkpatrick, Lefroy and Harwood, 2018). One approach to understanding memorability is to identify the factors that make a place unique to people. Therefore, interviews focused on the three themes of the conceptual framework: examining participants' memories of the

distinctive physical environment, activities, and meanings aspects associated with the Lace Market.

A- Perceiving the physical environment.

In this section, several questions focused on landmarks, important streets and memorable physical elements in order to determine first, the impact of the physical environment on the construction of the Lace Market's identity, and second, to identify how activities support this distinction with landmarks or memorable elements.

Respondents were first asked to list three of the most distinctive landmarks they felt contributed to the identity of the Lace Market: *Can you identify the three most distinctive landmarks of the Lace Market before/after its redevelopment in the 1990s?* They were then asked which three streets and open spaces they found the most distinctive and memorable. In order to identify the role of activities in the recall of these landmarks and streets, interviewees were asked why they remembered their chosen elements and considered them landmarks (See Appendix A for more information about interviews questions).

The elements mentioned most frequently were selected as distinctive in that they evoked people's perceptions of the Lace Market's identity. This was based on the assumption that place identity is formed by users remembering a distinctive feature (Wang and Xu, 2015; Ginting, Nasution and Rahman, 2017; Huovinen *et al.*, 2017; Jarratt *et al.*, 2019).

B- Perceiving meanings

This section sought to understand the change of place meanings and examine the meanings that participants developed of places through their experiences and memories of the Lace Market over time. The section focused on the role of activities in creating meanings of place identity, which aimed to determine the relationships between activities and their associated meanings.

In this section, questions concentrated on two main themes. First, interviewees were questioned to explain what the Lace Market means to them generally, and second, they were requested to list the places that had been significant to them in some

memorable way. These lists were then used to discuss what the places meant to them. For example, participants were requested to respond to the following question:

What comes to mind when someone mentions the Lace Market before/after regeneration, and what does the Lace Market mean to you?

A comparison of the data between the two groups (pre and post 1992) reveals that meanings ascribed to the Market have changed over time and this has shifted the activities associated with these meanings.

C- Perceiving activities

This section focused on two major themes: first, the main reasons why interviewees went to the Lace Market and the activities they would normally engage in when there, and second, the places that were important to them in some memorable way. This part of the study addressed interviewees' activity patterns, movements, spatial interrelations, and the extent to which they interacted with the physical environment. To verify accuracy, interview data from all three sections were triangulated with those gathered from other sources.

3.5.2.6 Pilot Study

A pilot study was conducted to test how the questions related to the perceptions and changing identity of the Lace Market and aimed to answer the research question. In this sense, (Bell, 1990. p 65) states that "All data gathering instruments should be piloted to test how long it takes recipients to complete them, to check that all questions and instructions are clear and to enable you to remove any items which do not yield usable data". Therefore, a pilot survey was conducted prior to the actual survey in order to test the applicability of the interview. For example, it aimed to check that participants could understand the questions formulated in the interview schedule to avoid any ambiguity from any terminology. In addition, it aimed to estimate the amount of time required for the research by testing the time required for each question, and most importantly, to check the reliability and quality of data collected. It also was found that it was a useful tool to demonstrate and strengthen the management of the study.

In 2017, at the beginning of the fieldwork, a pilot study was carried out with a sample size of 10 interviews. Two groups of case study users were interviewed in the pilot survey, with five participants who experienced the Lace Market during pre-regeneration and five existing users.

The information gathered from the pilot interview was intended to test the extent to which the interview layout successfully or failed to answer the research question. Efforts were made to pursue respondents and gain the required information to achieve the study's objective.

3.5.2.7 Results of the pilot study

The results of the pilot study were very helpful and made valuable contributions to the full study. Due to the pilot study, the following modifications were made to the field study:

1- From the analysis of the pilot survey's data, the results showed that some questions in the interview form needed to be rephrased and some terminologies needed to be clarified in order to avoid any ambiguity. Confusion and misunderstanding regarding the wording of some questions were considered. For example, three participants reported that they did not fully understand one question, which related to the meaning attached to area, while the two respondents did not understand the question concerning the impact of existing traces of lace production on place identity. Thus, several questions were rephrased and terminologies had to be clarified to avoid ambiguity during the conduct of the actual survey.

2- It was also noticed that some questions were understood in a similar way to other questions; therefore, some were removed and the design, form and structure of some questions were also changed in order to avoid any repetition when answering the questions.

3- Moreover, a few questions were added; for example, a question about the perception of physical settings of the Lace Market received a response that signified that about 70% of the land markets selected belong to historical construction. This detail generated the idea to include a clear question on the contribution of modern architecture to the identity of the area. A question like this would enable the

researcher to understand the reason for the absence of emotions towards new construction styles in the traditional district.

4- The required time for each question and interview was tested during the pilot, which was about 30-45 minutes.

3.5.2.8 Coding and Analysing the Interview

The first and second interview runs were designed to capture information about the memories and experiences of Lace Market users from before the pre-regeneration period until the present day (i.e. Lace Market former and present users). The data was transcribed and transferred to NVivo for analysis. Then data was coded to categorise themes and summarise interviewees' attributions of meanings to place (Layder, 1993). The analysis absorbed on the features of the Lace Market, the values and memory that reflected interviewees' perceptions, and a comparison of their responses. Firstly, the coding was very descriptive (e.g. 'cheap area', 'run down', 'Victorian architecture', 'lace manufacture', 'St. Mary's Church', 'traditional buildings'). However, these codes were gradually changed into wider categories, for example, 'traditional buildings' and 'Victorian architecture' were categorized under the 'physical environment', while 'lace manufacture' and 'good shopping' were categorized under 'activity and memorable events. The frequencies with which the codes appeared in the transcripts were then recorded to produce a model that mapped the meanings spontaneously attributed to the Lace Market by both groups.

The procedure of abstraction continued, a restricted number of additional general themes emerged, with the most important being: Meanings ascribed to activities and meanings ascribed to the physical setting. They were useful for categorizing and thus analysing different sub-themes related to the perception of place identity. Finally, the themes and typologies derived from the first group (pre-users) were compared to the second group (existing users); these findings determined the factors that affected the changed perception of place identity.

3.5.3 Mental Mapping

Given the nature of the research, it is crucial to select a tool that extracts spatial conceptions and place perceptions. Mental mapping is a method that has been used to explore participants' perceptions and conceptions of place. In this method, respondents are asked to draw a map on a blank piece of paper and include the most outstanding characteristics according to their impressions of the area (see Appendices B, showing respondents' sketches). Lynch, (1960) pioneered with a technique called mental mapping to understand how people perceived physical and social elements. By analysing the maps, Lynch distinguished five elements that comprise a city: street and paths, edges (boundaries), regions, nodes, and landmarks (marks). These provided people with a sense of place and formed an image of the city. Even though every person has a different image, Lynch (1990) claims that such maps represent people's mental image of a town layout and can thus be overlapped to form a public image of the city.

However, Lynch concentrated on the city at a fixed point in time; he examined key memorable elements of the city regardless of their evolving urban context, thereby restricting the study to current users of a space. Nevertheless, the dynamics of place as a constantly developing phenomenon (Main and Sandoval, 2015; Venerandi *et al.*, 2017) are important principles in placemaking, as the urban form cannot be completely understood without its context. Thus, examining the relationship between people, place and memory in a longitudinal context will enable a better understanding of place identity. Therefore, mental maps have been used to provide longitudinal information on the memorable elements of the Lace Market by identifying landmarks and distinctive elements that pre-1992 and present-day users remember.

Sketch mapping is also a useful method to measure perception, and can be undertaken in combination with other methods, such as interviews and observations (Uzzell and Romice, 2003), in order to provide a richer understanding. Mental mapping allows different tool to measure the spatial models, perceptions, and preferences disclosed in the interviews. Kum and Ujang (2012, p. 55) found mental mapping to be "a reliable technique to record evidence of people's cognition of the studied area." Thus, interviewees drafted maps derived from their experience of place and the knowledge, sensations and memories they held.

All interviews were conducted one-to-one and the map sketching period was brief, lasting between 5 -20 minutes. Following the conduct of the oral interview, interviewees were given a blank piece of paper and asked to draw a map of the Lace Market showing the elements they perceived as significant or memorable. These features could be physical elements, activities, marks, paths, landmarks, nodes, and events. This activity aimed to complement data from the interviews, which focused more on interviewees' thoughts and feelings. The inclusion of a visual method was an important supplement and enriched the information about users' feelings and perceptions of place.

3.5.4 On-Site Observation

Direct observation was the fourth source of evidence. The information obtained from the interviews became more useful after observing the case study and could be applied to analyse the findings. Indeed, Lynch (1960) argued that the best way to measure attitude, affect, feeling and attachment was to ask people and then watch them. This was based on the assumption that the observed activity was a significant component of place identity and that spaces become places when used by people (Gieseking and Mangold, 2014). Gehl, (2011, p. 11) stated that locations imbued with meaning through users' interactions, signified "vital and meaningful places that inspire people to stop, think, play, relax, gear, see, talk, walk, sit and enjoy." From this, we can assume that activities provide an attractive environment that is rich with stronger meanings. Therefore, observing the behaviour of users in urban places, which includes what users do, the type and density of activities, and descriptions of users, offer a useful source of information when determining place identity.

Moreover, the physical environment and human activities are essential components of urban identity. In order to understand how users' activity patterns are associated with physical environments, the researcher documented the types of activities undertaken and the interaction between users and the built environment. Indeed, Gehl, (2010) studied how activities and physical settings support perceptions of places by undertaking direct observations and recording how people engage with and use urban places. This meant counting the number of people using the space, classifying the type of activities observed, and noting how the physical environment attracted users

to activities; he documented his observations with photographs and maps, which helped to determine how activities contribute to embodied meanings of place.

3.5.4.1 The Selected and Analysed Observation Area

The places interviewees mentioned most often as meaningful were selected for on-site observation, as well as the most and least frequently mentioned streets. For example, Goose Gate was described by 58% of interviewees as memorable, while just 8.8% of interviewees perceived that Belward Street contributed to the Lace Market's place identity. By selecting one street perceived as memorable and another perceived as unmemorable, it was possible to investigate the association between the characteristics of activities and perceptions of place.

These observations were used to gather data about the type and intensity of activities in these places within the Lace Market. It includes people's activities, patterns, flows, and spatial interrelations. The main aims of the observations were to:

i. Compare and correlate data gathered during observations to the type and intensity of activities that interviewees noted as meaningful in both their interviews and mental maps. This information enabled comparisons with the places identified as undistinctive or meaningless in the interviews and mental maps;

ii. Record any noticeable characteristics of the physical environment, such as façades that are integrated with activities to inspire users, to identify the influence of active frontages on people.

The observations were conducted once on a weekday and once at the weekend over three-time periods, namely one-hour each in the morning, afternoon and at night. During the observations, pedestrians were counted, and their behaviours were categorised as follows: walking, standing and interacting with the place. Moreover, observations were undertaken to identify the active frontages of the Lace Market and were conducted once on a weekday and once at the weekend from 9.00 am to midnight. This helped to understand the activities observed in the identified spaces.

The findings were recorded on simple maps, which were accompanied by sketches, photographs, symbolic maps, and brief notes, with the aim of understanding how each

space was used. This involved: assessing pedestrian behaviour, measuring the density of pedestrian movement, engaging with the surrounding physical environment, and examining the character of active spaces and the characteristics of active frontages. By analysing these data, it was possible to identify the association between the characteristics of activities and memorable places that inspire the identity of the place.

3.6 Data Mapping and Data Analysis

The historical development of the Lace Market has been mapped to explore the different phases of its transformation. A series of maps highlighted significant phases in the development of the area's physical structure and presented changes in land use, activities, street patterns, socioeconomic status and demographics. The mapping facilitated the comparison of the Lace Market's tangible and intangible features from each period, making it easier to see how the area's identity had been formed and the factors that shifted or remained constant over time. The characteristics of the Lace Market were determent and measured in each period in order to distinguish which had the greatest impact on its urban identity.

3.6.1 The Strategy of Analysis

Two main techniques have been adopted for the analysis strategy, firstly, developing a chronological description and constructing a narrative of the Lace Market over time, and secondly, thematic analysis. Because place is dynamic and submerged in a continuous process with its environment over space and time (Huovinen *et al.*, 2017), its identity comprises both past and future (Carmona, 2010); thus, the research conducted a comparative analysis between perceptions over time. The chronological approach provided comparable evidence about the intangible and tangible characteristics of the Lace Market across the three eras of the study. These periods, which were selected because they witnessed significant changes in activities, relied on multiple sources of evidence (Figure 3.5). In this sense, Berg and Lune, (2017) stated that the best way to study sequences of events and their effects on people's perceptions is to conduct a chronological analysis technique. They explained that the technique should involve several types of variables in order to develop comprehensive outcomes and gather richer and more insightful information. Therefore, a chronological narrative facilitated this research in its comparison of

characteristics over time, such as tracing the changes in morphology, activities and meanings, and developing an understanding as to how the perception of identity changes.

Figure 3.5: The Lace Market across the three eras covered in the study, and multiple sources of evidence.

Source: (Almakkas, 2019)

For the thematic analysis, which means classifying and analysing data on selected themes (Pope, Ziebland and Mays, 2000), three themes were examined chronologically as they play an significant role in creating place identity - physical setting, activity, and meaning (Carmona *et al.*, 2003, Melorose *et al.*, 2007, Kum and Ujang, 2012, Sampson and Goodrich, 2009, Anton and Lawrence, 2016, Seamon, 2019). Furthermore, they offer an understanding of the transformations of perceptions of place identity. First, an examination of the spatial structure of the Lace Market was conducted (building, landscape, and streets pattern) over the three periods, by conducting a visual chronological analysis on photos of the main spaces (streets, open public places), and landmarks (distinctive buildings). Besides the site photos, the study relied on maps showing the changing pattern of street networks, physical fabric and physical form (Table 3.5). These data were collected from archival documents, and on-site observations. A chronological analysis was used to identify significant physical characteristics of the Lace Market and how elements related to the perception of identity changed over the three periods, i.e. buildings, street network, landscape and street.

Table 3.5: The major components and variables of the study and the research tools

Components of place identity (Themes)	Variables examined	Research tools
Physical Environment	- Built form - Physical fabric - Landscape - Street pattern - Landmarks - Public spaces	**Chronological analysis showing the past and present physical environment:** **1-Documentary review & Direct observation** - Aerial plans - Street pattern - Map of permeability of street - Photos of important public spaces **2-Two interviewee targets & mental maps:** Present users (post 1992) Users before regeneration (pre-1992) - Distinctive physical setting over time
Activity	- Land-use - Pedestrian flow - Active frontage - Pedestrian density - Social interaction - People-physical setting interaction - Diversity	**Chronological analysis showing past and present activities:** 1- **Documentary review & Direct observation** Maps showing the streets/open public spaces and buildings usage: Land-use maps 2- Two groups of Interviewees: Present time (after 1992) Before regeneration (before 1992) Distinctive activities over time **2- Direct observation** Maps showing the active frontage to determine pedestrians' relationship with physical settings Photos showing streets/open public spaces based on pedestrian flows Maps showing pedestrian & physical settings interaction
Perception Meanings	**Meaning based on activities** Perceived activity Social attractions User attracted with construction **Meaning based on physical characteristics** Perceived	**Chronological analysis showing the past and present place meanings:** **Cognitive maps & In-depth interviews by:** Two interviewee targets: Present users (post 1992) Users before regeneration (pre-1992) Meanings ascribed to activities

	landmarks nodes, street and districts	Meanings ascribed to the physical setting
	Meanings based on intangible aspects: Sounds and smells Historical events Historical elements Socio-cultural Characteristics	Meanings ascribed to intangible aspects

Source: Almakkas, 2018

The second theme focused on prevalent activities during the three periods: the industrial period, the period of decline, and today. These data were collected from archival documents (maps, photos, books and journal), local research, on site observations and in-depth interviews with two groups of users with experience of the place in two of the periods (Table 3.5). The land-use maps covering the two past periods and the current time, it was possible to trace how the Lace Market transformed from a predominantly industrial to a mixed-use district with varied leisure activities. Moreover, by reviewing pictures, the study showed how streets, buildings and open spaces were used at the peak of the industrial era and period of decline. Likewise, direct observations considered how spatial structures are now used. Thus, data were gathered and analysed to understand how the usage of buildings, streets and open spaces has changed over time. The intention was also to examine how these changes have influenced the perceived identity of the Lace Market in order to identify how activities have shaped its identity, Moreover, the research noted how activities are associated with meanings and imbued within a place over time.

3.6.2 Validity and reliability

Another important component of any research is the validity and reliability of the research methods adopted. Validity is the degree to which the findings of a study can be generalised beyond the sample used in the study. The ability to generalise is highly dependent on the quality of the sampling process (John W Creswell, 2014). The major concerns that threaten findings' reliability and validity relate to the method's application (design and implementation) rather than to the methodology itself (Tashakkori and Creswell, 2007). For example, poor validity can result from a lack of care and rigor in the sample selection, vague protocols, ambiguous or badly worded questions, and misleading analysis. Because most problems with validation and

reliability originate from poor research preparation and execution, the following steps were taken to minimize bias and enhance the consistency, accuracy, and validity of the research findings.

First, one of the main techniques to achieve validity and reliability is to use different methods, which together confirm the consistency of the facts and describe the existing variables at the time of the study. Flick (2002) argues that validation could be achieved by triangulating the data, and methodological triangulation is one of many types of triangulations. It involves the use of more than one method and can use qualitative and/or quantitative methods. It is believed that the combination of multiple empirical materials and perspectives in a study adds rigour, richness and validity to any inquiry (Flick, 2002; Denzen & Lincoln, 2005). Therefore, this research establishes the validity and reliability of the data and findings through various methods of data collection. For example, it is anticipated that participants' responses to the expression of the selection of their favourite places/buildings would provide the research with a number of attributes. These attributes will be triangulated with the main attributes of place as identified through the mantel mapping, and observation site. Triangulation has been used in all methods of this research to prevent the accusation that the findings only use a single method or source, or are affected by researcher bias.

Second, the researcher spent 13 months investigating a variety of literature to identify interviewees who could offer the highest value information. The sample generated consisted of interviewees with the necessary background to make an effective contribution to the case study identity (see Tables 3.3 and 3.4). Participants living in the Nottingham were targeted, especially those living in the Lace Market area who would be more aware of the Lace Market‘s environmental, and socio-cultural circumstances. These respondents would therefore be more reliable when expressing their perceptions of local identity. Therefore, I made sure that the interview sample included people with experience of the area over a long time in addition to those currently living in Nottingham and the Lace Market.

Third, a pilot test was conducted to improve the precision and comprehensibility of the interview materials and to respond to any difficulties or vagueness in the research process. The important objective of the pilot interview was to simplify the task of

generating questions to ensure they were understandable for the reader. For example, as the survey was designed for general users of the Lace Market, I did not use any technical or complex terminologies. Instead, the survey language was simple, easy to read and worded clearly. I also used very simple maps to help participants explain their memories attached to specific places in the neighbourhood. The argument posed by Converse and Presser (1988) stated that a clear interview needs a special procedure to examine questions and to consider three essential aspects: simple language, familiar concepts, and extensive information. After the pilot results were reviewed, the instrument was edited, and certain questions rephrased with professional a editor to improve the wording and comprehensibility. The pilot survey was beneficial in examining the validity of the various techniques, and in learning more about interviewing techniques in such circumstances.

Fourth, in the interview data analysis, particular attention was paid to the meaning, context and extensiveness of comments (Krueger 1998). For example, because qualitative research is fundamentally interpretive and open to criticisms of subjectivity (Seamon, 2013), participants' original opinions and thoughts were used in the analysis. Participants' responses and ideas were kept within context and the researcher avoided connecting their own values, influence, and self-reflection to their responses in order to avoid biased and misleading conclusions (Borman, 1986). According to Bernard (2011, p. 217), 'the key to successful interviewing is learning how to probe effectively - that is, to stimulate a respondent to produce more information, without injecting yourself so much into the interaction that you only get a reflection of yourself in the data'. Thus, the interviews of this research are reflective and interactive, and the questions adapted in accordance to the development of the conversation.

3.7 Chapter Conclusion

This chapter described and justified the way in which data were collected to achieve the research aim. It explored the philosophical assumptions, research paradigm, strategy to gain knowledge, and research design which justified the use of qualitative methods. The chapter explained the underpinning philosophical assumptions that influenced the choice of a case study. Importantly, the study collected data from

multiple sources of evidence, which included documentary review, data mapping, mental mapping, interviews and on-site observations (Yin, 2018).

The research also found that urban identity is a dynamic phenomenon that continues to change (Castells, 2009; Seamon, 2013); thus a cross-sectional data 'snapshot' was considered insufficient to understand the effect of activities on urban identity. Instead, the research adopted a longitudinal perspective, which enabled a comprehensive understanding of the identity of place within its context. Accordingly, the research adopted a chronological approach, which best suited the base of the topic matter and research questions.

Data explored how identity transformed over time and generated qualitative data concerning the historical development of the Lace Market, including how it changed from the market's industrial heyday to the present day. In-depth interviews and mental mapping were conducted with two user groups to identify the factors they consider make the area distinct and memorable over two periods of time. The analysis procedures were based on an inductive strategy that focused on people's experiences and perceptions of the area.

Chapter 4 will present the historical development of the case study and identify the characteristics over time.

Chapter 4 : EVOLUTION OF THE LACE MARKET

4.1 Introduction

Over the past century, manufacturing centres across the developed world have experienced economic restructuring and deindustrialization as production has moved from these countries to developing countries where wages are lower (Hamnett and Whitelegg, 2007). Many industrial buildings have been left vacant, while others have been converted to serve new purposes. The shift from manufacturing to business services and mixed use has transformed the character and identity of these centres (Tallon, 2009). In the UK, economic restructuring over the last century has left many industrial buildings under-utilized or abandoned altogether (Heffron and Haynes, 2012). Efforts to revitalize these industrial areas have commonly involved changing how the land is used and renewing the physical fabric (Heath, 2013). In the case of the Lace Market, chronological analysis of the historical development of the area may reveal those factors that have most influenced this transformation of identity. Accordingly, this chapter focuses on the analysis of data associated with Research Question 2:

What characteristics have influenced the Lace Market's place identity over time?

This data was drawn from archival documents, visual analysis, and direct observation. Addressing Objective 2; *To documents the different phases in the Lace Market's transformation from the beginning of the industrial revolution to date and shows how these phases have affected its identity.*

The chapter outlines the forces behind the historical transformation of the Lace Market, tracing the origins of the main factors that contributed to this evolution, including social factors, the physical environment, activities and events. It aims to understand the dynamics underlying this evolution, in particular the impact of urban activities in stimulating growth, development and change. It explores Nottingham City Council's regeneration policy and the role of activity in enhancing the revitalization process and identity formation. Knowing these evolutions can help first, to determine issues about how places can be maintained without loss their character and identity and second, to identify a methodological procedure towards

preservation and the development of historical spaces that ensures they do not miss their traditional characteristics and meanings.

4.2 Background of the case study

The case study area, the Lace Market, is located in the centre of Nottingham in the UK (Figures 4.1 and 4.2). Lying on the eastern side of the city's primary commercial core, the Lace Market was for more than a century the international centre of the lace production (Powell, 2006).

Figure 4.1: Nottingham in the broader map of the UK. Source: (Miller, 2018).

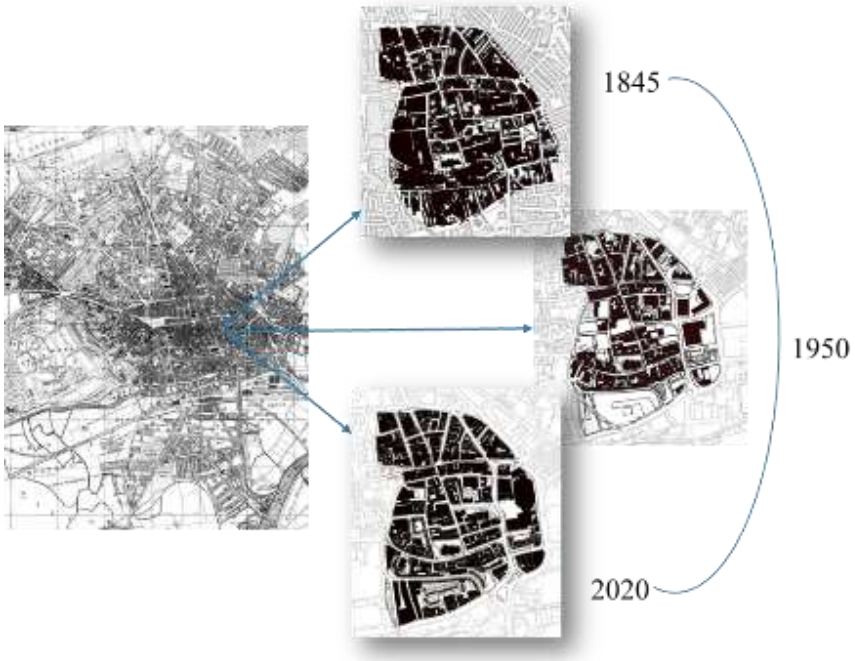


Figure 4.2: Location of the Lace Market in Nottingham, 1845- 2020.

Nottingham's lace industry began in the early 1800s (Morris, 1991). The term Lace Market represent specific part of Nottingham has been used since the 1845 (Oldfield, 1984). Once the core of the world's lace manufacturing in the mid-19 century (Heath, 2013), the name was applied to reflect the main function of the geographic location (Figure 4.3), probably derives from the good reputation in lace manufacture was conducted in the specific district boundary (Nottingham City Council, 1989). The fortunes of the Lace Market started to turn in the 1930s as lace production declined. Much of the area fell into dereliction (Crewe and Beaverstock, 1998), and things only got worse with World War II, when the few remaining factories switched to become printing, clothing and warehousing businesses (ibid). By the 1950s, the Lace Market was almost uninhabited (Moughtin *et al.*, 1999). Post-industrial decline had seen the area change profoundly in terms of its population and the socio-economic activities taking place there (Figure 4.4).

Figure 4.3: The Lace Market was an international centre of lace production.

(A) Stoney Street, 1910. Source: (Picture Nottingham, 2018e). (B) Lace mending and joining, 1910. Source: (Museum, 2012) (C) The interior of the Talbot Lace Curtain Factory of Thomas Adams, 1914. Source: (Wilson, 2019)

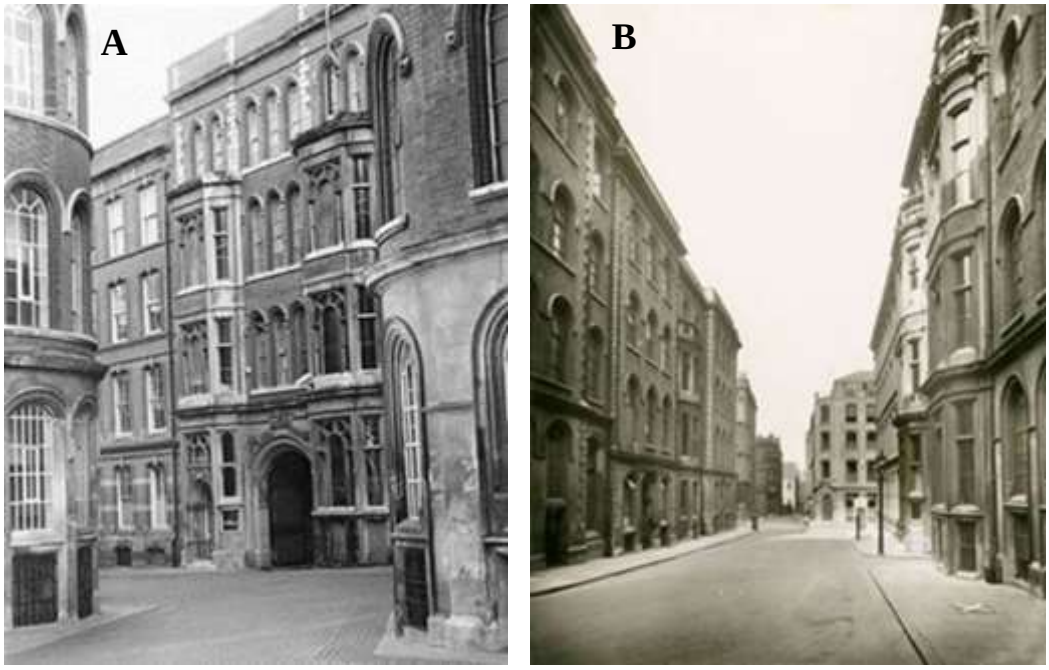


Figure 4.4: The Lace Market was almost uninhabited area. (A) Broadway Street, 1975. (B) Stoney Street, 1956.

Source: Oldfield (1984, p. 206)

The seeds of the Lace Market's regeneration were sown in 1969, when it became one of the first areas in the UK to be declared a conservation area (Crewe, L., Hall-Taylor, 1991). Throughout the 1970s, the plan in the quarter mostly concentrated on protecting the built environments in combination with efforts of revival lace manufacture by support the few remaining manufacturing businesses (Morris, 1991). Then, the strategy seems changed when Nottingham City Council's Planning Department approved strategy revitalizing the Lace Market as a mixed-use neighbourhood in 1989. In 1992 new strategy plan was undertook in the Lace Market, the main purpose of which was to support and promote viable markets to meet existing trade requirements, and the district is presently viewed one of the greatest cases of inheritance-led renewal in the UK (Robinson, 2017).

The Lace Market is a conserved heritage part with various inspiring examples of 19th century Victoria style (Nottingham Industrial Museum, 2018). The character of the area related practically from the manufacturing period, with narrow streets between high warehouses giving a canyon-like appearance. As the area became mixed use, many of these old manufacturing buildings were turned into high-end accommodation, shops and bars (Figures 4.5 and 4.6), and industrial activity gave way to education,

shopping and entertainment. Today, the Lace Market is a hub of recreation and luxury accommodation in the heart of Nottingham.

Figure 4.5: (A) Lace Market Square. Source: Almakkas, 2017. (B) New College, Nottingham. *Sources: Nottingham College (2017).*

Figure 4.6: Motorpoint Arena, the Lace Market.

Source: Motorpoint Arena (2014).

This macroeconomic transformation provides a frame for discussion of the impact that changing activity has had on the identity of the Lace Market. This chapter examines the effect of activity on the urban configuration of the Lace Market by studying the spatial, social and discursive processes which have helped transform the characteristics of the area. Next Chapter identifies the user's perception of place characteristics over time in parallel to the wider change in economic activity. Changes in how the Lace Market's place identity is perceived in relation to important urban activities can be revealed by chronologically examining how users perceive the area's characteristics.

4.3 Mapping the identity of the Lace Market

Other examples of historical development have seen places previously used for industrial activities being put to a range of different purposes (Hamnett and Whitelegg, 2007). Such changes in how spaces or buildings are used inevitably change the meaning of these places and how their identity is perceived (Shuhana, 2011). The following sections consider the morphological transformation of the Market's spatial structure, urban form, user profile and land use to demonstrate how its image and characteristics, as evidenced in its places, buildings, social practices, events and activities, have changed. It should then be possible to determine how activity has contributed to changing the identity of the Market over time.

The temporal mapping of identity was conducted by comparing data from different points within the Market's historical transformation to identify patterns, similarities and differences. The resulting series of maps highlight the significant phases of development and main demographic changes, including the alterations in physical form and street pattern, the shift in land use, function and density, and how all these factors have affected the identity of the Lace Market.

4.4 Morphological transformation

Carmona et al. (2010) argue that urban design characteristics have six main dimensions: morphological, visual, functional perceptual, social, cultural, and temporal. This outline of the Lace Market's morphological transformation covers the physical environment (building structure and street patterns), urban function or land use and demography. Regarding the first of these, the physical environment in urban areas is made up of diverse kinds of built and public spaces, such as streets, structures, parking lots, gardens and greens area; bodies of water such as pools, seas, waterways, channels, etc. (Vanderhaegen and Canters, 2017). The presence, measurement, form and spatial organisation of these spaces define the morphology of the urban area.

The aim in studying urban function is to see how changes in this function influence the Lace Market's place identity and how they associate to spatial transformation. Place identity has been defined as 'the extent to which a person can recognise or recall a place as being distinct from other places and as having a vivid, or unique, or at least a particular character of its own' (Lynch, 1960, p. 131). This distinctiveness

of character derives partly from the place's functions (commercial, manufacturing, residence, recreational areas and transport infrastructure) (Vanderhaegen and Canters, 2017). Former researches have revealed that the spatial pattern of the physical environment, which represents urban structure, can be associated to an area's functional characteristics (Yoshida and Omae, 2005; Shuhana, 2011; Hartanti, 2014). Recognizing the connection between urban organisation and function may make it easier to see what influence the latter has had on the character of the Lace Market.

The mapping exercises provide comparable information about intangible features of the Lace Market (e.g. historical events, users' practices, and constant and variable factors) across the three eras covered in the study. These three periods, which were selected because they witnessed significant changes in activity, were the industrial period (1844-1920); the decline of the lace industry (1921-1990); and the emergence of mixed use (1991 to the present time).

The main characteristics of the Market were identified and measured during the three periods in order to understand which attributes supported or drove changes in its identity. The influence of activities on these attributes and thence the formation of place identity was determined by analysing the attributes of activity and perception identity during the three periods. In this way, the morphological narrative review is able to highlight the role of activity characteristics in place identity creation. The perceptual dimension of place identity is discussed in Chapter Five and Six, which study place meanings, sense and symbolic, place belonging and place attachment.
Urban transformation is the result of a range of activities designed to progress physical, social and environmental conditions in an urban zone (Beyhan and Çelebi Gürkan, 2015). Accordingly, the following sections analyse the physical, visual, functional, social, spatial and contextual effects of urban transformation on the urban identity of the Lace Market. Drawing on the theoretical framework (see Figure 2.6) and focusing on the three periods described above, they investigate those changes in physical setting, activities, user demography and meanings which have been described by many scholars as playing an essential role in shaping place identity (Relph, 1976; Ngesan and Zubir, 2015; Carmona and Tiesdell, 2007; Garnham, 1985; Kozlowski, Ujang and Maulan, 2017; Rapoport, 1990).

4.5 Spatial transformation (physical setting)

The physical environment, one of the key components of place identity (Carmona and Tiesdell, 2007; Mulholland, Abdelmonem and Selim, 2014), is influenced by elements such as the area's geographical characteristics, architecture and setting (Ujang and Zakariya, 2015b). In the case of the Lace Market, the physical environment has been shaped and reshaped repeatedly as a succession of social groups, each with its own culture, which have reorganized the area to suit their own needs and economic activities (Lowe and Richards, 1989). The result has been the creation of numerous physical environmental patterns (Tallon, 2009), each of which is a historical reflection of a particular user-place relationship and user lifestyle, and which collectively enrich the Market's place identity (Mohd-Isa, Zainal-Abidin and Hashim, 2011), and which collectively enrich the Lace Market's identity. The following section examines these changes in physical setting, as expressed in the physical fabric, built form and street patterns of the area, to find out how they are associated with changes in the urban activity and place identity of the Lace Market across the three selected periods.

4.5.1 Transformation of built form and fabric

Traditional urban environment reveal the identity, systems, culture, and economy or environment for a given time period (Belanche, Casaló and Flavián, 2017). This is observed in line with the transformation of the physical construction of a place (Tavakoli, 2010). Thus, one of main aims is to identify how historical built form sustain urban identity or reflect the character of the Lace Market. This aim can be achieved via a morphological approach. Tavakoli (2010, p. 3) identifies the indicators for the evaluation of physical identity as:

'1. Difference and similarity: the difference between others and similar to itself.

2. Continuity and evolution: connect to the past (continuity of the original meanings and values) in line with innovation, creativity and reflecting the contemporary status (to preserve its origin, but not remain in the past)'.

4.5.1.1 Built form and fabric during the industrial period

The development of industrial activities in the Lace Market has influenced the built form of the area. Initially a residential area, the mid-18th century saw the construction of numerous factories to accommodate the growing lace industry (Oldfield, 2002). These buildings were designed to suit the nature of the industry (Richard and Wilfred, 1976), with large, open factory floors to accommodate the lace-making machines (Crewe and Hall-Taylor, 1991) and tall converged bow-windows to admit ample light. These windows (see Figure 4.7) remain a distinctive feature of the physical fabric of the area. Another distinctive feature is that many of the buildings have four or five storeys; this was necessary because the labour-intensive nature of the industry meant that buildings had to be large enough to accommodate a big workforce. Heath, Oc and Tiesdell (1996, p. 133) describe the link between the Lace Market's character and activities thus:

> *The Lace Market, Nottingham. The quarter's character is derived directly from the nature of the activities that took place in the buildings. The warehouses and factories were utilitarian structures: lace buyers needed to see the product in good light, while the fine nature of the lacemaking also demanded good lighting. Large windows in load-bearing masonry construction were a significant engineering achievement. The Lace Market's scale is also atypical of English cities. The tall warehouses, built of the distinctive red-orange Nottingham brick, stand squarely up to the edge of the pavement to create canyon-like streets.*

As the dominant economic activity, the lace industry was the main determinant of the Lace Market's image and built form in this period. This form was simple, clear, monochrome, balanced, harmonized and had spatial continuity. The most prominent markers were the big red blocks of the factories.

Figure 4.7: Converged bow-windows on the narrow streets of the Lace Market.

Broadway, 1975 (A) Sources: *Picture the Past* (2017) and High Pavement, 1931 (B). Sources: (Council, 2018).

Over the course of the 19th century, the Lace Market changed from being a mixed residential-industrial area to an almost entirely industrial area (Williams, 2001); as new warehouses were constructed, many of the old dwellings were demolished and their residents were displaced. In 1841, there were 38 houses on High Pavement housing 223 people, but by the last of the 19th era, no houses in the Lace Market had almost (Oldfield, 2002). As shown in Figures 4.8, the change in land use saw individual houses being replaced by large block forms.

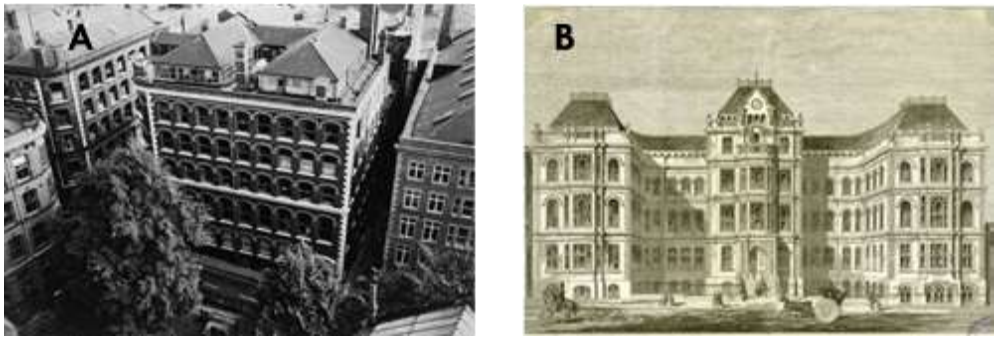


Figure 4.8: A Kayes Walk - Stoney Street, No date. B Thomas Adams Building, Stoney Street, 1855.

Source: (Picture Nottingham, 2018e). *Source: (Powell, 2006).*

Lace workers were instead accommodated in areas such as Narrow Marsh, on the edge of the Lace Market (see Figure 4.9).

Figure 4.9: View over Narrow Marsh in 1919, residential of lace workers.

Much of the area was demolished in slum clearance schemes during the 1920s and 1930s. Source: Nottingham City Council (2018).

Narrow Marsh lay at the foot of the cliff on which stands the Lace Market (seen in the background of Figure 4.10). A jumble of closely packed two- and three-storey buildings separated only by narrow paths, Narrow Marsh had by the late 19th century become notorious for its crime, poverty and slums (Joe Earp, 2013). Poorly built and lacking sanitation and basic facilities, this chaotic built environment stood in stark contrast to the rest of the Lace Market.

Figure 4.10: Poorly built and lacking sanitation and basic facilities

(A) Kirk's Yard, Narrow Marsh, 1902; (B) Knob Yard, Narrow Marsh, 1914; (C) Red Lion Street, Crosland Place, Narrow Marsh, 1919. Sources: (A): (Picture Nottingham, 2018h), (B) and (C): (Picture Nottingham, 2018g).

The expansion of lace manufacturing led to the construction of grand warehouses and factories that changed the physical fabric of the Lace Market. These remain the most excellent examples of 19th century manufacturing architecture in Europe (Moughtin *et al.*, 1999). “In 1832, there were 66 lace producers in the Market, mainly found on St. Mary’s Gate, High Pavement and Stoney Street” (Lowe and Richards, 1989, p.24). The development of steam-powered lace and hosiery machines in the 1840s resulted in the construction of numerous large, steam-powered factories in the area (Lowe and Richards, 1989), followed in the 1850s by the construction of a new generation of massive warehouses. By the end of the 19th century, a new built fabric had emerged in the Market. This densely constructed fabric, dominated by industrial buildings, worker housing and churches (see Figure 4.11), had evolved organically to keep up with the massive expansion of the lace industry.

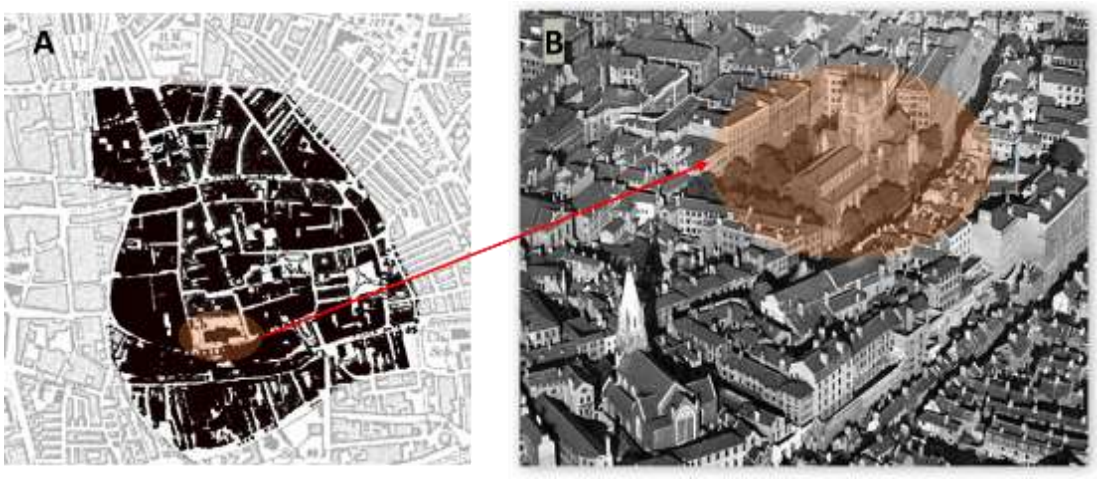


Figure 4.11: (A) Physical fabric in the Lace Market, 1874.

Sources: (archiseek, 1874). (B) The location magnified on the right is St. Mary’s Church, surrounded by lace warehouses, 1919. Source: (Nottingham City Council, 2018b).

This period saw the construction of numerous warehouses to the eastern borders of Hollow Stone and the west part of the district. many houses also have constrcted, they concintrate in Plumptre Street and Barker Gate, as well as area to the north of the Market, called Narrow Marsh. Although these, together with others to the east towards Carter Gate, were some of the most overpopulated and unsanitary dwellings in the Nottingham, most were not removed until slum clearance schemes were completed in the 1920s and 1930s (Oldfield, 2002).

4.5.1.2 Built form and fabric during the deindustrialization period

From 1929 onwards, as the lace industry declined, so too did the Lace Market. Warehouses and residential areas were abandoned or destroyed, and in the beginner of 1950s, the Market had become an almost rundown part of the Nottingham, with very few buildings occupied at all (Heath, T., Oc, T., Tiesdell, 1996). During the 1960s, plans were drawn up for the wholesale redevelopment of the area, and many buildings were cleared in preparation for building new roads (Lowe and Richards, 1989). Others were demolished for safety reasons. Figure 4.12 shows how much of the area had been cleared by 1970.

Figure 4.12: Parts of the Lace Market cleared in 1970.

Demolished area

Original physical fabric

Source: (Nottingham City Council, 2018b), adopted by Almakkas, 2017.

The clearing process had begun in the 1930s with the widening of Barker Gate from Bellar Gate to Lower Parliament Street and the area where the building of the Nottingham Ice Stadium was constructed (Oldfield, 2002), which opened in 1939. The 2,800-seat stadium was itself demolished in 2000. The Nottingham Bowl was constructed on the adjacent site (Figure 4.13).

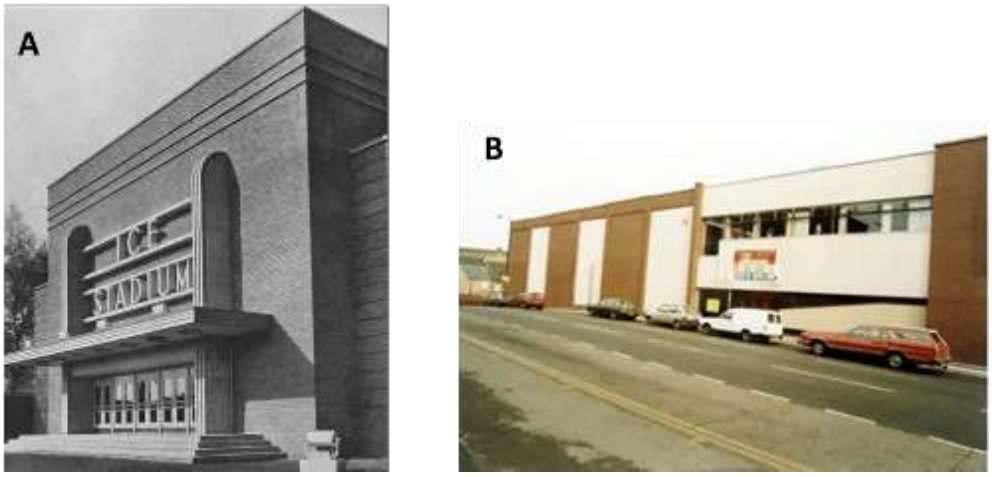


Figure 4.13: (A) the Ice Stadium, Nottingham, Main Entrance Elevation, n.d.

(B) Nottingham Bowl. Source: Oldfield (1984).

Another significant change to the fabric of the area was the demolition of Halifax Place in the mid-20th century (Henry Russell, 2011), though in this case, the area became rather unattractive with temporary car parks (Figure 4.14). At that time, the urban form of the area was changed (Heritage, 2006) which resulted in the Lace Market taking on a new appearance.

Figure 4.14: the demolished areas became rather unattractive with temporary car parks

(A) Halifax Place, 1970. (B) Halifax Place from Picher Gate to St. Mary's Gate, 1970. Source: *Picture Nottingham* (2018d).

Important warehouses were demolition followed Halifax Place, the area opposite Barker Gate, between Stoney Street and St. Mary's Gate have demolished. The idea of this was to allow a new road to be constructed joining Pilcher Gate and Fletcher Gate with the planned improvement of Broad Marsh. However, the project was abandoned, and these newly open spaces were again turned into temporary car parks (Figure 4.15).

Figure 4.15: Barker Gate, St Mary's Gate, Lace Market, 1970 using as car parks.

Source: Picture Nottingham (2018b).

Demolition was not limited to factories and warehouses; workers' housing in Narrow Marsh was also cleared. Like Barker Gate and Halifax Place, this area changed completely. Although not part of the Lace Market as such, the area had served as a residential quarter for workers for decades. With its demolition in the 1930s (Figure 4.16), the overlap of the Lace Market with its adjoining areas was reduced.

Figure 4.16: Demolition of Red Lion Street, Lace Market, 1930. The picture was taken from the cleared Narrow Marsh area. Source: (Joe Earp, 2013).

The removal of these and other buildings and streets and the appearance of new architectural styles transformed the traditional physical form and fabric of the Lace Market. As Figure 4.17 shows, the density of this fabric, formerly one of its distinguishing characteristics, was lost, and the structural composition of the place was instead marked by empty plots.

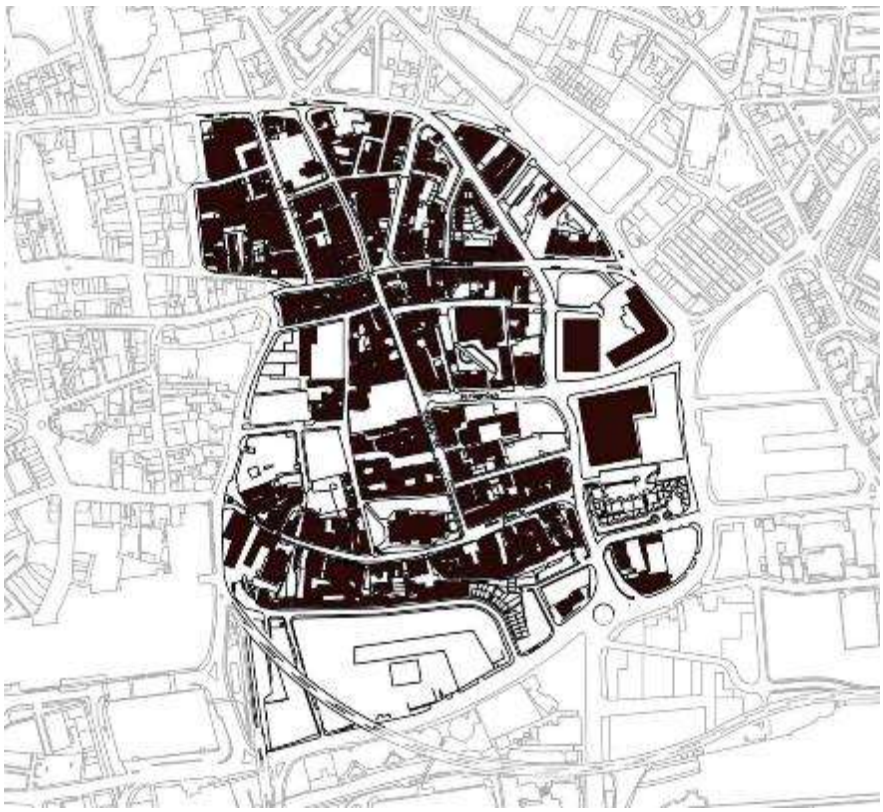


Figure 4.17: The Lace Market map shows reducing the density of the physical fabric, and the structural composition of the place was instead marked by empty plots, 1974. *Source: (Digimap, 2018), adopted by Almakkas, 2018.*

4.5.1.3 Towards conservation

As more and more industrial buildings were demolished, concerns grew nationally that important parts of the UK's heritage were being lost. The result was the passing of legislation allowing the government to 'list' buildings that were of special architectural or historic interest. However, there was also increasing awareness, nationwide and homegrown, that historically valuable areas, even if they did not hold listed structures, must to be endangered from any act which might end their character. Consequently, the Civic Amenities Act, passed in 1967, which allowed local authorities to designate these sites as conservation areas. In Nottingham, the Nottingham Civic Society, formed in 1962, sought to encourage planners to preserve the best pieces heritage of the city, and the Lace Market was listed a preservation district in 1969 (Oldfield, 2002). A Preservation Policy for the Lace Market, published by the City Planning Department in February 1974, sought to protect the area by combining conservation and selective redevelopment, accepting the destruction of the worst to support recovery of the best features of the Market. By 1972, some 35 structures or collections of structures in the Lace Market had been listed. This number of the city's listed building increased to 94 in 1996 (Oldfield, 2002). These buildings may not be developed or destroyed without special planning permission, protecting them and the general character of the area against inappropriate development (Figure 4.18).

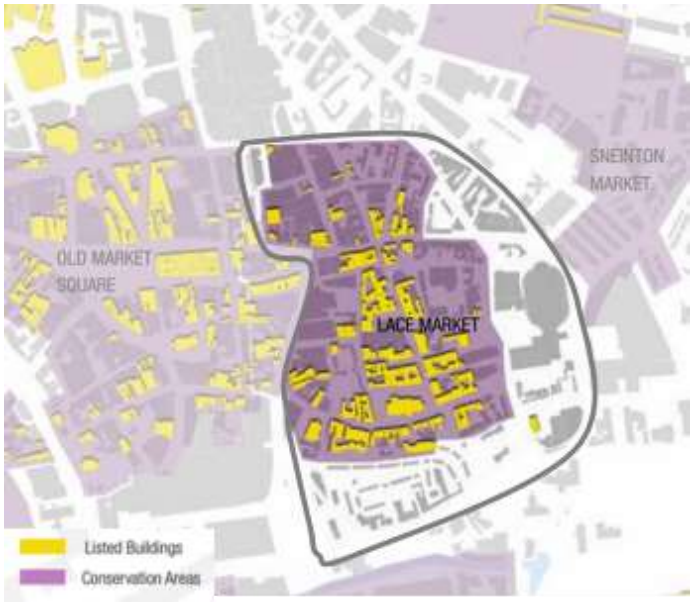


Figure 4.18: Listed buildings and the conservation area of the Lace Market.

Source: (Council Nottingham City, 2009).

4.5.1.4 Regeneration of the Lace Market

The rehabilitation of the Lace Market began at the end of the 1980s. In the beginning of 1989, the Lace Market Development Company Limited (LMDC) was established as a public-private partnership (Nottingham City Council, 1989). The (LMDC), "Nottingham City Council and Nottingham Tourism Development Action Programme, further released article through consultants Tibbalds, Karski, Colbourne and Williams. The article by Tibbalds and his partners supported the Lace Market to be National Heritage Area" (Moughtin *et al.*, 1999, p. 74). Figure 4.19 shows the development strategy introduced in the report which is depends on analysis items under the headings Strengths of the Lace Market and opportunities elements to be distinctive. The offer few development projects within five years was the main objective of this partnership to kick-start the revitalization process. By the 1993, the Lace Market Heritage Trust (LMHT), was set up and became a principal agent in managing basic government grants (Moughtin *et al.*, 1999, p.76), in order to improve the physical settings and financial character of the neighbourhood (Shorthose, 2004). LMHT becomes working alongside the LMDC. A major example of their cooperation was their work on two of the largest and most problematic structures in the district: Shire (County) Hall on High Pavement the and Adams Building on Stoney Street. As Heath, Oc and Tiesdell (1996, p. 20) point out, 'Economic revitalization is required because ultimately it is the productive utilization of the private realm which pays for maintenance of the public realm'. The Lace Market's regeneration policy therefore required both the restoration of the physical environment and the vital business use of its buildings and spaces (Nottingham City Council, 1989). In the case of the Adams Building, this was achieved by transforming the site into the campus of New College Nottingham, while Shire Hall was changed to become the National Justice Museum, a tourist attraction.

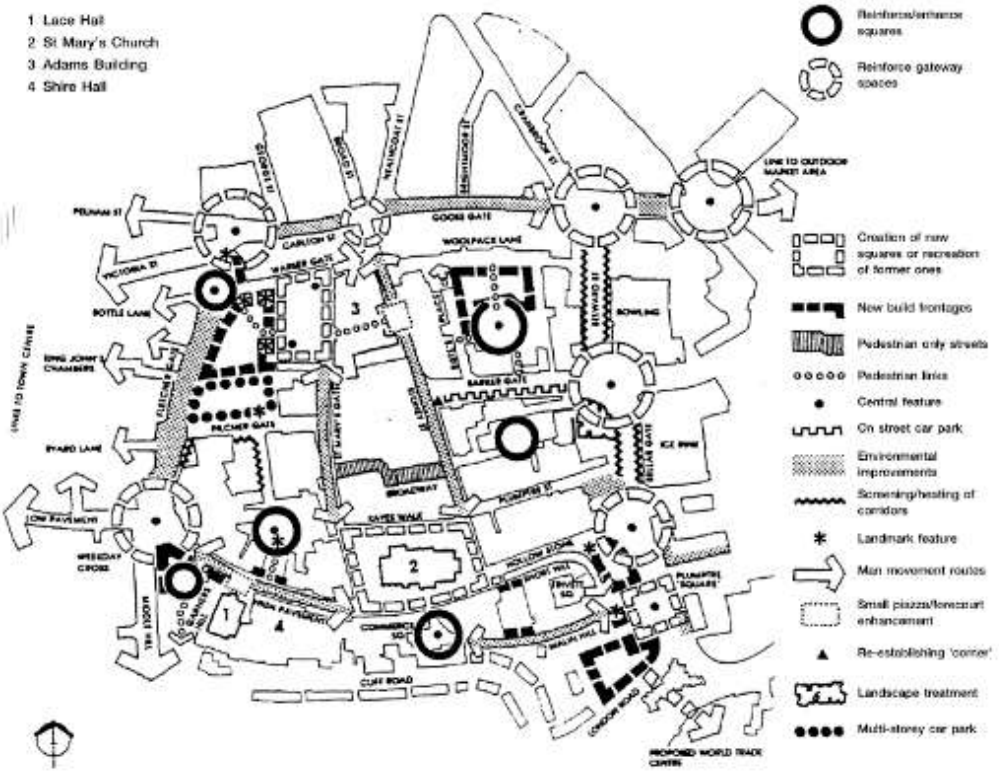


Figure 4.19: Tibbald's Strategy for the Lace Market, 1989.

Source: Cuesta et al. (1999, p. 75).

The transformation of these two buildings was an example of one of the main strategies within the redevelopment: to adapt the area's historical elements to new uses (Nottingham City Council, 2012). While preserving these historical elements as symbols of the past was seen as important (Moughtin *et al.*, 1999), the view was that this alone would not be enough to revive the area, which needed to evolve if it was to thrive once more (Nottingham City Council, 1989; Povilaitienė, Kamičaitytė-Virbašienė and Zaleckis, 2019). Ismail (2012) notes that physically renovating and repurposing old buildings is an effective way of reviving an area, while Ujang (2017a) argues that people's perceptions of a place are strongly influenced by the activities that occur there. The following sections discuss the historical development of the Adams Building, Shire Hall and another heritage building, Halifax Place, to show how putting them to new uses has helped make them landmarks.

Adams Building

The biggest lace warehouse in the Lace Market is the Adams Building on Stoney Street (Figure 4.20). In the 19 century was used mainly as a lace showroom and

warehouse, it is now considered to be the greatest surviving model of a Victorian lace factory in the UK (THE CREATIVE QUARTER, 2019). The warehouse was built in 1855 by Thomas Adams, in side to its great architecture style, factory distinctive also by good facilities for his workforce, which provide good humane conditions; Washing facilities, indoor toilets and tea rooms were given for workers, and there are accounts of a sick fund, book club and savings bank; A wide space of Floor B was purposed as a chapel (with a company chaplain and vestry), where normally about 500 labourers and supervisors were attended there before beginning work; The Adams Building was also heated building provided by a merger of coal and patent warm-air flues (Oldfield, 1984). All these facilities were at the mid-19th century, in which made the Adams factory as a model example from other Victorian factories inspectors (ERDF, 2010).

The building faced serious damage to the floor and chapel below during World War II. The ground floor was used by the RAF as parachute storage, while concrete bomb shelters were constructed in the courtyard which cause covering the basement walls. Therefore, the Adams Company officially stopped the production in 1950, and the structure was sub-divided for use by little businesses.

Figure 4.20: Adams Building.

Source: Almakkas, 2017

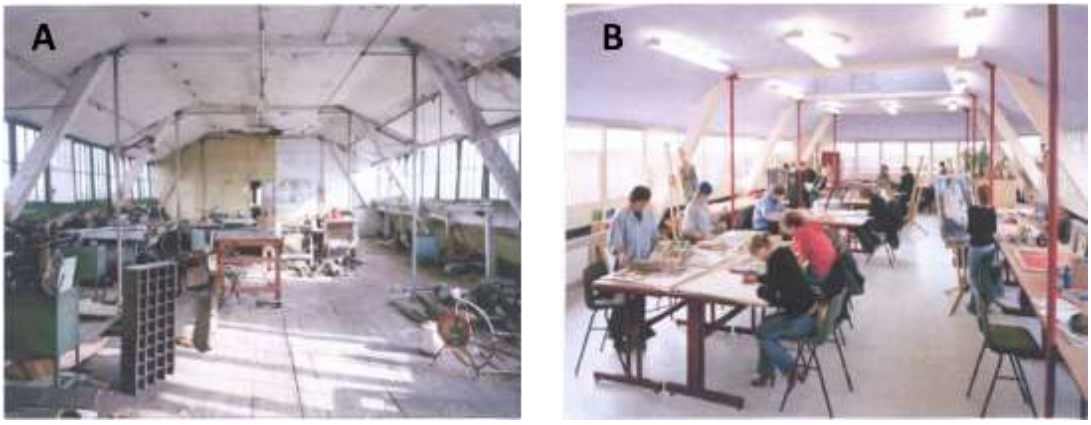


Figure 4.21: (A) Interior of the Adams Building before revitalization.

(B) Interior of the Adams Building after revitalization, showing its current use as a studio by New College Nottingham.

Source: (Powell, 2006).

In September 1988, in plan of revival important buildings in the Lace Market, a team of experts headed by Cochran Roche was selected to provide a development strategy that associated physical protection and new functional restructuring (Figure 4.21). The resulting program contained four flagship improvements, change the abandoned Adams Building into a hotel was one of them (Hardill, Crampton and Ince, 2003). The strategy sought to capitalize on the building's role as the focal point of the Lace Market (Nottingham City Council, 1989) by rehabilitating it and siting a small public square nearby. This open square was to be enclosed on the west by historical building four-storey which would act as a gateway into the neighbourhood (Moughtin *et al.*, 1999). Finally, this development strategy was not adopted and the Adams Building until now home to New College Nottingham.

Shire Hall

Shire Hall (now the National Justice Museum**)** was one of the most important heritage buildings to be developed in the regeneration process (Planning, 1989). The building, which dates back to at least the 14th century, was for centuries used as the city's main court and prison (Figure 4.22). Additional wings were added between 1820 and 1859 (Thoroton Society, 1928). In 1844, alterations were made to the courtrooms, the judges' retiring room and the barristers' robing room, and a clerk's office was added. Executions took place in front of Shire Hall in full view of the

public (the building facade still bears marks where the temporary gallows were erected) (Figure 4.23). Nottingham's last public execution took place outside Shire Hall in 1861. Thereafter, executions were carried out privately at the west end of the prison yard.

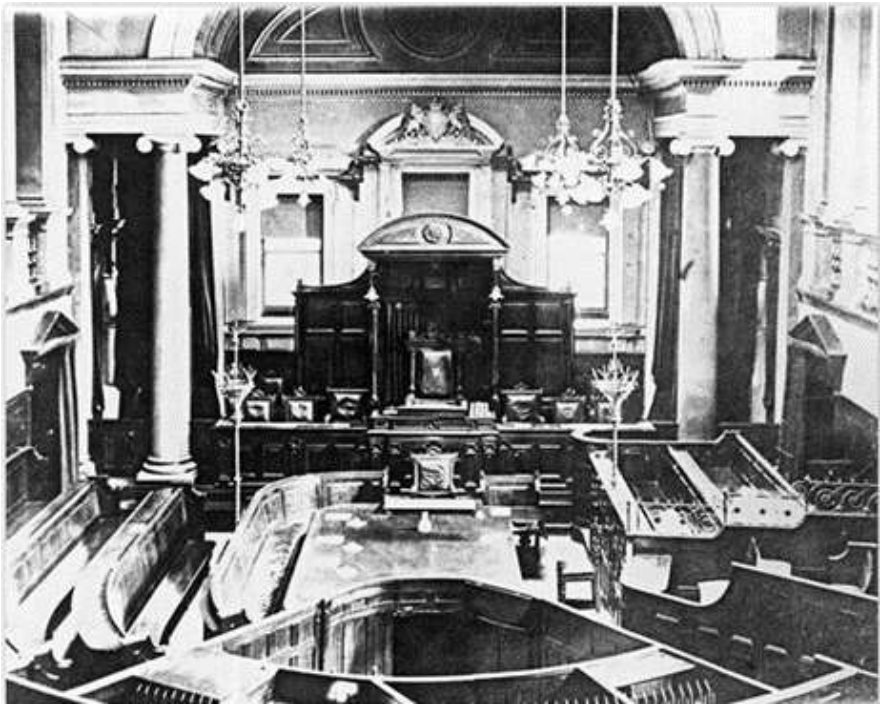


Figure 4.22: Court interior, Shire Hall, n.d.

Source: (Picture Nottingham, 2018c).

Figure 4.23: Hanging at Shire Hall, n.d.

Source: Thoroton Society (1928).

A police station was built next to the construction in 1905. Shire Hall sustained in use as Nottingham's civil and criminal court building until 1991 (Figure 4.24).

Figure 4.24: Shire Hall in 1905, when it was used as Nottingham's civil and criminal courts and police station. Source: (Picture Nottingham, 2018c)

In 1995, the refurbished building was opened as the Galleries of Justice Museum (Figure 4.25). After a further £1 million improvement project, the museum reopened in 2017 as the National Justice Museum, with a wealth of artefacts relating to crime and punishment that had previously been in storage now on show. Today, the history of justice is brought to life at the National Justice Museum through activities, exhibitions and this huge collection of artefacts.

Figure 4.25: A Galleries of Justice Museum. B National Justice Museum. 2019. Source: Almakkas, 2018.

Halifax Place

Another interesting building that became one of the landmarks of the area is Halifax Place. Now the Lace Market Theatre, in 1760 the building was founded as the Zion Chapel by dissident Unitarians. Since the 19th era, it has been, in turn, used in education service named Sunday school, then the Halifax Academy and converted to lace warehouse (Tallon, 2009). With the decline in industrial production, however, the condition of the building deteriorated and it was finally abandoned. It was bought on behalf of the Lace Market Theatre in 1971 and, following the government's encouragement of local authorities to protect important buildings, it was listed in 1972. Its facade repaired and its function altered (Nottingham City Council, 1989), the Lace Market Theatre is today an important heritage venue for theatrical and cultural performances (Figure 4.26).

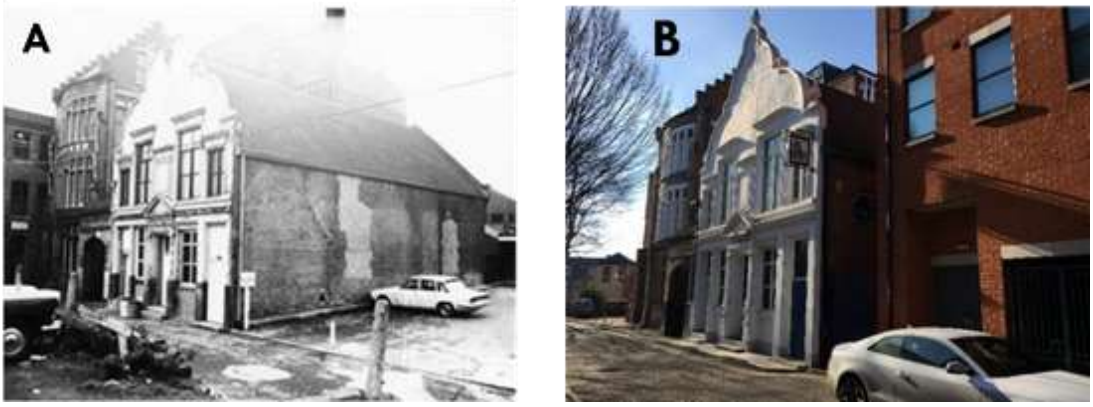


Figure 4.26: A Halifax Place, Lace Market, 1975. B: Lace Market Theatre, 2018

Source: (Picture Nottingham, 2018f). *Source: Almakkas, 2018*

4.5.1.5 Built form and fabric since the emergence of mixed use

By 2005, many of the Lace Market's historic buildings had been adapted to serve new functions as entertainment or cultural venues (Heath, T., Oc, T., Tiesdell, 1996). With its buildings now put to a wide range of uses and a growing residential population, the area had been dramatically revitalized. The Nottingham City Centre Masterplan 2005-2015, published in 2005, set out the City Council's strategy for the Market's regeneration, which depended mainly on renovating and changing the use of its historic buildings (The Academy of Urbanism, 2016). However, the plan also

identified a few main construction projects to address the demolished places. These included:

- A modern Lace Market Square (Figure 4.27). This mixed-use scheme, which was completed in 2008, comprises 46 flats and retail and leisure spaces circling a novel public square with underground parking. This project replaced a surface parking that was damaging an essential walker link between the Lace Market and the city centre.

Figure 4.27: Lace Market Square, 2018.

Source: Almakkas, 2018

- The Centre for Contemporary Art Nottingham. This building has four halls, a theatre, a learned space, a research centre and a cafe-bar (Figure 4.28). The building was opened in November 2009. It today saw as one of the biggest contemporary art spaces in the UK (Council, 2016).

Figure 4.28: Centre for Contemporary Art, Nottingham.

Source: Almakkas, 2018.

- Among the projects that aim to revive the region through collective recreational activities is the Motorpoint Arena. Built on the site of the demolished Ice Stadium, this multi-use indoor arena adjoins the National Ice Centre. The National Ice Centre and Motorpoint Arena were opened on 1 April 2000 (Figure 4.29). It is the biggest live entertainment venue in the East Midlands. After its opening, the building has hosted over a thousand events: family shows, comedy acts, concerts and sporting events.

Figure 4.29: Motorpoint Arena and forecourt, 2018.

Source: Google Map (accessed 22/07/2018).

These construction projects have changed the Lace Market not only functionally but also physically as new architectural styles have brought new forms and colours to the area. Because of the extensive reconstruction campaign, more than 25% of the Market's spatial structures are now modern office, residential and leisure blocks (Figures 4.30 and 4.31). However, while these blocks may have all of the modern amenities and facilities, they lack the characteristic physical properties of the buildings from the industrial era, and consequently the symbolic meanings acquired over a long period of user experience (Darley, 2019). The replacement of original structures and street patterns with modern condominiums and high-rise accommodations has dismayed some observers, with Hussain and Ujang (2014), for example, arguing that the historical identity of the city is being undermined. Similarly, Shorthose (2004) sees the recent transformation of the Lace Market as potentially weakening the area's distinctive character. Both comments suggest that the new built form in the Lace Market has helped, for good or ill, to transform the image and character of the area.

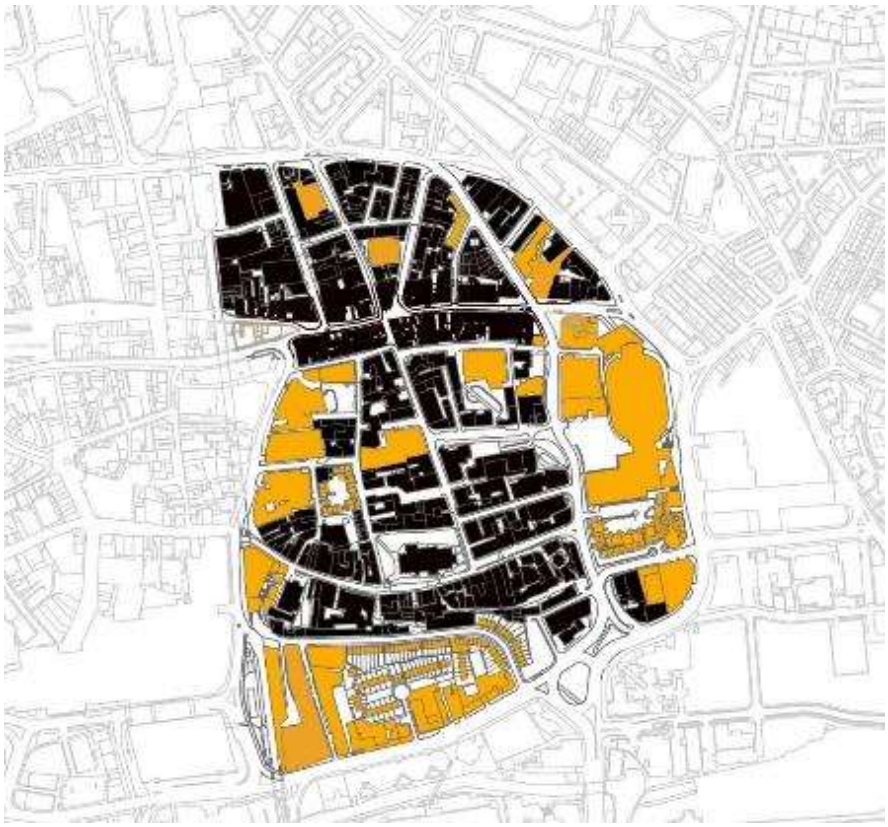


Figure 4.30: Location of new buildings in the Lace Market.

The orange areas represent the new structural arrangements in the demolished areas. Source:(Digimap, 2018), adopted by Almakkas, 2018.

Figure 4.31: Examples of the new built forms.

Source: Almakkas, 2017

Comparison of aerial photos of the Lace Market taken during the industrial period and the current period shows how the characteristics of the physical fabric of the area have changed over time (Figure 4.32). In the industrial era (Picture A), factory blocks lined the narrow paths, while the top of the picture shows the densely packed houses of Narrow Marsh, where most workers lived. The highest building and most prominent landmark is St. Mary's Church.

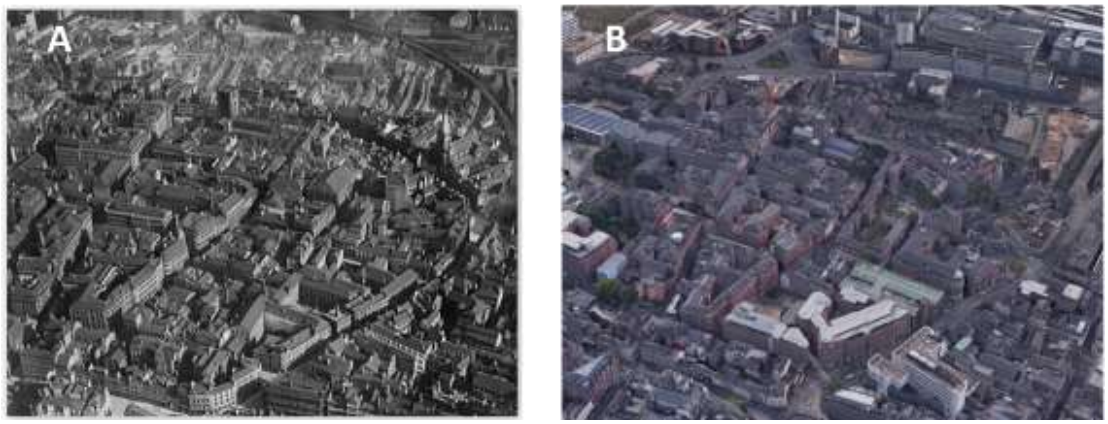


Figure 4.32: (A) Aerial photo of the Lace Market in 1920.

(B) Aerial photo of the Lace Market in 2018. Source: (A): (Picture Nottingham, 2018a), (B): Google Maps (accessed 22/07/2018).

4.5.1.6 Transformation of physical characteristics

Over time, the urban fabric has been transformed with the creation of wide straight streets and the removal of narrow paths and old factories. As can be seen in Figure 4.33, almost all the empty plots have now been redeveloped with new structures.

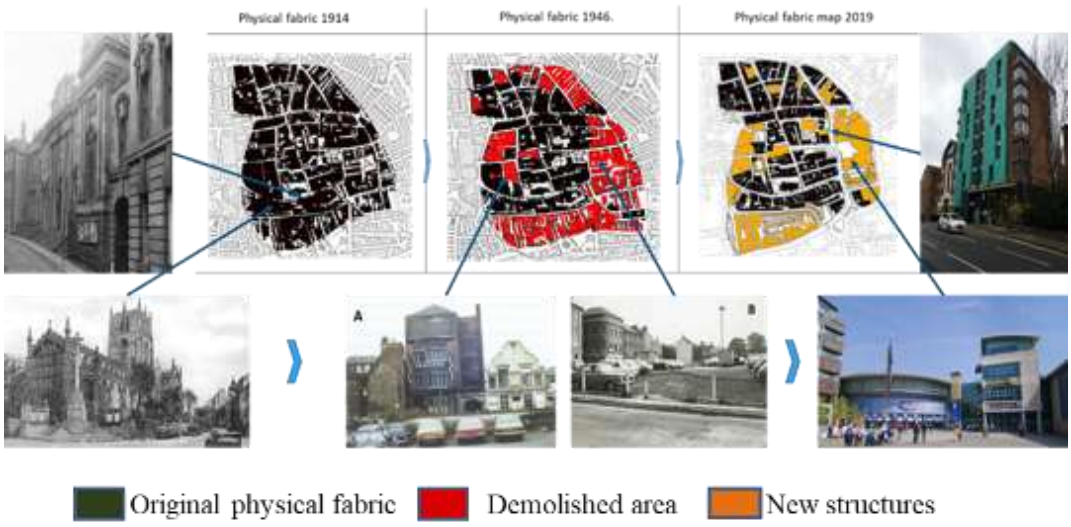


Figure 4.33: Changing physical fabric of the Lace Market during the three main periods.

Source: Almakkas, 2019

As the 2019 map indicates, however, the fabric of the Lace Market still retains some features from the lace production era. The society that produced its factories may have vanished long ago, but the buildings remain a powerful part of the collective memory, an assertion of identity, social status and flexibility fronting the challenge of time (Boyer, 1994)**.** Indeed, the really presence of these structures may be seen as a sign of the permanent character of the place. However, the reorganization of the historic built environment, which is generally considered the primary instrument for reconstituting place identity, reforming urban memory and homogenizing cultural history, often has a negative influence on the historic fabric (Casakin, Hernández and Ruiz, 2015a), and in the Lace Market, too, uncontrolled conversion, which has reconstractured the form and image of the area, has undermined its legibility. This clarity is necessary because of the historical significance of the area and environment extent to volume, era and development (Lynch, 1960)., Said, Aksah and Ismail, (2013), English Heritage, (2013), Ujang and Kum, (2014) and Penića, Svetlana and Murgul, (2015) follow Lynch in arguing that ancient cities are normally more clear because their great fabricating are highlighted and public places are clearly known. However, in the Lace Market, the transformation of the built environment to include

homogenized modern buildings that are inappropriate to the overall design and setting of the area means that the form of the region is becoming limited identifiable to users.

This research argues that changes in the Lace Market's functional environment and the subsequent shift in the physical environment have disrupted both the area's sense of place and user perceptions. There is rising evidence that urban revival within old-style buildings diminishes the place meanings of distorted and/or newly built places (Ujang and Zakariya, 2015b); in the case of the Lace Market, the disruption of structural characteristics such as proportion, scale, rhythm and harmony have contributed to this change. Abdel-Hadi (2012) argues that absence of connectivity between physical lands and place meanings cuts across the wider physical, cultural and emotional context. To understand how phenomena affect the identity of urban places, it is necessary to approach places contextually and understand how they acquire or lose their identity over time. To this end, users of the Lace Market were interviewed to identify how they perceive the historical and new characteristics of the Market's built form. The findings of these interviews are presented in Chapter Five.

4.5.2 Transformation of street pattern

Streets were one of the oldest defined parts of place. Street pattern is a key element of urban morphology, alongside plot pattern, building structure and land use ((Royal *et al.*, 2019). Indeed, as the broad network of communication paths that deliver access to all plots and buildings, streets are the essential backbone of place morphology (Conzen, 2018). The difficulties involved in organizing and implementing large-scale change mean that the street shape has seen the greatest permanent element of this morphology (Carmona et al., 2003). This section identifies the street patterns of the Lace Market in the related spatial organization hierarchy that represent practise place historically and understand the strength and its weakness in interaction user-buildings.

4.5.2.1 Street pattern in the industrial period

During the industrial period, the Lace Market's streets linked its users with the place's various components, serving as the interface between people activities and the physical settings of the environment. As shown in Figure 4.34, the street pattern had formed organically over the course of a century into an irregular hierarchy of main through streets, connectors and dead-end branches. The street layout had been shaped

mainly by pedestrians, producing narrow, curvilinear paths three to five metres long, most of which allowed only limited vehicular access. The cobbled and paved pedestrian walkways, which reflected the social interaction of the Lace Market's users, were a characteristic of the neighbourhood.

Figure 4.34: Street pattern in the Lace Market between 1845 and 1929.

Source: Insight Mapping (2018). Adobted by Almakkas, 2018

Street width was a sign of importance, with some of the widest streets serving as urban axes. Stoney Street and Broad Street, for example, created an urban axis between numerous lace factories. The axis ended at St. Mary's Church, which was one of the most prominent features of the area. Another axis was between Carlton Street and Goose Gate. There were a flowing and constant parallel circulation net between walking paths and structures in the Lace Market.

4.5.2.2 Street pattern during the deindustrialization period

In 1958, a few new streets were constructed inside the demolished area on the edge of the Lace Market (Figure 4.35). These new streets, which diverged from the original street pattern, were wider and more suitable for cars.

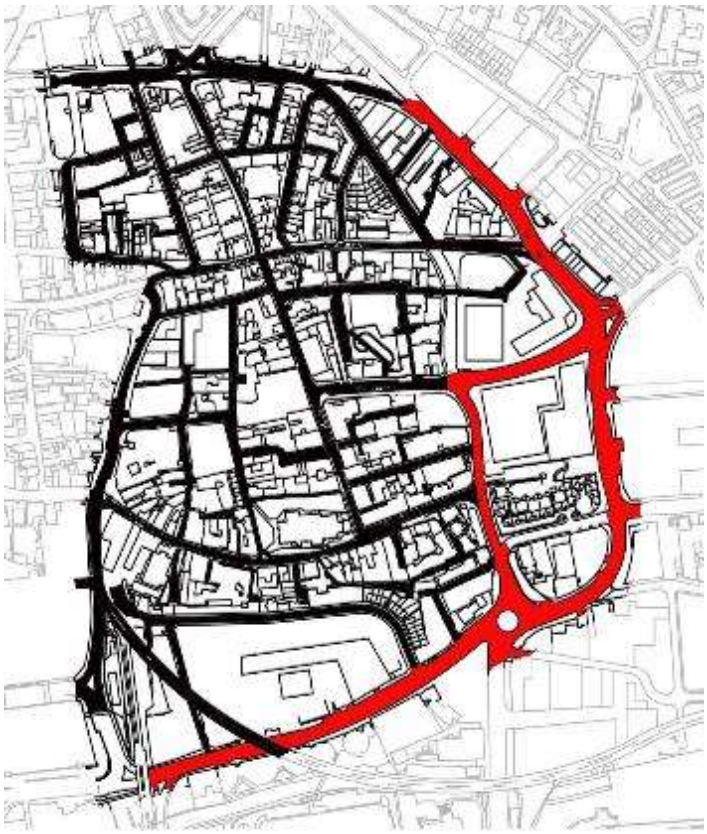


Figure 4.35: Street pattern in the Lace Market during the deindustrialization.

Red lines: new streets. Black lines: original streets.

Source:(Nottingham City Council, 2018b). Adopted by Almakkas, 2018

4.5.2.3 Street pattern since the emergence of mixed use

New, broader streets have been built in this period (see Figure 4.36), increasing the volume of traffic coming into the Lace Market. This change in street form, and in who uses the streets (i.e. drivers rather than pedestrians) has affected the Market's urban fabric and helped change the character of the area.

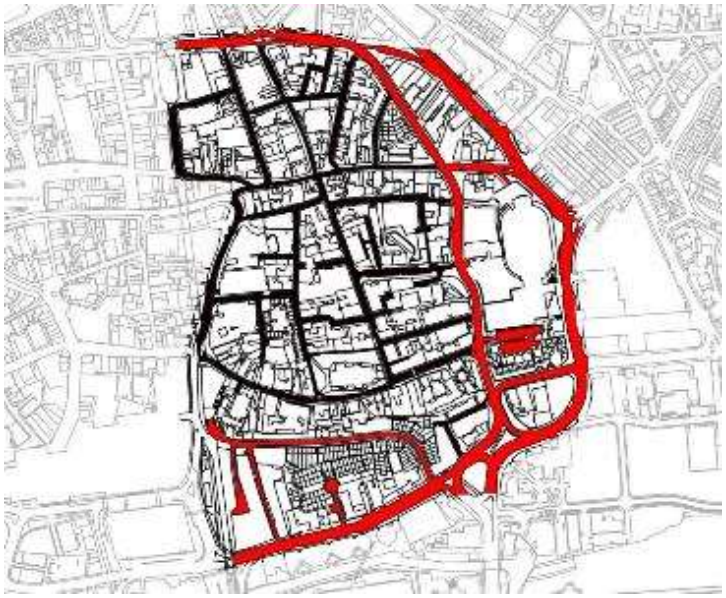


Figure 4.36: Street pattern in the Lace Market in 2018.

Red lines: new streets. Source:(Digimap, 2018). Adopted by Almakkas, 2018

The area faced a significant change in its street's characteristics Figure 4.37. Street characteristics are one of the key factors that help make a place legible (Ujang and Shamsudin, 2012; Cheshmehzangi, 2014a). Lynch (1960) argues that paths and streets are crucial in constructing an image of the place which allows users to distinguish it from any other. The original streets do more to enhance the area's features than the new streets as they are more likely to carry its original attributes.

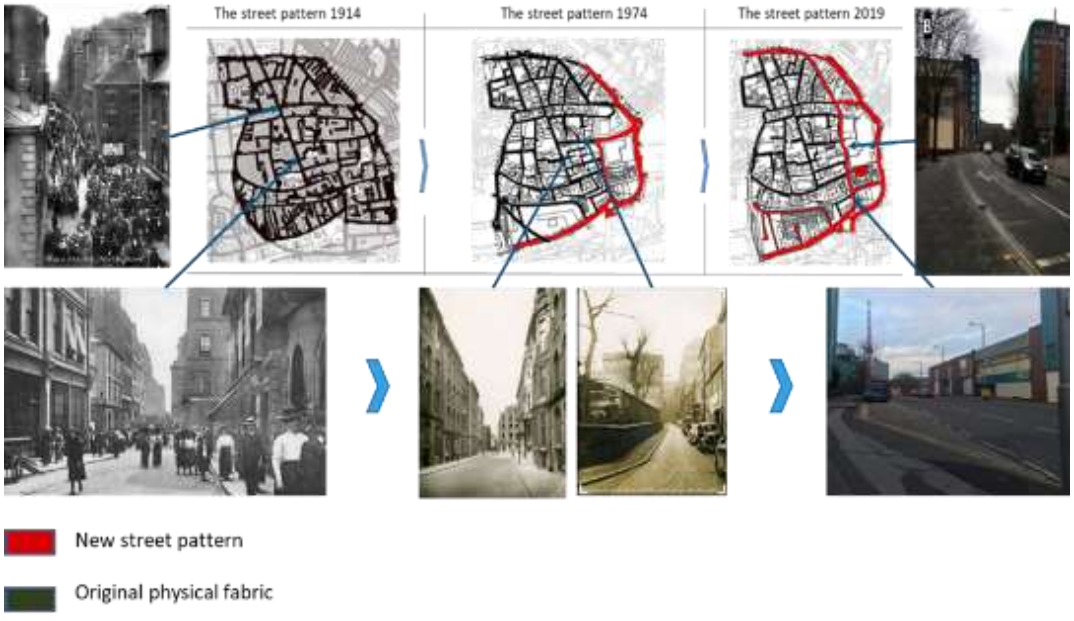


Figure 4.37: Changing Street pattern during the three main periods.

Source: Almakkas, 2018

As Figure 4.38 shows, the new, car-accessible streets that have been opened in the Lace Market differ considerably from the original streets in terms of width, form, furniture and function. The new developments lack the coherent rhythms and harmonious patterns of the originals and seem out of character with the area, with the result that they appear to intrude visually on the historic urban fabric and the surrounding pattern. Trancik's (1986) suggestion that homogeneous characteristic of traditional streets contributes to its different features that in the end procedure the road pattern and identity of a place. The next chapter investigates how the insensitive development of area streets from traditional to new streets in the Lace Market is affected users' sense of place identity.

Figure 4.38: Demonstrating the different characteristics of the Lace Market's original (A) and new (B) streets.

Source: Almakkas, 2018

4.6 Activity

Place identity is perceived by urban theorists as comprising functions which reflect the common interactions between people and how they act and use their physical context (Ibrahim, Mushatat and Abdelmonem, 2014). The activity in urban places reflects the relationship between people and the built fabric which the human experience that confers meaning to places (Azmi, Ahmad and Ali, 2014). Thus, to understand how activity has influenced the identity of the Lace Market over time, it is necessary to consider how land use and the diversity and density of activity in the

area have changed (Al-obeidy and Ali, 2017). By focusing on the transformation of morphological urban design in terms of land use, the urban function-place identity relationship can be determined (Oliveira, 2018). Accordingly, the following sections discuss how land use in the Lace Market has changed over time, from 1845 (the peak of the lace production period), to the 1950s (when decline was steepest) to 2020.

4.6.1 Land use during the industrial period

Nottingham's lace industry began in the early 1800s (Morris, 1991), but its rapid growth was driven by the discovery and manufacture of lace-manufacture machineries, which swapped the time-consuming manual method. According to the Nottingham Industrial Museum (2018), the primary machine-made lace was made on an changed hand knitting frame. Then derived the 'twist machines' – the most multifaceted fabric machines in the world. Both the Heathcote machine of 1808 (Figure 4.39) and the Leavers machine of 1813 were able to produce large quantities of cheap, plain, net lace which could then be hand embroidered.

Figure 4.39: The Heathcote machine (1808).

Source: (Nottingham Industrial Museum, 2018).

Following the introduction of steam-powered machines in the 1850s, great manufactories were erected in the Lace Market, and lace making became the dominant activity in the area (Figure 4.40). As the industry expanded throughout the 19th and early 20th centuries, a distinct pattern of urban land use developed, linked with massive-scale urban industrialization (Heath, Oc and Tiesdell, 1996). Lace manufacture was the most significant activity in the Lace Market, this was underpinned by an extensive transport and distribution infrastructure of railways and warehouses which enabled it to remain the international centre of lace production for over a century (Lowe and Richards, 1989). This implies that activities can affect the image and character of a place through the dominated function that carried out for a long time.

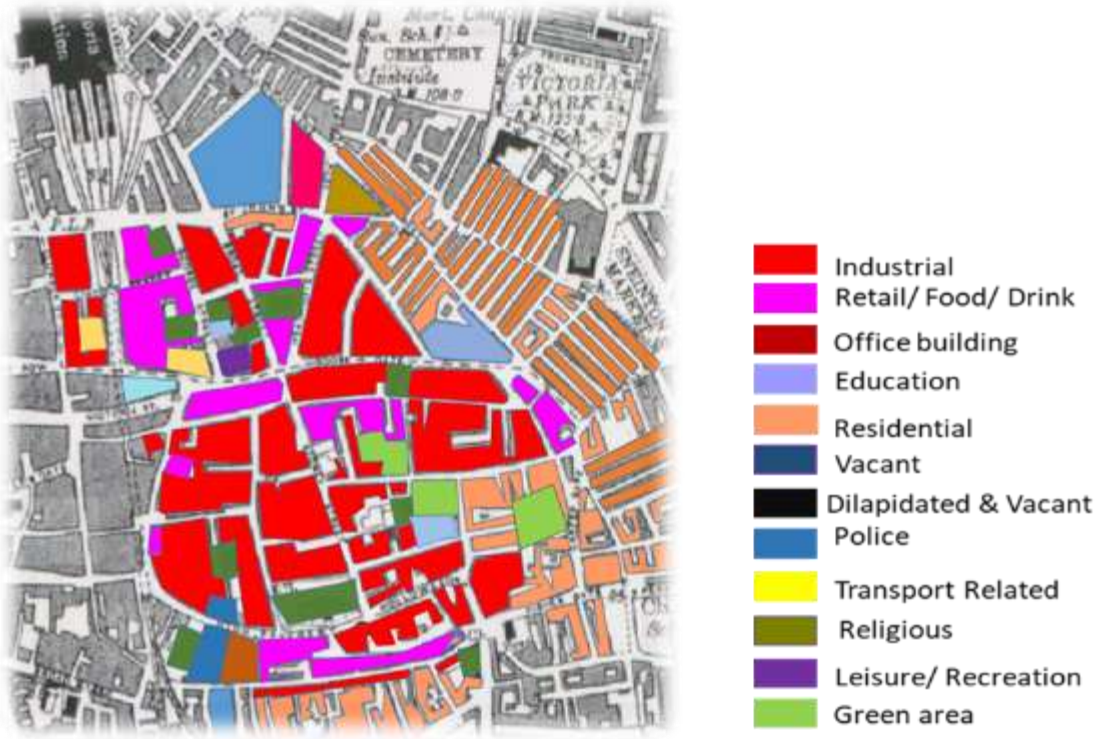


Figure 4.40: Land use map of the Lace Market, 1914.

Source: Redrawn by the author based on Nottingham City Council (2018b). Adopted by Almakkas, 2018

Figure 4.40 shows that in 1914, more than 50% of the Lace Market area was used for industrial purposes. About 28% was used for housing, 12% for retail, 8% for religious activities, 4% for offices, 4% for police and government facilities, 3% for educational facilities, and 4% consisted of green areas. Lace industry-oriented

businesses dominated the area, but the character of the area was also influenced by the high-density housing that accommodated lace workers (Figure 4.41). These crowded dwellings reflected the importance of the lace industry, which attracted workers from across the UK.

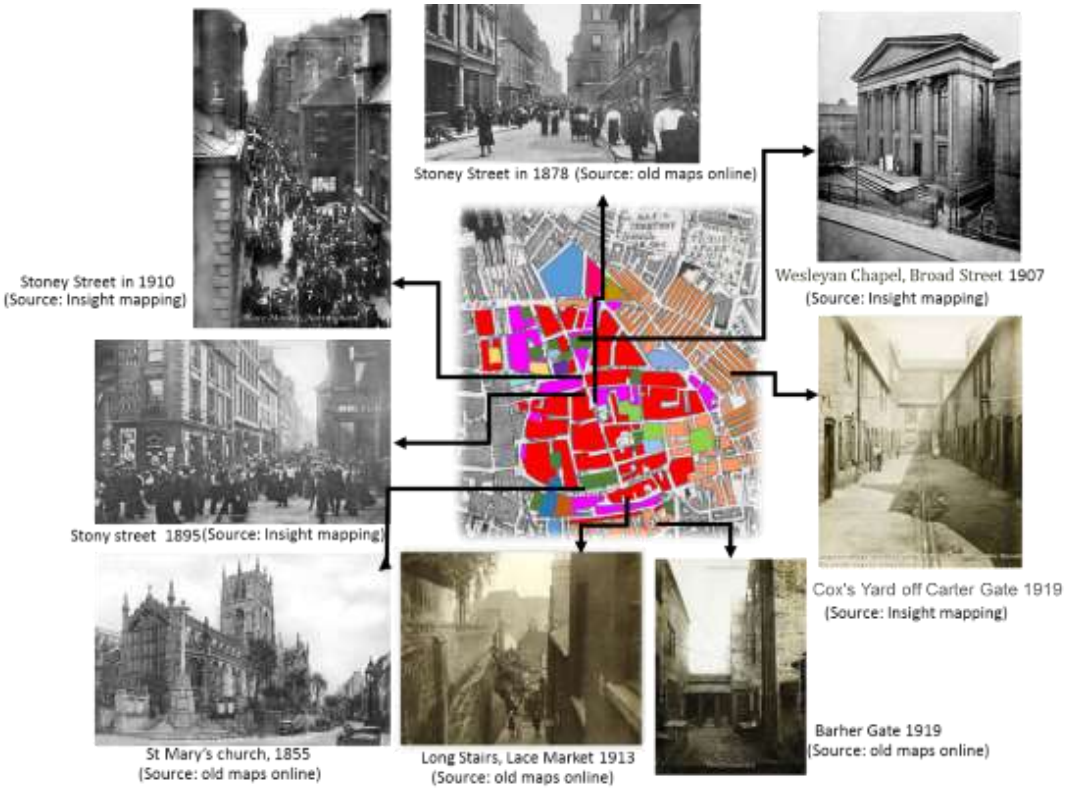


Figure 4.41: Lace Market activities during the industrial period, 1844-1920.

Source: Adopted by Almakkas, 2018

4.6.2 Land use during the deindustrialization period

The lace industry went into decline after World War I (Crewe and Hall-Taylor, 1991). This decline was exacerbated by wartime bomb damage and post-war 'improvement' schemes that widened roads and left buildings with raw and jagged edges. As the number of firms operating in the area dropped from 346 in 1914 to only 114 in 1936 (Tiesdell, 1995), most of the buildings in the Lace Market became vacant. Add to this the enforced neglect of 1939-1945, and by the 1950s, the Market presented a rather shabby and depressing picture. Figure 4.42 shows the land use map for 1950, which was the lowest point in terms of land use, with most buildings dilapidated or vacant. A number of industrial and residential buildings had already been demolished, including White Cow Yard, Carter Gate and some of Barker Gate. A transport depot

was built on part of the demolished area, with the rest being turned into car parks or left vacant.

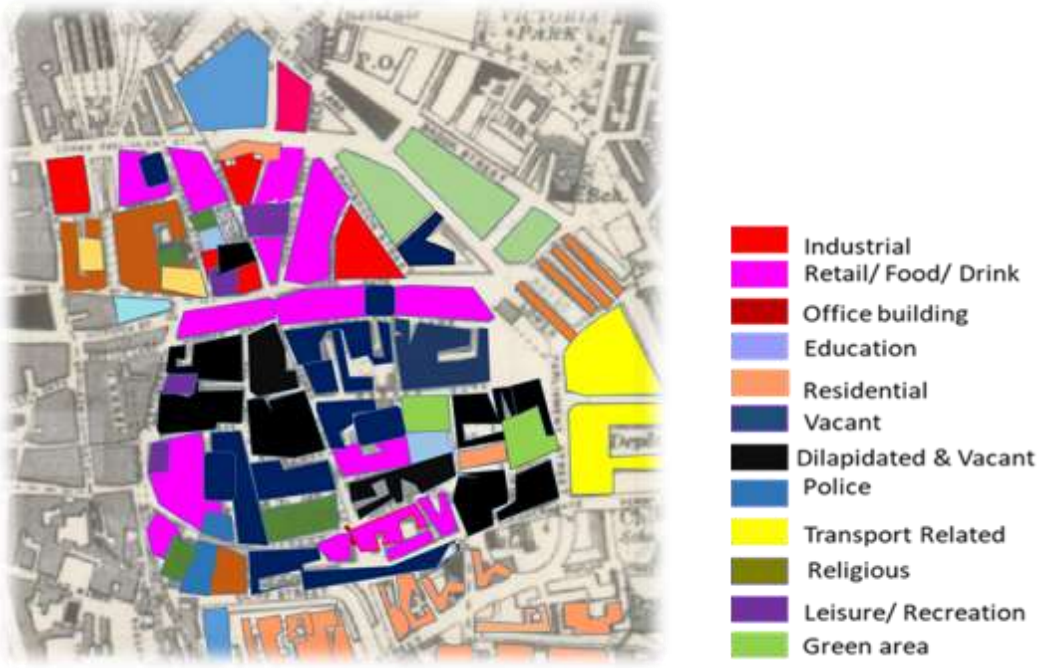


Figure 4.42: Land use map of the Lace Market, 1950.

Source: Redrawn by the author based on (Nottingham City Council, 2018b). Adopted by Almakkas, 2018

The Lace Market remained a run-down area of vacant factories and warehouses until the 1990s, though the relatively low cost of space made it the place for painters' studios, independent product locations and the major alternative shops. (Morris, 1991). Attracted by the cheap rents, independent designers/retailers converted spaces in Carlton Street and Goose Gate into shops (Crewe and Beaverstock, 1998). However, Figure 4.43 shows that while both these streets remained vital by embracing diverse retail usage, the rest of the area was left with almost no activity.

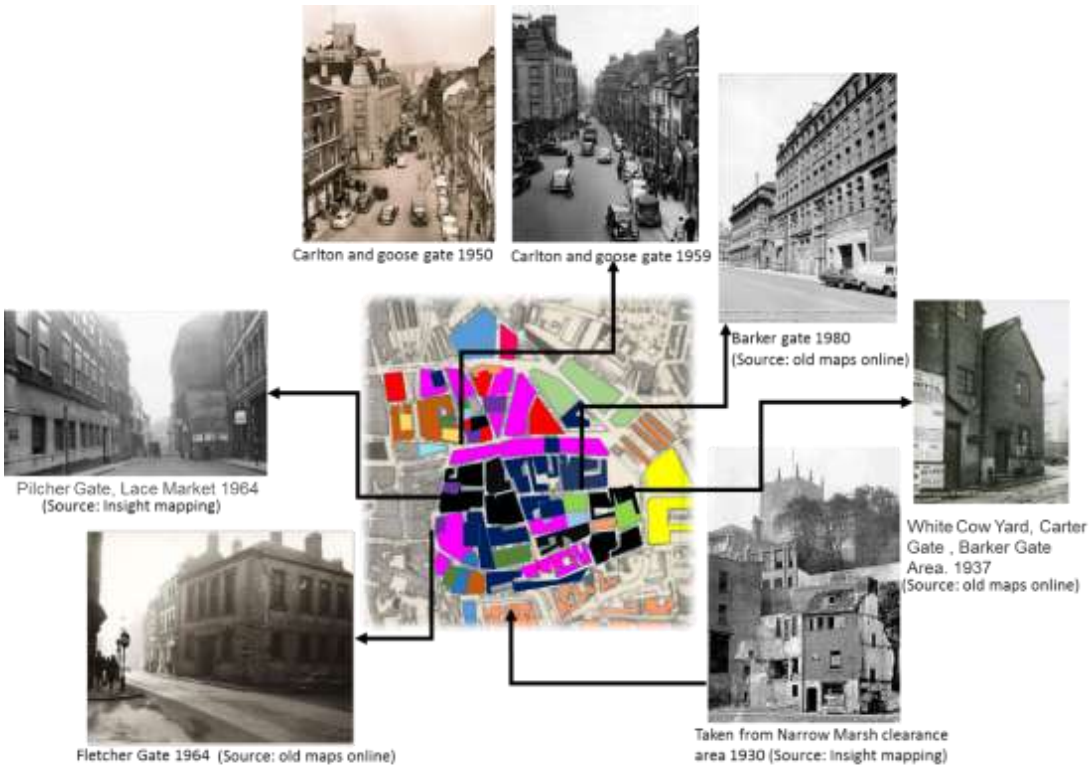


Figure 4.43: Lace Market activities in the deindustrialization period.

Source: Adopted by Almakkas, 2018

4.6.3 Land use since the emergence of mixed use

The Lace Market had started to revolution by the end of the 1990s, in both physical and social terms as the increasing prevalence of recreational activities turned it from an industrial area into a tourist centre. Over the last 20 years, the Lace Market has convert one of the most intensively mixed-use areas in Nottingham, with a extensive diversity of both daytime and night-time activities (Robinson, 2017). This has been achieved by restoring the area's heritage spatial structures and putting them to new purposes (Council Nottingham City, 2009) ; former industrial sites now accommodate a wide range of entertainment venues (e.g. pubs, cafes, a cinema, bowling alley and Sports centre), office buildings and residential buildings (see Figure 4.44).

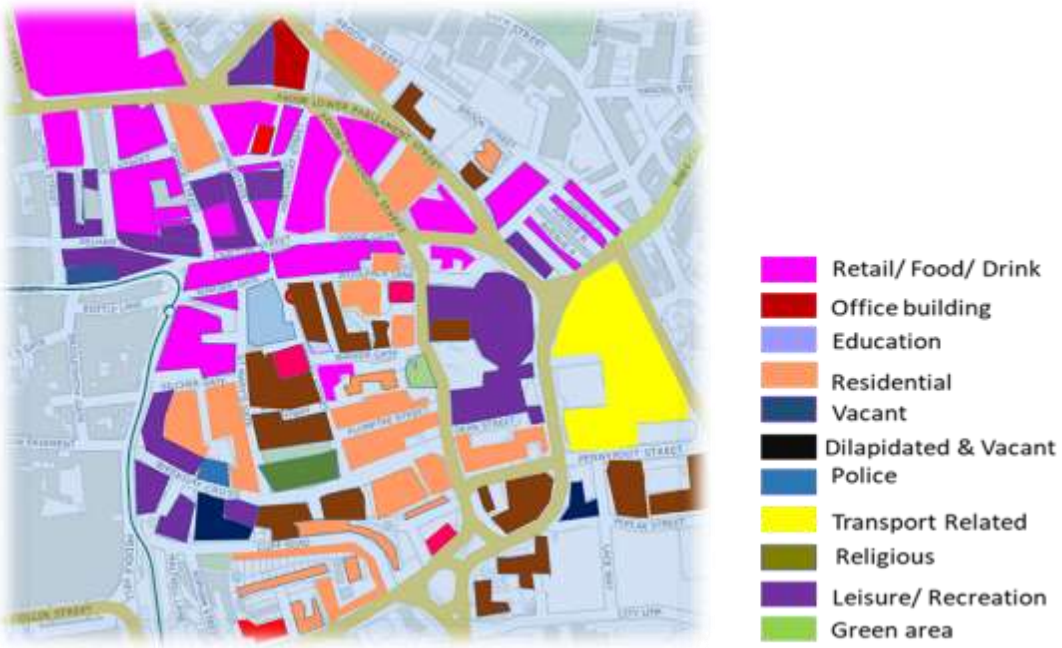


Figure 4.44: Land use map of the Lace Market, 2018.

Source: Almakkas, 2018

Robinson (2017. p,2) argues that

In one area, you have almost every aspect of culture represented - character buildings, social and industrial history, the arts, leisure and some incredibly creative retailers. Therefore, people find it such an attractive place to live, work and enjoy themselves.

If obsolescence is the result of a mismatch between the services offered by an area's urban fabric and the current needs of its users, the major task of any revitalization programme is to correct this mismatch (Carmona et al., 2003; Heath, Oc and Tiesdell, 1996). If user needs are no longer being met, the relationship between people and place is weakened and urban identity collapses. In the case of the Lace Market, the strongest link between people and place throughout the 19th century was the industrial activity that provided for their material needs; when this economic activity ceased, so did the connection. Over the last two decades, however, as more spaces have been repurposed to accommodate new activities that meet the needs of the Market's current users, this user-spatial structure interaction has strengthened once more. Figure 4.45 highlights one example of how the physical fabric of the Market has been refurbished and redeveloped to adapt it to contemporary

requirements, and buildings have been revitalized by being put to new uses (Heath, Oc and Tiesdell, 1996).

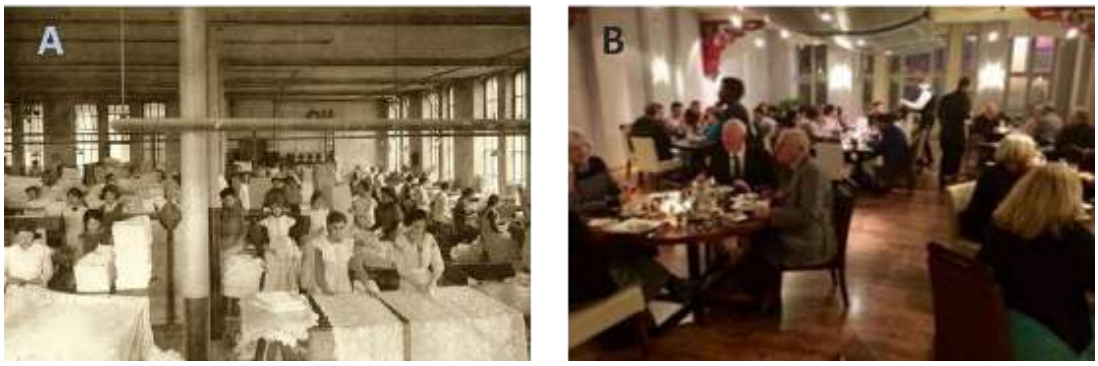


Figure 4.45: (A) Life in the old Thomas Adams lace factory in the Lace Market at the height of the lace industry (1909). (B) Life in the section of the Adams Building now being used as a restaurant (2019).

4.6.4 Evolution of activities and place identity

A comparison of urban activity in the Lace Market over the three eras shows a massive change in both the density and kind of activities taking place (Figures 4.46). The transformation of the Lace Market from the international centre of the lace industry, to a neglected area and then to a mixed-use area indicates the importance of function in binding people and place and maintaining the character of a place. This has been noted by urban design scholars, who have argued that significant changes in urban activity can undermine the relationship between user and place (von Wirth *et al.*, 2016), and that this relationship is the main factor in preserving place identity (Lynch, 1960; Azmi, Ahmad and Ali, 2014; Ujang, Moulay and Zakaria, 2018). The place-user relationship, which may take the form of emotional attachment, function attachment or place dependence (Inglis, Deery and Whitelaw, 2008; van Riper *et al.*, 2019), is strengthened when the user gets involved in activities that produce positive experiences that lead him or her to endow the place with meaning (Proshansky and Fabian, 1983; Casakin, Hernández and Ruiz, 2015a).

Figure 4.46: Changing land use during the three periods.

Source: Adopted by Almakkas, 2018

Figure 4.47 reveals that the Lace Market has been used for four main types of activity over the last two centuries: industrial, residential, leisure and office. In 1875, the area was dominated by huge lace factories (Oldfield, 1984) surrounded by a crescent of densely packed housing (Morris, 1991), but by 1950, both residential and industrial density had declined massively, with factory buildings and dwellings being replaced by vacant lots and car parks. The decline in industrial use and residential activity was the result of deindustrialization, as factories closed and lace workers moved away to find jobs elsewhere (Heath, T., Oc, T., Tiesdell, 1996). The impact of this abandonment was most obvious in the densely packed housing of Narrow Marsh (Crewe and Hall-Taylor, 1991) where, as more and more people moved away, basic services were cut and crime rates rose. The relationship between the Lace Market and its users was thus first weakened and then fatally eroded as its primary urban function – lace production – came to an end.

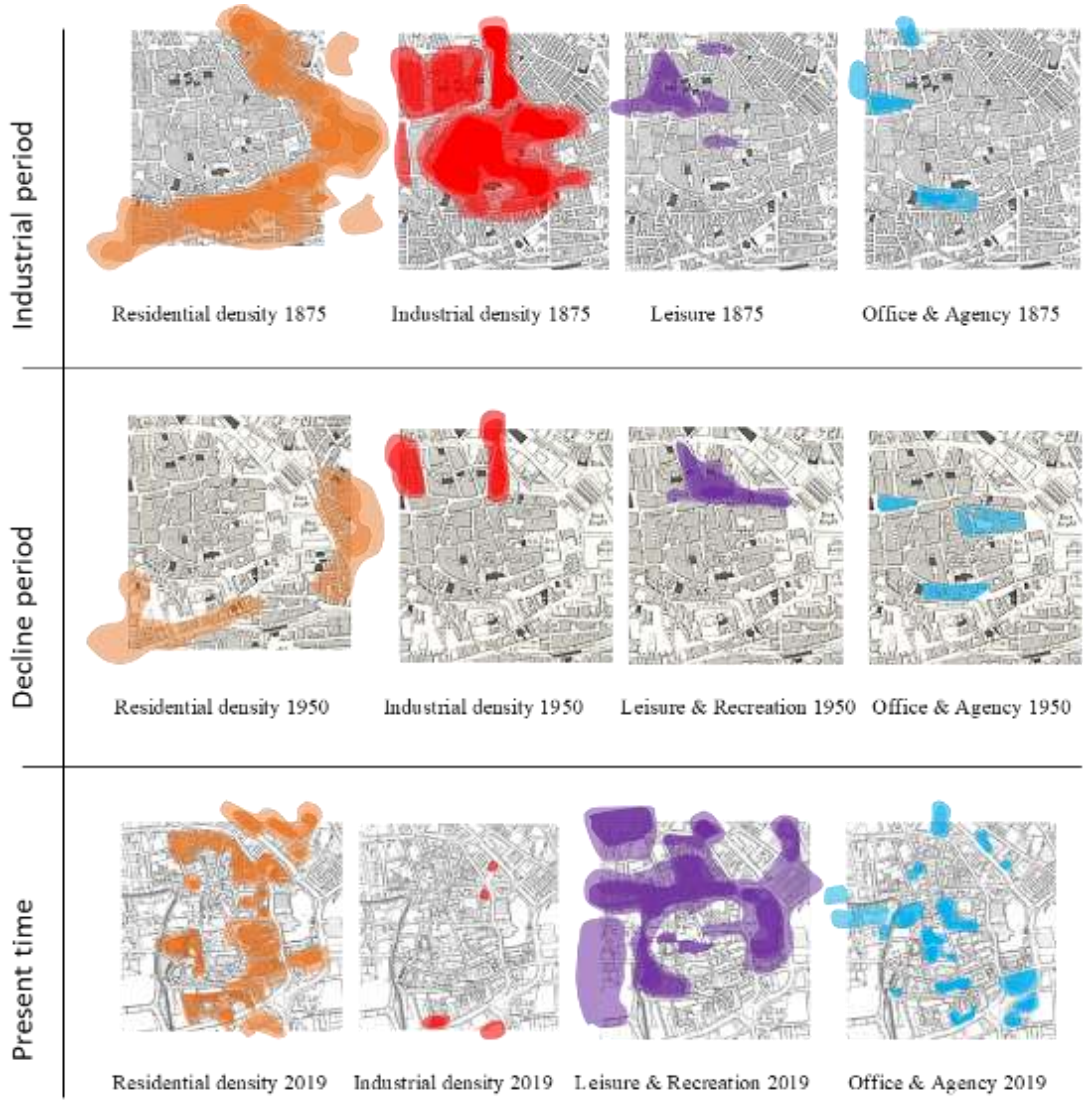


Figure 4.47: Main activities over the three periods.

Source: Almakkas, 2019

Since the Lace Market was reinvented as a recreational hub, leisure and residential activities have dominated in the area. The land use maps of 1950 and 2019 (Figure 4.47) show a significant decrease in the number of vacant buildings as numerous restoration and construction projects undertaken between 1990 and 2001 (Moughtin *et al.*, 1999) have put more of these structures back to work (Powell, 2006). Almost all the plots which were shown as empty in the 1950 land use map have been redeveloped, mainly with leisure, residential and office buildings, and many new chain-bars and restaurants have moved into the area, changing the character and image of the place from a largely daytime to a 24-hour economy (Shorthose, 2004). Residential areas have moved to the centre of the district (see Figures 4.46 and 4.47), close to the recreational centres, while industrial activities, which are no longer

needed by the area's new users (Gieseking and Mangold, 2014), have almost disappeared entirely. The diversity of the urban functions now served by the Lace Market has revived the user-place relationship (Moughtin *et al.*, 1999) because it enables locals and visitors to interact with the space (Rojo and Portillo, 2015) across a wide range of activities in heritage settings.

In terms of residential buildings, the Lace Market has seen the construction of numerous up-market apartment blocks and the conversion of old warehouses into expensive lofts. That the main occupants of these apartments are now students and tourists (Linda Monkton and Pete Smith, 2009) highlights how changing morphological usage in the Lace Market has been accompanied by a radical shift in the social groups using the area: from uneducated, low-income workers to international students, tourists and business people. For workers in the industrial period, housing was the necessary adjunct to the industrial activity upon which they relied for income (Wylie, 1853), but for the Market's current residents, the choice to live there depends mainly on the provision of services and leisure activities (Monkton and Smith, 2009). Figure 55 shows that the density of residential activity in the Lace Market was associated with that of industrial activity throughout the industrial and post-industrial periods, first rising and then falling as lace production declined. In contrast, the modern period has seen residential density associated with the density of leisure activity, with resident numbers going up as new bars and restaurants open to meet their needs. Such venues provide these residents with opportunities to interact with their surroundings and with the community, and to build the emotional bonds and memories that help revive the relationship between user and place.

Bilal (1995) argues that as needs change and new functions are created, the urban structure must respond with new architectural and urban forms (Rossi, 1982). In the case of the Lace Market, the change in urban activities has necessitated the construction of new physical forms, such as the Motorpoint Arena and the Contemporary Art Building, with architectural styles that differ significantly from that of the area's heritage buildings. The physical environment thus reflects the ongoing development and evolution of the place (Nakanishi, 2013).

4.7 Socio-demographic transition

Place identity has been defined as the mixture of subjective identity (identified by the feeling and psychophysiological mechanisms of human beings) and objective identity (identified by physical settings and features of the touchable environment) (Lynch, 1990; Madanipour, 1996; Heath, Oc and Tiesdell, 1996). This suggests that place identity is linked to how users perceive the characteristics of their environment and the meanings and value they attach to these characteristics. This has led some to argue that as something that is socially constructed and reconstructed through connections and interactions, place identity is unfixed (Dovey, 2009; Rojo and Portillo, 2015). Identity research focuses on urban citizens' personal identities, which are often based on their membership of various social groups (Bontenbal, 2016). Thus, to understand the morphological dimension of a place also requires understanding of its socio-cultural and economic aspects (Shrestha, Arch and Valley, 2015), including the part its users play in the process of identity creation.

Previous sections have studied the evolution of the physical environment and activities of the Lace Market, but analysis of the urban fabric alone is not sufficient to identify the process by which place identity is formed. Accordingly, the following section considers the impact of socio-cultural aspects since the industrial period.

4.7.1 Evolution of population

Over the last two centuries, the Lace Market has experienced fluctuations in urban activity that have reconfigured urban place distribution. The following section seeks to explore how the spatial transformation of activities is linked with the spatial density and demographic transformation of users.

4.7.1.1 Population in the industrial period

The main theme in the Lace Market's socio-economic history during the industrial period is undoubtedly the increase in population. In 1799, Willoughby's Directory listed 31 lace manufacturers as living in the Lace Market, most of whom were in the old borough, on High Pavement (Oldfield, 1992). By 1832, this number had risen to 186 lace manufacturers, 66 of whom lived on St Mary's Gate, High Pavement and Stoney Street (ibid), and by 1841, there were 223 people living in the Lace Market (Oldfield, 1984). This trend continued throughout the 19th century; as Figure 4.48

shows, in 1871, there were 6,796 people living in the Lace Market (3,657 females and 3,139 males) (George and William, 1872, p. 54) and more than 20,000 people working in its 500 factories (University of Nottingham, 1952). However, by this point, the residential population was mainly concentrated on the south-eastern edges of the area. Just 19 households – a total of 65 people – were still living in the heart of the Market (Oldfield, 2002), which was otherwise dominated by industrial activity.

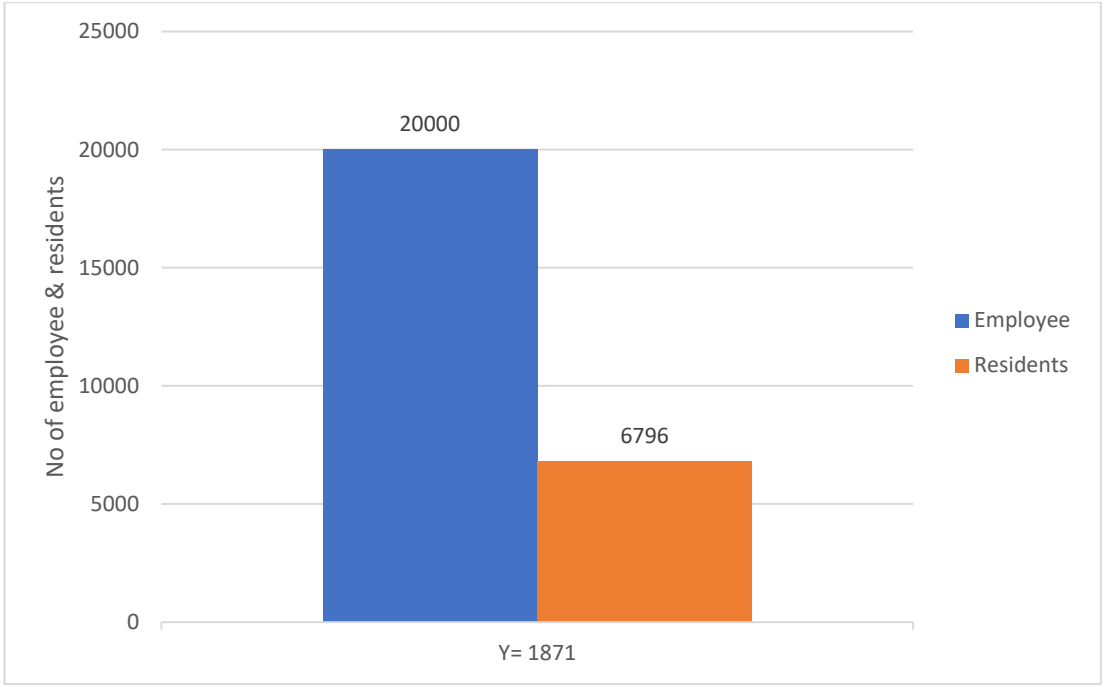


Figure 4.48: Nottingham Lace Market employees and residents, 1871.

Source: George and William (1872, p. 54).

Census returns for the period (see Figure 4.49) show that by the time lace production had reached its peak in the Lace Market in 1914, the industry employed 24,000 people (Crewe and Hall-Taylor, 1991), most of whom were women. These workers represented an important contingent of Market users in the industrial period.

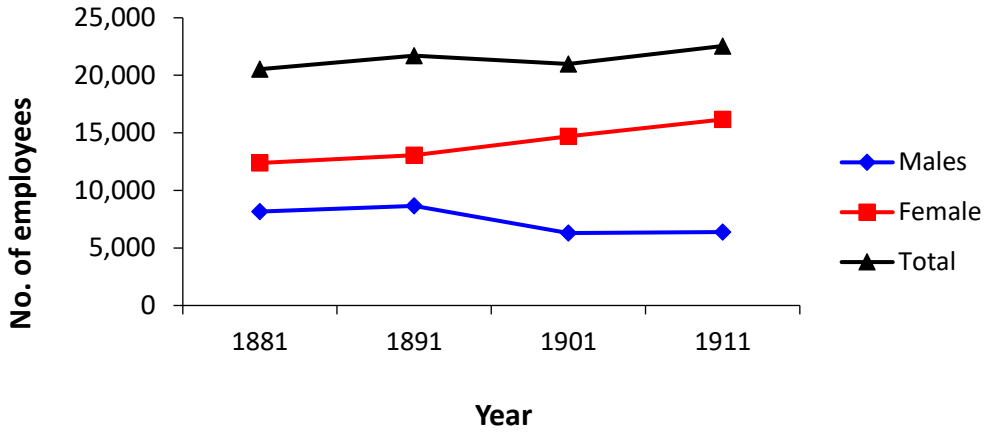


Figure 4.49: Nottingham lace trade employees, 1881-1911.

Source: Oldfield (1984, p. 205).

Examination of this first period of population change reveals a clear link between the Market's core activity and its population. Forty and Küchler, (1999) describe the expansion of manufacturing space and population growth as two noticeable aspects revolving around the development process of place, while Qiu, Xu and Zhang (2015) cite industrial and residential extension and agglomeration as the main drivers of urban land-use conversion and development. The start-up and consintrat of manufacturing factories lead to the convergence of household, business and social activities due to agglomeration affects (Cherry, 1972). The reconfiguration of manufacturing system and residents land-use development are hence two parallel, close-knit processes that determine the spatial trajectory of place transformation.

4.7.1.2 Population in the deindustrialization period

The Lace Market was normally described as a run-down area (Moughtin *et al.*, 1999) or a lost space (Lowe and Richards, 1989) in this period, partly because of the massive drop in the number of people using it (Trancik, 1986). The number of people working and living in the Lace Market plummeted with the decline of lace manufacturing in the second quarter of the 20th century, but by the end of the deindustrialization period, employment numbers were growing once more (Figure 4.50). In a 1989 report commissioned in preparation for the development of the area, Conran found that "5,500 people were working in the Market's small creative businesses; bars and clubs; fashion and fabric companies; other light business manufactures and their related warehousing and offices; the shops along Carlton

Street, Goose Gate; and offices, which at that time used by 18 % of the whole floor space" (Conran, 1989, p.3). A minor population of 500 residents was in the Lace Market, some in a project award-winning group of apartments (Moughtin *et al.*, 1999). The low rent was the main factor attracting these users to the area, where they pursued a series of cultural manufacture and consumption activities.

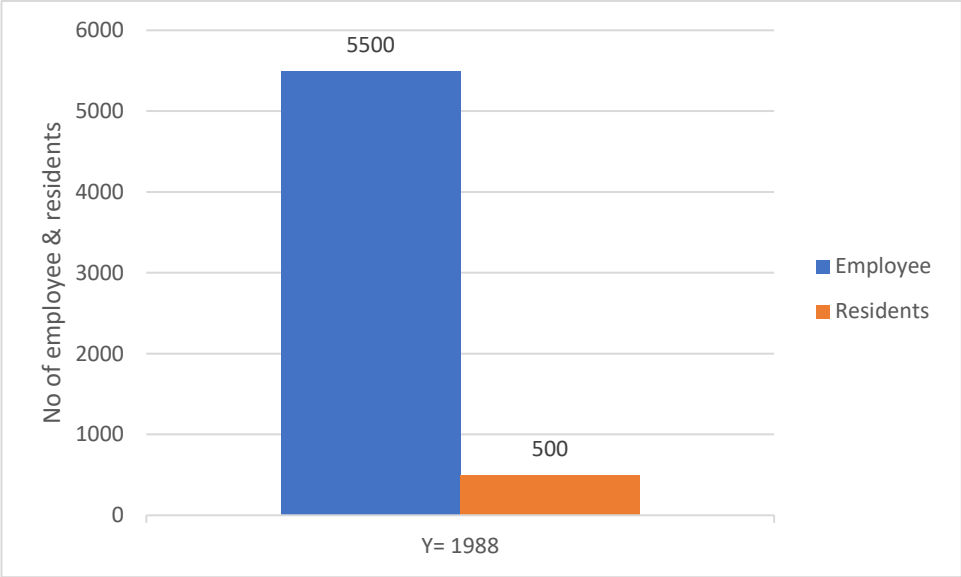


Figure 4.50: The Lace Market employees and residents, 1988.

Source: Conran (1989, p. 3).

The decline in user numbers that accompanied the decrease in industrial activity in this period highlights the link between population density and commercial and industrial activity and underlines the role of economic activity in forging the relationship between users and place.

4.7.1.3 Population since the emergence of mixed use

By 2005, most of the Lace Market's historic buildings had been adapted to serve new functions, creating a revitalized area that has become home to a substantial residential population. The number of people living in the Lace Market has improved significantly in recent years as this former manufacturing quarter has transformed into a truly mixed-use neighbourhood for living, working, learning, culture and vacation (Academy of Urbanism, 2016). As of Census (2011) around 1250 people were working in the Market in the education and leisure sectors, and 820 people were living in the area (Figure 4.51).

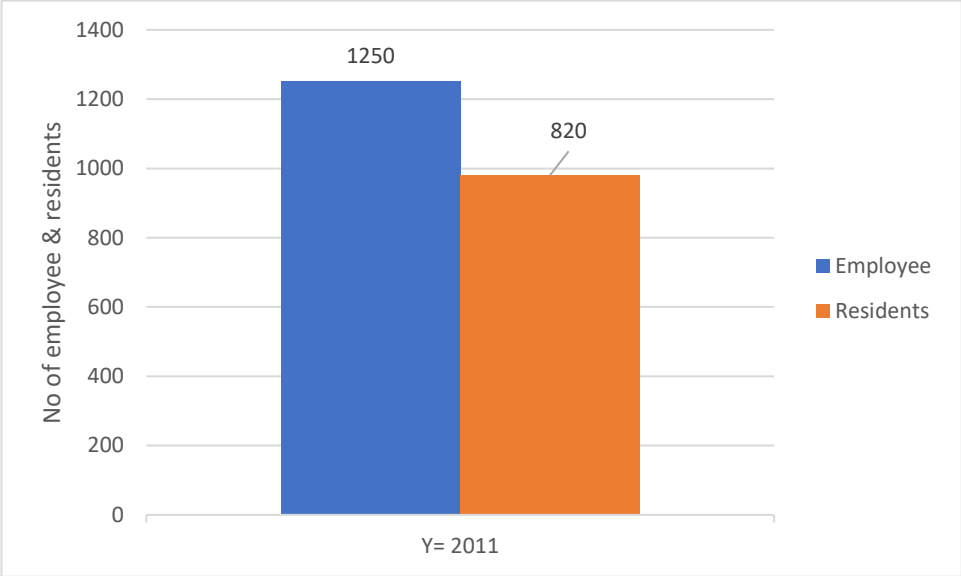


Figure 4.51: Nottingham Lace Market employees and residents, 2011.

Sourc: (Nottingham City Council, 2012)

4.7.2 Socio-economic conditions

Given that the sense of place identity is associated with the prevailing social structure and economic conditions (Bernardo and Palma-Oliveira, 2016), it is important to identify the socio-economic conditions experienced by past and present users of the Lace Market. The following sections discuss whether the changing socio-economic conditions in the Market have made the bond between users and place more or less intense over time.

4.7.2.1 Socio-economic conditions in the industrial period

The Industrial Revolution had an enormous and deplorable effect on those who lived and worked in the Lace Market. Scholars describe workers being forced to work long hours in unhealthy conditions for little pay (Richard and Wilfred, 1976), and the suffering was not limited to adult employees; as new factories sprang up, more labour was needed and soon children, some as young as five or six years old, were being trained to do many of the simpler factory tasks. Ritchie (1990, p.13) describes how these children

> *worked like brute animals, drawing threads for lace machines from the age of five, sleeping on piles of jackets on the floor, working for seventeen hours a day as embroiderers, they suffered from scrofula, defective eyesight and a permanent stoop.*

These child labourers, most of whom came from outside the area, were cheap and could be forced to work for extremely long hours with virtually no laws to govern their safety, health and happiness. Among families living in the Lace Market, children routinely went to work in lace production from the age of six (Figure 4.52). Chillingly, Richard and Wilfred (1976, p. 45) note that 'If some died of disease or harsh treatment, they could be easily replaced; the children were employed as entirely expendable labour'.

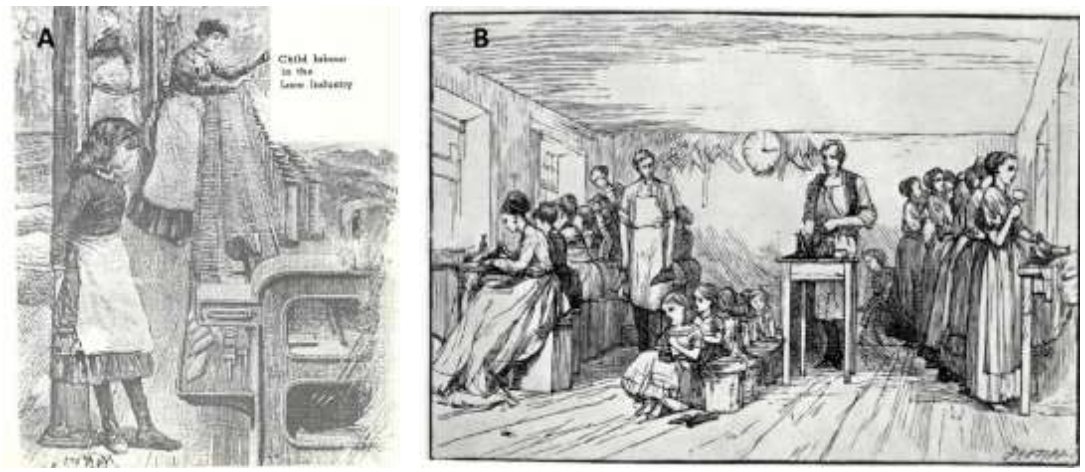


Figure 4.52: Even very young children were employed for extremely long hours.

Sources: (A): Ritchie (1990, p. 21), (B): Richard and Wilfred (1976, p. 44).

However, it is not just the difficult work and the employment of children that distinguishes the socio-economic conditions of users in the industrial period from those of today; living conditions were also very different. Numerous historians have described the cramped, squalid housing in areas adjacent to the Lace Market (Oldfield, 1984), such as Narrow Marsh (Figure 4.53) and Barker Gate (Figure 4.54). Narrow Marsh in particular was notorious for outbreaks of cholera and other diseases, the by-product of its open drains and lack of sanitation (*Lace Market Trail*, n.d.). Inevitably, with poverty came crime. Earp (2013, p. 3) describes how the authorities, having come to the conclusion that "the cup of wickedness of Narrow Marsh was full, and that the very name had something unholy about it", tried to change the character of the inhabitants by changing its name to Red Lion Street. These efforts seem to have been in vain, however; Ritchie (1990) asserts that residents in the Lace Market grew up amid drunkenness and crime, dying unwept, uncared for and unknown.

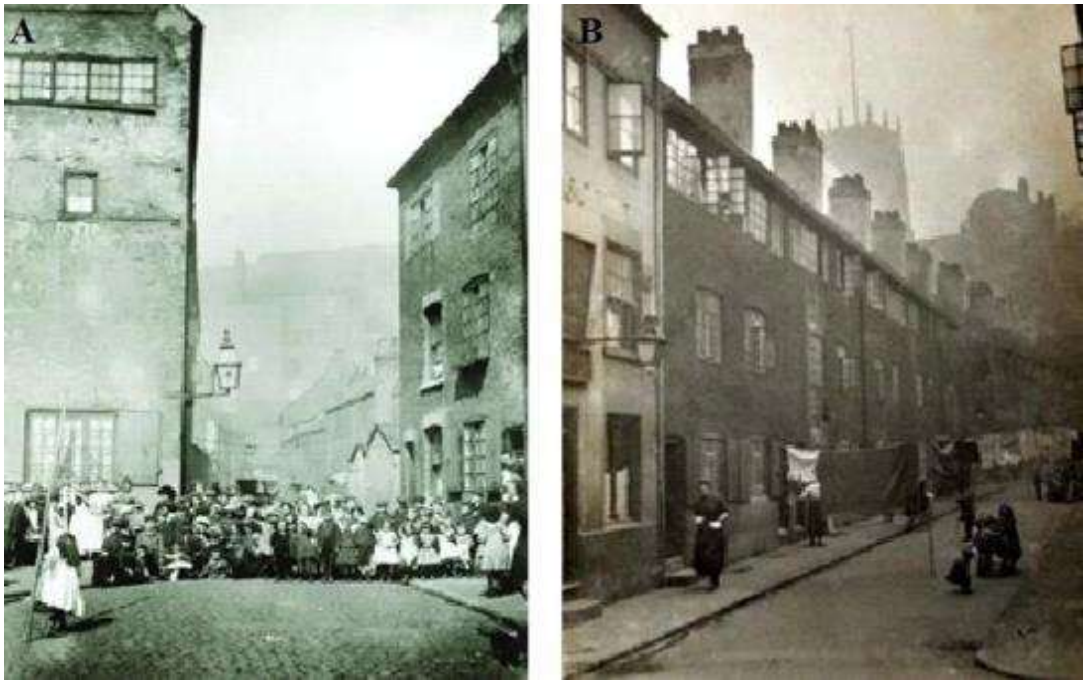


Figure 4.53: Life in Narrow Marsh in 1905 (left) and 1915 (right).

Source: Lace Market Trail (n.d.)

Figure 4.54: Typical living conditions in Barker Gate and Bellar Gate during the industrial period (n.d.).

Sources: (A): Ritchie (1990, p. 17), (B): Richard and Wilfred (1976, p. 49).

As previously noted, most of the Lace Market's residents in the industrial period were low-income, poorly educated labourers living in unhealthy housing (Oldfield, 1992; Heath, Oc and Tiesdell, 1996). Given that socio-economic status is a key determinant of the people-place relationship and the attachment bonds between users and the physical environment (Tan *et al.*, 2018), it raises questions about the extent

to which the poor-quality housing and economic activity in the Market affected its residents' levels of place attachment?

4.7.2.2 Place attachment

A number of studies have demonstrated that residents of poor districts who are of low socio-economic status tend to have a lower appreciation of their place than residents who are of high socio-economic status (Ujang, 2012). Meanwhile, other studies have demonstrated that low-quality housing fosters lower levels of place attachment and consequently stronger intention to leave the district (Mazanti and Pløger, 2003). These studies suggest that the physical forms in which users grow up and living have a permanent influence on their personal identities; Manstead (2018) argues that they impact both the way they perceive and believe about their place and important features of their social behaviour.

However, the historical review show that the Lace Market residents did not leave the area until industrial activity declined (Crewe and Hall-Taylor, 1991) suggests that the main factor in the user-place relationship is actually economic activity. Lace Market residents throughout the industrial period put up with the squalor and poor facilities (Oldfield, 2002) for the sake of the industrial activity that provided them with an income (Richard and Wilfred, 1976). This economic activity was of far more importance than the physical conditions and characteristics of the area in determining why they were living there.

4.7.2.3 Dependence on function

In the case of the Lace Market, the user-place relationship in the industrial period reflected the dependence of most inhabitants on the work it offered; they were tied to the district by a strong economy that employed more than 24,000 people. This highlights the value that users attribute to a place's ability to support their activities and meet their daily needs; in other words, it suggests the importance of function – in this case, industrial activity – in making users bond with a place. This supports White, Virden and Van Riper (2008), who conclude that an individual or group become involved to a specific collection of places for functional reasons. Place bonds and perceptions are developed when users feel a place to be important and able to achieve their functional needs and sustenance their behavioural goals well

than a identified other (Williams *et al.,* 1992). In the industrial period, the Lace Market was a place for both living and working, its character defined by economic activities that reinforced users' attachment to and dependence on the area.

In summary, this research considers the relationship between the Lace Market and its users over time to identify how these users interact with the area and thus how they perceive it. In the industrial era, working conditions were harsh, while living conditions were dominated by overcrowding, slum housing, poor infrastructure, high crime rates and disease. Despite this, however, there is no overwhelming evidence that residents were particularly unhappy about living in the Lace Market. The data and analysis reveal that economic activities rather than physical conditions were the key determinants of residents' place attachment.

4.7.2.4 Socio-economic conditions in the deindustrialization period

The disruption to world trade caused by World War I triggered the decline of Nottingham's lace industry (Richard and Wilfred, 1976) as exports were curtailed and the domestic demand for fashion goods fell. World trade conditions worsened again after the 1929 financial crisis, further exacerbating the lace trade's decline, and the population of the Lace Market fell as increasing numbers of employers and workers left the area (Morris, 1991). As Williams and Vaske (2003) point out, a continuing relationship between people and place is necessary to the development of a sense of place and place identity; as more and more individual experiences and social relations are removed from the local context, the meanings of places become less constant (John, 2010). During the decline period, as industrial activity shrank and more people moved away, the relationship between users and spatial structures, was weakened.

4.7.2.5 Socio-economic conditions since the emergence of mixed use

Resident numbers have increased considerably since 2005 as more former industrial buildings have been converted for mixed-activity use. The regeneration has produced a new demographic profile (see Figure 4.55), with most residents now being postgraduate students (56%) or full-time employees (28%). Showing how residents of the area changed from workers to postgraduate students.

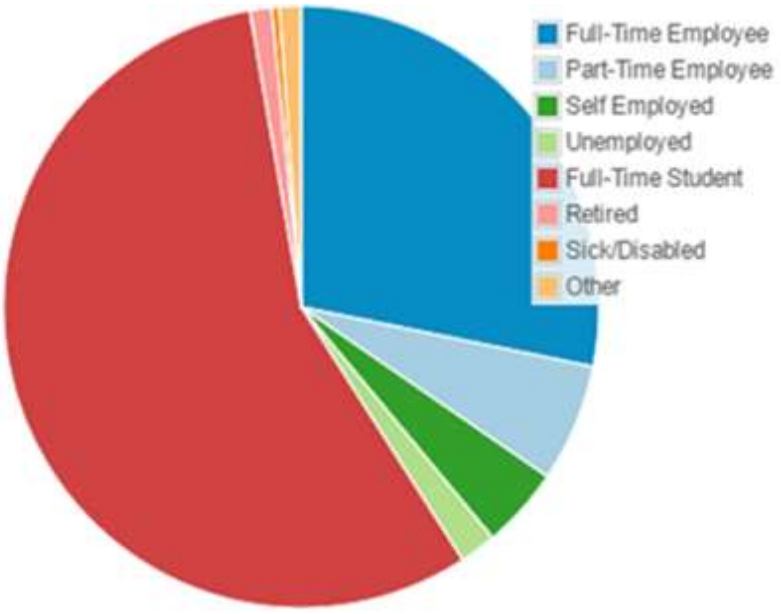


Figure 4.55: Employment profile of Lace Market resident population in 2011.

Source: Census (2011).

In summary, the Lace Market's transformation from an industrial into a mixed-used area has had a profound impact on its socio-cultural identity. Although it has kept some of its physical characteristics, functional change means that its user profile has expanded from the warehouse workers and lace dealers of the industrial period to include a diverse mix of classes and cultures. The chapter six examines the effect of changing urban activity on user attachment to place and how this is associated with identity of place.

4.8 Conclusion

Urban integration began within the Lace Market when it acquired the basic components of an industrial and commercial centre. Alongside its factories, buildings were erected to accommodate all the other activities that make a place liveable: churches, schools, shops and housing. Collectively, these complementary activities and spatial structures formed the image of the Lace Market. The solidity of its historical buildings remains its main feature even today; despite the destruction and reconstruction of roads and buildings in new forms and styles, the Lace Market remains a distinct entity, categorised by features that distinguish it from the rest of the city. These features, which include multi-storey historical buildings that visually

dominate the urban landscape, and old streets and narrow paths that are inadmissible to vehicles, give the area its distinctive meaning.

The historic development of the Lace Market shows that the urban structure has been transformed by a range of social, physical, economic, legislative and functional factors. Chronological review of this transformation highlights the important role that urban activity has played in changing the area's urban structure and place image, most obviously through the repurposing of its historical buildings. This strategy of reviving old buildings by adapting them for new uses was central to the development of the Lace Market (Nottingham City Council, 1989). Examples include the conversion of the Unitarian Church into a Pitcher and Piano restaurant and of the Adams Building from a lace factory into a college.

However, changes in urban activity have also affected the image of the Lace Market by driving the creation of new buildings such as the Motorpoint Arena and the Contemporary Art Building, which have introduced new architectural and urban forms into the area. These changes underline that the physical environment is not an independent entity but rather a manifestation of the Market's ongoing development and functional evolution.

The post-industrial transformation of the Lace Market's urban structure has gone through two phases. The first of these saw the destruction of much of the built environment as 24,000 workers and most of its manufacturers migrated away from the area. A chronological review of this transformation highlights the important role that urban activity has played in maintaining the place vital and liveable. This kind of transformation can lead to eroded infrastructure and environmental problems that further exacerbate users' negative feeling about the place and change its image. The conversion of the urban construction may end up to the point of interruption sense of place (Farhan, Abdelmonem and Nasar, 2018). However, since its regeneration, the Lace Market's transformation has been positive; it has become an attractive and liveable place in which people are able to interact with the old components and characteristics of the area through their new functions. Such a positive transformation could not have occurred unless users found special meaning in the surrounding environment (Montgomery, 2004).

The Lace Market provides an outstanding example of the industrial urban structure and built fabric for projects aiming at the conservation of heritage urban landscape by adopting new use. However, even though the Lace Market of centre Nottingham is inclusive of many industrial monuments and historical structures, the principal value that helped them to survive for a long time lies in being the place housing many activities for different communities over time. on another word, the association between the built fabric and people practices was successful in responding to the changing needs of its users through different eras. The Lace Market, which was inclusive of members from the majority of the lower-class population (workers) with some high-calibre tradesmen in industrial time, has currently become dominated by high-class population. Today, the factories and religion blocks, of extremely narrow, broken, zigzag streets providing high quality serves, is becoming busy with entertainment activity and relatively luxury apartment buildings. The exclusive and predominantly environment identity of the area has seemingly changed following the influence of particular activity which meets specific social class' needs and era requirements.

The Lace Market includes a large collection of listed structures and combinations of buildings of historic importance and this makes the platform for the area's self-image and its evolving new identity (Linda Monkton and Pete Smith, 2009). Hence, how relevant is the presence of inherited buildings to continue to perceive place identity? and how everyday activity and use inherited structures maintain place identity? In other words, how does activity associate in performing historical architecture and original spatial construction as an instrument of cross-time communication within one definite place? Next two chapters, in answer to these questions, explore this connection between inherited spatial construction and everyday activity involvement through defining the users' experiences of the physical environment and communicates narratives among generations.

Chapter 5 : THE EFFECT OF ACTIVITIES ON THE PERCEPTION OF PHYSICAL CHARACTERISTICS

5.1 Introduction

The previous chapter described the main features of the Lace Market in each of its three main developmental stages (i.e. the industrial period, the deindustrialization period and the regeneration period) and those factors which most influenced its development, showing how the urban system has evolved in terms of function, composition of the physical environment and chief characteristics. In this chapter, urban development is considered not as a series of snapshots in time, but as an ongoing process. The chapter discusses how changes in the Lace Market's function and activities have affected how its users perceive its physical characteristics and landmarks. It begins by examining users' experiences throughout the changes in the physical environment and identifying the impact of these changes on their perception of place identity and investigating how the activity affects the distinctiveness of the physical environment. Particular attention is paid to the relationship of activities to distinguishing landmarks, streets and nodes in the urban environment. The main focus of the chapter is to investigate the impact of the activity on one determinant of place identity: changes in the distinctiveness of the physical environment in a different time period in order to determine the transformation in the perception of place identity over time.

The chapter addresses the second research question:

How can activities evoke users' perceptions of the physical features?

This involves identifying how activity gives meanings to physical setting; and identifying the attributes of activities associated with place identity.

Given that the study's main aim is to understand the effect of activity on the perception of place identity, it is necessary to determine the relationship between activity and the perception factors that construct place identity over time. This is done in this and the next chapter by examining the relationship between activity and four variables:

- perceived physical settings, such as landmarks, paths or streets;

- perceived functions, such as usage of streets and buildings;

- perceived meanings, such as the value of a building;

- and other intangible characteristics, such as sounds, smells, heritage and historical events.

These four indicators were largely agreed by the scholars that they play an important role in forming the identity of a place (Lynch, 1990; Madanipour, 1996; Carmona, 2007; Castells, 2009; Azmi, Ahmad and Ali, 2014; Ujang and Zakariya, 2015b; Khaleghimoghaddam and Cakmak, 2017)

The impact of activity on the area's physical elements was assessed via observation, cognitive maps and in-depth interviews with current and former users of the Lace Market, who were asked what they thought were/are the area's main distinctive elements and landmarks and why. The responses and the documentary review revealed old landmarks that have survived or been lost, and new ones that have been added. The analysis therefore considers the role of changes in activity firstly, in removing and creating landmarks and protecting long-standing distinctive elements, and secondly, in changing how these elements are perceived by users. This may show the extent to which activity has facilitated or transformed the identity of the Lace Market. The study wanted to identify the extent to which current landmarks are perceived as such because of their former or current functions.

5.2 Perceived distinctiveness of urban environment over time

Since place identity is an individual's personal response to the distinctive characteristics (Trąbka, 2019) which foster human-place bonding (Ujang, 2010), it is significant to understand the role played by these landmarks and remarkable elements in shaping user perceptions, particularly in historic areas such as the Lace Market, where old landmarks are demolished (Lowe and Richards, 1989) or put to new uses (Robinson, 2017) and new constructions are erected (Academy of Urbanism, 2016). By asking the interviewees about their perceptions of the Market's major landmarks, streets and nodes, it was possible to identify the potential contribution of activity to the perceived attractiveness of these landmarks, and how this perception influenced users' imageability and memory of the place.

The interviewee sample was selected to represent two user groups: those who experienced the area pre-1992 and those who were current users. This personal experience is fundamental to the perception of place identity (Ujang and Zakariya, 2015b) as individuals create their own mental image from direct experience (Hussain and Ujang, 2014). These images are also informed by personal tastes, values and lifestyle (Sulsters, 2005). As the two groups had experienced the area at different times (before and after regeneration), it was possible to assess the ways in which perceptions had changed with the change in function.

The respondents were first asked to list three of the most distinctive landmarks that they felt contributed to the identity of the Lace Market. They were then asked which three streets and open spaces they found the most distinctive and memorable and why. Finally, they were asked to sketch a map of the Lace Market containing what they saw as the most important parts. Analysis of the data indicated that three main spatial structures influenced the users' perceptions: buildings, streets and nodes. The elements mentioned most frequently by respondents were selected as being distinctive, in that they evoked people's perceptions of the Lace Market's identity. This is based on the assumption that place identity is formed by users remembering a distinctive feature (Lynch, 1960; Jarratt et al., 2019). The following sections discuss the buildings, streets and nodes that respondents found the most memorable, and the role of activity in supporting and maintaining this perceived distinctiveness.

5.3 Distinctive buildings

Data about the pre-regeneration period was gathered from the first group of 26 interviewees, who consisted of users who had lived or worked in the area prior to the 1990s. The question:

Can you identify the three most distinctive landmarks of the Lace Market before the redevelopment in the 1990s?

sought to reveal the specific buildings these users saw as memorable and to examine the possible role of user practice in installing their meaning. The 10 most frequently mentioned are presented in Table 5.1.

Table 5.1: Buildings most frequently recalled by **former users** as landmarks

Item type	**Memorable elements in the Lace Market**	**Interviews n = 26**
Buildings n = 10	St. Mary's Church	73.5%
	Ice Stadium (demolished)	67.6%
	Shire Hall (now the National Justice Museum)	55.5%
	Nottingham Film Theatre (now the Broadway Cinema)	52.9%
	Adams Building (now NCN)	38.2%
	Boots Building (now a restaurant)	38.2%
	At Leap pub	35.2%
	George Hotel (now the Mercure Hotel)	35.2%
	High Pavement Church (now Pitcher & Piano)	26.4%
	MFA Bowl	08.8%

The most popular answer, St. Mary's Church (73.5%), was arguably predictable; prominent in terms of height and scale, as well as historical value, the church is a focal point at the end of Stoney Street and in the middle of High Pavement. The Ice Stadium was mentioned with the second-highest percentage (67.6%), followed by the heritage building Shire Hall, which scored 55.5%, and the Nottingham Film Theatre, which scored 52.9%. Previously a church, the building was remembered for its conversion to a cinema and theatre which hosted events and performances. Another two important historic buildings in the list are the Adams Building, which although vacant in this period was in a prominent location, and the Boots Building (both mentioned by 38.2% of interviewees. The At Leap pub and the George Hotel were mentioned by 35.2% of interviewees, while High Pavement Church was mentioned by 26.4%. This building was commonly mentioned as having historic value. Other buildings mentioned by fewer than 20% of interviewees were considered insignificant. Figure 5.1 shows how these perceived landmarks were distributed around the Lace Market.

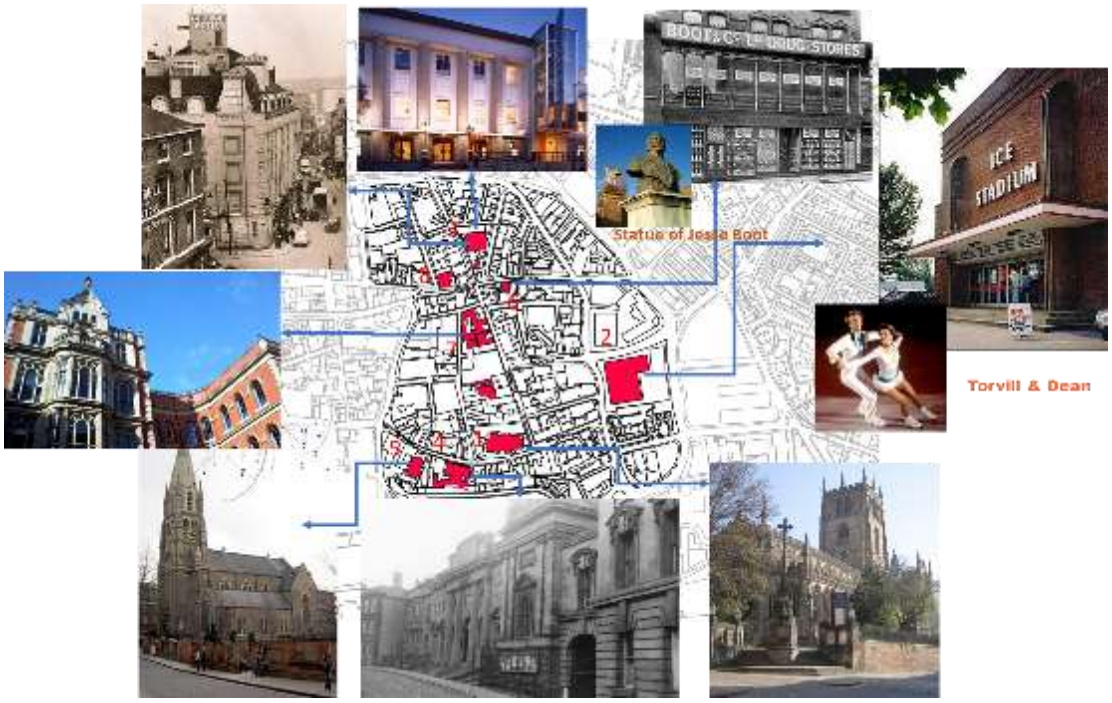


Figure 5.1: Distribution of memorable buildings in the pre-regeneration period.

Memorable buildings

1- St. Mary's Church
2- Ice Stadium
3- Nottingham Film Theatre
4- Shire Hall
5- High Pavement Church
6- Boots Building
7- Adams Building
8- George Hotel

5.3.1 Role of activity in supporting memorability

Since place identity is constructed through the interaction between individual and setting (Cheng and Kuo, 2015; Stedman, 2006), and physical elements acquire meanings which make them memorable and distinctive landmarks for users (Madanipour, 2006), the study sought to understand what it was that made the chosen buildings particularly memorable to this group of interviewees. When asked why they remembered the buildings they chose, the most popular answer was the shape of the building (79.4%), followed by function (44.1%), historical value (41%), location (35.2%) and historical events (29.4%). Social activities and service were mentioned by 14.7% and 11.7% of interviewees respectively.

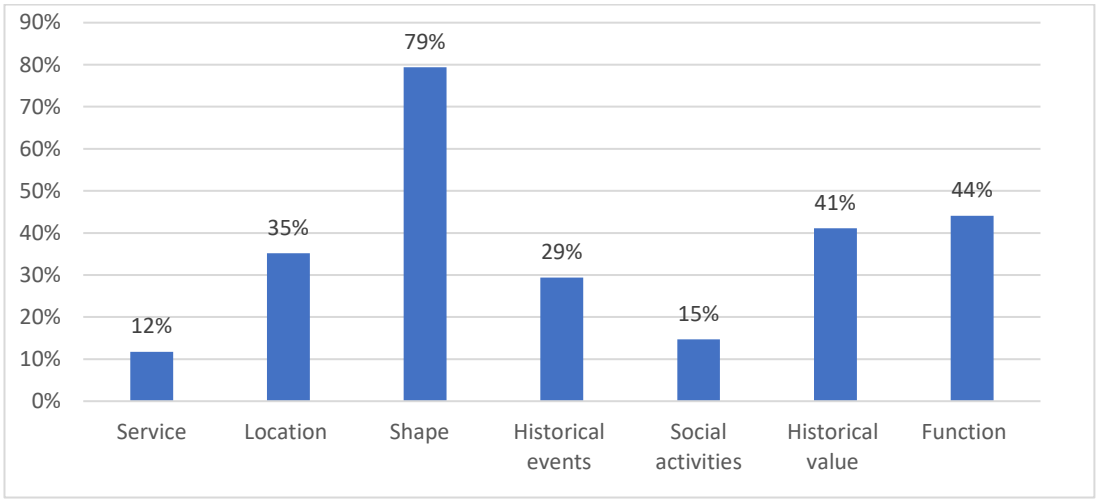


Figure 5.2: Main reasons for recalling buildings among the pre-regeneration group.

Source: interview 2018

Figure 5.2 shows that 79.4% of the interviewees in this group remembered the chosen buildings mainly because of their shape or physical form, rather than what they were used for. One respondent explained that

> *Regarding the landmarks before the 1990s, St. Mary's Church dominated the area. […] Yes, I consider the St. Mary's Church building as the most singular one because of its size, height and material […] when I used to go there, I could see the church from far away in the Lace Market' (PF-3V, Appendix 1).*

In fact, 73.5% of the interviewees considered the church to be the old core of the Lace Market. Respondents saw the strong physical features of the building as central to its symbolic meaning – asked what made it unique or a landmark, most referred to the size and height of the building (see Figure 5.3) – but many also understood its importance as a symbol of the Lace Market's architectural heritage. According to one respondent,

> *In general, the Lace Market is considered as a heritage quarter, but the historic St. Mary's Church has great architectural and spiritual value […] this building has unique architectural characteristics which reflect the history of this City, dates back hundreds of years ...yes, it has many meanings (PM-8V, Appendix 1).*

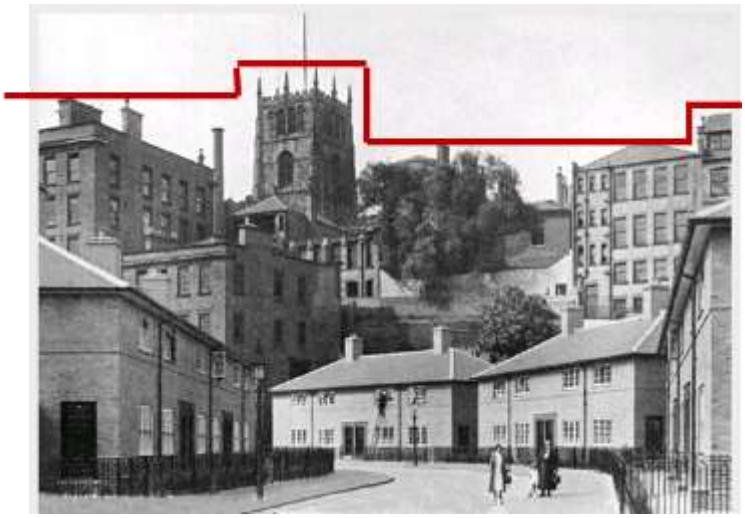


Figure 5.3: Skyline of the Lace Market, dominated by St. Mary's Church (1950).

Source:(Brian Taylor, 2000)

The comment indicates that users' recognition of the historical significance of the church's physical form played an important role in shaping its meaning. This is in line with the findings of other studies, which have concluded that the architectural features of historical buildings play an important role in shaping the identity, structure and meaning of place (Harun, Fairuz and Nordin, 2015). The finding also supports Nasar's argument that historical significance appears to evoke favourable responses through associations with past images (Farhan, Abdelmonem and Nasar, 2018). A heritage environment possessed of authentic historical significance can acquire an iconic status that fosters users' perception of place identity, especially if, like the Lace Market, it is seen as representing historical and cultural values that are worthy of preservation. The danger is that transformation and rapid development of such areas can erode their significance as heritage sites.

Other buildings were remembered because of their function or the facilities they offered. The second most mentioned building was the Ice Stadium, which was recalled by 67.6% of respondents (Figure 5.4). This building was recalled by interviewees who remembered skating themselves or attending events there. For example:

> *Regarding the landmarks before the area was developed, in my opinion, there are not many salient buildings that may be used as landmarks, but I consider the Ice Stadium Building as the most suitable one because of memorable events that occurred inside [...]*

Of course, I spent every single weekend there with my parents to attend Torvill and Dean performances. (PM-11V, Appendix 1).

Figure 5.4: Ice Stadium activities in the mid-20th century.

Source: (Ritchie, 1990).

The Ice Stadium was well known to this group, with many associating it particularly with the ice dancers Jayne Torvill and Christopher Dean, a local couple who became British, European, Olympic and World champions in the 1980s (Figure 5.5). The peak of their success came at "the Sarajevo 1984 Winter Olympics, when the pair won gold and became the highest scoring figure skaters of all time" (Legends, 2009, p. 2). The memories that most of the interviewees had of going to watch and support this remarkable pair were an important part of why the building was meaningful to them.

Figure 5.5: Pictures show turnout to attend performances of Torvill and Dean.

Source: Legends (2009).

For others, it was happy memories of their own social activities at the stadium that fostered their emotional bond with the building and gave it meaning. The following two comments were typical of these respondents:

> *A regular visitor to the Ice Stadium in my teens, especially Friday nights. I still miss the old stadium; it was the place I had my first date. Now I recall this good memory with my wife. (PF-1 V11. Appendix 1).*
>
> *Absolutely the best place in that time was the Ice Stadium. Loved it there. Many happy memories with family as a child, and then friends. Never made it as a skater but had great fun trying. (PM-1 V5, Appendix 1).*

The social activities and events that occurred at the Ice Stadium were mentioned by 14 of the 26 respondents as one of the factors that evoked their memories of the building and gave it meaning. This suggests that by linking users' memories to important events that have taken place there, building function can be an important factor in generating meaning. The finding that an element may become a landmark because of the particular activity associated with it supports urban design theorists such as Relph and Carmona, who argue that the way a physical environment is used may strengthen its uniqueness and significance (Relph, 1976; Carmona, 2007). Most interviewees explained that the happy memories associated with certain buildings evoked emotions that led them to attach meanings to these buildings. This supports (Inglis, Deery and Whitelaw, 2008), who state that a place's identity is established when users associate it with feelings of satisfaction, enjoyment and security. These feelings are developed as an outcome of the meaning(s) and import attached to the place by users.

5.3.2 Current distinctive buildings

In order to understand whether there had been any change in the perceived landmarks since the regeneration of the area, interviews were also conducted with a second group of 24 users. These interviewees had all lived and/or worked in the Market since the 1990s. The aim here was to discover which buildings these users considered to be the area's current landmarks and to examine the possible role of user practice in attributing new meaning to these buildings. The results identified 14 buildings that

the respondents perceived as recognizable features that make the Lace Market distinctive from other places (Table 5.2).

Table 5.2: Buildings most frequently recalled by **current** users as landmarks

Item type	Memorable elements in the Lace Market	Interviews n = 24
Buildings n = 14	St. Mary's Church	82.8%
	Pitcher & Piano	65.7%
	New College Nottingham (Adams Building)	54.3%
	Broadway Cinema	48.5%
	Motorpoint Arena	42.8%
	Nottingham Contemporary art gallery	42.8%
	National Justice Museum	37.1%
	Lace Market Theatre	34.2%
	MFA Bowl	25.7%
	Mercure Nottingham Hotel	17.1%
	Sainsbury's	17.1%
	Nottingham Arts Theatre	11.4%
	Lace Market Fish Bar	8.5%
	Faradays Restaurant	5.7%

Source: interview 2018

Table 5.2 shows that as with the pre-regeneration group, the building recalled most frequently by the current user group was St. Mary's Church (82.8%), which remains a prominent and centrally placed focal point. The Pitcher and Piano restaurant and pub (formerly High Pavement Church) were the second most often mentioned building (65.7%), followed by New College Nottingham (formerly the Adams lace warehouse) (54.3%). The Broadway Cinema was mentioned by 48.5% of interviewees in this group, followed by two modern buildings – the Motorpoint Arena, which hosts a range of sporting events, and the Nottingham Contemporary art gallery and museum. Both were mentioned by 42.8% of interviewees. Another important historic building, the National Justice Museum, was listed by 37.1% of interviewees, while the Lace Market Theatre was listed by 34.2%. The MFA Bowl building was listed by 25.7% of interviewees. Buildings being mentioned by fewer than 20% of interviewees were

considered insignificant. Figure 5.6 demonstrates how these landmarks are distributed across the Lace Market.

Figure 5.6: Distribution of memorable buildings in the post-regeneration period.

Source: interview 2018

5.3.2.1 Role of activity in supporting memorability

Place identity is strongly linked to the uniqueness of a place (Kaymaz, 2013), which is itself a product of the interaction between its physical features and its users (Castells, 2009). However, as this interaction and thus place identity is continuously evolving and dynamic (Bernardo et al., 2019), it was necessary to investigate how the new activities taking place in the Lace Market have influenced users' perceptions of the area's landmarks and the meanings they attribute to them. As with the pre-regeneration group, the interviewees of current users were asked why they remembered their chosen buildings and considered them to be landmarks. Figure 5.7 summarizes the main reasons cited by interviewees, showing that shape and function were the most frequently mentioned reasons (each mentioned by 61% of participants), followed by shape (59%), location (43%), social activities and unique service (28% each), unique service (27%) and historical events (21%).

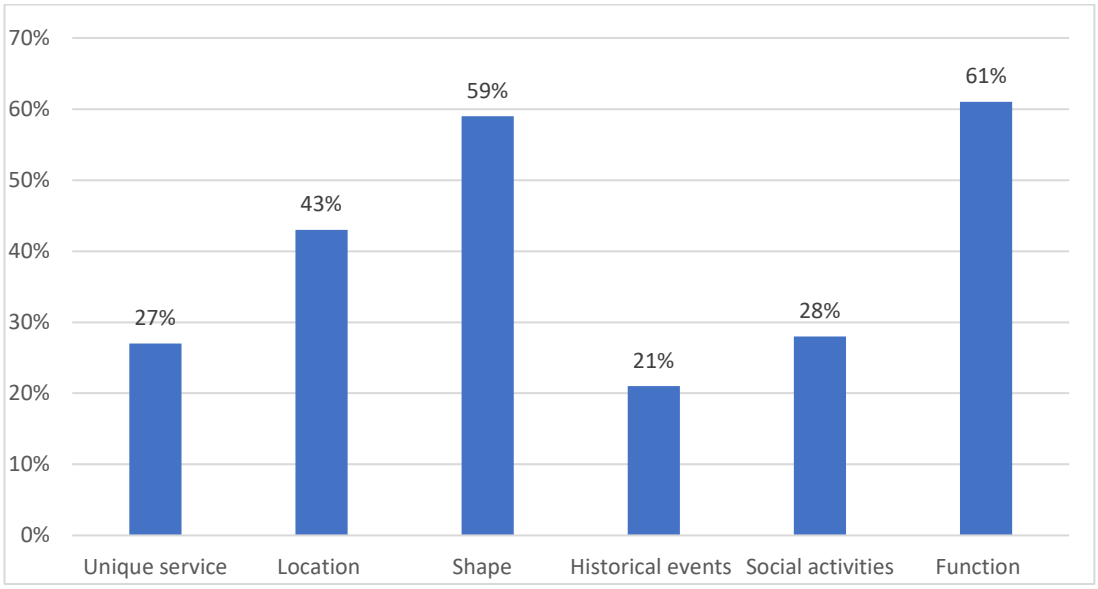


Figure 5.7: Main reasons for recalling buildings among the post-regeneration group

Source: interview 2018

For interviewees in this group, physical form, while a key factor in making buildings memorable, was not the only reason; many indicated that it was also the activities taking place there. For example, the Pitcher and Piano and New College Nottingham were both considered memorable by participants because they are historic buildings that have been put to unexpected new uses. The Pitcher and Piano (mentioned by 65.7% of interviewees, see Table 5.2) is one of the most unusual bars in Nottingham. Formerly High Pavement Church (archiseek, 1874) (Figure 5.8), the building was converted two decades ago into a restaurant and pub (Figure 5.8), a use in stark contrast to its original purpose. The transfer from sacred to secular use and the contradiction between the building's architecture and the activities now taking place there were the main reasons why interviewees found the Pitcher and Piano so distinctive:

> *Another thing that stands out in the Lace Market is the Pitcher and Piano bar because it was formerly a church that was converted into a bar. When you go there, the environment is so different that it stands out and the atmosphere feels like you are close people who are religious the same time you drink it. When I go there, I usually feel like: "This is what is special about the Lace Market, (PF2-V11, Appendix 1).*

Figure 5.8: In the left, High Pavement Unitarian Church, A (1975), B (1980).

Source: (Oldfield, 1984).

In the right, the Church after convert to the restaurant named (Pitcher & Piano).

Source: A: Almakkas 2017, B: (TwistedSifter,2014).

Similarly, many respondents considered the New College Nottingham Building distinctive because it combines a traditional architectural style with 21st century activities Figure 5.9. One respondent explained that:

> *As I mentioned, I was living in the Lace Market, at the same time, I was studying in one of the language centres of the Lace Market, NCN. New College Nottingham is a traditional building, but when you get inside, the building is modern with high-class facilities providing education services for users. I feel more attached to this building [….] because I spent more than a year studying there and have many happy memories of student life still linked to the building, (PM-2 R-23).*

Figure 5.9: Victorian design of New College Nottingham and modern education facilities.

Source: (Powell, 2006)

As the above comments illustrate, while the New College Nottingham building and the Pitcher and Piano were both remembered for their traditional architecture, it was the activities enjoyed in the buildings, and the positive memories these activities inspired, that had the greatest impact on users' perceptions. This is in line with Darcy et al. (2008), who argue that a place's identity is established through users positively identifying it with feelings of satisfaction, enjoyment and security. This suggests that identity is shaped not just by a place's physical characteristics but by its ability to fulfil the psychological needs of the user (Ujang, 2012). In the case of the Pitcher and Piano and the New College Nottingham building, their modern function inspired feelings of satisfaction that overlaid the buildings' historic physical meanings that led the interviewees to re-evaluate the buildings' historic meanings.

Newly built landmarks were generally remembered for their function rather than their physical form. Two modern buildings – the Broadway Cinema Figure 5.10 (mentioned by 48.5%) and Nottingham Contemporary Figure 5.11 (mentioned by 42.8% of interviewees) – were seen as important contributors in terms of creating the identity of the area, but this was because of their function, location and the opportunities they offer for social activities rather than their architecture. One respondent described the Broadway Cinema thus:

> *The Broadway Cinema is not just a place to watch a movie, it contains a good cafe where I used to meet my friends [...] I prefer the Broadway cafe as it provides free wi-fi and is located in the heart of the city centre. So, it is easy for all my friends to get there. (PF-2 V18).*

Figure 5.10: Outdoor seating at the Broadway Cinema. Source: Almakkas, 2018.

Another interviewee, a student at Nottingham Trent University who had conducted interviews with users of the Nottingham Contemporary building as part of his own project, explained that

> *Nottingham Contemporary may be one of the important buildings; it is visible from the tram and you can see it from many sides [...] I did not go inside until I started my community project. I did work over there to understand why people come (or not) to the Contemporary. People often go there to the coffee place to make friends, or they are interested in the arts. They find it a comfortable place to spend a happy time with family and friends or to meet new people with the same interests' (PM-2 V-11).*

Figure 5.11: Leisure and social activities at Nottingham Contemporary Art gallery.

Source: Almakkas 2019.

The Nottingham Contemporary building Figure 5.11 and Broadway Cinema Figure 5.10 were attractive to interviewees because their central location made their activities easier to access. This highlights the importance of location as well as function in strengthening perception of place. The perceived importance of the buildings' functional attributes encouraged users to keep going back, and with growing familiarity comes growing emotional attachment. Kozlowski, Ujang and Maulan (2017) also indicate the significance of functional attributes in fostering emotional attachment to a place and shaping place identity.

In contrast, St. Mary's Church, which was cited by 82.8% of interviewees (see Table 5.2), was recalled solely because of its architectural style. Those who judged it to be the Lace Market's most important landmark did so purely on the strength of its architectural impressiveness:

> *Ok, in my opinion, there are many salient buildings that may be used as landmarks, but I consider St. Mary's Church as the most suitable one because of its huge size and historical architecture […] really it is brilliant, (PM-2 V24).*

Figure 5.12: St. Mary's church, the Lace Market.

Source: Almakkas 2020.

The popularity of this building among the interviewees underlines the importance of historical structures in creating the sense of distinctiveness that shapes user perceptions and forms the basis for building meanings and identity Figure 5.12. The role of heritage and historic sites in influencing place perception has been highlighted by Rodwell, (2007); Oliveira, (2018). This result confirms previous findings that heritage buildings are seen by stakeholders as having cultural significance (Bakri et al., 2015) and providing a sense of identity and continuity.

5.3.3 Effect of repurposing buildings on user perceptions

Comparison of the data in Tables 5.1 and 5.2 shows that the repurposing of buildings that happened during the regeneration process has significantly changed user perceptions in terms of which buildings are considered landmarks. The use of buildings appeared affected users' memories toward signifying of meanings that linked to the buildings Figure 5.13. For example, while just 26.4% of the pre-regeneration group saw High Pavement Church as a landmark, 65.7% of the post-regeneration group saw the same building as a landmark once it had been converted to a pub (the Pitcher and Piano). Similarly, while just 38.2% of the pre-regeneration group saw the Adams Building, then an abandoned lace warehouse, as a landmark, this rose to 54.3% of the post-regeneration group, who knew it as New College Nottingham. Conversely, 67.6% of the pre-regeneration group saw the now demolished Ice Stadium as a landmark, but only 42.8% of the post-regeneration group saw its replacement, the newly constructed Motorpoint Arena, in the same way. The two buildings may serve the same function, but the old stadium was a more memorable place for the pre-regeneration group because of its association with famous ice stars such as Torvill and Dean.

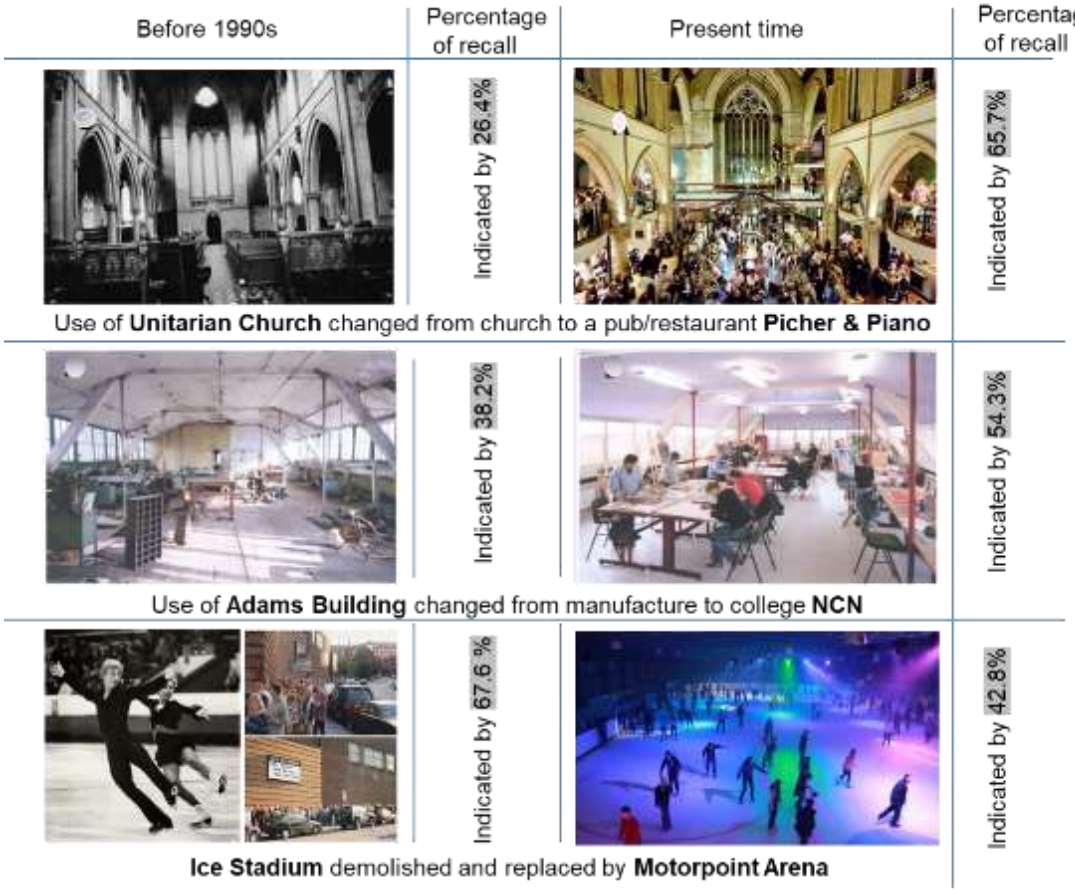


Figure 5.13: Comparing user perceptions before and after conversion in use.

Source: Interview 2018

Figure 5.13 shows how landmarks gained or lost value over time as a result of changes in function, underlining the significance of function and activity in making places memorable and forging place identity.

The fact that many of the buildings that were cited as landmarks by the interviewees are old appears to confirm the importance of historical character in shaping place image. It has been argued that great historical sites influence users' perceptions through their evocation of wealth and momentous events, inspiring feelings not just of enjoyment and appreciation but also reverence, sadness and admiration (Carmona, 2007). Forty and Küchler, (1999) suggest that such spaces may even come to symbolise users' memories which, by virtue of their durability, they are able to preserve in perpetuity. However, in the case of the Pitcher and Piano and New College Nottingham, while their repurposing for modern activities may have made users more aware of their historical character and helped define the image of these

places, it was the events and social activities they experienced in the buildings that caused them to regard them as landmarks. The finding confirms the importance of experience in creating an emotional reaction towards physical features (Carmona, 2007) and embedding or reviving meanings by fostering positive connections to place (Carr et al., 1993). It further underscores the importance of positive memories in influencing the perception of place identity. A building might possess a set of historic characteristics that collectively give it a unique feeling or meaning, but this alone is not enough to make it a landmark; it is the activity that stimulates the user's memory of the building's historical elements. Cheshmehzangi, (2012) states that 'Past memories and relations with particular elements can establish a signage or symbolism system in mind that can then help to enhance the perception of urban identity' (p. 310). The finding that effective repurposing can increase a historic building's chance of being recalled as a landmark confirms the importance of this particular regeneration strategy.

However, it was not only historical buildings that were considered landmarks first and foremost because of their function; the Nottingham Contemporary building and Broadway Cinema are of modern design, and respondents found them impressive, but it was their function as sites for social interaction that distinguished them in the minds of the interviewees rather than their physical form. Again, function had more impact than physical features on how the buildings were perceived, and it was social interaction and events that heightened, preserved and promoted the perception of place identity.

The findings suggest that both modern and historic buildings influenced the interviewees' perceptions of the Lace Market. The elements that were remarked the most as physical inductors were location and form, including salience, visibility and accessibility, while social meetings and events were the objectivity inductors which did most to encourage users to attach meanings to a structure. In terms of visibility and accessibility, for example, both Nottingham Contemporary and the Motorpoint Arena were noted as being in central locations and easily accessible, while the 'imageability' of these highly visible modern structures (Lynch, 1960; Hussain and Ujang, 2014) was seen as helping define the identity of the Lace Market. Ultimately, however, buildings were recalled not just because of their legibility but also for the activity's users had experienced there. The findings extend Lynch's (1990) theory,

which focuses only on the recognizable legible features of the environment (i.e. those physical aspects that can easily be seen) to suggest that place image is also promoted by the social interaction and events that users experience there (Carmona et al., 2010). Thus, physical form and function together form the significant attributes that influence users' perceptions.

5.4 Distinctive streets

The second component of the physical environment that plays a key role in shaping user perceptions is streets. Although numerous scholars have agreed that streets contribute to shaping place image and identity (Lynch, 1960; Relph, 1976a; Carmona et al., 2010; McDowell, 2008; Seamon, 2019), there is no consensus on what makes a street imageable or meaningful. The current study sought to address this question by investigating what the two user groups perceived as the most memorable streets before and after the Lace Market's regeneration, and the role of activity in making these streets memorable.

5.4.1 Distinctive streets in the pre-regeneration period

The pre-regeneration group of users were asked which three streets they found the most distinctive in the Lace Market before its regeneration. Table 5.3 shows which streets were mentioned most often by the interviewees. At the top of the list was Goose Gate, which was mentioned by 73.5% of interviewees. This was a major thoroughfare and shopping street between the western gate of the Market and the city centre. This was followed by Broadway Street (55.8%), High Pavement (35.2%), Carlton Street (32.3%), St. Mary's Gate (23.5%) and Fletcher Gate (11.7%). All these streets were considered characteristic of the Lace Market with their range of shops and historical buildings and links to the main parts of the city centre.

Table 5.3: Streets most frequently recalled by former users

Item type	Memorable elements in the Lace Market	Interviews n = 26
Streets n = 6	Goose Gate (Hockley)	73.5%
	Broadway Street	55.8%
	High Pavement	35.2%
	Carlton Street	32.3%
	St. Mary's Gate	23.5%
	Fletcher Gate	11.7%

Source: Interview 2018

5.4.1.1 Role of activity in supporting memorability of street

To understand the role of activity in enhancing memorability, the respondents were asked why they considered these streets important elements at that time. Figure 5.14 shows the main characteristics that made them memorable to users. The factor mentioned most often (by 59.6% of users in this group) was the density and diversity of activity along the street. The next most popular factor was accessibility (27.7%), followed by physical form and architectural style (26.2%). These were the three main reasons why the interviewees found certain streets memorable.

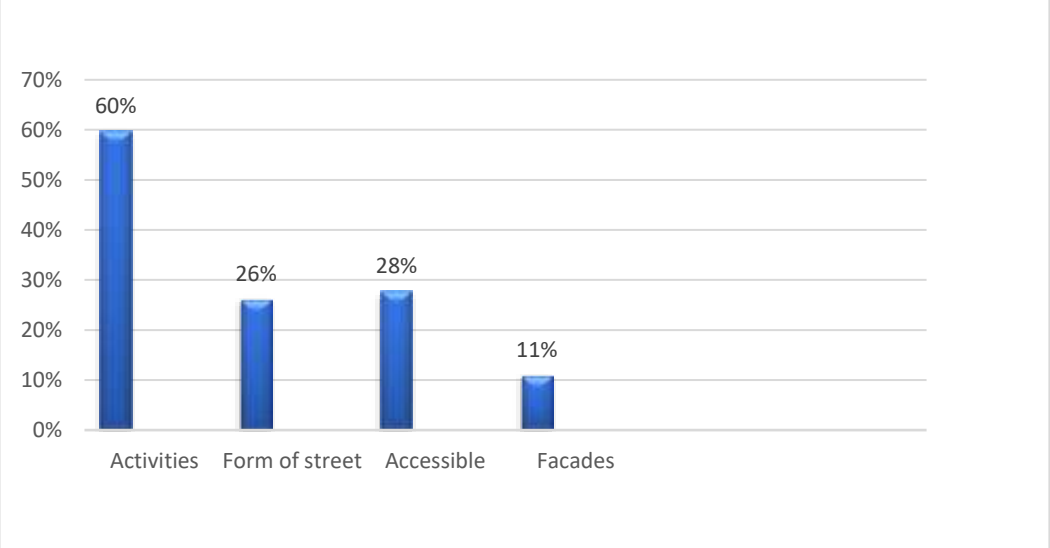


Figure 5.14: Main reasons for recalling streets among the pre-regeneration group.

Source: Interview 2018

Interviewees in the pre-regeneration group described Goose Gate as the main street in the Lace Market from the mid-20th century to 1990, with numerous shops, amenities, restaurants and leisure-related activities. One respondent explained that the amenities on the street were an important part of what made it attractive:

> *I still remember Goose Gate; it was good shopping there, busy and many local goods. In general, the area became trendier – more clothes shops, restaurants etc. Camra made real ale pubs trendier, less local, and the impressive Boots building [….] Yes, the area still has an independent and youthful vibe helped by the Broadway Cinema and latterly by jazz clubs like Peggy's Skylights' (PM-1 V-1).*

This respondent selected Goose Gate for its liveliness and good shopping rather than its physical appearance, but physical form was perceived as important by 26.2% of interviewees. Broadway Street, for example, was remembered primarily for its sense of enclosure and dynamic views (Figure 5.15). One interviewee explained that

> *Broadway springs to mind because of the impressive buildings and the curve in the road which gives a false sense of its being a cul-de-sac' (PM-1 V-21)*

Similarly, another respondent noted the strong impression made by the physical shape of the street:

> *I like the way Broadway Street flows; it is a narrow street with a strong curved shape, which makes it feel like an enclosed space [....] when I used to go to the pub there, it felt like the street was a private place or indoor street' (PF-1 V-4)*

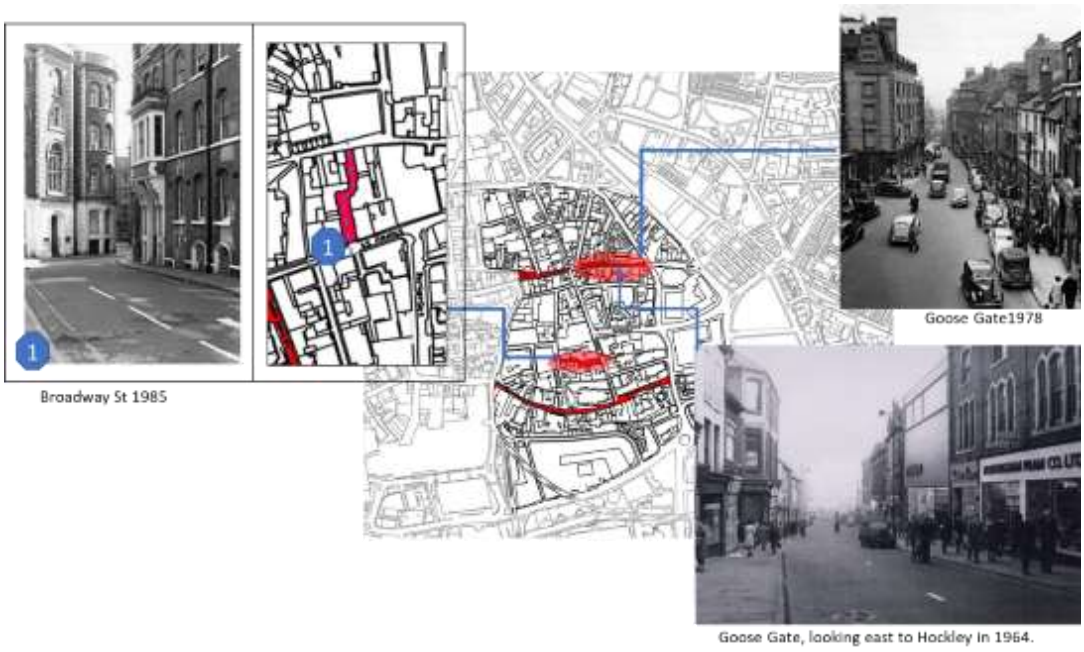


Figure 5.15: Broadway Street and Goose Gate.

Source: Andy Smart (2018).

The narrow curve of Broadway Street was the physical characteristic most often cited by this group of interviewees as something that evoked memories. This suggests that a sense of enclosure is one place attribute that contributes to and fosters place identity. This has also been noted by Cullen (1961, p. 29), who suggests that 'enclosure or the outdoor room is perhaps the most powerful, the most obvious of all the devices to instil a sense of identity with the surroundings'. Moughtin (2007) also argues that an urban street must be enclosed to be readable, claiming that the higher one's impressions are described inside it, the more accurate will be its view.

For most interviewees, however, the feature most likely to make a street memorable was the activities that it hosted; for example, the key shops, the local goods and products offered, the physical structures and characteristics and the general atmosphere. Moughtin (2007, p. 132) states that 'Most street activity occurs when it is convenient for large numbers of pedestrians to use the street in a variety of ways. The findings suggest that it was the diversity and density of activities that impressed users and enhanced their perception of certain streets, possibly because this high density and mix of land uses meant the street could fulfil all their needs.

5.4.2 Distinctive streets in the post-regeneration period

When current users of the Lace Market were asked to identify three streets, they found especially distinctive, a total of six streets were mentioned (Table 5.4). The highest scoring street was Carlton Street (61.7%), which connects the Lace Market with the Old Market Square in the centre of the city and the Sneinton area. This was followed by Broad Street and Goose Gate (48.5%), Stoney Street (41.1%), High Pavement (34.2%), St. Mary's Gate (17.1%) and Pilcher Gate (08.5%).

Table 5.4: Streets most frequently recalled by current users

Item type	Memorable elements in the Lace Market	Interviews n = 24
Streets n = 7	Carlton Street	61.7%
	Broad Street	48.5%
	Goose Gate	48.5%
	Stoney Street	41.1%
	High Pavement	34.2%
	St. Mary's Gate	17.1%
	Pilcher Gate	08.5%

Source: Interview 2018

5.4.2.1 Role of activity in supporting memorability

When participants from the post 1992 group were asked why they considered these particular streets memorable and imageable, 77.1% mentioned the activities that take place there, 45.7% cited accessibility and walkability, 28.5% cited the building façades, and 22.8% cited safety and comfort (Figure 5.16).

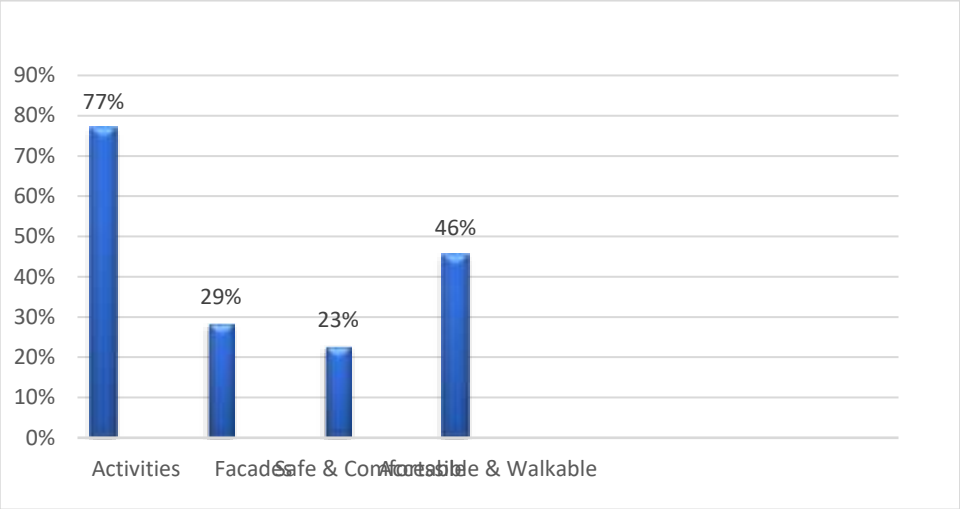


Figure 5.16: Main reasons for recalling streets among the post-regeneration group.

Source: Interview 2018

As in the pre-regeneration group, the physical characteristics of the environment were significantly less likely to make users remember a street than the activities taking place there. In order to address the research question of what role activity plays in making place distinctive, the interviewees were asked to clarify what it was about these activities that made them the most memorable feature. Figure 5.17 shows that for 60% of this group it was the variety and density of activities, which they saw as making the street lively and vital. For 48.5% of the group, it was the idiosyncratic nature of these activities (i.e. the street's unique mix of independents and traditional shops), while for 40% it was the fact that the street fulfilled their needs. Finally, 28.5% of the group said they remembered streets that were walkable.

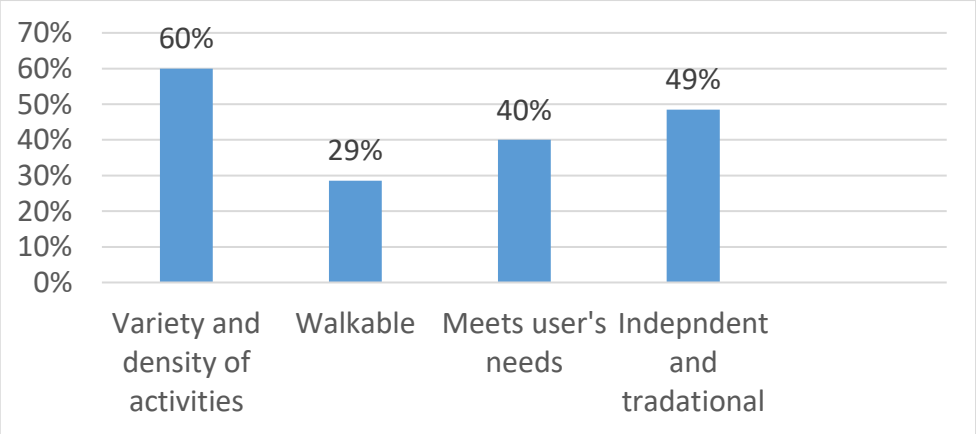


Figure 5.17: Main activity attributes that make streets memorable, as perceived by the post-regeneration group.

Source: Interview 2018

Twenty-one interviewees cited the variety of activities and other amenities on a street as a factor that would make the street important and vivid in their mind. Indeed, most respondents recalled Carlton Street, Goose Gate and Broad Street for precisely this reason. For example:

> *Carlton Street is always crowded, particularly at weekends. I feel comfortable and it is interesting, particularly at night-time; many happy, enjoyable memories linked to it and Goose Gate. The intensity of activity makes it vital, and that gives a kind of nice atmosphere in this street (PF-2 V-8).*

One respondent was particularly impressed by the fact that Broad Street's cafes and restaurants set tables outdoors:

> *Broad Street is a vital street and active, and if you are here for a while, you will notice people sitting outdoors at traditional cafes and restaurants eating and drinking. The shops are close to each other and priority is given to the pedestrian as cars are not allowed on this street' (PM-2 R-4).*

The variety of independent coffee shops, restaurants and pubs and the density of activity in streets like Carlton Street (see Figure 5.18) appear to help increase legibility and create a distinctive place identity. This is consistent with Ujang and Shamsudin's (2012) finding that activity strongly influences how users perceive streets, and with Butina-Watson and Bentley's, (2007) argument that intensity and diversity of activity are vital in an urban setting because they provide users with a range of choices. On the other hand, it is inconsistent with Lynch's (1960) assessment that streets or 'paths' are mere channels for movement. The findings of this study suggest that streets are not just physical elements that facilitate movement but the setting for rich and diverse activities that play a crucial role in creating a sense of place identity.

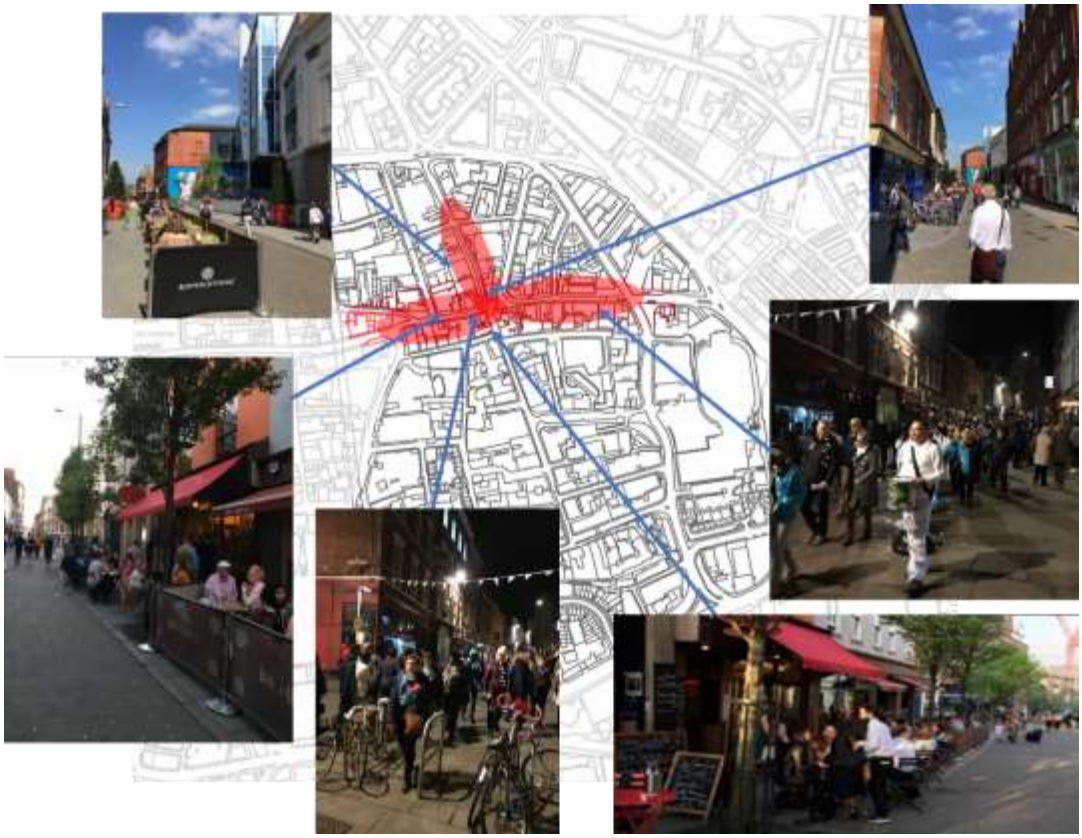


Figure 5.18: Daytime and night-time activities on Carlton Street.

Source: Almakkas 2018

The findings reveal that diversity and density of activity strongly influenced how users perceived the Lace Market's streets both before and after its regeneration. The elements that made these streets distinctive to interviewees were their attractiveness as shopping destinations, their vitality, and the fact that they offered activities day and night. This echoes Seamon (2015) and Montgomery (1998), who point to the importance of diverse activity in giving users a range of choices, and Obeidy and Dabdoob (2017), who argue that intensity and diversity of activity generates liveliness, energy and enthusiasm. Carlton Street and Goose Gate were also the most memorable to the interviewees because they were lively and active at night as well as in the day. This seems consistent with Jacobs, Moudon and Hinshaw, (1993), who argues that the greatest streets are those that are materially, economically and socially varied, as these are more likely to be active and lively for more of the day, contributing to a more vital and safer public realm. This extended opening adds to the richness of a street's activities and may further enhance its place identity.

This identity is also strengthened by distinctive characteristics such as the presence of traditional and independent businesses that cater to local needs. For example, the interviewees remembered Carlton Street, Broad Street and Goose Gate for their independent shops, cafes and restaurants offering locally sourced goods in a traditional atmosphere, and for the Broadway Cinema and its programme of independent movies. The findings highlight the role of traditional characteristics and local functions in shaping the perception of place identity.

Street characteristics are one of the key factors that help make a place identity (Ujang and Shamsudin, 2012; Cheshmehzangi, 2014a) but the interviews with Lace Market users revealed that the original streets do more to enhance the area's image than the new streets as they are more likely to carry attributes that evoke users' place memories. This suggest that traditional paths and streets are crucial in constructing an image of the place which allows users to distinguish it from any other. It may be argued that the insensitive development of area streets from traditional to new streets in the Lace Market is eroding users' sense of place identity because it is removing key markers of original streets and reducing the distinctiveness of the area. This is in line with Trancik Roger's (1986) suggestion that homogeneous characteristic of traditional streets contributes to its discrete features that in the end create the street perception and identity of a place.

5.5 Nodes

Nodes are strategic spots or intensive foci that act as transit points for movement from one place to another (Carmona, 2007). They may be found at places such as street junctions and squares (Lynch, 1960), where they may serve as a combination of intersection and focal point. The pre-regeneration group of interviewees identified two nodes that they thought defined the image of the Lace Market (see Table 5.5).

Table 5.5: Nodes most frequently recalled by former users

Item type	Memorable elements in the Lace Market	Interviews n = 34
Nodes	Weekday Cross	53.6%
n = 2	Hockley	16.3%

Source: Interview 2018

The Weekday Cross intersection was identified as the most prominent node in the Lace Market in the pre-regeneration period, with 53.6% of interviewees in this group choosing this element. Weekday Cross, which lies at the junction of High Pavement and Fletcher Gate, has a long history that dates back even before the Norman Conquest (Moughtin *et al.*, 1999). Then named Weekday Market, it was Nottingham's main market (Wylie, 1853) until this moved to the Old Market Square. It was also the location of Nottingham's old Court House and Town Hall until these were demolished in 1896 to make way for the railway line (Figure 5.19). Even after the decline of industrial lace manufacturing in the early 20th century, Weekday Cross remained the centre of the domestic lace trade and the main symbol of the Lace Market (Nottingham City Council, 1989). Today, Weekday Cross is the site of the Nottingham Contemporary art gallery.

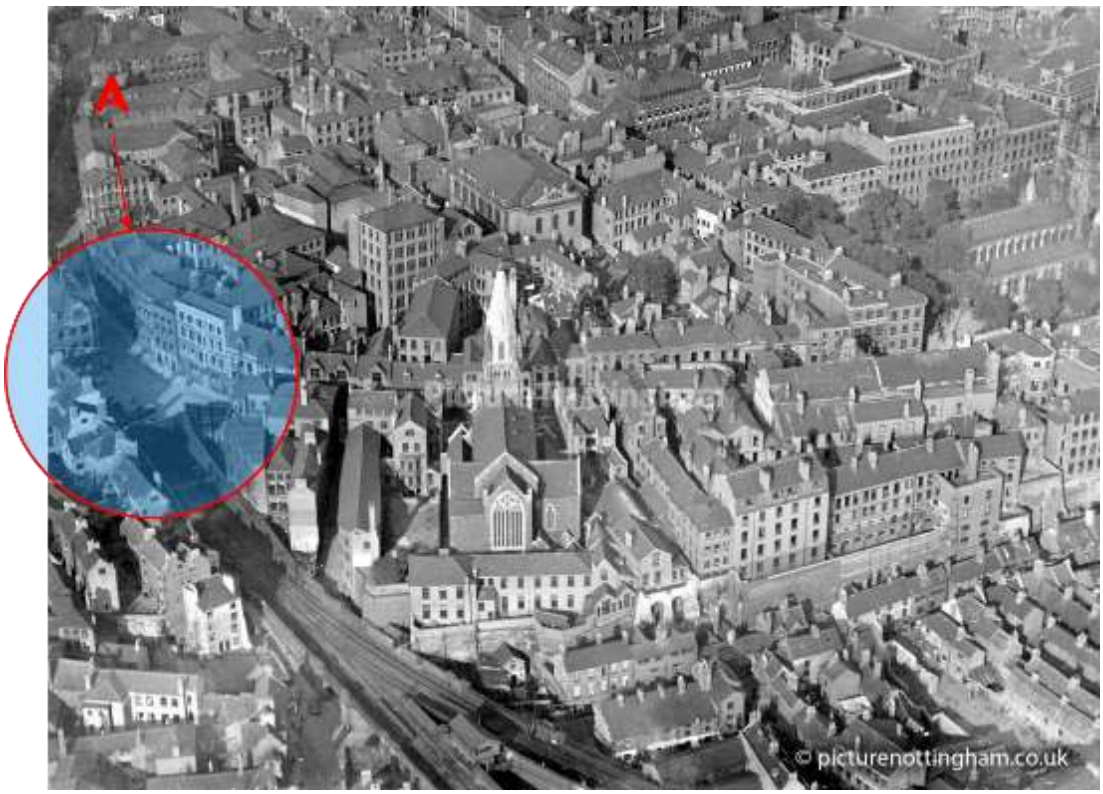


Figure 5.19: Weekday Cross at the beginning of the 20th century (no date).

Source: Nottingham City Council (2018).

The finding suggests that Weekday Cross's eventful history and strategic location, surrounded by important historic buildings such as the Town Hall, still gave it value in the minds of users. The junction clearly informed their image of the Lace Market

as more than half of this group highlighted it in their mental map drawings (see examples of mental map drawings in Figure 5.20).

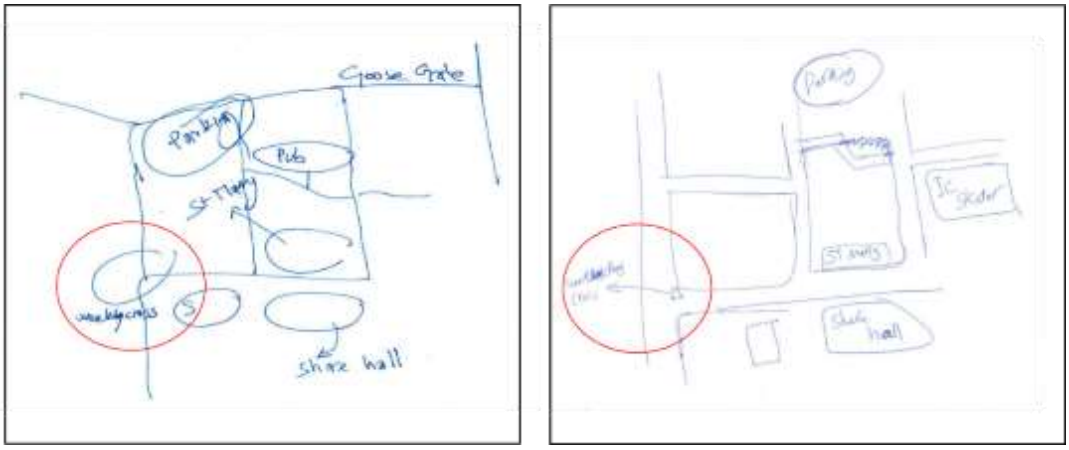


Figure 5.20: Mental maps drawn by members of the pre-regeneration group.

Source: Interview, mental mapping 2018

This junction was described by numerous interviewees as one of the most memorable features in the Lace Market because of its importance in terms of function, historic events and location. Many remembered it being used as an open market before 1990, while several pointed out its importance as a link between the Lace Market and Fletcher Gate, the main street in the city centre. As one respondent pointed out:

> *When I go to the city centre, often go-ahead to Weekday Cross as the first stop and then I direct myself towards places that I want to go, i.e., on the right-hand side is the exit to High Pavement, the left-hand side is Broad Marsh and straight ahead is the train station and Old Market Square. So, it is located in a good place – helps for direction and makes it easy to move around [...] At that time – there was no mobile phone yet – I often met my friends there, where the open market was. Because it is a central location, it was like a meeting point' (PM-1 W-3).*

The above comment suggests that the street intersection at the Weekday Cross played an important role in helping users orient themselves and find their direction within the Lace Market (Planning, 1989). In this way, the node became one of the physical elements within the Market's Street network that enhanced the area's imageability and hence user perceptions.

However, the intersection was also important because of the activities that occurred there (Monkton and Smith, 2009). Interviewees described how it was used as a public market before the regeneration, with numerous stalls and a variety of attractive shops. According to one interviewee,

> *Well, I think also Weekday Cross was distinctive. It was the focal point of the Lace Market where people came to display their wares in the old days when it was used as an open market. (PM-1 V-17).*

The comment suggests that the combination of vital retail activity and a good location made Weekday Cross more memorable and meaningful to users, indicating that node distinctiveness is based not just on the orientation factor but also the activities associated with them. Therefore, "nodes are focal points of activity, such as the junction of paths, meeting places, market squares or places of transport interchange" (Moughtin *et al.*, 1999, p.44). "The types of activities and the intensity of people within and around the nodes encourage engagement and association with the areas" (Ujang and Kum, 2014, p.96). This appears inconsistent with the view adopted by other scholars that nodes are merely strategic observation points or points of transit between places (Lynch, 1990; Yeung and Savage, 1996). Rather, it suggests that nodes, especially in pedestrianized areas, should also be seen as social places or places where people can pursue their chosen activities.

When current users were each asked to identify the three open spaces, they found the most distinctive in the post-regeneration Lace Market, a total of four nodes emerged (Table 5.6).

Table 5.6: Nodes most frequently recalled by **current** users

Item type	**Memorable elements in the Lace Market**	**Interviews N = 26**
Nodes no = 4	Carlton node	54.2%
	Goose Gate node	37.1%
	Weekday Cross	14.2%
	Lace Market Square	8.5%

Source: Interview 2018

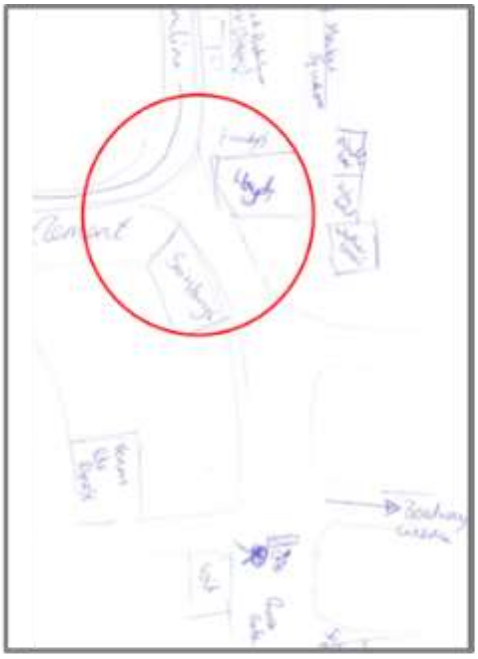
Among this group of interviewees, 54.2% cited the Carlton node and 37.1% cited the Goose Gate node as the most prominent nodes in the Lace Market after 1990. These junctions were considered the most noticeable points because of their standing in terms of both direction and activities. Both nodes are located at key transition points, with the Carlton node forming the junction between the Lace Market and the city centre, and the Goose Gate node forming the junction between Stoney Street and Broad Street. One respondent gave this explanation of why he found the Carlton node memorable:

> *When someone says the Lace Market is Carlton Street, particularly the junction in front of Sainsbury's. I like this area [.....] because it is vital and links many paths together, pubs offering outdoor seating and also Sainsbury's there. At night I used to come by tram to the first stop. I like it, it's always busy and spirited (PF-2 V-13).*

Another interviewee described the most noticeable features of the Goose Gate node:

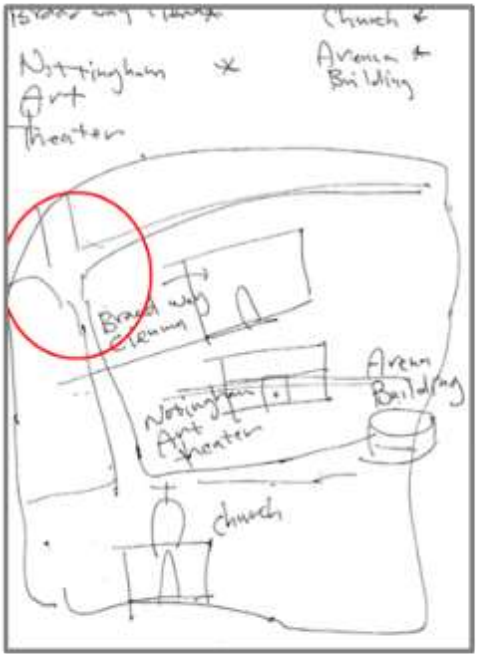
> *When I was studying at New College Nottingham at the Lace Market, I would often leave my bicycle at Goose Gate junction and then go direct to the college [....] because there was not always room at the college. But also, I liked the node because it is normally busy, which makes it safer, and in break time we would go for fish and chips, in front of the junction' (PM-2 R-5).*

It seems that the activities surrounding the nodes were the most identifiable factor for these interviewees; these played a significant role in orienting users and making a sense of place within the spatial configuration of the area. This was echoed by a number of respondents who drew mental maps highlighting those activities that they thought made the node distinctive (see Figure 5.21).

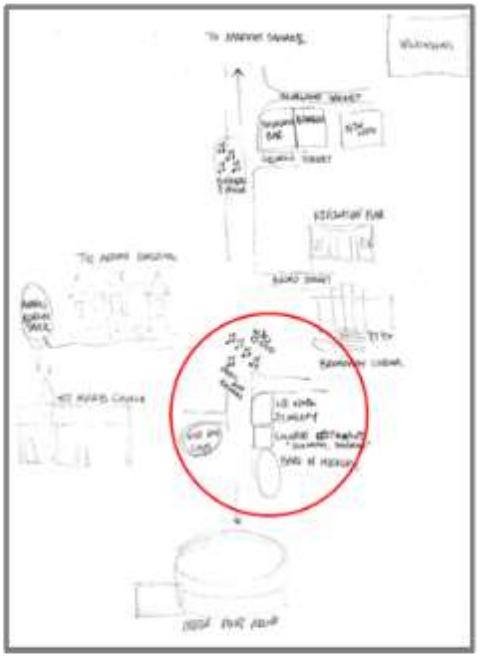


Respondent (PM-2 V

Respondent (PF-2, V11)



Respondent (PM-2, V7)



Respondent (PM-2 V16)

Figure 5.21: Mental maps drawn by members of the post-regeneration group showing nodes and their association with surrounding activities.

Source: Interview 2018

The activities surrounding the nodes helped users to form their mental image of the area, suggesting that the interaction between users and physical environment is key to raising legibility. Indeed, the mental maps show that users recognized nodes by their surrounding activities. For example, Sainsbury's supermarket and Faradays restaurant in the Carlton node are clearly shown in the mental maps drawn by Respondent V-11 and Respondent V-9. Function may have played a role here, with Sainsbury's open for grocery shopping seven days a week and Faradays restaurant offering outdoor as well as indoor dining (Figure 5.24). One interviewee described the importance of these activities in enhancing his perception of the Carlton node:

> *I see the Carlton node as symbolizing the Lace Market. I used to go there every single weekend; normally, we would visit the Faradays restaurant or Lloyds Bar, they are amazing restaurants with great outdoor seating. This area is strategically located and near to the tram stop. It attracts people to move from the Old Market Square into the heritage place to visit local restaurants (PM-2 V19)*

The fact that this interviewee was particularly impressed by functions such as Faradays' offering of outdoor seating implies that active frontages that enable users to interact with the physical environment help improve an area's legibility and make it easier for them to perceive its characteristics Figure 5.22. The findings indicate that a strategic location, comfortable environment and optional activities all help make nodes more readable, though this is inconsistent with Lynch's, (1990) notion of place identity, which assumes that five main elements (paths, edges, districts, nodes, and landmarks), represent meaningful physical features in neighbourhoods that assists the perception of place and help individuals in forming a strong and useful city image. Lynch ignores the social aspects and experiences that influence users' perception of place (Othman, Nishimura and Kubota, 2013; Seamon, 2017; McCunn and Gifford, 2018), but the current findings show that these activities help make nodes meaningful by evoking memories and fostering a sense of place identity.

Figure 5.22: Social interaction in the Carlton node; intersections offering outdoor seating. Source: Almakkas, 2019

Comparison of the data supplied by the pre-regeneration and post-regeneration groups shows a massive drop (from 53.6% to 14.2%) in the number of interviewees highlighting Weekday Cross as a node. The perceived decline in impressiveness may be due to the loss of the open market and the addition of the tram line, traffic lights and a modern building; in other words, the major changes in terms of design and activities (see Table 5.7). Ujang and Kum (2014) show that such a transformation can affect the fundamental characteristics of a node; in this case, radical change reduced the social interaction that was the main reason why the pre-regeneration group recalled this place. This further supports the finding that user-place interaction fosters users' emotional bonds to, and consequently sense of, place (Carmona et al., 2003; Hernández et al., 2007).

Table 5.7: Evolution of Weekday Cross

A: in the industrial period (source: Wilson, 2019); B: during the decline in lace production (source: Wilson, 2019); C: present time. Source: Almakkas 2020.

	A. Weekday Cross, 1895. The Old Town Hall was demolished in 1896.
	B. Weekday Cross 1980, missing the Old Town Hall and appear High Pavement Church.
	C. Weekday Cross, 2020. Shows Art Contemporary Gallery in place of demolished the Old Town Hall

Site observation of the most frequently indicated current nodes revealed that these places are all characterized by a variety of attractive buildings housing coffee shops, restaurants, pubs and other entertainment spots, many with active frontages (see Figure 5.23). These all add to the clarity of the place and contribute to the perception of urban features, endowing meanings that lodge in users' memories. These results indicate that nodes should be seen not just as orientation or transit points, as suggested by Lynch (1960), but as spaces designed to encourage people to stop, inhabit and participate in the life of the place (Carmona and Tiesdell, 2007).

Expanding their role as places for communication and social interaction enables them to play a greater role in fostering the perception of place identity.

The findings show that memory enrichment, concentration and retrieval may be stored in places of stay; that is, an environment where users pause to collect memory and understood their surroundings findings show that memory enrichment, concentration and retrieval may be stored in ‘places of pause’; that is, settings where users stop to assess their surroundings. Miriam Hoffman, (2012) recommends that urban nodes may be ideal points for such perception growth because they are places where users interact with the setting. In contrast, Llewellyn Davies, (2007 p. 62) argues that nodes are key to perception development primarily because of their prominence within the physical configuration of an area; he observes that ‘a clear network of routes or paths allows an easily useable series of connections between places, creating a favourable image in the memory’.

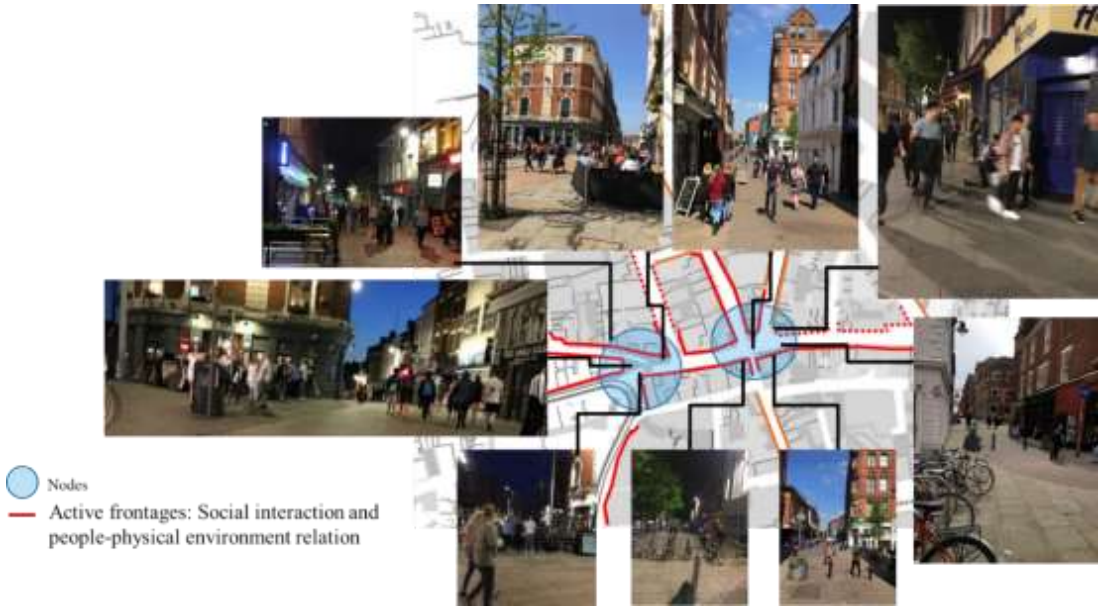


Figure 5.23: Nodes identified by respondents according to legibility of activities.

Source: Almakkas, 2018.

It is interesting to note that the Lace Market Square was mentioned by only 8.5% of current users, despite being one of the costliest regeneration projects undertaken by Nottingham City Council (Figure 5.24). This may be because the square is surrounded by office blocks and offers little in the way of active frontage or activities that support social interaction. The results suggest that the interviewees

were most likely to recall nodes in lively and vibrant settings offering a range of activities and an attractive and comfortable environment. Lace Market Square's modern office buildings and lack of social activities left it unable to evoke a strong response in the interviewees in the same way that the post-regeneration Weekday Cross became much less memorable following the loss of its open market.

Figure 5.24: Lace Market Square is surrounded by office blocks and offers little in the way of activities that support social interaction.

Source: Almakkas, 2018

In brief, respondents' perception of the distinct node was influenced by the strength and kinds of activities taking place in the node and its surrounding area. This intimates that the function of the elements contributes to a legible environment. The user develops a perception of place identity based on his/her observations of and interaction with the environment (Cheshmehzangi, 2012); in other words, the perception of identity is not only based on the physical structure of the place but also takes into consideration activities and functional factors. This means that nodes have the potential to be rehabilitated to strengthen place character. The inactive frontages

of open spaces such as Weekday Cross and the Lace Market Square did little to evoke an image for the respondents. Considering these nodes as public spaces and enhancing their physical features and the activities offered will reinforce the perception identity of the Lace Market as a whole.

5.6 Conclusion

The chapter highlights those elements in the Lace Market that its users regarded as memorable and key to defining its place identity. By interviewing both current and former users, it was possible to discover how perceptions of these elements had changed over time. The legibility of the Market's physical features strongly influenced users' perceptions of its place identity (Relph, 1976a; Carmona, 2007; Oliveira, 2018). Among these physical features, users perceived the Market's buildings, streets and nodes as distinctive, with their perceptions being influenced by physical form, the activities offered, and the meanings acquired. Historic architectural style and location played an important role in defining places and creating landmarks for users, while function and activities afforded them opportunities to create memories, and to better understand the area's history. The third factor influencing how users perceived the physical features was whether they had significant meanings such as historical importance, were related to a specific important event or fulfilled users' psychological or material needs. These factors helped make the physical features or landmarks imageable and memorable.

However, by corresponding between activities features and those with strong meaning it can be found that buildings were recalled not just because of their legibility which has been produced by form and locution but also because they have events and usage stimulates the meanings to users. This was evident in the recognition of the Pitcher and Piano and New College Nottingham as landmarks, both of which were recalled for both their function and their shape. In contrast to Lynch, (1990), who focuses solely on the recognized legible features of the environment, this study's findings suggest that function also promotes place image.

Diversity of activity along streets was found to enhance the perception of place identity. Distinctive streets in the Lace Market had a range of shops, cafes and pubs providing local or traditional goods and services. This diversity can increase the chance of interaction between users and the place's physical components. In line with

several previous studies, including (Jacobs, Moudon and Hinshaw, 1993; Montgomery, 1998; Gehl, 2010b), the present research supports the idea that diversity of activity increases user engagement and enhances the perception of urban identity.

The findings suggest that function is the key factor in whether distinctive elements are perceived as landmarks. Newly built landmarks were judged by just their function and use, while older structures were regarded as landmarks because of both their function and physical characteristics. The result signifies the importance of function in shaping users' perceptions of both new and traditional buildings. For example, in the new elements, activities were attracting user's memory by fulfilling their needs, while activities were the stimulus to depicting the character of the historical place through continuous interaction with the physical characteristics. In contrast to Lynch's theory, (1960), these findings suggest that buildings become landmarks not just because of their physical construction but because of the social interaction users have there; users are the important elements that save places active and functioning (Kaymaz, 2013). Urban activities underlie the association between a place's physical features and its users, with the physical meanings of a place (houses, streets etc.) being shaped by this relationship. Since maintenance of the constructed legacy is one of the main worries in sustaining urban identity, it makes sense to protect and revive the meanings of old buildings and heritage structures by putting them to use for compatible activities that encourage people to experience these places.

The findings show that walkability is the most significant attribute in supporting users' interaction with place and influencing place experience. Areas such as Goose Gate and Broad Street received positive reactions from interviewees because they are pedestrianized places offering shopping, recreational attractions and outdoor seating. They were seen as meaningful and to reflect place identity more than non-walkable places. The findings highlight the need for policymakers, designers and managers of public spaces to create pedestrian-friendly environments and encourage a variety of activities that provide a sense of belonging for city residents.

The results presented in this chapter highlight the need for policymakers and designers to consider users' environmental perceptions when developing and

redeveloping urban places. Chapter Six presents and discusses the findings regarding the meaning and activity factors.

Chapter 6 : THE EFFECT OF ACTIVITIES ON PERCEPTION OF PLACE MEANING

6.1 Introduction

This chapter aims to reveal the factors related to meanings of urban places. As place meaning is a shape of assembly or connection among an individual and a setting (Montgomery, 1998), the chapter focuses on effective dimensions of activities which contribute to developing the meanings attached to the place.

The objective of the analysis is to identify how activity evokes meaning associated with place identity.

The chapter considers five main themes: changes in place meaning, sense of belonging and pride, place boundaries, sound and smell, and socio-cultural characteristics. The discussion draws on the data gathered via documentary review, interviews and site observation to identify patterns, similarities and differences in the meanings attributed to the Lace Market by its users over time.

6.2 Intangible characteristics

Although place identity is primarily influenced by aspects of the physical environment (Lynch, 1960; Castells, 2009), it has long been known that the non-visual or intangible features that form a place characteristic and outstanding also contribute meaningfully to place image (Relph, 1976b; Carmona, 2007; Jarratt *et al.*, 2019). These may include smells and sounds that stimulate the senses (Gieseking and Mangold, 2014), historical events and socio-culture. What Bennett (2014, p. 658) calls the ‘multiple social relationships stretching between past, present, and future generations and places’ add significantly to place meaning (Sepe, 2013a). Since intangible characteristics are often the product of users’ experience of a place (Gieseking and Mangold, 2014), they are relevant to this study’s investigation of urban activity and how this generates meaning and place identity. All those intangible elements identified by the respondents in the semi-structured interviews or cognitive maps or that were observed by the researcher were considered as perceptual elements.

6.3 Changes in place meaning

This section pursues to understand the change of place meanings. Examine the meanings that person develop with places through the life path experience and memories of the Lace Market in time, with a focus on activities.

As explained in Chapter 3, data was gathered by conducting semi-structured interviews with two groups of users: those who knew the Lace Market before 1992, and the area's current users. Comparison of this data reveals how the meanings ascribed to the Market have changed over time as land use and activities in the area have altered. Participants were requested to respond the following question:
What comes to mind when someone mentions the Lace Market before/after regeneration, and what does the Lace Market meant to you?
The interviewees tended to respond in one of three ways: those who saw the Lace Market first in terms of its physical characteristics, those who placed emphasis on the activities taking place there, and those who saw it mainly as an area of historic interest. A few participants of the last group also saw the area in economic terms, as a formerly cheap area that has grown expensive as it has become more fashionable.

6.3.1 Perceived place meanings, pre-1992

The interviews with group one was designed to gain data about the experiences and memories of Lace Market users from the pre-regeneration period. To make themes and typologies representing the interviewees' ascription of meaning to place, the resulting transcripts were coded (Neuman, 2014). Firstly, the coding was collecting all describing as interviews express (e.g. 'Cheap area', 'run down', 'Victorian architecture', 'Lace manufacture', 'St. Mary's Church', 'Traditional buildings'), but these narrative codes were split into classifications. For instance, 'Traditional structures' and 'Victorian architecture' were considered with 'physical environment', while 'Lace manufacture' and 'Good shopping' were classified under 'activity and memorable events. The frequency with which the codes appeared in the interview transcripts was then recorded to produce a model mapping the meanings directly assigned to the Lace Market by the interviewees in this group (see Table 6.1).

The analysis of word frequency indicated that meanings were most likely to be attributed to the Market on the basis of its physical characteristics (40.6% of the

recorded items), suggesting that place meanings emerge from the relationship between individual and physical environments. However, the second biggest category of responses (34.7%) was from interviewees claiming that the Lace Market had had no meaning for them at all prior to the regeneration because it had not been relevant to their lifestyle or needs. Contextual interpretation revealed that the main reason why these users felt disconnected from the Lace Market was a perceived lack of activity, Just 16.3% of the identified responses attributed meaning to the Lace Market on the basis of the activities that took place there prior to 1992, with the mercantile activity on Hockley and fashion and lace manufacture being the most memorable to users. Only 8.4% of the identified responses indicated that the pre-1992 Lace Market was seen primarily as a historical site or a cheap place to live or visit. No one saw the Market as meaningful for socio-cultural reasons.

Table 6.1: Place meanings spontaneously attributed by the former user group

Category 1 Meaning based on physical characteristics	**Category 2** No meaning	**Category 3** Meaning based on activities and memorable events	**Category 4** Meaning based on historical events or economics
Big buildings and warehouses (indicated 26 times)	Dark and empty area (indicated 12 times)	Good shopping on Hockley (Indicated 13times)	Historic area (indicated 4 times)
Old churches, St. Mary's Church (indicated 17 times)	Derelict buildings (indicated 9 times)	Lace manufacture (Indicated 5 times)	Cheap area (Indicated 4 times)
Impressive architecture (indicated 11 times)	Unsafe area (indicated 8 times)	Fashion trade (indicated 3 times)	Oldest area of Nottingham (indicated 3 times)
Victorian buildings (indicated 4 times)	Rundown and overgrown (indicated 8 times)	Car parking (indicated 3 times)	Ice dancers Torvill and Dean (indicated 2 times)
Redbrick buildings (indicated 3 times)	Deserted and neglected (indicated 8 times)	Bookshops (indicated 2 times)	First Boots shop (indicated 1 time)
Historic architecture (indicated 2 times)	Dirty (indicated 5 times)	Jazz clubs (indicated 1 time)	
Rubble (indicated 1 time)	Boarded-up buildings (indicated 4 times)		
Adams Building (indicated 1 time)	Nothing to do (indicated 1 time)		
Old factories (indicated 1 time)	Not an area (indicated 1 time)		
Big factories (indicated 1 time)	Meaningless (indicated 1 time)		
67 times (40.6%)	57 times (34.7%)	27 times (16.3%)	14 times (8.4%)

6.3.1.1 Positive meanings

Twenty-one respondents from the pre-regeneration group defined the Lace Market primarily through its physical environment, indicating the importance of the physical characteristics of the area's historical elements in shaping how users assigned meaning to their experience.

> *Giving in my talking ten years from 81 to 92 but probably was before that: big buildings, rundown, nothing much happing in them…. From my perspective., red brick buildings they were using for lace manufacture the very big historical buildings in the area where Adams Building, that my media.(PM-1 V-5)*

> *By the early '60s, walking around there on evenings and weekends it was always pretty deserted. Very quiet and calm, so unlike any other part of the town, it was like stepping into another world. I started wandering the quiet streets and found Broadway St. Wow! The buildings were so beautiful. I would frequently walk around the streets near St. Mary's with my girlfriend, it was wonderful architecture and peaceful'. (PM-1 V-23)*

The comments suggest that the relationship between the individual and the setting's physical characteristics is essential in generating place meaning, even in rundown areas. Wynveen, Kyle and Sutton (2012) show that place meaning is shaped by how the individual interprets the physical attributes of a setting. In the first quote, the reference to 'historical buildings' indicates the importance of the Lace Market's physical characteristics in shaping how the interviewee attached meaning to their experience of the area.

The third most popular reason for assigning meaning to the pre-1992 Lace Market was the activities that took place there, particularly the shopping on Hockley, which interviewees saw as central to the vitality of the area, and lace and fashion manufacturing. One interviewee, the owner of a ladies' fashion business, was still able to remember some of his activities in the Market.

> *I can only speak about the period from 1970 until 1992. My memories of the Lace Market are of a series of red brick buildings, close together, a lot of warehouses, and I used to come to some of these warehouses to buy goods for my ladies' fashion business. The two I remember are Christian Market Fashion, which was a cash and carry outlet, and the other one was called Mr Jong. He was a manufacturer; in fact, he manufactured dresses which had a substantial proportion of lace in them. He was a top manufacturer, competing with designers elsewhere in the country. His showroom on Broadway Street was a busy place in the daytime (PM-1 V-1)*

For another respondent, a retired lecturer, the pre-1992 Market had meaning mainly because it offered leisure activities that were outside the mainstream.

> *Going back to when I first moved to Nottingham in 1979, Hockley or Goose Gate were vaguely alternative, a bit different. The area with old warehouses and factories, there was no reason to go into it. The area north of Goose Gate, which is where the Broadway Cinema was, was different. I used to go there. I moved to Nottingham from London in 1979, and it was really good to find a cinema that didn't just show Hollywood films; Broadway was an independent cinema that did not show stars. The Lace Market was not an area I spent a lot of time in because there was nothing there. I would go to St. Mary's Church for concerts and look at the church because it was an old building and interesting to walk around. It was an interesting area, but at that time it was empty, as I remember. Anyway, I remember buildings being dark, I guess dirty, so it felt deserted and neglected (PM-1 V-7)*

The above comment suggests that how users remember a place is associated with the meanings embedded by the activities they undertake there. Interestingly, although the interviewee remembered negative aspects of the area, the meaning they attached to the place was evoked by positive rather than negative memories.

A large number of interviewees ascribed meanings to the Lace Market on the basis of its physical environment, confirming Manzo's (2005) observation that people generally base place meaning on physical setting. The historical characteristics of the Market's physical environment were particularly important here, supporting Farhan, Abdelmonem and Nasar's (2018) view that an area's historical buildings may carry special meanings that enhance place image. The distinctive features or events related with the Market were also significant in this regard, encouraging interviewees to attribute meaning to the area not just as a physical environment but also as a symbolic

or historical environment. Finally, the Market had meaning for some interviewees because they associated it with work or shopping. Activity or actions are a major component of place identity as spaces become saturated with meanings through being used (Tuan, 1980). The various meanings attributed to the Lace Market by the respondents were generally related to positive feelings and expressed a positive relationship between these individuals and this place.

6.3.1.2 Negative meanings

Although the literature on a place belonging and place attachment is rich (e.x Lewicka, 2008; Leonard, 2014; Bontenbal, 2016; Peters, Stodolska and Horolets, 2016; Knez and Eliasson, 2017), there has been less investigation of the dislike of or disconnectedness from a place or negative feeling that can obliquely give to environmental decline and perception of place identity. Therefore, this thesis discusses the aspects of negative feeling and its impact of meanings of place that associated to place identity.

To this end, participants of the pre-regeneration group reveal that the pre-1992 Lace Market evoked only negative memories of neglect, emptiness and lack of activity, leading some to describe the area as meaningless.

> *The Lace Market meant nothing for me… how dark it was going through the Lace Market area in an evening. I used to cut through from Parliament Street or Hockley on to London Road where I lived, near Canal Street, and it was very eerie. I do not remember that at all activity took place in the Lace Market. Overall, it was nothing. The area was meaningless, dirty and with nothing to do. It was not used properly in those days (PM-1 V-26)*

These interviewees remembered the Lace Market primarily as a place lacking any of those daily activities that facilitate social interaction and meet people's needs. As a result, they had never formed the emotional bond which is the basis of place identity. Kudryavtsev, Stedman and Krasny (2012) state that negative feeling of place can happen when features of the place prevent or fail to serve people's needs, and/or make them want to leave from it, while Manzo (2005) observes that individuals generally ascribe meanings to places that are pleasant and convenient to visit. This implies that positive meanings depend on the individual being able to continue experiencing the place and engaging in its activities. Indeed, the term 'place' itself

has mostly been seen as having a positive connotation (Shamai, 2018). Tuan (1980) suggests that unknown settings are blank spaces that only become places when endowed with meaning through lived experience, while Bennett (2014) argues that 'places do not stand alone: they are implicated in networks of relationships between people, places, and activities through time' (p. 669). Given that these relationships are shaped over frequent activity, interactions and visits (Gehl, 2010), any change to or loss of activity that makes a place less suitable to the requirements and sensitivity of people can lead to the loss of meaning and image.

The findings indicate that the Lace Market's meaning as an industrial centre was still significant for some former users, who saw the Victorian architecture and big factories as icons of an industrial past long since lost. For these interviewees, the old buildings represented the area's inherent meaning as an emblem of industrial decline (Williams, 2014). Pearson and Sullivan (1995) describe place as a concentration of historical events and cultural material where previous activity is established physically in the procedure of constructions. For some in the pre-regeneration group, the spectacle of once busy industrial buildings standing unused and neglected was a key influence on their perception of the Market's place identity.

6.3.2 Perceived place meanings, post-1992

In the second run of interviews, current users were asked to indicate what features of the regenerated Market carried meaning for them. Word frequency analysis of the transcripts yielded a range of answers, which fell into four key categories (see Table 6.2). The largest group of responses (49% of the items recorded) ascribed meaning to the Market on the basis of the activities available there, with most interviewees in this group highlighting recreational activity in particular. The second-largest group of responses (32%) referred to the inherited physical characteristics of the Market, while the third largest (11%) referred to socio-cultural characteristics such as the traditional, independent shops and local artisan food. Finally, 7% of the recorded items mentioned the historical significance of the area as something that evoked place meaning.

Table 6.2: Place meanings spontaneously attributed by the current user group

Category 1 Meaning based on activities	**Category 2** Meaning based on physical characteristics	**Category 3** Meaning based on socio-cultural and economic aspects	**Category 4** Meaning based on historical value
Night life (indicated 19 times)	Impressive architecture (indicated 15 times)	The atmosphere (indicated 4 times)	Heritage place (indicated 3 times)
Bars and pubs (indicated 16 times)	Victorian buildings (indicated 15 times)	Trendy place (indicated 4 times)	Symbol of old times (indicated 3 times)
Drinking and fun (indicated 16 times)	Traditional buildings (indicated 14 times)	Kind of people (indicated 2 times)	First Boots shop (indicated 3 times)
Independent shops (indicated 9 times)	Old architecture (indicated 4 times)	Expensive place (indicated 2 times)	It has a meaningful past (indicated 1 times)
Variety of activities (indicated 6 times)		Meeting point (indicated 2 times)	Lots of historical things (indicated 1 times)
Old buildings utilized for modern needs (indicated 6 times)		Social interaction (indicated 2 times)	
Parties and dancing (indicated 2 times)		Type of goods and food (indicated 2 times)	
		Very cosmopolitan area (indicated 1 times)	
49%	32%	11%	7 %

The data analysis revealed that the elements most likely to carry meaning for current users were the activities available in the Lace Market. Contextual interpretation of the Nvivo analysis revealed that these users saw the Market's nightlife and leisure activities as fitting in with their lifestyle and meeting their psychological needs, enhancing their experience of the place and encouraging them to develop a relationship with it. Twenty-one interviewees explicitly based their perception of the Lace Market on positive memories of shared activities: going to cafes and restaurants with friends, enjoying the nightlife at weekends, and soaking up the local atmosphere. One interviewee explained:

> *My impression or image of the Lace Market – it could be the atmosphere there in terms of the activities and kind of people or the type of shops and pubs. Definitely traditional food, because it has some different cafes and shops compared with the rest of the city centre ..... The Lace Market is really famous in terms of traditional buildings, but what makes it more meaningful for me are the services you find as a visitor or resident. Because during your stay in the Lace Market you will find different services and shops, stores, restaurants and cafes which are in the most traditional style. Everything there is*

> *like a museum or gallery – you cannot find it in other places. The Lace Market is meaningful for me because of the kind of activities I can find there (PM-2 R-24)*

Another interviewee associated the Market most closely with its nightlife:

> *What comes to my mind when I think of the Lace Market is partying, honestly? Nightlife? Because the Lace Market is filled with lots of bars and pubs. It's so busy on a Friday and Saturday night (PF-2 V-19)*

Twelve interviewees saw the Lace Market primarily in terms of its spatial and physical character. For these interviewees, it was the area's traditional buildings that made it meaningful, with most referring to the Market's importance as a heritage site. The responses indicate the importance of historical physical features in encouraging users not just to attach meaning but to pass down this meaning from one generation to the next. One regular visitor to the area defined the Lace Market's meaning entirely in terms of the value of its historic buildings:

> *When someone mentions the Lace Market it definitely reminds me of the old buildings. I mean, the buildings are the dominant thing that people recognise about the Lace Market and they tell the story of what has happened to it, because the history came from there and is still there. Even though they have been renovated and rebuilt from the inside, the historic buildings still tell where the whole area came from …. new buildings should not be counted as part of this heritage area (PM-2 V-11)*

Five interviewees from the current user group highlighted the importance of socio-cultural and economic aspects in creating place meaning; one lady (in her 50s) attributed meaning to the Market based primarily on her perception of the area as an expensive tourist trap:

> *I was thinking, the Lace Market, particularly now, has become the "higher end" of Nottingham; it is a very cosmopolitan type area. The locals do not necessarily go there; I think more likely it's tourists …, because… it is the more expensive end of Nottingham. If you go to the Lace Market you are going there to look at the museums, the historical buildings… I see it as high rental entertainments (PF-1 V-5)*

6.3.3 Discussion

Comparative analysis of the interview transcripts for the two groups (former and current users) revealed that the meanings attributed to the Lace Market have changed over time: from a derelict site before the regeneration to a place of entertainment in the years since 1992 (Figure 6.1). For both groups, place meanings were mainly associated with personal memories of specific events and the area's physical characteristics.

Figure 6.1: Transformation of the meanings of the Lace Market over time. Place meanings attributed by A the former user group, B the current user group. Source: NVivo, 2019

6.3.3.1 Meanings ascribed to activities

The word frequency analysis showed that activities played a much more important role in evoking memories and embodying meaning for the current user group than for the former user group. In the pre-regeneration group, just 17% of the recorded responses referred to activities (mainly fashion and lace manufacturing) as embodying the meaning of the Lace Market. In contrast, 49% of the responses given by the current user group referred to activities, making this the main feature creating meaning.

The analysis revealed that meaning creation in the current user group was affected by two key activity attributes. The first attribute is optional activities, it was referred by users as attractive activity evoked meanings, where recreational activities increase due to high demand separated pubs, restaurants and shops. Respondents expressed a

sensation of pleasure related with the optional activities as an attraction element for personal and collective experience. Such these contemplative activities produce a larger liveliness of the place during the weekends and nightlife leading to embed meanings (Sebastien, 2020) that form place identity (Montgomery, 1998). The second attribute was the mixed-use nature of the area, which, interviewees explained, gives rise to more intense pedestrian movement and social interaction. This echoes Gehl (2010), who defines diversity of activity as one of the main conditions associated with increased human interaction. The interviewees explained that their perceptions of the Lace Market were linked strongly to the comfortable and lively atmosphere generated by its mix of sports centres, shops, pubs, offices and accommodation. This is in line with Gehl (2010) and Sepe (2014), who suggest that the meaning of spaces is strongly associated to the potential for social engagement and the variety of activities on offer.

6.3.3.2 Meanings ascribed to the physical setting

The physical environment was an important factor in making the Lace Market meaningful both before and after its regeneration, with both groups assigning meaning to the area based on its physical characteristics (Saar and Palang, 2009; Reese, Oettler and Katz, 2019; Sebastien, 2020). Although most of pre-1992 user group described the area as unliveable, rundown and unsafe before its regeneration, its historical buildings were nevertheless mentioned in 41% of their recorded responses. The physical setting also had value for the current user group, with 32% of their responses referring to the area’s physical characteristics. For many respondents, it was the historical attributes of the physical environment that evoked place meaning, supporting Ujang and Kum's, (2014) and Cresswell and Hoskins', (2008) view that historical buildings may have special significance in enhancing place image.

6.3.3.3 Meanings ascribed by positive experiences

The place meanings ascribed to the Lace Market by interviewees were for the most part based on positive experiences of enjoyment and wellbeing (Ramli and Ujang, 2020) and thus positive perceptions of place identity (Azmi, Ahmad and Ali, 2014). In contrast, those in the former user group who had negative perceptions of the pre-regeneration Lace Market were more likely to describe the area as having no meaning for them, confirming previous findings that meanings are not generated out of

negative feelings (Manzo, 2005). The term ‘identity of place’ normally signifies a positive bonds between people and place, and the strength and importance of the concepts of belonging and attachment mean that research has led to concentrate on this positive affective bond (Manzo, 2005).

6.3.3.4 Meanings promote by a linguistic process

The analysis highlighted the role of the interaction between individual and place in generating place meaning, but it also highlighted the role played by narrative accounts and the media. Some interviewees, for example, cherished stories they had heard about particular places or events, while others ascribed meaning to the Lace Market because of its acknowledged status as Nottingham’s oldest area and an international centre in lace manufacturing, or because of its association with well-known people such as ice dancers Torvill and Dean. The finding suggests that place identities may continue by being carried on in accounts from one person to another, supporting Zimmerbauer's (2008) argument that some meanings and interpretations are repeated and strengthened by stories that provide identity strong and permanent components. Other scholars, however, argue that place identity depends primarily on the feelings and perceptions that are developed by experiencing a place (Relph, 1976b; Hauge, 2007; Ujang, 2010; Shuhana, 2011). These scholars ignore the fact that place identity is an awareness of place that is to a great extent promoted in a linguistic process.

6.4 Sense of belonging and pride

The interviewees felt a sense of belonging to a cultural community organized around a shared history and indigenous social habits. Bennett, (2014) argues that this sense of belonging is central to the formation of place identity. They also expressed pride in the Lace Market as a heritage area and international centre of lace production. These characteristics reinforced the perceived uniqueness of the area and its place identity.

6.4.1 Historical knowledge: international centre of lace production

The sense of pride in Nottingham’s lace manufacturing heritage was especially clear in the former user group. One interviewee, who had known the Lace Market since the 1950s, described local pride in the area’s industrial significance thus:

> *Nottingham people, so proud of the industry, thought that the famous Nottingham Lace could never be replicated elsewhere. In the early '60s, they had no concept that such an important part of their homes – lace tablecloths, chair covers, curtains – would completely disappear from our lives. The talks started about 're-developing the Lace Market'. Some people were alarmed, others thought it appropriate. [I thought] that we would inevitably lose this oasis of peace and beauty in the middle of our town. It seemed, sadly, inevitable (PM-1 V-23)*

Younger Nottingham residents also expressed a sense of pride in the Market's status as an industrial pioneer. The sense that the Lace Market and its buildings are symbolic of Nottingham and its history was expressed by one young interviewee:

> *The Adams Building. It represented an age when Nottingham led the world in the manufacture of lace and was built to impress all who visited ..... My family was proud of Nottingham's history and we regularly took visitors to the Lace Market. We walked through and around the streets, going inside buildings that were open, stopping to talk and ask questions. Taking photographs. And revelling in this living example of Victorian England (PF-2 V-6)*

This interviewee was one of several to explain that their perception of the Lace Market as a place of historical value came from their parents, suggesting that the sense of pride in or belonging to a place is often inherited.

The interviewees were keen to see areas like the Lace Market conserved and repurposed in response to urban change. For one interviewee, it was the combination of heritage and regeneration that made the area distinctive and impressive. Her pride was evident in her keenness to show the area off to guests:

> *I remember meeting a friend from Australia; we walked through the Lace Market just to show him this bit of Nottingham. You know, some people think Nottingham is nothing but shops ... I wanted to show him the history of this perfect heritage bit and the benefit of the regeneration as well. He didn't know this area of Nottingham before, but he had enough imagination to be able to see this regenerated historic area and how it is now liveable and there are places to eat or stay. I think people who visit a city they do not know like to see something different from other cities. They do not want to go to a shopping centre. Anything different is ok, and officially, the Lace Market area is unique to Nottingham' (PF-1 V-19).*

Considering the significance of historic places and events of the Lace Market, most of the respondents associated their perception of place meanings by expressing the proud of the heritage place they belong. This place is self-identity of some people reflect their history and culture (Morton, van der Bles and Haslam, 2017). These accords with the idea that the sense of belonging to a specific place is influenced by racial and social identity, and that culture effects an individual's reply to the environmental setting (Rose, 1995; Belanche, Casaló and Flavián, 2017).

6.4.2 Important historical events

The analysis also showed that ordinary settings can hold meanings and become important because of their link to past events. For example, Goose Gate in the Lace Market is the site of the first Boots Pharmacy, opened in 1849 by John Boot (Clapp, 2013) to offer an affordable alternative to traditional medicines (Figure 6.2). Boots is now a household term with supplies all over the world and a number of immensely successful own-brand series. Numerous local residents expressed pride that this global brand started in the Lace Market.

> *Well, my special place is the Boots building on Goose Gate. The original Boots pharmacy shop. It is a very important building .... no, I do not consider it as just architecture. I mean, this high-quality building was the first Boots shop…. I suggest that the Boots building should be kept as it is now and used as a great symbol of the past because it is part of Nottingham history that needs to be preserved (PM-1 V-12).*

Figure 6.2: A: The first Boots shop, Goose Gate (1885). Source: Clapp (2013). B: The building today. Source: Almakkas, 2018

The influence of the Boot family is still felt in Nottingham through Sir Jesse Boot's (son of John Boot) donation of land for the construction of the University of Nottingham. The Sir Jesse Boot Chair in Chemistry at the University of Nottingham was named in his honour, and a memorial to 'Our great citizen, Jesse Boot' was erected at the entrance to Highfields Park (Figure 6.3). Nottingham residents consider the foundation of the Boots company to be an important part of the city's heritage and part of what makes it distinctive. For this reason, the Goose Gate shop has become imbued with meaning and part of the area's – and the city's – identity.

Figure 6.3: Jesse Boot memorial at the entrance to Highfields Park, Nottingham.

Source: Almakkas, 2018

Another historical event that imbued the Lace Market with meaning for users was its association with Olympic ice dance champions Torvill and Dean, who trained regularly at the Ice Stadium, Lace Market (Figure 6.4). Fourteen of the former user group described Torvill and Dean as symbols of the Lace Market and Nottingham. One retired lecturer explained how local pride in the pair imbued the area with meaning:

The special meanings of the Lace Market pre-1992! Well, I do not know what you mean exactly, but the Ice Stadium, before it became the Arena, it was something everyone from Nottingham knows. Because of Torvill and Dean, they were Olympic ice dance champions and they came from Nottingham and trained in the Ice Stadium in the Lace Market. So, they put Nottingham ice skating on the map and made Nottingham famous for ice skating. Everyone from Nottingham went to the Lace Market to see Torvill and Dean. I think they gave a special meaning to the area at that time (PM-1 V-13).

Figure 6.4: A: Torvill and Dean win gold medals at the Olympic Games in Sarajevo (1984).

B: Princess Diana attends the Torvill and Dean Ice Show, Wembley (1985).

The majority of the interviewees remarked upon the distinctiveness of the Lace Market in contrast to other places in Nottingham. This sense was clearer among former users, who closely linked its special status with its historic buildings, lace manufacturing heritage and the famous people associated with it. The fact that these characteristics are all rooted in the past reflects the lifestyle, culture and self-identity of this older generation. This in line with the theory that the self-identity is the way persons define the place, the place is understood as combined into one's individual identity (Antonsich, 2010; Ratcliffe and Korpela, 2017). This as result of respect for a place is a pure sign that a individual's personal identity has comprised the place. The sense of nostalgia and emotional attachment to this heritage place and its culture was clear in one online interview conducted with a former user who emigrated to Canada in the 80s:

My last visit to the Lace Market was in 2013. My father had passed away at the age of 97, and I had spent a couple of months helping to dispose of his home and its contents etc. At this time an old friend got in touch and we arranged to go somewhere for lunch. He suggested the Kean's Head [Figure 6.5]. This was a new one to me, but when he explained it was beside St. Mary's Gate, I immediately said yes. We had a great lunch there and kept putting away the beer until most of the afternoon had gone by. What a great pub, homely food, a great location and so much life and energy in the surroundings. The Lace Market is alive and well and thriving. After the mistakes of the '50s and '60s, who would have put money on that happening? (PF-1 V-26)

Figure 6.5: Traditional atmosphere of Kean's Head restaurant

A: In front restaurant, B: In restaurant. Source: Kean's Head

The findings suggest that the Lace Market's historic associations and Victorian architecture were perceived by the interviewees as valuable and meaningful, and created a sense of pride in the distinct. The interviewees felt a sense of belonging to the Market, which they saw as representing the history of their town and a rooted socio-culture. This sense of belonging, which, according to Bennett, (2014), is central to place identity is formed through users' everyday lives, physical, and mental interactions with a place that is both attitudinal and cognitive (Castells, 2009). The interviewees referred to many aspects of the Lace Market embody meanings for them, such as the first Boots shop; international lace manufacture distinction by the traditional costumes. This suggests that the historical significance of traditional place holding historic events evoked a lot of meanings, influencing people degree of belonging (Peters, Stodolska and Horolets, 2016). Such historic events occurred in a

traditional area used by people as a source of self-identification (Azmi, Ahmad and Ali, 2014). Respondents from Nottingham used tradition place of the Lace Market for telling others who they are, as they felt such places belong to them and represent their city. Gustafson, (2001) states that people identify themselves more in a traditional place where they feel they belong and that they feel represents them.
The interviewees shared not only their perceptions of the Lace Market pre- and post-regeneration but also their pride in the area. Respondents' commitment related with the power of the place in evolving the sense of inherent, native and national, which defined their culture and belonging.

6.5 The boundary of the Lace Market

The use of the term Lace Market in relation to this particular part of Nottingham dates from the middle of the 19th century" (Oldfield, 1984, p. 191). The name described the main business of the area, but may also have reflected its reputation for producing a high-quality product (Nottingham City Council, 1989). The boundary of the Lace Market was thus clearly marked by how the land was used, who lived or worked there and the nature of its built environment (mainly warehouses), making it imageable to users. Since then, however, the boundary has been extended by Nottingham City Council well beyond the original manufacturing district, raising the question of what if any impact this has on current users' perceptions.

Scholars of urban design argue that a defining boundary helps create a sense of place (Gehl, 2010). Research of mental mapping that has been undertook by Lynch (1990) demonstrates that a readable environment is one that is accomplished of being organised in precise drawings, with urban users, for example, constructing their image of a district based on its features. Therefore, "each district has a boundary where it ends and the next place begins" (Moughtin *et al.*, 1999, p. 46). In other words, users construct their perception of place identity using landmarks and other distinctive elements within specific boundaries (Dovey, 2009). The position of these boundaries may therefore be as important as the nature and extent of paths and landmarks in determining the identity of the district.

The fact that since its regeneration the Lace Market has had no official boundary makes it very difficult to define the district geographically. In order to examine the degree to which the perceived identity of the area is still affected by memories of the

original spatial structure and the historical meanings attached to its name, the interviewees were asked to drew the boundary of the Lace Market on a map. As shown in Figure 6.6, 28% of the interviewees (mostly former users) marked a small area of historical buildings and narrow streets, but 41% marked a larger area that also encompassed new buildings such as the Motorpoint Arena. The result suggests that some former users' perceptions were still guided by a lace manufacturing industry that no longer exists, but that others perceived the Market in more general terms as an area characterized by its Victorian architectural style. This supports Tavakoli, (2010) finding that historical fabric plays an significant role in the perception of urban identity and, as they generally represent the life of previous societies and land-use of area, where there are links from its past to the present.

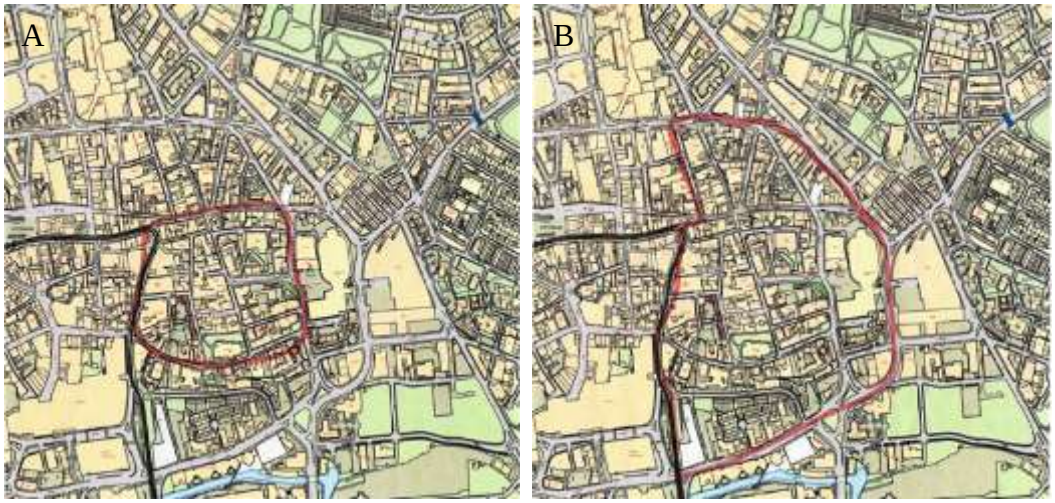


Figure 6.6: The boundary of the Lace Market as identified by 28% of the respondents (A) and 41% of the respondents (B). Source: Almakkas, 2018

The interviewees identified the Market's geographical boundaries conferring to tangible and intangible criteria, mentioning both to spatial characteristics such as the homogeneous streets and historic architecture as well as perception of the area from its name as emerging through its function. This reveals that the material properties of a place can have involved meanings related with their function that reflect social or economic activities of the district. Relph, (1976) argues that the physical environment delivers the backdrop to the activity, but it is also complemented and influenced by this activity. This indicates that a readable of historical elements supports the continuity of identity by having some means to connect and create bonds with the previous image and has been concluded as being essential by some (Lynch, 1990;

Carmona and Tiesdell, 2007; Farhan, Abdelmonem and Nasar, 2018). The distinctive features of the Lace Market landscape, such as St. Mary's Church, the narrow streets and historic warehouses, are all aspects of the place's mental image, supporting meaning and value related to original urban function. They are part of how users define the area and are sources of a web of memories that include those activities and relationships, and that spread to the past, all effectively functioning as a place identity.

6.6 Sound and smell

In order to obtain a deeper understanding of the factors affecting the perception of place identity, and to specify the influential attributes of activities associate human sensory systems, former and current users were asked to identify the smells and sounds that they thought helped make the Lace Market a distinctive and recognizable place Table 6.3. The question was open, with interviewees being invited to list as many sounds or smells as they liked.

Table 6.3: Sounds mentioned by former and current users

Former users (pre-1992)			**Current users (post-1992)**		
Respondents n = 26			Respondents n = 24		
Sounds and smells	Repetition	Percentage	Sounds and smells	Repetition	Percentage
Factory noise: machine noise	8	31%	Noise at night: pubs and night clubs	19	79%
Clatter of boots and clogs on cobbles	7	27%	People chatting, laughing and screaming	13	54%
Sunday services at St. Mary's Church	3	12%	Buskers	11	46%
St. Mary's bells	2	8%	Crowds around the Motorpoint Arena	7	29%
Fires/bonfires	2	8%	Quiet/calm	2	8%
The smells in the finishing room	2	8%	Tram sounds	1	4%
Occasional sounds of glass breaking	1	4%	Food smells	1	4%
Bicycle bells	1	4%			
Total of Indicated sounds: 26 times			Total of Indicated sounds:54 times		

Source: Interview, 2018

Table 6.3 shows that both groups of interviewees associated the Market with sounds rather than smells. Among the former user group, factory noise was the most memorable sound, mentioned by 31% of the group, followed by the sound of boots on the cobbled streets (27%) and Sunday services at St. Mary's Church (12%). In contrast, among the current user group, the most frequently mentioned sounds were nightlife noise (mentioned by 79% of interviewees), followed by chatting and laughter (54%) and buskers (46%). The fact that fewer sounds/smells were mentioned by former than by current users. Those sounds that former users did remember, such as machine noise, played a key role in shaping their sense of the place. The importance of such environmental stimuli in evoking feelings and memories was highlighted by one interviewee from this group:

> *In '73, I myself worked at the Probation Office opposite what is now the Galleries of Justice, then called Shire Hall. During the day it had a lot of life with people coming and going and factory noise …. The machine noise and the chatter of people coming and going. There was always a sense of people working when you went through during the day. Lots of families worked together in the factories, sisters, cousins, aunts, there was always the sound of friendly chatter' (PM1-W23).*

Another older user was even able to divide the quarter into three distinct areas – the textile-manufacturing area, the shopping area and the derelict area – on the basis of its sounds:

> *In the period from '65 until 1982. I used to come to some of the warehouses to buy goods for my ladies' fashion business. There were many factories specializing in textiles around St. Mary's Church, I still remember the sounds of machinery and people going to and coming home from work, chatting together. The shops on Carlton Street and Goose Gate included butchers, stationers, jewellers – and a pub. And, of course, Little Woolworths on Hockley. This area was buzzing with people and traffic sounds. The area beyond Stoney Street was quiet, no sound with derelict buildings (PM-1 W-1).*

For this user, still able to remember the character of the area after more than 40 years, sounds served as markers of how the place was used. The sounds of machinery, shopping, traffic and quiet neglect were all key sensory characteristics of the Lace Market pre-1992 that shaped his perceptions of the place and aroused memories. this

consist with Lynch theory, (1990, p. 8) refers that how people feel underfoot, "what they can see, the smell of the air, the sounds of bells and motorcycles, how designs of these sensations form up the identity of places".

Table 6.3 makes it clear how the characteristic sounds of the Lace Market have changed over time with the activities taking place in the area. The present sounds have more power than pre-1992 on people image (perception) the area, may be due to the lack of activities in the area before its regeneration. In contrast, the Market today is rich with recreation activities and opportunities for social interaction that stimulate all the senses such as pubs noise played a key role in shaping their sense of the place. Nineteen of the current user group identified the Lace Market primarily through its night-time noises. One interviewee stated:

> *I can easily recognize the Lace Market through the pub music and people sounds that suddenly appear when the tram doors open. I can hear people chatting and laughing, so I know it is the Lace Market tram stop and I should get off. The buskers on the corner of Carlton Street provide a unique feeling, which would never be found elsewhere' (PF-2 -V-2).*

These interviewees referred mostly to role of sounds of celebration and enjoyment in perceiving identity of the Lace Market, such as buskers, pub noise and the buzz of conversation in which they can remember and distinguish the area from other places in Nottingham. The importance of these features was confirmed by the site observations conducted in Goose Gate and Carlton Street, which showed pedestrians regularly stopping to watch the buskers (Figure 6.7) and crowding into pubs, coffee shops and restaurants. 'Noise-generating activities can enliven central spaces - whether stalls, music or seasonal entertainment' (Llewellyn Davies, 2007, p.100). These entertainment spots add to the 'buzz' of the area and generate a soundscape that enhances the distinctiveness of its streets.

Figure 6.7: Pedestrians stop to listen to buskers on Goose Gate and Carlton Street.

Source: Almakkas, 2018

Analysis of the cognitive maps drawn by current Market users showed that buskers were considered by some to be an intangible perceptual factor of place identity. One sketch drawn by a current user (see Figure 6.8) highlighted the role that buskers played in shaping imageability and the perception of place identity for them. Former users were less likely to include intangible features in their maps, possibly because the passage of time made such details harder to remember, or because they did not know how to represent them pictorially.

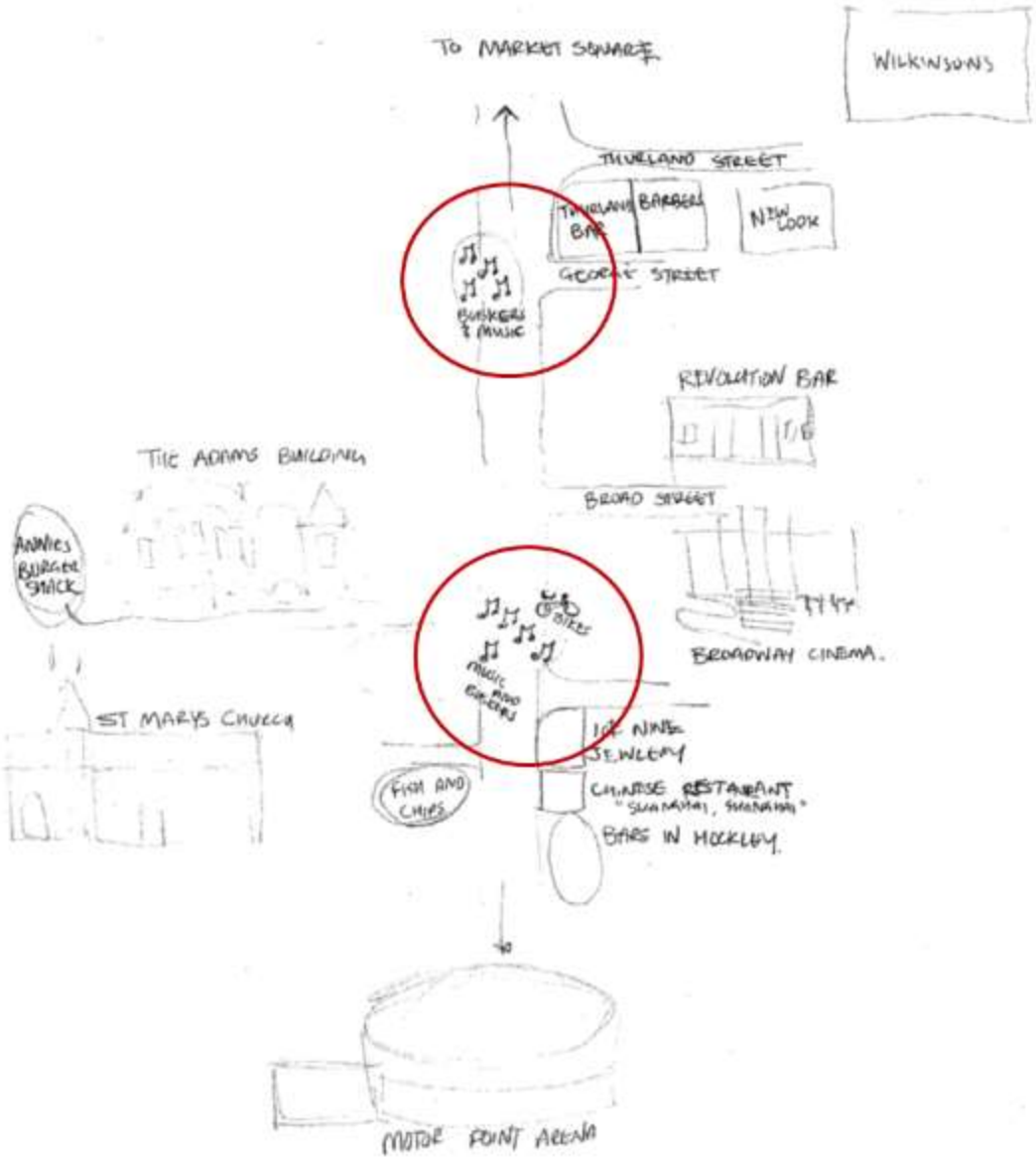


Figure 6.8: Mental map showing the intangible features of the urban environment as sensory dimensions.

Source: Mental map, 2018

Both groups of interviewees were able to define the Lace Market through the distinctive sounds they heard. In this sense, the sensation aspect emphasizes the perception of a particular place, such as sight, smell or sound (Carmona, 2010). This supports the findings of previous studies state that sounds reinforce place meaning (Sepe, 2013) and visual landmarks (Lynch, 1990), and by combined sound with the function was easily influenced the user perception of the area meanings by stimulating his senses.

These sounds reflect the density and type of activities taking place and are one of the most important indicators of image. Lynch, (1990) explains that what one can hear such as the sounds of bells and motorcycles make up the lifestyle of places. This meant that people sensation as sounds emitted from activities contributes to the image of a place, then people interpret or perception the image accordingly.

This supports a finding of Bell, (1990) that perception of place identity is the product of a sense of place (sensation); but it is no manifest where sensation ends, and perception starts. Carmona, (2010, p. 110) argues that "perception includes gathering, organizing and making sense of information about the environment, whereas sensation relates to the single biological actions obtained by place stimuli". He describes hearing as one of the most important senses in interpreting and sensing the environment:

> *'While visual space is sectoral, our arc of vision involves only what lies before us – 'acoustic' space is all-surrounding, has no obvious boundaries, and, in contrast to vision, emphasizes space rather than objects in space .... While vision is information-rich, hearing is information-poor. Hearing is, nevertheless, emotionally rich – screams, music, thunder arouse us; the flow of water or the wind in the leaves soothes us' (p. 111).*

The sounds of the post-regeneration Lace Market were more significant for users because of the density and type of activities taking place there. Pre-1992, when the Market was derelict and rundown, there was only a relatively meagre soundscape to stimulate an emotional reaction from users. In contrast, current users were able to distinguish the Lace Market by its soundscape; screams, music and laughter enhanced their experience and helped define its place image. This result suggests an association between acoustic sensation and vital, liveable places and rich activity. Intangible indicators such as sounds that are related to memories can provide guidelines for users to define place identity. Thus, place identity is associated with a sense of place that evokes people's sensations toward distinctive aspects.

6.7 Socio-cultural characteristics

In psychology, the place has been described as a socio-physical structure (Raymond, Kyttä and Stedman, 2017). "Place identity is socially constructed from the personal meanings provided by people to both physical location and its subjectively

remembered history" (Huovinen *et al.*, 2017, p. 21), making it an outcome of the human ability to create and utilise meanings (Eräranta *et al.*, 2016). White, (2013) describes culture as the characters and understanding of a specific group of people, counting language, religion, cuisine, social habits, music and arts. These socio-cultural characteristics distinguish one community from others and influence how it interacts with and perceives place.

The Lace Market's perceived identity today is shaped by both its physical authenticity and its socio-cultural life. Goose Gate, St Mary's Gate and Broad Street are examples of public spaces where the culture of the area's users is expressed through the production and sale of homemade food, local drink and traditional crafts, while most of the area's former churches and chapels have been converted to new uses as pubs and restaurants. The unusual socio-cultural life of the area was mentioned clearly by the interviewees; one respondent – who had known the Lace Market since the '60s – explained how the area's new prosperity and its authenticity have given it new meaning:

> *After the deserted decades, now the Lace Market is a trendy area, one of the expensive parts of Nottingham. As I said, people who are bored with global companies like MacDonald's go there for the independent restaurants, handmade food, fresh food brought from Nottingham farms, not imported from thousands of kilometres away. The atmosphere in these traditional shops is amazing, cosy places, and I like to go there. I normally go to the Kean's Head with close friends (PM-1-V24).*

The authentic culture of the area is also reflected in events and festivals such as Pride and the annual Light Night Festival on 7 and 8 February, when the streets of the Lace Market come alive with the work of artists, musicians and DJs, and the entertainment includes window displays, fashion shows and dance performances (see Figure 6.9).

Figure 6.9: Light Night Festival, the Lace Market.

Source: Almakkas, 2018

The Lace Market is one of the oldest districts in Nottingham, more than a thousand years of important events experienced its places (Oldfield, 2002). Today, the area may merge history with modern, independent culture, but its identity remains rooted in the past. This implies that the meaning of site includes special importance descending from earlier stories and current a position that defines the identity of a place, as well as cultural principles, remains rooted in existing users play an important role in defining place identity. This agrees with the notion that a powerful sense of belonging to a special place is affected by racial identity, and culture affects how a group reacts to its environmental setting (Rosenfeld, 2000).

6.8 Conclusion

This chapter highlights the characteristics that are associated with meaning and which play a vital role in defining place identity. It was found that the meanings associated with place identity are shaped by three key factors: the range of activities available, attributes of the physical setting, and perceived historic and cultural value. The attribution of meanings to a place requires distinction, the definition of differences and similarities, and hence usually comparisons with different places. The distinction is further regularly connected with the positive or negative valuation of a place, with

the meaning being linked to satisfaction and wellbeing. Continuity in fulfilling the user's needs is fundamental to produce and maintain meaning.

The interviewees mainly ascribed meaning to elements that had generated positive emotion and feeling; those interviewees who expressed negative feelings toward some aspects of the pre-1992 Lace Market commonly linked this negative feeling with the view that the area had no meaning, confirming the findings of previous studies that negative feelings do not produce meanings (Manzo, 2005). For this reason, most place identity research has tended to focus on the positive affective bond between place and user.

Local characteristics such as the restaurants, cafes and festivals are important indicators of the Lace Market's lifestyle and culture. The meanings that interviewees attributed to the environment were closely tied to local community values, which are rooted in tradition and an independent spirit. The Lace Market lacks the usual global brands; there is no Costa or Starbucks, Pizza Hut or Zara. Instead, the local shops and markets attract individuals to an insider's community as reflect their culture.

A continuing relationship between people (society) and physical settings (space) is crucial to produce meanings and maintain urban identity. The data revealed that the lack of activity in the Lace Market pre-1992 eroded its relationship with locals to the point that it lost much of its meaning for them. Since its regeneration, however, the recreational activities available in the Market have brought vitality to the place, creating opportunities for the forging of new meanings (Sebastien, 2020) and a renewed place identity (Montgomery, 1998). The mixed-use nature of the regenerated Market has also supported its revitalization by encouraging more intense pedestrian movement and social interaction. The switch to mixed-use has made the place more memorable for users, confirming Gehl's, (2010a) theory that the meaning of urban space is obviously associated to the potentials for social engagement and the variety of activities on offer.

Place meanings are influenced by sequences of events, users and socio-culture; recalls of earlier experiences and past history, scene components of the place (e.g. important buildings, open squares) and its distinguished character. The different economic activities as well have an important role in promoting attachment to place, while

socio-cultural interactions help develop the feeling of belonging to a community. The functional, emotional and social meanings evoked by its elements are why a place continues to be embraced and found meaningful. This implies that not just physical elements but also personal experience and continue to involve in activities, social interaction, emotions and feelings have a great impact over how meaning is generated.

Chapter 7 : THE ATTRIBUTES OF ACTIVITIES AND THE PERECEPTION OF PLACE MEANING

7.1 Introduction

The previous chapter focused on effective dimensions of activities which contribute to developing the meanings attached to the place, while chapter five discussed how changes in the Lace Market's activities have affected the user's perception of the physical characteristics and landmarks. This chapter addresses the activity attributes in relation to the distinctiveness of the places through enhancing people memory. Therefore, this chapter addresses Research Question 3:

What attributes of activity can evoke perceptions of place identity? and its accompanying Objective: To determine the activity attributes that support perception of place identity.

The qualitative analysis draws on data gathered from triangulating the documentary review, observations and interviews. In the semi-structured interviews, the focus was on two major themes: the main reasons why the interviewees went to the Lace Market and which activities they normally engaged in when there; and which places were important to them or in some other way memorable. The observations were designed to gather data about the type, variety and density of the activities available in those memorable places indicated by respondents in order to identify how these activities contribute to making the place distinctive. Thus, selected memorable and unmemorable places from respondents' data were compared with individuals' activity patterns, movement, spatial interrelations, and the extent to which they interacted with the physical environment in both groups. Across the comparative analysis, the data suggested that there are several important influencing attributes of activities, which play an important role in sustaining the place identity. From the data analysis, the chapter divides the identified attributes into three essential categories, namely: diversity; active frontages; and density, which contribute to making places more liveable and fuller of vitality.

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7.2 Diversity

It has been suggested that the spatial diversity of a mixed-use urban space gives it an advantage in terms of place identity (Carmona, 2010) because it increases the opportunities for user-place interaction (Montgomery, 1998; Gehl, 2010a). The Lace Market's transformation from single to mixed-use allows it to accommodate a diverse set of day-to-day activities, from shopping and recreation to work and study, providing a degree of choice and a range of uses for residents and visitors. For example, Goose Gate, Carlton Street and Broadway Street are a mixture of pubs, restaurants, cafes and boutique shops selling accessories, second-hand clothing and shoes, while the historical buildings of Stoney Street and High Pavement have been converted mainly into offices and a few restaurants and cafes (Figure 7.1). Plumtree Street and Woolpack Lane, on the other hand, are devoted to residential buildings, while wider streets like Belward Street serve as the main access roads for vehicles and are home to modern buildings like the Motorpoint Arena and the Nottingham Bowl. The traffic and the narrow pavements make these the least walkable streets in the Market.

Diversity traditional building uses of Goose Gate, Carlton and Broadway Street: pubs, restaurants, cafes as well as second-hand clothing and shoes

The administration use is the main function of Stoney and High Pavement Street, both contain heritage buildings

Single use of Plumptre St and Woolpack Ln street that are dominated by residential use in modern buildings

Belward Street is modern architecture and fits vehicle use where the sports centre and residential buildings

Figure 7.1: Diversity of land use and activity in the Lace Market.

Source: Almakkas, 2019

It was found in chapters 5 and 6 that the functional aspects have a main role in upgrading the urban elements from being typical into becoming urban landmarks and

play an important role in imbuing meanings to a place. For example, new use of historic settings restored meanings fostered by different activities, which contributed to developing a perception of the new urban identity.

In this section, the impact of the diversity of activity on the area's identity was assessed via observation, and in-depth interviews with both groups: 24 present users and 26 post users of the Lace Market, who were asked regarding the wide variety of daytime and night-time activities carry on now:

Do you find this variety of activity gives a positive or a negative feeling toward the image and identity of the Lace Market?

Contextual interpretation of the transcript analysis revealed that users of the Lace Market were satisfied with adopting mixed-use. The customization of land to serve multiple purposes was recognized by 42 of interviewees (84% of interviewees) as a unique aspect contributing significantly to the Lace Market's identity and image (see Figure 7.2.).

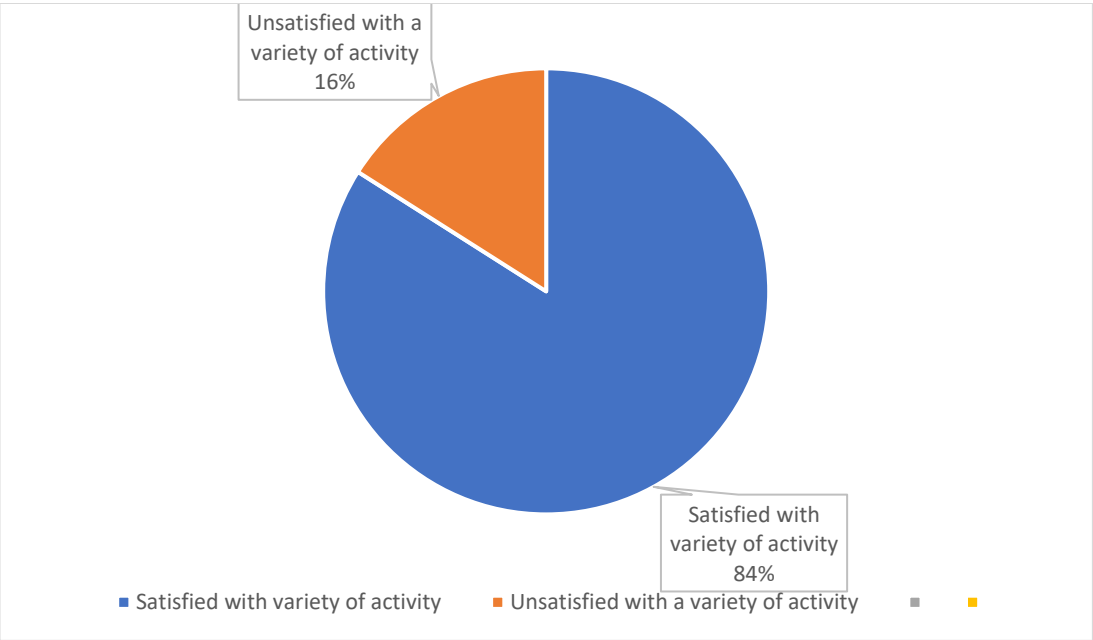


Figure 7.2: shows how users of the Lace Market were satisfied with adopting mixed-use.

Source: Interview, 2018

In order to investigate what attributes of activities encourage current users to develop an attachment to the Lace Market, those interviewees who lived in the area were

asked what was the main reason behind their choosing to live there, how satisfied they were with its functionality, and what they thought of its physical characteristics. The aim was to examine how users perceived the place through experience; that is, the extent to which the area's current functions encourage residents to attach to the area, and how this compares with the impact of industrial activity on former users' relationship with the place. The overall findings of the interviews residents of the Lace Market are summarized in Figure 7.3.

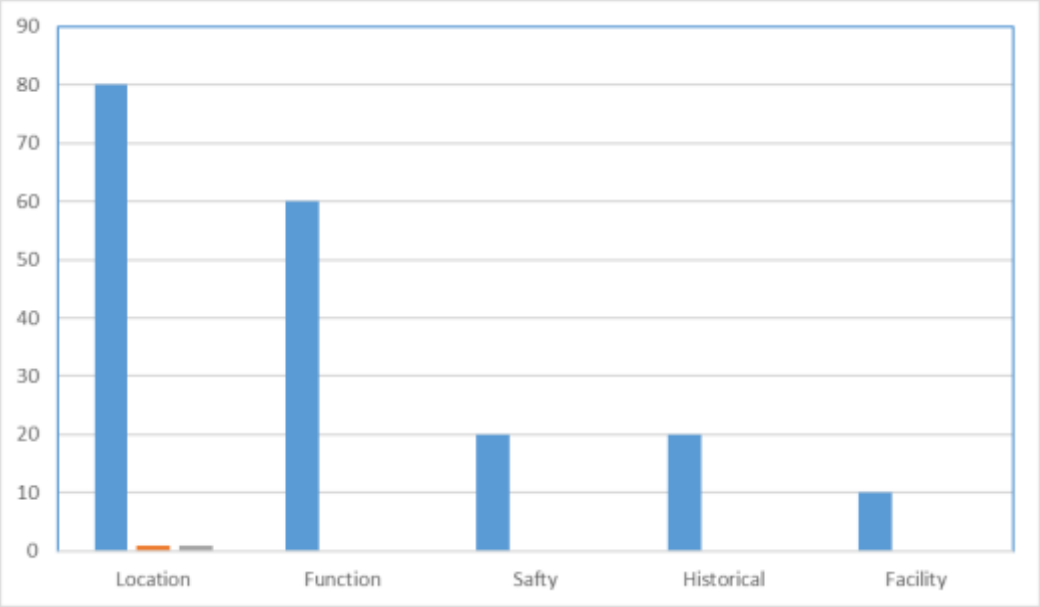


Figure 7.3: Factors associated with resident attachment.

Source: Interviews, 2018

Among 10 current residents of the Market, 80% said they had chosen to live in the area because of the convenience of its location in the centre of Nottingham. One resident explained why he had chosen to rent in the area:

> *I have been in the area for five years because it's close to shopping and entertainment places and, most important, it's near to my university, so I don't use public transport much because I have what I want within or surrounding the Lace Market (PF-2 R-1).*

Sixty per cent of these interviewees had chosen to live in the Market because of the range of activities available. Six of the current residential respondents saying that the diversity of activities on offer had influenced their choice to live in the area. According to two residents:

> *I like the diversity of functions and services; everything I need is near to my flat, especially for entertainment. The coffee shops scattered around the area are places for relaxing or even study, especially in the evenings. (PM-2 R-2).*
>
> *The Lace Market is really famous in terms of traditional and contemporary buildings, but what makes it more attractive for me is the services we can find as residents. Because during your stay in the Lace Market you will find different services and shops and a range of restaurants and cafes; everything you need for shopping and entertainment. Also, the Lace Market is close to everything like the tram, bus stop and even the train station (PM-2 R-9).*

Analysis of the interview transcripts revealed that current residents preferred to stay in an area have function that they saw as fulfilling their basic needs, again confirming the importance of diversity of activity in enhancing the relationship between user and place. The finding supports those of Moulay, Ujang and Said (2017), who demonstrate that residents feel wellbeing and attachment to a place that fulfils their basic needs and that this functional attachment strengthens the sense of place and the continuity of place identity.

This seems similar residents of the industrial era, there were 6,796 people living in the Lace Market (George and William, 1872, p. 54) were dependent on the area because of its economic activity that provided them with an income. The residents-place relationship in the industrial period reflected the dependence of most inhabitants on the work it offered. This highlights the value that users attribute to a place's ability to support their income and meet their daily needs; in other words, it suggests the importance of function – in this case, industrial activity – in making users bond with a place. This aligns with the findings of Inglis, Deery and Whitelaw, (2008) who indicate that individuals may also become dependent on a place for other needs such as accommodation or recreation. These activities can strengthen the relationship between user and place and make them attach to it. Williams, (2014) argue that a place may become more imageable for users as they come to appreciate its importance in satisfying their functional needs and supporting their social objectives.

Impress by mixed land use was not limited to the residents, thirty-four of forty non-resident interviewees also referred to mixed land use as a key characteristic of the Lace Market. One visitor explained that

> *There are many things that attract me to go to the Lace Market, but the most important is the variety of events and activities that fit all ages, as I have two kids. I used to go to Nottingham Contemporary Art with my family every Saturday because they provide activities for kids, so we could have a good time there as a family. I can also drop in on other indoor activities at the Motorpoint Arena, then we go bowling next door. What makes me visit these buildings is the activity or services they provide (PM-2 V-2).*

Other interviewees regard to the variety of leisure activities and the Market's nightlife as fitting in with their lifestyle and meeting their psychological needs, enhancing their experience of the place and encouraging them to develop a relationship with it. Twenty-one of fifty interviewees explicitly based their perception of the Lace Market on positive memories of shared activities: going to cafes and restaurants with friends, enjoying the nightlife at weekends, and soaking up the local atmosphere. They mentioned Goose Gate and Broadway Street as the best places in the area for their combination of pubs, restaurants and traditional shops. When one interviewee was asked why these streets were important to her, she said:

> *Goose Gate and Broadway Street are a hub of attraction to people. In terms of the variety of activities in the daytime, there are a huge number of activities you can do. As I mentioned before, I used to go to shops, cafés, the cinema and even just walking, which is really positive because anyone who lives or visits there can find anything they need for daily life. Normally, families with kids can visit in the day, but in the night the area changes to become louder because the pubs and night clubs attract a different group of visitors' (PF-2 R-4).*

The interviewees saw the diverse activities offered on these streets as a distinguishing characteristic and evidence of its responsiveness to users' needs (Montgomery, 1998; Seamon, 2015). The change in land use from day to night-time highlighted in the previous comment also significantly increases the Market's ability to broaden its appeal to new groups and enhances its imageability. One young interviewee was particularly impressed by the Market's versatility and ability to serve a comprehensive range of functions.

> *On a normal day, the Market is saturated with business, and residential users, but it's still calm. Once, I was taking a walk from the Motorpoint Arena sports centre to Fletcher Gate and there is a bar called Bamboo, I was going to get something there and it was daytime, but I was surprised at the number of businesses and offices around there…. There's a solicitor's practice there, there's an NHS dental practice around there you know, and all of these things and there are the art galleries; Nottingham Contemporary is right at the end, a museum and that's where the Pitcher and Piano bar is…and there are residential buildings as well, but it is very calm and quiet which is really nice for like somewhere central in the city. I think it's good because it has made the Lace Market a place where you can choose to spend your daytime or night-time. You can do what you need to in the daytime and look for something different at night (PF-2 V-2).*

The interviewees explained that their perceptions of the Lace Market were linked strongly to the comfortable and lively atmosphere generated by its mix of sports centres, shops, pubs, offices and accommodation. This is in line with Gehl (2010) and Sepe (2014), who suggest that a meaning of spaces is strongly associated to the potential for social engagement and the variety of activities on offer.

In the case of the Lace Market, current users valued its central location and its ability to accommodate a range of functions. The interviewees' comments were confirmed in the field observations, which revealed that the diverse activities occurring along the streets encourage foot traffic into the area. The mixed-use streets offering a variety of shops and informal activities attract visitors (Moughtin, 2007), while other streets are mainly used by residents or as transition routes (Gehl, 2010a). Jacobs, Moudon and Hinshaw (1993) note that physically, socially and economically diverse places are likely to enjoy longer periods of activity and greater spiritedness, contributing to a more lively and safer urban place. Given that diverse functionality makes users feel more comfortable (Carr et al., 1993; Carmona, 2010), the findings support the idea that diversity is one of the place attributes that enhance users' perceptions of urban space.

7.3 Active frontages

Active frontages are part of the image and identity of vital streets, helping animate the street and making it feel safer, liveable and more vital (Llewellyn Davies, 2007).

“Active frontages are ground floor shop windows or transparent frontages that allow the activity within the building to be perceptible from the street” (Council Nottingham City, 2009, p.51). They foster the relationship between ground floor and pedestrian, attracting passers-by with elaborate displays and outdoor seating (Meeda, 2007; Jacobs, Moudon and Hinshaw, 1993; Gehl, 2010a). The most interacting building frontages are these which spread overhead the pavement or outdoor making a building associate to outdoor life, such as cafes or restaurants, or stores that place some of their goods/stock outdoor (Greed, 2014).

Observations were undertaken to identify active frontages in the Lace Market. The observations, which were conducted once on a weekday and once at the weekend from 9.00 am to midnight, covered all activities occurring in the identified spaces. The findings were recorded on simple maps escorted by drawings, photographs and brief transcripts, with the aim of understanding how each space was being used and to what extent the active frontages affected the types of activities occurring there. The identified frontages are shown in Figure 7.4. The intense interaction between ground floor and pedestrian is considered as primary active frontages which are indicated with red lines, while the secondary active frontages represent low interaction between buildings and outdoor living which are indicated by brown lines. One of the most significant findings of the observations was the disparity in the number of active frontages from street to street, reflecting varying levels of pedestrian-building interaction. Goose Gate, Carlton Street and Broad Street had the largest number of active frontages, with most cafes and restaurants offering outdoor seating for customers.

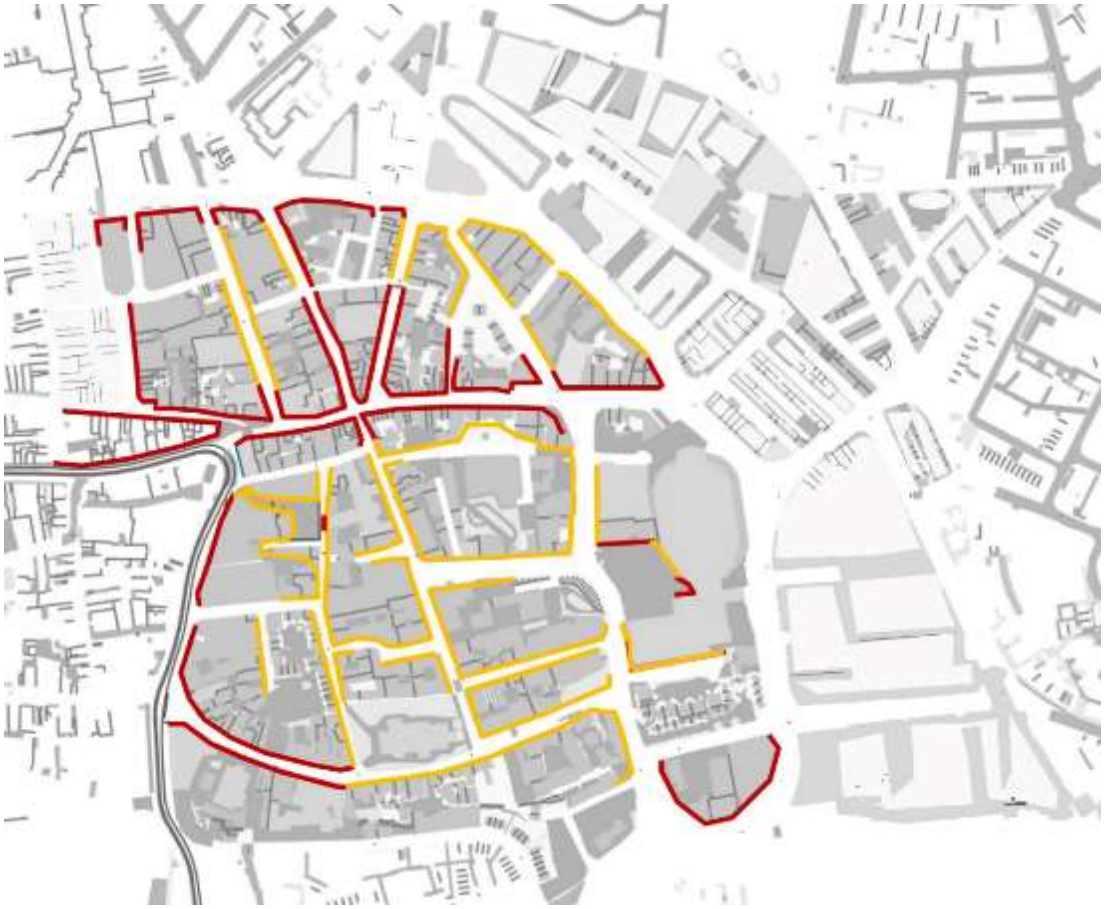


Figure 7.4: Active frontages of the Lace Market.

Source: Almakkas 2018.

Red line: Buildings with primary active frontages (intense activity)

Brown line: Secondary active frontages (Low activity)

Figure 7.5 shows the high ratio of active frontages on Goose Gate, Broad Street and Carlton Street. These streets are characterized by a row of buildings, and diversity of activities. Also, it is noted that permeability buildings and the continuous façade pattern improve the scores for continuous activity. Elsewhere in the Market, streets with a low ratio of active frontages are mostly transitional spaces providing transit routes for residents and some visitors.

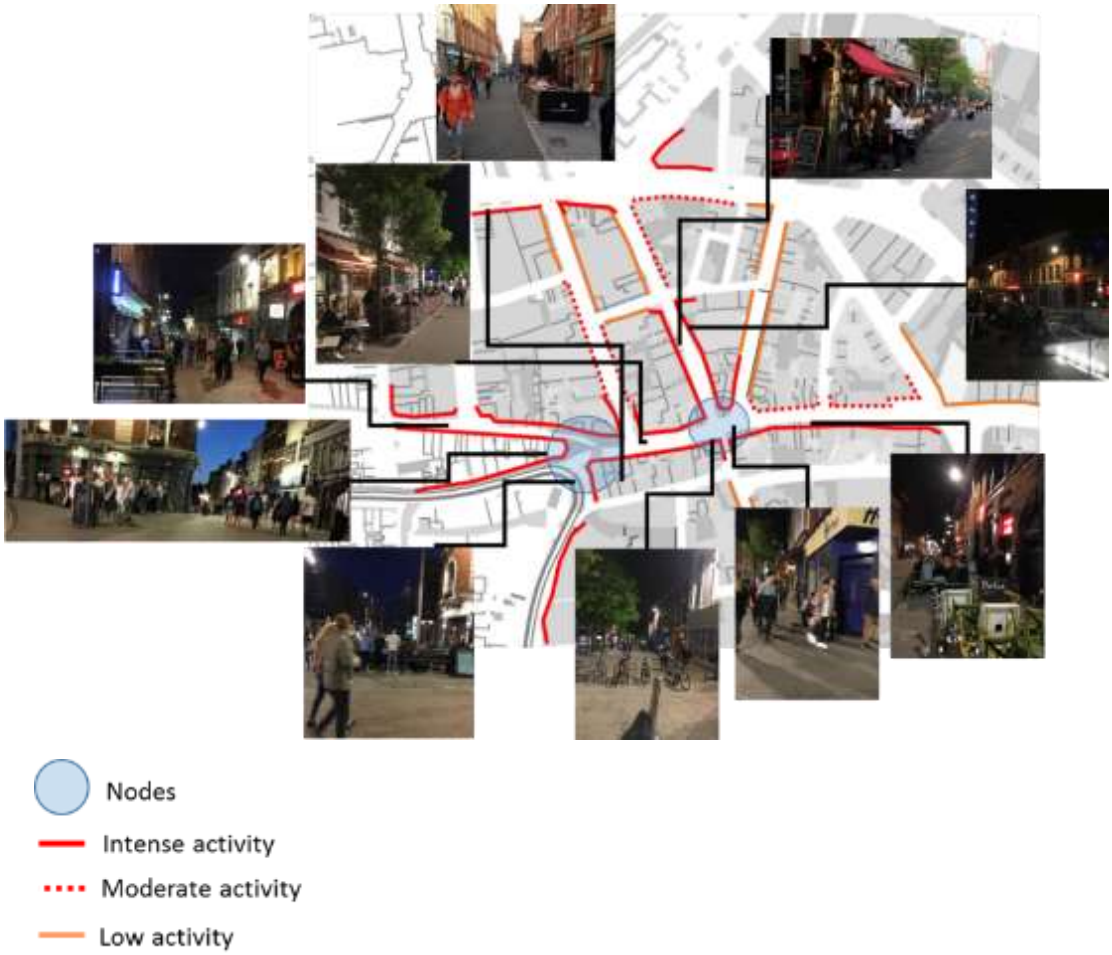


Figure 7.5: Concentration of active frontages on Goose Gate, Broad and Carlton Street

Source: Almakkas 2018

The observations revealed that active frontages enhance social interaction, social bonding and user-place relationships as merchandise and seating spill out onto the street and make it attractive for pedestrians. The interviews confirmed the finding of the observations, with Goose Gate, Carlton Street and Broad Street being described as particularly memorable by 73.9% of the interviewees. For many of these interviewees, the active frontages were the defining characteristic of these public spaces. One interviewee explained that

> *The Lace Market is an attractive place, but for me, I prefer to visit Broad Street because it's a pedestrian street, I feel more confident walking there. There is a massive number of cafés, pubs and restaurants. The street is accessible and easy to reach. Broad Street is considered a vital street and active, and if you are here for a while, you will notice people sitting outside the cafes and restaurants eating and drinking. The shops are close to each other and priority is given to the pedestrian as cars are not allowed on this street' (PM-2 V-22).*

Active frontages allow a kind of movement or visual connection between the individual outdoor and the activity inside, framing both the inside space and the outside street and encouraging passage between the two (Greed, 2014). It benefits to "create a sense of place and mediate between inside and out and between private and public space, providing gradations between the two" (Carmona, 2010, p. 150). By encouraging pedestrians to stop and experience a place, an active frontage may help them make an image of the area.

Those streets in the Lace Market that do not have active frontages and pedestrianized zones tend not to host the same range of social activities. Consequently, while 41% of interviewees described Stoney Street as an important part of the area's identity, they saw it as an example of the area's Victorian heritage rather than as a place for social interaction. Streets dominated by modern buildings and cars, such as Belward Street (described as memorable by just 8.8% of the interviewees) offer no opportunities for social interaction and no attractive architecture, unlike Carlton Street, which was described by 73.9% of interviewees as the Market's most important street. The contrast between these traditional areas with active frontages and modern streets designed primarily for vehicles was summed up by one interviewee:

> *The traditional areas such as Goose Gate are characterized by traditional shops and pubs all set close to each other providing enjoyable spaces. They are sociable places. I feel comfortable being there with my friends, unlike the scene in Belward Street, where large modern façades prevail and there is nothing to do. I just cross it to get to the bowling alley (PF-2 V- 02).*

Passive frontages reduce the opportunities for interaction between user and place and make streets more likely to be used as transitional points only. Scholars differentiate between a place with meanings (place) and another without (space) by referring to social activities: a space is a measurable, objective part of the earth's surface in which activities are conducted, while a place is a part of the earth's surface that has abounded with meanings through subjective intentions, evaluations and interpretation (Tuan, 1980). Biddulph (2007, p. 9) argues that 'the streets and other spaces within the scheme should allow social and domestic life to flourish'. Therefore, passive frontages may adversely impact place meaning if they result in a street being a transitional rather than a social space, making it important to find ways to retain

harmony in the old-style components such as connected activities pattern, diversity, etc., in a modernised style.

The site observations also sought to investigate to extent people interaction in front of active and passive frontages in the Lace Market. In front of the open and active frontages, there was a notable slowdown of walkers to and turn their heads towards the building's façade, with many stopping altogether (see Figure 7.6). Looking through windows and possibilities to see what is occurring inside buildings considerably enrich our experience (Jacobs, Moudon and Hinshaw, 1993); in this case, the view of customers eating and chatting attracted pedestrians to go inside for the same social experience. This shows the relationship between a transparent façade and public activity and its role in making a place imageable. The results of the observations support the findings of an earlier study on the influence of the ground floor on place life, which reveal that the activity level in front of active frontages can be seven times larger than that in front of passive frontages (Gehl, 2010a). Ground floor frontages thus have a high influence on public activity and the perception of place; the more active and interactive the frontage, the more attractive and beautiful it is to the pedestrian. Conversely, the more passive the frontage, the duller and rough it is to the people.

Figure 7.6: Pedestrians interact with open frontage

A: Pedestrians slow down or stop and turn their heads towards the open frontage of Goose Gate; B: Social interaction on the active frontage of Carlton Street. Source: Almakkas 2019

On streets with passive frontages such as Pilcher Gate (Figure 7.7), visitors tended to walk past the buildings more quickly, and there were fewer pedestrians looks to frontage and pose. This implies that those streets whose physical settings do not connect with users are more likely to serve merely as transition points. Ford (2000, cited in Carmona, 2010) demonstrates that buildings with, for example, a large collection of street-level doors are more favourable to social communication than others identified by fortress-like buildings with plain surfaces.

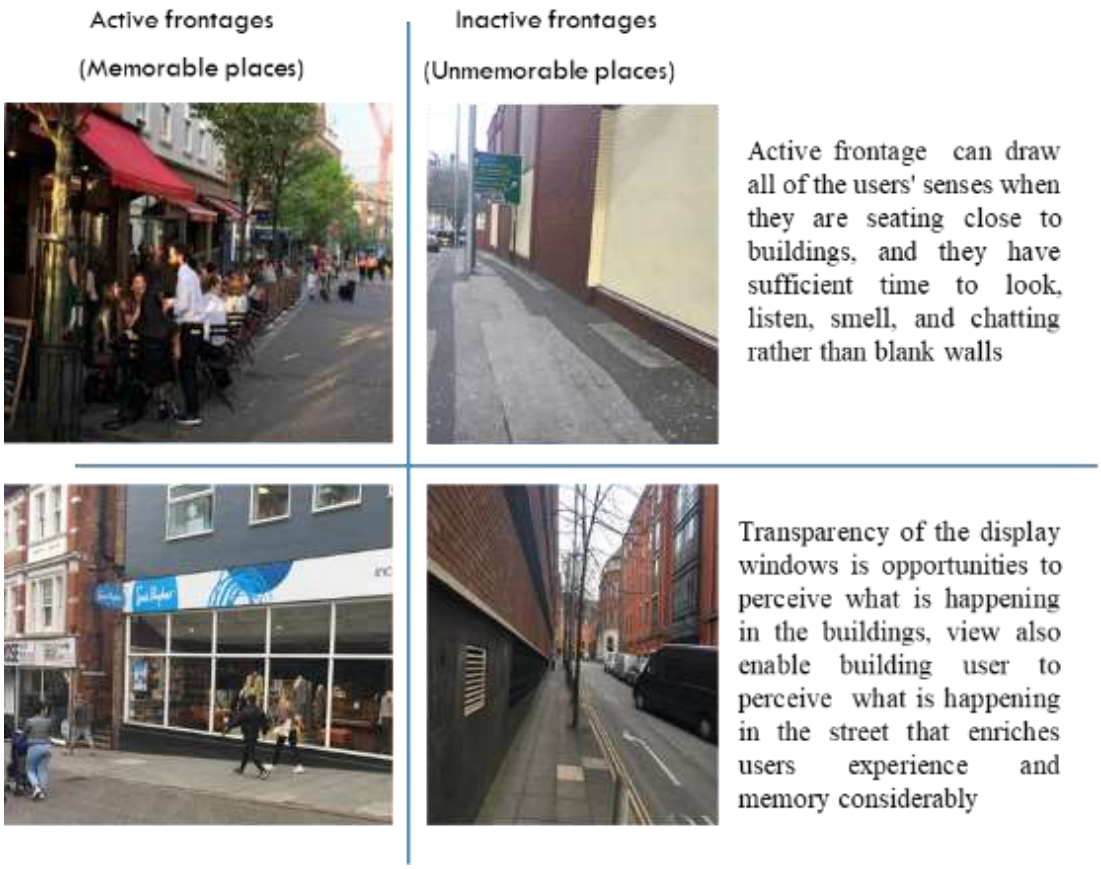


Figure 7.7: Passive and active frontages in the Lace Market.

Source: Almakkas 2018

Overall, the results suggest that streets with active frontages, such as Goose Gate and Broadway Street, engender a stronger perception and sense of place than other streets with less active frontages. Active frontages, along with marketplaces and street activities, provide more opportunities for social interaction and experience (Montgomery, 1998; Gehl, 2010a), enhancing connectivity between user and place, allow people to collect memory about the place. Furthermore, the perception of place is strongly perceived by the transparent frontal and the positive showing regarded by

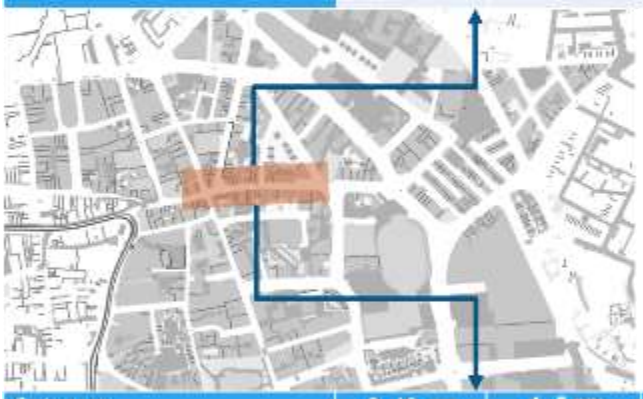
the pedestrian (Llewellyn Davies, 2007). The fact that interviewees saw the Lace Market's active frontages as one of its memorable and important elements implies that increasing active frontage can raise awareness of a place and make it more imageable.

7.4 Vitality and liveability

The ability to accommodate multiple activities that fulfil a range of user needs is what makes a place vital (Obeidy and Dabdoob, 2017). Vitality depends on the density of individuals and pedestrian flows in and surrounding the place over day and night; the type of facilities, number of events and festivals occurred there across the year. it also related to the presence of lively open life, and commonly the extent to which a place saw active or exciting (Montgomery, 1998). In order to measure the vitality of the Lace Market, observations were undertaken to record the numbers of people using its open spaces.

The observation areas were identified from the interview transcripts and mental maps, concentrating on the streets that were mentioned the most and least frequently. These were Goose Gate, which 58% of interviewees described as memorable, and Belward Street, which just 8.8% of respondents saw as contributing to the Lace Market's place identity. By selecting one street perceived as memorable and another perceived as unmemorable, it was possible to investigate the association between vitality and perception of place. Figures 7.8 and 7.9 show the results of the pedestrian counts undertaken on one weekday and one weekend over three time periods.

Category	9- 10 am	4- 5 pm	8- 9 pm	Percentage
Walking	81 P/H	194 P/H	286 P/H	56 %
Standing: Chat/ looking	06 P/H	64 P/H	142 P/H	21 %
react to place : Shopping/Sitting	38 P/H	139 P/H	52 P/H	23 %
Total	108 P/H	397 P/H	480 P/H	985 P/H



Frequency activities during a weekend in Goose Gate Street

Frequency activities during a weekday in Goose Gate Street

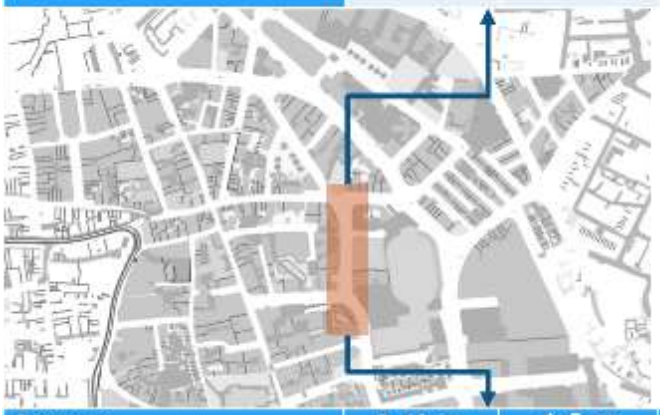
Category	9- 10 am	4- 5 pm	8- 9 pm	Percentage
Walking	103 P/H	194 P/H	85 P/H	72%
Standing: Chat/ looking	04 P/H	32 P/H	06 P/H	04%
react to place : Shopping/Sitting	47 P/H	64 P/H	12 P/H	31%
Total	144 P/H	280 P/H	103 P/H	527 P/H

Figure 7.8: Number of individuals involved in different activities on Goose Gate during the weekend and weekday observations. P/H: People per hour.

Source: Almakkas, 2018

Figure 7.8 shows that 985 pedestrians were noted as engaging in numerous activities across the three time periods of the weekend observation. The most frequently recorded activity was walking (56% of observations) followed by reacting to place (23%) and standing (21%). Across the three periods of the weekday observation, a total of 527 people was recorded, 72% of whom were walking, 31% reacting to place and 4% standing. The count of pedestrian showed that walking was the most frequent activity along the street, followed by a reaction to the physical setting. Static activities such as standing were the least frequent. The results reveal that pedestrian activity was significantly higher at the weekend than on the weekday, particularly at night. However, the pattern of pedestrian activity in the morning was similar at the weekend and on the weekday.

Category	9- 10 am	4- 5 pm	8- 9 pm	Percentage
Walking	46 P/H	128 P/H	152 P/H	94 %
Standing: Chat/ looking	00 P/H	06 P/H	17 P/H	06 %
react to place : Shopping/Sitting	00 P/H	00 P/H	00 P/H	00 %
Total	46 P/H	134 P/H	169 P/H	349 P/H



Frequency activities during a weekend in Belward Street

Frequency activities during a weekday in Belward Street

Category	9- 10 am	4- 5 pm	8- 9 pm	Percentage
Walking	87 P/H	114 P/H	26 P/H	96%
Standing: Chat/ looking	00 P/H	07 P/H	02 P/H	04%
react to place : Shopping/Sitting	00 P/H	00 P/H	00 P/H	00%
Total	87 P/H	119 P/H	28 P/H	224 P/H

Figure 7.9: Number of individuals involved in different activities on Belward Street during the weekend and weekday observations. P/H: People per hour.

Figure 7.9 shows that 349 people were recorded on Belward Street across the three time periods of the weekend observation. The most frequent activity was walking (94% of observations), standing (6%) and followed by sitting (0%). Similar results were recorded on the weekday, when a total of 224 people was recorded, 96% of whom were walking, followed by 4% standing and 0% sitting. It is interesting to note that no one was observed reacting to place on Belward Street on either the weekend or the weekday observation. The results reveal that in the morning, afternoon and evening, there were far more pedestrians on Goose Gate than on Belward Street, and that Belward Street was used only as a transition point.

Figures 7.10 and 7.11 show comparisons of the percentage of people engaged in different activities along Goose Gate and Belward Street in the weekend and weekday

observations respectively. The results reveal that during both observations, the percentage of users who were walking was much higher for Belward Street than for Goose Gate. Walking was the dominant activity on Belward Street, indicating that is used mostly as a transition point. In contrast, Goose Gate recorded much higher levels of social interaction in both the weekday and weekend observations. The diversity of activities offered by Goose Gate's shops and pubs, including the outdoor seating, have increased the number of visitors to the street by linking indoor activities with outdoor life.

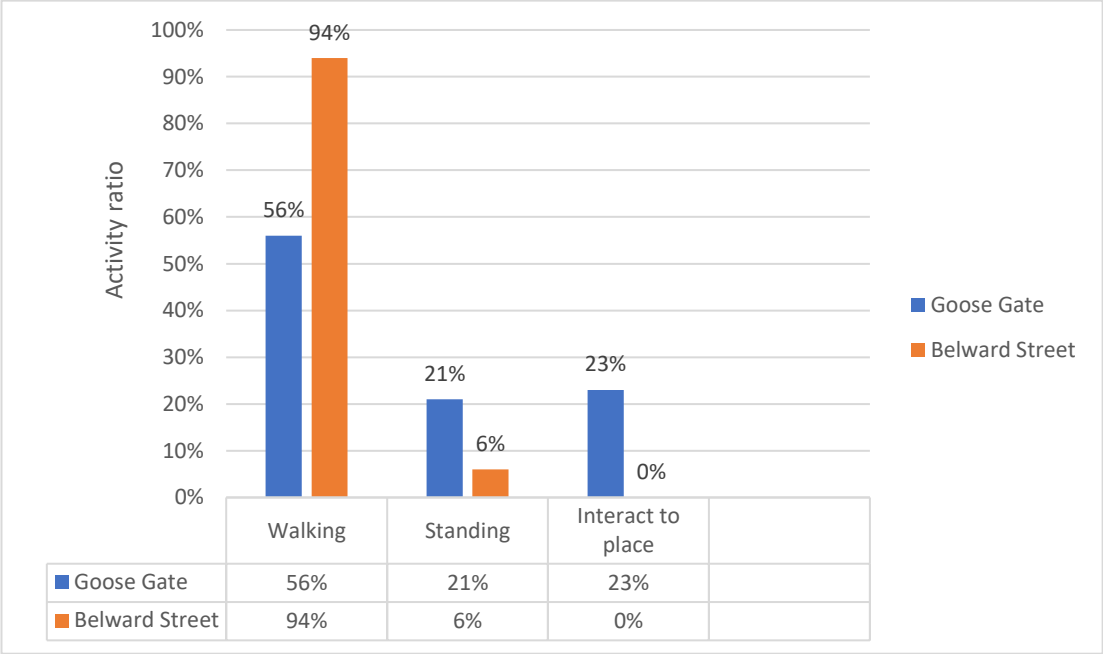


Figure 7.10: Comparison of the percentage of people engaged in different activities on Goose Gate and Belward Street during the **weekend** observation.

Source: Observation, 2018

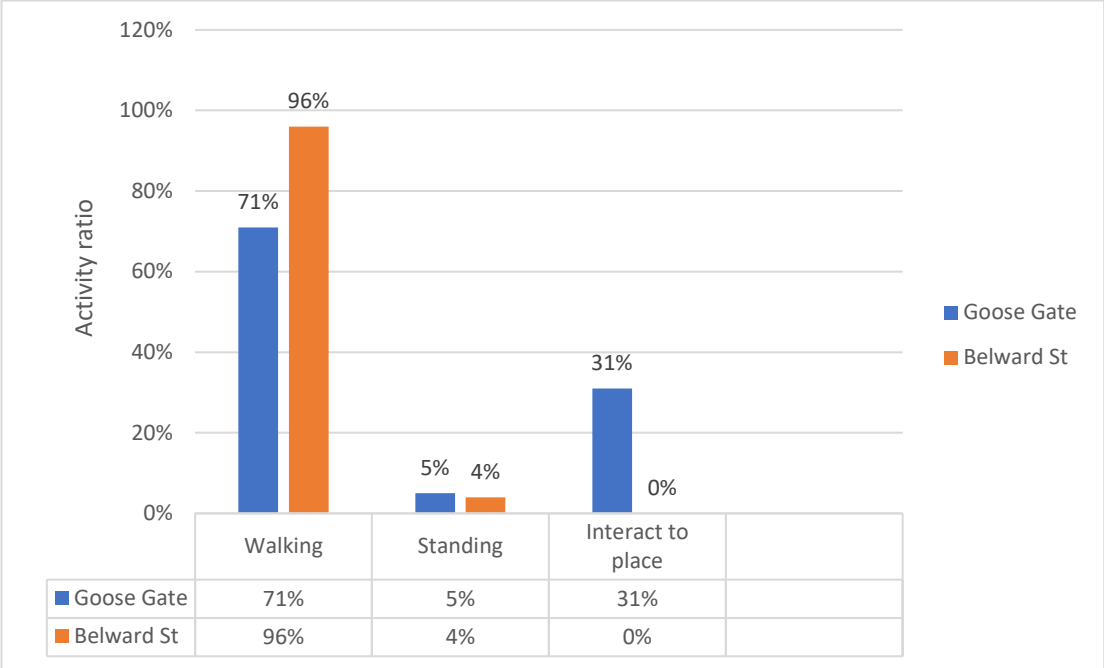


Figure 7.11: Comparison of the percentage of people engaged in different activities on Goose Gate and Belward Street during the **weekday** observation.

Source: Observation, 2018

Another significant factor making Goose Gate vital is its length of use (day and night). During the daytime, social and leisure activities are prevailed in street activities, whether this is visitors shopping for souvenirs, or workers and students going to restaurants and cafes. In the night-time, pedestrian activities are mostly oriented around the pubs and night clubs. This makes the street vital day and night. In contrast, pedestrian activities on Belward Street are mostly confined to walking to work or school or accessing the Motorpoint Arena. Walking density decreases dramatically after 6 pm.

Overall, there was an association between users' perception of these spaces and their vitality. On Goose Gate, the high level of movement and social interaction evoked positive feelings towards the street and prompted 58% of users to perceive it as an important element in the Lace Market's identity. On the other hand, the lack of opportunities for social interaction on Belward Street meant that users lacked any emotional bond with the street and therefore saw it as unimportant. This finding underlines the core assumption of urban design's functional dimension that a "sufficient density of activity and people is a prerequisite for vitality, and for creating and sustaining a viable mixed-use design" (Carmona, 2010, p. 223). It is also an

essential indicator of urban identity (Ibrahim, Mushatat and Abdelmonem, 2014). Urban identity is made from the content of collected observations and relationships with a place. The relations people can have with a place can support them understand the difference between their surroundings and the otherness (Cheshmehzangi, 2012). A street offering both density and variety of activity will be more vibrant and livelier.

The results show that permeability (transparent frontages) can enhance vitality by attracting pedestrians to become more involved in activities such as visiting pubs and restaurants. Users reacting to the physical environment was observed an improvement in the transparent frontages of buildings on the street as a generate for communal and non-compulsory outdoor activities. Optional activities buildings allow greater levels of activity to continue throughout the day and night, also adding to the vitality of the streets. This result confirms previous scholars' findings that leisure and entertainment functions (Kim, 2018) and social communication (Dempsey et al., 2011; Hemani, Das and Chowdhury, 2017) have a fundamental effect on the image and perception of place. Zeng et al. (2018) state that areas where the social interactions and activities reflect a solid sense of community have high stages of vitality.

7.5 Conclusion

The diverse activities taking place in the Lace Market were found to promote a vitality that strongly enhances users' experience and influences their perception of the place's identity. The observations confirmed that the street considered most memorable by interviewees offers a diverse range of activities for users, while that considered least memorable is used principally as a transition point. As the area has become more mixed-use, more categories of people have been able to use it, from students and residents to shoppers, tourists and those looking for social and leisure activities. This has extended the period of activity in the Market into the night, making the area feel not only more vital but safer (Jacobs, Moudon and Hinshaw, 1993), and promoting a sense of inclusiveness and welcome (Dempsey *et al.*, 2011). Vitality, diversity, inclusiveness and value are all activity attributes that help create place meaning.

The results highlight the significance of leisure activities in fostering users' emotional attachment with the place and shaping place identity. The strength of recreation or leisure activities is shown in satisfying the psychological requirements of the people

that excites their emotion, which is installed through users' positive associations with the areas, the sense of pleasure, well-being and safety, contribute to reinforce users' emotional attachment with the area. These emotions are developed as a result of the meanings then perceive it as the identity of the place. Hence, the optional activities contribute to a more influential sense of place and maintain of place identity.

Place identity was found to be associated with activities that support group experiences. the findings suggest that the social activities support relationship with place and inspire their memory imbuing strong meanings to the urban environment. It is evident that the local people through their lifestyles and culture that are rooted in the few beginning decades of their life have stirred by the traditional form of the Lace Market. The observations and interviews revealed a high level of involvement in the activities of lively streets, whose traditional shops and independent cafes and restaurants attract users and enhance social interaction. The fact that these traditional services are all rooted in the past reflects the lifestyle, culture and self-identity of this community. This in line with the theory that the self-identity is the means individuals define the area, the place is seen as combined into one's individual identity (Antonsich, 2010). These activities make up the essence of the place and evoke a sense of community identity. This is since respect for a place is a strong sign that an individual's personal identity has included the place.

The results suggest that places that have active frontages are perceived in more positive terms than those offering less connectivity with users. These active frontages provide a great opportunity for social interaction, mediating between inside and out, and public and private activities (Carmona, 2010). The finding that most interviewees saw the active frontages as one of the Lace Market's most memorable and important elements supports the view that active frontages can enhance users' perception of a place and make it more imageable.

Chapter 8 : THE CONCLUSION

8.1 Introduction

The chapter provides a review of the key findings by considering the research questions and objectives adopted to achieve the main research aim. This chapter is split into three segments. The first section presents a critical analysis of the key findings of the research according to three themes. The second section highlights the contribution of the research to knowledge, and the final section offers recommendations for the development of urban places.

8.2 Main Research Findings

In this study, a four-component frame comprising physical setting, activity, meaning and time periods provided the means to measure place identity. These components were analysed chronologically over three different time periods. Alongside tracing the morphology of the Lace Market, the research examined changes in the perception of place identity amongst two user groups with experience of the area over two time periods. This enabled an analysis of the association of activity to the physical environment, including its meanings and impacts on the process of perceiving urban identity. The study considered that the attributes of activities help to distinguish the built environment that people recall and inspire people's feelings to produce place meanings that are associated with place identity.

As introduced in Chapter One, the research aimed to respond to the following main research question: How does activity influence the perceptions of place identity? This question generated a number of sub-questions, which were:

Research Question 1: How can activities evoke perceptions of the physical elements?

Research Question 2: How do activities contribute to the development of meanings attached to place?

Research Question 3: What attributes of activity can evoke perceptions of place identity?

The following sections discuss the main findings associated with three framework components in order to answer the sub questions.

8.2.1 How Can Activities Evoke Perceptions of the Physical Elements?

To answer this question, this section discusses the most distinctive elements of a physical setting and their ability to evoke peoples' perceptions of place identity and examines how activities help to distinguish these elements. In this regard, Chapter Five highlighted the physical elements of the Lace Market that users regarded as memorable and offer a key to defining the Lace Market's identity. By interviewing both current and former users, it was possible to discover how activities affect perceptions of these elements, and how these change over time. Among these elements, the findings from Chapter Five suggest that users perceived particular buildings, streets and nodes as distinctive, and their perceptions were influenced by important events and the activities offered.

The historic buildings played an essential role in defining place and creating landmarks for users, while both function and activities afforded opportunities to create memories and better understand the area's history. Although historic architectural styles and traditional façades were identified as popular features of historic landmarks and increased the imageability of the area, their current function (including whether they had historical importance or fulfilled users' psychological needs) also influenced users' perceptions of historic buildings. For example, the National Justice Museum and New College Nottingham are regarded as the most identifiable landmarks in the Lace Market; respondents highlighted these buildings because they related to specific important events for the city, and their current uses were deemed attractive. Thus, current function and historical events evoke image and memories of historical buildings, which help to make them landmarks.

The significance of activities when converting buildings to landmarks was not limited to historic buildings but included new buildings. A building's façade and the architectural style of newly built landmarks were not as impressive as historic buildings; they were mostly judged by their function and use, while older structures were regarded as landmarks because of their function and physical characteristics together. For example, activities offered by buildings attract users' memories toward buildings by fulfilling their needs and turned buildings familiar a place, while also offering a stimulus to depict the character of a historical place through continuous interaction with its physical characteristics. The result signifies the importance of

function in shaping users' perceptions of both new and traditional buildings. In contrast to Lynch's, (1960) theory, this research suggests that buildings do not only become landmarks because of their physical construction but also due to the social interactions of users. Therefore, "A building can be understood as a constellation of actions, events, situations, and experiences associated with individuals and groups that use that building" (Seamon, 2017, p.1). Users are the key factors that keep places alive and functioning (Kaymaz, 2013); thus, urban activities underpin the relationship between a place's physical features and its users, as the physical meanings of a place (for example structures, streets) are shaped by this relationship in users mind.

In considering users' identification of landmarks, the data analysis revealed that the newly built landmarks gradually reduced the identity and attractiveness of the area and its continued place identity as heritage quarter. This result was informed by the few inclusion of new buildings as landmarks by interviewees who indicated that such features were less attractive than historical landmarks. The popularity of historical buildings underlined the importance of historical structures in distinctively shaping user perceptions and forming the basis for the construction of meanings and identity. This aligns with other studies, which similarly found that the architectural features of historical buildings play an important role in shaping identity and structure (Harun, Fairuz and Nordin, 2015; Farhan, Abdelmonem and Nasar, 2018), and confirm the role of heritage sites in influencing place perception (Rodwell, 2009). This result confirms that heritage buildings are perceived by stakeholders as culturally significant and offer a sense of identity and permanence (Bakri *et al.*, 2015). These results confirm influence of historical structure on users' perceptions of place in which distinctively shaping the basis for the construction of meanings and identity.

The importance of activities in restoring ancient buildings was also a significant finding for this research. The chronological analysis of Lace Market landmarks highlighted the important role of urban activity on regenerating the area, most obviously through the repurposing of its historical buildings. Moreover, this strategy of reviving old buildings by adapting them for new use was central to the development of the Lace Market (Nottingham City Council, 1989). Examples include the conversion of the Unitarian Church into a Pitcher and Piano restaurant,

and the Adams Building from a lace factory into a college (New College Nottingham). The comparative analysis of former and new users' responses reveals that both buildings have become more important landmarks over the current period. The new activities undertaken, and the positive memories these inspired had the greatest impact on increasing the importance of the building and current users' perceptions. Their modern function inspired feelings of satisfaction that overlaid the buildings' historic physical meanings and prompted interviewees to re-evaluate the buildings' historic meanings. This aligns with the findings of Darcy et al. (2008) who argued that the identity of a place is established by users associating feelings of satisfaction, enjoyment and security. This suggests that identity is not just shaped by a place's physical characteristics but by its ability to fulfil the psychological needs of its users (Ujang, 2012). Thus, it is not sufficient for a building to hold historic characteristics in order to become a landmark; rather, the importance of activity in reviving historical elements also promotes the perception of historic characteristics through their interaction with these elements. This research suggests that the effective usage of an historic building can contribute to its recall as a landmark. Therefore, in contrast to Lynch (1990), who focuses solely on the recognized legible features of the physical environment, this study's findings suggest that the function of physical environment also promotes place image and identity.

Moreover, changes in urban activity also affect the image of the Lace Market by driving the creation of new buildings, such as the Motorpoint Arena and the Contemporary Art Building, which introduced new architectural and urban forms to the area. These changes underline that the physical environment is not an independent entity but rather a manifestation of the Market's ongoing development and functional evolution.

The study offers important findings on functional aspects, which play a key role in upgrading urban elements from 'typical' to 'landmark'. Although most of these structures are considered historical architecture and were used in different ways during the industrial era, existing users recalled them because of their present function, which they distinguished and perceived by the activity they accommodated. Thus, the findings suggest that building function is a key factor in determining whether distinctive elements are perceived as landmarks.

8.2.2 How Do Activities Contribute to The Development of Meanings Attached to Place?

The second question investigated the second factor in the conceptional framework, which focused on the significance of meanings for the perception of place identity. It highlighted the characteristics of activities that were associated with meaning and which played an important role in defining place identity. Consequently, this section answers the sub research question of how activity evokes meaning associated with place identity.

It was found that the attributes of activities are associated with human sensory systems that affect the perception of place meanings. Accordingly, sound that reflects the density and type of activities taking place is one of the most important indicators of perception, peoples' interpretations or their perceptions of meaning. This was evident when both interviewee groups were able to define the Lace Market through the distinctive sounds they heard. However, when the Market was derelict and rundown during the pre-1992 period, there was only a relatively meagre soundscape to stimulate an emotional reaction from users. Pre-users had difficulty in defining the Lace Market by its soundscape. In contrast, the sounds of the post-regeneration Lace Market were more meaningful for existing users' perception of the area; this was attributed to the density and type of activities. Current users were able to distinguish the Lace Market by its soundscape; screams, music and laughter enhanced their experience and helped to define its image. This result suggests an association between acoustic sensation and vital, liveable places that reflect the density and type of activities. Intangible indicators, such as sounds related to users' activities, can reinforce memories and provide guidelines for users to define place identity. This supports the findings of previous studies which state that sounds reinforce a sense of place (Sepe, 2013c). Moreover, the finding adds to knowledge in that meanings can be generated from the soundscape of activities that people associate with their collective memory. These depend on the density and type of activity, whilst the stimulation of users' senses through the combination of sound with function easily influences their perceptions of the area's meanings.

Continuing of activities: It was found also that maintaining activities support the regularity of interaction and the degree of engagement with a place, which is strongly associated with the formulation of place meaning. A continuing relationship

between users and the environment is essential to produce meanings and maintain urban identity. The data analysis revealed that a lack of activity in the Lace Market pre-1992 eroded its relationship with locals to the point that it lost much of its meaning. This was evident amongst respondents who stated that they rarely visited because of the lack of activities and their poor relationship with the area; they described it as having no meaning. Since its regeneration, the diverse activities now available in the Market have brought liveliness to the place by encouraging more intense pedestrian movement and social interaction, and by creating opportunities to forge new meanings. The existing user interviewees mainly ascribed meaning to the attractive activities available, which generated positive emotions and feelings and made the Lace Market meaningful. In this regard, the study found that conducting diverse activities to attract people and thus make the place more memorable and meaningful for users could revitalize an area. This confirms Gehl's (2010) theory that the meaning of place relates to the potentials for social engagement and the variety of activities on offer. Therefore, the maintenance of place identity is strongly associated with its ability to continuously offer desired activities that provide meaning to people. These findings align with those of Ujang (2014) who found that engagement with place influenced attachment and thus contributed to the continuity of place meanings and identity.

Optional activities: Optional activities provided the most important contributions to stronger meanings of place and permanence of place identity. The results in Chapters Six and Seven highlighted the significance of optional activities such as leisure activities in creating positive feelings, fostering users' emotional attachment with place, creating meanings and shaping place identity. Respondents suggested that attractive activities including pubs, restaurants and shops evoked meanings. Respondents expressed a sense of pleasure related with optional activities, which formed an attractive element of personal and collective experiences. Such meditative activities generated a better vitality of place during the weekends and evenings, which led to embedded meanings (Sebastien, 2020) and the formation of place identity (Montgomery, 1998). The significance of optional activities is reflected in the ability to fulfil users' psychological needs and evoke their emotions; as well as, establishes meanings through users' positive identification with place, including the feeling of satisfaction, enjoyment and security. Thus, the sense of enjoyment expressed by respondents reflects their familiarity with the place and their ability to

remember it. It develops as a result of experience to the meanings, which then are perceived as the identity of the place.

Positive valuation of place: The study found that the attribution of meaning is often associated with the positive valuation of a place, as meaning is linked to satisfaction and wellbeing, which also represents positive feelings. The interviewees mainly ascribed meaning to elements that generated positive emotions and feelings; those who expressed negative feelings toward some aspects of the pre-1992 Lace Market commonly linked this with the view that the area had no meaning. The current place meanings ascribed to the Lace Market by interviewees were, for the most part, based on the positive experiences of enjoyment and wellbeing, and the ability to continuously fulfil users' needs and thus enabled positive perceptions of place identity. In contrast, those in the former user group with negative perceptions of the pre-regeneration Lace Market were more likely to describe the area as having no meaning for them. This reveals that meanings are not generated from negative feelings but related to the ability of a place to provide pleasant feelings derived from the desired activities, which enable a strong sense of wellbeing. The term 'identity of place' typically infers a positive bond between individual and place, while the power and importance associated with the concepts of belonging and attachment mean that existing research has tended to focus on this positive affective bond (Manzo, 2005; Azmi, Ahmad and Ali, 2014). For this reason, for this reason, this research recommends focussing on the activities that produce the positive affective bond between place and user.

Findings also confirm that a place name that indicates its original function plays an important role in maintaining its distinct meaning. In this study, interviewees were asked about their reactions to the industrial activity and its impact on their perception of the Lace Market's identity. Most of the interviewees who were former user knew that the Lace Market was a leader in lace production; furthermore, current users knew that area was involved in industrial activities due to its name and Victorian architecture. Therefore, most were able to define the Lace Market's boundary as that containing most of the historical buildings and built heritage associated with the industrial era. Interviewees identified the Market's geographical boundaries according to tangible and intangible values, mentioning both to spatial characteristics - such as the homogeneous streets and historic architecture - as well

as the perception of the area from its name, which emerged from its function. This reveals that the material properties of a place can have instrumental meanings connected with its original function that reflects the social or economic activities of the district (Relph, 1976). The results of this research confirm that the name is an influential factor in generating meanings; names therefore have a strong influence on identity. This indicates that names that reflect the original use of an area may protect meanings even when the original physical equivalents disappear. This supports link between the previous and the current. The research found it is important that the name and original function coincide with their physical equivalents; from this, the perception of the environment becomes obvious and powerful.

Historic events: Distinctive features or historic events related with place are also significant in encouraging people to attribute meaning to the area, not just as a physical setting but also as a symbolic or historical environment. The findings indicate that the Lace Market's meaning as an industrial centre was still significant for some users, who saw its Victorian architecture and big factories as icons of an industrial past long since lost. The interviewees confirmed that many aspects of the Lace Market embody meanings, such as the distinction of international lace manufacture through traditional costumes. This suggests that the historical significance of a traditional place that holds historic events evokes a lot of meanings. For these interviewees, old buildings represented the area's inherent meaning as an emblem of industrial decline. This confirms Pearson and Sullivan's (1995) description of place as a concentration of historical events and cultural material where earlier human activity physically displayed in the form of buildings. The findings of this research suggest that meanings can be generated from understanding and by knowing the sequence of events in places that people associate with their collective memory. Such these knowledges can reinforce a sense of belonging and pride of local people.

Sense of belonging and pride: The findings from Chapter Six suggest that the Lace Market's historic activities and events were perceived by interviewees as valuable and meaningful, and created a sense of pride in the area. The interviewees felt a sense of belonging to the Lace Market, which they saw as representing the history of their town with a rooted socio-culture. This sense was clearer among former users, who closely linked its special status with its historic buildings, which reflected its

prior leadership in lace manufacture. Moreover, the Lace Market was the location of the first Boots Pharmacy, whilst famous associated people include the Olympic ice dance champions, Torvill and Dean. The fact that these symbolic meanings are all rooted in the past reflects the lifestyle, culture and identity of this older quarter. The interviewees shared not only their perceptions of the Lace Market post-regeneration but also their pride in the history of the area. Their perceptions were related with the roles of the place in evolving a sense of inherent, native and national meaning, which defined both culture and belonging. This can be linked to Manzo's (2005) theory, which states that meanings associate to the past make up the essence of place. Place meanings involving historical features can help to determine place identity. This reveals that the production and perception of place meanings can emerge from individual pride in a place to which they feel they belong.

8.2.3 What Attributes of Activities Can Evoke the Perceptions of Place Identity?

This question was posed to explore the attributes of urban activities with the ability to evoke peoples' perceptions of place identity. The research highlighted activity attributes in the Lace Market that helped users to remember, imagine and define the place. The results from Chapter 7 suggest that Mixed-land use, diversity, walkability, vitality, active frontages, and Socio-cultural activities are all activity attributes that help to create place identity.

Mixed-land use was found to be advantageous for enhancing the perception of place identity through increasing opportunities for interaction between people and the physical components. Comparing the Lace Market's land use before and after regeneration from 1992 shows the area has greater mixed-use, and more categories of people have been able to use it, from employees and residents to shoppers, tourists, students and those looking for social and leisure activities. This has extended the Lace Market's period of activity into the night, making the area feel not only more vital but safer, promoting a sense of inclusiveness, and reinforcing place meanings. This was evident amongst both groups of interviewees, who confirmed that mixed-land use was an important attraction that encouraged them to stay or visit the area. The interviewees indicated that diversity in shops, products, cafes and pubs in addition to a good choice of cultural destinations (such as galleries and museums) were the main characteristics of the area.

Diverse activities along the streets were found to enhance the perception of place identity. The activities occurring in the Lace Market were found to promote vitality that strongly enhanced users' experiences and influenced their perception of the place's identity. The observations confirmed that the street considered most memorable and meaningful by interviewees offered a diverse range of activities for users, while the least memorable and meaningless was used principally as a transition point. Thus, meaningful streets in the Lace Market had a range of shops, cafes and pubs providing local or traditional goods and services. This diversity increased the chance of interaction between users and the place's physical components; this offered opportunities to make memories, which then interpret to meanings associated with the place identity. This aligns with several previous studies, (including Jacobs, Moudon and Hinshaw, 1993; Montgomery, 1998, and Gehl, 2011) whose findings support the idea that diverse street activity increases user engagement and generates meanings that enhance the perception of urban identity.

The findings also show that walkability is the most significant attribute for activities that support user interactions with place and influence place experience. It was observed that areas, such as Goose Gate and Broad Street, received positive reactions from interviewees because they were pedestrianized and offered shopping, recreational attractions and outdoor seating. They were seen as meaningful and reflected place identity more than non-walkable places. On the other hand, the observation site showed that the streets that were mentioned least frequently, were characterised by congested traffic whilst a lack of walkability meant that users lacked any emotional bond with the street and therefore saw it as unimportant. In this regard, there was an association between users' perceptions of spaces and walkable places. The findings highlighted the need for policymakers, designers and managers of public spaces to create pedestrian-friendly environments through offer a variety of activities, priority to pedestrian to provide sufficient time to look, listen and social interaction that enrich users experience and memories significantly reinforcing perception of place identity.

Activities that promote functional attachment play a significant role in influential a distinct image and the perception of place identity. This chronological study highlighted the important role that activity has played in changing the perception of

the area's identity according to the desired function. This is evident in the way the interviewees identified the Lace Market. Pre-users remembered it primarily as a place lacking any of those daily activities that facilitate social interaction and meets their needs, as they stated that the place did not fulfil functional desires. As a result, they never formed the emotional bond, which creates the basis of place identity. On the other hand, current activities have been regarded as a central factor in promoting functional attachment and attributed to mixed-uses. This was evident amongst most of the current users who perceived the Lace Market as a place that supported their shopping and optional activities and fulfilled their functional desires. The perception of the Lace Market can be understood according to its facility and amenities, and the satisfaction that people attach to the place by its function. This supports the findings from other scholars that emotional ties with a place develop when the environment fulfils the functional desires of its inhabitants (Kudryavtsev, Stedman and Krasny, 2012; Frantzeskaki, van Steenbergen and Stedman, 2018). This implies that functional attachment, including land use and building use, are seen as important elements of urban identity.

Active frontages and transparency are important attributes of activity; the results in Chapter Seven show that places with active frontages are perceived in more positive terms than those offering less connectivity with users. Active frontages provide a great opportunity for social interaction by mediating between inside and out, and between public and private activities. This was evident amongst most interviewees who saw the active frontages of streets as one of the Lace Market's most memorable and important elements. In the same context, the findings of Chapter Seven also suggest that active frontages are commonly characterised by transparency. It was observed that, along pedestrian routes devoid of car movement, the transparency of frontages offered the most important reason for attracting pedestrian, as they encouraged people to pause and watch. The observation shows that the active frontages and façade transparencies along Broad Street and Carlton Street contribute to this, particularly at night, by providing a vibrant atmosphere for people's interactions and diverse activities. Thus, the places of the Lace Market that characterised by its narrow pedestrian paths, local cafes, restaurants offering outdoor seating and traditional shopping activities, provides a vibrant and attractive place in terms of social interaction and supports people interact with place settings. Hence, the findings of this research imply that the link between activities on the street and

those indoors are key elements in promoting a user's memory of an area and enhancing their perception of a place. This finding reflects Carmona, (2010) and Gehl's, (2011) theory that active frontages can enhance users' perceptions of a place and make it more imageable.

Socio-cultural activities: Place identity was found to be associated with activities that support local group experiences and their culture. The findings suggest that social activities support people relationship with place and inspire their memory; this imbues an urban environment with strong meanings. It is evident that, through their lifestyles and culture, local people who are rooted the area's history are more stirred by the traditional character of the Lace Market. The observations and interviews revealed a high level of involvement in activities related to local culture. Interviewees stated that traditional shops and independent cafes and restaurants attracted them and enhanced their perception of area. They were interested in traditional and local products that were specifically associated with the city from its early history. Interviewees connected with features belonging to their city and were proud of them such as traditional restaurants and local gallery. The fact that these traditional services were all rooted in the past reflects the lifestyle, culture and identity of this community. These activities shape the essence of the place and evoke a sense of community identity. Therefore, in order to reflect local people's identity and enhance attachment, any decision to develop the traditional quarter should consider desirable activities through the study of local culture.

8.3 Contribution to Knowledge

This thesis offers the three following significant contributions to knowledge:

Firstly, a key strength of the present study was the adoption of a longitudinal perspective that enabled a comprehensive understanding of the identity of the place with its context. In this study, the adopted methodology did not offer a snapshot of the present time, but rather an understanding of the context of process of forming place identity. The strategy focused on the evolution of place identity, and the formation and disruption by exploring the dynamics behind their development and change. Therefore, a chronological analysis of the factors that most influenced place identity showed how the urban system evolved in terms of function, the composition of the physical environment, and its meanings. Moreover, in order to examine the

perception of place identity, this research established an objective context to understand the morphological physical urban place and the psychology of place to understand the feelings of users. Understanding these dynamics allow to answer questions on how places can be sustained without compromising their image and identity. Thus, a methodological approach grounded in conservation and the development of historical spaces is important so that such places do not lose their historical significance.

Secondly, the study is distinctive in that it used four dimensions of place identity - physical, meanings, activities and time - as a framework to measure place identity. Through introducing time, the study offers a new perspective; thus, the research considered the process involved in shaping place identity over time. Furthermore, it ascertained the connection between activities and two essential components of place identity: the physical environment and meaning as key sources of reference in defining place identity. It brings together the objective (physical environment) and subjective (psychological factor) characteristics of a place's development over time through human experience, which is perceived as place identity. In other words, it examines how activities support the conversion of physical settings into landmarks or distinctive elements, and how activities help people to produce meanings and embed them within place. Moreover, it seeks to define the attributes of activities that evoke people's perceptions of place identity. This research has validated the important aspects of human activities in urban design. By revisiting the interrelationship between the components of place identity, the study offers a new perspective for thinking about placemaking and the formation of place identity. It also provides a framework for the exploration of place identity through the integration of environmental psychology and the physical environment with urban planning and urban design.

The final contribution of this research is to offer recommendations for regeneration planning and the development of historical places. Several urban design strategies and guidelines were recommended in order to maintain the identity of a place whilst also considering changing needs over time. This research provides evidence regarding place identity, and why urban activities are both physically and emotionally important. The study enriches existing knowledge of architecture, design and planning as well as that of decision-makers. It raises challenges

concerning place identity transformation issues in the light of urban growth and development processes and offers an insight into the use of frameworks to examine place identity.

8.4 Recommendations for Developing an Urban Place

The study offers some intangible characteristics of urban space, which must be included in developing any area to meet global requirements. The identity of a place results from a mixture of the social and cultural characteristics of the relevant society, which is reincarnated in physical shape and reflects the historical events of the urban locality. Accordingly, the analysis suggests that development of place may oversimplification if it only considers physical features in the conservation of urban identity; indeed, this research indicates that nonphysical aspects also affect place identity. This matter raises the important for particular attention to the socio-cultural aspects of place transformation through the processes of urban design/planning. The findings of this research designate that the perceptions of traditional places are connected with harmony between the social-cultural features of the group occupying the places, the urban settings and the nature of place activities. In order to maintain the identity of the place, it is recommended that the socio-cultural aspects of the local society are derived prior to the repurpose of urban settings when regenerating a neighbourhood. Thus, a local urban design strategy should apply design concepts that are appropriate to the culture of the local community and that reflects their identity. This mainly involves the identification of the socio-cultural characteristics of urban places and their preservation before urban renewal. Representative determinants of a place's identity are hybridized with the characteristic portions of the cultural scene.

The study recommends resurrecting the spirit of a place by adopting activities that fit with social values, which are embedded in the meanings associated with people's lives. Embodying these meanings contributes meaningfully to the revival of the identity of a place, which enables people to feel a sense of belonging and attachment. For example, interviewees perceive that the Lace Market's identity is shaped by both its physical authenticity and its socio-cultural life. The perception was closely tied to local community values, which are rooted in tradition and an independent spirit. Goose Gate, St Mary's Gate and Broad Street are examples of public spaces where the culture of the area's users is expressed through the production and sale of homemade

food, local drink and traditional crafts. Furthermore, local shops and independent markets attract individuals to an insider community that reflects their culture. Therefore, the study suggests the adoption of a function that characterizes place meanings by reviving the self-identity of the local community. This considers the main functions of the place and supports the sustainability of its social and cultural heritage that represents part of people's identity. This will reinforce the place meanings associated with people's identities and thus help to continue its uniqueness.

The value of old buildings lies, not only in their physical aspect, but also in their meanings; these were produced by the experience of different local community and interactions with spatial structures over a long period. Enabling their presence without opportunities for social interaction risks a loss of meaning over time. An important recommendation is to ensure that the repurposing of historical buildings encourages daily engagement and enhances the sense of meaning imbued in historical environments. The reuse of traditional elements should be based on existing people need and consider the permanency of physical heritage and social values that are rooted in the meanings associated with people's lives.

Despite its lack of lace manufacture, the Lace Market today is important as a locus for social and cultural activities, and for offering to local products suitable for the social-cultural identity of Nottingham; this differentiated the Lace Market from other places in the city centre which strongly influenced the perception of its identity. Social-culture activities, along with historic or traditional physical environments, help to increase the perception of spirit and place identity. For example, the significance of the particular historic building is reinforced by adopting function associated with history or heritage of the area; for example, the National Justice Museum (located in front of St Mary's Church), is used to display archaeological items that list the ancient events of the building and region. This integrates function and physical form and contributes to the perceived unique atmosphere of the heritage district. Thus, it is significant to consider the characteristics of activities when developing and reformulating the concept of urban identity. In doing so, such developments are more likely to enable deeper and more lasting meanings.

It is hoped that this study will enhance sources of urban design knowledge and give a step toward future researches in all related disciplines of research.

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APPENDIX A: INTERVIEW QUESTIONS (Groupe One)

Interview outline for users who has experienced the Lace Market before regeneration process at 1992. This interview aims to identify factors evoking users' perceptions of the Lace Market identity in deindustrialization time.

Thank you for agreeing to participate in this interview. Below, there are four questions about you followed by twelve questions about your views on Nottingham's Lace Market before its regeneration in 1992.

Section I: Interviewee Background

- Occupation: ……
- gender: …….
- Age: …….
- Duration of experience: …….
- Type of user: (A) Visitor, (B) residence or (C) employee

Section 2: Perceiving characteristics of meanings in deindustrialization time

- What comes to your mind when someone mentions the Lace Market before regeneration process at 1992? Can you mention important things you remember about the Lace Market that you think symbolizes that era?
- Can you identify the most distinctive features of the Lace Market before and after developing at 1992? Please also explain why you think these elements are the most memorable and identifiable?
- Do you think the industrial revolution of the Lace Market still have a trace in following periods?
- Based on your experience, what are the specific smells and sounds that may contribute to making the Lace Market a distinctive and memorable in that period?

Section 3: Perceiving characteristics of physical environments

- Can you identify street that you find to be the most distinctive in the Lace Market before regeneration? What are the factors that you believe made them distinctive?
- Does it still have the same value now?

- Can you identify three buildings that you find to be distinctive and meaningful in the Lace Market before the regeneration? What are the factors that you believe made them distinctive?

- Do they still have the same value now?

- Do you have a special place/ building in the Lace Market that means a lot to you in the period before regeneration? Alternatively, you can say this place represents me. Why do you think so?

Section 4: The influencing attributes of activity on users' perceptions of identity

- What were the most frequent activities that you engage in within the Lace Market before regeneration? Please tell me about your normal routine when you were there?

- Which activities in the Lace Market did you like in that time and which did you not like?

- The Lace Market today has a wide variety of daytime and night-time activities. Do you find this variety gives a positive or negative feeling toward the image and identity of the Lace Market?

- How do you perceive the impact of change using spatial environment of the Lace Market on its identity after regeneration conducted?

Thank you so much for your time and cooperation.

APPENDIX B: INTERVIEW QUESTIONS (Groupe Two)

This interview outline for existing users who has experienced the Lace Market after regeneration process at 1992 (Present time). This interview aims to identify factors evoking users' perceptions of the Lace Market identity in present time.

Section I: Interviewee Background

- Occupation: ……
- gender: …….
- Age: …….
- Duration of experience: ……..
- Type of user: (A) Visitor, (B) residence or (C) employee

Section 2: Perceiving characteristics of meanings in present time

- When someone mentions the Lace Market, what comes to your mind
- What you tend to remember in the order of importance that you think symbolizes the Lace Market.
- Based on your experience, what are the specific smells and sounds that may contribute to making the Lace Market a distinctive and recognisable place?
- Can you identify the most distinctive features in the Lace Market? Please also explain why you think these elements are the most memorable and identifiable?
- Do you know that historically the Lace Market was a leader in lace industry? If so, can you please outline any information on the main activities in the past

Section 3: Perceiving characteristics of physical environments

- Can you identify street that you find to be most distinctive in the Lace Market? What are the factors that believe make them distinctive?
- Can you identify three buildings that you find to be distinctive and meaningful in the Lace Market?
- Which one of them do you find to be the most distinctive? Why do you think it is unique?

- Do you have a particular special place/ building in the Lace Market that means a lot to you? Alternatively, you can say this place represents me. Why do you think so?

- Name the most familiar place/building to you. Can you explain why?

- The Lace Market accommodates a diverse built environment - both contemporary and traditional buildings; which one do you feel reflects the identity of the Lace Market? Why do you think so?

Section 4: The influencing attributes of activity on users' perceptions of identity

- The Lace Market has a broad diversity of daytime and night-time activities. Do you find this variety gives a positive or negative feeling toward the image and identity of the Lace Market?

- What are the most frequent activities that you engage in within the Lace Market? Please tell me about your normal routine when you are in the Lace Market?

- Which activities in the Lace Market do you like, and which do you not like?

APPENDIX C: SKETCH MAPPING:

Age: …….

gender: …….

Types of users: …….

Occupation: ……...

In this blank paper (A4 size), could you please draw a map of the Lace Market, so that contain the most important distinctive features of the Lace Market? List distinctive parts. Distinctive parts might be a street, a building or architecture features, which you feel has a special meaning that contributed in shaping identity and image of the area. In your sketch, please label the streets/paths or elements that you drawing in the Lace Market map.

APPENDIX D: OBSERVATION

Site observation records form

Place Identity: A Case Study of the Lace Market, Nottingham

Area/ Street name: ……

Date: ……

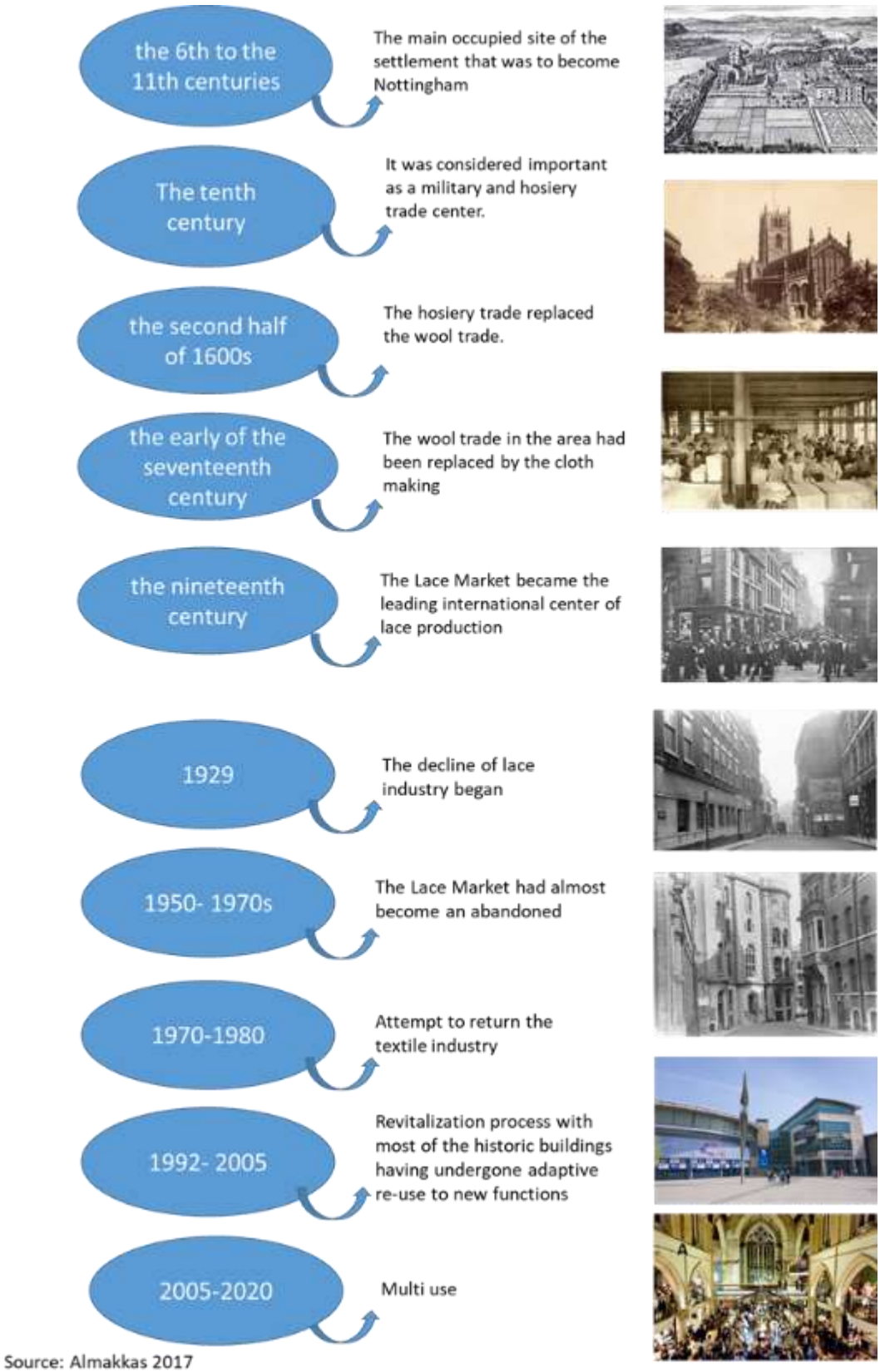
Weekday/Weekend: ……

Weather condition: …….

Frequency activities

	Count people in open spaces			
Category	**9- 10 am**	**4- 5 pm**	**8- 9 pm**	**Comments**
Walking				
Standing: Chat/ looking				
React to place: Shopping/Sitting/ eating				
Façade interactive Primary active frontages ---------- Secondary active frontages ----------				

APPENDIX E: The milestones of historic transformation of the Lace Market



Source: Almakkas 2017