# An exploration of London in fiction and reality

by

# Rakan Budeiri

The Bartlett School of Graduate Studies

A Thesis submitted in part fulfilment of the degree of Master of Science in Advanced Architectural Studies

University College London

15 September 2008

UMI Number: U593791

# All rights reserved

#### INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



#### UMI U593791

Published by ProQuest LLC 2013. Copyright in the Dissertation held by the Author.

Microform Edition © ProQuest LLC.

All rights reserved. This work is protected against unauthorized copying under Title 17, United States Code.



ProQuest LLC 789 East Eisenhower Parkway P.O. Box 1346 Ann Arbor, MI 48106-1346

#### **Abstract**

This paper concerns itself with investigating the relationship between representations and reality by focussing on fictional descriptions of London in the novels of Peter Ackroyd. Taking the initial inspiration of fantastical utopias as products of human minds embedded in the social and spatial city this paper developed by investigating how these impressions could possibly be related to the real city.

Using experimental techniques to collect data from fictional texts this paper asks the question of how the relationship between fiction and reality can be understood. Using a number of techniques inspired by Franco Moretti coupled with the conventional space syntax methods developed by Bill Hillier this paper aims to posit the hypothesis that there is a profound relationship between fictional city of London and London in reality, a generative relationship which sees the representation aid the development of reality and vice versa. As images are created in cultural minds these in turn have an impact on the lived realities through the work of designers, architects and authors which influence and are influenced by citizens, users and readers. This paper uses the work of Hillier and Moretti as a base which is coupled with ideas about new technology and its role in the process of creating literature which can be experienced not only in books but through other mediums.

This paper introduces these ideas with a discussion of their background before focussing on a wider review of related literature which can be used to discuss the topic at hand. The data collected from the reading of Ackroyd's three novels is then presented through a variety of techniques. Finally a conclusion is offered in the form of a discussion of the influences of new technology and the challenge of post modernity for representations of the city. The paper ends by drawing parallels between text and city and how each is formed based on Hillier's work on the relation between the two.

10859 words

# Contents

1.	Introduction	5
2.	Research questions, hypothesis and themes	8
3.	Literature review & analysis	14
4.	Research: data, method, maps	22
5.	Limitations	31
6.	Discussions & Conclusions	32
7.	Bibliography	34

# List of illustrations

<b>Figure 1</b> : Two petrol stations, typical British from This is Money (2008) and Omar Omar I	
2008)	5
Figure 2: Representations of London in popular imagination, Tube map and landmar	ks in
relation to bus routes. Both from Transport for London (2008)	8
Figure 3: A screenshot of a section of Cumming's The 21 Steps showing St. Pancras Sta	ation,
ondon (Cumming, 2008)	10
Figure 4: Colourised version of the map of Beleriand. (Tolkien, 1992)	12
Figure 5: Moretti's Atlas of the European Novel mapped by Google Book Search (2008)	13
Figure 6: Segment integration of two locations in Ackroyd's London	14
Figure 7: Moretti's map of <i>Pelham's</i> London (Moretti, 2008)	18
Figure 8: Moretti's Third London in Dicken's work (Moretti, 2008)	20
Figure 9: Examples of Moretti's diagrammatical techniques (Moretti, 2008)	21
Figure 10: Map showing locations from three of Ackroyd's novels in Central London	23
Figure 11: Locations around St. Pauls in Ackroyd's novels	23
Figure 12: Map showing locations from three of Ackroyd's novels in Greater London	24
Figure 13: Showing Limehouse Church and pages it appears on in Hawksmoor	25
Figure 14: Showing Limehouse Church and pages it appears on in Dan Leno	25
Figure 15: Graph of places vs. mentions in Dan Leno and the Limehouse Golem	26
Figure 16: Graph of places vs. mentions in Dr. Dee	27
Figure 17: Graph of places vs. mentions in Hawksmoor	28
Figure 18: Dan Leno: local segment integration for the Limehouse area	29

## 1. Introduction: From the imaginary city to the city in fiction

This thesis aims to investigate the relationship between fiction and the city with input from space syntax methods to help understand how a fictional view of a city, such as London in a novel, can relate to real world experience of an urban area. These findings will hopefully be used to understand how fiction can interact with the built form of 21<sup>st</sup> century cities using new technologies and what this means for both reader/user and author/designer.

This thesis began as a fascination with human imagination when it came to the question of the city in design and architecture. From representations of urban areas in films, fairy tales, novels, plays, art and music to dreams people have of the cities they live in or wished they lived in. The initial ideas for this thesis are rooted in these pre-conceptions which exist in the popular imagination, constructed and reconstructed in popular culture, which say something fundamental about how people live their lives. The basis was that what exists in people's fantasy and desire about cities is part of a complex relationship which has some part in how cities are formed. The psychology of urban design and architecture was what fuelled further interest, if people can create fantastical urban arrangements in their minds and therefore in books, films and art (for example Thomas Moore's *Utopia*), which are all based on culture and existing urban form, what does this mean for urban form which is yet to come?





Fig. 1: left: typical British BP petrol station (This is Money Blog, 2008), and right:: BP's Helios House petrol station in LA (Flickr: Omar Omar, 2008)

From this point the thesis was reconceived into a manageable project which focussed on the presentation of the city of London in three works of fiction by Peter Ackroyd which rely heavily on the city for their narrative. This led to the concern of aiming to investigate how the author uses the city in order to structure his narrative and what this means for the city itself.

To this end the thesis remains experimental in that it does not follow a traditional structure of gathering and testing data found in the city and followed by analyses using space syntax

methods<sup>1</sup>. Instead it has relied on experimenting with new methods of drawing data from texts and seeing how these can be used along with conventional space syntax analysis in order to understand whether these methods shed some light on the question at hand. In doing so this thesis has remained, as the title suggests, an exploration into the hypothesis discussed below.

This thesis draws influence from a large variety of texts which will be introduced in section two below. This sections attempts to cover a discussion of the main themes, ideas and questions behind the hypothesis to be presented with reference to these influences. The work of authors such as Bill Hillier and Franco Moretti will be introduced with the aim of providing a background to the analyses of Ackroyd's work in sections three and four. Following the introduction of the main themes from these authors work a question and hypothesis will be presented to be addresses in the rest of the paper and discussed in the concluding chapter.

Part three of this paper will take the form of a literature review in order to asses what this study can reveal in relation to the already existing work on similar subjects. One obvious limitation of this study is that there is very little work of a similar nature, which attempts to draw literature, space syntax theory and an assessment of the city together. Thus the work presented in chapter four and referenced throughout the paper has come from a varied background often with seemingly little connection between the works discussed. Works which will be discussed include Julienne Hanson's work on two 19th century novelists and how their work was formed in relation to space and the city (1976). From the space syntax approach Hillier's work on language, architecture and the narrative of space will be used to help understand firstly the novels discussed below and secondly how these can be thought of in terms of both literary and wider scale post-modernist theory (Hillier, 1984 & 2008a). Space syntax methods will also be introduced in trying to understand how certain places mentioned in the text can be compared, and what this could mean for the relationship of text and city. That is to say that this paper is ultimately a discussion of cities as reflections of the culture creating them, just as the people with a hand in creating cities are equally immersed in their cultural milieu. In simpler terms, a city has a hand in its own future based on the cumulative influences of social, economic and spatial trends which have come before.

The literature review will be followed by a presentation of the research methods used, the texts used for analysis and further discussion of what has been produced from the data in relation to the literature review. The data gathering focussed on three novels by British author Peter Ackroyd. Ackroyd is an author whose work covers theatre, novels, journalism and non-fiction, the majority of his work is concerned with the subject of London. His most famous

<sup>-</sup>

<sup>&</sup>lt;sup>1</sup> Space syntax is a set of techniques which involves computer analyses of an urban system redrawn as segmental lines which are measured in comparison to one another in order to understand them in terms of connectedness and subsequently other measures (Hillier and Hanson, 1984).

work is most likely is his non-fiction London: The Biography (2008) in which he attempts to write a complete history of London's development. However he is equally well known for his fictional work in which merges his historical knowledge with murder-mystery in highly accessible popular novels. His works were chosen for analysis after the consideration of other authors' works who deal largely with urban areas because they contained a large amount of references to locations in contemporary London and Ackroyd is understood to tie his narrative to the real life locations he discusses. Based on Moretti's work on fiction and geography (1999) other authors considered included Emile Zola and Honoré de Balzac's numerous works on Paris and authors such as Charles Dicken's work on London. Ackroyd's work was seen to be a novel of the city, following Tom Wolfe's discussion in Bonfire of the Vanities (1999) with the city portrayed in the foregrounds which exerted relentless pressure on its inhabitants. Ackroyd's novels (1993, 1994 & 1994) contain a high degree of spatial continuity which is often forgotten in works of popular culture which deal with real life places. For example in Juan Carlos Fresnadillo's film 28 Weeks Later (2007) which exhibits a very low relation of time and space in that the actions shifts across large areas of London in unrealistic periods of time presenting geographically separate areas of the city as neighbouring, despite its realist pretentions. Further to the case for using Ackroyd' work as a reliable source of data is that two of the books discussed below also contain an important temporal elements which sets the same story hundreds of years apart yet keeps the narrative continuous. This was found to be useful and interesting in the investigation in terms of the closing discussion which attempts to relate the paper's findings to post modernist theory.

The thesis will conclude by drawing all the threads discussed in this paper together. By addressing the subject of literary and architectural post-modernism along with the hypothesis presented below the paper will aim to discuss what these themes mean in relation to fiction and the city. Studying the three novels as works of subjective fiction based in reality, in conjunction with the objective space syntax methods used in the paper the conclusion will suggest what outcome these ideas could have for people's actual experience of the city. This in turn will shed light on what this relationship between fiction and reality is composed of what meaning it has, if any, for helping theorists understand the formation of the city as a result of cultural, social and spatial processes.

## 2. Research questions, hypothesis & themes

From the initial ideas discussed above came several themes and topics which were formed into an over arching hypothesis to be presented and discussed. The basic ideas were to do with representations and reality, that representations of the city (in popular culture for example) affect the reality of the city in its built environment. This is of course a cyclical relationship in that the new reality of the city will then affect future representations of the city and so on. This leads to the question of what can be discerned from the reading of Ackroyd's fiction set in London about the city and the text's relation to the city?

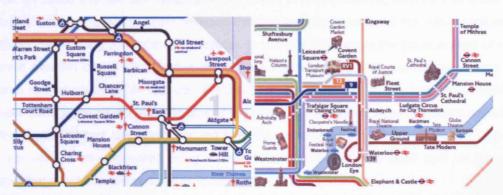


Fig. 2: Representations of London in popular imagination, Tube map (left) and landmarks in relation to bus routes (right). (Both images: Transport for London, 2008)

This was the first over arching theme which fed into the main hypothesis, however there were three other themes which contributed to this idea and which are to be discussed below. The second important theme concerns meaning. From the readings of Ackroyd's novels this paper posits that it possible to read the city as if it were a text following Hillier's assertions in his work on architecture and language (2008b). This relates to the idea of the city as a complex configuration which becomes meaningful through its structure (even if that structure is not always apparent) in the same way the text of a novel does this. Taking Ackroyd's work into account this can be seen in how he uses the city to structure his plot, it is therefore suggested that certain types of events are tied to certain areas based on the readers perceptions of the areas which usually share a common thread. This in turn introduces the final theme which adds the post-modern element to this investigation with the aim of understanding how new technology creates a level of interactivity between city and text, author and reader.

As will be shown below this paper relies on new technology (in particular Google Maps<sup>2</sup>) in order to gather and present data. The question this theme leads to is, does this new technology and the relationships it facilitates move literary theory beyond post-modernism? This takes into account a stage of authorship which exists when the writer's work is only one of several steps along the way of experiencing a text. This in turn is related to the readers

<sup>&</sup>lt;sup>2</sup> http://maps.google.com

past experience and what they are able to achieve (in an abstract sense) with the text after they have read it. This paper focuses on the potentials of being able to do one particular thing with that text, mapping it, but there are many other possibilities. One of many examples of these possibilities which could be understood as post-modern acts are re-enactment societies. Fans of the popular films *Star Wars* who dress and act in order to mimic scenes and descriptions from films they have seen, which have been written and acted by other people, are relocated in time and space in order to them bring to life in relation to fans' own experiences.

Based on these themes and questions this paper proposes the hypothesis that there is a profound relationship which exists between the text and city because of the cultural influences which go into forming both of these artefacts. In this case the text is the fictional work of Peter Ackroyd and the city is London, but the basis for he idea could be applied to any city and fictional text which is set in that city. Furthermore this paper will argue that it is possible to gain an understanding of either the text or the city from the other, following Hillier's assertions on the subject of text, city, structure and narrative as exhibited in Ackroyd's work. Lastly this relationship can be uncovered using new technologies in order to shed light on the post-modern nature of interpretation when it comes to city and text.

This hypothesis and the questions and themes which fed into it were influenced from two directions, even before Ackroyd's work had been considered. The first was Moretti's Atlas of the European Novel (1999) which charts a series of novels between 1800-1900. Using various maps and diagrammatic techniques Moretti charts some of the great works of the 19th century and explores the fictionalisation of geography in order to understand how the novels he is discussing use the geography in which they are set to enable narrative. This theme of enabling narrative is an important one throughout Moretti's work and also in this thesis. While his work will be discussed in some detail below it is important to note that it was not only Moretti's work on London (specifically Dickens) that was important in forming the basis for this thesis but also his general methodological approach, his use of diagrams and his introduction of the initial theme. Moretti's method consisted of taking what at first sight does not present itself for graphical presentation and discovering ways of showing it to the reader, for example in depicting plot progression using city maps using overlaid diagrams to depict spatial and temporal change (see figure below REF). His main theme concerns itself with understanding the content of fictional novels and their dealings with space and time in relation to the specific contemporary social and cultural conditions, for example in the rise of industrialisation and Jane Austen's novels. As well as Moretti's work this paper was influenced by Malcolm Bradbury's work The Atlas of Literature (1996). While this book was much less focussed than Moretti's and took in a large number of themes it provided interesting insight, as well as introducing the idea of representing the author's own world using maps to illustrate how the authors' world and the world they created in fiction were related. Not only did both Moretti's

and Bradbury's work provide general insight but Moretti specifically influenced the methods used in this dissertation. Indeed Moretti was contacted early on in the research process and contributed his thoughts on the project, this thesis can in some senses be seen as a detailed continuation of some of the processes Moretti initiated.

The next major set of influences for this paper originated on the internet, in particular from the *i09* weblog<sup>3</sup> and an entry entitled *Google Maps of Sci-Fi*<sup>4</sup>. The author of this entry, Geoff Manaugh, thrashed out some ideas on the possibilities for the use of Google Maps and sci-fi texts in order to create another layer of experience based around plotting locations and events which take place in texts into Google Maps and sharing these maps. This was itself inspired by an online project published by Penguin Books (2008). This project contains a short story by Charles Cumming<sup>5</sup> in which is based entirely on a custom map created in Google Maps. Cumming writes his story directly into the map system using annotations and links which lead to the next part of the story as well as a different part of the city (in this case London). The story is told by a series of pinpoints and annotated bubbles which the reader controls by clicking 'next' after reading a section, they are then led through the urban environment by a blue line to the next pinpoint and annotation telling the next part of the story.

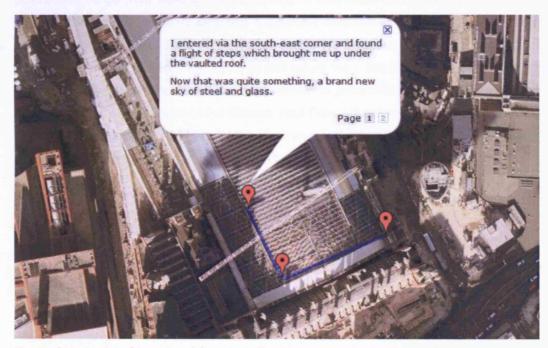


Fig. 3: A screenshot of a section of Cumming's *The 21 Steps* showing St. Pancras Station, London (Cumming, 2008).

As the *i09* blog recognised this is a fascinating approach which contextualises a story spatially and puts it directly into a recognisable format for the reader. As the story is written in

<sup>5</sup> http://wetellstories.co.uk/stories/week1

<sup>3</sup> http://i09.com

<sup>4</sup> http://io9.com/373393/google-maps-of-sci+fi

Google Maps the reader is able to drag the map around and visually explore the area around the area pinpointed for annotation by Cumming. Not only does this enhance the readers' experience but it also adds a challenge for the author in maintaining spatial continuity, not being able to mislead the reader spatially as they are intimately aware of the narrative's location. Cumming's use of the Google Maps API in order to animate his visual story between locations, allows the reader is to follow the plot aerially and a reader familiar with the area would gain even more. The possibility also exists that a story written in this medium could also be read in situ on a mobile device allowing the reader to explore the area as if they were part of the narrative. With the introduction of Google Street View<sup>6</sup> London later in the year this experience will only be enhanced as the experience of actually being on a street is reproduced.

109 takes the idea much further to suggest a host of possibilities for mapping the world of literature in Google Maps. There exists potential to organise real life activities around literary worlds based on GPS mapping and layers of data from books in Google Maps. Manaugh discusses the process of gathering locations from famous sci-fi texts and plotting them into Google Earth layers which would allow readers to tour the books they are reading. The possibilities range from walking tours to finding holiday destinations and understanding how different books used the same locations. Essentially what the i09 blog is suggesting is a more technologically advanced form of the maps which have been found in novels (for example in the novels of J.R.R. Tolkien, see figure 4) and taking them into the 21st century by creating a level of interactivity around them. The suggestions for possibilities on The Daily Galaxy blog<sup>7</sup> include a modernised version of the Choose Your Own Adventure books using books plotted in Google Maps and the API in order to create mapped stories which provide the reader with options as to what path to take next through the narrative9.

http://dailygalaxy.com

http://dailygalaxy.com/my\_weblog/2008/03/will-google-map.html

<sup>&</sup>lt;sup>6</sup> Street View is a project of Google which captures cities in photographs in 360 degree and then allows users of its Maps website to navigate around the city as if they were there, walking along streets, http://maps.google.com/help/maps/streetview/.

<sup>&</sup>lt;sup>8</sup> Choose Your Own Adventure is a series of children's game-books first published by Bantam Books from 1979-1998. Written in the second person these books have the reader assuming the rule of the protagonist and making choices at key points in the story by turning to certain pages in order to affect the characters actions.

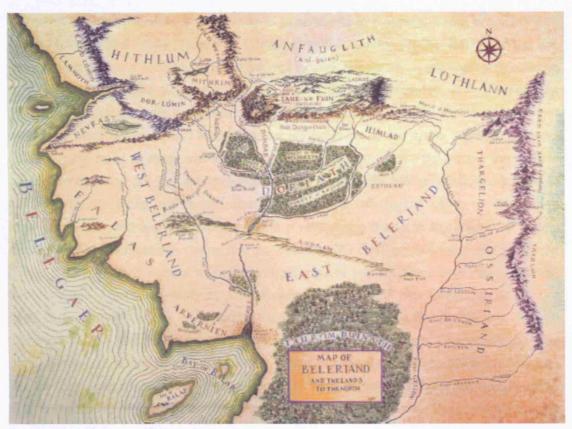


Fig. 4: Colourised version of the map of Beleriand. While Tolkien's maps were not intended to represent real places they are an example of an author providing context and structure for their narrative using geographical evidence. (Tolkien, 1992)

These ideas fed into further uses of the internet in exploring fictional worlds. The MUD worlds which have existed since the early days of the internet are another good example of how people are using new technology in order to recreate reality under their own impressions, with their own annotations and for their own ends<sup>10</sup>. This phenomenon also exists in the Open Street Map<sup>11</sup> project, recently in the news<sup>12</sup> as it is seen as a reaction to the influential corporate maps of Nokia, Google, MSN etc. which some see as wiping out the character and cultural history of areas which was represented on more traditional maps such as Ordinance Survey<sup>13</sup>. Open Street Map sees anyone able to edit and draw the map based on the wiki format and GPS technology, thus people who are intimately connected to areas are able to annotate the map with local landmarks and correct any errors. This creates an interesting impression when looking at the idea of representations and reality because in theory anybody can alter the map in order to make it better reflect reality or otherwise. When considered in tandem with ideas on subjectivity this could potentially lead to the seemingly simple task of representing reality through mapping streets as being highly varied among individuals.

11 http://openstreetmap.org

13 http:// ordnancesurvey.co.uk

<sup>&</sup>lt;sup>10</sup> Multi-User-Domain/Dungeon/Dimensions are text-driven online role playing game which sees users creating and using the world's they inhabit to their own ends.

<sup>12</sup> http://news.bbc.co.uk/1/hi/uk/7586789.stm

Research of online technology led quickly to experiments in mapping fiction, beginning with China Melville's short story Reports of Certain Events in London (2005). Set in London this story describes how a secret committee attempt to track streets which are constantly evading them as they shift through time and space. While the story provided an interesting first attempt at mapping streets it was not so useful as many of the streets mentioned no longer existed or were fantastical and located in real life positions by the author himself. This was thought not to be of so much use to this investigation and so Peter Ackroyd and three of his novels were settled on and are investigated in greater depth below. When considered in tandem with the ideas, works and questions discussed above the sense of discovering meaning in both text and environment forms a very strong theme in this thesis. What this discussion has attempted to outline and an idea that will continue into the literature review below is that there is seems to be a strong sense in various fields that this task is an important one. This is especially so when it comes to the role of new technology as Google itself shows with its efforts to integrate the existing body of knowledge found in fictional literature into the mapped world using its book layer for Google Earth<sup>14</sup>. In fact Google has gone a step further and developed a system for automatically searching texts and mapping the locations mentioned within them along with a quote from the book for each location putting the spatial element in narrative context<sup>15</sup>. So one can browse Jules Verne's Around the World in 80 Days (2004) in the form of a map 16 17.



Fig. 5: Moretti's Atlas of the European Novel mapped automatically by Google Book Search (2008)

14

http://books.google.com/support/bin/answer.py?hl=en&answer=74785

http://booksearch.blogspot.com/2007/01/books-mapped.html, http://google-latlong.blogspot.com/2007/08/google-book-search-in-google-earth.html

http://books.google.com/books?id=2 OflXjThdIC

<sup>&</sup>lt;sup>17</sup> There are other website's such as Gutenkarte (http://gutenkarte.org/map/103) offering this kind of content but none see seem to have matched Google's accuracy.

## 3. Literature review & analysis

The task of this section is to put into context what will be presented in chapter four in line with the hypothesis discussed above in order to understand how the work of other theorists has influenced the assertions made in this paper when it comes to idea of representation and reality.

This investigation is fundamentally a question of what Hillier discussed in the Social Logic of Space (1984) as being about understanding society through space and how meaning can be embedded in space. What has become apparent in this investigation is that Ackroyd's apparently simplistic novels provide a way of understanding society through space. Ackroyd, as a product of society, uses locations in his texts in certain ways to create meaning in his readers mind. This is simply illustrated in Hawksmoor, where the lead character's home located on Grape Street, Covent Garden is made it out to be a retreat from the action of the story, segregated from the bustle of the city (1993). From the spatial analysis presented below this is clearly confirmed with Grape St. seen as a segregated segment set back integrated main streets. In comparison, the church at Bank the setting for murder and a number of plot twists is the focus of a large amount of attention as it is shown as highly integrated in the spatial analysis. There are countless examples of occurrences such as this which show how Ackroyd's narrative is deeply linked to the structure of the city.

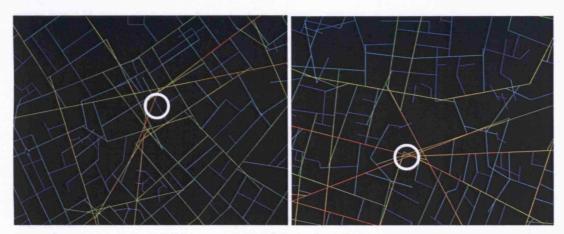


Fig. 6: Segment Integration at R500 - image on the left shows Grape St, image on the right shows church at Bank.

These views are echoed in Hillier's work on the syntax of tellable space (2008a). Hillier discusses the relationship of architecture and narrative in that both space and stories are essentially experiences through time and space. The nature of that experience for both fiction and architectural space is structured by, in Hillier's words, interrelated spatial, social and temporal factors. Hillier asserts that architecture is non discursive and is essentially lived rather than spoken of, this stands in stark contrast to fiction. He goes on to argue that temporal processes in history can map onto spatial structure and this structure can be read to retrieve at least part of the historical meaning of the original process. In this way it gives a

historical process the structure of a tellable narrative, a concept Hillier borrows from Marie-Laurie Ryan (cited in Hillier, 2008). Spatial and temporal are merged in the intelligibility of the configuration, or how easily the configuration can be used to infer a global position from the parts of the system one cannot see based on a local position. However Hillier argues that if an environment is made unintelligible then "the utility of memory is removed". In this way Hillier argues that cultural memory is inscribed in the structure of the environment. Relations between environment and narrative have a substantial history according to Hillier, for example in Hanson's paper Space and Time in two 19th Century Novels which examines the work of Thomas Hardy and Jane Austen (1976). In this Hanson reiterates Hillier's point that the description of the environment is a very important device to inform characterisation. According to Hillier this theme emerged during the 19<sup>th</sup> century when writers such as Balzac or Dickens would rely on the environment for an understanding of their characters which often offered a critical influence on individual characters. The influence of what could be termed milieu in 19<sup>th</sup> century literature can be tied to social and scientific developments in the time about evolution, learned behaviour and also as the result of industrialisation and urban growth. Writers began to see dire urban conditions as having profoundly negative effects on the people who lived on them and authors such as Austen saw escape and bliss in the countryside (Hanson, 1976)... Hanson takes this discussion further by asserting in Durkheimian terms that Austen's work could be seen a mechanically solid while Hardy's is organic. That is to say that Austen did not see time-space as a constraint to her system but rather as Moretti discusses (1999) she ignores these constraints in favour of using social relations to structure her novels. On the other hand Hanson discusses how Hardy's writing functions in the same manner as Dicken's (as discussed by Moretti) in being bound by time-space factors and using them intricately to structure his narrative. Despite this organic and mechanical differences both authors are writing with this time-space paradigm in mind, yet tackling it in different ways.

These processes of urban growth Hillier argues, can be lead to the formation of characteristic places and form rule restricted by random aggregation (2001). He uses the example of the seemingly random formation of beady ring villages in southern France. The potential inherent in architectural space and object place for creation of associations in narrative is immense argues Hillier. Choosing paths through spatial systems, as Ackroyd does for his characters and how Cumming is forced to do by his chosen medium (2008a), is an interactive and interpretative act, with the resulting experience resting on what has come before, in this way individuals contextualise meaning. This very post-modern idea will be discussed in more detail below. These ideas raise a number of questions for architects of urban space as well as authors involved in the creation of narrative. How to make sense of the environments people find themselves in? How to situate characters within texts? After all characters are not conscious and do not require an understanding of their situation but the reader requires an intelligible, continuous form. How do landscapes become meaningful then for the characters who inhabit them for the pleasure of the reader? The answer in short is context. Hillier

describes how Marie Laurie Ryan argues that the virtual is key to narrative, a story is tellable if it has a rich configuration of direct story line and virtual possible story lines which can be inferred and interpreted by a reader from the context (2008a). In the case of Ackroyd's novels there is a strong case for suggesting the spatial context provided by Ackroyd's intimate descriptions of London provide these virtual possible story lines, the maps presented above visualise these options for the reader. Ryan points out that a story with only a direct story line is not much of a story, there has to be further depth often at the level of the reader's imagination (1992). In Hillier's terms this rings true in the layout of an urban area, there must be something which keeps the individual's interest. For Ryan this entails constructing a relationship between story teller, audience and fictional characters, this is a configuration which unfolds in time and (virtual) space and bears direct relation on how space is negotiated and how it is meaningful (1992).

Similar ideas are discussed in Hillier's writing on the properties of language, architectural space and the relationship of form and meaning (1984, 2008b). Hillier discusses how language can been used as a model for architecture and the fundamental properties of both allowing them to operate in a similar manner (the processes involved in structuring and creating meaning). For Hillier the post-modern paradigm of language is a move beyond modernism's preoccupation with form and function and is the preoccupation with meaning. In this sense he seeks to investigate how language can be used for studying meaning in architecture. Hillier argues that the analogy between the two is inadequate like the analogy of machine in language (2008b). This is in that the importance of significance as both syntactic and spatial in that things can both be present and absent.

Hillier's work is important in relation to Ackroyd's novels discussed above. It offers insight into how the city can be used in narrative to create structure which has an important relationship with how individuals use the urban environment and how they design it. Indeed the narrative and structure has an effect on the reader, especially in the spatial context of the maps described above. Upon exploring the city after mapping the novels the stories gained yet another level of experience based on being able to superimpose oneself into the narrative by way of occupying the same locations as mentioned in the text. There is also the importance of being able to understand the city one is used to exploring on daily basis equipped with further knowledge with which to recognise street names, areas and a context and structure to understand them against. In this way the text is given a 3D effect not only by the maps but through the experience of the city as the texts are realised spatially to the reader, in this way the text is contextualised. This idea of contextualisation in text, city and language is present in Hillier's writing as discussed above with reference to forming meaning (2008a).

Moretti's work on fiction in the 19<sup>th</sup> century also offers insight into the maps presented above as well as being the inspiration for this project (1999). Moretti took on the task of dissecting,

through a series of diagrams and maps, a number of texts written in that century in order to understand the relationship of their authors, readers and characters social and spatial relations. Moretti makes use of such maps as Charles Booth's Map of Poverty in order to shed light on the social background against which texts such as those of Charles Dickens and Jane Austen were written. Although Moretti discusses the European novel in his book as opposed to simply texts set in London, his work is still an overriding influence on this paper. Like Malcolm Bradbury who states that "fiction depends on place" (1996:8), Moretti is deeply interested in geography which he sees as far from inert (1999). Instead he sees it as the space in which cultural history takes place, thus his task of mapping literature exposes social relations through how authors put together texts in their own cultural contemporary moment. Through an analysis of space in literature and literature in space (what it discusses and where it comes from) Moretti discusses the fictional and actual historical situation to explain that "what happens depends on where it happens" (1999:70). From Booth's map Moretti takes the idea that although the whole is ordered, the contingent parts appear as random. While on the larger scale there seems to be pattern to how a system is constructed on the small scale this pattern may not exist. Like Hillier (2008) and Hansen (1976), Moretti sees the 19th century as a pivotal point for literature when it comes to the environment and sees them as key for understanding not only social relations at the time but also the cities themselves (1999).

When it comes to London Moretti takes the task of understanding how various types of novel used the urban environment in their stories. For example he takes Silver Fork novels, popular in the early 19<sup>th</sup> century and concerning themselves with the lives of the upper classes, and Edward Bulwer-Lytton's *Pelham*, focussing on the gossip and dandyism of the same era, and plots locations from the novels onto maps of London (1999). Along with the locations from Jane Austen's novels Moretti demonstrates how the authors stick to West of Regent Street in the new, bourgeois area of town. What they show is a London reduced, cut in half, for only the West is relevant to lives of the characters. This echoes Bradbury's descriptions of Austen's literary world not only within London but also the spaces around it which are reduced to the locales of the wealthy which Austen is able to hop between (1996). Moretti concerns himself with how to attach the social data which comes across in these stories to the mapping of them. In part the mapping is the answer in itself, for example when Moretti's map of Pelham's London is looked at along side Booth's map of poverty there is a clear relation.

#### 37. Edward Bulwer-Lytton, Pelbam

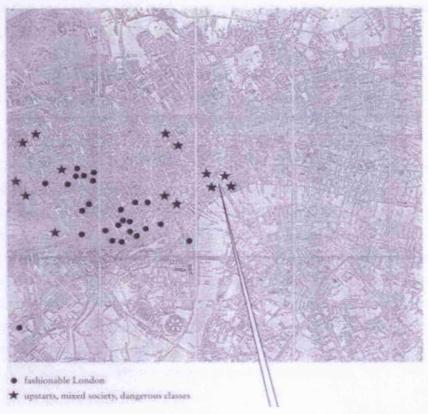


Fig. 7: Moretti's map of *Pelham's* London showing fashionable London (circles) and dangerous London (stars) (1999:81)

What Moretti's work shows is that the neighbourhoods depicted in the novels he discusses are not necessarily spatial neighbourhoods, instead they are class neighbourhoods based on social standing with the areas not relevant to the characters lives simply omitted. This idea is reflected again both in Bradbury's (1996) and Hanson's work on Austen (1996). These social divides which are mapped out in space are key because they alter the plot, Moretti shows how as spaces are crossed the narrative changes pace and style as well as content to reflect the surroundings. While Ackroyd's work does not seem to contain the divisions Moretti focuses on, his work does have a distinct spatial sense which is used to determine what sort of events happen in what sort of areas, for example the areas well known for murders (Ratcliff Highway which features in two of the novels discussed above) were historically renowned for being known for murders. In this sense the spatial environment takes on cultural and social aspects which are then featured in cultural works such as Ackroyd's which maintain their reputation, and so text effects space effects text.

Moretti offers up Dickens' Oliver Twist as the spatial mirror image to Pelham (1999). Whereas the Silver Fork novels on the whole ignore anything east of the western limits of the City,

<sup>&</sup>lt;sup>18</sup> The Ratcliffe Highway was a road which still exists in London's East End with a different name. In the early 1800's in was well known for crime and a particular spate of murders which took the name of the road.

Oliver Twist is set in the heart of where crime and 'evil' happens. Moretti argues that in both Austen and Dickens' work the two sides never meet in town, they always pass each other by. According to Moretti this spatial segregating of stories is for the readers benefit, simplifying the complexities of the city in order to create cohesive tales. Moretti introduces his idea of The Third in order to deal with the binary these texts create. He argues Balzac, and some time later Dickens introduces a third agent which is able to mediate social relations and bring the two sides, the two sets of society together in some ways. In Our Mutual Friend Dickens uses this Third to create a journey across London, which manages to fill the void which had been created in the centre of the literary map of London (Moretti, 1999). Moretti presents the gap in London filled by a new middle class as presented by Dickens, bearing in mind the context of social developments at the time this seems to reflect these changes, so not only a shift in literature but a shift in reality. However looking at the larger scale Moretti shows how London is a place where people come to a bad end and eventually try and escape even if they have to live there. Moretti introduces a useful diagram to show how Dickens moderates the introduction of novel spaces in his work as hinted at in the discussion of Ackroyd above. In a series of diagrams of a serial work by Dickens Moretti shows how the Victorian author keeps the readers attention by introducing new locations over time until he has set the scene and moves on to using plot developments instead of spatial developments.

# 54. The third London

Dickens' middle class occupies a triangle loosely comprised between Islington, the City, and Soho. Many of these characters work in the City and live north of it (Holborn, Pentonville, Camden Town, Holloway), although in several cases (especially in the legal professions) work and home coincide.

Novels included: Oliver Twist, Nicholas Nickleby, Martin Chuzzlewit, Dombey and Son, David Copperfield, Bleak House, Great Expectations, A Tale of Two Cities, Little Dorrit, Our Mutual Friend

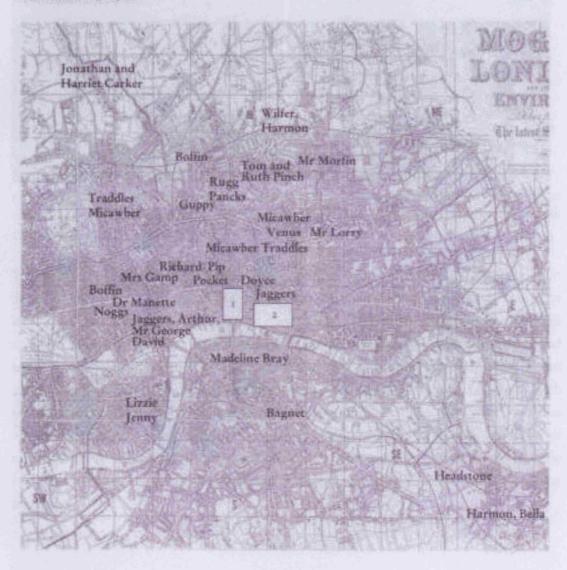


Fig. 8: Moretti's map of The Third London as represented in Dicken's work (1999:118)

Moretti also uses social maps which relate Dickens' novels in terms of social relations as opposed to spatial relations, these give another idea of how the plot is developed outside of the spatial realm. Moretti sees these social distinctions in the novels as important as they were tied to the success of the novels when aimed at certain audiences who could relate their own spatial and social arrangements to those of the characters, for example in Doyle's and Sherlock Holmes (Moretti, 1999). Moretti illustrates this with the Booth map, simply put the blighted areas highlighted by Booth are not where Holmes solves his fictional crimes instead

he is chasing the people Booth discusses in areas Booth would not expect to find them – among the wealthy. However a detective mystery set in the East End where readers would have expected the mysteries to happen is not so novel, the criminals in our midst is what produced the thrills.

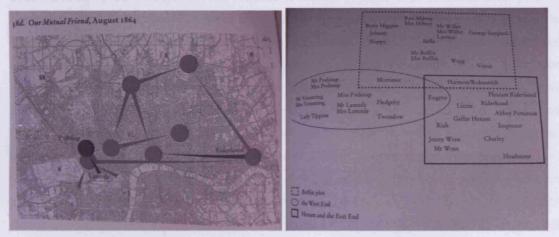


Fig. 9: Examples of Moretti's diagrammatical techniques, the left image shows plot development over time with the introduction of new locations (1999:126), the right image shows social maps of plots and characters involved (1999:131)

This chapter has attempted to provide some background for chapter four by discussing in detail some of the main influences on the hypothesis discussed in chapter two. The techniques used by Moretti and the theory discussed by Hillier are used by this paper and drawn together in order to come to some sort of conclusion about the interplay of reality and space. Both authors work focuses on being able to gain some sort of meaning from a brief understanding of the surroundings whether this be the built environment or a text. Both Moretti and Hillier argue that structure either in narrative or in the configuration of the environment is the main source of meaning which makes something readable or understandable. The task now is to relate this to Ackroyd's work on London to see how the city and text combined can provide meaningful insight into the relationship between meaning and reality.

## 4. Research: Data, method, maps

The main source of data for this paper was three short novels by Peter Ackroyd. The first was one of his most well known – *Hawksmoor* published in 1993. In this tale set both in the early 1700s and the present day, Ackroyd focuses a murder mystery around Christopher Wren's famous London Churches. The main character is Nicholas Dyer, Wren's assistant, who is often at odds with Wren's ideas with his own importance in mind. Ackroyd mixes historical knowledge from the time with fiction to cerate a mystery which intertwines with a second plot set in the present day which takes the modern characters around the same locations as their historical counterparts. The second novel investigated was *Dan Leno and the Limehouse Golem* published in 1994 and set in the late 1800s, again Ackroyd uses his historical knowledge to behind fictional and real historical character together in a murder mystery set in Victorian London. The real mystery here, as in all three works is how Ackroyd unfolds London in front of the characters allowing the plot to develop. The third text was *The House of Doctor Dee* published in 1994, a story of an inherited house on the borders of the City of London and its historical path. Like Hawksmoor Ackroyd uses a mixture of past and present settings to overlap and cross time and space to bring the story to the reader.

These novels were chosen not for their story lines per se but for how Ackroyd uses the city in them to create his plot. From looking at the number of locations mentioned in each text (bearing in mind this is not the number each location is mentioned!) – 186 unique locations in 270 pages in *Doctor Dee* alone, it is clear that London is very important to these stories. Along with the ease of reading of these fairly light fictional texts they were deemed suitable sources of data for investigation, not least because they seemed to focus on a wide selection of central London and its environs. Coupled with Ackroyd's reputation as a fine source of information about London (*London: a biography, Thames: Sacred River*) and knowing his historical interests in the city, they were deemed suitable sources of information for this investigation.

The three novels were read to get an understanding of the narrative but also to note every location mentioned in the text in order to get a spatial understanding of the narrative. These locations were then mapped into Google Maps including the page number each location appeared on and in some cases additional notes.



Fig. 10: Showing all the locations in Central London from the three novels. Hawksmoor – blue, Dan Leno – red, Doctor Dee – Green.

This data proved itself useful in a number of ways. Firstly it gave an idea of the distribution of events and locations mentioned in each novel. Secondly an idea emerges of the general spatial themes of each book. Hawksmoor marked in with blue markers is spread throughout the City and the West End. The House of Doctor Dee on the other hand tends to be mainly located in the City area. Dan Leno and the Limehouse Golem (red) mainly takes place in the West End but is also spread out towards Limehouse.



Fig. 11: A view of locations around St. Pauls from all three of Ackroyd's novels.



Fig. 12: Showing all the locations in Greater London from the three novels.

The image above shows the wide range of locations mentioned in terms of Greater London. As would be expected most locations appear closer to the centre but there are some on the edges of Greater London mentioned in Dan Leno and the Limehouse Golem. Note locations outside of Greater London (of which there were very few) were not mapped.

This allowed a detail spatial image of the three books to be built up, not only for the locations being mapped but also because of how page numbers for each location were mapped. This provided a temporal element to the data collected in terms of each novel as it was possible to see how locations were introduced and re-used. This was following Moretti's diagrams discussed above which followed the introduction of spaces diagrammatically.

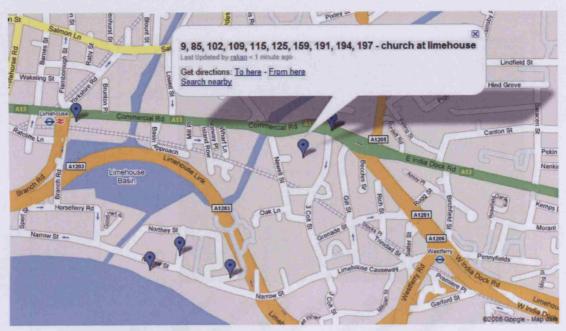


Fig. 13: Showing Limehouse Church and the page numbers it appears on in Hawksmoor.

Using these maps it is also possible to compare areas mentioned in the books to see how they are used throughout Ackroyd's work. This also helps build a cultural picture of the areas in how they are thought of to be used in stories such as Ackroyd's.

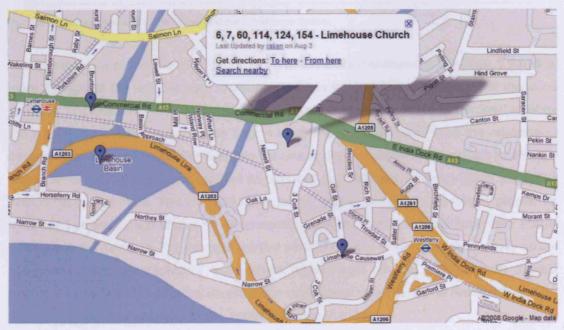


Fig. 14: Showing Limehouse Church and the page numbers it appears on in Dan Leno and the Limehouse Golem.

These two images show the location of the Church which is introduced early on in both novels but plays a much more important role in *Hawksmoor* than in *Dan Leno and the Limehouse Golem* as suggested by the number of pages the Church appears on. Visualising the text in map form allowed a number of patterns and ideas such as these to be made clear.

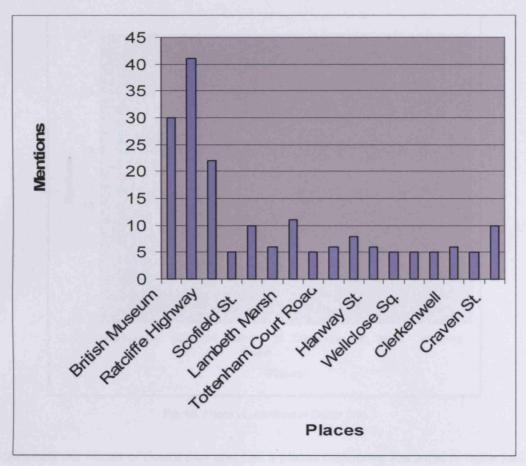


Fig. 15: Places vs. mentions in Dan Leno and the Limehouse Golem.

The figure above shows the 17 (out of total 116) locations mentioned in this book 5 times or more throughout the text (99 were mentioned 4 times or less) giving a total of 186 mentions for those 17 places. Not only does this paint an interesting picture of the places used most by the author and characters but it also begins to give some understanding of the relationship between places in the novel. For example the use of direct as opposed to indirect locations – places which merely act as background as opposed to places which have a direct impact on what is happening there. This could be taken further with an analysis of how many places are mentioned on each page to give an understanding how the structure of the book uses spatial locations in the narrative. For example, certain parts of the plot would rely more heavily on the scene being set geographically than others which might rely on dialogue with indirect references to space. Thus further investigation could break down locations mentioned and list them in the way they are used by the author following this idea.

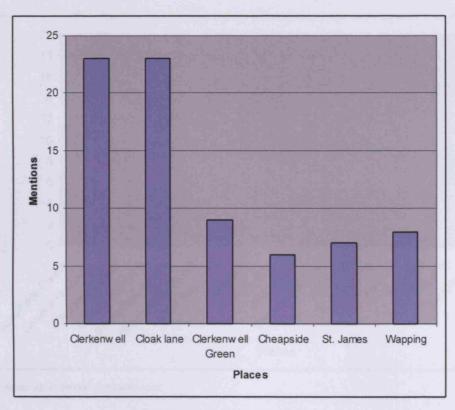


Fig. 16: Places vs. mentions in Doctor Dee.

Conversely the House of Doctor Dee only has 6 places mentioned five times or more (out of 189 total) with the majority of places being mentioned only once or twice. This suggests that there are fewer key locations in Doctor Dee which relies on a large number of locations in the text as a whole situating the narrative within the city. As opposed to Dan Leno and the Limehouse Golem where there are a larger number of key locations yet fewer locations overall. This could suggest that the narrative is much more focussed in certain areas and the pace of movement around new areas of the urban environment is much slower than in the House of Doctor Dee. The fact that even the most mentioned places in Doctor Dee are mentioned much less than the most mentioned places in Dan Leno seems to suggest that Doctor Dee is much more focussed on certain locations with a slower pace with the narrative recurring in the same sites. This follows the idea of the book which is based mainly around a house in Clerkenwell as opposed to Dan Leno which sees the lead characters constantly moving around London.

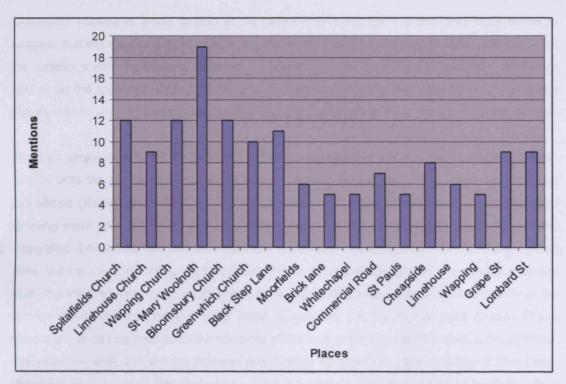


Fig. 17: Places vs. mentions in Hawksmoor.

Hawksmoor contains 17 locations mentioned five times or more (out of 117 locations), which means it is very similar to Dan Leno in terms of spatial structure. This seems to suggest a different type of narrative is being constructed in different Ackroyd novels despite the apparent use of London as one in the same in all the texts. Investigation of further texts could unveil a pattern with certain kinds of novels favouring different ways of using the locations available to them in order to construct structure for the narrative and contextualising the plot for the reader.

Further insight can be added to the maps and graphs created from the locations in the three novels using space syntax analysis. The image below shows the result of space syntax analysis on a segment map of the Limehouse area. This kind of analysis deals with the arrangement of routes within an area and their relation to other routes. The image below shows the segment integration at a local radius, in other words it shows the relation between every part of a visible path to every other part of every other visible path. It shows how accessible each segment is from each other segment and therefore illustrates the potential for movement to each segment as a destination at the local distance radius. Segments coloured in red show a high potential for movement while segments coloured in blue show a low potential (Hillier & Hanson: 1984).

When it comes to the graphs of places mentioned shown above space syntax analysis can also add another lay of information to them. The three most mentioned locations from each novel – St. Mary Woolnoth, Clerkenwell and the Ratcliffe Highway all have high local

integration measures when looked at, at radius 500 (between 1.8 and 2.0). This tends to suggest that the locations most used in the texts, the most integrated locations, would also be the locations with the highest potential for use in real life. This idea is relatively consistent across all the locations shown in the graphs above supporting this general theory with the places mentioned less being more segregated compared to the three most mentioned places.

The key areas mentioned by Ackroyd in *Dan Leno* and *the Limehouse Golem* have been plotted onto the space syntax analysis as can be seen by the key in the image below. What this shows (disregarding numbers 1, 2 and 7 which refer to the general area) is that Ackroyd is using main routes through the area as the basis for this story as they are mostly highly integrated. Limehouse Church, an important local landmark is located in a more segregated area, yet still on a well integrated segment. The locations which refer to the general area are also important as they mark out Wapping as a segregated area away from the majority of the movement. Limehouse on the other hand is contains several highly used routes. These observations can be related to the contents of the text and correlated by what is found there. For example while Limehouse features prominently as a pivotal point of action in Dan Leno, Wapping as a whole is less important. What the analysis begins to show in tandem with a reading of the text is that Ackroyd uses real life locations based on their real potentials to work them into his novels and set the tone for the kind of narrative that will occur in specific locations.

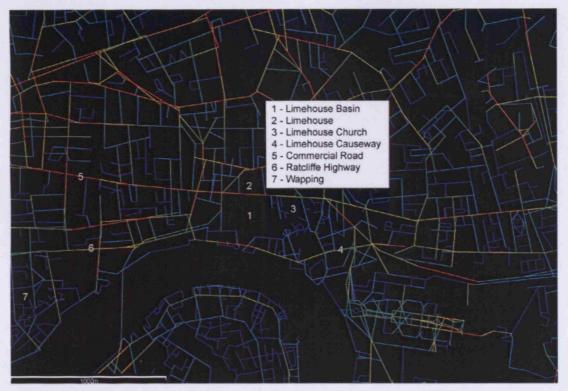


Fig. 18: Dan Leno: Segment integration R500 for the Limehouse area.

The final method of data gathering was done online through a specially set up website, London in Fiction<sup>19</sup> to garner reactions and input on the books which had been mapped. This was aimed at readers of the text and encouraged them to leave comments and complete a poll. This part of the investigation tied into the idea that there was something for both author and reader to gain from being able to experience the text in a different way. Following the assertion that the maps above allow readers another level of understanding to be able to situate events within the text readers were invited to add comments to the maps and record their impressions. Peter Ackrovd was also invited to give any impressions but he declined through his agent. While the website garnered very few comments it highlighted the potential for an interactivity to be developed between text, reader and author. Comments were also invited at various book discussion websites such as Book Group Online20 but users were mostly uninterested in commenting or followed the idea that they knew London anyway and did not need a map to accompany Ackroyd's novel. These results were interesting because the inspiration for this part of the project had come from the sci-fi blog i09 discussed above. This blog had attracted a large amount of interest and comments which was very different to the London in Fiction blog and maps presented. Of course the i09 blog is an established website with many readers and a reputation and the time frame to promote and receive comments for the London in Fiction site was very small. However it is possible that the kind of people reading Ackroyd's fiction are not so interested in this kind of technological aspect as the kind of people reading the type of science fiction i09 deals with.

The data presented in this section was gathered with the aim of building on the work of other theorists such as those presented in chapter three. The underlying aim has to been to provide evidence to backup the suggestions and ideas presented in chapter two to do with representations of reality.

<sup>19</sup> http://londoninfiction.blogspot.com/

http://www.bookgrouponline.com/forum/showthread.html?p=87215&posted=1#post87215

#### 5. Limitations

As well as the limitations discussed in chapter four to do with collecting responses to the data there were several other limitations which were identified. While the methods used in this investigation seemed to be overall successful there were several limitations which were noted. The nature of the texts being historical and often being set in little known areas there was a very low percentage of streets or areas which could not be found. Although many had changed named since the period when the stories were set and it was possible to track how street names had changed and there were perhaps less than 5% which could not be mapped. This ties into the limit of using Google Maps and not, for example, historical maps which may have sometimes provided greater accuracy. However the merits of using Google Maps was thought to outweigh these limits. A limit of both Google Maps and the space syntax analysis is that it is based primarily on roads while the majority of movement in Ackroyd's novels seems to take place on foot (aside from a few carriage and tube journeys).

Further ideas for representing the data collected include:

- Creating event based maps, plotting the location of a key event in the novel for example murders or major revelations.
- Creating frequency maps of the most mentioned places, with for example circles focussed don the locations mention differing in sizes and colours to represent number of times mentioned in the text.
- Journey based maps which follow the characters through time and space as they move about London.
- Using space syntax methods to create justified graphs based on plot lines and the links between different plots. This is related to the idea of linkography and taking linear processes and understanding the connections between processes.
- Creating a way of representing the locations mentioned in a chronological order.
- Integrating user created content in Google Maps to load photos, sound and video into the relevant locations.

#### 6. Discussion & conclusions

This paper has attempted to provide an experimental insight into how it is possible to understand the relationship between representation and reality. In particular this has led from an interest in the exploration of fantastical ideas about how cities should look and function to an investigation to how a real city functions in fictional literature. In this way this investigation has managed to bring together a number of varied sources, ideas and themes in order to attempt to construct an argument around what kind of relation a real urban environment can have to a fictional text which relies heavily on an urban environment for is structure.

In doing so this paper has relied heavily on the work of Hillier (1984, 1999, 2008a, 2008b) and Moretti (1999) to provide methodological inspiration and a theoretical foundation for the data presented. To reintroduce the hypothesis posed in chapter two, this paper has attempted to show that the relationship which exists between text and environment (in this case Ackroyd's three novels and London) is a relationship which sees both the text and the city leading to the formation of each other. To answer the questions posed in the second chapter, this is achieved through a merging of cultural, social and spatial ideas which sees authors using cultural ideas about spatial entities with social data to create representations of these spatial areas which are reabsorbed into the cultural and social ideas.

Using the data presented in chapter four above this paper has attempted to show that there is measureable, objective background to the assertions made in chapters two and three. That is to say that there is spatial evidence for the idea that to create a convincing fictional text an author has to make use of real space in certain ways as described by Ryan (1992) in order create an intelligible story. This paper has attempted to show that Ackroyd has done just that in the novels he has created using not only his knowledge as a fictional author but also his knowledge as a historian of London. Ackroyd has been able to create the image of London as a recognisable, intelligible city in fictional stories which means his narrative is meaningful for the reader. Relating this to Hillier's work discussed above this provides evidence for the argument that a text, like a city is a configuration which needs a certain type of structure in order to be understandable to the reader-user.

The final argument this thesis intends to make is on the process of the project attempted. This in fact is a post-modern approach to two areas (literature and architecture) which have both received a lot of attention from post-modern theory (Butler 2002). Taking as the definition of post-modern theory to do to be with context, this paper has attempted to identify the context which surrounds the fictional novel in the city in order to better understand it. The basic post-modern premise taken when approaching this investigation was that the book is not simply the product of the author, but this is merely the beginning of a project which is added to by the reader. Thus the text takes on new meaning when it is read based on the readers own

experiences and ideas. Therefore the author, like the architect is priming the book or the urban environment for the users involvement to which he or she will bring much more.

This has been the underlying approach of this project and by attempting to collect reactions from readers as outlined in chapter four above this investigation has attempted to add another layer to the post-modern approach. This is the post-post-modern where the emphasis is placed on the interactivity between the author, user and what is produced. The text or the environment is never complete but instead can be modified and altered by successive generations of users. This has profound implications in terms of authorship and ownership. One of example of this enhanced reality software which uses camera and GPS technology in mobile devices coupled with the internet to allow users to gain extra information about their environment through their mobile device. For example a user who walks to the top of a hill in the day could view the same view at night while immersed in the environment using such a device. The implications for such technology is vast for literature, as this project has tried to hint at.

The maps presented above of the locations in a traditional text are one example of a reader adding to what the author has created in order bring another layer of experience to a narrative, not only by sharing it with other readers. This can be coupled with all sorts of other innovations in order to expand a traditional medium to more users adding more interest along the way. For example, as discussed above in the ability to look around the streets using Google Street View the location of a text, immersing yourself in the environment using images, video and sounds. Indeed Hillier argues that these kinds of new technology's and the experiences they create will have profound effects on the spatial basis of society which is what he discusses in his paper on seeing society through space (2001). Hillier argues a point which has become clear in this paper, that the future of cities is deeply linked to their pasts and lies in a context which is created at the meeting point of social, economic and cultural factors which bring the user and architect together.

## 7. Bibliography

Ackroyd, P. 1993. Hawksmoor. Penguin Books, UK

Ackroyd, P. 1994. Dan Leno and the Limehouse Golem. Sinclair Stevenson, UK

Ackroyd, P. 1994. The House of Doctor Dee. Penguin Books, UK

Ackroyd, P. 2003. London: The Biography. Anchor Books, UK

Ackroyd, P. 2008. Thames: Sacred River. Vintage, UK.

Bradbury, M. 1996. The Atlas of the Literature. De Agostini Editions

Butler, C. 2002. Postmodernism. Oxford University Press, US.

Hanson, J. 1976, Space and Time in Two Nineteenth Century Novels, AAQ Vol. 8 No 4 pp 32-38.

Hanson, J. & Hillier, B. 1984. The Social Logic of Space, Cambridge University Press, UK.

Hillier, B. 1996. Space is the Machine: a configurational theory of architecture, Cambridge University Press, UK.

Hillier, B. and Netto, V. 2001. Society seen through the prism of space: outline of a theory of society and space. In: 3rd International Space Syntax Symposium, 7-11 May 2001, Atlanta, Georgia, USA.

Hillier, B. 2008a. The Syntax of Tellable Space. Unpublished.

Hillier, B. 2008b. Theory in Architecture and Urban Space: The paradigm question: is architecture a language? Unpublished.

Mieville, C. 2005. Looking for Jake and Other Stories. Pan Macmillan. UK.

Moore, T. 1965. Utopia. Penguin Classics, UK.

Moretti, F. 1999. Atlas of the European Novel. Verso, UK.

Ryan, M.L. 1992. Possible Worlds, Artificial Intelligence, and Narrative Theory. Indiana University Press.

Tolkien, J.R.R. 1992. The Silmarillion. Harper Collins.

Verne, J. 2004. Around the World in Eighty Days. Penguin Classics.

Wolfe, T. 1999. Bonfire of the Vanities. Picador Books.

#### Websites

BBC News, Online maps 'wiping out history', <a href="http://news.bbc.co.uk/1/hi/uk/7586789.stm">http://news.bbc.co.uk/1/hi/uk/7586789.stm</a> published August 2008, accessed September 2008.

Cumming, C. 2008. We Tell Stories: The 21 Steps. Penguin Books.

Google Books Layer for Google Earth, http://books.google.com/support/bin/answer.py?

hl=en&answer=74785 accessed September 2008.

Google Book Search, Atlas of the European Novel, http://books.google.co.uk/books?

id=ja2MUXS YQUC accessed September 2008.

Google Maps, <a href="http://maps.google.com">http://maps.google.com</a> accessed September 2008.

Google Street View, <a href="http://maps.google.com/help/maps/streetview/">http://maps.google.com/help/maps/streetview/</a> accessed September 2008.

i09, http://io9.com accessed September 2008.

i09, *The Google Maps of Sci-Fi*, <a href="http://io9.com/373393/google-maps-of-sci+fi">http://io9.com/373393/google-maps-of-sci+fi</a> published March 2008, accessed September 2008.

London in Fiction, <a href="http://londoninfiction.blogspot.com">http://londoninfiction.blogspot.com</a> accessed September 2008.

Book group online, <a href="http://bookgrouponline.com/forum">http://bookgrouponline.com/forum</a> accessed September 2008.

Omar Omar Flickr, <a href="http://flickr.com/photos/omaromar">http://flickr.com/photos/omaromar</a> accessed September 2008.

Open Street Map, http://openstreetmap.org accessed September 2008.

The Daily Galaxy, <a href="http://dailygalaxy.com">http://dailygalaxy.com</a> accessed September 2008.

This is Money, <a href="http://anmblog.typepad.com">http://anmblog.typepad.com</a> accessed September 2008.

Transport for London, <a href="http://tfl.gov.uk">http://tfl.gov.uk</a> accessed September 2008.