

Revealing the hidden spa landscapes of Essex: establishing their place, process and legacy

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Dedicated to my Dad and Grandad, both of whom loved the Essex landscape.

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## **Abstract**

The awareness of curative water is evident from pre-Roman history although its therapeutic use is often associated with the excesses of the Georgian period, a time when Essex mineral waters were gaining recognition for their alleged therapeutic properties. Physicians including Dr Martin Trinder (1783) regarded them as: “proper objects of congratulation”. By the early twentieth century, this reputation had diminished. Christy and Thresh (1910) estimated that there were twenty-two significant mineral springs located in Essex but were unable to describe the wells as fulsomely as Trinder, finding them: “wholly neglected and almost forgotten”. This research has evaluated the factors instrumental to the development of mineral springs within Europe, England and Essex between 1600 and 1900, examining why settlements including Bath succeeded while locations in Essex declined. The research demonstrated an evolving relationship between people, spa water and emerging designed landscape, transforming a significant vernacular feature into a commodity whose curative usage became increasingly exclusive.

Well data sheets were produced, initially focussing on the Essex sites listed by Christy and Thresh and subsequently of leading English spa resorts examining both their chronological development and current condition. Research examined the evolution of the spa industry in both classical and post medieval Europe comparing it with the English model. Case study research indicated that spa landscapes are not homogenous in purpose leading to the formation of spa landscape typologies. The research examined the importance of Place Attachment Theory to spa landscapes, considering the theory and associated models to be lacking. A new model was created addressing the absence of historical perspective. Consideration was given to factors influencing the impediment of spa landscape development within Essex, particularly the popularity of sea bathing and dichotomy between private and local authority investment.

**Key Words:** Spa Landscape, Place Attachment, Landscape Theory Model, Essex Landscape, Spa Typology

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# **Revealing the Hidden Spa Landscapes of Essex: Establishing their Place, Process and Legacy**

## **1 Introduction**

Essex possesses many springs and well sites which, rather than evolving into notable urban environments famous for the therapies and leisure facilities available there, transformed into hidden spa landscapes. These locations were both underappreciated and ultimately forgotten by those regarding Essex as home. While many towns and cities such as Bath; Somerset, Harrogate and Scarborough; Yorkshire have retained and celebrated their historic links to the spa industry of the Georgian and Victorian periods, this has not been the case in the county of Essex where the potential for spa towns of equivalent qualities was, at least for a short period between 1840 and 1900, a possibility. During the eighteenth century, Essex mineral waters were both well regarded and widely recognisable for their alleged therapeutic properties, evident from the assertions of Dr Martin Trinder (1783 p6) who stated: "The many different medicinal waters of Essex, as they lay claim to the cure of many different diseases are proper objects of congratulation". This contrasts with the assertions of Christy and Thresh (1910 p5) little more than a century later who declared: "Today every single one of our Essex mineral springs with one exception is of little importance, is wholly neglected and almost forgotten". Although local historians have provided evidence to support the existence of spa landscapes, an explanation regarding the failure of these sites to achieve comparable renown to locations such as Harrogate and Scarborough have not been sought.

While there have been several studies concerning the facilities and treatments available at both English and European spas in the eighteenth and nineteenth centuries, by authors including Granville (1838, 1841), Hembry (1990, 1997) and Clay Large (2015), there is little information or subsequent analysis on the role of a spa as an urban initiator and the ensuing effect on the immediate landscape. The mineral springs of England from the seventeenth century onwards have their roots in holy wells and curative waters common during the Roman invasion of Britain in 43CE. Holy wells are described by the historian Parish (2008 p5) as being natural springs or

man-made wells which, during their lifespan have attracted religious, ceremonial and therapeutic connotations. There are countless locations across the England where the vernacular landscape contained a natural water source which was afforded therapeutic properties by the local inhabitants who subsequently used it as a means of alleviating their aches and pains. This 'vernacular' setting while meeting the needs of the local working population was, likely, insufficient for the requirements of the affluent who required a location with greater finesse. While the research of scholars has investigated urban developments in the burgeoning English spa industry of the eighteenth century in locations such as Bath, there is a lack of narrative analysing the evolution of water therapy and its potential for urban stimulus in the county of Essex.

While there exists a chronology for the evolution of the spa industry in England with regards to significant urban areas such as Bath, a similar timeline for the development of Essex well sites and their capacity to influence urban development is lacking. An investigation was necessary as there was a very limited research base concerning the expansion of Essex spring sites. A considerable amount of literature was self-published and reliant on the work of Augustus Granville (1841) and Philip Benton (1867) while specific information regarding the development of spring sites was incomplete and lacked consideration within the context of a county, national or European level. This led to the formation of the research question 'What processes contributed to the evolution of spa landscapes in Essex from spatial and historical contexts and what were the subsequent legacies of understand and evaluate the process, emergence and disappearance of Essex spa locations, these landscapes?'. Furthermore, a lack of analysis regarding the eventual demise of spring sites was evident. To case study analysis was necessary for both the sites positioned within the Essex landscape and other 'successful' sites both within Britain and a European context.

While the research examined the evolution of spa landscapes from established periods of history such as the classical Roman empire and post medieval period, it is important that synoptic links were confirmed, where appropriate, between contrasting eras. The historian E. H. Carr (1961 p16) regards history as "a continuous process of interaction between the historian and his facts,

an unending dialogue between the present and the past". Examination of the evolution of water therapy from a national and European perspective was important if a thorough understanding of the development of the usage and appreciation of healing water in Essex was to be successful. Additionally, the research required a perception of a number of landscape theories including the classification of place types as alluded to by scholars such as Jackson (1984) and Cosgrove (1984) and the appreciation of the attachments formed by people to places as proposed by scholars such as Scannell and Gifford (2010) and Seamon (2014). A thorough examination of landscape theories was necessary in order to understand the continuing relationship between landscapes with therapeutic qualities and the people who valued these locations. An evaluation as to whether the models justifying these theories was adequate to explain this research would then be possible.

## **1.1 Review of Previous Related Literature**

### **1.1.1 Defining the Spa and their Landscapes**

A spa town is a dedicated urban resort positioned in the vicinity of a mineral spring, frequented by patrons with the intention of 'taking the waters' for their perceived health benefits. There is some disagreement as to the origins of the term 'spa'. Some historians believe it to derive from the word '*espa*' which originates from a Belgian dialect meaning fountain while others believe it to be an acronym of the Latin phrase '*Sanus per Aquam*' or healing by water (Katz and McBean, 2008 p307). The first known English centre for spa bathing was the Roman city of Bath, known as *Aquae Sulis*, founded in 43CE. The site was renowned both in England and on a wider scale, evident from the literature of Ptolemy (circa 150CE) who described the site as: "Yêara Seppä", meaning 'hot springs' (Page, 1906 p219). Although the concept of utilising water for the purpose of healing in England is often associated with the excesses of the Georgian period as satirised by artists such as Thomas Rowlandson (Figure 1), the spa at Bath was already popular during the reign of Elizabeth I (Hembry, 1990 p5) while the Poor Law Act of 1572 describes Bath as a place where the sick or infirm could seek a cure (Mitchell, 1986 p189).



Figure 1  
 Cartoon by Thomas Rowlandson titled 'Public Breakfast, The Comforts of Bath', 1798  
 Source: Jane Austen's World, 2009

### 1.1.2 The Impact of Spa Development on Social, Political and Economic Factors

The expansion of mineral springs is associated with developments in social, political and economic issues. While it is probable that therapeutic water was recognised by local communities throughout history, the first significant English location was established in Bath, Somerset in 863 BCE during the reign of the Celtic King Bladud. The site was subsequently developed and named *Aquae Sulis* by the Romans in 43 CE (Rotherham, 2014 p4). The reign of Henry VIII was a period of religious transformation which impacted on the usage of mineral wells. During the 1530s Thomas Cromwell, Chief Minister to the King, demanded the destruction of holy wells including those in Bath and Buxton (Hembry, 1990 p4). While the intention of this action was the suppression of activities with a Roman Catholic context it succeeded in dispatching wealthy Catholics to the Netherlands which was controlled during this period by Spain. Many Catholic sympathisers visited the town of Spa, located close to the University of Louvain, famed for its Catholic ethos (Neesam, 2005 p69). Following the accession of Elizabeth I, the government realised that the prohibition of spa visiting in England was likely to encourage the migration to Europe of affluent recusants and thus following the Settlement of 1599, allowed people to use mineral wells for comfort and therapy (Hembry, 1990 p4). This adjustment in attitude coincided with the expansion of English spa locations such as those at Harrogate; Yorkshire and Kings

Newnham; Warwickshire. The spring at Kings Newnham was actively promoted as it offered easier access for those seeking spa therapy at a location in the Midlands who would, otherwise, need to travel to the north or southwest of the country for water therapy.

The portrayal of the spa as a refuge for the affluent classes is somewhat simplistic as the development of the English spa affected all vestiges of society. The Poor Law Act, 1571, refers to the towns of Bath and Buxton as locations where the needy could seek help (Martin, 1971 p7). The 1730s was a period of economic difficulty for those working in the coal and textiles industries which was compounded by a series of harsh winters including that of 1789 which was particularly brutal. The awareness of the seriousness of the conditions of the working classes is evident from a subscription list established by Beau Nash, Master of Ceremonies at Bath Spa with the intention of aiding the poor. By 1742 the Mineral Hospital at Bath had opened a wing with the intention of providing treatments for the underprivileged (Hembry, 1990 p272). The growth of the spa industry during the seventeenth and eighteenth centuries also impacted upon the employment prospects of the working classes. The 1841 census return for Leamington Spa; Warwickshire records a variety of employment including domestic service, cobbling, dressmaking, bricklaying and carpentry (Hembry, 1997 p27). A similar change in occupations is apparent in the trade directories, published by William White, referring to the coastal resort of Dovercourt; Essex, a burgeoning spa resort from the 1850s, which in 1848 (p490) listed occupations primarily related to shipbuilding. Following the creation of the spa, a subsequent edition of the same directory (1863 p523) listed occupations such as hairdressers, tailors, china and glass sellers and a proprietor of bathing machines indicating the growing commercial requirements of the town as it evolved into a spa resort (Whites Directory, 1848 and 1863).

### **1.1.3 Spa Influences and Responses to Developments in Transport**

Developments in transport during the eighteenth century were to prove beneficial to the flourishing spa industry. The turnpike road was a key evolution in the type of thoroughfares available for travelling spa visitors. The English road system was not planned by a central body but by local trusts who were generally allotted a twenty mile stretch of highway on which they could charge a

toll to users. This money would then be utilised to maintain the condition of the highway. By the 1830s there were approximately one thousand turnpike trusts who were responsible for thirty thousand miles of roads (Rosevear, 2008). Turnpike roads would have proved popular with spa visitors who tended to travel by coach and horses but additionally would have provided an alternative method of delivery for commercial transport as well as public wagon services (Hembry, 1990 p305). The Railways Regulation Act, 1840, was influential in the development of leisure tourism. It would be naïve to suggest that the expansion of the railways played a pivotal role in the growth of the spa industry as in many cases the positioning of railway lines would not be in the vicinity of a spring site. Some spa towns, however, benefitted from the growth of the railway including Cheltenham; Gloucestershire (1840), Harrogate; Yorkshire (1848) and Malvern; Worcestershire (1859) (Hembry, 1997 p102).

It is perhaps unlikely that many spa visitors utilised the railway system as this was initially intended for the transportation of goods and subsequently for inexpensive mass travel. During the eighteenth century, the creation of canals was fundamental to the continued expansion of spa towns. While this form of transport would not have been utilised by spa patrons, they were advantageous in conveying a range of products such as coal or building materials into a town. The Warwick to Birmingham Canal was an important aspect to the success of the spa at Leamington as coal could be transported from local collieries for heating both buildings but, more importantly, the intended therapeutic water. The plentiful supply of coal enabled the extension of the spa season which previously had to be limited due to the vagaries of the English climate (Hembry, 1997 p10). An examination of changes in transport infrastructure within Essex was necessary to ascertain its influence on the spa industry within the county.

#### **1.1.4 Architectural Developments and their Influence on Spa Facilities**

The architecture, landscape presentation and location of seventeenth century English spas were generally remote, spartan places with the sole intention to provide a medicinal remedy to those seeking treatment. Their location was often in places which were difficult to access and provided little in the way of shelter or amenity to visitors (Mitchell, 2008 p191). Perhaps the rudimentary

standard of the facilities on offer ensured those visiting were there with the sole intention of a cure. Following the accession to the throne of Charles II after the Restoration, the requirement for increasingly elaborate spa facilities grew. Charles II had spent many years in the French court and therefore was used to visiting the spas of Vichy and Bourbon during the summer months. Spa patrons in France expected better facilities than similar locations in England, and although the regimen was strict, there was an expectancy that facilities would be of a high standard. Upon his accession, this developing attitude of an affluent class enjoying a life of excess and luxury perpetuated and began to filter into the amenities at spa locations. Porter (1990 p9) states: "City fathers and individual estate developers were quick to capitalise upon the opportunities for the creation of a speculative hedonistic culture surrounding the spa".

Following the Restoration of the monarchy, there was a transformation in the emphasis of the purpose of spa therapy which saw resorts develop into locations catering for leisure and entertainment. The change in emphasis from simple therapeutic sites into planned development is evident from the expansion of landscaped parks within resorts and architectural advancements in the associated buildings. The eighteenth century witnessed an alteration in the purpose of a spa town as a place concerned with the many anxieties of the wealthy rather than being a simple location utilised by people to heal their ailments. Martin (1971 p viii) highlights this change in significance by describing the new resorts as locations which "catered for hypochondria". The alteration in emphasis is evident from the design of urban spaces and the architecture of the buildings constructed. In the case of Bath, the historian Mitchell (2008 p194) alludes to the Master of Ceremonies, Beau Nash, as being influential in the development of the city. He suggested to the Corporation the need for adequate infrastructure as well as facilities which would attract wealthy patrons. Elegant and stylish open spaces were another expectation of the spa patron. Visitors to Bath could enjoy Sydney Gardens which had been landscaped to include waterfalls, a serpentine walk, pavilions, and a folly providing they paid the annual subscription of ten shillings (Hembry, 1997 p56). While there exists much literature regarding the growth in therapeutic and leisure facilities in resorts such as Bath or Harrogate there is little methodical testimony regarding



the facilities available to spa patrons in Essex and whether these supported designed urban spaces.

### **1.1.5 Scientific Developments and their Influence on the Spa Industry**

Scientific developments, particularly those in Chemistry, had a significant influence on the evolution of the spa industry. Hembry (1990 p69) asserts the importance of medical literature or the recommendation of a physician to a potential spa. During the medieval period there was little interest in the healing potential of mineral springs by established practitioners. Following the implementation of the Poor Law Act in the late sixteenth century and the endorsement of the towns of Bath and Buxton as locations where the sick could seek a cure through water therapy, physicians perhaps saw an opportunity to enhance their reputation (Rotherham, 2014 p11). The first English scientific literature regarding the benefits of mineral springs was written in 1562 by William Turner and was titled '*A Book of the natures and properties of the Baths of England*' (Coley, 1979 p191). The intention of this work was to encourage spa patrons to consider undertaking water therapy in England rather than travelling to the continent. By the end of the seventeenth century there was an increase in the popularity of pamphlets and treatises promoting the efficacy of a specific mineral water (Hamlin, 1990 p70).

The recognition of 'therapeutic' waters is evident in Essex; with two physicians recording their findings at several spring sites. The first of these was Benjamin Allen who published the first of his works '*The natural history of the chalybeate and purging waters of England*' in (1699) while the other main exponent was Martin Trinder who published his work '*An enquiry, by experiments, into the properties and effects of the medicinal waters of the county of Essex*' in 1783 (Christy and Thresh, 1910 p7). While these pamphlets are an interesting insight into the concerns of physicians, they lack any medical rigour. The scientific analysis undertaken at each site would not be considered suitable research by twenty first century standards as the study of each water failed to examine their components. In many cases the pamphlet was written by a physician who resided in the vicinity of the spring who might be perceived as having a vested interest, as Coley

(1979 p191) states: “for the physician, the existence of a mineral spring in his locality could be a most lucrative aid to his medical practise”.

Until analysis by scientists such as Thomas Short and Peter Shaw in the 1730s, there was a generally held belief that mineral waters were in some way supernatural, having an almost magical essence. The analysis of Short in the early eighteenth century used reagents such as vegetable colours and galls while Shaw was able to classify the components of mineral waters into salts, earths, sulphurs, fumes or spirits (Coley, 1990 p58). By the mid-eighteenth century, there were developments in pneumatic chemistry which resulted in the understanding that many waters contained carbon dioxide (Coley, 1990 p58). Until this point, many believed water to be a single element so discovering that water was a compound which contained other compounds was a huge concept. The physician William Brownrigg compiled experiments in 1740 with the purpose of collecting carbon dioxide from mineral water (Coley, 1982 p132). These concepts were subsequently expanded by his peers. Joseph Priestly succeeded in creating an artificial mineral water in order to dissolve kidney stones in 1770 (Figure 2) while by 1780 Jacob Schweppe was gaining a reputation for his manufactured mineral water. This breakthrough led to the production of mineral waters resembling those of the most famous resorts in Europe by pharmacists such as Friedrich Struve in the early nineteenth century. These artificial waters were subsequently recommended by eminent English physicians such as Augustus Granville (Coley, 1990 p63). Such developments were occurring at a time when many Essex spring sites were growing in reputation.

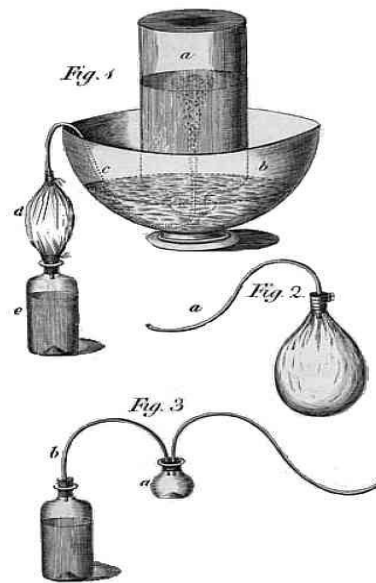


Figure 2  
Diagram showing Joseph Priestley's apparatus for adding air into water  
Source: Leggett, 2012

### 1.1.6 Landscape Theory and its Importance Regarding the Analysis of Spa Landscapes

While the social, political, technological and economic developments occurring in England between the seventeenth and nineteenth centuries are important issues when considering the evolution of the spa industry, a reflection of what landscape theory might represent to those evaluating this academic field was necessary. The scholar James Corner (1990), as cited in Swaffield (2002 p1), emphasises the distinct functions of theory, firstly organising information into a collection of principles ready for application but furthermore challenging existing concepts and suggesting alternative models. The combination of both landscape and historical elements within this research is aptly described by Corner (1999 p7) who describes landscape as possessing an: “inextricable bond with cultural ideas and images; it is thus a gross reduction to consider landscape simply as a scenic object, a subjugated resource or a scientific ecosystem”. This notion is supported by Swaffield (2002 p1) who regards landscape as: “made by particular people, for specific reasons, in particular places, at particular times”.

Landscape theory encompasses numerous categories focussing on the many aspects of the discipline. Scholars such as Jackson (1984), Corner (1999) and Antrop (2005) examined how landscapes can take different forms depending on the requirements of the primary user group.

They suggested that site users may perceive their environment as a resource to be worked with or one that demands control over. This analysis is transferable into the study of spa landscapes both from a vernacular and urban perspective. Fromm (1973) and Wilson (1984) sought to examine the proposal that people aspire, on a predominantly subconscious level, to pursue attachments with the natural world. The concept of Biophilia was subsequently evaluated by scholars such as Kellert (1999) and Ramoie (2014). They all described how this affinity takes many forms including an appreciation of natural beauty. During his research, the scholar Yi-Fu Tuan (1974) devised the term 'Topophilia' which examined the connection between the emotional, rational and psychological relationships humans have with their environment. An examination is required of the bonds formed between people and landscapes whether of personal or community significance, both biophilial and topophilial in order to confirm possible links with spa landscapes.

An important aspect regarding the evolution of spa landscapes was the role Place Attachment Theory held within this process. Place Attachment Theory has become an increasingly familiar concept during the last forty years. A study by Lewicka (2011 p208) examined four hundred journal articles relating to the topic of which more than sixty percent had been published since 2000. The concept of Place Attachment was initially defined by Stokols and Schumacher in 1981 as being a 'person-place connection' (Najafi and Shariff, 2011 p187). Although the discipline of Place Attachment is relatively modern, the foundation of 'place' as a construct can be traced back to philosophers such as Plato (380 BCE) and Aristotle (350 BCE) who considered the value of place to individuals. Plato employed the expressions 'chora' referring to the study of regions and 'topos' denoting the examination of place (Cresswell, 2014 p28). The philosopher Albertus Magnus (1193-1280) examined the concept of place in his work *The Nature of Places* and argued that the uniqueness of a location was integral to the type of community evolving there. Magnus considered place to be an amalgamation of cosmological and ecological elements that combined to affect the components, either human or physical, occurring within that location (Casey, 1998 p71). The philosopher Heidegger provides a more contemporary interpretation of place in his work *Being and Time* (1962) where he introduces the term '*Dasein*', meaning 'being in'. Heidegger

believed that place identity was an innate human emotion (Lewicka, 2011 p208) an idea supported by Manzo (2005, as cited in Najafi et al, 2011 p187) who stated that: “it is not simply the places themselves that are significant but rather what can be called ‘experience-in-place’ that creates meaning”.

Since the publication of Low and Altman’s (1992) work *‘Place Attachment’* which evaluated the varied elements that might render a location as meaningful and discussed the impact that an alteration in the attachment can have on individuals, further research has examined more specific aspects of the original work. Scholars such as Devine-Wright and Manzo (2014 p5) have developed the concept of Place Attachment Theory and its specific importance when considering how and why people make decisions about the location of their chosen community. Much of the research focussed upon locations in their present state or those in the very recent past. This is evident in the work of Fullilove (2013 p141) who examined the effects of Afro-American communities when attachment to a location is altered following the compulsory removal of that population to a new settlement. The scholar Gustafson (2001 p38) examined whether Place Attachment is still possible in a world where so many individuals relocate for a variety of reasons including employment and education while Brown, Smith and Assaker (2016 p160) assessed the type of Place Attachment formed by spectators at an event such as the London Olympics (2012).

Analysis was required to ascertain whether Place Attachment Theory was directly transferable to the evaluation of the growth of historical landscapes as there appears to be a lack of research examining why people formed a bond with places in the past. Many scholars have created models or frameworks in order to further explain their research including Stokols and Schumacher (1981), Scannell and Gifford (2010) and Devine-Wright (2011). Consideration was required as to whether these frameworks would meet the requirements of this research or whether a new model would need to be created, one which allows for a much greater use of historic data to establish spa sites as urban initiators. The potential for a new model is explored in greater detail in the methodology section of this work.

## 1.2 Research Objectives

The research has examined the development of the spa industry, recognisable in the eighteenth and nineteenth century, from its origins in the classical period until the beginning of the twentieth century. Analysis of the utilisation of water therapy focussed upon comparisons in its evolution from a European, English and Essex perspective. The research primarily aimed to revive awareness of the forgotten spa landscapes of Essex examining both their historical and spatial stories in order to ascertain how something once so vital to human settlement has become so little appreciated within the 'narrative' of the county.

The review of the literature provided a foundation for developing the research question 'What processes contributed to the evolution of spa landscapes in Essex from spatial and historical contexts and what were the subsequent legacies of these landscapes?' A series of objectives to investigate the research question were established; firstly, to uncover the history of spa landscapes in Essex examining both whether these sites were confined to a specific region or were more widely scattered. Secondly, to examine the connection between urban landscape spatial development and human spa values, both sacred and recreational, in order to understand how these sites have been valued as urban initiators. Thirdly, to reveal the spa landscapes of Europe from pre-Roman times to the late nineteenth century and to understand how they have been used as a tool to shape the surrounding landscape and to explore whether Essex was following these conventions. The fourth objective was to identify the location of Essex spa landscapes and examine where spa development occurred and their current condition. The fifth objective was to investigate the existing landscape theory models, to assess their suitability for spa landscapes and potentially develop a suitable model to evaluate the spatial, social and historical value of the Essex spa landscapes. Finally, to appraise wider spa development in England and Europe to enable comparison with Essex landscapes, evaluating the factors leading to their demise. Examination of how these objectives will be achieved has been undertaken in the methodology. The process of revealing the hidden spa landscapes of Essex will require a consideration of developments in the evolution of therapeutic water both in Europe and England

as well as theories underpinning research in Landscape Architecture. The following chapter includes an analysis and evaluation of hypotheses and models pertinent to the study of Place Attachment within the context of historic and often vernacular landscapes, providing suggested adaptations to current exemplars where appropriate.

## **2 Methodology**

### **2.1 Motivations and Purposes Driving the Research**

While there is a robust research base concerning the evolution of spa resorts from both a national and European perspective, the literature relating to the development of spa landscapes in Essex is more limited. As previously mentioned, a considerable amount of the material regarding Essex sites is self-published and heavily reliant on the work of Augustus Granville (1841) and Philip Benton (1867) while specific information regarding the evolution of mineral springs within the county is incomplete. The intention of this research is to examine the progression of spa landscapes within the county, connecting data which is currently disjointed, thus creating a narrative which chronicles the development of mineral water in relation to both the wider national and European viewpoint. The research will continue by examining how Place Attachment methodologies can be applied when appraising the evolution from a vernacular site to an increasingly anthropogenic environment. Consideration will be given as to whether the urban development linked to Essex spa landscapes differed from that in other areas of England using place attachment models.

### **2.2 Choice of Research Approach and Research Assumptions**

In order to ascertain the place, process and legacy of spa site evolution in Essex, a range of research methods have been implemented generating evidence to demonstrate the development and subsequent demise of small, rural springs as well as larger and potentially more valuable spa sites located in towns such as Hockley, Witham and Dovercourt. Multiple data gathering has indicated possible social, demographic and economic influences specific to the growth of spring sites. Data has been used to examine influences in urban development which can be attributed to the growth in popularity of a local mineral spring. A variety of archival evidence including newspaper articles, historic maps such as Ordnance Survey, photographs, sales catalogues, census returns, local government board minutes, council minutes and contemporary accounts have been utilised to demonstrate the development of the spa industry in Essex and how this



affected the urban, social and economic development of towns such as Dovercourt. Consideration was given as to whether any aspects of spa development in Essex were typical to advances in the spa industry elsewhere in England or western Europe. Attention has been given to how the layout and construction of specific types of buildings within spa towns became initiators of change and, in turn, influenced subsequent urban development.

## **2.3 Research Design and Methodology**

### **2.3.1 Data Collection Methods and Techniques**

Qualitative research examines the manner in which people view their immediate community and includes a range of retrieval techniques. This form of data recovery is suitable for small case study research as a comprehensive narrative and examination of the information available are still possible. Although the research field may be small, as in Essex, this need not limit the range of enquiry available. Tesch (1990, p51) has determined more than forty distinct forms which fall under the auspices of qualitative research including field study, focus group research and document study. For the purpose of this research, qualitative data collection was used throughout, initially in the form of historical analysis in order to determine the development of spa landscapes in Essex by employing a range of archival evidence including the examination of historic maps, photographs, contemporary accounts, local government board minutes, council minutes and sales catalogues. Simonton (2003 p619) suggests that a combination of data retrieval is necessary with this manner of research as historic information rarely exists 'ready-made' in a quantitative structure and thus by accessing information from a range of sources, a comprehensive historical insight can be developed. Denzin and Lincoln (2000 p4-5) believe qualitative research to be a system of analysis which demands that enquiry occurs within the immediate environment and consider that qualitative researchers need to study things in their natural settings, attempting to make sense or to interpret phenomena in terms of the meanings people bring to them". This process is clarified by Figure 3 which demonstrates how the initial information requires effective presentation in order that valuable deductions can then be drawn.

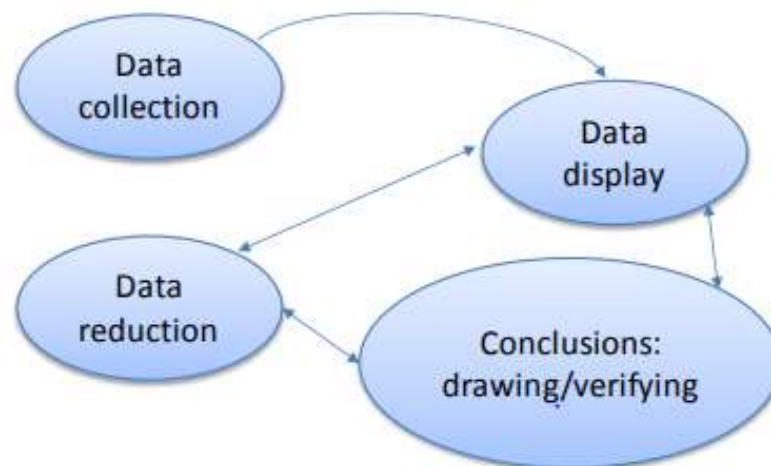


Figure 3  
Components of qualitative data analysis  
Source: Miles and Huberman, 1994

Yin (2018, p126) proposes that this manner of research is beneficial to multiple case study research as it can be frequently reappraised and includes exact names or the minutiae of events. He continues by warning that qualitative evidence can indicate bias through the nature of the document archived, the unspecified partiality of the collector, or that the retrieval of obscure data may be challenging. This viewpoint is supported by Booth, Sutton and Papaioannou (2014, p66) who suggest that care should be taken when examining the sources utilised by other researchers as these too may inadvertently contain prejudice. Through the undertaking of a variety of data retrieval, as suggested by Tesch (1990 p51) this type of bias should be minimised.

Following the endorsements of academics such as Tesch (1990), Denzin and Lincoln (2000) and Simonton (2003) spatial investigation specific to this research was recorded in the form of field data sheets where a range of qualitative data recovery was collated. This method of investigation has been beneficial to this research as it has allowed for the examination of a site from its origins through to the present day, highlighting the many layers of history within the site and how the location has evolved. The data sheets include the information leading to a chronology of the location as well as an assessment of the site in its current form, including data concerned with existing remnant remains such as architecture, relevant water sources and any local recognition

of the site. A more detailed explanation of the evidence included within the sheets as well as data for each spring site can be found in the Appendix.

### **2.3.2 Data Collection Details**

The majority of archival data collection was undertaken in local museums, the Essex Records Office, local libraries and the British Library. Where appropriate, such as in the case of Hockley Spa, Felsted or the West Tilbury sites, permission was sought to visit structures that are now in private ownership. In addition, data collection was also carried out in the form of site visits in order to gather a recent chronicle of each location through observations by the researcher.

### **2.3.3 Ethical Issues**

University ethical approval was not required for this research. Permission has been obtained from the Essex Records Office and any national, regional or local museums or libraries prior to the reproduction of information from archives such as sales catalogues or photographs.

### **2.3.4 Data Collection**

The research evolved from an investigation into the work of Christy and Thresh (1910) who visited twenty-three well sites across Essex, dating from the seventeenth to the nineteenth century, with the intention of ascertaining whether their contents, following scientific and historical analysis, were actual mineral waters or whether any perceived health benefit was purely conjecture. The research of Christy and Thresh was undertaken for the Essex Field Club and provides the most in-depth evaluation of well sites across the county, including information regarding the location and analysis, where possible of well water. Although physicians such as Benjamin Allen (1699) and Martin Trinder (1783) studied a wide variety of Essex spring landscapes, their evaluation of the water located at these sites was more rudimentary while the number of well sites cited in their research was more limited than that of Christy and Thresh. The seventeenth and eighteenth centuries were a period when scientific understanding of water and methods to indicate its properties were advancing so research from that period is less comprehensive than that in the twentieth century. Although Granville (1841) wrote an in-depth analysis of the water located at

Hockley Spa, this was partly authored as an advertisement for the burgeoning enterprise. The research included field data sheets for each of the locations studied by Christy and Thresh but in addition included a well at Fobbing which, although not mentioned in the original research, was analysed by Doctor J. Thresh, Medical Officer for Health for Essex, in 1922 for an article in the *Lancet Journal*. Additional field data sheets were created examining the chronology of the development of spa facilities in Bath, Harrogate and Scarborough in order to provide a comparison with the Essex sites. The research was unable to locate any subsequent research pertaining to the sites highlighted by Christy and Thresh emphasising the requirement for an in-depth study of each Essex spa landscape which draws together the disorganised evidence of previous scholars of these forgotten landscape features.

The preliminary component of data collection in terms of this study consisted of historical and archival research. Archival data is a broad term describing material such as manuscripts, reports, maps and documents held in a specific location. Yin (2018 p117) underlines the problems with archival research, namely bias or other issues such as a lack of information regarding a specific topic. He continues by highlighting the importance of triangulating when undertaking this method of research in order to avoid these pitfalls. The process of triangulation was initially recommended by Denzin (1978 p291) who described this technique as the 'combination of methodologies in the study of the same phenomenon'. Yin (2018 p128) advocates the process of examining the reliability of information by using a range of different sources and recommends that effective triangulation occurs when at least three alternative sources succeed in providing complementary information. Denzin (1978 p291) suggested that triangulation not only ensures reliability but results in a more comprehensive scrutiny of archival evidence.

The creation of a triangulation model was instigated in order to achieve the outcomes advocated by scholars such as Denzin (1978) and Yin (2018) and illustrated how the formation of a new theory and the foundation of spa typologies has emanated from the compilation of a variety of information from archival research and, in the case of Essex and English multiple case study sites which examined evidence of the Essex spa landscape sites in their current condition. Archival

investigation formed the basis of the literature review as well as the initial information originating from the creation of field data sheets. Evidence from multiple case study sites and the literature review was initially recorded in the form of a cognitive map where various aspects of research were chronicled and subsequently interpreted. Further maps were then created for each area to examine the type of information available. The literature review also included analysis of information regarding the concept of Place Attachment Theory and landscape typologies.

This study necessitated an evaluation of the existing research, including that of early physicians such as Benjamin Allen (1699) and historians including Christy and Thresh (1910), but additionally documentary analysis acquired from contemporary newspapers or tourist guides. Historical evidence regarding specific sites was also acquired from sources such as the Domesday Book. This data was then examined to create field data sheets specific to each site. In addition to the archival research of well sites, a wider investigation of the history of spa development was also undertaken in order to ascertain similarities and differences between the evolution in Essex and on a wider scale in both England and Europe. An examination of the evolution of water therapy from a wider historical perspective was also undertaken, incorporating the evolution of healing sites in the Classical period both in Minor Asia and Europe focussing on sites at Kos, Pergamon and Pompeii. Consideration of spa development in post medieval Europe was carried out with reference to sites in France and Germany although field data sheets were not produced for these or the classical sites.

Taking the premise of the social scientist Bruce Berg (2009 p296) who asserts that historical research is a more intricate process than using archives simply as a tool for merely retelling a series of events from the past but suggests that the approach should perhaps, instead be re-defined as 'Historiography', a process which provides a theoretical justification for historical incidents. Neuman (2005, as cited in Berg 2009 p296) emphasises that historical research must exist in a far wider discipline than occurring as a receptacle for dates and figures but additionally should examine the connection between subjects that not only affected the past but continue, in some cases, to influence the present. This concurs with Yin's views regarding the importance of

triangulating archival research. As Neuman and Berg propose, the research considered evidence from a wide range of sources which was then analysed through a triangulation process as highlighted in Figure 4.

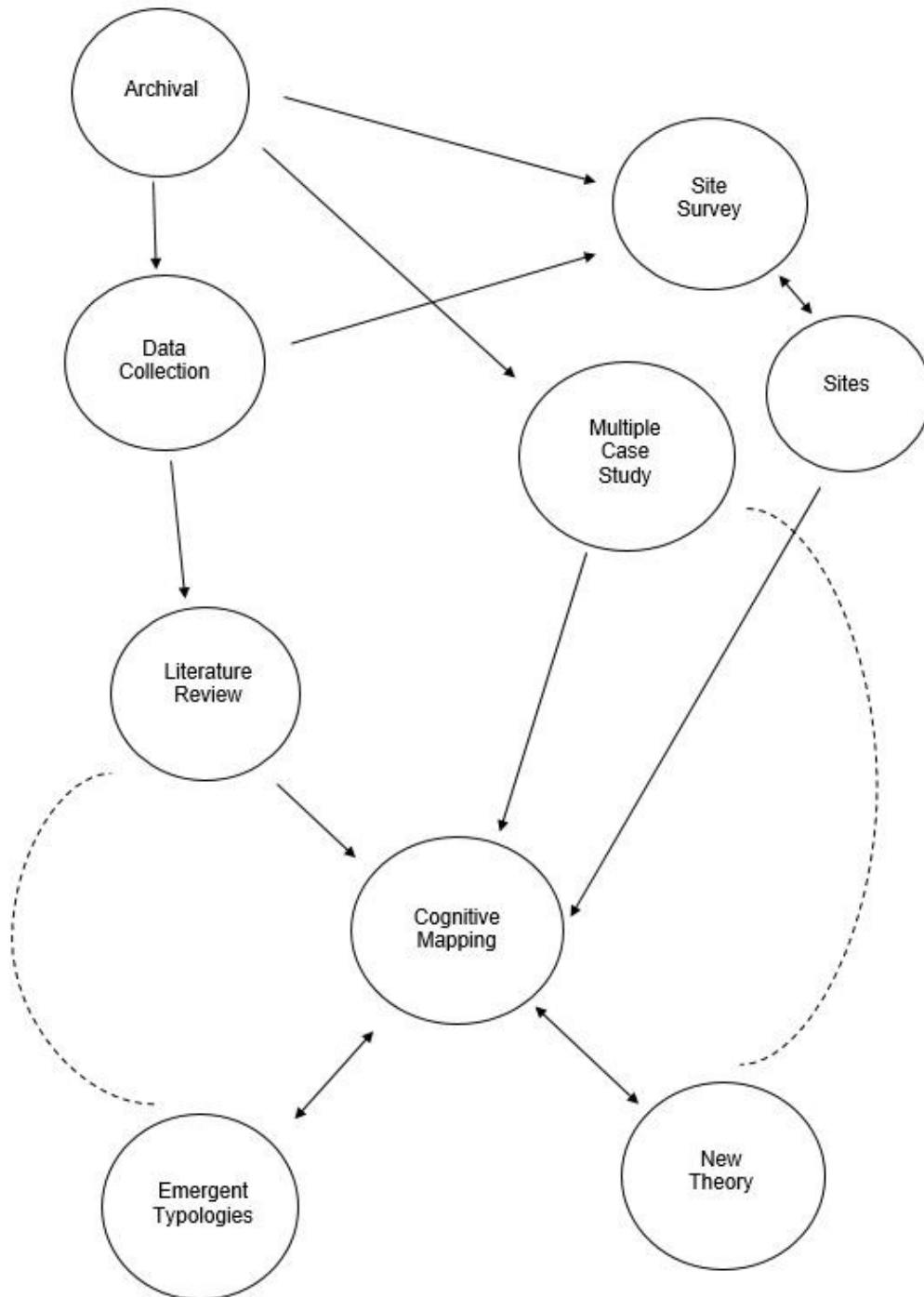


Figure 4  
Diagram showing the process of triangulation regarding existing research.  
Source: Cannell, 2018.

Following extensive research regarding the various aspects of the English spa evolution, multiple case studies were created. In order to achieve this, data sheets were required to record the information relevant to each Essex well site and other comparative English locations in a methodical manner. Tumele (2015 p71) advocates this method of research as a useful tool through which the researcher can develop their theoretical model through examining how and why particular outcomes evolved. Case study research provides the author with the opportunity to inform and analyse data, progressing from a rudimentary theory at the beginning of the study and eventually arriving at a point where there is an understanding of the significance that the research offers to a specific field. When describing the importance of case study research to historical enquiry, Woodside and Wilson (2003 p493) highlight its significance in “describing, understanding, predicting and/or controlling”. Yin (2018 p170) supports this assertion by stating that thorough case study research should produce meticulous analysis and provide substantial evidence when making inferences and, where necessary, reflect on an alternative justification of the evidence. From analysis of the various types of information in this research, consideration was given as to the type of material that would provide both chronology and analysis of each site. A data sheet was compiled and piloted on a location well known to the author in order to ascertain whether the document possessed sufficient rigour or whether subsequent elements were required. This process is advocated by Patton and Appelbaum (2003 p66) who emphasise the importance of preparation prior to data collection, ensuring an understanding of the precise information being gathered. In order to gain the maximum advantage from this type of investigation, it is necessary to produce a well-structured data sheet, divided into significant subjects which is easy to use both in situ and subsequently when data is being analysed.

Tumele (2015 p74) underlines the importance of implementing a pilot study as this will demonstrate the reliability of the investigation and its effectiveness across multiple sites. Through the application of a pilot, it became apparent that the data sheet demanded a section giving attention to the alleged curative properties specific to each site and thus the document was duly revised. The initial intention was to present site information in the form of two separate documents,

a data sheet, concerned with the chronology of the site, and a field visit sheet related to contemporary information regarding each location. Following the creation of these documents, it became obvious that the information required presentation as one document, allowing visitors to the sites the opportunity to analyse both the historical and contemporary data. Field visit information was necessary to the research as it outlines the evolution of local well sites listed by Christy and Thresh as well as more established resorts such as Bath. Attention was given to the order in which information was presented on each data sheet as it was vital for the material to flow while providing the reader with a document that was easily navigable. Yin (2018 p124) underlines the importance of fieldwork as being one of the most highly regarded areas of case study research. He reminds the researcher to be aware of the possibility of bringing personal opinions to a field study and warns that these might affect the interpretation and documentation of the information.

## **2.4 Data Processing**

### **2.4.1 Spatial Analysis of Well Sites**

The research generated an archival and field research framework sheet specific to each well site, providing resources for analysis while examining key drivers in their evolution. A range of data for each well site was examined and documented from both field visits and archival research. In their work '*A history of the Mineral Waters and Medicinal Springs of the County of Essex*', Christy and Thresh (1910) specified twenty-two Essex locations (Table 1) as notable well sites situated across the county. These were recognised as the most significant well sites in Essex thus establishing them as the target for data retrieval and field visits. Field data sheets were also compiled for Bath; Somerset, Harrogate and Scarborough; Yorkshire in order to draw comparisons between the locations in Essex and more established English well sites.

The purpose of the data sheets was to provide detailed evidence of both the Essex sites listed by Christy and Thresh (1910) and the other English case study sites. The preliminary research undertaken by the author regarding the creation of a data set initially included an examination of existing exemplars of field study sheets. It quickly became apparent that many proformas



possessed a largely geographical focus with limited attention given to historic detail and thus an original document would be required, including an examination of historical elements which would be more suited to this enquiry. The intention of the data sheet was to provide current and subsequent researchers with a comprehensive collection of information about each site including a chronology, geographical information, and evidence of the site in its current condition. The document starts with information concerning the site name, both current and historic, as in many cases these have changed. Map references and the date of the author's visit were also included to aid with the location of the site and to record when the recent information regarding the site had been completed. Several maps including current and historic Ordnance Survey maps and other historic examples such as Chapman and André (1777) were included in order to deliver site context both from a contemporary and historic perspective. A geological map was included providing information regarding the petrological and surficial deposits located at each site. Where possible, analysis of the water was included to provide evidence concerning its constituents. Information considering any curative properties of the water, either scientifically supported or the subject of conjecture were included to provide an insight as to why site users valued the water there.

Historical material was obtained from archival sources held at the Essex County Records Office, from historic site analysis and site descriptions. The chronology of each site utilised a range of sources including those by Christy and Thresh (1910) as well as analysis by Benjamin Allen (1699) and Martin Trinder (1783), Ordnance Survey maps, historic photographs, vintage postcards and historic newspaper articles. Once a detailed chronology had been established, a site visit was essential to provide evidence of the location in its present condition. Where possible, photographs were taken with the intention of indicating changes to the site and recording any remnant remains. Although it was impossible to interview original site users, it was possible at several sites, including West Tilbury and Felsted, to engage with individuals who had knowledge of the site. In some cases, they were owners but on other occasions simply lived nearby and engaged in conversation through curiosity.

The content of the data sheet was initially based on the site most well-known by the author to truly understand the subject matter necessary for the document. A proforma was constructed and piloted at Hockley, Essex. While undertaking the initial field study it became apparent the extent to which the spa site featured in both street names and local business names, an example being 'Spa Dental Care'. This was not something which had previously been considered by the author and led to the creation of a further section in the document reflecting the site memory evident at each location. A list of published sources was also included to inform future research. Each completed data sheet has provided a thorough chronological document of both the Essex and case study sites, something which, in the case of the Essex sites, has not been previously undertaken. In this way the data sheets allowed for collation of information appropriate to assist in meeting several of the research objective.

Table 1  
List of well sites in Essex listed by Christy and Thresh (1910) and subsequently used in this research

	<b>Name of Well Site</b>
1	Chigwell Row
2	Colchester
3	Dovercourt
4	Felsted
5	Fobbing
6	Gidea Hall
7	Hockley
8	Hornchurch
9	Ilford
10	Marks Hall
11	The Rectors Well, Tilbury
12	South Benfleet
13	South Weald
14	Springfield
15	Stapleford Abbots
16	Twinstead
17	Upminster
18	Wanstead
19	West Tilbury
20	Wethersfield
21	Witham
22	Woodford Wells
23	Woodham Ferrers

A well site at Fobbing has been included in this research as although not mentioned in the original work by Christy and Thresh (1910), the water was analysed for an article in *The Lancet* in 1922 by Doctor John Thresh, father of May Thresh. The site had significance for a short while and thus merits inclusion. Field data sheets were also compiled for Bath; Somerset, Harrogate and Scarborough; Yorkshire in order to draw comparisons between the sites in Essex and more established English well sites. A brief clarifying the motivations regarding the categories included within the field study framework has been included in conjunction with the data sheets in the Appendix.

#### **2.4.2 Data Analysis**

The archival analysis and data collection formed the basis of the literature review. The information was subsequently used in the creation of cognitive mapping (Figure 4) leading to the initial formation of ideas for a new theoretical model. A study of various aspects of Place Attachment Theory was initiated to determine whether existing typologies would correspond with this research or whether a new model was necessary. Part of the research was concerned with the impact that spring sites possess as an urban initiator a perception which will be examined through the notion of Place Attachment Theory, a concept which questions the underlying reasons why particular locations become important to individuals or groups of people. In their research, '*Place Attachment: a conceptual inquiry*', Low and Altman define the term as the "bonding of people to places" (1992, as cited in Manzo and Devine-Wright 2014, p1). Much of the research including studies by Scannell, Gifford and Devine-Wright (2010) seeks to create a tri-partite model (Figure 5) linking person, place and process to the eventual attachment' of a place. In terms of Place Attachment Theory, the word 'Process' considers the reason why the initial attachment to a location has occurred. The label 'Person' relates to the concept of exactly why, what or where the individual or community are attached to, in the case of this study, a well site. The term 'Place' relates to the actual site, originally the natural landscape, present before human habitation and the subsequent changes made to a site either through re-landscaping or building but also the social interactions that evolve through connections with a specific location. It quickly became

apparent that many of the studies in this field concentrated on current locations or how this process could be applied to current or future design rather than applying the theory to historic locations.

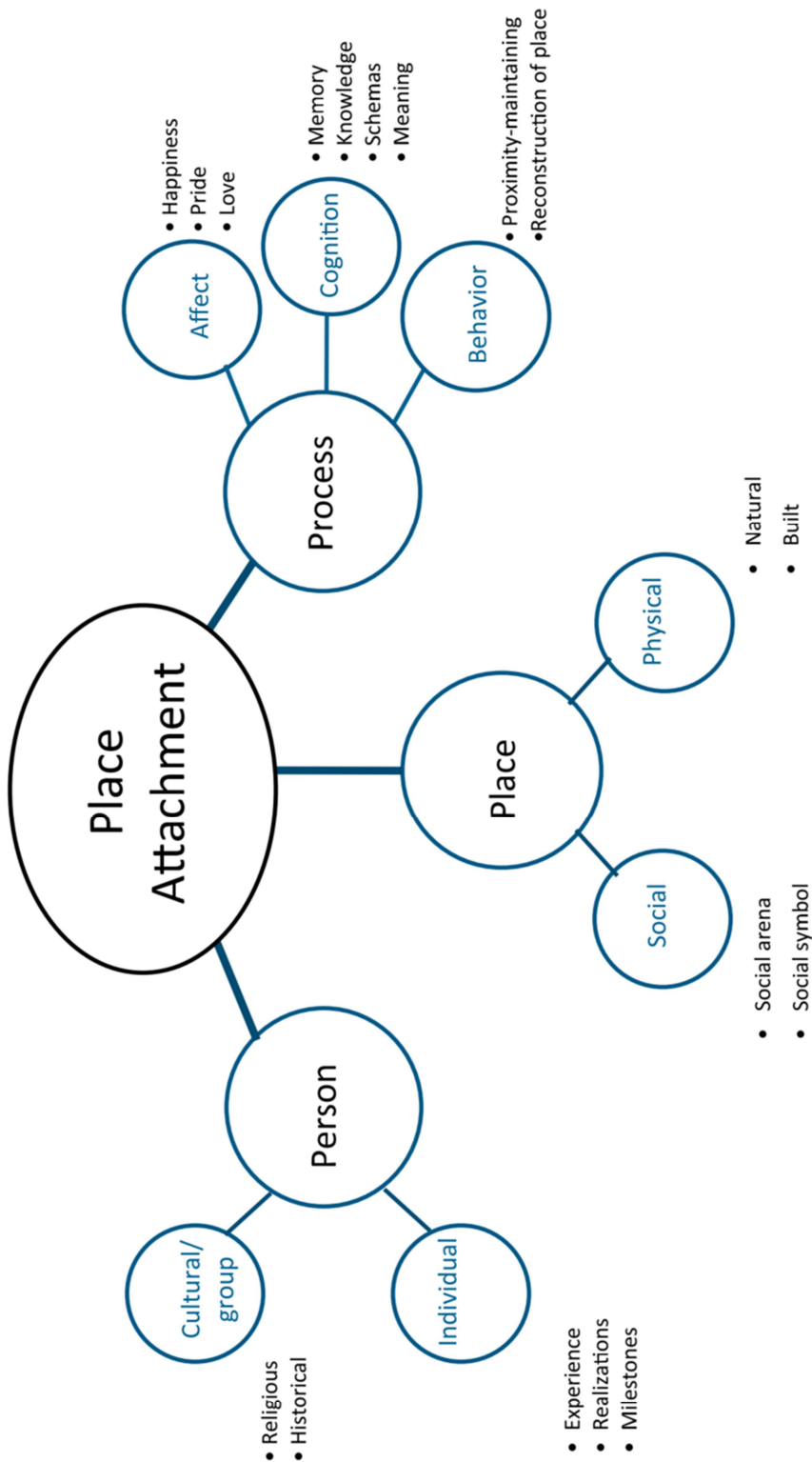


Figure 5  
 Diagram showing the tri-partite model of Place Attachment (Scannell and Gifford, 2010)  
 Source: Manzo and Devine-Wright, 2014

## 2.5 Methodological Development

In order to ascertain the importance of Place Attachment to the historic sites included in this research, it was necessary to design a theoretical model which enabled the analysis of each well site. Attention was initially given to whether the tri-partite model, designed by Scannell and Gifford (2010) (Figure 5), could be adapted so that consideration could be given to elements such as site memory and the initial name given to a location which were important indicators when reflecting on the reasons why some well sites developed into urban communities. Deliberation was given to whether these aspects could perhaps form their own component as the tri-partite model failed to consider these elements in sufficient detail. The tri-partite model successfully examined the reasons why people established attachments to contemporary locations but failed to assess historical motives for the connections people formed with their immediate landscape.

The research subsequently sought to create a tetra-partite model (Figure 6), the intention being that it could be applied to historic sites, and while comprising of the existing 3 'P's; Person, Place and Process, also included a fourth 'P' which was labelled 'Precedent'. Within this research, the term 'Precedent' referred to an action or situation that had already occurred, and in the case of this study, focussed on the relationship between people and their immediate environment in pre-industrial times. The scholar J. B. Jackson (1984 p12) referred to these landscapes as vernacular, a place where people "did what they could to survive and prosper with the resources at hand". The intention of this element was to scrutinise the history of a site and was to be divided into three sections: spiritual, personal/collective and environmental. The purpose of the spiritual element was to examine the sense of place linked with a location and might include historic names such as those mentioned in the Domesday Book. This section also observed the origins of landscape features which perhaps were previously considered special. For example, trees such as Yew (*Taxus baccata*) which historically had spiritual connotations that can be traced back to pre-Christian times. The veneration of trees was fundamental to Pagan worship and, in the case of Yew, was imbued with the power to improve fertility or longevity. When St Augustine arrived in Britain in 597CE, with the intention of converting the population to Christianity, significant sites

containing Yew trees were often used as the location for churches (Partridge, 1993). Water was an additional element instilled with mystical significance by previous societies highlighted by excavations at Bath which unearthed an Iron Age site dedicated to the Goddess Sulis, a local deity linked with healing at the thermal spring located there (Rotherham, 2014 p4).

The purpose of the second section referred to by the term 'Precedent' was to focus on the personal or collective history of a site, examining the relevance of the site name and whether this had a particular meaning in the past. Many English place names are Anglo Saxon or Old English in origin. Local Anglo-Saxon examples within Essex are Springfield which means 'open land of the spring dwellers' and Tolleshunt, a name denoting 'Toll's Spring' (Institute for Name Studies, 2019). The notion of site memory was to be examined as part of this section, a term which suggests a significant local place whose value is passed down to successive generations, a concept described by Proshansky (1983, as cited in Manzo and Devine-Wright, 2014 p166) as: "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 day to day existence of every human being". The final element considered under 'Precedent' was that which centred on the environment, in this case the site itself and reflected whether any local value could be traced back historically through the examination of documents such as the Domesday Book or eighteenth and nineteenth century sources such as letters or scientific analysis in order to ascertain why a site became of value. The underlying motives determining the evolution of a well site require appropriate consideration as in several cases a spring site achieved local appreciation almost by accident after animals were given the water during a drought and appeared to become healthier or through the construction of a domestic well.

Following an analysis of the model created by Scannell and Gifford (2010), an examination of the four elements of process, place, person and precedent was undertaken and an attempt was made to draw links between them, the aim being to establish a series of connections necessary for the evolution of a successful spa site. The intention was that once the essential links had been

confirmed, the model would be applied to each of the well sites in order to ascertain why the location succeeded or failed. The same process was applied to the urban development of Bath, Scarborough and Harrogate. While Bath is probably the most renowned English spa site, Scarborough and Harrogate are established spa towns with similarities to some of the Essex sites. In the case of Scarborough comparisons result from being a coastal resort while in the case of Harrogate parallels derive from the evolution of a small site into a potential urban initiator. Data retrieval sheets were prepared for these locations with the intention of making comparisons with spa development in Essex.

Through detailed analysis of both the tri and tetra-partite models of place attachment, it became apparent that several of the elements in the original tri-partite model were very closely linked and would seem to be too similar to justify placing as separate entities. For example, Scannell and Gifford (2010) cited 'behaviour' and 'cognition' as segments under the heading 'process' when they, appear to sit more comfortably in the category 'person' given that many of their constituent elements, for example, verbal memory and recognition of the importance of a place, describe human action or thought. Lewicka (2014) asserts that Place Attachment Theory is a construct still somewhat in its infancy which conceivably requires further examination. She continues by suggesting that difficulties in creating a Place Attachment model arise because exponents of the theory are attempting to piece together too many diverse elements into their model and states: "These are treated as different pieces of a broken jigsaw puzzle which may (and should) be put together". Through working with both tri and tetra partite Place Attachment models and also considering the views of critics such as Lewicka, it became apparent that this style of model failed to address the challenges of understanding Place Attachment from an historical perspective and that a new template needed to be created with the intention of meeting these needs.

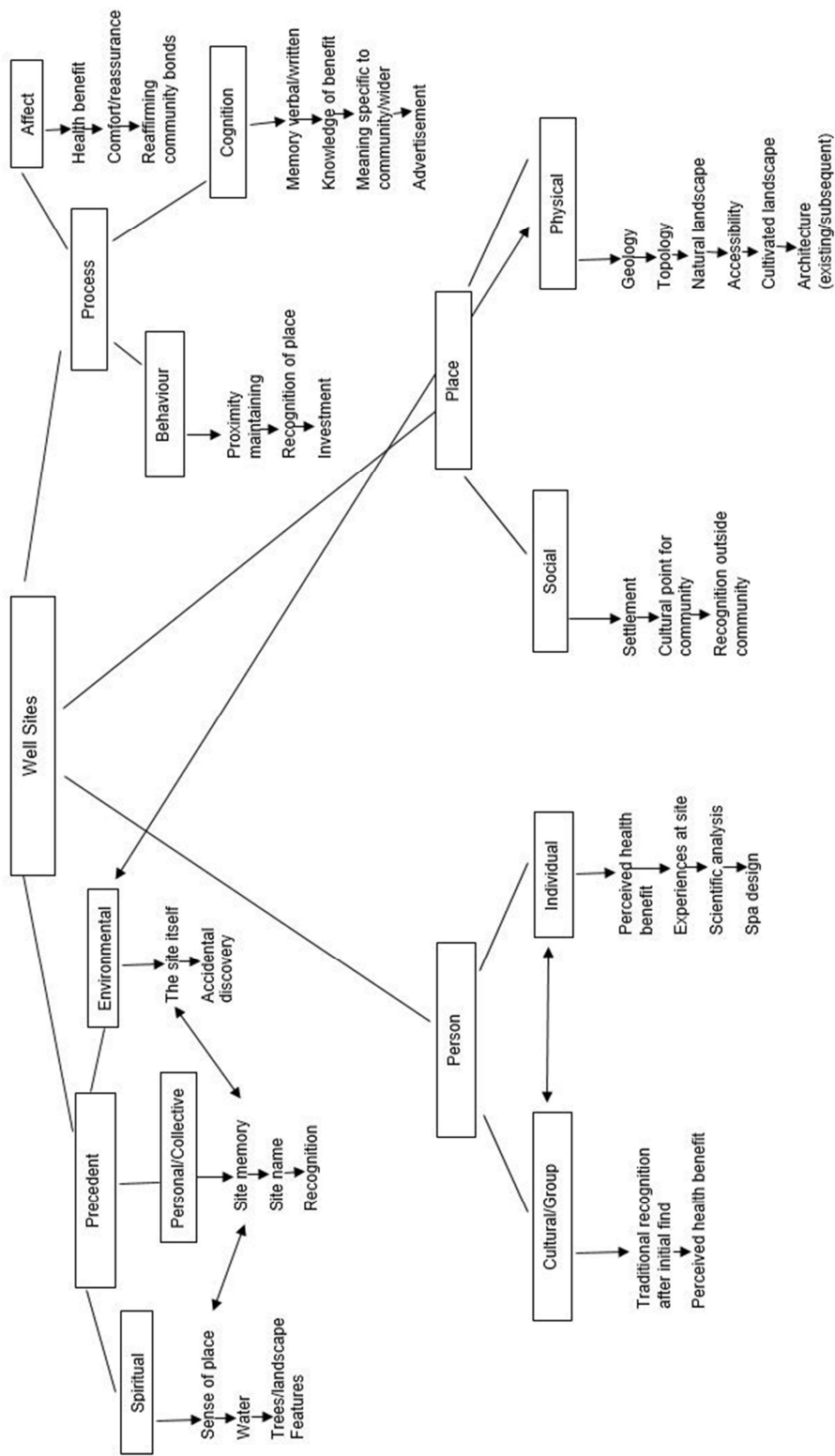


Figure 6  
 Diagram of the tetra-partite Place Attachment model.  
 Source: Cannell, 2017a, Adapted from Scannell and Gifford, 2010.



### **2.5.1 Revision and Reorganisation of the Tri-Partite Model**

The author created an original model to better consider the requirements of Place Attachment with regards to historic sites (Figure 7) following the realisation that existing exemplars were insufficient when applying an historical perspective to the theory. This innovation allows for a greater use of historical data to illustrate spa sites as urban initiators. The model was divided into two key sections, a cognitive and physical plane of immanence, an idea that was initially created by the philosopher Spinoza in the seventeenth century and more recently developed by Deleuze (1988 p29).

In order to understand how Place Attachment held relevance to both the Essex and case study sites, the author examined each category within the new model, such as 'Societal', in conjunction with information from the data sheets and ranked the items within, for example 'perceived health benefit', to ascertain which elements would have been important to site users at each location. The analysis enabled the author to determine whether the intentions of site users differed depending on their social standing. It would seem probable that a 'perceived health benefit' might be an important consideration for all site visitors while the importance of a 'significant individual' or 'local authority' might differ between locations. Once each site had been analysed, comparisons could be made between the Essex and case study sites to establish whether there existed a link between the principal elements at successful sites or whether prosperity was simply down to a set of auspicious circumstances.

While analysing the important elements relevant to the success of each site, consideration was also given to a set of attachments endorsed by Ujang (2012 p58) when analysing the value placed by people upon locations. They were separated into three categories titled functional, emotional and symbolic. These attachments were analysed and incorporated into the formation of a new model. In the case of functional attachment, Ujang (2012 p158), describes how the extent of physical attributes such as street layout, accessibility to a site, the legibility of a location and buildings constructed there, impact upon personal attachment to a place. The ease with which people can navigate a location is likely to influence their feelings in either a positive or negative

manner, aspects which were incorporated within the man-made category of the model. Furthermore, it is likely that people will form positive attachments to buildings which engender favourable sentiments, for example in the case of this research, a pump room.

Emotional attachment encompasses the relationships developed within a community as well as the feelings engendered by a site, perhaps comfort or happiness and is described by Proshansky (1995, as cited by Ujang, 2009 p158) as 'the repository for emotions and relationships that give purpose to life and reflects the sense of belonging'. Whether the community utilising a site was affluent and simply visiting a pump room for a limited period or was a local village population familiar with a location understood by previous generations to be therapeutic, the importance of sharing emotions with other people cannot be underestimated. Symbolic attachment incorporates the manner in which individuals perceived their immediate environment and offers a means of conveying their thoughts. It encompasses aspects such as site memory and the process of maintaining the historical integrity of the location. This form of attachment may include the way the site is safeguarded for subsequent use. Ujang's ideas were incorporated into the cultural aspect of the new model.

The cognitive plane of immanence, as affirmed by Deleuze (1988 p29), incorporated the view that people function within their environment, forming interactions with other people but also with the world around them. He states: "A life is everywhere... an immanent life carrying with it the events and singularities that are merely actualised in subjects and objects will incorporate cultural and societal attributes". The cognitive plane consisted of cultural and societal attachments. Cultural attachment included elements that may be considered mysterious and difficult to describe such as spiritual factors, the idea of a sense of place or *genius loci*, the historical integrity of the site and the vernacular landscape as endorsed by Jackson (1984) and Antrop (2005). Societal attachment involved qualities applicable to either individuals or communities and included elements such as the perceived health benefit of a site, the importance of site memory, proximity maintenance of the site and whether a local individual or authority influenced the development of the site.

The aspects encompassed by Process appraised factors that might provide other reasons for the development of a site such as the scientific analysis of the water contained within, leading to the recognition of the site outside of the community through advertisements, newspaper articles or pamphlets. Included within this section were aspects which, Wilson (1984), Kellert (1999) and Ramoie (2014) described as 'Biophilic'. This category focussed on elements which influence human emotional, cognitive, aesthetic, and spiritual development rather than simply the physical elements of a location. The term Biophilia was originally implemented by Fromm (1973 p366) who described it as: "the passionate love of life and all that is alive; it is the wish to further growth, whether in a person, a plant, an idea or social group". Biophilia can be broken down into nine elements; 'utilitarian' which examines the practical management of the natural landscape by those existing within it and 'naturalistic' which describes feelings of fulfilment derived from a close connection with nature. The 'scientific' or 'ecologicistic' element communicates a desire for knowledge of the natural world through orderly inquiry while 'aesthetic' relates to the tangible attraction of a location. Kellert suggests that aesthetic elements could be "associated with feelings of tranquillity, peace of mind, and a related psychological well-being and self-confidence" (1999 p50).

The term 'symbolic' conveys the way humans use nature as a tool with which to communicate their reflections of the world. Kellert (1999 p52) asserts that studies by Shepherd (1978) and Bettelheim (1977) provide evidence of symbolism in the folklore of many cultures which contain a predominance of natural symbols as a method of exploring concepts such as identity. The term 'humanistic' considers the emotional connection formed by people to a site, especially the other natural elements contained within a site, a process Wilson (1984 p31) describes as: "an innate affiliation of human beings to other living organisms". The component regarding 'moralistic' elements considers the respect and concern for a site, a connection which often manifests through the written form or religious beliefs, a factor evident in pre-medieval sites. The concept of 'dominion' examines the manipulation by people of their environment to better meet their requirements. This view is supported by Wilson (1984 p108) who stated: "People must jigger their

environment constantly in order to keep it within a narrow range of atmospheric conditions". The term 'negativistic' refers to man's anxiety of the natural environment. This emotion is often connected with the creatures existing within a site, such as snakes, but can also be linked with the site itself. Apprehension regarding an unfamiliar location is discussed by Cronon (1996 p21) who states: "To be a wilderness then was to be 'deserted', 'savage', 'barren'- in short a 'waste'. Its connotations were anything but positive, and the emotion one was most likely to feel in its presence was 'bewilderment' or 'terror'". The biophilic element regarding negative feelings engendered by a location was not used in this theoretical model as well sites were generally considered to be a positive influence within a community, providing healing and comfort to those using them.

The physical plane of immanence referred to both natural and built aspects of landscape. The natural element included factors specific to the origination of the site such as geology, topology, the natural landscape and the existing accessibility to the well itself prior to any anthropogenic development. Antrop (2005 p25) describes the pre-industrial landscape as being 'stable' insofar that it was created by succeeding generations who gained a thorough understanding of their environment through living and working there. Such communities would both understand the accessibility of such sites but would, in many cases, confer a symbolic meaning upon them. The existence of a water with therapeutic qualities was dependent on the geology and topology specific to that site. In the case of the site at Bath, the 'spa' water permeated through limestone aquifers beneath the Mendip Hills where geothermal processes increase the temperature to between 69°C and 96°C. The water then rose to the surface via cracks in the limestone, in the case of Bath, at the Pennyquick Fault (Bird and Cunliffe, (2006, p4).

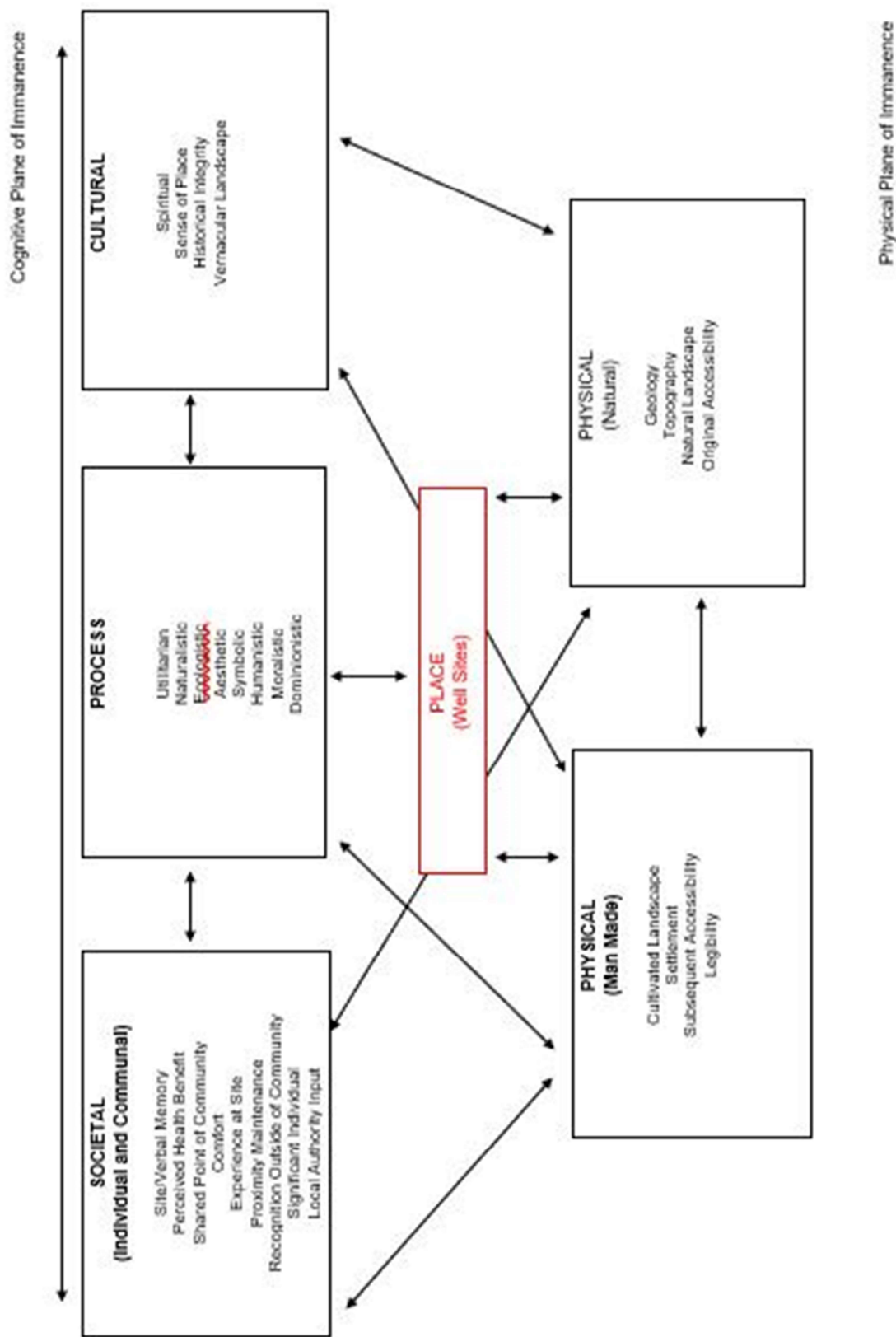


Figure 7  
Author's diagram showing the proposed theoretical model to be used in this research.  
Source: Cannell, 2017b.

Anthropogenic elements of landscape incorporated features explicit to the evolution of a location including the cultivated landscape, expansion of an initial settlement, site legibility and accessibility. The legibility of an urbanised location is discussed by Kaplan (1979 p245) who regards it as an important part of enabling people to decode the space around them. He describes how thoughtful organisation of the surface area allows the user to create a 'cognitive map' and emphasises the importance of site coherence for unfamiliar visitors. Consideration was given to the accessibility of the site following any man-made intervention, an element which Antrop (2005 p26) suggests is of significance to urban development. He states that successful site accessibility will allow not only architectural development and economic growth but also the specialisation of a site, such as the location gaining recognition as a spa town.

Once the theoretical model had been completed, archival information pertaining to each Essex spa landscape was applied to the model from the data sheets to determine which elements were most prevalent in the Essex locations and whether these differed from those specific to the sites at Bath, Scarborough and Harrogate. Similar analysis was undertaken to allow for comparison between Essex spa landscapes and European resorts. This scrutiny emphasised the key indicators specific to the Essex well sites.

An examination of landscape typologies and current theory regarding the development of place was undertaken concerning the evolution of spa landscapes and included research by scholars such as Jackson (1984) and Cosgrove (1984). Consideration was given to the manner in which the well sites developed and whether there were likely comparisons between them. Analysis of the literature underlined that English spa landscapes lacked any form of categorisation despite clear variance in their location and intended demographic. Reflection of this data has led to an evaluation of existing research and subsequently an appraisal of the areas which a new typology and theory needs to address. Following examination of Place Attachment Theory and landscape characterisation, the author has divided Essex spa landscapes into three categories of spa typology (Table 2); socio-economic, physical and cultural. While previous research has utilised material relating to physical and cultural aspects of spa development, there has been little

attention placed on the demographic and intention of site users, a factor which is multi-layered. The author has divided the typologies into further sub-sections, allowing for specific definition of each well site, an important consideration if the impression of spa landscapes being a homogenous entity is to be avoided. Examination of socio-economic typologies has divided this category of location into venerated, commercial, attraction and exclusive sites. In the case of the physical typology, division has comprised of rural and urban sites. The classification regarding cultural typologies included spiritual and cultural locations. Further detailed explanation of these typologies and sub-categories has been included in the discussion of results. The author has established the typologies have been established with the intention of justifying the form and evolution of well sites located within the Essex landscape but believes that their significance need not be restricted to this county and could be applied to well sites across the country. The author believes that with minimal adaptations, applications to other vernacular and anthropogenic historic sites would be possible.

Table 2  
Table showing the categories within each typology

<b>Socio-Economic</b>	<b>Physical</b>	<b>Cultural</b>
Venerated Attraction Commercial Exclusive	Rural Urban	Spiritual Cultural

To understand spa landscapes in a wider context, the following chapters provide a consideration of the development of spa culture from its documented origins in classical Europe and Minor Asia and subsequent evolution in post medieval Europe. Scrutiny has subsequently been given to the progression of well sites in Essex to further understand their place, process and legacy within a both a national and European context.

### **3 The Historic Development of Spa Landscapes and their Role in Societies**

#### **3.1 Revealing the Creation of Ancient Spa Landscapes**

A spa town is a dedicated resort developed in the vicinity of a mineral spring which was frequented by patrons with the intention of 'taking the waters' for their perceived health benefits. It is perhaps a preconception that the understanding and subsequent utilisation of water as an element with curative properties developed across Europe resulting from the whims of a seventeenth and eighteenth-century elite. Archaeologists have documented the recognition by humans that water possessed therapeutic qualities at several Bronze Age (2500-800 BCE) sites. Scholars such as Bradley (2007) describe how the origins of many of these locations were found in ancient cultures where, through the concept of site memory, understanding of the therapeutic value of the water located there was perpetuated. This helped to create an interpretation of healing which continued through the subsequent centuries visible through the settlements found in these locations. Evidence of the propagation of local knowledge is apparent in the city of Bath where archaeological remains have been discovered at the famed thermal spring site suggesting that an Iron Age (800 BCE) community bequeathed offerings in the form of coins to the Goddess Sulis. The spring site appeared to have been accessed by a causeway (Bird and Cunliffe, 2006 p10). The location subsequently became the focus for a Roman therapeutic complex before achieving further repute in the eighteenth-century.

An understanding of the development of European spa resorts from both social and urban perspectives is necessary in order to make comparisons with the progression of English locations across the same period. This knowledge has been essential when considering the elements of place, process and legacy of spa landscapes in the Essex countryside. The development of spa towns across Europe evolved from two drivers: culture and landscape thereby encompassing a range of aspects including social influences, progression in urban infrastructure and fluctuations in economic stability. This chapter will begin by assessing the influences on spa evolution of the Hellenistic, Byzantine and Roman empires focussing on sites located at Kos, Pergamon and



Pompeii. Case study analysis will review the origins of each site and key drivers such as social impact, spiritual importance, justification of why the site was valued and the evolution of the urban environment resulting from the spa site. Consideration will also be given to factors such as the recommended medical regimens available at each resort and whether any specific formal regulation was apparent and if these influenced subsequent urban developments. The spiritual importance of the location or noteworthy individuals associated with the site will also be examined as well as possible motivations for individual attendance along with the extent to which Place Attachment Theory can be applied to the case studies will also be considered.

### 3.2 The Development of Therapeutic Bathing in Minor Asia

### 3.3 The Hellenistic Greek Empire

The advent of therapeutic bathing was a prominent development in both the Hellenistic and Roman empires. The Hellenistic empire (Figure 8) evolved from 323 BCE while the Roman Empire commenced in 27 BCE. Both cultures then overlapped until the Romans achieved supremacy following the Battle of Actium in 31 BCE (Mark, 2012). For the purposes of this research the author has examined their importance to the development of water therapy in isolation from each other.



Figure 8  
Map showing the extent of the Hellenistic Greek Empire in 300 BCE  
Source: Ancient Greek Thesaurus

During the Hellenistic Greek period, the concepts of water possessing sacred, religious and healing properties were intertwined. The Hellenistic Greek (800-31BCE) belief in the therapeutic capabilities of water to cleanse, revive and strengthen the human body is portrayed in the myths of classical writers. During the *Odyssey* (750 BCE), Homer describes the hero, Odysseus, bathing with the intention of alleviating the discomfort of travelling (Kostidi, 2016 p54) while in the *Iliad* (762 BCE), Hector bathes in the River Xanthus in order to nurse his injuries following a battle (Clay Large, 2015 p13). The traveller Pausanias (110-180 BCE), writing in the second century, described many sacred sites across Greece, the most common of which contained a spring and significant buildings located in close proximity to each other. He provides an example at the festival of Ino where people cast gold and silver bowls into the water to appease the Goddess (Bradley, 2007, p22). While there were probably hundreds of examples of similar rituals occurring across Hellenistic Greece, some of these rites evolved into more established and permanent locations.

Many therapeutic sites were known as *asklepia* in recognition of Asclepius, the god of medical healing. The cult surrounding Asclepius originated in the ancient city of Trikka, in Thessaly, the birthplace of its leader and expanded across Asia Minor and the area surrounding the Mediterranean Sea. The importance of spring or river sites to the Asklepion movement derived from the location of Asclepius' birth close to the River Lithaios (Kostidi, 2016 p55). Asclepius was a demigod and son of the god Apollo. His father became angered when his mother, Coronis, married another mortal killing them both in revenge. According to Greek mythology Apollo then saved the life of the infant Asclepius by carrying out the first Caesarean Section. Asclepius was subsequently brought up by a centaur, Chiron who schooled him in medicine. During his adult life Asclepius became a celebrated doctor. Asklepion, or healing centres, were founded across Hellenic Greece in tribute to his medical skills (March, 1998 p139). In addition to temples and buildings associated with healing, asklepia sites also contained playhouses, gaming rooms, refectories and even cemeteries. Many of these buildings were constructed with money earned from donations by grateful clients. This beneficence effected economic development enabling

construction of bespoke structures suited to the specific design requirements of that location. An example of this benevolence and resulting design is the amphitheatre at Epidaurus (Figure 9), created by the architect Polykleitos the Younger in the late fourth century BCE (UNESCO, 1988).



Figure 9  
The Amphitheatre at Epidaurus, Greece.  
Source: Ancient History Encyclopaedia, 2012

Although asklepia contained much of the urban infrastructure associated with everyday human existence such as tavernas and temples, there was an explicit emphasis on the sacred aspects connected with the site. Sakula (1984 p683) asserts that asclepiads were principally a religious place. Located within the countryside, access to the asklepia site would require conscious effort from the visitor perhaps engendering an impression of pilgrimage prior to arrival. Many sites were located in places commanding views of nearby mountains or the sea, perhaps emphasising the majesty of the natural world as created by the Gods. The initial process of entry at the *asklepiad* would involve a process where the client would discuss their dreams with a priest. Following this consultation, a purification procedure was undertaken in the temple combined with fasting and immersion in the local spring (Markell, 2002 p89). Patients would then spend their first night of treatment sleeping in the temple itself where, prior to resting, they would be given a concoction of herbs possessing sleep and dream inducing properties. While asleep, the priests would whisper into the ears of the sleeping patients, imparting details of their regimen while residing at the site

and suggesting the herbs necessary to support their therapy. The intention of this process was to create the impression that Asclepius himself had spoken to the patient, providing a further spiritual link and engendering the perception that their health had been placed in the care of the gods (Sakula, 1984 p683). We can only speculate on the effect the combination of spiritual and medicinal remedy coupled with a dramatic location had on visitors to these sites.

### 3.3.1 The Asklepion Site at Kos

The island of Kos is located in the Dodecanese forming part of a chain of mountains including the islands of Kalymnos and Nisyros. These islands were separated by tectonic activity between the Eurasian, Mediterranean and Anatolian plates. Volcanic eruptions 555-145,000 years ago combined in separating the island chain while producing a porous rock comprised of fused volcanic ash, known as 'tuff', which covers much of the island. Further volcanic activity is evident from a caldera or crater located below the sea between Kos and Nisyros. Historic tectonic activity provided several springs across the island including a hot spring at Agios Fokas, abundant in minerals such as calcium and potassium and recommended for the treatment of skin conditions and arthritis. The spring at Kokkinonero, located to the southwest of the Asklepion site was ferruginous and was considered useful for the treatment of stomach complaints. This spring was used to supply water to the site (Aegean Islands, 2019). The springs located close to the asclepiad site were formed on travertine which was subsequently quarried for the construction of the therapeutic infrastructure (Higgins, 2009 p395). The location of spring sites around travertine stone is not unusual.

The *asclepiad* at Kos (Figure 10) founded in the fourth century BCE in a previously sacred location dedicated to Apollo Kyparissos, a youth who died of grief arising from shooting his pet stag with an arrow. Following his death, the youth transformed into a Cypress tree (*Cupressus*), a symbol of mourning and remembrance (Theoi Project, 2017). The creation of a subsequent site within a sacred forest was not uncommon, the intention being that it would, perhaps, augment feelings of reverence within those visiting the location. The layering of significant sites within the same landscape is not specific to the Hellenistic Greeks but is common in many cultures such as

previously mentioned in the city of Bath. The therapeutic process at Kos varied from other asclepiad sites as it followed principles of treatment advocated by physicians who had observed and discussed the symptoms of the patient rather than relying on narcotic induced suggestions. This method was initially advocated by Hippocrates (c460-370 BCE) who established a hospital at the site. This asclepiad was also influenced by the physician Xenophon (10BCE-54CE) formerly the court physician to the Roman emperor Claudius who fled Rome following his implication in the murder of the emperor (Rossiter, 1977 p660).



Figure 10  
Outline map of Greece showing the approximate location of the Asklepieion at Kos.  
Source: World Atlas, 2018

The site consisted of three terraces as shown in Figure 11. The lower terrace was built on the site previously housing a Roman bath. The construction of the asclepiad on a previously sacred site subsequently utilised by Roman settlers suggests that the Greeks understood the importance of careful site selection when establishing the facilities necessary for an asclepiad perhaps because its importance would already be understood by local people and visitors alike. It was on this terrace that therapeutic treatment was undertaken in the school of medicine and where patients would stay in a long building known as a *kataklintryio* (Mironidou-Tzouveleki, 2014 p168). The terrace consisted of a walled colonnade on three sides. The wall to the rear of this area contained

reservoirs where patients could imbibe the water and seating where they could rest. Located in the centre of this wall were thirty steps, directing the patients up to the middle terrace where the sacred spring was located alongside other springs and a small temple. Archaeologists have discovered evidence of thermal baths on the second floor where water was piped from nearby springs, enabling physicians to practice hydrotherapy (Christopoulou-Aletra, 2010 p261). Central in this area was a sacrificial altar while on the left-hand side stood the Temple of Asclepius. The combination of sacred elements combined with more modern 'Hippocratic' philosophy suggests that those managing the site understood the importance of providing elements familiar to those visiting the location coupled with more contemporary practices. The therapeutic qualities of the location became so well known that a further temple dedicated to Apollo was built on the upper terrace in order to accommodate the many infirm visitors to the site (Sakula, 1985 p685), an early example, perhaps, of the consideration of site accessibility for visitors to an asclepiad location.

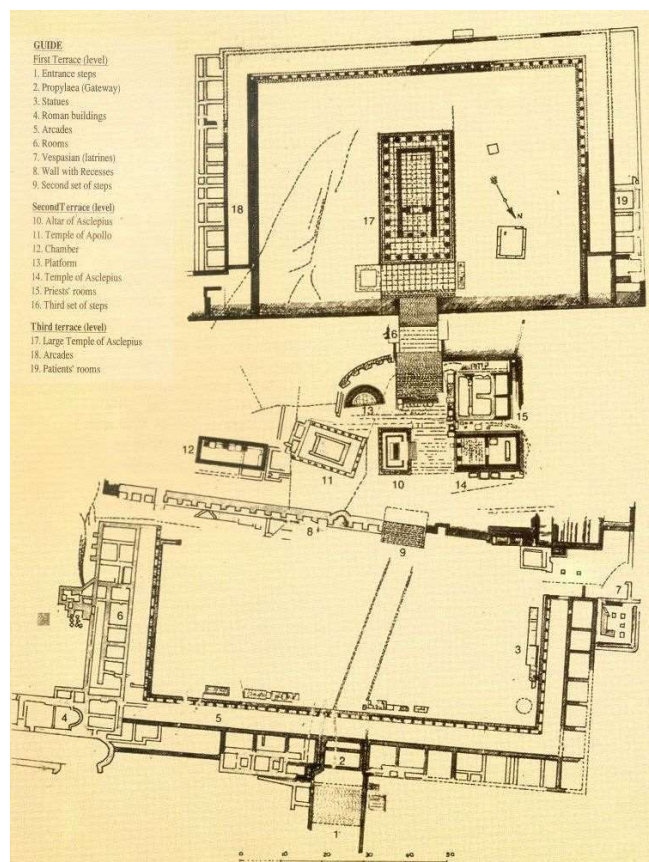


Figure 11  
 Diagram of the Asklepeion site at Kos  
 Source: Rossiter, 1977

Analysis of *asclepiad* across Hellenistic Greece have shown the water at many of the sites to be abundant in a variety of minerals, for example, those present in the waters at Hippocrates site in Kos were sulphurous and ferruginous while those at Epidaurus were almost identical to the minerals existing in the water at Evian, France. The waters in Corinth, by contrast, were rich in sulphur (Moss, 2010 p228). Although the Hellenistic Greeks lacked the scientific knowledge necessary to fully appreciate why specific water might be therapeutic, they possessed an awareness of the elements present within the therapeutic waters found at different *asclepiad* sites, utilising this knowledge to highlight the potential value of a specific water to prospective visitors seeking a particular cure. The minerals located within these waters often possess either a strong odour or taste which would suggest that those seeking treatment at Greek sites were resolute in their search for a cure, regarding the *asclepiad* sites as places of therapy rather than leisure and luxury. The demanding accessibility of these sites again underlines the intention of those attending.

### **3.3.2 Hellenistic Greek Attitudes to Water Therapy**

It was also common for Greeks to utilise water as part of their daily health regime, for example, replacing wine with water should they notice the initial symptoms of a cold (Frosch, 2007 p1948). While Homer described water as having cleansing and revitalising properties, several physicians were beginning to advocate the therapeutic qualities of water. Hippocrates (460-370 BCE) believed that water could be advantageous in the mitigation of many diseases (Van Tubergen, 2002 p273). Through his work titled '*De aere, aquis at loci*', Hippocrates advocated a medical system devised on the four humours and employed water to heat, cool, moisten or dry the body through the implementation of drinking or bathing with particular waters. Kostidi (2016 p57) describes this work as being the first spa methodology as his treatments were far more involved than merely communicating a water cure to patients. Hippocrates underlined the importance of site location to the healing process by stressing the value of the types of soils present, climate and the diet of the patient when seeking a water cure. This concept was revisited by those creating therapeutic locations in the post- medieval period. Thermal baths, such as those excavated at the

asclepiad site in Kos, were also utilised to relieve symptoms of specific illnesses such as the tenderness in the chest and back experienced by many patients following illnesses such as pneumonia.

Although the Romans are credited with the development of spa sites as a 'destination' within a town, they were, however, influenced by practices common in the Hellenistic Greek period. The Greek physician Asclepiades (124 BCE) practised medicine in Rome introducing hydrotherapy and ingestion treatments while also endorsing bathing therapies (Van Tubergen, 2002 p273). The physician Galen (131-201 CE) was perhaps the most prominent advocate of water cures. He would recommend a variety of treatments depending on the symptoms being presented by the patient, including complete and partial bathing in thermal or cold water (Clay Large, 2015 p15). This was an innovative concept in Hellenistic Greece as prior to this, it was commonplace to utilise cold water for washing and thermal water for healing. This stemmed from a belief that thermal water was a gift from the gods, hence the presence of therapeutic properties within it (Kostidi, 2016 p55). Bathing with the intention of cleansing was an important ritual at the gymnasia where men would partake in sports such as wrestling before immersing themselves in cold water.

Public baths were another common construction in many Greek towns and cities, consisting of heated bathtubs (Clay Large, 2015 p17). These establishments were known as *balneia* and tended to consist of hip-bath tubs or shower baths which were quick and convenient to use. The city of Athens had several public facilities, one of which was located by Piraeus Gate. Archaeological excavation in the 1960s suggested that the building was constructed in the fourth or fifth century BCE and consisted of a tholos, or circular building, containing hip-bath tubs. Trümper (2013 p37) suggests that although these baths were available for usage by all residents of the city the fact that many of them were located close to a city gate would perhaps suggest their location was advantageous to travellers to the city. The Spartans also developed crude vapour baths heated by fires or warming rocks outside the room. Plants such Bay Laurel (*Laurus nobilis*) were sometimes added for its aroma (Kostidi, 2016 p57). As with many aspects of water therapy, there are several reasons why this plant was of significance. Greek mythology describes



sacred Laurel groves owned by the Goddess Artemis while victors at the Pythian Games were crowned with wreaths of *Laurus nobilis* (Theoi Project, 2017). Both these aspects indicate that while aroma was important, this plant possessed other spiritual qualities, perhaps understood by those using these baths.

### **3.3.3 Place Attachment and the Asclepiad at Kos**

When relating components of Place Attachment Theory to the *asclepiad* at Kos, it becomes clear that the location of the sanctuary was greatly appreciated by site users. The physical environment was central to the progression of Place Attachment within the site. Geology and topology were of fundamental significance in the creation of this specific landscape containing therapeutic water combined with dramatic scenery. Without these two elements coalescing to produce a distinctive landscape it is likely that the location of this *asclepiad* would have been less spectacular. Original accessibility would probably have been implemented by those worshipping at the initial site and subsequently by the Romans. A settlement capable of fulfilling the requirements of those visiting the site while also providing legibility both around the complex and within the various buildings would also be necessary in order to provide security to those in attendance.

Several societal influences were of significance to the evolution of the site at Kos. The concept of site memory would have been important to those visiting this location during its development as a therapeutic place. The site had previously been recognised as a sacred site and had also contained Roman baths providing visitors with a sense of continued connection with both health and spirituality. The site also enjoyed an apparent health benefit and shared point of community apparent from the volume of visitors attending the site, eventually resulting in the construction of a further terrace. Site experience would have been central to visitors, especially the opportunity to obtain medical advice from the resident physicians, a concept somewhat distinctive to this site. Proximity maintenance would also have been of significance to those seeking a cure and perhaps involvement in the rituals associated with the temples on the site would have provided reassurance to site visitors. The location of the *asclepiad* at Kos satisfied many aspects of cultural influences. The site was constructed on a formerly sacred site while the interior contained temples

devoted to a range of deities including Asclepius. The location within a vernacular landscape on a site previously recognised as sacred would enhance the sense of spirituality experienced by visitors to the site. Earlier utilisation of the site by the Romans would enhance the sense of history appreciated by those seeking a cure.

The foundation of the *asclepiad* site at Kos fulfilled many Biophilic elements associated with Place Attachment Theory. The complex was built in a mountainous area, involving the implementation of terracing to create access to the location. The placing of the site in such a location coupled with views of mountains and the sea in the distance would provide an intimate connection with the natural environment fulfilling Kellert's (1999 p45) notion of a naturalistic landscape, one where visitors gain a sense of security and comfort through the use of nature to heal. The understanding that particular water had the potential therapeutic qualities satisfies ecologicistic concepts of analysis of the natural world. The selection of such a technically architecturally challenging site on which to build a therapeutic concept emphasises the fulfilment of his utilitarian notion, that is the aspiration to dominate the natural environment. The dramatic location of this complex satisfies Kellert's naturalistic concept where site users gain contentment from an intimate interaction with the surrounding landscape. Aesthetic and humanistic elements are also met as visitors to the complex would likely have the opportunity to value their natural surroundings while perhaps forming a personal connection with their location. While the location of this site might enable visitors to use the adjacent landscape as an instrument with which to assist with their regimen, a function Kellert describes as 'symbolic', they might also retain attitudes of veneration towards the location, a process he describes as moralistic.

### **3.4 The Late Roman Period in Minor Asia**

The formation of curative sites in Asia Minor was not restricted to the Hellenistic Empire but was an important element within the Byzantine Empire (334 BCE), the extent of which is shown in Figure 12. One of the most famous Byzantine sites was the Asklepon in Pergamon which was established from the fourth century BCE as a sacred place attended for water therapy by the infirm where treatments including bathing in and drinking the thermal waters could be undertaken

(Kepinska, 2003 p13). Pergamon (Figure 13) is located on the Bakircay Plain in the Aegean region of Turkey and continued to be a significant site through periods of Attalid, Roman, Hellenistic and Ottoman rule.



Figure 12  
Map showing the extent of the Byzantine Empire c500 BCE  
Source: Sansal, 2019

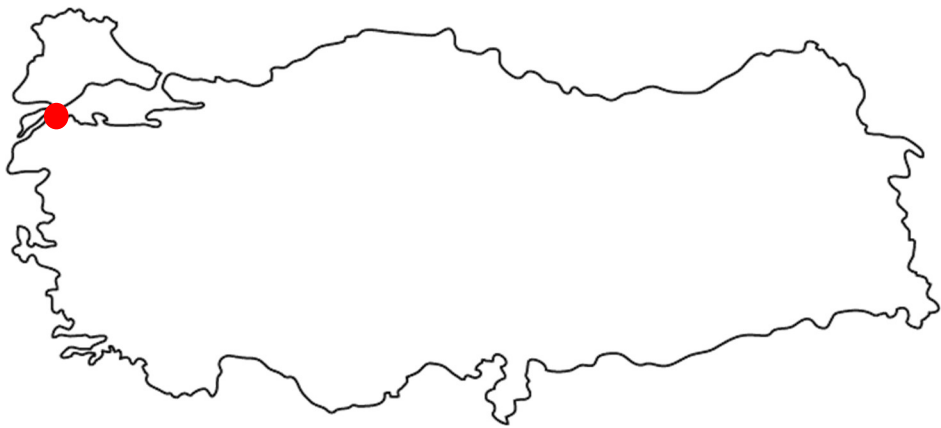


Figure 13  
Outline map of Turkey showing the approximate location of Pergamon.  
Source: World Atlas, 2018.

The original intention of the Attalid empire; to construct a planned urban landscape reflecting the status of the location and the ruling classes was perpetuated by successive dynasties. The primary structure established by the Attalids was the Acropolis, constructed as a place of knowledge, however theatres, gymnasia and an altar were also built. Further evidence of a planned landscape is clear from the construction of the Kybele Sanctuary, a shrine built within a cave and dedicated to the 'mother' of the mountain, to the northwest of the city. The location of the sanctuary succeeds in creating a visual link to the site at Pergamon. The intention of this was perhaps to engender emotions of reflection and reverence in visitors. The creators of this urban landscape were also proficient at utilising terracing in the construction of buildings such as the gymnasium to create a town set within the natural landscape. This process of creating an urban landscape was perpetuated further by both the Roman and Ottoman dynasties who layered structures specific to their urban character such as aqueducts and mosques within the site (UNESCO, 2014). As with similar sites of the period, the primary building within the city of Pergamon was the Temple of Athena, constructed at the peak of the site where distance to the Gods would be at its shortest, rendering the area a divine place (Verderber, 2010 p13). One important Roman construction was the Via Tecta or Sacred Way (Figure 14), a colonnaded pathway linking the Asklepion with city of Pergamon (Kase, 2012 p2). By linking the two sites, this passageway provided a sense of awe upon accessing the Asklepion, acting as a signifier of the status of the location to those seeking a cure there.



Figure 14  
Image of the Via Tecta, Pergamon,  
Source: Commons Wikimedia, 2014

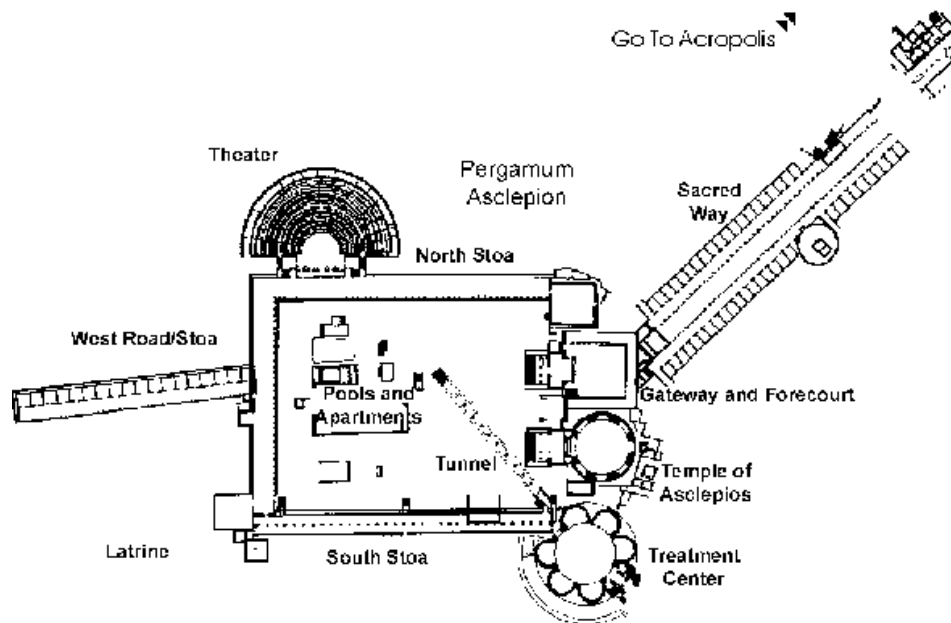


Figure 15  
 Site plan of the Askleion, Pergamon.  
 Source: Number Talk Images, 2019.

### 3.4.1 The Askleion at Pergamon

The asclepiad at Pergamon was initially founded on the site of a sacred spring at the base of the Acropolis in the fourth century BCE. The construction of the complex at the base of the site was typical as the water source would typically be located in this area (Verderber, 2010 p13). Pergamon provides a further example of a layering of site memory and the foundation of subsequent structures on an initial site. The site continued to advance as a centre of healing until the mid-second century BCE when it became renowned as a medical facility (Holloway, 2013). Construction of the site was centred around a courtyard (Figure 15) which was surrounded by a covered portico which housed treatment rooms on three sides. The formation of the complex also included a temple constructed in a circular form where patients were encouraged to walk. Small bathing tubs had been placed within the pillars supporting the temple vaults (Holloway, 2013). Typical of many traditional asclepiad sites, the medical regime at Pergamon was based partly around experiences derived from dreaming. Once patients had journeyed along the Via Tecta, they would make their way along an underground tunnel which housed cubicles for the patients to sleep in during their first night at the facility before describing their dreams to medical staff.

Processing along these passages could perhaps be interpreted as a journey from sickness to health. Treatment would then be undertaken in a centre adjacent to the Temple of Asclepius and might include massage, mud treatments, herbal remedies and water therapy. Underfloor heating provided a relaxed and comfortable ambience (Verderber, 2010 p13). A theatre was situated to the side of the location emphasising the holistic attitudes to healing at this site. Physicians such as Galen believed that treatment should include the mind as well as the body if a complete cure was to be possible. Patients were also encouraged to take exercise in the surroundings and to consume a well-balanced diet (Holloway, 2013).

### **3.4.2 Place Attachment and the Site at Pergamon**

When applying elements of Place Attachment theory to the sites at Pergamon it becomes apparent the extent to which these sites were valued. Societal factors were of great importance. The location chosen for the *asclepiad* possessed a level of site memory resulting in the perpetuation of the original location by subsequent users, especially with regards to Pergamon. Both sites also possessed a perceived health benefit and shared point of community evident from the numbers of people attending the sites. The experience while at the site, including sleeping in the temple was also important to guests. Proximity maintenance was an important factor at both locations evident from the manner in which visitors derive comfort from the rituals undertaken by the priests. The creation of Asklepiion sites successfully implemented many biophilic elements central to the concept of Place Attachment. The sites were constructed within the natural terrain, often requiring terracing in order to become fully immersed into the landscape. This resulted in a close connection to the immediate environment. Symbolism and aestheticism were also connected to these sites where visitors were using the location to connect with and appreciate the beauty of the natural world. Although the creators of the site had asserted a dominionistic attitude towards the site it becomes clear that there was also an understanding to protect the site. The presence of cultural factors important to the functioning of the *asclepiad* are apparent in the spirituality within the sites. *Asclepiad* were often built on previously revered sites and their layout included temples dedicated to the God Asclepius as well as other altars. The vernacular

landscape played a significant role in mentally preparing visitors to the site as they would be required to travel deep into the countryside to access the complex, perhaps creating feelings of embarking on a pilgrimage. In the case of Pergamon, the positioning of a further sacred site in a location visible from the original setting would reinforce impressions of spirituality.

The physical landscape was key to the development of Place Attachment to asclepiad sites, as the geology and topology were of primary importance to the conditions necessary for the existence of a 'therapeutic' water and the spectacular locations. Original accessibility to the site would have been essential in order to construct the complex as would subsequent accessibility for the users. A settlement capable of meeting the needs of both guests and residents would also be necessary as would site legibility. Visitors to the location would require an understanding of the site and the location of various parts of the complex. The writer Pausanias (c110-180 CE) describes succinctly how such sites possessed the important elements of Place Attachment stating: "a sacred landscape that was the main vehicle for the display and expression of social and religious monuments, customs and ideologies that belonged to an otherwise irretrievable past" (Bradley, 2007 p20). Pausanias was effectively analysing these concepts almost two millennia before Low and Altman had created their Place Attachment model in 2014.

### **3.5 The Development of Therapeutic Bathing in the Roman Empire**

The Roman Empire originated in 27 BCE as a minor city but expanded under the leadership of Augustus. During the following five hundred years the empire increased, controlling western Europe, the Balkans, middle east and north Africa (see Figure 16). The empire collapsed in 476 CE following an incursion from the north led by the Germanic commander Odoacer (Wasson, 2016).



Figure 16  
Map showing the extent of the Roman Empire c117 CE  
Ancient History Encyclopaedia, 2019

The Roman Empire mirrored Greek attitudes by placing great significance on the process of bathing but developed the value of the occasion that accompanied this ritual. The culture of bathing incorporated utilisation of both natural mineral springs, known as *acquae*, which tended to be located away from large urban sites but also man-made, heated pools, known as *thermae* which were situated in towns or cities (Clay Large, 2015 p18). It was common for wealthy Roman citizens to possess their own private bathing facilities, known as *balnea*, in their homes. Many of the structures erected at mineral springs were initially used by the Roman army for the convalescence of soldiers injured in service but also as complexes where soldiers could rest and recoup rather than a place of relaxation solely for the wealthy (Van Tubergen, 2002 p273). The importance of water to Roman life can be appreciated in the Imperial city which contained thirteen aqueducts, more than a thousand public fountains, eleven imperial baths and more than nine hundred public baths (Frosch, 2007 p1948). Bathing facilities comprised of three types of bath (Figure 17) the *tepidarium* (warm), *caldarium* (hot) and *frigidarium* (cold). Patrons of the complex would frequent all three baths as each possessed different therapeutic qualities. Warm water was believed to relax muscles, improve circulation and digestion while hot water would encourage the user to sweat, ridding themselves of toxins. The warm baths would be heated by an underfloor heating structure known as a *hypocaust*. The bather would complete their visit in the frigidarium



which would close the pores (Moss, 2010 p228). Bathing establishments contained dressing rooms known as *apodyterium*, sauna type rooms known as *laconicum* and steam rooms known as *sudatoria*. Located alongside the bathing facilities there would be gymnasia as well as taverns, museums and medical facilities (Bird and Cunliffe, 2006 p23). The inclination of the Romans to situate other establishments near to bathing facilities corresponds with the concept of ‘destination’ which was familiar in the formation of asclepiad in Minor Asia. While visitors to both sites had an expectation of healing, they were also seeking an ‘experience’. The gymnasium was an establishment used by men where they would compete in sports such as wrestling and fencing. This building often including a *palaestra*, a room that was used for ball games. There might also be a hall for athletics (Furia, 2007). The ritual of bathing was a communal and often noisy pursuit as indicated by the chronicler Seneca who stated that: “the assortment of sounds which are enough to make me hate my very powers of hearing” (Paoilli, 1963 p225).

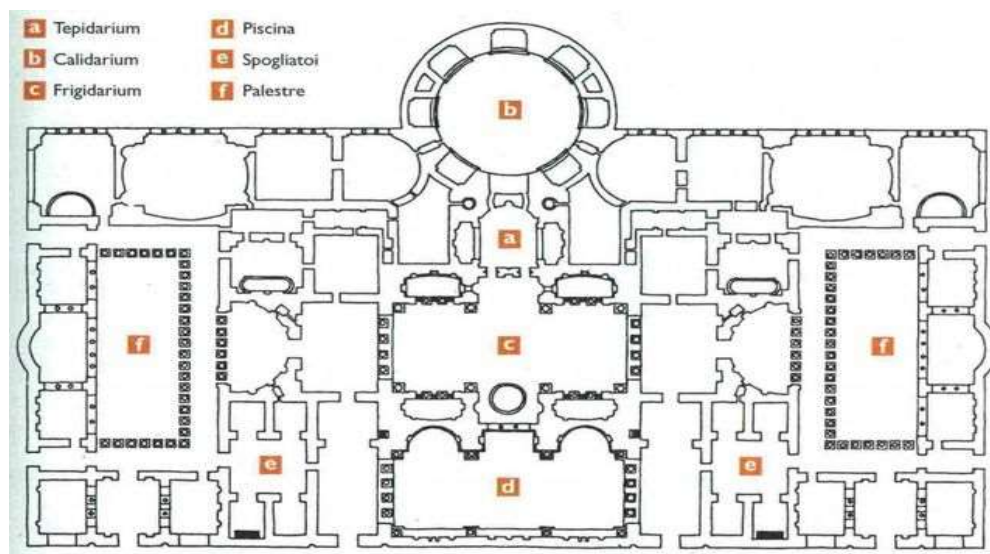


Figure 17  
Floorplan of the Baths at Caracalla.  
Source: Bondono, 2018.

### 3.5.1 Important Roman Therapeutic Locations

The first public bathing facility was established in around 25BCE by the statesman Marcus Agrippa although the most highly regarded were the *Thermae Antoninanae*, better known as the Baths of Caracalla, Rome, which were influential in the evolution of spa design and were considered to be one of the seven wonders of the city (Furia, 2007). The baths are located close to the Appian Way, an important road linking the Forum with the port of Brindisi 350 miles away. During the Roman period, this town was the chief port connecting the Roman Empire with the Hellenic Empire (Berechman, 2003 p454). The position of these baths enabled their use not only by residents living nearby but also by traders and other visitors to the city. The complex consisted of a twenty-seven-acre site situated within a walled garden and during the peak of its popularity, according to the chronicler Olympiodorus, was able to contain one thousand six hundred bathers (Oetelaar, 2014 p143). The baths consisted of the typical three-room layout familiar to Roman bath users but also contained a large swimming pool and gymnasium (Furia,2007). The complex at Caracalla was intricately decorated with paintings, sculptures and columns but mosaic, particularly, was a widespread feature throughout (MacAulay, 1994 p33). The exercise yard had pavements constructed from black and white tesserae while the swimming pool boasted a mosaic of sea creatures on its base (Carr, 2017).

The use of a monochrome palette and marine theme was typical of Roman interior design in the third century, particularly in bathing facilities (Cartwright, 2013). During their analysis of the site, archaeologists have unearthed several sculptures which were used to decorate the niches in many of the rooms including the Farnese Hercules and Achilles and Troilus (Furia, 2007). The emphasis on the built element of the facilities such as those at Caracalla underlines the importance visitors placed on their surroundings. Alongside the prominence many patrons placed on the aesthetic of bath interiors, the concept of healing through water became an increasingly important part of the Roman empire, whereby citizens began to recognise the specific benefits of different types of spa water (Figure 18). This appreciation of variation in the constituents of waters may indicate a point when therapeutic water becomes the driver for the creation of 'healing'

resorts. *Aquae Cutiliae*, located close to Rome was renowned as a therapeutic location with particularly cold water. Pliny the Elder (23-77 CE) suggested that these waters might be beneficial in the treatment of stomach complaints. He was complimentary about the thermal spring at *Aquae Albulae*, located near to Tivoli, which he stated would heal a range of injuries and rheumatism. In his work *Historia Naturalis* (31:6) he stated “The tepid waters of Albula near Rome, have a healing effect upon wounds. Those of Cutilia again, in the Sabine territory, are intensely cold, and by a kind of suction penetrate the body to such a degree as to have the effect of a mordent almost” (Clay Large, 2015 p25).



Figure 18  
Outline map of Italy showing the approximate locations of Rome (1), Pompeii (2) and Aqua Cutiliae (3)  
Source: World Atlas, 2018.

Beyond Rome the city of Pompeii had four public bath houses, the Stabian (Figure 19), Forum, Central and Suburban baths. There were three privately funded bathing complex perhaps indicating a recognition that investing in this type of facility might provide profitable financial returns. The growth of bathing in Pompeii occurred in the first century BCE and continued into the first century CE. This evolution reflects the increased importance of the bathing process across the Roman Empire (Kolowski-Ostrow, 2007 p225). The baths follow a similar layout known as Palaestra. The oldest structure is the Stabian Bath, a thermal development, which was constructed in the second century BCE. This facility was situated around a central area, in this

case a gymnasium and was divided into three sections, the northern area which contained the communal toilets, a middle area comprising of private bathing rooms and an eastern area containing public baths and changing rooms. There was a swimming pool situated to the west of the complex (University of Washington, 2004). The baths of Pompeii all reside within an entire city block and are typically surrounded by shops on one or more of their sides (Kolowski-Ostrow, 2007 p226). This highlights the recognition that those attending the baths may wish to visit other establishments and places the baths as central to the urban development around them.

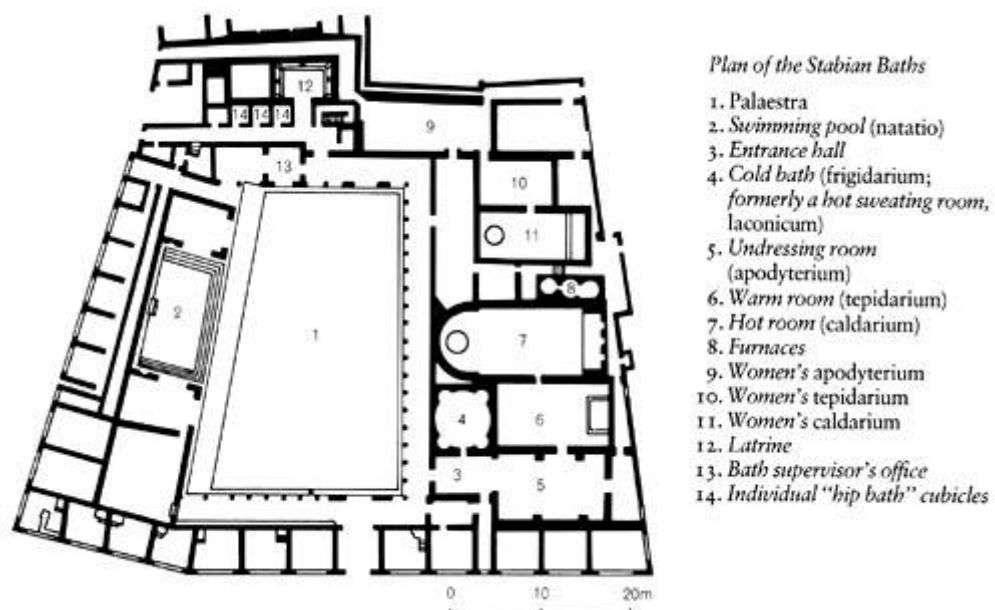


Figure 19  
Floor Plan of the Stabian Baths, Pompeii.  
Source: University of Washington, 2004.

The Romans established a bathing culture in the countries which became part of their empire (Pawlikowska-Piechotka, 2014 p24). The thermae at Bath, England, was constructed from approximately 60CE. Construction began by confining the spring of Sulis within a lead lined reservoir. It is likely that much of building work was undertaken by the Roman army, utilising local materials such as lead quarried from local mines located in the Mendips. The baths consisted of three divisions, an entrance facing the sacred spring, steam rooms warmed by underfloor hypocausts and three thermal baths (Bird and Cunliffe, 2006 p15). As with other thermae sites the baths were used by the Roman military as a place of relaxation and healing but also drew

visitors from Britain and Europe (Spence, 2012 p61). Archaeological enquiry indicates that the interior of the facilities was plastered and then painted, while the floors were covered by mosaics. There is evidence of windows which would have provided natural light for the Great Bath (Bird and Cunliffe, 2006 p20).

The success of bathing in urban areas was often reliant on a system of aqueducts used to transport water over long distances. This meant that a spa site could be created at a location encompassing elements such as beauty of location or accessibility to a large urban population rather than being wholly reliant on the positioning of the water source. The Romans developed the concept of water transportation from the Minoan culture of Crete who, in the third century BCE, had created a structure which was capable of harvesting and subsequently cleaning rainwater (Roda, 2016). Aqueducts were a man-made watercourse designed with the intention of transporting water downhill from the mouth of a water source to an urban area. The aqueduct system included a dam and reservoir which were able to be used should the source of the water dry up in warmer weather. Catch basins were erected at the water source where feeder tunnels were joined to the main channels of the aqueduct. Great importance was placed on the gradient of the land over which the aqueduct would be travelling. If the area were too steep the force of the water flowing through the channel could cause erosion while a shallow incline would cause the water to become stagnant (Taylor, 2012).



Figure 20  
Photograph of the Aqua Alexandrina  
Source: Shurygin, 2010

While there are many famous examples of Roman aqueducts such as the Aqua Alexandrina (Figure 20) in Rome or the Aqua Marcia near Tivoli, much of water was usually transported underground or at ground level. The city of Rome required three hundred and fifteen miles of aqueduct to supply water to the city but only thirty-six of these comprised of arched edifices (Roda, 2016). These structures must have made an imposing impact within their immediate environment, providing a statement regarding the power of the Roman Empire in dominating the natural world as well as its inhabitants. Once the water had been transported to the city it was placed in sizeable dispersal tanks or *castellum* from where it was channelled into smaller tanks and then piped into baths, fountains or domestic buildings (Taylor, 2012). The use of aqueducts enabled urban development to flourish in locations where the supply of water might require additional support. While aqueducts were a valuable means of transporting water to areas where they may be a shortage, they were not always required for the functioning of a town and so were not used over the entirety of the Empire. Where aqueducts were necessary, they were monitored by officials known as *aquarii* who were responsible for maintaining the channels and establishing a satisfactory water quality. The only aqueduct currently in use is the Aqua Virgo which was constructed in the first century BCE during the reign of the Emperor Augustus. The longevity of the aqueduct can be attributed to the foresight of several Popes, including Nicholas XV who oversaw the restoration of the structure in 1453. The structure is still utilised as a source for many fountains including those in the Piazza del Popolo and the Trevi Fountain.

### **3.5.2 Place Attachment and Roman Sites**

Many therapeutic locations across the Roman Empire had been sacred sites to previous inhabitants of the area indicating that site memory was a central characteristic to the continuing development of a place. The apparent therapeutic advantage derived from the site was also of significance as Roman citizens valued certain spring sites for the healing of specific ailments. This would seem to suggest that many sites held a reputation outside of their immediate locality. Roman bath complexes were impressive structures containing a myriad of facilities indicating that comfort and experience while at the site were key issues. These sites provided a place where the

local community would regularly visit but which were accessible to passing visitors. This would also indicate feelings of proximity maintenance towards such locations, a process where people derive comfort from routines and spaces already familiar to them. This concept was discussed by Proshansky (1995) who asserted the value of familiar places to the development of human relationships and is an element within the societal construct of Place Attachment Theory. The etiquette surrounding bathing would be similar across the Roman Empire, resulting in an immediate familiarity to a visitor. Spirituality and a sense of place would have been a familiar concept to bath visitors as many of the sites were dedicated to gods or goddesses such as Sulis Minerva in Bath, England. The importance of the vernacular landscape with regards to Roman baths may not have occupied such an important role as the Romans were adept at moving the water to where it was required through a system of aqueducts. Although some therapeutic waters were located away from urban locations within the natural landscape this may not have proved such a critical issue for bathers. There are many aspects contained within Place Attachment Theory and individual site users will possess their own connections and relationship to a place. In the case of many Roman bathers there might well have been other issues regarded as of more value such as the juxtaposition of the site to their community. The creation of Roman baths fulfils the dominionistic element of Place Attachment as through their manipulation of the landscape and the water within it the Romans were able to establish bathing facilities in locations suitable to their needs. There were some exceptions which, however, contradict this theory. The baths at Cutiliae were an example of a site with symbolic significance to visitors as classical writers believed this site to be the centre of Italy. Although this bathing location possessed a meaningful connotation for site visitors it is likely that the central location within Italy was in this case more relevant to visitors.

While geology and topology are essential aspects to the creation of a therapeutic water, the Romans tended to transport water through the implementation of aqueducts to where it was required. Initial accessibility to these sites would have been important until the infrastructure was in place for the movement of water. The concept of settlement and associated cultivated

landscape was of more importance to the Romans, evident from the implementation of aqueducts. Site accessibility within urban areas would have been of primary importance as would the location of the baths. In many cases, such as in Pompeii, the baths were located close to other amenities such as tavernas or shops, facilities that visitors to the baths might also wish to access. Legibility of Roman towns as well as the baths themselves would also be necessary. Bathing complexes were often positioned close to important roads or city gates. An example of this is the Baths of Caracalla, located close to the Appian Way generating a site whose location would be clear to residents and visitors.

### **3.6 Drawing Together Themes from Classical Spa Culture**

Appreciation of the curative qualities of water was common to the Hellenistic, Byzantine, and Roman empires as was the implementation of a therapeutic 'destination' linked with this resource. While bathing as a hygiene and social concept was commonplace within these cultures there was a further driver leading to the development of infrastructure linked with both therapeutic bathing and the services required in such locations. While sites associated with communal bathing were generally created within urban environments those offering curative treatments were established in remote locations that would further emphasise the importance of the facility.

Common to the classical locations discussed in this research is the construction of therapeutic sites on previously sacred sites. The Askleion at Kos encompassed a location previously established as a shrine while the site at Pergamon overlooked a sanctuary. The Roman empire was adept at re-using previously valued locations as shown in the construction of a comprehensive bathing facility in the city of Bath. The implementation of such sites might engender feelings of reverence with site visitors, further emphasising the intended purpose. Many classical spa locations were difficult to access, requiring a 'medical' pilgrimage to access treatment. Common to many classical sites was the presence of physicians associated with the therapeutic facility, emphasising the purpose necessitating a visit to such a location. While the intended patron of classical therapeutic sites would have been of high status, the amenities would



not have been comparable with later examples in post-medieval Europe, further emphasising the intention of the visitors.

The development of facilities associated with water therapy in the classical period retains connections with aspects of Place Attachment. Common to all sites was the overriding belief that attendance at such locations would provide a health benefit to the patient. It is probable that site memory would be another important aspect for visitors, offering the reassurance that many others had sought successful treatment at the site through previous generations. Creators of classical sites constructed curative facilities within dramatic landscapes where the location of water might need to be manipulated, thus showing traits of dominionistic and utilitarian concepts. Cultural components such as spirituality and a sense of place would originally be evident in the surrounding landscape but further enhanced through site location and the buildings constructed there.

The concept that water possessed therapeutic qualities continued into subsequent centuries although the treatments and facilities available in spa resorts evolved. The following chapters will examine how the development of curative water continued in post medieval Europe but also how exponents deliberately utilised aspects of the classical period to emphasise both the quality of their product and the long-held beliefs in the power that water had to heal.

## 4 European Spa Culture in Post Medieval Europe

### 4.1 Attitudes Towards Bathing in the Early Middle Ages and Medieval Period

In the period following the Roman Empire, bathing, whether for hygiene or therapy decreased in popularity across much of Europe. The Christian Church was disapproving of bathing regarding it as a degenerate and immoral pastime. The illumination titled 'Scene from a bath house' (Figure 21) presents in visual form justification as to why bathing was disparaged by the Church hierarchy. The image shows a mixed group of bathers indulging in gluttony and, judging by the rear of the picture, more iniquitous pursuits, thus reinforcing religious views of its depraved influence.

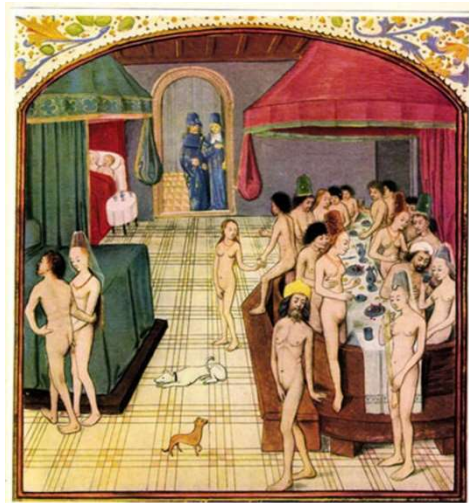


Figure 21  
A Medieval illumination titled 'Scene from a bath house' by Master Anthony of Burgundy, circa 1470  
Source: Commons Wikimedia, 2014

The Church hierarchy of the early medieval period considered prayer and worship to be more appropriate methods of healing than water therapy. This focus on worship is highlighted by the rule of Saint Augustine, in the fourth century CE, which allowed bathing once a month (Hembry, 1990 p1). Many clergy considered the ritual of baptism to be the only immersion in water necessary for a Christian, a philosophy originally promoted by Saint Jerome (347-420 CE) who in a letter to Heliodorus states: "He that is once washed in Christ needs not to wash again" (Saunders and Fuller, 2015 p165). The Catholic Church's continued preoccupation with bathing is evident from Pope Innocent IV's judgement on whether the Holy Roman Emperor, Frederick II was guilty of being a heathen. It is interesting to note that the initial accusation levelled at the

Emperor was that he bathed daily (Raj, 2014). The distrust of bathing was reflected in the later medieval period by much of the European monarchy. Francis I, King of France (1494-1547), ordered the closure of bathing establishments primarily because the institutions were often frequented by prostitutes. In 1546, Henry VIII shut similar establishments in Southwark for identical reasons (Rotherham, 2014 p6). Physicians during this period shared the view that bathing should be avoided but considered it to be detrimental to health rather than focussing on the moral welfare of their patients. In his work of 1531 titled '*The myrrour or glasse of helth*' the physician Thomas Moulton advised on how to avoid the Plague stating: "Use no baths or stoves, nor swet too much for all openeth the pores of a manne's body and maketh the venomous ayre to enter and for to infecte the bloud" (Raj, 2014).

Bathing, however, was an important element of Arab culture during the same period, a further reason why it was viewed with suspicion by the Christian elite (Rotherham, 2014 p6). Distrust of the Ottoman Empire developed following the first crusade (1096-1099 CE) when Pope Urban II ordered the recapture of the Holy Land. Subsequent descriptions of Turkish people included adjectives such as godless, a trend which continued during the ensuing centuries. Following the fall of Constantinople (1453), Pope Nicholas V described the Sultan Mehmet II as both cruel and bloody (Tiryakioglu, 2015 p2). While from the thirteenth century the Christian church of central and northern Europe was dismissive of water cures, the philosophies of bathing and water therapy began to regain popularity, particularly in the Iberian Peninsula, an area controlled by the Moors, an itinerant culture originally from Northern Africa, between the eleventh and fifteenth centuries. The Moors created a wide-ranging system of water transportation which spanned both rural and urban areas. Moorish bathing practices followed the traditions of the Hellenistic and Roman empires as well as those of the Arab world. While classical European sites such as the Asklepieion at Kos might have used hot or cold-water therapy, Moorish physicians developed treatments using four types of water. The physician Avicenna (980-1037 CE) proposed four types of bath; freshwater, saltwater, hot water and steam bath for the treatment of specific illnesses. He recommended that new-born babies should be bathed in salt water with the intention of hardening

the skin (Walsh, 2018 p22). People started to attend public baths, both for cleanliness and cure, in cities such as Cordoba, where there were estimated to be nine hundred baths (Figure 22). Internal water cures where patients might drink up to ten litres of water per day as part of their regimen were still recommended by physicians (Van Tubergen, 2002 p273).



Figure 22  
Photograph of the interior of the Hamman Al 'Andalus, Granada  
Source: Smith, 2015

#### **4.2 European Spa Culture**

During the twelfth and thirteenth centuries warm water therapy was beginning to regain popularity as a means of alleviating symptoms of the sick and began to facilitate urban development. This was particularly apparent at sites including Bath; England, Vichy; France and Baden Baden; Germany. The city of Bath became renowned as a place of healing during the twelfth century when John of Tours, the Bishop, encouraged people to utilise the existing Roman baths to alleviate their symptoms and agreed to the construction of a further two baths in Bath Abbey. John of Tours (died 1122) grew up in France and so was likely to have been familiar with the use of water for therapy at sites such as Vichy or Aix-la-Chapelle. Bath was not unique in reusing the bathing facilities originally established by the Romans. Sites at Wiesbaden; Germany, and Aquincum; Hungary, were also sites in continuous use following the fall of the Roman Empire. Contemporary bathing facilities were being constructed across northern and central Europe. Examples include the Warmbrunn in Silesia; Poland and Carlsbad; Germany (Hembry, 1990 p2). Therapeutic water treatment was becoming common in thirteenth century Poland firstly at the

Ladek Spa from 1242 and then at the Cieplice Spa from 1281 which were both renowned for benefitting rheumatic and dermatological conditions (Kepinska, 2003 p23).

By the fifteenth century bathing for the purposes of cleanliness was becoming more popular across Europe with all classes leading to the advent of public bathhouses. Although often administered by the church and used by families, these establishments became renowned as places of prostitution. In France, some bath houses were referred to as '*maison de tolerance*', a type of brothel (Rotherham, 2014 p7). There was a similar attitude towards bathing in medieval Italy where the baths were referred to as *stufato* a colloquial word for brothel. During the sixteenth century the reputation of public bathing declined as people regarded the facilities as the reason for the rise in infections such as syphilis and leprosy and were regarded as unsafe due to their use by political and religious dissenters. Although the affluent continued to bathe, they often visited thermal baths in rural locations rather than those in urban areas, considering that baths emanating from a thermal spring would be healthier. This attitude reflects beliefs common in the Roman period that thermal water was a gift from the gods and therefore more likely to possess therapeutic qualities. These baths were also typically available only to the wealthy and thus the facilities would not be shared with the large numbers who attended public baths (Van Tubergen, 2002 p274), suggesting that bathing within an urban setting was primarily utilised for hygienic (or licentious) purposes while those seeking a cure would travel to a site offering therapy and an aesthetic experience within an appropriate setting.

An important development in the attitudes towards water therapy arose in sixteenth century Italy where the physician Andrea Bacci (1524-1500) expanded the concept of hydrotherapy. Bacci advocated that water therapy required stringent regulation including the most suitable site for specific cures and the most appropriate treatments for particular maladies. He considered it vital that treatment be carried out by trained experts stating: "How many [people] today go to the baths on a doctor's advice rather than at the suggestion of some layman?" (Clay Large, 2015 p35). Bacci followed the teachings of classical physicians such as Galen and Aristotle who advocated a regimented system of therapeutic bathing. His work '*De thermis*', supports the concept that as

well as following a regime of bathing, other important aspects for a complete cure involved a beautiful location and excellent food and drink (Van Tubergen, 2002 p274). Bacci wrote about several spring sites including the Bagno Vignoni, positioned in the Val d'Orcia National Park, Italy (Figure 23). The area comprises of chalk plains, tapering hills and an agricultural landscape which has probably changed little since Bacci wrote about it. The area was popular with landscape artists due to its natural beauty (UNESCO, 2004). This type of setting would perhaps stimulate comparable emotions, such as awe and wonder, in visitors to those experienced at Pergamon and Kos many centuries previously. Bacci's philosophy on the implementation of water therapy in a coordinated system where the patient had access to high quality food, fresh air and leisure time is a precursor to the European spa resorts of the eighteenth and nineteenth centuries.



Figure 23  
Panoramic view of the Val d'Orcia National Park, Italy  
Source: Italian Tourist Board, 2018

The philosophy of healing through the implementation of water therapy coupled with fresh air and exercise was not restricted only to Italian physicians such as Bacci but expanded steadily across other areas of Europe. By the seventeenth century a new culture of water therapy began to evolve. People began to recognise that particular spring sites were beneficial for the alleviation of specific ailments, for example, Louis XIII and his wife Anne of Austria attended Forges with the intention of finding a cure for their infertility (Frosch, 2007 p1949). The pinnacle of spa development across Europe spanned the eighteenth and nineteenth centuries. This was a period

when medical knowledge and understanding of the components of water was evolving but also an era when expectations of leisure were beginning to increase (UNESCO, 2016). The analysis of European Spas has been executed via a series of case studies that will examine a range of sites in Germany, France, and England.

### **4.3 European Spa Culture in Germany**

#### **Baden Baden**

Germany has historically boasted a large number of spa towns; the writer Ferdinand Kühne (1835) suggested that the number of spas in Germany exceeded the rest of Europe, estimating one hundred and forty-nine establishments in German speaking areas including Bohemia and Switzerland. This figure has been questioned by Kaspar (1993) who indicated that there were forty-nine healing springs solely in the region of Westphalia (Lempa, 2002 p37). Many German spring sites date back to pre-Roman times although the majority experienced their heyday between the seventeenth and nineteenth centuries (UNESCO, 2016). The focus for this research has been the resort of Baden Baden as it provides an example of the interdependency between a specific type of water supply, the expansion of a culture regarding its use and the urban development, all key drivers in the concept of Place Attachment Theory. The town of Baden Baden (Figure 24) is situated in a valley of the River Oos within the area of the Upper Rhine Graben on the outskirts of the Black Forest in southwestern Germany. The town is located in an area of vineyard cultivation. Baden Baden was founded by the Romans on the site of a Celtic settlement and was known as Civitas Aurelia Aquaeris. The site renowned for therapeutic thermal water was visited by people from across the empire including the Emperor Caracalla (UNESCO, 2016).



Figure 24  
Outline map of Germany showing the approximate location of Baden Baden  
Source: One Stop Map, 2020

The origins of the thermal water at the resort can be traced back to the Oligocene period when faults developed in the Upper Rhine Graben, a rock formation which is part of the European Cenozoic Rift System. Located within the Upper Rhine Graben is the 'Kaiserstuhl' a chain of volcanic hills which have lain dormant for the last fifteen million years. A series of faults located at the eastern end of the Graben have dislodged rocks down almost two kilometres, Figure 25. The majority of the initial springs in the town are situated in close proximity to the main thermal fault on the south eastern incline of the Florentine Berg (Sanner, 2000 p18). The tectonic activity dating from the Oligocene period allowed for the subsequent development of the bathing culture and the many vineyards situated in the area (Style, 2012). The soils present in the Baden Region were created when volcanic matter was expelled from the site and subsequently combined with the existing soil upon cooling. The vineyards of Baden region were successful through a combination of properties emanating from early volcanic activity. The soil contained an abundance of minerals including calcium, magnesium and iron important to the cultivation of



vines. The acidity of grapes is essential to the production of wine, something the soils in this area were able to provide. Another property of volcanic soil is its ability to retain water, another necessary consideration in the successful cultivation of vines. Both these elements led to the success of winemaking in this region (Murray Brown, 2016). The water discharging from the spring sites in this location varies in temperature from between 56°C and 68.8°C making it beneficial for therapeutic bathing (European Historic Thermal Towns Association, 2017a).

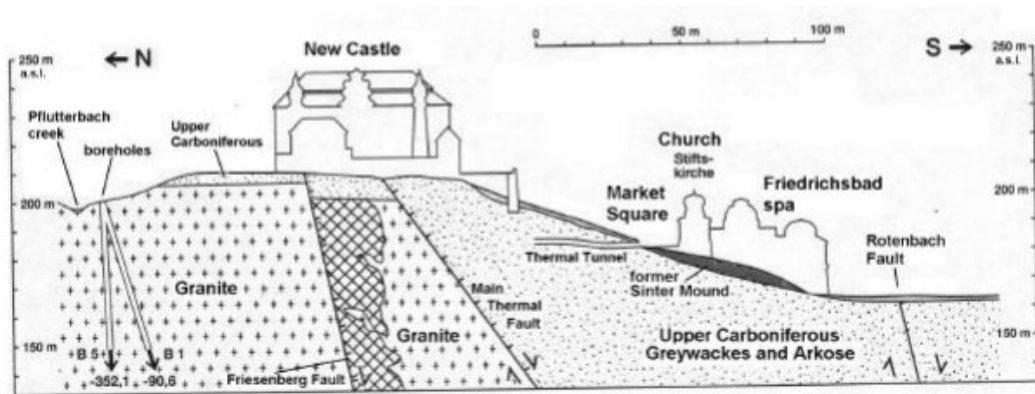


Figure 25

Diagram showing the profile through the main thermal area in Baden Baden (after Bilharz, 1934; from Landesarchiv BW, 1995)  
Source: Sanner, 2000 p19

Baden Baden continued to evolve until it was exposed to an invasion by the Aleman tribe in 260CE resulting in the destruction of much of the spa site. A large area including the site of Baden Baden was presented to the Weissenberg Monastery by King Dagobert in 1102 when the first of several castles was built. By the fourteenth century the benefit of therapeutic bathing was again recognised by a military commander when the Markgraf Rudolf III proffered the use of the baths to his soldiers. During the fifteenth century bathing was becoming an elitist pastime, attracting visitors including Emperor Friedrich III in 1473. A booklet, *Baderbüchlein*, was published by Hans Foltz in 1485 explaining the properties of the different baths (Sanner, 2000 p17). During this period, the town possessed four baths which had changed little from their initial construction in the Roman period. The potential of bathing and its influence on the town had, at this point, been unrecognised evident from the fact that pig farming was a greater employer than water therapy (Clay Large, 2015 p51). The Markgraf Christoph I recognised the value of the mineral springs to

the area and appointed himself the proprietor of the baths. He also appreciated the importance of visitors to the area and understood that further amenities were required to make the spa attractive. Additional facilities were constructed following the introduction of a Kurtaxe in 1507, a tax paid solely by spa visitors to the area (Sanner, 2000 p17). During the early seventeenth century Baden Baden was beginning to become popular with visitors from Strasbourg although a chronicler from the time was unimpressed with the town stating: "Mediocre meals with poor wines, a lack of almost all creature comforts, inadequate housekeeping, and poor service". Despite the interventions of the Markgraf in the sixteenth century little had changed by 1774 when Markgraf Karl Friedrich commissioned a report on the facilities which it described as being unhygienic. Following this report, the Markgraf established a commission authorised with transforming the town into a therapeutic resort (Clay Large, 2015 p510).

The spa can be perceived as a driver for urban design following the French Revolution, 1789-99, when many aristocrats escaped across the border at Alsace and made their residence there. The town already housed a Promenandenhaus for entertaining and had planted an avenue of trees, Lichtentaler Alle, linking the town and resort (Clay Large, 2015 p53). During this period, the Markgraf, Karl Friedrich also appointed a spa director, a figure familiar to spa visitors at Bath and Scarborough. The role of director at Baden Baden was in complete contrast to that played by Beau Nash in Bath as the role of spa director at Baden Baden was focussed solely on the therapeutic aspects of the resort. This was apparent through the requirement of a medical degree for applicants to the post (Bacon, 1997 p178). Visitors to the site could visit one of twelve thermal springs, enjoy various entertainments and visit the Roman ruins (UNESCO, 2016). The evolution of Baden Baden as an exclusive resort leading the way for subsequent towns was, in part, due to the circumstances of the French aristocrats residing there. In many cases much of their money was unavailable as it remained in France. The nobility therefore had to find methods of funding their lifestyle which included manufacturing perfumes and liquors (Clay Large, 2015 p55).

The water at Baden Baden has been analysed and recommended by a range of physicians including A. B. Granville in 1837 and organisations such as the state archives of Baden

Württemberg (Sanner, 2000 p20). Granville first visited the town in 1837 and recorded that there were twelve spring sites located there. Much of his knowledge was gained from discussions with a local physician, Dr Kramer. Granville (1838 p36) stated that the main site was known as the Ursprung and described the water as measuring 153°C in temperature. He described the water as having a distinct aroma and containing large amounts of vegetable matter which derived from the original spring site. Granville was surprised to witness visitors drinking many cups of this liquid. The remainder of the water flowed into reservoirs where it was piped to several hotels. Visitors would attend the baths at the hotels where they would be administered to by the resident doctor. It was recommended that people take just one bath a day due to the temperature of the water and that these baths would alleviate the symptoms of rheumatism. Granville stated that the water contained sulphates, carbonate of lime, sodium chloride, iron, and carbonic acid (Clay Large, 2015 p73). The twentieth century findings, Table 3, result from an analysis on July 14<sup>th</sup>, 1987. The temperature of the water was recorded as 64.6°C while the water measured pH7.47.

Table 3  
Table showing the constituents of the water at Baden Baden following analysis in July 1987  
Source: Sanner, 2000.

<b>Constituent</b>	<b>mg/l</b>
Sodium	850.66
Potassium	75.05
Lithium	9.03
Calcium	129.35
Magnesium	2.07
Strontium	1.71
Rubidium	2.50
Caesium	2.20
Chloride	1437.66
Bromide	3.10
Iodide	0.00
Fluoride	4.0
Nitrate	5.40
Bicarbonate	0.18
Sulphate	155.10

The location of Baden Baden was a key aspect to the development of the resort. Visitors to the town were not simply attending the resort with the intention of attaining therapeutic relief but were keen to experience beautiful surroundings of the locality, a concept which reflects the views of Hippocrates in the fourth century BCE. Havelange (1994 p72) asserts that a remote location positioned within a picturesque environment was essential to a successful resort. Spa visiting was beginning to reflect the opinion that fresh air and gentle exercise were important elements to a therapeutic regime. During a visit to Baden Baden in 1837 (1838 p39), Granville noted that: "The centre of (visitor) attractions is the public promenade. Here a magnificent building.... affords innumerable excuses for the assemblage of the many thousand idlers, who devote just one hour, in every four and twenty, to the one great object, health; and the two thirds of the remaining time to pleasure and dissipation". Eminent visitors to the area in the nineteenth century wrote in glowing terms about the setting of the resort. The Granville (1838, p7) stated: "This delightful summer retreat of the sick and healthy will be found to lie in the bosom of the most enchanting mountain scenery" while the author Mark Twain (1880 p192) declared: "Baden Baden sits in the lap of the hills and the natural and artificial beauties of the surroundings are contrasted effectively and charmingly". Twain (p178) spent time walking in the Black Forest describing "A rich cathedral gloom which pervades the pillared aisles".

After 1800 a programme of rigorous construction took place in the town under the supervision of the building administrator Friedrich Weinbrenner who designed the districts of Oos, Kurhaus and Badischerhof, thus creating a specific spa district in the centre of the town with the Kurhaus (1821) located within its centre (UNESCO, 2016). The establishment of specific buildings within the resort reflected a recognition by the ruling classes that it was vital to the evolution of the town to attract both German and overseas tourists. A casino was built to entice visitors from France and England where gambling in public buildings was prohibited (Bacon, 1997 p178). It was constructed in the College of Jesuits in 1811, a site which was considered by some as an inappropriate location for such a building (Sanner, 2000 p17). Despite the concerns of some residents the casino was approved by the spa director who had invested in the casino but more importantly Grand Duke

Karl Friedrich who identified that revenue from the casino would provide an income source for additional development in the resort. Further casinos were established in the 1820s and 1830s, and by 1838 were put under the management of Jean Benazet who invested the proceeds from the establishment into the development of the town including the construction of a railway line, Trinkhalle and improved road access (Clay Large, 2015 p65). The urgency with which many of these buildings were constructed invites the question as to whether the therapeutic motives of the site had been superseded by other, more financial concerns. Building work continued at the end of the nineteenth century with the construction of villas in the Florentine Hill area (European Historic Thermal Towns Association, 2017a).

Baden Baden saw the demise of the casino in the second half of the nineteenth century and realised that the bathing facilities would need to be upgraded in order to attract further visitors to the town. The Friedrichsbad was constructed between 1869 and 1877 with the intention of being a state-of-the-art bathing facility (Figure 26). The building was designed with axial symmetry and included a domed bathing area in the centre. The foyer and relaxation areas spanned the width of the building (Baden Baden Tourist Board, 2018). Mark Twain (1880, p192) appeared impressed with the bathing facilities stating: “The new Friedrichsbad is a very large and beautiful building and in it one may have any sort of bath that has ever been invented”.

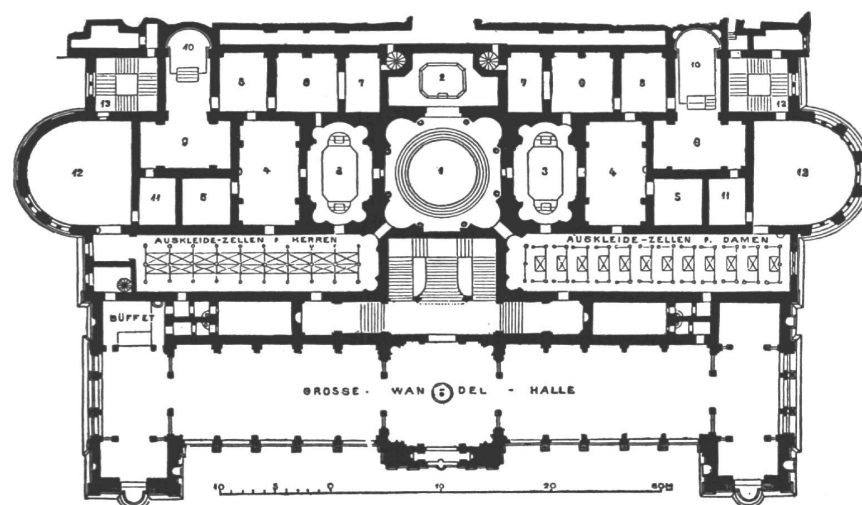


Fig. 2. Friedrichsbad in Baden-Baden.

Figure 26  
Floor plan of the Friedrich's Bad, Baden Baden  
Source: Academic, 2017

The popularity of Baden Baden was also increased by the calibre of visitor to the town. The first 'high profile' visitor was Emperor Friedrich III in 1473. Others who frequented over the subsequent centuries included Queen Louise of Prussia, Queen Victoria, Richard Wagner and Friedrich Nietzsche (Sanner, 2000 p17). The location of Baden Baden in political terms also proved advantageous to the development of the site. In December 1797, a diplomatic summit occurred the focus of which was to arrange reparations for the German nobility who had lost land in the French invasion of 1688. Diplomats involved in the Congress of Vienna (1814-15) used the town as a place for informal negotiations as it was equidistant between France and Austria (Clay Large, 2015 p58). Although the resort was perhaps at this point deviating from the original function of the town, some visitors did still attend the resort purely for the therapeutic benefits which could be obtained from treatment there. The spa had functioned as an important activator of financial income and investment while in addition contributing to urban landscape development.

#### **4.3.2 Place Attachment at Baden Baden**

The site at Baden Baden had originally been of consequence to previous occupants such as the Celts and the Romans, suggesting that site memory was a significant element within the evolution of the spring. Kandel (2006 p10) describes this process as "a coherent picture of the past which puts the present into perspective". While it is likely that the location was initially attended by local people it quickly developed into a place attended by the influential such as the Roman Emperor Caracalla (UNESCO, 2016). While those attending the spa in the eighteenth and nineteenth centuries would probably not have entirely appreciated the Celtic origins of the site it is likely they would have acquired a separate memory grown from layers of patrons seeking a cure and perhaps from visits to the Roman remains. When discussing the urban environment, Livesay (2004, p129) proposes that memory becomes "a constructed field of action, defined by a complex wealth of boundaries, paths, systems, surfaces and artifices". This concept is supported by Hornstein (2011 p3) who suggests that site memory is a dynamic action where people define their own indicators of memory within environment. In the case of Baden Baden this would have been through the process of constructing a spa district containing facilities familiar to its patrons.

When considering elements of Place Attachment theory in relation to the resort at Baden Baden the extent to which the site was valued becomes clear. Baden Baden held an apparent health benefit as well as a shared point of community for patrons of the spa. Where spirituality was an overriding factor at Classical sites such as Pergamon, post medieval sites were secular places focussing on therapy, commerce and leisure. The geology and topology of physical landscape was significant to the evolution of Baden Baden as a spa resort. While the success of the site was dependent upon both therapeutic water and dramatic surroundings, a settlement capable of addressing the requirements of patrons was also necessary. Ujang (2012 p158) suggests that the legibility of a site and the buildings within is imperative to both successful Place Attachment and site viability. Spa patrons would require an easy understanding of site accessibility on their initial visit in order to gain a positive site experience. Place Attachment is often perceived as applying to locations where communities have resided for several generations, thus forming bonds with the immediate landscape. Lewicka (2014, p50) recognises that throughout history societies have been kinetic and that people can be attached to locations even though the time spent there is transient. She suggests that where mobility has been chosen by the individual, attachment is more likely, a scenario applicable to sites such as Baden Baden.

The development of Baden Baden effectively applied many of the Biophilic elements described by (Fromm 1964, Wilson 1984, Kellert 1999 and Ramoie 2014) as being key to the concept of Place Attachment. Ulrich (1993 p98) describes how sites valued by early settlers would needed to have provided recuperative elements where people could rest following seeking food or shelter. He continues by suggesting that humans have an inbuilt nature for appreciating these types of location. Wilson (1984 p108) describes how post medieval societies, through their creation of locations including parkland interspersed with trees and shrubs, aimed to create the savannah landscapes familiar to early man. Heerwagen and Hase (2001 p31), discuss the importance of Biophilic design to those residing in a location suggesting that such buildings should entice people to explore their location while providing a refuge through the implementation of closed areas with views into the distance. They also stress the importance of water within such locations. These

characteristics as well as biodiversity achieved through the combination of nearby forest and planned parks were all visible attributes in the resort. These elements were acknowledged by visitors to the resort such as Granville (1838) and Mark Twain (1880) who described the natural scenery in glowing terms.

#### **4.4 European Spa Culture in France**

##### Vichy

The French spring sites which attained later prominence as spa resorts such as Vichy and Evian can trace their history back to the Roman period. The Cluny baths in Paris were an example of the importance the Romans placed on water for bathing and hygiene (Galliou, 2006 p4). The popularity of water as more than a local resource, enjoyed by the nobility as a source of therapy and leisure only came to national prominence after the 1580s following the endorsement of spring sites by local physician's keen to attract patients seeking their help in the alleviation of a range of maladies (Brockliss, 1990 p23). Spa therapy became increasingly popular during the seventeenth century causing many vernacular sites to be resurrected. Their reputation continued into the nineteenth century resulting in the establishment or continuation of one hundred and fifty thermal sites by 1851, a figure which was amplified to three hundred and ninety-two by 1893 (Cossic, 2006 xiv). Spa therapy became accountable to the state following Napoleon's order that the interior minister should chronicle the six départements containing spa sites, their existing facilities and intentions for further developments (Gordon, 2016 p36). Napoleon handed the accountability for treatments offered by each spa for appraisal by the Paris Academy of Medicine, thus ensuring that local physicians were unable to make spurious claims as to the potential cures of certain waters (Weisz, 2011 p139). French sites were typically divided into two types; hot springs where people would either drink the water or bathe and cold springs where visitors would undertake a drinking regimen. The routine at French spa towns was more focussed on the therapeutic elements than other European countries who placed greater emphasis on leisure (Van Tubergen, 2002 p274).





Figure 27  
Outline map of France showing the approximate location of Vichy  
Source: World Atlas Book, 2019

The focus for this research is the resort of Vichy (Figure 27), located on the banks of the River Allier and known by the Romans as Aqua Calidis. The town is in close proximity to the Chaîne des Puys, a volcanic area in the Auvergne region of France. The Puy de Dome is the most recent of the volcanoes to erupt, approximately 6000 years BCE. The water at Vichy is warmed through contact with the magma four thousand metres underground and eventually ascends to the Earth's surface (Celle-Jeanton, 2018). Analysis of the water in the early nineteenth century by the chemist William Nicholson (1808 p463) asserted that the water tasted saline and bitter and was slightly effervescent due to traces of carbonic acid. He described the water as being warm, chalybeate and alkaline. Nicholson (1808) described how cattle and sheep grazing near the spring site would drink the water and even lick nearby stones and continued by recounting how the animals would initially suffer the purgative effects of the water but would then gain an improved appetite and general condition. Analysis of the water was undertaken in 2012 (Nunes et al p255) (Table 4). The temperature was recorded at 25.6°C while the water measured pH7.5. Nicholson's observations were supported by the European Historic Thermal Towns Association (2017c) who describe the water as alkaline and possessing diuretic qualities. They suggest that it would be

advantageous in the treatment of Gout as its chemical composition would help to break down Uric Acid.

Table 4  
Table showing the constituents of the water at Vichy following analysis in 2012.  
Source: Nunes et al 2012.

<b>Constituent</b>	<b>Mg/l</b>
Bicarbonates	4776.3
Chloride	357.0
Fluoride	8.8
Calcium	150.6
Magnesium	12.3
Potassium	99.6
Sodium	1860.0
Iron	1.0

During the eighth and ninth centuries the settlement at Vichy was fortified, and a monastery was established. A small thermal centre was then also founded in the vicinity (European Historic Thermal Towns Association, 2017c). The earliest therapeutic establishment at Vichy was founded by Louis II in 1410 within a Célestian monastery. The site was managed by twelve monks who utilised the water to heal the infirm and existed under the jurisdiction of the Dukes of Bourbon until 1527 when Francis I placed the baths under the control of the monarchy. As the popularity of therapeutic waters developed and the numbers of visitors wishing to seek treatment in Vichy rose, Henri II agreed to the construction of the 'Maison du Roy', the first modern spa development in the town. As with water cures across Europe, some physicians were known to exaggerate their benefits. Louis XIII founded the position of 'Superintendent of Medicinal Baths and Fountains' in 1610 with the intention of preventing some of the more far-fetched therapeutic claims while regulating the treatments being offered (Gordon, 2012 p38). During 1686 Claude Fouët, the Intendant of the spa wrote a discourse on the chemical content of the spa water. He suggested that the water had the potential to alleviate the symptoms of Malaria (Gordon, 2012 p39).

The facilities at Vichy were further developed by the daughters of Louis XV, Victoire and Adelaide, who in 1785 oversaw the implementation of an improved road network and new thermal establishments. An esplanade was also constructed for use by visitors to the town. At this point, the benefits of the water therapy at Vichy are beginning to be overtaken by the needs of the visitor

as it would appear that developments are concerned with ease of access for potential visitors or increased opportunity for treatment. Recognition of Vichy as an important spa resort perpetuated during the Napoleonic period following a visit to the town by the emperor Napoleon's mother in 1799, resulting in further construction including paved areas connecting the baths with other areas of the town (European Historic Thermal Towns Association, 2017c). It is probably safe to assume she had suggested areas which warranted improvement. Vichy was typical of the majority of French spas due to its distance from major conurbations, Madame de Sévigné, in a letter to a friend, describes an eight-day journey before reaching the town during her stay in 1676 (Meier-Tilton, 1981 p566). Although this manner of extensive travel might suggest that visitors to towns such as Vichy would be from affluent classes with the means to finance a long journey by carriage, there is evidence that many less prosperous people were able to visit the town for therapeutic treatment due to the willingness of local authorities to subsidise their travel and accommodation. The town records suggest that during June and July 1752, less affluent people were resident in the town (Mackaman, 1998 p15).

The Emperor Napoleon III was instrumental in the further development of Vichy as a prominent spa resort. Although a politically formidable character he suffered from recurrent bouts of kidney stones. Napoleon's physician suggested that his symptoms might be alleviated at Vichy which, at this point, was still a somewhat small resort lacking in amenities (Napoleon Foundation, 2018). Napoleon III visited Vichy regularly between 1861 and 1865 and was influential in the urban development of the resort. During the 1850s French physicians visited several German spas to ascertain the reasons for their success. Napoleon and his planners realised that in order to attract the calibre of visitor to Vichy who was currently attending resorts such as Baden Baden, significant construction work would have to be undertaken. The Emperor's architects were able to organise the layout of the town as until this period the site was small (Gordon, 2012 p44). One of the initial constructions was the railway station. It was from this point that several roads stretched towards the spa buildings (UNESCO, 2016). Other buildings included a townhall, church and hotels. A casino was erected in 1865, containing several facilities unrelated to therapeutic aspects of the

resort including a theatre and billiard rooms. Perhaps the contents of the casino are an indication that from this point the main attraction of Vichy is the resort rather than the therapeutic benefits of a medical regime.

Other urban infrastructure was constructed including roads and docks. Napoleon also approved the creation of a park, the Parc des Sources (Figure 28), which was located along the bank of the River Allier providing visitors with an area where they could undertake gentle exercise. Much of this area had been marshland but was landscaped. It became apparent that Napoleon and his retinue would need several places in which to stay. As a result, cottages were built, some alpine in appearance, in an area between the River Allier and the thermal facilities, thus forming a link between various areas of the resort (Renault-Jousseau, 2010 p159). As well as developments to the infrastructure of Vichy, more aesthetic details were taken into consideration. During the 1850's the Inspector of Mineral Water forbade butchers from leaving animal debris outside their shops and insisted that domestic toilets be covered (Gordon, 2012, p45). This order had an impact on both the spatial organisation regarding the storage of both animal and human waste while improving sanitation for residents and visitors alike. Reflections of Napoleon's attitudes towards the evolution of Vichy are evident in a quotation that was placed on the pedestal of a bust in dedication to him. It states: "I am more pleased here than anywhere else for this is my creation" (Napoleon Foundation, 2016). The construction of a railway station in 1864 would at first sight appear to be of benefit to the resort as it would enable people to travel to the area more quickly. Unfortunately, a railway line linking Paris to Nice was assembled during the same period allowing more direct access to the Côte d'Azur at a time when sea bathing was increasing in popularity.



Figure 28  
 Photograph from a vintage Postcard (circa 1930) showing a view of the Parc des Sources, Vichy  
 Source: Etsy, 2018

Although records indicate that spa visitors were continuing to visit Vichy in large numbers during the second half of the nineteenth century, these guests tended to be military or colonial bureaucrats who were entitled to a six-month sabbatical as a reward for service of ten years or more (Gordon, 2012 p47). A contributory factor in the popularity of Vichy with colonial visitors was the belief that the water could alleviate the symptoms of Malaria. Following improvements to the building and infrastructure, a large area close to the River Allier was also developed into landscaped gardens for visitors to enjoy (European Historic Thermal Towns Association, 2017c). In 1853, Napoleon III established the Compagnie Fermière Thermale á Vichy an organisation directed by Auguste Leboe and Georges Callou with the objective of supporting the evolution and rejuvenation of the resort (Gordon, 2012 p44). In 1862 a bottling plant was established in the town facilitating the transportation of Vichy water within France and overseas (European Historic Thermal Towns Association, 2017c). Although the financial security of other French spa towns was compromised by the Franco-Prussian war in 1870, Vichy continued to thrive due to its location in the central south-west of the country. During the 1880s the resort of Vichy continued to modernise so that its reputation as an attractive destination would continue. Improvements included the installation of electric lighting and the construction of a tramway. This is further evidence that visitors to spa towns had an expectation that the facilities would be state of the art and that a modern therapeutic establishment would not necessarily be sufficient. The spa

infrastructure continued to increase during this period including the enclosure of the Parc de Sources, the expansion of the casino to incorporate an opera house and the construction of the Grand Thermal Baths at the beginning of the twentieth century (Gordon, 2012 p46).

The resort of Vichy is situated on the banks of the River Allier, the source of which is in the Massif Central Plateau, an area of Southern France rich in mountains and uplands (UNESCO, 2016). The physician Gustave Monod wrote in glowing terms regarding the surrounding countryside at Vichy describing the “gently undulating country at the foot of the last spurs of the Auvergne” (1912 p9). The resort of Vichy possessed an international allure, attracting not only overseas French Nationals but those from other countries. Monod (p7) was somewhat surprised to learn that English doctors were still recommending continental spa treatments to their patients stating: “Have I not myself encountered at Vichy a Scotch lady sent there by her doctor to enjoy the mountain scenery”. The rural surroundings of the resort had proved attractive to visitors in the earliest days of the development of the spa. The famous and prolific letter writer Madame de Sévigné described the surrounding countryside as romantic while, in a letter dated May 20<sup>th</sup>. 1676, writing: “At five we take a walk in the delightful country” (Aldis, 1907 p273). It would appear in the case of Vichy that while the quality of the facilities provided at the resort was important, the proximity of an attractive landscape was also a consideration to visitors.

The advertising slogan “the queen of spa towns” was implemented by the Compagnie Fermière at the beginning of the twentieth century at a point where the facilities were being redeveloped. Much of the resort infrastructure was rebuilt at the beginning of the twentieth century following the Art-Nouveau designs of Charles Le Coeur (Faurie, 2017). One of his most imposing buildings is the Opera House, originally erected by Badger in the 1860s but subsequently unable to house the large number of visitors to the resort. Other buildings include the Grand Thermal Establishment, Golf Pavilion and the modernisation of a number of hotels, including the Hotel du Parc (Carteret, 2018). Le Coeur perpetuated the philosophy of Napoleon III by establishing further hotels within the confines of two streets, Park and Wilson, thus retaining the concept of specific zones within the resort. The conflict between therapy and leisure continues at Vichy. Although Le

Ceour created plans for the Grand Thermal Establishment, he also designed the golf course, an activity not necessary to spa therapy! Although the resort, as with many others, faced difficult times during the mid-twentieth century, Vichy continues to attract many visitors each year.

#### **4.4.1 Place Attachment at Vichy**

Biophilic elements as described by Wilson (1984), Kellert (1999) and Ramoie (2014) were important in the development of the resort at Vichy. Wilson (1984 p31) described how people have a physiological urge to exist in a natural environment. Vichy is situated in the Massif Central on the banks of the River Allier. Landscaped areas were created on the riverbank, providing patrons with ample opportunity to spend time either within or observing the natural world. The significance of opportunities for exploration as discussed by Kaplan and Kaplan (1989), Wilson (1984) and Orians (1992) were accessible to patrons of the spa at Vichy. The concept of acquiring contentment from a relationship with the natural environment is described by Kellert (1999 p42) as being a naturalistic characteristic. Kellert's other Biophilic attributes include an aesthetic connection to the landscape where participants derive a palpable bond with a location. As with all spa sites, the concept of dominion at Vichy is evident from the development of the resort from a small 'Maison du Roy' into a location appreciated by visitors across Europe.

Although many patrons of the spa at Vichy were short term residents an element of site memory would still have held relevance to them. Gobster (2011 p316) suggests that: "Landscape embodies the memory of natural processes and human endeavour, the expression of who we are and what we value". This theory implies that while people may not wholly appreciate the layers of history embedded within a location due to a lack of long-term connection, it is still possible to appreciate that a site possesses a past. As with other spa sites, visitors were able to spend time walking in the nearby countryside, again gaining an appreciation of the dramatic scenery surrounding the resort. Both Halbwachs (1992, p156) and Livesay (2004 p129) recognise the role of paths and other boundaries within a planned landscape in aiding the formation of site memory. These attributes aid the legibility of a site to those visiting thus enabling a positive memory of the location to occur. Due to the size of the resort, a planned spa resort could be constructed with

prospective clients and their requirements at the forefront of the urban layout (UNESCO 2016). Through considered planning, this process of contemporary site memory begins to form perhaps in isolation from the generational memories of the early medieval period.

Place Attachment is a concept that encompasses both locations of a long-term nature and those which are transitory. Fullilove (2013 p141) discusses the importance of social and emotional links to this process. While her research refers to displaced groups, her views on the elements which aid the formation of Place Attachment can be applied to resorts such as Vichy. Whilst residing at the resort visitors would spend time with other patrons, perhaps forming new friendships. Many would leave the resort believing that their symptoms had been alleviated, an important aspect in an area lacking the medical knowledge taken for granted in the twenty first century. Both these factors might lead to an attachment to the site for patrons. A common feature of spa resorts was the daily routines associated with 'taking the waters', bathing or undertaking exercise and are described by Seamon (1980 p157) as 'place ballet'. Although Seamon articulates that these routines are a long-term manifestation, it is possible that those residing at a spa resort could form an attachment to a location which they believe would be of benefit to their health.

#### **4.5 European Spa Culture in England**

##### **Bath**

In accordance with the majority of western and central Europe, English views on bathing during the medieval period were influenced by the opinions of the Catholic Church. By the seventeenth century the mind-set regarding water, and particularly bathing, as a conduit for disease and depravity was beginning to be transformed. Water emanating from locations previously considered to possess healing properties once again became popular not just with local people, who in all likelihood had always utilised them, but with the more affluent classes who coupled the benefits of therapeutic water, with a resort, catering for their leisure needs (Rotherham, 2014 p14). Thus, the spa resorts of England were formed. Resorts in England tended to be located primarily near London, the Midlands and southern counties indicating that there were huge swathes of the country with few or indeed no sites (Hembry, 1990 p11). One explanation for this



may be that many of those with the means to attend a spa town for a lengthy period were resident in these areas or could afford to travel there. The resorts of England differed from those in France and Germany as they were located in urban areas rather than in rural surroundings. By the mid-eighteenth century there were ten English resort towns including Bath, Cheltenham, Epsom, Leamington, Malvern, Buxton, Matlock, Tunbridge Wells, Clifton Hotwells (Bristol) and Harrogate (Walton, 2011 p146). Of these, Bath, has been examined as it provides an example of a site containing therapeutic water becoming a key driver in urban development and is one of the few sites of natural thermal water in the British Isles.

Bath (Figure 29) is located in the base of the Avon Valley on the edge of the Cotswolds, an area comprising of Limestone hills. The hills encircling the settlement have an altitude of 238 metres. The springs which serve the city have a temperature of 45°C and originate in a layer of Carboniferous Limestone. Bath is located in an area known as the Variscan Front, a rock formation consisting of huge faults and folds which was covered over in the Mesozoic period some three hundred million year ago (Gallois, 2006 p170). The thermal springs probably evolved during the Mid-Quaternary Period when widespread fissuring occurred in this area (Kellaway, 1993 p83). The spring water is carried through collapse structures which stretch approximately two thousand metres through Jurassic and Triassic rocks. Research indicates the flowrate of the water to be 60m<sup>3</sup>/hr. The spa waters have been analysed by several physicians since their discovery including Sir William Ramsay, F.R.S in 1912 (Fox 1930, p5) and more recently by G.A Kellaway in 1991 (Table 5) (White, 2000). Ramsay (1912) described the water as being odourless and flavourless. He stated that the water took on a green hue when stored in large amounts. Ramsay indicated that the temperature of the baths ranged between 117°F and 120°F and recommended the water for the treatment of Gout, Arthritis, nervous complaints, skin diseases and complaints of the nose and throat (White, 2000). This plethora of potential treatments demonstrates why patrons had been visiting the city as there appears to have been a cure for most ailments!



Figure 29  
Outline map of the United Kingdom showing the approximate location of Bath  
Source: Pinterest, 2019

Bath became a prominent settlement during the Celtic period, the origins being based on a legend describing the life of a Celtic Prince Bladud, who was banished from the royal court when physicians believed that he had contracted leprosy. The Prince left the court and became a swineherd close to a spring. Bladud became aware that the pigs seemed to recover from a skin condition after submerging themselves in the muddy water adjoining the spring and decided to do the same to ease his own symptoms. He was allegedly cured and subsequently returned to his family. When he became King, Bladud founded Bath on the site of the swamp in 863 BCE (Rotherham, 2014 p36). In 43 CE, during their invasion of Britain, the Romans established the town of Aquae Sulis close to the original Celtic town and built a large bathing complex. The baths eventually covered an area of seven hectares. The Roman Empire typically constructed their towns in areas which held significance to the existing population as a means of maintaining good relations with local inhabitants. The construction of a town within this location is a process identical to that at other notable sites such as Pergamon where the landscape is layered with the infrastructure of previous empires, including the Romans, at a site holding a specific reputation.

Table 5  
Table showing the constituents of the water at Bath following analysis in 1991.  
Source: White, 2000.

<b>Constituent</b>	<b>Mg/l</b>
Sodium	187
Calcium	390
Sulphate	1010
Chloride	286
Bicarbonate	199
Magnesium	53
Silicon	21
Iron	1

Recent archaeology indicates that the Roman site had previously been a religious shrine dedicated to the Celtic Goddess Sulis. The area surrounding Bath was governed by an Iron Age tribe called the Dobunni. Although they believed the water to have therapeutic properties, they also considered the site to be a location where it was possible for priests to connect with the underworld. Following the Roman invasion of 43 CE several military forts were constructed on the Fosse Way. It is likely that one of these was established close to Bath. The Romans were mindful of the importance of the beliefs of the Dobunni tribe and thus established their settlement around the spring (Bird and Cunliffe, 2006 p9). Between 60-70 CE bathing facilities and a temple were constructed on the spring site and were successful in drawing visitors from both England and Europe (White, 2000 p12). The baths were initially divided into three parts comprising of an entrance providing a visual context with the sacred spring, a series of steam rooms which were warmed via a system of hypocausts underneath the floor and three swimming pools. The temple was constructed in honour of Sulis Minerva (Figure 30). The Romans appreciated the reputation of Sulis as a goddess with the ability to heal but were also able to draw comparisons between Sulis and their equivalent goddess Minerva (Bird and Cunliffe, 2006 p32).

The Romans left England in the fifth century CE to concentrate on problems in mainland Europe. By the mid-fifth century England had been invaded by the Saxons who were eventually removed following the Battle of Badon Hill in 516 CE (Badon Hill, 2013). Following the Saxon invasion, the site had been ravaged and was left uninhabited. The location was then re-established in the tenth

century by Benedictine monks who founded a monastery with bathing facilities (Mitchell, 1986 p189). The baths were constructed above the remains of the Roman baths on the site of Bath Abbey and remained under the control of the Abbey until the Reformation (Historic England, 2018). The site was now known as Ackmancaestor, which translates as 'sick man's town' and was described by the historian Nennius as: "A hot lake... surrounded by a wall, made of brick and stone, and men may go there to bathe at any time..." (Rotherham, 2014 p5). This indicates that the site continued to be valued as a place of healing for local people over a sustained period of time.



Figure 30  
Photograph showing the gilt bronze head of the Goddess Sulis Minerva found close to the site of the sacred spring in the Roman baths, Bath  
Source: Roman Baths Bath, 2018

By the twelfth century Bath was beginning to gain a reputation as a place of healing. In the early part of this century the Bishop of Bath was John of Tours who had trained as a physician. The site was renowned across England as place where people would attend with intention of alleviating any illness. The twelfth century historian Henry of Huntingdon wrote: "Where the hot springs... supply the warm baths which stand in the middle of the place, most delightful to see and beneficial to health... infirm people resort to it from all parts of England, for the purpose of washing themselves in these salubrious waters" (White, 2000 p 12). The recycling of this location by the Bishop of Bath as a venue where people could attend for therapy within a sacred

environment is a continuation of the strategy implemented by the Romans and is comparable with the manner in which Pergamon developed as a multi-layered site, valued by more than one generation of people.

During this period, bathing at the Abbey was divided into private and public areas but continued to be used until the fifteenth century (Hembry, 1990 p2). Following the Act of Succession (1534), the destruction of the monastic sites was demanded by Thomas Cromwell as they were considered to possess Catholic overtones. In 1539 Bath Abbey was dissolved and much of the building was looted (Neesam, 2005 p69). The well site at Bath was one of several locations re-opened under the instruction Elizabeth I in 1559 with the intention of halting the large numbers of Catholics visiting well sites in Europe (Hembry, 1990 p5). During the Tudor period, the extent of learning, especially in fields such as medicine was growing. The physician Dr William Turner was important to the development of spa towns such as Bath. During the reign of Mary Tudor, he had been exiled to Europe, especially Italy and Germany. On his return, following the accession to the throne of Elizabeth I, he wrote the first book describing English mineral waters titled '*A book of the natures and properties as well of the baths in England as of other baths in Germany and Italy*' (Hembry 1990 p316). He lamented the condition of the baths at which he claimed could cure more than eighty illnesses and urged people to utilise the mineral waters in England rather than travelling abroad (Mitchell, 1986 p191). Although an increase in English spa visiting would benefit the economy of specific resorts, Turner is probably writing with political motives as he was a staunch Protestant, the reason for his original exile.

Following the dissolution of the monasteries, Bath continued to develop as a spa town. In 1552 the Crown granted all monastic lands to the corporation of Bath. During the subsequent thirty years the area around and including the Baths became civic property. Civic ownership resulted in investment and development of the urban organisation connected to the site. After 1569 the town council began investing in spa infrastructure, for example, £4000 was spent on the stone, timber and labour required for house building (Hembry, 1990 p27). Although this type of investment was specifically for the improvement of facilities for the wealthy classes, a different

stratum of society was being considered as the Poor Law Act of 1552 mentions Bath as a place where the sick could attend in search of a cure (Mitchell, 1986 p189). The growth in importance of the town was further recognised in 1590 when Elizabeth I granted it with city status. Of importance to the economic development of the city was the Charter of Incorporation also awarded in 1590 providing the corporation with greater jurisdiction (Hembry, 1990 p35). The charter allowed the corporation to focus on developing spa infrastructure, creating a resort which would gain popularity with potential visitors.

A connection with royalty was important to the expansion of Bath from a town to a city. A royal association had the potential to transform a relatively small location into a popular resort as some patrons would be keen to attend locations popular with royal visitors. In 1613, Anne of Denmark, the wife of James I became the first member of the royal family to visit Bath with the intention of acquiring a cure for her Gout (Hembry, 1990 p39). In the early seventeenth century Bath was becoming a progressively popular spa town but due to this burgeoning reputation was becoming increasingly congested while the baths struggled to keep up with demand. Bath contained many medieval buildings which bordered unpaved roads. Sanitary provision was still primitive. The majority of visitors would stay at inns, often sharing a room with other guests (Rotherham, 2014 p38). The poor condition of the urban infrastructure and lack of suitable accommodation would undoubtedly restrict the numbers of affluent visitors who would not tolerate these conditions.

The spa industry was affected by the advent of the Civil War when the town was commissioned as a garrison town and civic money was spent on military equipment rather than influential visitors. The town was captured by Royalist troops in 1643 and was visited by King Charles in 1644. Following the Battle of Naseby in 1645 Bath was recaptured by Parliamentarian supporters. During Oliver Cromwell's reign, Bath was no longer able to function as a spa resort, but some Royalist captives and injured soldiers were able to utilise the waters as part of their cure. For example, in 1652 the Council of State gave £1000 for the treatment of one hundred and eighty-six soldiers in the town (Hembry, 1990 p62).

Royal patronage increased again in the early eighteenth century, following the Restoration, when Queen Anne visited the city in order to find relief for Gout. Until this period, it was usual for patrons of spa towns to bathe in the spa water although this belief changed in the early eighteenth century when a physician, Dr William Oliver, began to recommend the drinking of spa water either as an alternative to or in conjunction with bathing (Mitchell, 1986 p194). The eighteenth century proved to be a period of huge social and architectural transformation particularly in towns such as Bath. In 1705, Richard 'Beau' Nash arrived in the city and procured the role of 'Master of Ceremonies', a position which gave him control of the entire social etiquette associated with the spa industry. Nash had previously lived in London and recognised areas where the spa culture at Bath required organisation. A set of rules were drawn up for the pump room so that new visitors would be clear about their expected behaviour (Hembry, 1990 p136). Nash also worked with the corporation, discussing what the monies raised from subscriptions could be used for. His suggestions included improving road access. The enhancement to the infrastructure culminated with an Act in 1787 which sanctioned the turnpiking of roads leading into Bath (Hembry, 1990 p114). During this period architectural improvements included a new pump room (1706) and the first assembly room (1708) (Mitchell, 1986 p194). The arrival of Nash propelled Bath into a location for polite society. The continued entitlement for the poor to utilise the waters perhaps did not have the support of the many visitors to the city so in 1714 the law giving unlimited access to the water was repealed (Rotherham, 2014 p39). Although a general hospital was built, providing free access to the poor, this was not erected until 1742 highlighting a shift in the focus from collective therapy to exclusivity (Mitchell, 1986 p196).

While the local geology and topology was instrumental in creating a landscape, which provided a thermal spring, it was also a contributor to the architecture in the city. Bath is famous for buildings fashioned from Jurassic Limestone, a local resource. The Palladian architecture was constructed through collaboration between a local quarry owner, Ralph Allen and the architect John Wood (Mitchell, 1986 p196). Bath became famous for a range of crescents, squares and for the creation of a formal road layout (Rotherham, 2014 p39). Wood was responsible for designing many of the

structures linked with the spa including the Assembly Rooms and the Royal Crescent in the 1770s (Hembry, 1990 p114). The employment of a single architect for much of the spa construction succeeded in creating a resort 'style' which became synonymous with affluence and refinement (Figure 31). The uniformity in design and materials used mirrors the creation of spa infrastructure in resorts such as Baden Baden, Germany and was subsequently copied in towns such as Witham, Essex who may have hoped to achieve similar success. By 1789, the Bath Improvement Act provided the city council with the power to pull down areas which were poorly built and remodel the city. By utilising the powers provided by this legislation, the corporation were afforded the opportunity to create a legible urban environment where the spa site became the primary focus for the city. Thomas Baldwin, the City Surveyor, oversaw the clearing of the area around the spring site and the construction of colonnaded roads, the first being Bath Street (Manco, 1988 p70).

By the close of the eighteenth century, Bath boasted an array of Georgian buildings including theatres, coffee houses and houses but had become the victim of changing fashions within the affluent classes. The cultural trend for sea bathing was becoming increasingly popular. King George III had begun to visit the seaside town of Weymouth in the 1780s while the Prince Regent was spending a great deal of time and money at his Pavilion in Brighton (Mitchell, 1986 p198). By 1815 Europe had become increasingly peaceful and proved attractive to spa visitors who wanted the kudos of visiting a foreign spa resort. European spas were often located in beautiful locations, near mountains, something towns such as Bath were unable to compete with. Newly created English spa resorts such as Cheltenham were also becoming domestic rivals to the city. During her visit to Bath in 1815 Madame D'Arblay wrote: "This place, with regard to superfine visitors, fills slowly, and the season is expected, not only to be late, but thin of company, from the many families that are rambling abroad "(Hembry, 1997 p56).





Figure 31  
Engraving of the Royal Crescent, Bath (William Watts, 1819) demonstrating a fluidity of urban design  
Source: The Bath Magazine, 2018

Although the construction of much of the spa infrastructure had been undertaken by the city corporation, in 1794 the Sydney Gardens were founded by a local businessman, James Gale. Their design was influenced by the Vauxhall Gardens of London and were opened in May 1795. The original gardens comprised of bowling greens, exotic planting and facilities where patrons could acquire refreshment. By August of the same year a Labyrinth had been installed which was reputedly double the size of that at Hampton Court. The gardens fell under the ownership of J. Holloway in 1799. He enhanced the gardens by creating gravel paths for visitors and entertainment including fireworks and gala evenings (Spence, 2012 p91). Although Sydney Gardens were originally constructed with the intention of being a summer attraction, patrons could use them until Christmas. Use of the gardens necessitated a subscription of four shillings per month or ten shillings for the entire season (Hembry, 1997 p56). In 1799, the construction of Sydney House within the grounds was finalised, offering further facilities including card rooms and a ballroom. The rear of the building included a covered balcony capable of seating a full orchestra. The author Jane Austen was a regular visitor to the gardens, enjoying many of the events. She was not, however, an admirer of the concerts held there. In a letter to her sister Cassandra, June 2<sup>nd</sup>, 1799, she stated: "There is to be a grand gala on Tuesday evening in Sydney Gardens, a concert, with illuminations and fireworks. To the latter Elizabeth and I look

forward with pleasure, and even the concert will have more than its usual charm for me, as the gardens are large enough for me to get pretty well beyond the reach of its sound.” (Jane Austen Centre, 2011). Advancements in the transportation of goods and people were also to have an influence upon the design of the park. The Kennet and Avon Canal was part of the link connecting Bristol and London. Part of the canal cut through the eastern edge of the garden. Agreement for this was only given providing the canal corporation installed beautiful bridges for visitors to use and ensured that the course of the canal was attractive. In 1840 Isambard Kingdom Brunel believed that a railway would further improve the garden. His design was not quite so sympathetic as the canal, obliterating the labyrinth and dividing the garden into two parts. The garden eventually fell under the ownership of the city corporation in 1912 (Spence, 2012 p94).

English spa locations such as Bath also found a change in the intention of those visiting spas. People were beginning to move to resort towns such as Bath due to the attractions of a beautiful environment, a range of facilities such as theatres, libraries, coffee houses and parks coupled with a sophisticated social sphere. While this new class of resident enjoyed living in a beautiful location, the result was a reduction in the numbers visiting the city for the social season (Hembry, 1997 p6).

#### **4.5.1 Place Attachment and the City of Bath**

The towns and cities of Georgian England not only saw a boom in population but were beginning to gain their own identity as locations of trade or finance. Bath developed a character based upon principles of leisure and indulgence for the affluent through the creation of a spa (Cosgrove, 1984 p216). The city was principally a location to visit rather than to reside permanently, a concept evident from contemporary sources such as the novels of Jane Austen. In *Northanger Abbey* (1798, Chapter 2), Austen describes the reaction of the heroine, Catherine, upon arriving in the city: “They arrived in Bath. Catherine was all eager delight, her eyes were here, there and everywhere as they approached it’s fine and striking environs, and afterwards drove through those streets which conducted them to the hotel”. The principal architect of Bath was John Wood the elder, a local man who held an understanding of both the topology and history of his locality. Tilley

(1994 p27) describes how an intimate knowledge of the landscape allows the individual to interpret and ultimately utilise their surroundings. This awareness of his immediate environment extended to knowledge regarding the properties of local materials which he employed within his designs. Wood's site memory resulted in his desire to build an urban landscape based on Roman principles and containing elements such as a Forum and Circus. His design reflects the historical context of the site rather than choosing a random theme. Wood's religious beliefs were influential to his design as he aimed to create a location worthy of God. In his treatise of 1741, he discusses the erosion of a moral society and perceives the role of the architect as one that can provide this through the creation of an ordered design. Woods emulated the topology of the surrounding landscape by creating crescents interspersed with swathes of green space (Cosgrove, 1984 p216).

Those accessing the spa facilities at Bath were not residents of the city but visited for several weeks during 'the season'. While Place Attachment is often attributed to those locations familiar to people Gustafson, (2001 p374) and Savage et al (2005 p54) suggest that attachments can be formed with places where people are less acquainted. Gustafson differentiates between roots and routes proposing that meaning can be derived from places that form a transient part in the lives of visitors. Castles and Miller, (1998) and (Freeman, 2004) as cited in Gustafson intimate that it is possible to have deeply held attachments to several places indicating that those visiting Bath could hold an affection for the location whilst residing in another location. Bath was a location of pleasure and therapy for most visitors so perhaps it is natural that they would regard the site with affection.

The location of Bath satisfies many Biophilic factors essential to the notion of Place Attachment. The importance of an interaction with the natural world is underlined by Beatley (2011 p3) who states: "to be happy, healthy and find meaning, we must have contact with nature". Salingaros (2015 p20) suggests that historic human connection with the landscape can be attributed to a need for familiarity with the materials contained within the immediate landscape and describes those creating buildings within their landscape as 'vernacular architects', a description applicable

to John Wood and his architectural influence on Bath. The creation of an urban environment specific to a spa fulfils Kellert's (1999 p42) dominionistic attitudes towards the natural world. In the case of Bath, the development of the original spring into a recognised built location was layered, initially by the Celts and Romans and subsequently by the Georgians. These groups all had the intention of manipulating the spring site in order to create a therapeutic location. The site at Bath also satisfies moralistic aspects of Biophilia, engendering both a concern for the immediate environment but also for other people sharing the space. This concept is supported by Beatley (2011 p10) who suggests that the natural world has the potential to connect individuals and create communities stating: "nature seems to bring out the best in us".

#### **4.6 Drawing together themes from European Spas**

Although the development of the spa resort was not restricted to a specific area of Europe, having evolved in a variety of countries, there are similarities and differences regarding their expansion and subsequent success. Greek physicians including Hippocrates were aware of the healing properties of water in the fourth century BC and established medical centres or askleion where patients could seek relief from their symptoms (Kostidi, 2016 p57). It was commonplace at centres such as those in Kos and Pergamon for visitors to not only attend specific sites for particular illnesses but to undertake a detailed health regime. The concept of having a physician tasked with the medical management of a resort was later assumed by towns such as Baden Baden where the Margrave insisted that the spa director be a qualified doctor (Bacon, 1997 p178) while in Vichy a Superintendent of Medicinal Baths was appointed who again was medically trained (Gordon, 2012 p39). In all mainland European resorts, the role of the supervisor was initiated to ensure that the treatments offered at the resort were honest and best suited to specific illnesses. This contrasts with English resorts such as Bath or Scarborough where the role was not one concerned with the quality of therapy provided but was rather that of a Master of Ceremonies, ensuring that visitors were aware of spa etiquette and the variety of events available to them.

The therapeutic importance of mineral waters is evident in Germany where during the nineteenth century the subject of spa medicine was offered to medical students. This again contrasts with England where throughout the same period spa medicine was still deregulated suggesting perhaps, that it was disregarded as a recognised element of medicine (Bacon, 1997 p182). These views might possibly have a correlation with the image of English spa resorts, as depicted in contemporary cartoons such as those by Thomas Rowlandson (Figure 32), that many visitors attended for reasons of leisure rather than therapy a concept distinct to that in France where a cure was the primary focus, a position held by Turner (1967, p197 as cited by Bacon 1997, p182) who stated: “The English water doctors themselves contributed strongly to their own disrepute by consistently overplaying their hands. Their claims to be able to cure grave diseases were seen to be balderdash”.



Figure 32  
Cartoon by Thomas Rowlandson (1798) titled 'The Comforts of Bath: The Ball  
Source: Commons Wikimedia, 2015)

In much of Europe municipal authorities were necessary to the development of several spa sites, many implementing the taxation of visitors as a means of improving facilities. The Count of Waldeck applied such a tax in Bad Pyrmont in 1431 (Holloway and Taylor, 2006 p29) while in Karlovy Vary a levy was implemented to help upgrade spa buildings following a fire (Clay Large, 2015 p93). Common across Europe was the financial involvement of the nobility such as the Margraves of Germany and Poland who recognised how investment in spa infrastructure could

benefit their locality. The local authorities of Germany were also instrumental in managing the positioning and design of infrastructure within the spa resorts. Landscaping of green spaces and spa buildings were publicly financed and designed by officially selected planners and architects (Bacon, 1997 p180). An example of this was the town of Wiesbaden, where the architect Johann Zais was appointed by the state of Nassau to design a spa district. His plans included parks, a new Kurhaus and spa buildings (Soane, 1993 p195). This contrasts with England where spas were generally privately owned, the exception being locations such as Bath and Harrogate, lacking the support of a local authority to enable further building. Whereas many European spa towns implemented a system of taxation to facilitate further growth, this method of funding was generally unavailable to proprietors of English spa facilities (Bacon, 1997 p126). By employing a state funded architect to oversee the evolution of a spa resort, German towns possessed a fluidity of design for visitors. This consistency of design is less obvious in English spa towns, the exception being Bath where much of the design, including the Assembly Rooms and Royal Crescent, was undertaken by the architect John Wood using locally resourced Jurassic Limestone sourced from a quarry owned by Ralph Allen (Mitchell, 1986 p196).

The input of local aristocracy while important to many European spas was not the only aspect leading to the success of many resort towns. Most European Countries established nationwide organisations tasked with the management of the spa industry. The Royal Chamber of Bohemia was instrumental in spa development in sixteenth century Czech Republic, a view which continued into the eighteenth century when Dr Becher was appointed Royal Physician in 1775 and began to analyse the waters of Karlovy Vary (Burachovic, 2016 p1). The Hapsburg ruler Marie Theresa decreed that the mineral waters of Budapest be similarly analysed (European Historic Thermal Towns Association, 2017b). Following orders from Napoleon I, French spas were overseen by the Paris Academy of Medicine who safeguarded the claims and treatments available at the resorts (Weisz, 2011 p139) while nineteenth century Polish spa resorts were overseen by the Balneologic Commission established by Dr Józef Dietl, to ensure appropriate treatments were provided to patients. Dr Dietl also initiated the National Spa Company to

encourage visitors to Polish spa resorts during a period when numbers were waning (Durydiwka, 2014 p44). Through this process, organisations offered resorts a level of credibility enabling visitors to arrive at these locations confident that the therapy offered had medical accreditation.

Although many European resorts offered treatments for those who were less affluent, their primary purpose evolved into one concerned with providing a setting where the prosperous classes could receive therapeutic treatments while enjoying a wide variety of leisure pursuits. English resorts such as Bath and Harrogate were renowned for entertainment venues such as assembly rooms, theatres and libraries where visitors could spend time following any medical therapies. This concept was shared across much of Europe including Germany where spa guests often enjoyed spending time in the casino (Figure 33). Theatres and ballrooms were a common resort facility across Europe, often linked by landscaped parks or avenues where guests could exercise whilst being seen to be enjoying the benefits of the resort. The clientele visiting such spa resorts were either aristocratic or affluent and thus expected a certain level of grandiosity during their stay. The spas of Germany and England reflect a distinct type of Place Attachment relevant to those of high status. While the possibility of receiving water therapy for medical conditions, imagined or otherwise, was of no doubt important; spa resorts were a significant opportunity to demonstrate your 'place' in gentile society. The publication of those present for the spa season at Bath was recorded in the local newspaper such as the *Bath Chronicle* and *Weekly Gazette*, ensuring that Patrons would appreciate who was in attendance. The '*Bath Chronicle*', dated July 13<sup>th</sup> 1786, p3 provides a list of visitors to the city including: "Governor Tryon, Colonel Campbell, Dean of Waterford and Lady, Rev. Mr and Hon. Mrs Hornby..." (British Newspaper Archive, 2019). While many would derive pride from a mention in this list, the names of those also present might provide further proof of your 'standing'.



Figure 33  
 Photograph showing the interior of the Grand Casino, Baden Baden  
 Source: Cook, 2014

The spas of France, in contrast, were completely different in their attitude towards spa therapy placing far greater emphasis on the medicinal motivations underpinning a spa stay. Accommodation in French resorts was far simpler while the spa physician would ensure patients undertake a regime of bathing, diet, gentle exercise and early nights to guarantee that they returned home with improved health (Van Tubergen et al, 2002 p274). Although there had been a spa culture in Budapest prior to its heyday in the late nineteenth century, the majority of spas respected the Turkish tradition of bathing which tended to encourage male only bathing, a trend which may have made the prospect of a course of treatment less appealing to some spa visitors (European Historic Thermal Towns Association, 2017b). While Budapest awarded a place on the World Heritage List, UNESCO are keen to specify that despite some beautiful examples of spa architecture, the city is not a spa town when compared with locations such as Vichy or Bath as the city lacks a definite spa district containing buildings such as theatres, casinos and assembly rooms or the green spaces accompanying these facilities (UNESCO, 2016).

The development of European spa towns correlates with concepts of Place Attachment although the rationales understood by visitors to such resorts in the eighteenth and nineteenth centuries may differ from those belief systems valued by users of the sites in earlier periods. Although visitors to a spa resort may have held different motives for their attendance, these are still



contained within the parameters of Place Attachment. While a perceived health benefit would still be of importance, more important factors might include comfort and experience while staying at the site. With regards to process, creators of a spa resort might be exhibiting traits more in keeping with dominionistic and utilitarian concepts where they manipulated the water source to develop a resort based on leisure and excess. Cultural elements such as spirituality and a sense of place while of significant to original vernacular communities may be less appreciated by spa visitors. While both groups would understand the importance of settlement to the implementation of a site, they may have been for differing reasons. Vernacular landscapes would have needed to be in proximity to a 'healing' well while visitors to a spa resort would demand a site containing all the elements such as a pump room, hotels and assembly rooms necessary for successful 'therapy'. Factors such as accessibility and the legibility of a site may be of more importance to the more affluent. Inhabitants of a vernacular landscape would be so familiar with their site that legibility would be unnecessary. In the case of Bath, the employment of Beau Nash as Master of Ceremonies was influential in both the accessibility and legibility of the site. The corporation consulted Nash regarding improvements to the city. One of his suggestions was the turnpiking of roads into the town to ease the approach into the city (Hembry, 1990 p114). In the case of Bath, legibility was not confined to progress around the city but also included an understanding of spa etiquette. A fundamental element of Nash's role was to explain the routine and expected conduct of new guests during their residence in the city as well as the location of the various buildings.

While the facilities and treatments typical of European spa resorts such as Bath and Baden Baden were important to patrons of these locations, they were not necessarily characteristic of spas in the remainder of England. Although there were other notable resort towns such as Cheltenham or Harrogate popular with the more affluent, therapeutic water was not always associated with the urban developments of such resorts as will be seen in the examination of well sites situated in the county of Essex.

## 5 Water Resources, Society and Landscape in an Essex Context

An extensive European spa culture, the foundations of which date back to the Middle Bronze Age, spanned across the continent from Western Europe to the Byzantine Empire. The heyday of the European spa resort occurred between the seventeenth and nineteenth centuries, encompassing a range of countries including France, Germany and Hungary. European spa development often grew from the expansion of small vernacular sites into locations where the spa became an urban initiator. Evolving in parallel with developments in mainland Europe was an English spa culture, particularly apparent during the Georgian period (1714-1830) leading to the evolution of towns and cities including Bath, Cheltenham and Tunbridge Wells. This urban development traversed societal, cultural, economic and political aspects of daily life. While it is likely that some patrons were attracted to such towns by the hope of a cure, many others were enticed by the opportunity for extravagance and excess as revealed by the cartoonist and satirical social commentator Thomas Rowlandson (Figure 34).



Figure 34  
Cartoon titled 'The Comforts of Bath, The Breakfast' by Thomas Rowlandson (1798)  
Source: Jane Austen's World, 2012

Contemporaneous with the expansion of spa development in Europe and England was an appreciation and recognition of the therapeutic qualities possessed by the water at several spring sites located within the county of Essex. The acknowledgement of the healing potential of Essex wells was initially communicated by an assortment of physicians during the seventeenth, eighteenth and nineteenth centuries, the most notable being Benjamin Allen (1663-1738), John Andree (1699-1785), John Ruddy (1697-1775), Martin Trinder (1747-1818) Richard Phillips (1778-1851) and Augustus Granville (1783-1872). Prior to Phillips and Granville, physicians tended to conduct a series of experiments which were successful in their description of the appearance and consistency of various well waters and how these varied when the water was combined with a range of other substances including milk and extracts from galls (an abnormal swelling on leaves, twigs and flowers). When writing about the water at Gidea Hall in 1783 (p13) Doctor Martin Trinder asserted that: "One grain of powdered logwood, in an ounce of this water, produced a deep blue colour". From this and the testimony of many patients, physicians were supposedly able to ascertain the likely ailments to be alleviated from a water cure. Following his analysis of the Gidea Hall water Trinder (p18) claimed that: "In hypochondriacal and hysterical diseases, in obstructions of the liver, spleen and uterus, in relaxations and weakness, this water is likely to be of great service for it is a corroborant, a deobstruent and also a purging medicine".

Although other physicians published analysis of Essex waters, they tended to focus on a single well, often with a semblance of vested interest. Examples of this include James Taverner who wrote '*An essay upon the Witham Spa; or a brief enquiry into the nature, virtues and uses of a mineral chalybeate water at Witham in Essex*'. Besides being a local doctor, Taverner had, in conjunction with a group of investors, leased from a local farmer the field containing the spring in November 1735 (Cowell, 2001 p17). Information concerning the most noteworthy well sites was compiled by Miller Christy and May Thresh and published in the early twentieth century following a presentation to the Essex Field Club in 1907.

## 5.1 The Geology of Essex

Geology and geomorphology play an important part in the origin of spring water. In Essex, the landscape is characterised by: “low hills and undulating valleys with extensive areas of flat land near the coast” (Essex County Council, 2003 p9). The elevation increases very gradually from the coastal region, reaching thirty metres around Chelmsford and rising further towards the northwest of the county where it peaks at one hundred and thirty metres to the west of Saffron Walden. The steepest hill is located at Danbury reaching a height of one hundred and sixteen metres. Essex is almost completely enclosed by water with the North Sea to the east and rivers Stour and Lea to the west and north. The only land-based border exists in the north-west of the county (Corke, 1984 p13). In their research, Christy and Thresh (1910 p63) asserted that an understanding of the permeability of rocks was necessary for geological analysis. They continued by suggesting that the sources of springs or wells, in the case of Essex, were likely to be restricted to sites containing gravels, sands and chalks (Figures 35 and 36).

The earliest rock formations in Essex derive from the Silurian and Devonian periods and were placed between four hundred and forty and three hundred and sixty million years ago (Hunter, 1999 p1). Chalk is the oldest rock to break the surface in Essex and makes up the basis of the London Basin, a huge trench formed below Essex and London during the Cretaceous Period (Hunter, 1999 p1). Chalk is visible in two locations in Essex, Thurrock where several disused quarries are situated and at Saffron Walden. Typically Chalk deposits exist up to two hundred metres below ground level in this county (Lucy, 2007 p2). Figure 35 shows that the bedrock geology was overlaid by layers of sands and gravels such as the Thanet Sands. London Clay is the thickest of the tertiary sediments and was deposited on the bed of a subtropical sea more than fifty million years ago and as a result contains the fossilised remains of a host of marine creatures. The clay also contains layers of volcanic ash which originated in Scotland. It forms a thick deposit across the centre of the county as shown in Figure 36. Outcrops of London Clay are noticeable as cliffs at Walton on the Naze and Southend-on-Sea.

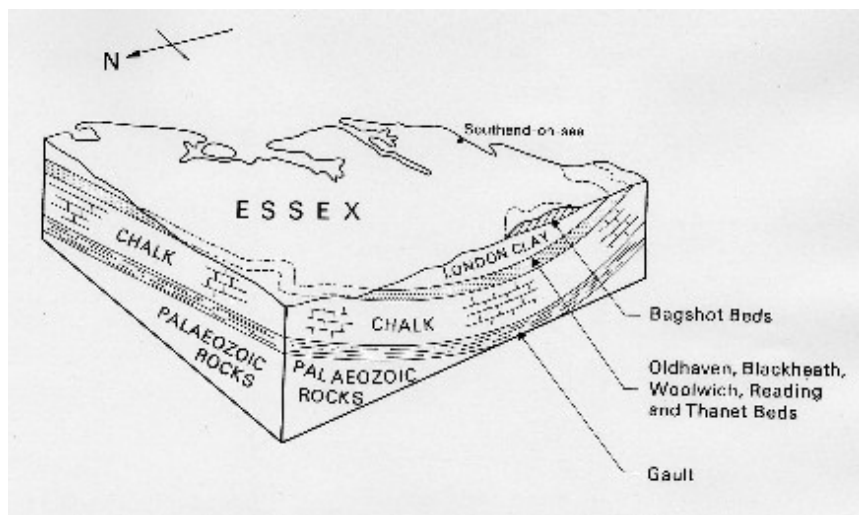
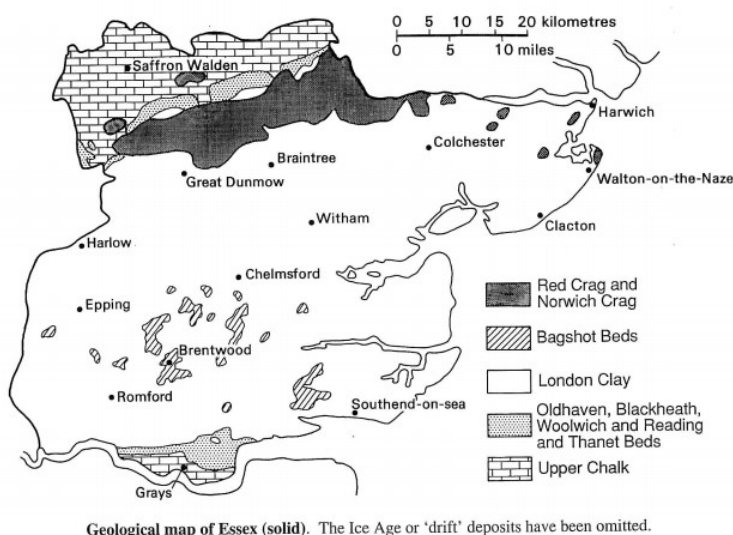


Figure 35  
 Diagram showing a cross-section of the bedrock geology of Essex  
 Source: Geo Essex, 2018



Geological map of Essex (solid). The Ice Age or 'drift' deposits have been omitted.

Figure 36  
 Diagram showing the geology of Essex with drift deposits omitted  
 Source: Geo Essex, 2018

The geology of Essex was particularly affected by occurrences in the Quaternary period, predominantly those that happened in the Ice Age. During this period, Essex was exposed to ice encroachments and retreats as the climate heated and subsequently cooled (Essex County Council, 2003). Most of the rocks laid down in this period are sands, gravels and clays which were deposited by rivers, lakes and glaciers. Evidence of these deposits can be located in areas such as The Dengie peninsula, Langdon Hills and Dawes Heath (Hunter, 1999 p5). The water that

percolated into the earth would have moved through the Chalk bedrock of the London Basin passing through deposits of sands and gravels and Essex Clay before reaching the surface. Figure 37 shows that the well sites referenced by Christy and Thresh (1910) were in areas where a junction between gravels and clay occurred.

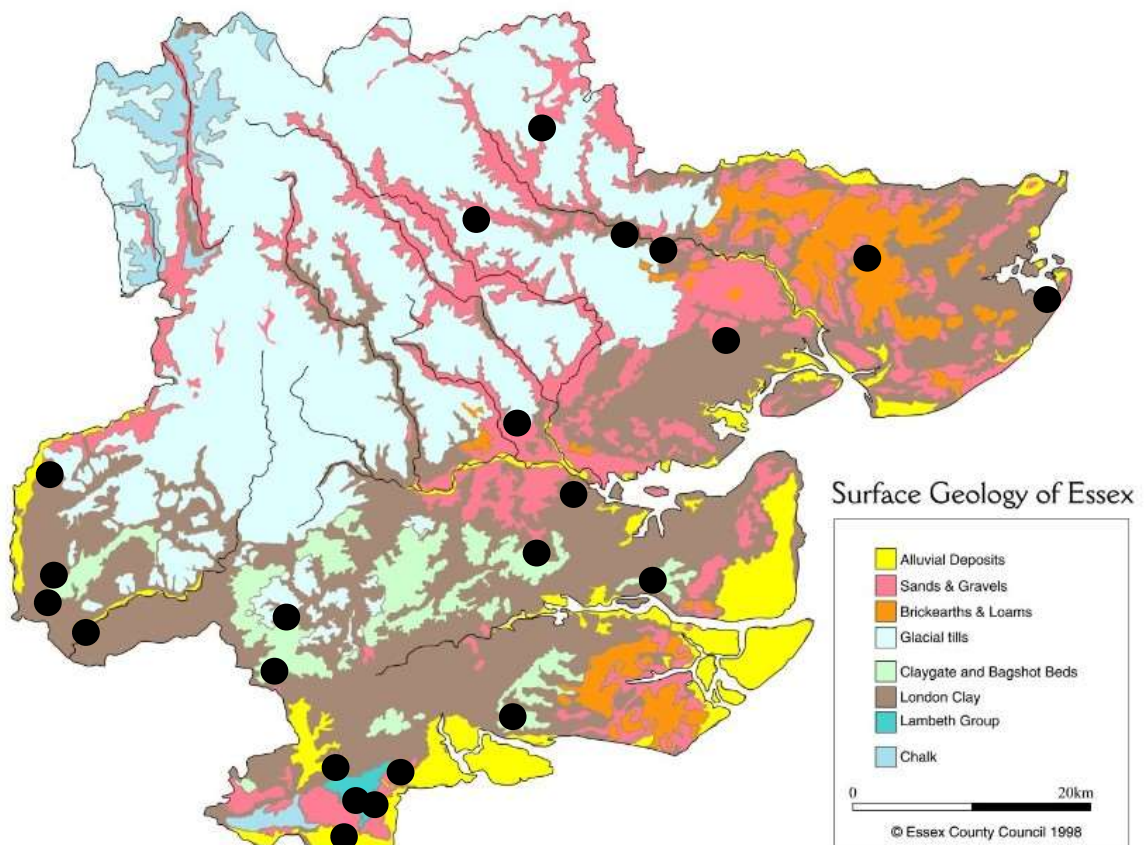


Figure 37  
Geological map of the County of Essex showing the location of the well sites referenced by Christy and Thresh (1910) ●  
Source: Geo Essex, 2018, amended by author

## 5.2 Writers with Knowledge of Essex Well and Spa Sites

As previously discussed, physicians were keen to promote the therapeutic qualities of Essex spring sites. While the intention to recommend a specific water as a remedy for illness was evident from their research, it is also important to consider other influences such as the intended audience of the work and its dedication. The relationship between the writer and the spring site requires careful analysis to understand any bias by these authors.

### 5.2.1 Benjamin Allen

One of the earliest physicians to record scientific analysis of Essex spring sites was Doctor Benjamin Allen (1663-1738) in a work titled *'The natural history of the chalybeate and purging waters of England, with their particular essays and uses'*, published in 1699 and dedicated to the Right Honourable Earl of Manchester. Both men studied at Queens College, Cambridge (Royal College of Surgeons, England, 2015) so it is possible that this is merely a reflection of friendship. The Earl of Manchester was residing at Leez Priory, a manor house located between Braintree and Dunmow, at the time of Allen's dedication providing an alternative motivation (Christy and Thresh, 1910 p7). Allen's work was one of the first treatises to scientifically examine English mineral springs and was followed in 1711 by a subsequent work titled *'The natural history of the mineral waters of Great Britain'*. Allen describes eight Essex sites in his treatises; Colchester, Felsted, Marks Hall, South Weald, Upminster, Witham, Woodford Wells and Woodham Ferrers (Cowell, 2001 p1). Allen was typical of physicians of this period, describing the taste and hue of the water prior to communicating the results of his experiments. When outlining the attributes of the water at Felsted, he stated: "The water was clear, tasted of chalybeate, but had more of the nauseous sweetish taste of the purging waters and was not void of bitterness (1699, p158). Allen then proceeded to summarise his scientific analysis making several assertions including that: "It didn't take away the colour of syrup of cloves, which alkalis do" (p159).

### 5.2.2 John Andree

During the eighteenth century several physicians analysed and consequently published their conclusions regarding the potential therapeutic benefits of several Essex wells. One of these was Doctor John Andree (1699-1785) was a prominent physician and medical author who founded The London Hospital in 1740. This must have been a demanding year for Andree as he also found time to pen a work titled '*An account of the Tilbury water. Containing a narrative of the medicinal qualities of this spring, experiments on the water, observations on the experiments, the virtues of the water, interspersed with various cases, the manner of drinking it and remarkable cures*' (Christy and Thresh, 1910 p7). Much of this work contains descriptions of the experiments undertaken and his subsequent scientific analysis. Andree conducted experiments on both the water and its salt derivatives. In his fourth experiment on the water (p13) Andree states: "Oil of tartar *per deliquium*, poured into the water when boiled, makes a white precipitate. A little oil of vitriol or any strong acid, makes clear again". Although these experiments make interesting reading regarding eighteenth century scientific analysis, there is a complete focus on the effects of heating or adding other elements to the mixture and little information regarding why the water may be therapeutic. Andree communicated his opinion regarding the types of illness which might be cured through imbibing this water asserting: "As to the virtues of the water, it has been found to cure, like a specific, the diarrhoea, dysentery, the bleeding of the piles, and immoderate fluxes of the menses" (p22). The work contained detailed instructions concerning the regimen to be followed. Andree indicated that although the usual treatment would comprise of a quart of water per day, this was dependent on the age, sex and build of the patient. He recommended a bland diet which avoided salt, pepper and vinegar (p33). Andree was an eminent physician who appears to be writing this treatise as a vanity project as he provides accounts of the many patients he has cured through the prescription of this water. His choice of dedication to Sir Hans Sloane, President of The Royal Society, is another method of ensuring readership of his work. It is likely that fellow physicians or potential patients would have read this article.



### 5.2.3 Martin Trinder

The physician Doctor Martin Trinder (1747-1818) published a work titled '*An enquiry by experiments into the properties and effects of the medicinal waters in the county of Essex*'. His research evaluated the water located at well sites in Felsted, Gidea Hall, Hornchurch, Springfield, South Weald, Stapleford Abbots, Tilbury Hall, Tilbury Rectory, Upminster and Witham. Trinder dedicated this work to Robert Edward Petre, 10<sup>th</sup> Baron Petre. The primary residence of the Petre family in the eighteenth century was Ingatestone Hall although at this time they owned the nearby properties of Writtle Park and Thorndon Hall. The wells analysed by Trinder were all located on land owned by the Petre family during the eighteenth century (Petre, M, pers comm, 2018). In the case of the water obtained from the well at Gidea Hall, Trinder conducted a series of seventeen experiments describing how "It effervesced with oil of vitriol, and the liquor became more limpid. Caustic volatile alkali was then applied, and a copious sediment appeared (p14)". While this investigation might appear to have some scientific merit, other experiments are more bewildering. The fifth experiment explains how the water "blackened the blade of a knife" (p13). Although a curious insight, Trinder provides no explanation as to why this may be of relevance to his analysis of the water. Included in his analysis was an inventory of ailments which might gain relief from utilising a 'therapeutic water. His evaluation of the water at Stapleford Abbots (p27) claimed: "It is very likely to do good in cutaneous foulness of the skin, in removing pimples and obstinate pustules attended with heat and itching". This water purportedly alleviated the symptoms of sore eyes and legs, headaches, stomach bloating and colic. Martin Trinder wrote in fulsome terms about the potential therapeutic benefits of Essex waters stating (p vii): "The many different medicinal waters of Essex as they lay claim to the cure of many different diseases are proper objects of congratulation to the county".

### 5.2.4 Richard Phillips

Sir Richard Phillips (1778-1857) was a celebrated chemist and writer who was elected President of the Chemical Society (1849-50). Phillips analysed several mineral waters including those at Bath (1806) and Cheltenham (1818). Following visits to Hockley in the early 1840s Phillips wrote

a pamphlet titled '*A report on the analysis of water at Hockley Spa*'. His initial scrutiny of the water would suggest a similar approach to that of physicians in the eighteenth century, for example, he declares that the addition of a 'tincture of galls' to the water causes no effect. Phillips, however, takes this information and uses it to provide an explanation about the constitution of the water asserting that: "No effect being produced by this, it is evident that the water contains no oxide of iron and consequently that it is not a chalybeate water" (Granville, 1841 p610). The extent to which the potential of the water impressed him is evident from the endorsement he gave to his friend Augustus Granville urging him to visit the spring at Hockley (Christy and Thresh, 1910 p9).

### **5.2.5 Augustus Granville**

The physician Augustus Granville (1783-1872) achieved prominence in 1837 as an authority on spa resorts following his research concerning the spas of Germany, in which he discussed the existing accommodation and the treatments available there. Buoyed by the success of this work, Granville undertook a tour of English spa towns, both large and small, to examine the facilities and treatments available as well as communicating his opinions as to the prospects of each resort and recommending ways in which the locations could enhance their potential (Hembry, 1997 p18). While the physicians of the seventeenth and eighteenth centuries are endeavouring to promote Essex water, this seems to have had little success. Granville visited Hockley, Essex, in January 1841 following an endorsement by Phillips. Although he wrote in glowing terms about the water following his visit, his initial impressions of Essex were less favourable: "Essex is a county with a bad name and when I heard of a spa being about to be established in that part of it which, like a peninsula, lies beneath the River Crouch and its marshes to the north and the Thames and its lowlands to the south, I turned my nose up at the idea" (p607).

### **5.2.6 Miller Christy and May Thresh**

Christy and Thresh (1910) provide the most comprehensive description of Essex well sites. Granville's earlier work evaluating the facilities on offer at spa towns across nineteenth century England has been described by the historian Phyllis Hembry (1990 xiii) as the only 'substantial book about the English spas.' While these volumes are invaluable as they provide an insight into

contemporary opinion regarding the quality of both therapy and facilities, they are understandably unable to assess smaller sites and succeed in delivering only a snapshot of spa development and well usage in the mid-nineteenth century, focussing on sites frequented by the middle and upper classes. Although Granville visited Essex and described the site at Hockley, much of the recognition of spring sites within the county can be attributed to earlier writers and then subsequently compiled with supplementary information by Miller Christy and May Thresh in a work titled '*A History of the Mineral Waters and Medicinal Springs of the County of Essex*' which was published in 1910. The research had originally been given in the form of a paper to the Essex Field Club at a meeting on November 30<sup>th</sup>, 1907 and was subsequently published in the *Essex Naturalist Magazine* in 1909. The work by Christy and Thresh included analysis of twenty-two sites (Table 6) and included an historical background, description of the site in its current form, scientific analysis of the water (where possible) and how the geology of the site might have attributed to the creation of a therapeutic water. Ensuing chapters were written by William Dalton F.G.S and considered the importance of geology and chemistry to the Essex sites. Christy and Thresh were astute in their understanding of both the challenges when investigating the evolution of often vernacular sites and the importance of such research in providing a more complete picture of social history. Their views on the contemporary twentieth century condition and value assigned to the sites becomes evident from their statement: "To-day, every single one of our Essex mineral springs with one exception is of little importance, is wholly neglected and almost forgotten. It is for this reason that we have sought to gather up in the following pages such information in regard to each as it is now possible to recover" (1910 p5).

### 5.3 Essex Well Sites

The well sites discussed by Christy and Thresh (1910) are located across the entirety of the county and date from between the seventeenth and early twentieth century. Table 6 illustrates that the majority of notable Essex well sites were initially referenced in the eighteenth century, a period synonymous with the development of locations where therapeutic water had been discovered. These sites have been evaluated with reference to historic data, theoretical models regarding place attachment and Jackson's landscape descriptors. Detailed information regarding each well site in the form of a case study can be found in the Appendix.

Table 6  
Table showing the Essex well sites mentioned in the research by Christy and Thresh (1910) and the century they initially appear in the literature

<b>Seventeenth Century</b>	<b>Eighteenth Century</b>	<b>Nineteenth Century</b>
Colchester	Chigwell Row	Dovercourt
Felsted	Gidea Hall	Hockley
Marks Hall	Hornchurch	
Southweald	Ilford	
Upminster	South Benfleet	
Wanstead	Springfield	
Witham	Stapleford Abbots	
Woodham Ferrers	Twinstead	
	West Tilbury (Hall)	
	West Tilbury (Rector's Well)	
	Wethersfield	
	Woodford Wells	

## 5.4 Seventeenth Century Sites

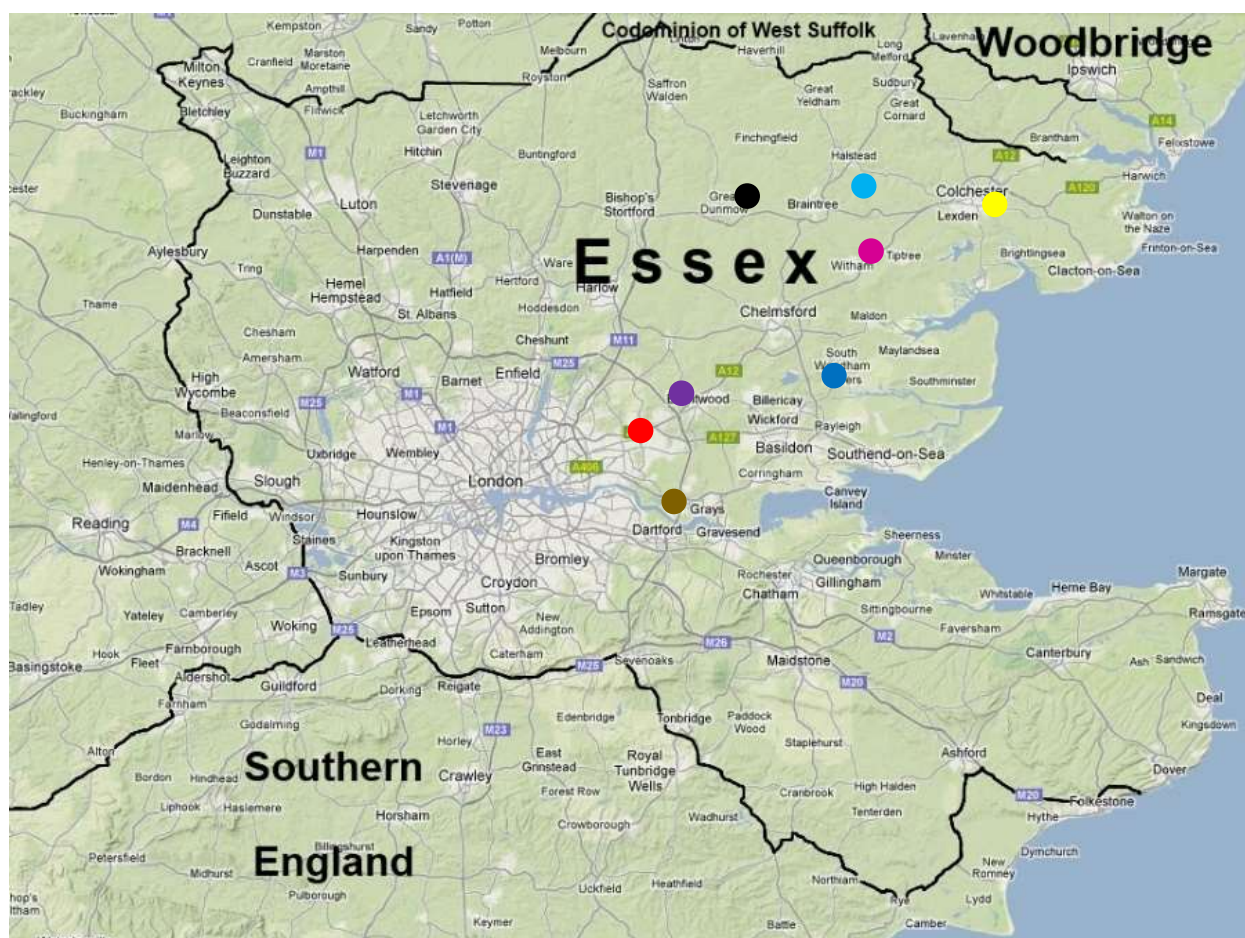


Figure 38

Map of Essex showing the approximate location of sites initially referenced in the seventeenth century  
Source: Althistory, 2017, amended by author

Colchester	Felsted	Marks Hall	Southweald
Upminster	Wanstead	Witham	Woodham Ferrers

The earliest Essex location to receive recognition as a possible therapeutic site was situated in Wanstead (Figure 38). Knowledge of this site originates in a letter written by John Chamberlain to Sir Dudley Carleton dated 23<sup>rd</sup> August 1619. Chamberlain states: "... We have great noise here of a new spa, or spring of that nature, found lately about Wanstead; and much running there is to it daily, both by lords and ladies and other great company, so that they have almost drawn it dry already; and if it should hold on, it would put down the waters at Tunbridge; which for these three or four years, have been much frequented..." (Cowell, 2001 p67). According to the people interviewed by Christy and Thresh (1910 p12), it would appear that the site was utilised until the

mid-nineteenth century by local people who would either imbibe it to recover their appetite or would bathe their ankles in an attempt to strengthen their bones. The location of the well site proved elusive to investigations in the early twentieth century as there were three possible locations for the site, one of which now lay under the Counties Estate, a residential development (Counties Residents Association, 2016).

The remaining seventeenth century sites were all initially referenced by Doctor Benjamin Allen in his work '*The Natural History of the Chalybeate Waters of England*', the most notable of these being the site at Witham (Figure 38). The water at Witham was subsequently analysed by James Taverner (1711), a local physician, and Martin Trinder (1783). Following scrutiny by Allen, the well had fallen into disrepair and was subsequently re-excavated by Taverner in 1737 who believed the original well site to have been contaminated by groundwater, rendering the spring water less effective (Christy and Thresh, 1910 p21). Taverner is a textbook example of a physician with the intention of promoting a local resource as not only was he a physician in the town but had also invested in the well site by leasing the location from a local landowner, Sir Edward Southcott, with his friends, including a lawyer, Martin Carter. The original lease, agreed in 1735 for a period of twenty-one years, concerned the lower section of an area called the Walk Field (Cowell, 2001 p18). By 1741 the gentlemen had increased this tenancy to include the entire field (Figure 39) with permission to create an entrance to the site, derive profit from sale of the water, employ staff to draw the water and store bottles on the site (Gyford, 2005 p37).

Rather predictably Taverner scripted a treatise (1737) on the efficacy of the water located in the vicinity of his investment with the title '*An Essay upon the Witham Spa. Or, a brief enquiry into the nature, virtues, and uses of a Mineral Chalybeate water at Witham in Essex*' in which he extolled the benefits of imbibing the water to his readers, describing it as: "a sulphurous chalybeate water, impregnated with a small quantity of salts, but carrying in it a larger proportion of an alccinate earth...as a chalybeate, it quickens the whole circulation, attenuates the blood, dissolves viscid humours and opens obstructions. From its salts, it incites, stimulates, dissolves sily humours, promotes the several sectors, and is, very diuretic" (Cowell, 2001 p21).

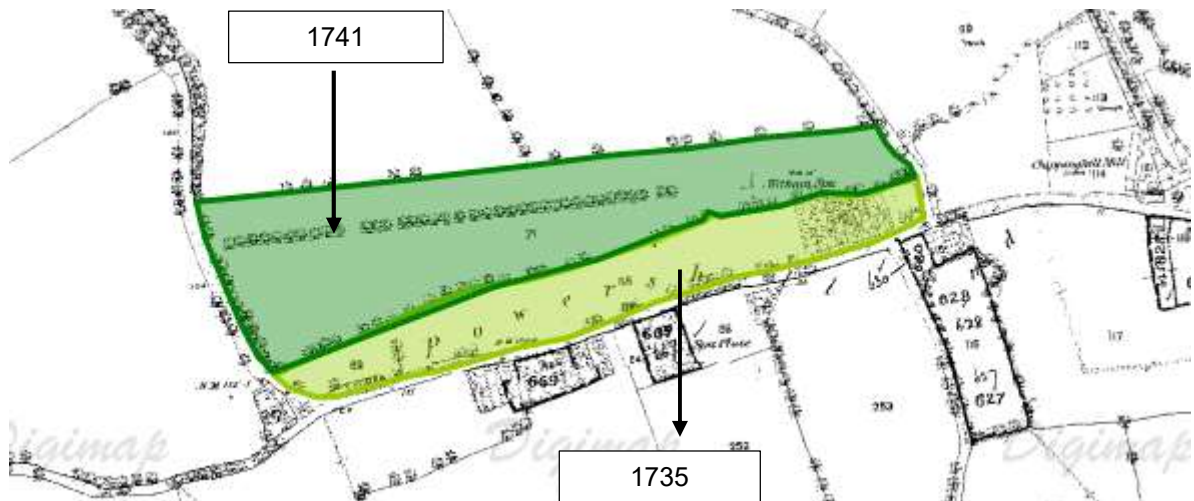


Figure 39  
Ordnance Survey map (1875) of the Walk Field, Witham showing the areas leased by James Taverner and Martin Carter  
Source: Edina Digimap, 2017

Access to Witham from other locations was relatively straightforward as the town was positioned on the main road linking the port of Harwich with London. Taverner wrote that the road was “justly reputed one of the finest in England”. Although Taverner financed the construction of a house known as ‘Spa Place in 1736 (British Listed Buildings, 2018) this would have been of an insufficient size to provide spa patrons with accommodation, therapeutic facilities and space for leisure activities. Taverner persuaded local inns to provide both lodgings for visitors and leisure pursuits, for example, the George Inn was able to organise balls, concerts and dinners for patrons of the spa (Witham Town Council, 2017). There were several inns such as the White Hart, Black Boy and George situated within the town which were already used to accommodating travellers using this road. Gyford (2005, p39) suggests that the George Inn was able to accommodate seventy horses and accompanying vehicles and intimates that visitors to the spa could hire a chaise from the town. Following the death of James Taverner in 1748, the reputation of the spa declined and was described by Philip Morant (1768), in his work *The Antiquities of Essex*, as an enterprise that “soon came to nothing”. Although there was an attempt to re-develop the spa in the eighteenth century, its location quickly became forgotten. Christy and Thresh (1910 p24) were

reliant on the site memory of local people when they were unsuccessful in locating any remnant remains of the well.

The remainder of the seventeenth century sites, except for Colchester, can all be considered as both rural and vernacular locations, reliant on the site memory of continual generations of local users. The site at South Weald while initially referenced by Benjamin Allen was also verified by Samuel Lewis and Martin Trinder (1735 p29) where he asserted that the well was imbibed by local people with the intention of purging their systems while also using it to wash their sores. Two eighteenth century sources corroborate local recognition of a therapeutic site. *Whites Directory* (1848 p490) identifies the site as being “a chalybeate spring, to which the public are allowed free access” while Canon Fraser (1866 p7), a former vicar of the church at South Weald, acknowledged that:” the well was formerly much frequented and highly appreciated by the sick folk of the neighbourhood, and especially the poor lepers from the hospital in Brook Street, on account of its healing qualities. There are persons still living who can remember the day when the good people of Brentwood – the sick, the halt and the withered used to flock in crowds, to drink the waters of this spring”. Christy and Thresh indicate that the site was still known as a therapeutic site at the close of the nineteenth century. They document a conversation with a local man, Charles Sworder, who described how following the gathering of the harvest, farm workers from Stanford Rivers and Stapleford Tawney would wash themselves in the spring water (1910 p14).

Christy and Thresh found the seventeenth century sites to be largely abandoned or in a state of total disrepair. This is probably due to the rural location and small number of consumers accessing these sites.

#### **5.4.1 The Rise of Sea Bathing in the Seventeenth Century**

The popularity of sea bathing as a form of medical treatment was evolving in parallel to the development of therapeutic well sites both in Essex and across England at resorts such as Southend; Essex, Scarborough; Yorkshire and Weymouth; Dorset. During the mid-seventeenth century, physicians including Robert Wittie, began to advocate cold water bathing as a therapeutic remedy for certain medical conditions, to be utilised either in conjunction with or separately from



water ingestion. Dr Wittie (1660) authored a work titled '*Scarborough Spaw*' in which he recommended drinking both spa and sea water, particularly during the summer season. He also observed that bathing in the sea had cured symptoms of his gout (Fowler, 2013 p29). Wittie's beliefs were further supported by the physician Sir John Floyer (c1700) who asserted that the benefits of cold bathing were historically proven, having been understood by physicians including Hippocrates during the classical period (Borsay and Walton, 2011 p19). Dr Floyer had initially focussed specifically on cold water bathing at purpose-built facilities but subsequently declared sea bathing to be a preferable and easily accessible source of cold-water bathing, an assertion which benefitted coastal resorts such as Southend and Scarborough. The advent of sea bathing affected the development of spa landscapes in Essex and will be further analysed later in this chapter.

#### **5.4.2 The Value of Spa Landscapes Within the Seventeenth Century**

When relating factors of Place Attachment Theory to seventeenth century Essex sites it is evident that location remains important to site users but that the emphasis has altered. Classical sites were often located in an inaccessible location where the journey to the location was a precursor of the treatment. Due to the less dramatic scenery in Essex the proximity of the site was of greater importance to users. Except for the site at Colchester, these locations were all placed within a vernacular landscape, typical of Jackson's Landscape One (1984 p151). Most of these places would have been villages or hamlets familiar to generations of the community. Employment would probably have centred on the farmland located around the area for the majority of people. These were locations familiar as places of healing to their users and it is likely that knowledge of these sites was passed down to subsequent generations. The relatively isolated location of these sites within rural communities would have limited their use to the immediate population, again helping to perpetuate the notion of a shared site specific to one community.

Low and Altman (1992 p2) described Place Attachment as 'the bonding of people to places' while Seamon (2014 p11) depicts it as a process where the importance of the site grows through the actions undertaken by visitors to a site. The legibility of seventeenth century Essex sites differed

to that of Classical locations. Karamanea (2015 p117) suggests that understanding evolves through routines undertaken at the site while Halbwachs (1992 p40) indicates that legibility develops both collectively and through individual site use. Legibility with regards to these sites would have consisted of the route to the site and understood behaviour while using the resource. Scannell and Gifford (2014, p26) emphasise the importance of proximity maintenance in the process of place attachment. While visitors to these sites lacked the architectural resources that might reinforce feelings of security, the shared history of those using the water would succeed in providing reassurance.

Seventeenth century Essex sites contain many elements common to Biophilic concepts advocated by Wilson (1984) and Kellert (1999). The rural location of the sites satisfies the Savannah Hypothesis (Orians and Heerwagen, 1992) which suggests a primordial connection with the landscape. Many of these sites were near woodland, fulfilling the belief that humans possess an innate comfort when positioned close to trees. The vernacular location of these sites realises Kellert's naturalistic concept where site users derive comfort from their contact with the natural world. Users of these sites would, perhaps unconsciously, have understood ecologicistic aspects of biophilia which Ramoie (2014 p8) describes as an examination and understanding of their natural environment and using that knowledge in a positive way, in this case, using well water to improve their health. Some seventeenth century sites including Upminster and Marks Hall were analysed by physicians such as Doctor Benjamin Allen (1699) who validated, to a certain degree, that the water there was therapeutic thus corroborating the beliefs of those attending the site.

By the end of the seventeenth century England was officially a Protestant country where anti-Catholic sentiments were significant. Evidence of this is revealed in the 1689 Bill of Rights which was passed by Parliament with the intention of forbidding the accession of a Roman Catholic to the throne (Maer and Gay, 2009 p3). While in the seventeenth century religion remained a central element of daily life, rituals associated with faith tended to be conducted within a church, or in the case of prayer, in the home. As the focus for collective worship centred on the local church, the

purpose of spring sites altered from being a location associated with spirituality to one with an increasingly functional purpose. In contrast to the government of Henry VIII who, during the Reformation, ordered the repression of holy and therapeutic wells, the Stuart government appreciated that well sites had the potential to develop into successful business. Despite England being overtly anti-Catholic, wells were tolerated and perceived as secular locations rather than spiritual sites (Hembry, 1990 p302).

### 5.5 Eighteenth Century Sites

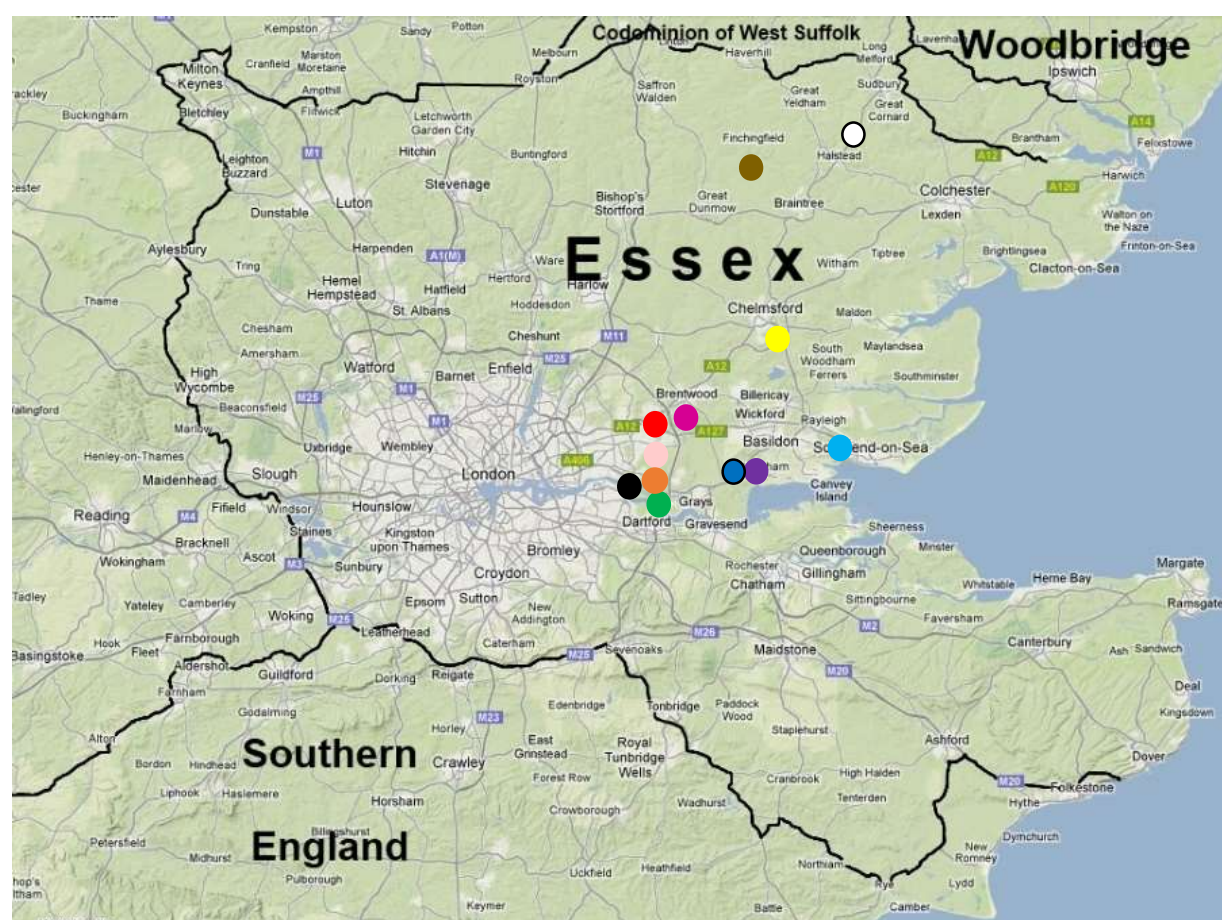


Figure 40  
Map of Essex showing the approximate location of sites initially referenced in the eighteenth century  
Source: Althistory, 2017, amended by author

Chigwell Row	●	Gidea Hall	●	Hornchurch	●	Ilford	●
Rectors Well	●	South Benfleet	●	Springfield	●	Stapleford Abbots	●
Twinstead	○	West Tilbury (Hall)	●	Wethersfield	●	Woodford Wells	●

As with the seventeenth century sites, those first referenced in the eighteenth century (Figure 40) were generally vernacular, rural sites, satisfying the conditions for Jackson's (1984 p151) Landscape One and were listed by various authors including Dr Martin Trinder. It is interesting to speculate upon the intentions of those discussing the attributes of each site. In the case of the wells at South Benfleet and Wethersfield the initial recognition of the site is unknown, perhaps simply deriving from site memory passed down through successive generations. The site at Wethersfield (Figure 40) was originally listed by an anonymous author in a work titled '*History of Essex*' in 1769 and was described by the author as "an abandoned chalybeate spring". The term chalybeate describes waters containing iron salts. Christy and Thresh (1910 p30) were unable to locate the site but presumed that the water, if chalybeate in content, would have been utilised by local people to cure symptoms of anaemia or diarrhoea. In the case of South Benfleet (Figure 40), there are few records regarding the provenance of the site and by Christy and Thresh's visit in 1907 the well had disappeared. Site memory, however, allowed them to learn about the location from a resident, Henry Laver, who had been born locally in the 1840s and was able to describe how the water was used to treat local people and their horses although he was less specific regarding possible cures (Christy and Thresh, 1910 p53).

The site at Woodford (Figure 40) was originally recorded by Dr Benjamin Allen in the second edition of the '*Natural History of the Chalybeate and Purging Waters of England*' in 1711 while the well at Chigwell Row was recognised by Philip Morant in his work '*The History and Antiquities of the County of Essex*' published in 1768. The sites at Tilbury Hall and Twinstead were initially referenced by individuals with associations to the site. The spring at Twinstead was originally described in 1791 in a letter by the owner of Twinstead Hall, James Marriot Knight who asserted that a sulphurous spring had been located in the glebe of St John's Parsonage, Twinstead (Figure 41). It is perhaps interesting to note that Mr Marriot Knight had rebuilt the church in the previous year with the intention of using the building for worship and musical performances. The local bishop had refused to re-consecrate the building, thus limiting its function (King, 2012 p5). The

discovery of a therapeutic spring, in close proximity, in the following year when the purpose of the proposed church had been curtailed might seem somewhat coincidental.

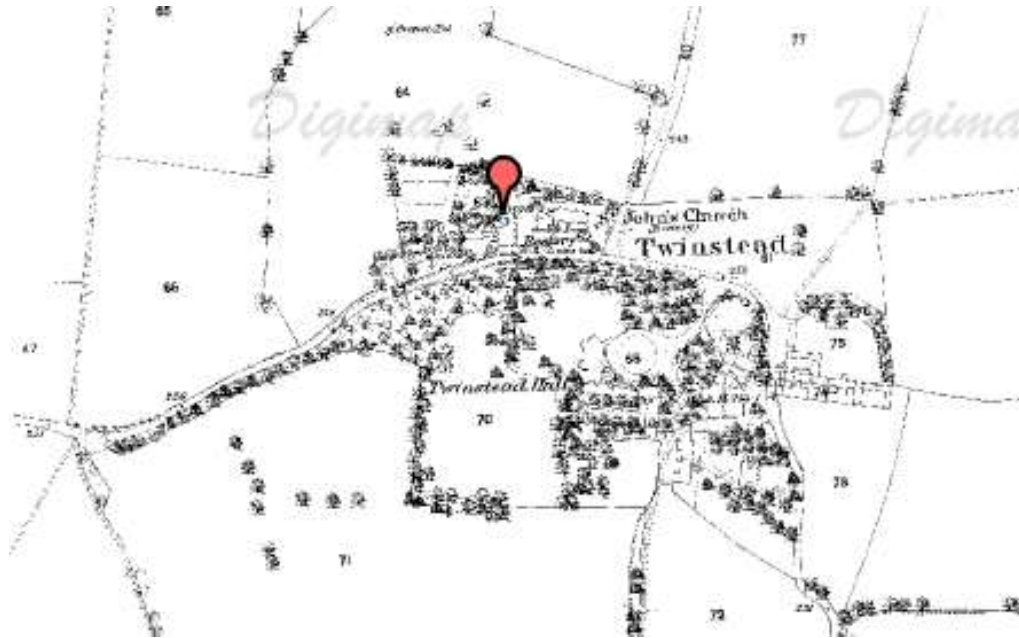


Figure 41  
Ordnance Survey map (1876) showing the approximate location of the well at Twinstead  
Source: Edina Digimap, 2016

The site at Tilbury Hall (Figure 40) was referenced by Dr John Andree, an acquaintance of the owner and eminent physician who as previously intimated was likely to benefit from the success of the site. Andree wrote several editions of a treatise extolling the virtues of the water there. In the preface he lists and describes the components of different types of therapeutic water which he perceives as being broadly sulphurous, chalybeate and purgative in their composition. He continues by describing these qualities and providing examples of such waters either in England or mainland Europe. Andree suggests that the water at Tilbury is superior with regards to other therapeutic waters due to its contents which included ‘bole ammoniac’ a red clay used from the middle ages as an astringent in the treatment of illnesses such as dysentery (Norri, 2016 p890) and a salt which Andree described as being similar to that obtained from the distillation of crab claws. He declared the water to be: “singular in composition and peculiar in virtue” (1740 p9). Andree conducted a series of experiments on both the water and the salt. Experiment 9 (p13)

described the results when the water was boiled with equal quantities of milk stating:” The milk doth not curdle”.

Following his scientific analysis, Andree made several observations (p22) regarding the water declaring it to be: “as clear as any spring water but not altogether so white... It has a pleasant taste”. The treatise continued with detailed explanations as to how the water was an effective diuretic and conversely a cure for a multitude of bowel problems. Andree also claimed the water to be an effective treatment for gout and asthma providing advice upon how best to use the water as a treatment, for example, in the case of asthma, mixing with honey (p27). The final element of the work contains testimony from several delighted patients describing their symptoms and their subsequent cure. These acknowledgements record the location of the patients who resided in London, Kent and interestingly the port at Tilbury. In this case several sailors from a West Indian ship had sought treatment (p40). Andree’s testimonies fail to indicate where the water was obtained from as Tilbury Hall was not generally a location visited by those pursuing a cure. Many patients would purchase the water from a warehouse such as Ellison’s Red Lion Warehouse, London. It is interesting to note that Mr Ellison had previously purchased Tilbury Hall from the Kellaway family (Cowell, 2001 p13). As an owner of a water warehouse, Ellison would have been familiar with the financial potential of therapeutic water. As well as London centred retail opportunities this water was exported to the East and West Indies (Cruden, 1843 p413) although the sailors referred to in his work were visitors to Essex.

The remainder of the sites were studied by Dr Martin Trinder including that at Gidea Hall (Figure 40) which, according to Trinder (1783 p13), was located on the banks of a canal in the grounds. He describes how on visiting the site he noticed a large amount of ochreous soil in the channel surrounding the spring. The site was alluded to by the writer Samuel Lewis (1840 p613) in a work titled ‘*A Topographical Dictionary of England*’ who stated: “There is a mineral spring of some repute among the poor people of the neighbourhood, in the park of Gidea Hall. The site was purchased by Sir Herbert Henry Raphael in 1897 who subsequently endowed twenty acres of parkland including the canal area for the creation of a public park in 1904. It appears that the well

was drained and filled with the intention of securing the safety of the site for visitors. Christy and Thresh visited the location in 1907 (1910 p45) however accessibility to the well site proved impossible. They were, nevertheless, able to garner some useful information from the park superintendent, Mr Sibthorpe, who advised them that the well had originally measured three feet in diameter and was bricked round with steps leading into the water. He described how people would collect the water for the purpose of bathing their eyes, a remedy not mentioned by Dr Trinder.

### **5.5.1 The Growth of Sea Bathing in Eighteenth Century Essex**

The evolution of Southend-on-Sea as an emerging coastal town can be traced back to 1768 when a program to transform an area consisting of a small fishing community into a resort centred on sea bathing was initiated by an entrepreneur, Thomas Holland. The intention was for the construction of sixty houses, two inns, two terraces, a library and a high street (Pewsey, 1993 p28). The intended development highlights the perception that visitors to a successful coastal resort would require a location with suitable accommodation and leisure opportunities. The Grand Hotel, the jewel in the development, was opened with a celebratory ball in 1793 (King, 1992 p3). In Common with several of the envisioned Essex spa resorts, the intended scheme in Southend failed primarily due to a lack of capital from the principal investor, Thomas Holland, who was subsequently declared bankrupt. With the benefit of hindsight, the late eighteenth century was perhaps an inauspicious time to create a leisure resort as the country had suffered a succession of poor harvests which led to a successive increase of cheaper foreign agricultural imports. This corresponded with the beginning of the Napoleonic Wars (1803-1815) and an ensuing economic depression (Stephens, 2013). Although resorts such as Scarborough and Weymouth enjoyed continued success during this period, they were, in contrast to Southend, previously existing locations with the required infrastructure for the promotion of water therapy.

### 5.5.2 The Value of Spa Landscapes Within the Eighteenth Century

Eighteenth century well sites were again typically situated in rural areas characteristic of Jackson's (1984 p151) Landscape One and exemplified by village locations. Although the site at Gidea Hall was located within a planned landscape, an Ordnance Survey map (1871) shows that the spring was situated in the Southwest corner of the estate, well away from the house (Figure 42).



Figure 42  
Ordnance Survey map of Romford, Essex (1805) showing the location of the Gidea Hall Spring  
Source: University of Portsmouth, 2017

The designed elements of the garden, more typical of Jackson's Landscape Two, where the site design would be more extravagant and restrictive, perhaps including allegory and buildings such as temples was mostly situated to the north of the house. As previously mentioned, post medieval English spring sites had a more functional purpose than classical European sites although it is interesting to note that the site at Ilford was known as 'St Chad's Well', St Chad being the patron saint of medicinal waters (and failed elections!) (Osborne, 2006). A further spiritual connection was noted by Christy and Thresh (1910 p51) who stated that the site had been employed by the Brother Bishops, a Roman Catholic sect, as a baptismal location. Unfortunately, they did not specify a time period for these events. This confirms Hubert's view (1994 p12) that post-Christianity, the concept of spirituality existing within a landscape became less common as



religion became church centred. This view is underlined by Ilford being the only site listed by Christy and Thresh with discernible religious connotations.

The concept of site memory is described by Pikionis (1989 p68) as being the connection formed between people and their encounters with the landscape. The local and religious associations of the well at Ilford satisfy these criteria. Christy and Thresh provide several further examples of this relationship including that of a resident of South Benfleet (1910 p30) who described the well as a place where people would treat themselves and their animals while the park superintendent at Gidea Hall was able to provide information about historic local use of the water situated there (Christy and Thresh, 1910). As previously discussed, Place Attachment was a theme common to many well sites in Essex. The sites at Tilbury, however, contradict this view. Most of the water at both wells was exported to warehouses such as The Red Lion and Sheens, both in London. While there may have been a few local people using the water for a therapeutic outcome, the bulk of consumers were unlikely to visit the water source and thus would form no attachment to the site.

Wilson (1984 p31) stated that people have a biological need, passed down through generations, to have contact with their natural environment. Eighteenth century Essex well sites satisfy this requirement as all were in a rural environment which, in many cases, had remained unchanged for long periods of time. The sites at Wethersfield and Twinstead were both located in areas close to woodland, fulfilling Heerwagen's (2001 p30-36) assertion that humans feel safe in areas with clusters of trees which they perceive as they provide security. She also describes the importance of water to communities either for drinking or bathing. This corresponds with the views of Ramoie (2014 p8) who describes nine biophilic elements relevant to people and their immediate environment including dominionistic, utilitarian and aesthetic. The eighteenth-century sites fulfil ecologicistic criteria as site users understood the water to possess therapeutic qualities. Typically, this knowledge was recognised by different generations of a community. In the case of some eighteenth century well sites this knowledge was confirmed by scientific analysis by physicians such as Doctor Martin Trinder (1783) who examined the water at sites including Tilbury. Site users may have formed an emotional attachment to the location, especially if they benefitted from a

cure, relating to naturalistic and humanistic criteria. It is perhaps also likely that site users would have developed a moralistic attitude towards the resource, appreciating its therapeutic role and wishing to ensure that this purpose was able to perpetuate.

## 5.6 Nineteenth Century Sites



Figure 43  
Map of Essex showing the approximate location of sites initially referenced in the nineteenth century  
Source: Althistory, 2017, amended by author

Dovercourt ●

Hockley ●

The site at Hockley (Figure 43) is the only Essex location to include significant remnant remains in the form of a pump room. Although a therapeutic spring was initially revealed by Robert and Laetitia Clay in 1838 (Benton, 1867 p297) and utilised as a means of curing her asthma, their nephew James Fawcett appreciated the financial potential of the site, establishing a small spa

facility at his house named 'Hockley Spa Lodge' (Taylor, 2017 pers comm). In 1843, the chemist Sir Richard Phillips stayed with Fawcett and was so impressed with the possibility of a therapeutic well that he recommended the water to his friend A. B. Granville (Vingoe, 1999 p65). Following the endorsement of Phillips, Fawcett persuaded several friends to invest into the expansion of Hockley as a spa resort. Fawcett's objective was to construct an impressive pump room in the classical style (Figure 44) as well as ten villas and ten semi-detached villas. A hotel was also built in the vicinity of the pump room. Hockley Spa opened on June 8<sup>th</sup>, 1843. The *Essex Herald*, 11<sup>th</sup> June 1843 stated: "About two o'clock 150 ladies and gentlemen, a great number from the metropolis, sat down to a splendid breakfast in the Pump Room, supplied by Mr Littlejohn, of King William Street...Weippert's band was in attendance and played favourite airs during the repast". The hotel and pump room were overseen by William Summershall who also arranged for the transportation of the water to warehouses including Sheens in Vauxhall, London (British Newspaper Archive, 2017). A catalogue of the many pharmacists trading in Hockley Water was published in the *Essex Chronicle Newspaper* (Cowell, 2001 p34). The success of Hockley Spa was brief. The initial sale of the hotel was advertised in the *Essex Herald* and *Chelmsford Chronicle* newspapers on May 16<sup>th</sup>, 1848 while by 1873 the Pump Room was being leased by the local Baptist church (Vingoe, 1999 p36). The Pump Room is presently a private residence (author, pers comm).

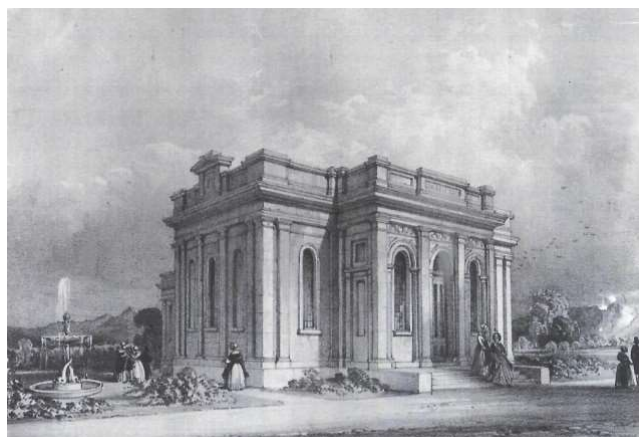


Figure 44  
Image showing a lithograph of the Pump Room circa 1843  
Source: Taylor, 2017

### 5.6.1 The Growth of Sea Bathing in Nineteenth Century Essex

Following the economic failure of the initial bathing resort at Southend, the site was put up for sale in 1800 and was purchased by James Heygate, a local businessman. This investment proved to be a prudent one as in the following year the town was visited by Caroline, Princess of Wales, for the purpose of therapeutic sea bathing (Pewsey, 1993 p29). As with the development of spa towns and the resort at Weymouth, any visit by royalty was valued by investors or proprietors as it would be likely that members of the affluent classes would follow suit. The travel writer and physician Granville had been travelling to Southend with the intention of describing it in his work *'The spas of England, and principal sea bathing places'* when he spent some time in a local village called Hockley on the advice of a friend, Sir Richard Phillips. A local businessman, James Fawcett, had initiated the beginnings of a spa resort in the village which, he hoped, would become as famous as more established resorts such as Cheltenham (Cowell, 2001 p29). Granville was pleasantly surprised while staying in Hockley and believed that it would be possible for the two resorts to work together. He suggested that visitors might frequent Hockley Spa in July and subsequently travel to Southend in July and August for the benefits of sea bathing. The inclusion of Southend in a guide such as that by Granville would encourage visitors to the town. The growing reputation of Southend as a bathing resort is evident from its mention in Jane Austen's (1815 p57) novel *"Emma"*, where the heroine states: "I must beg you not to talk of the sea. It makes me envious and miserable; I who have never seen it! South End is prohibited if you please."

While the resort of Southend-on-Sea flourished as a location both for leisure and therapy, other coastal areas in Essex began to encourage the process of sea bathing. The resort of Dovercourt is the only coastal Essex spa landscape. While the spa at Dovercourt did not open until August 28<sup>th</sup>, 1854 (Cowell, 2001 p41), an extract in White's Directory (1848 p490) lists a local businessman, James Haylett as being a brewer and bathing machine owner indicating a pre-existing form of water therapy. A subsequent edition (1863) provides more detail about bathing machines, inferring a growth in popularity of this leisure pursuit stating: "The beach is well adapted for sea bathing. There are sea water baths near the Quay at Harwich" (p523). The directory lists

two bathing machine owners, Yakob Schermann and Raymond Howard. A description of the beach in the area known as the “New Town” describes bathing machines, a large hotel and a chalybeate spa (p527).

There were other smaller Essex coastal locations where sea bathing proved popular. In the nineteenth century, West Mersea was a small fishing village located in the north of Essex. The local historian John Leather (2003 p9) describes how bathing machines were situated at the rear of the shingle beach below the church. These machines were owned by Mr James Mussett, a local businessman who also sold fish and coal. Although West Mersea was a small village in a rural location, devoid of hotels, guest houses or other amenities Mr Mussett still considered bathing machines to be commercially viable.

### **5.6.2 The Value of Spa Landscapes Within the Nineteenth Century**

Both Essex sites developed in the nineteenth century satisfy the category of exclusive spa, having not been previously recognised as therapeutic sites and fulfil the criteria for Jackson’s third landscape typology (1984 p151). This describes a landscape generated to fulfil the requirements of a community where considerations such as accessibility to resources or employment are important. In the case of the Essex sites, both nineteenth century spring sites are increasingly urban and less communal and atypical of the vernacular landscapes housing the majority of Essex well sites. Archival evidence including contemporary maps show there was an intention to develop the urban area surrounding both sites as the resource became more widely appreciated. These sites were discovered later, as the result of excavating for a well to provide drinking water for domestic properties, and thus have no historical associations to their location. The owners of both sites had knowledge of other English spa towns resulting in an understanding that perhaps they had a site with economic potential (Vingoe, 1999 p65).

Although those utilising the sites at Hockley and Dovercourt may not perhaps have the same attachment to these sites as someone living in close proximity to a well, Relph (2008 p26) asserts that place attachment can fluctuate from a deep value to a nominal concern. While visitors to these sites tended to be transient they would, for a short while, share the rituals associated with

the site such as undertaking a drinking regime or spending time in the grounds, something Seamon (2014 p13) describes as 'Place Ballet'. Proximity maintenance would have been an important factor to those staying at either Dovercourt or Hockley. Spa sites typically incorporated a routine such as the times when the water was imbibed, information which visitors to the site would have needed to gain familiarity with. Once understood, patrons would be able to enjoy their visit, free from concerns about when they should attend specific elements of the site and how to fill their time. Fried (2002, as cited by Scannell and Gifford 2014 p26) describes the value of a location devoid of the concerns of everyday life where people can feel secure. This would be essential at a spa location where the intention was for patrons to improve their health through therapy and leisure.

While the sites at Dovercourt and Hockley differ from other Essex wells sites in their location and development, they still fulfil many of the biophilic elements described by Kellert (1999 p42). The owners of both sites understood the therapeutic potential of the water situated there, satisfying ecological concepts. Scientific analysis by Richard Philips (1842) confirmed the water at Hockley to be medicinal in composition. The architectural and urban development associated with both sites fulfils utilitarian and dominionistic notions of Biophilia whereby a natural resource is manipulated and controlled for either material or therapeutic gain (Ramoie, 2014 p8). The pump rooms at both sites would have harnessed attitudes connected with aesthetic elements of biophilia where feelings linked to the beauty of the natural world were harnessed. This would have been achieved through the creation of a beautiful landscape in the grounds of the building where clients could spend time. The site at Dovercourt was nestled on a cliff and was designed so that patrons could look out at the surrounding coastline. Visitors could also walk along a coastal pathway, designed by the site owner (Harwich and Dovercourt, 2018). Figure 45 shows the classical influences used by the architect, James Lockyer, when creating the pump room at Hockley. The form and suggested columns on the building are visible on constructions such as the Temple of Portunus, Rome. This overt acknowledgement of the classical period through architecture is visible in many English spa towns such as Bath and Cheltenham and so it is perhaps not unlikely

to see the same influences mirrored in a potential spa resort such as Hockley. During the Georgian period, many affluent young men undertook grand tours of Europe where they visited many classical sites such as those in Rome which, upon their return, influenced architecture, fashion and bathing. The evolution of spa architecture developed because of classical influences resulting in aspects of Roman design being incorporated into associated pump rooms (Rotherham, 2014 p18).



Figure 45  
Photograph of the Temple of Portunus, Rome  
Source: Ulrich, 2005

## 5.7 Twentieth Century Sites



Figure 46

Map of Essex showing the approximate location of the well at Fobbing ●  
 Source: Althistory, 2017, amended by author

Although this well site was not included in the original research undertaken by Christy and Thresh, water from the site was analysed by Dr John Thresh, father of May Thresh who, at the time of investigation, was County Medical Officer of Health for Essex (Graces Guides, 2011). The site at Fobbing (Figure 46) is an example of how external events can affect the success of a seemingly successful enterprise. The results of Dr Thresh' research was subsequently published in *The Lancet* in December 1922 where he claimed that if the water was taken as part of a medical regime it could prove favourable to the health of some patients (Thresh, p1258). The site at Fobbing fulfils the criteria of a commercial well and was initially dug in 1898 with the intention of providing water for the neighbouring farm however the water possessed a strange after-taste, so



the well was little used. The drought of 1900 forced the farmer, Mr King, to reutilise the site, giving the water to his cattle who appeared to flourish. The perceived therapeutic nature of this well soon came to the attention of a neighbouring landowner, Edwin Cash who was the publican of the Angel, Islington (Thurrock Heritage Group, 1999). Cash persuaded Farmer King to have the water analysed. The evaluation suggested that the water contained sizeable amounts of Magnesium, Sodium and Potassium Sulphates and could prove advantageous in the treatment of rickets or stomach complaints. Mr Cash was an astute businessman who offered to buy Hovels Farm from Mr King however he succeeded only in purchasing the area of land containing the well (Cowell, 2001 p50). An initial well was dug in the area in 1902 but commercial expansion of the site did not ensue until 1919 following the retirement of Mr Cash when a second well was sunk adjacent to the 1902 site. A surplus wooden army hut was erected (Figure 47) as both protection for the well heads and a site where people could purchase bottles of the water for two shillings and threepence (Thurrock Heritage Group, 1999).



Figure 47  
Photograph of the protective army hut at Cash's Well, Fobbing, Essex circa 1920  
Source: Payne 1981

Edwin Cash demonstrated his business skills through his marketing of the water derived from his land. He initially launched a limited company; the Vange Water Company in 1921 with offices located in Cheapside, London. A large advertising hoarding was erected at the side of the London Road directing travellers to the 'Vale of Health' (Cowell, 2001 p50). As well as advertising in local

newspaper publications such as the *Thurrock Gazette*, an article was published in the *Westminster Gazette* titled 'Wonder Well in an Essex Village', successfully communicating information about the site to a London readership. Another article titled 'Magic Water. Essex Mineral Spring' was published in the *Singapore Free Press and Mercantile Advertiser* in November 1922 (Newspaper SG, 2018). Whether this publicity can be directly attributed to the entrepreneurship of Edwin Cash is a matter for conjecture. Mr Cash ensured the attention of the medical fraternity by sending a sample of the water to the Medical Officer for the County of Essex, Dr J Thresh, who published his findings in *The Lancet* (Thresh, 1922 p1258). Edwin Cash was not averse to seeking legal redress if he considered articles about his business to be misleading. The *Westminster Gazette* had mistakenly published an article in October 1922 stating that the well had dried up. Mr Cash was awarded damages in an out of court settlement in May 1923 (Cowell, 2001 p52).

The effective marketing of this site led to a growth in production. During 1922 visitors were purchasing approximately ten gallons of water per day while a further ninety gallons was being exported for sale in shops. Cash realised that in order to maintain his business a further well would be required. By 1923 three additional wells had been excavated. While the first two wells were unsuccessful the final well 'Number 5' proved to be abundant in therapeutic water. Cash constructed a building in the style of a classical temple to protect the well head. Further bottling sheds were also erected on the site. This surge in productivity was to be short lived due to events beyond the control of Edwin Cash. A nearby farm had been converted into the West Ham Tuberculosis Hospital (Figure 48) and speculation grew that the drainage necessary for this site could flow into the source of the well (Cox, 2006).

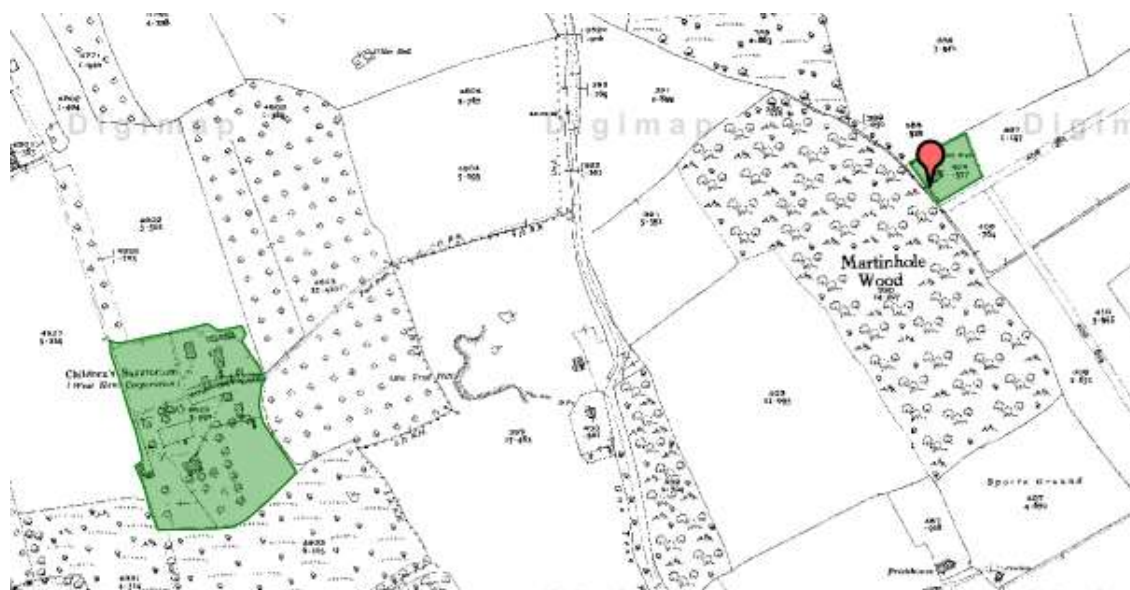


Figure 48  
 Ordnance Survey map (1939) showing the location of the West Ham Tuberculosis Hospital (to the west) and  
 Cash's Well (to the east)  
 Source: Edina Digimap, 2017

A competing company called 'The Vange Crystal Well Company' had been established at nearby Luncies Farm. This well had also been analysed by eminent physicians who claimed the well to contain water equal in efficacy to German waters. Mr Cash, never one to accept adverse competition, published a statement in the *Grays and Tilbury Gazette* in November 1922 declaring that the other water was defective and listing all the local outlets where his water could be purchased. The opposing company published their own advertisement in the subsequent edition, extolling the virtues of their water. Following a visit by the Sanitary inspector employed by the Billericay Rural District Council in January 1923 it was declared the water at Luncies Farm to be unfit for human consumption. The research has been unable to ascertain whether the visit was routine or as the result of a complaint but as well as forcing the closure of this well, many patrons of Cash's Well ceased to purchase water from this site. Advertisements for this site cease by 1924 (Cowell, 2001 p56) signalling the failure of the last commercial well site in Essex.

### 5.7.1 The Value of Spa Landscapes within the Twentieth Century

Although the site at Fobbing was visited by those seeking a therapeutic remedy, this was not a location where patrons would seek a cure over several weeks as in the case of Hockley or Dovercourt. Visitors to this site would attend, perhaps imbibe some water in situ and then leave with further supplies to drink elsewhere. The construction of bottling sheds at the site indicates that short term visits to the site were the primary intent. Although Edwin Cash erected a temple in the classical style (Figure 49) referencing the Hellenistic and Roman periods of history, the site was relatively recent having been excavated in the 1920s (Cowell, 2001 p50). Architectural trends of the 1920s, particularly those in Essex, were not influenced by classical forms so the decision by Mr Cash to construct a 'classical' temple suggests an overt reference to the classical era and the eighteenth century, both periods when therapeutic water was valued and its use was something aspirational. Cash used this architectural style to heighten the perceived value of the water to site visitors, implying the water at his site was comparable with those at more established spa sites such as Bath. The late construction of this facility implies that the site intention was purely functional and that there was little site memory connected with the location. Construction of a classical temple, however, suggests a site memory that never existed to those visiting. Although the location of the site would suggest that it satisfies Jackson's Landscape One (1984, p151) due to its rural nature, the construction work undertaken by the owner results in the site fulfilling the criteria of Landscape Three (1984, p151) where a location evolves to meet the needs of a community or individual. The eventual owner of the site was an entrepreneur who, as in the case of the nineteenth century site owners, realised the site possessed commercial potential and constructed structures within the site to create a therapeutic location for short term visitors.

It is likely that due to the way the site at Fobbing was utilised by those seeking relief from their symptoms there was little opportunity for visitors to form an attachment to the location. Attachment to a place generally occurs over a prolonged period rather than the few hours that would necessitate a visit to this site and often contain aspects of personal history associated with a location. Gustafson (2001 p669) differentiates between 'place as roots' and 'place as routes', the

second of these applying to sites that people have less of an emotional connection with but that for a shorter period of time become significant to them. This opinion concurs with that of Relph (2008 p26) and his assertion that while attachment to a place is often profound, it can also exist on a more marginal level.



Figure 49  
Photograph showing remnant remains of the temple built by Edwin Cash at Fobbing  
Source: Cannell, 2017

While the site at Fobbing lacks the history typical of many Essex sites it nonetheless fulfils elements of Biophilia described by Kellert (1999 p42) and Ramoie (2014 p8). Those visiting the site would understand ecologicistic factors linked with the location. The water had been analysed by Doctor John Thresh in 1922 who confirmed its medicinal properties. The large-scale advertising campaign by the site owner would have left visitors in no doubt that the water was therapeutic. The utilisation of the location satisfies both dominionistic and utilitarian characteristics of Biophilia. These are described by Ramoie (2014 p8) as the manner in which people engineer the natural environment with the intention of exploiting the resources located there, in this case, the water. Although Edwin Cash had constructed several buildings including a pump room to sell his water, the site itself remained in a predominantly rural location. In their work examining biophilic buildings, Heerwagen and Hase (2001 p30-36) advocate the importance of clusters of trees which provide people with a sense of security. They maintain the importance of views out of a landscape for the same reason. The site at Fobbing was able to fulfil these criteria as the well

site, while located in a wooded area, was situated on a hilltop, providing visitors with sweeping views of the Thames Estuary (pers comm).

### **5.8 Drawing Together Themes from the Essex Well Sites**

Although the sites located within Essex are atypical in many ways to the other locations described in previous chapters both in terms of the demographic of user, site location and the eventual success of the enterprise, there remains an intention for all site users to secure a remedy from a water source regardless of their status. Notwithstanding the reputation or status of a well site, comparisons can be made between several attributes such as the intended site user and their myriad reasons for selecting that particular site. The following chapter will examine the similarities and differences between the Essex well sites and more famous locations both in England and across Europe and Minor Asia, paying attention to the societal, physical and cultural considerations.

## **6 Discussion of Results and Implications**

### **6.1 Revealing the Variation of Spa Landscapes**

Although the term 'Spa' is often identified through the literature of Jane Austen and cartoons of Thomas Rowlandson in the form of an eighteenth-century pump room, perhaps located in a city such as Bath, filled with affluent clientele, taking advantage of the available water cures and appreciating the many leisure activities on offer there, this interpretation of a spa site is somewhat simplistic. The chapter describing the evolution of water therapy in Essex emphasises that while not all well sites attained the reputation of resorts such as Bath, they still provided a perceived remedy and comfort for those in attendance. Research of Essex sites and those further afield has resulted in the creation of several landscape typologies relevant to spa settings, which have not previously been presented as unique classifications. The impetus for this was the assertions by Parish (2008 p34) that the well site at West Tilbury was the most successful location in Essex. This site was atypical of the perception of spa locations as places frequented by the leisured classes as the water was exported and sold through warehouses such as the Red Lion in London and spa towns such as Bath and Harrogate (Cowell, 2001 p11). The author recognised that a set of typologies reflecting the variety of spa landscapes was required as previous analysis of these sites contrasts markedly with a previously more 'homogenous' understanding of spa locations as being equal in their demographic and purpose. Prior research of the topic has underlined the fact that English spa sites have not hitherto been divided into specific typologies pertaining to location and demographic. Tiryakian (1968 as cited in Crewe and Forsyth, 2003 p39) underlines three reasons for recommending the implementation of typologies when forming academic opinion stating that firstly, they seek to amend errors regarding a subject, secondly, they enable the establishment of knowledge and finally they assist in the construction of emerging theories. By heeding the advice of Tiryakian, the implementation of new typologies within this research will enable an emerging understanding of the evolution of Essex spa landscapes both as an individual element but also as part of the wider English spa movement.

The research results were derived from a comprehensive survey of historical spring sites in Essex, with respect to location, expansion and theoretical models of place attachment set against an understanding of wider landscape history and development. The analysis consisted of archival research from primary and secondary sources and field visits, culminating in a data sheet describing the chronology of each site and, where possible, scientific analysis of the water located there. Data sheets were also compiled for spa sites in Bath, Harrogate and Scarborough with the intention of providing evidence from more successful locations whose evolution could then be compared with sites in Essex. The resort at Bath was chosen due to the reputation attained by the site, while Scarborough was studied due to its coastal location, a factor important to the development of some Essex sites. Harrogate was included due to the similarity in size prior to its recognition as a spa town and the period when it came to prominence which was similar to some Essex locations. The formation of data sheets resulted in the understanding that Essex spa landscapes were far from uniform and that a range of typologies were required to understand the development of well sites located there. While the typologies concerned with physical and cultural factors apply previous research in a new form, a third typology harnesses information which has not previously been attributed to such locations. Research in the form of multiple case studies was undertaken for key spa sites both in classical Europe and Minor Asia as well as post medieval Europe in order to fully understand the role played by therapeutic water across a wide period of history.

Scholars such as Jackson (1984), Meeus (1995) and Corner (1999) understand that the term 'landscape' is broad, including both vernacular and anthropogenic sites which, in turn, can be divided into sites by evaluating both their physical and cultural characteristics. This research has taken this perception of landscape, dividing it into typologies which consider physical and cultural attributes. The physical typology is based upon the division of the physical landscape as determined in the Place Attachment model and is divided further into two classifications: rural and urban. This method of separation is supported by the opinion of Meeus (1995 p57) who believes that landscape can be divided into two elements: one experiencing little human interaction and



another developing as a result of man's involvement. The physical typology defines the two categories as, 'rural', a term describing those sites emanating from the vernacular landscape, and 'urban', identifying locations with increased anthropogenic involvement in turn, creating a populated, designed environment. The typology designated cultural is similarly divided into two groups: spiritual and historical. The term spiritual relates to factors regarding the importance of mystical connections held by people and their interaction with a site, perhaps regarding the location itself or the feelings the site creates within them. Marciniak (1994, p148) describes how sacred locations are often located in close proximity to springs, many of which were perceived to possess healing attributes. Historical integrity is also included within this classification and focuses, in this study, on the longevity of the site within the vernacular landscape rather than any significant events or buildings.

For the purposes of this research the typology chosen for each site is the one that has predominated during the evolution of the location. The analysis will consider the type of landscape present at each site drawing evidence from the landscape descriptors of Jackson (1984, p151) who divided landscape topography into three categories. Jackson's landscape types complement Corner's (1999 p107) description of a chorographical landscape, a concept originating from Ptolemaic literature where landscape was divided into cosmological, geographical and chorographical elements. Chorographical landscapes centre on a scale where humans connect with their immediate environment either through activities such as farming or through the creation of a permanent habitation. The first of Jackson's typologies, 'Landscape One' portrays a simple, vernacular landscape: unchanged for generations. The second classification 'Landscape Two' depicts a more obvious location, designed to emphasise culture and affluence. In conclusion, 'Landscape Three' describes a landscape created to fulfil the requirements of a community such as ease of access to resources such as a spring, church or accessibility to nearby communities perhaps for employment. Jackson's third landscape relates to Cosgrove's (1984 p215) assertions that English towns of the eighteenth and nineteenth centuries began to gain a specific identity

depending on whether they were a trading or financial hub or indeed prospered through another factor such as the existence of therapeutic water.

As previously stated, the research has highlighted the necessity for a further typology, not previously considered in the evolution of spa landscapes which addresses socio-economic influences important to those visiting these locations. This additional typology is divided into four sub-categories; Venerated, Attraction, Commercial and Exclusive which examine the various demographic of site users and any common values between these groups. These classifications consider the varied reasons why a spring site might hold importance to a community and, where possible, examine the financial demographic of site users. The purpose of this typology is to observe whether those attending a site possessed local knowledge or were visitors to the location as this would, in turn, influence the type of place attachment pertinent to them. The three spa typologies indicated by the research are not intended to be used in isolation. Figure 50 highlights that the typologies can be linked, for example, a venerated spa site can be placed within both physical and cultural typologies. For the purposes of this research, the term 'spa' refers to either a spring, well or spa site located primarily in Essex that was recognised by Christy and Thresh (1910) in their research. As previously alluded to, a site at Fobbing has also been included. The intention of the research is to have created typologies which can be applied to similar locations in other counties rather than being limited to Essex spa landscapes.

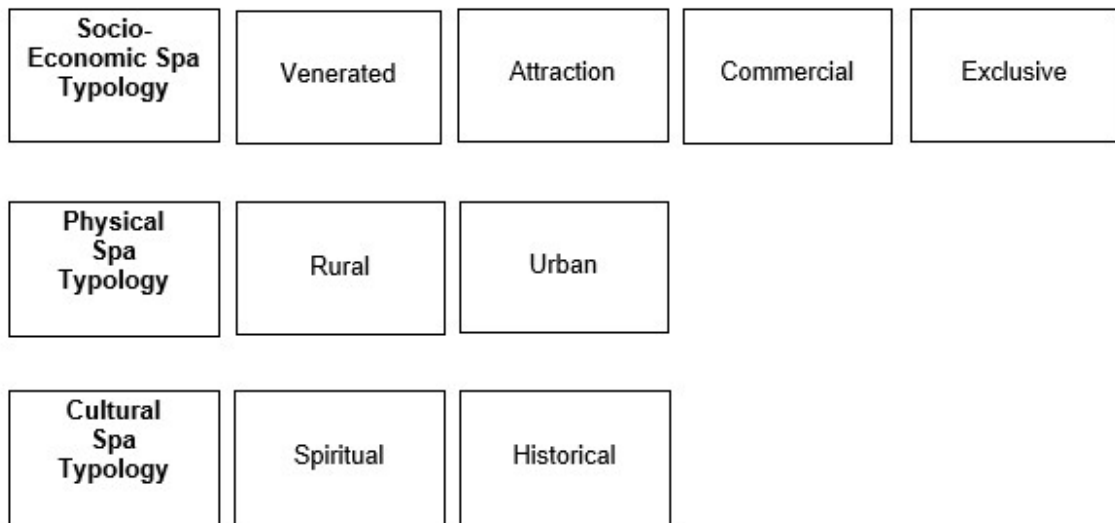


Figure 50  
Diagram showing the three spa typologies developed in this research

Four spa indicators were created within the socio-economic typology with the intention of rationalising the well sites found in Essex as many of the locations proved atypical in their evolution to more famous English spa locations such as Bath. The indicators were essential in order to understand the evolution and impacts of the Essex sites on the socio-economic developments of the nearby settlement. An analysis of all three typologies will subsequently be used to identify the formation of the case study sites, initially those located in Essex but also the English and European examples analysed in the case study research. These categories are not specific to this research and thus could be applied to well sites across the country. It is likely that some spring sites may also demonstrate several key characteristics over the period of their evolution resulting in their possible inclusion in more than one classification.

## 6.2 Proposed Socio-economic Spa Typologies

### 6.2.1 Venerated Spa

A Venerated well site derives from a community-based spring recognised by local people as possessing healing properties and thus was specifically used by those residing in the vicinity. A venerated spring site is one that would have held value to its users over a significant period of

time but it is unlikely to have been accessed by users living away from the location due to either its restricted size or limited accessibility. This type of setting is characteristic of the vernacular landscape referred to by Jackson (1984 p151) as Landscape One, a small, rural location where the residing community would have lived for many generations. These locations were generally agriculturally based, the community having little formal education and probably employed by a local landowner. The well site at Chigwell is an example of this typology. The village of Chigwell Row was alluded to in the Domesday Book of 1086 (Open Domesday, 2018) where it was referred to as Cingheuualla or King's Well, indicating a location established for many centuries. The original name also alludes to an important water source emphasising a site valued over a lengthy period of time. Although documented by Phillip Morant (1789) as a 'purgative spring' (Foord, 1910 p131) it is unlikely that Chigwell Row was recognised by those living outside of the community as a place of healing. The spring site was positioned behind a windmill, surrounded by trees, in a large meadow known as Park Field (Figure 51). This map still refers to the site as Kings Well some eight hundred years after its listing in the Domesday Book. Christy and Thresh (1910 p44) were unable to analyse the water as unfortunately the site had been drained and filled in in the 1880s. The original well site is presently inaccessible as it is located in the grounds of a school (Cannell, 2017 pers comm).



Figure 51  
Ordnance Survey map (1881) showing the location of the Chigwell Row spring  
Source: Edina Digimap, 2017

### 6.2.2 Attraction Spa

An Attraction Spa site originated as a local spring recognised by the immediate community as having healing properties. The original landscape associated with this type of site would have been characteristic of Jackson's (1984 p151) Landscape One, a vernacular landscape. At some point in the evolution of such a site, the well would have been identified by somebody outside of the immediate environs and subsequently was used by visitors to the area. Perhaps for a short while the site may have been utilised by a range of social classes but eventually, in all likelihood, access was restricted to the more affluent classes. An example of an attraction spa is that at Wanstead. Archaeological excavations undertaken in the 1980s suggested that there was Roman occupancy on the site between the first and fifth centuries (Wanstead Wildlife, 2014). Although there is no evidence that the Romans selected this site due to a spring, it is likely that there were important water sources in the vicinity. The site is recorded in the Domesday Book but is described as small (Domesday Online, 2018). The spring was initially mentioned in a letter from John Chamberlain to Sir Dudley Carleton (23<sup>rd</sup> August 1619). Chamberlain compares the water with that from Tunbridge Wells but also voices concerns that the well may dry up (Christy and Thresh, 1910 p11). It is unclear as to whether this concern is a general one regarding the loss of a therapeutic water or whether Chamberlain's concerns were directed at the demographic of the spring users. A local man interviewed by Christy and Thresh (p12) described how local people would drink the water to stimulate their appetites or would bathe their ankles with the intention of strengthening their bones. Although the site of the well is not precisely known, there is a possibility that it was located in the grounds of a house known as The Grove (Figure 52). The Grove was originally built in 1690 by Sir Francis Dashwood and from this point access would have proved difficult for the less affluent who had previously sought a cure from the water (Counties Resident Association, 2016).

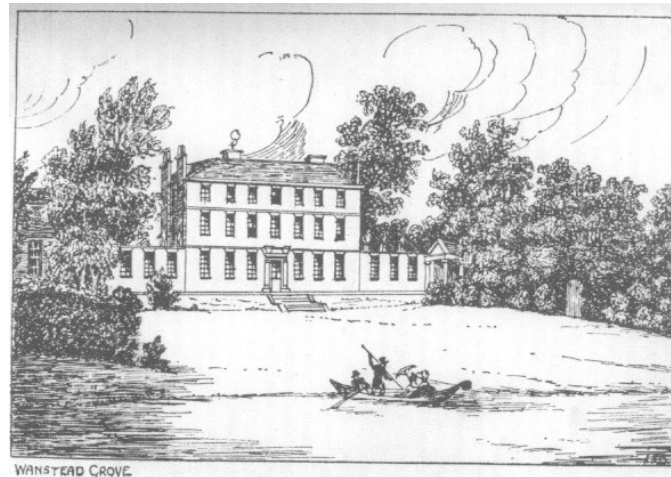


Figure 52  
 Sketch of Grove Hall, Wanstead circa 1822  
 Source: Counties Residents Association, 2018

### 6.2.3 Commercial Spa

A Commercial Spa site was originally recognised by local people as having curative properties although the location may not necessarily be an ancient site as described in the previous typologies. This type of site is often typical of Jackson's Landscape Three (1984 p151), developing to fulfil the requirements of a local resource. Locations such as Bath and Harrogate are both examples of spa towns which evolved to meet the needs of spa visitors. In the case of West Tilbury, however, the site remained consistent with Landscape One. The location of West Tilbury was mentioned in the Domesday Book (1086) as a medium sized site in the Hundreds of Barstable although there is no specific mention of a spring or well (Open Domesday, 2018). In the case of the water at West Tilbury, the well was excavated in 1724 to supply water for the farm at West Tilbury Hall. The water was initially rejected as suitable for drinking but subsequently was used to provide water for cattle during a drought. It became apparent that the calves seemed to thrive on the water, suffered from far fewer stomach complaints and were less likely to suffer a premature death. The water was then imbibed by the landowner, Mr Kellaway, in 1731 to alleviate the symptoms of diarrhoea (Bingley Doyle, 1969 p1050). Kellaway was so impressed with the easing of his symptoms that he began distributing the water to his friends, one of whom recommended it to Dr John Andree (Cowell, 2001 p9). The water was subsequently used by Dr Andree and Sir Hans Sloane, Royal Physician, who prescribed the water to their patients (Bingley

Doyle, 1969 p1050). Rather than establishing a destination for clients to visit, the water was generally sold off site. The water was known as Tilbury Alterative Water and during the 1760s was sold at several warehouses in London including Ellison's Red Lion Warehouse (Figure 53) (The Gazette, 2018). West Tilbury Hall was bought by John Ellison in 1778. Ellison was a chemist and an astute businessman who advertised for vendors to sell the water in spa towns including Bath and Harrogate (Cowell, 2001 p11). By the 1770s Tilbury Alterative Water was also being exported to the East and West Indies (Cruden, 1843 p413). It is believed that the well became less popular in the early nineteenth century. Christy and Thresh (1910 p40) claim that the last mention of this site was in a book titled '*The Beauties of England and Wales*' which was published in 1803.

**A T ELLISON'S MINERAL WATER** Warehouse near  
Red Lion-Street, Whitechapel, are sold all Sorts of  
Mineral Waters now in Use, in the greatest Perfection, at  
the following Prices :

	l.	s.	d.
Bath and Scarborough Water, per Dozen	0	9	0
Bristol Hot Wells Water	0	7	0
Seltzer Water in large Stone Bottles	1	1	0
Jeffop's Well, or Stoke Water	0	8	0
Pyrmont Water, in three Pint Bottles	0	18	0
German Spa Water, in large Flaiks	0	12	0
The same in small Flaiks	0	9	0
Harrowgate Spa Water	0	12	0
Tilbury Alterative Water from the Old Well	0	10	0
Cheltenham Water	0	10	0
Sea and Tar War	0	6	c

N. B. Seltzer being perishable is sold from 14 s. to 21 s. per Dozen.  
At the same Place may be had fine Honey in Pots, at 5 d. per Pound. Genuine Spruce Beer, 12 s. 6 d. per Keg.

Figure 53  
Advertisement for Ellison's Red Lion Water Warehouse (1771), including Tilbury Alterative Water  
Source: The Gazette, 2018

#### 6.2.4 Exclusive Spa

An Exclusive Spa site was dug at a later point and generally was not situated at a previously venerated location. The people initially utilising the well would probably have been house owners who had dug the well to provide water for domestic use. The householders may have felt better after its consumption or perhaps had been spa visitors and recognised a specific smell or colour to the water which made it worthy of analysis. The site was subsequently developed as a spa location for prosperous visitors. The envisioned demographic for this site was the affluent while

its construction reflects the characteristics of Jackson's landscape Three (1984 p151), where a location is selected due to ease of access to resources, in this case, a well site and fulfils Cosgrove's (1984 p215) assertion that towns of this period were beginning to gain individuality dependent on existing resources. The site at Hockley is an exemplar of this typology. The site was initially discovered by Mr and Mrs Robert Clay in 1838, when a well was dug in their garden. The couple were formerly from Cheltenham, a popular spa town, and noticed that Mrs Clay's asthmatic symptoms were alleviated when she drank the water (Benton, 1867 p297). A simple spa facility was established at the property by a nephew of the couple, James Fawcett (Vingoe, 1999 p65). The operation caught the attention of Sir Richard Phillips, an eminent chemist, who recommended the location to A. B. Granville, an exponent of the spa industry. Phillips' initial impressions of a spa location in this part of Essex was not favourable as he stated: "Essex is a county with a bad name and when I heard of a spa being about to be established in that part of it which, like a peninsula, lies beneath the River Crouch and its marshes to the North and the Thames and its lowlands to the South, I turned my nose up at the idea," (Vingoe, 1999 p64). Fawcett and his associates invested a large amount of money into the enterprise. Although the initial intention was to build a pump room, hotel, pleasure gardens, detached and semi-detached villas, ultimately only the pump room (Figure 54), a few properties and hotel were constructed (Christy and Thresh, 1910 p57).



Figure 54  
Image showing a lithograph of the Pump Room, Hockley circa 1843  
Source: Taylor, 2017.



Hockley Spa was opened on June 8<sup>th</sup>, 1843 (British Newspaper Archive, 2018). Visitors were able to stay at the Spa Hotel. As in the case of Tilbury Alternative Water, water from Hockley was sold in London outlets such as Sheens in Vauxhall (Hembry, 1997 p97). The water was also sold at more than fifty chemists across the county (Cowell, 2001 p34). The success of the spa at Hockley was brief. Despite initial investment enabling the construction of a pump room, hotel and some villas the backers of the scheme quickly ran out of finance. A local resident asserted that: "They all lost their money, every man jack of 'em, and the company went into liquefaction" (Tate, 1899 p130). By May 1848, an advertisement concerning the sale of the Spa Hotel was placed in the Essex Herald (British Newspaper Archive, 2018). The pump room was initially used as a Baptist chapel following its demise as a pump room but also was used as a snooker hall and a clothing factory (Vingoe, 1999 p68).

### **6.3 Physical Spa Typologies**

#### **6.3.1 Rural Spa**

A Rural Spa site would have been positioned within the countryside, its location probably adjacent to a wooded area or within the field systems and had probably been appreciated by the local population for a substantial period. Again, this type of location would be synonymous with Jacksons (1984 p151) Landscape One and Cosgrove's (1999 p107) chorographical landscape. Original accessibility to the site would have been understood and, perhaps through continuous footfall, by local people, its benefits being passed down to subsequent generations through site memory. Landscape features have the potential to be regarded as special, particularly trees such as Yew (*Taxus Baccata*) which held mystical associations dating back to Pre-Christian times (Partridge, 1993). The well site at Felsted is situated near to Felsted Station, now disused. During its construction in the 1860s Roman remains were found, suggesting human habitation in the first century CE. Although there is no evidence to suggest that the Romans chose this area because of the spring, a water source would have been important to the success of any settlement. The well was subsequently used by the monks at nearby Little Dunmow Priory from the twelfth century until the Dissolution of the Monasteries in 1536, indicating a curative quality in the water (Christy

and Thresh, 1910 p27). The therapeutic qualities of the well were initially described by Benjamin Allen (1699). Although he suggested that the well had some healing properties, he also stated that the spring was so small that it could be compared to a “breeding pond”. The spring site was further evaluated by Dr Martin Trinder (1783 p55) who recommended the water be used as a universal tonic. Although the well was cordoned off in the 1830s a small path existed for the use of local people. It is unclear whether this path was intentionally crafted or was produced as local people walked to the site. The site was then subsumed into the garden wall of Priory Lodge (Figure 55) in the early twentieth century although when visited by Christy and Thresh (1910 p28) the site was still being utilised by villagers for both domestic and therapeutic purposes.



Figure 55  
 Photograph showing the well head at Felsted circa 1907  
 Source: Christy and Thresh, 1907

### 6.3.2 Urban Spa

An Urban Spa site was unlikely to have been revered by local people over an extended period but was likely to have been excavated in either the eighteenth or nineteenth century. The site would have been in an already established urban area although its construction would have led to further urban expansion. Ease of access for visitors of the site would have been of prime importance while legibility of the spa site and its immediate environs would have been essential to this site. Urban spa locations fulfil the intentions of Jacksons (1984 p151) Landscape Three and Cosgrove’s (1984 p215) assertions on urban identity. This category of well would have been utilised by the more prosperous members of society in contrast to the majority of rural sites typical

in the Essex landscape. The site at Dovercourt was originally located in the grounds of White Cliff House, a property being constructed for the local M.P John Bagshaw in 1845. While the house was under construction, a chalybeate spring was uncovered (Harwich and Dovercourt, 2018). Bagshaw contracted his architect, W.H. Lindsey, to design a magnificent set of buildings comprising of a spa building, pump room, library and museum. A local architect H. Darken submitted a design proposal for a spa building built beneath the cliff to conserve the sea views from other areas of the town (Figure 56).



Figure 56  
Image of a lithograph of Dovercourt (1854) showing Orwell Terrace in the background and the spa nestled in the cliff  
Source: Harwich and Dovercourt, 2017

The facility was opened on the same day as the Eastern Counties Railway line to Harwich, August 28<sup>th</sup>, 1854. Guests could also access the spa site via paddle steamer which then berthed at Harwich (Weaver, 1990 p39). This highlights how ease of accessibility was viewed as paramount to the success of this spa. Bagshaw intended that Dovercourt should evolve into a coastal resort. The preliminary phase of the expansion was Orwell Terrace whose completion occurred in 1857. A significant area was landscaped across the clifftop and contained a grotto, shelters and a waterfall. A garden was also established at the south end of Orwell Terrace. Bagshaw also financed the construction of a promenade whose route would lead visitors to the lighthouse (Harwich and Dovercourt, 2018). Bagshaw's intentions demonstrate his understanding of the importance of both accessibility within the urban location but also the need for the possibility of leisure pursuits both indoor and out. Dovercourt failed to evolve into the planned seaside resort

imagined by Bagshaw as he was declared bankrupt in 1859 (Harwich and Dovercourt, 2018). The upkeep of the facilities lurched along through subscriptions until 1911 when the complex was deemed unsafe and by the 1920s the site had been demolished (Figure 57) (Cowell, 2001 p48).



Figure 57

Ordnance Survey map (1923) showing the developments to the site which was previously occupied by Cliff House. The derelict spa site is to the front of this  
Source: Edina Digimap, 2017

## 6.4 Cultural Spa Typologies

### 6.4.1 Spiritual Spa

A Spiritual Spa site reflects the mystical connections people might possess with regards to a spring site, either personal or communal. This type of site exemplifies the assertions of Marciniak (1994, p148) who suggests that places are often perceived by users as spiritual if they contain water which can be utilised to alleviate their poor health. For the purposes of this research, the term spiritual will include associations with 'organised' religious groups or those of a more personal nature. It is likely that this site category will contain many of the attributes of Jackson's (1984 p151) Landscape One such as a rural location. The site at Ilford dates to the Anglo-Saxon period and was originally known as Ilfort meaning the ford at the River Hile. This river subsequently became known as the River Roding (Historic England, 2016 p6). The well site is positioned close to the Roman Road linking London and Colchester, a road which was recognised locally as a pilgrimage route during the Medieval period (Carr, 2017). The research of Christy and Thresh, (1910 p51) suggests that the site may also have been employed by a religious group

known as the Brother Bishops to baptise converts to their faith. The researcher believes that Christy and Thresh were describing a group known as the Congregation of Christian Brothers (pers Comm). Other indications of a spiritual site include the title 'Saint Chad's Well', named after Saint Chad, the first Bishop of Lichfield and patron saint of therapeutic springs (Richardson, 2000 p206) while also providing the name for the local settlement of Chadwell Heath. Although it is difficult to ascertain any anecdotal evidence demonstrating spiritual connections significant to individuals visiting this site there is much evidence to indicate collective spiritual relationships occurring within the environs of the local community.

#### **6.4.2 Historical Spa**

Although many sites allude to an enduring historical connection through their name, the Historical Spa category considers sites where the composition of the site remained relatively unchanged for the duration of the well's existence thus fulfilling the concept of Jackson's (1984 p151) Landscape One of simple vernacular communities situated in rural locations. The village of Chigwell Row was mentioned in the Domesday Book of 1086 (Open Domesday, 2018) where it was described as Cingheuualla or King's Well while the hamlet of Havering Well was named after the well site at Hornchurch (Christy and Thresh, 1910 p47). While the title 'historical spas' suggests that these sites were recognised by local people over many years, the well site was not always present as in some cases the water was not a permanent manifestation in the landscape. The well site at Upminster (Figure 58) was originally analysed by several physicians in the seventeenth and eighteenth centuries including Benjamin Allen (1699) and Martin Trinder (1783). In 1734 the owner of Upminster Hall, Champion Branfill, Esq enclosed the site with a fence although it is likely that the construction of this compound was concerned with the protection of the site rather than restricting its use (Wilson, 1880 p19). Although the site suffered a period of dilapidation, descendants of the original owner carried out repairs, lining the well with bricks and constructing a wooden fence around the location (Essex Field Club, 2016). During their visit in the early twentieth century, Christy and Thresh (1910 p31) noted that the site was derelict and overgrown although the well remained which would suggest that by this point the well had finally fallen into

disuse. An investigation by the Essex Field Club in 2016 was able to ascertain the location of the site, positioned on the edge of Tyler's Common. Although much of the surrounding area has become urbanised, the location of this site remains unchanged (Figure 58).

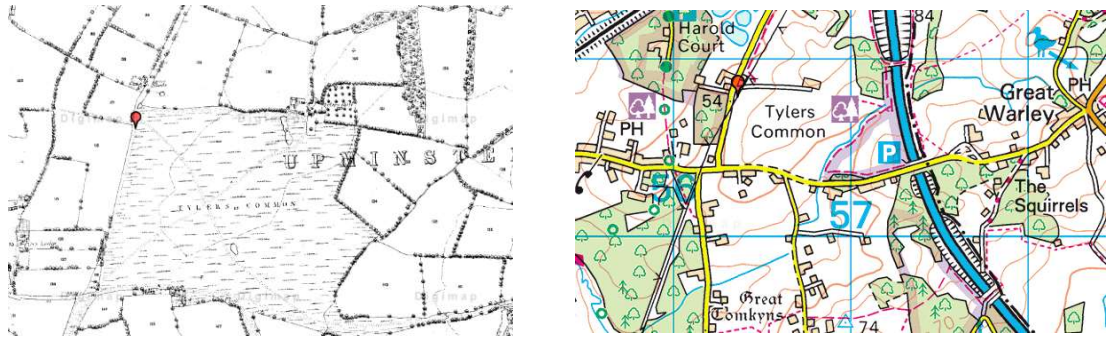


Figure 58  
Ordnance Survey map (1868) and (2018) showing the approximate location of Tyler's Well and how location has remained unchanged  
Source: Edina Digimap, 2018

## 6.5 Discussion of Spa Typologies in Relation to Case Study Sites

### 6.5.1 Discussion of Landscape Types and Site Typologies within the Essex Landscape

Analysis of the research indicates that most of the well sites listed by Christy and Thresh in 1910 were placed in rural settings with only five sites (23%) existing in an urban environment. The setting of these pastoral sites would be typical of the type described in Jackson's (1984 p151) Landscape One and Cosgrove's (1999 p107) chorographical landscape. The following Figures (59, 60, 61 and 62) present links between the case study sites in Essex and the three spa typologies: socio-economic, physical and cultural and then Jackson's landscape categories.

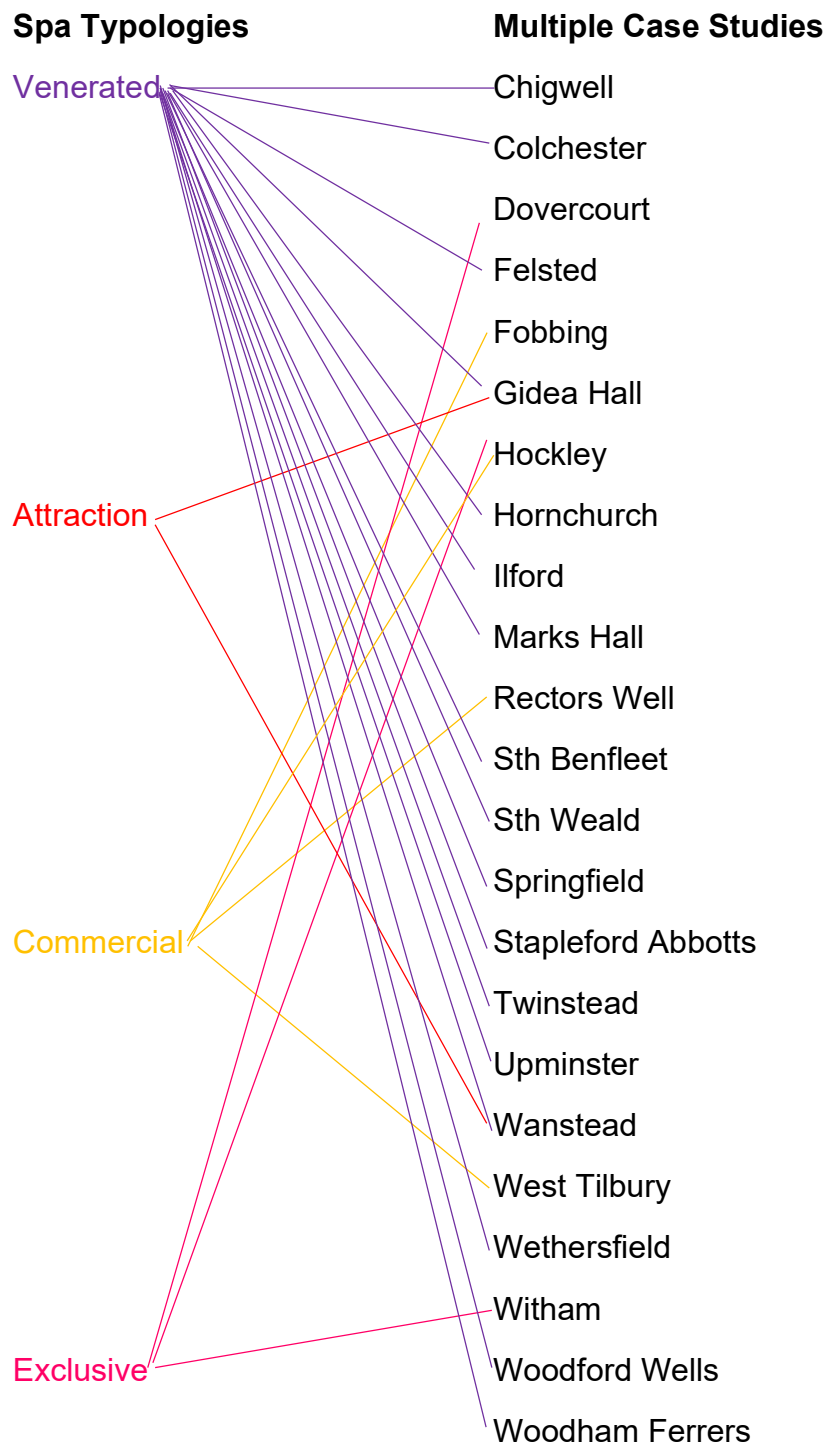


Figure 59  
 Diagram showing links between case study sites in Essex and socio-economic spa typologies

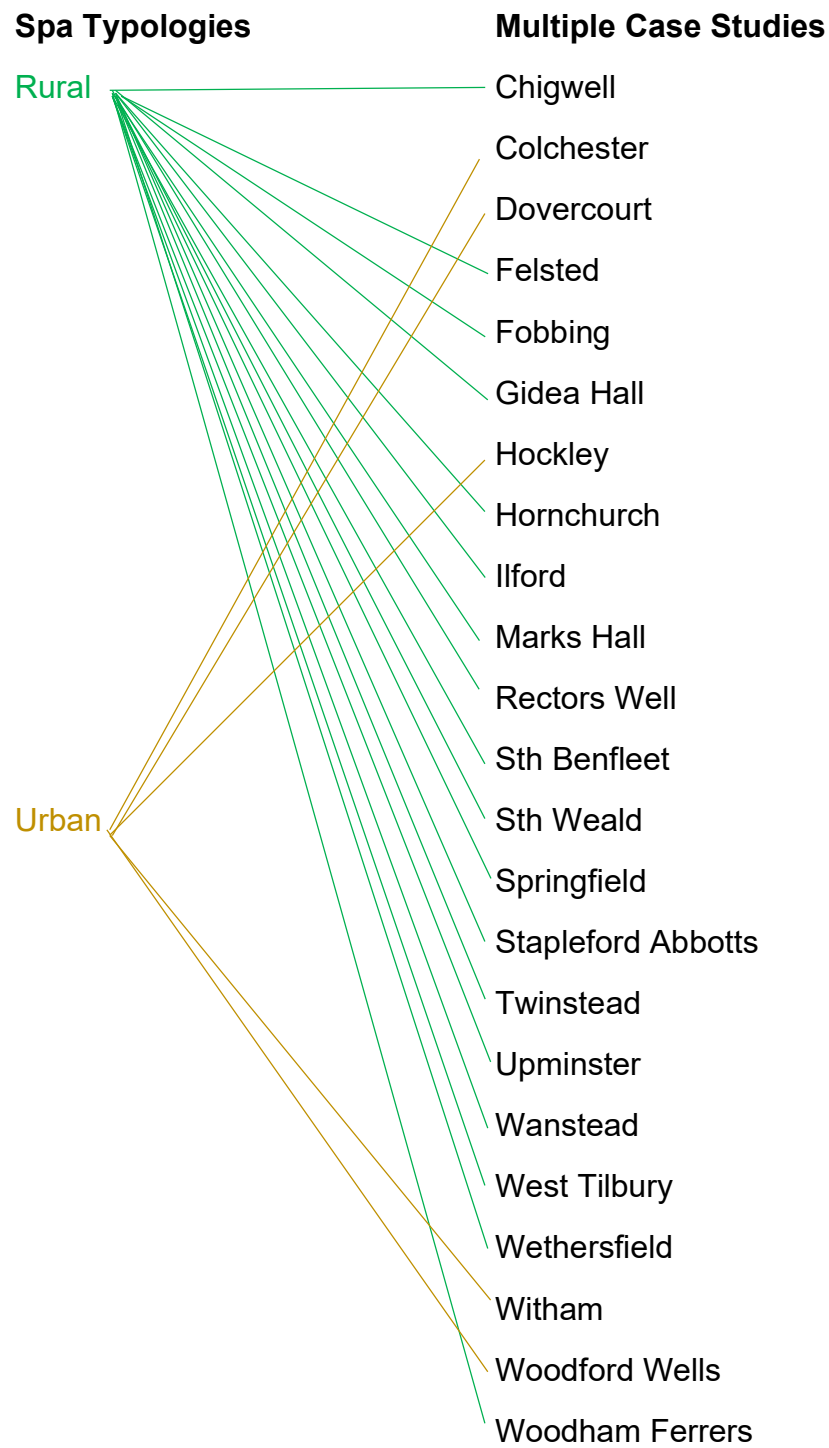


Figure 60  
Diagram showing links between case study sites in Essex and physical spa typologies



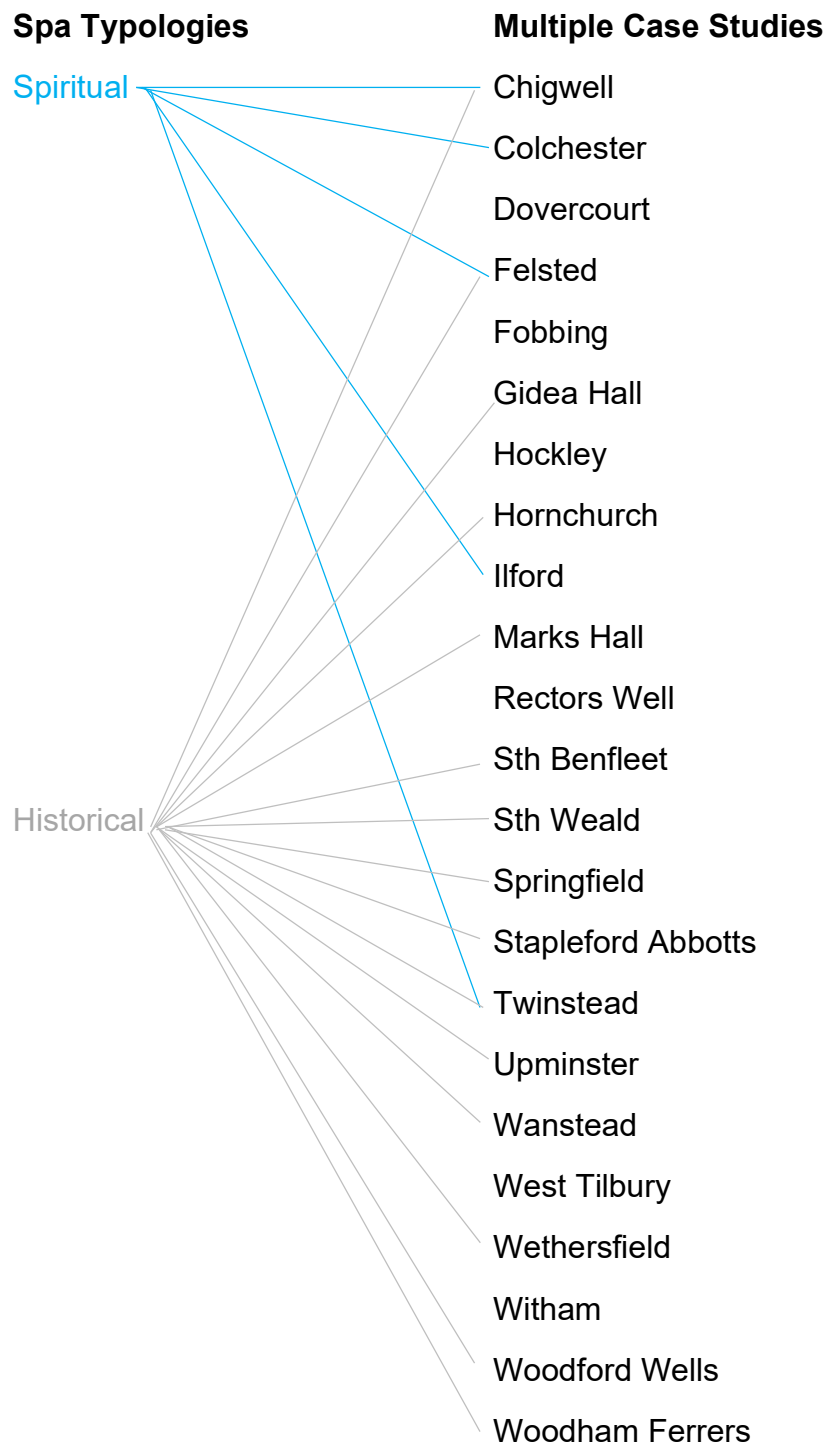


Figure 61  
 Diagram showing the links between case study sites in Essex and cultural spa typologies



(The sites at Gidea Hall and Wanstead have been included in two categories as although they were originally situated within a rural setting, their site was subsequently positioned within a planned, high-status landscape).

Figure 62  
 Diagram showing links between case study sites in Essex and the landscape categories described by Jackson, 1984

When typologies shown in Figures 59, 60 and 61 are examined in conjunction with that of landscape classification (Figure 62), it becomes apparent that rural sites, fulfilling the criteria of Jackson's Landscape One, were predominantly 'venerated' sites valued by their local community and tended to be a site that held either a spiritual or historical significance to its users. Small vernacular communities were likely to remain relatively unchanged allowing for site memory to evolve. This relates to the assumptions of Halbwachs (1992 p40) who asserts that shared memories require a group of people who develop both collective and distinct recollections. Kandel (2006 p10) states the importance of site memory to people as it allows both for the spread and growth of community values. The 'exclusive' Essex sites were all located within or on the outskirts of an urban development. In the case of both Hockley and Dovercourt the foundation of a spa succeeded in the conception of or creation of a planned urban environment with a pump room at its heart. In the case of Witham, the town was already well established with several coaching inns due to its location on the main road linking London with the port of Harwich (Figure 63). Although Witham did not evolve because of the creation of a spa, many properties in the town adapted their facades from a traditional timber frame to one more Georgian in appearance (Witham Town Council, 2017). Perhaps this was an attempt to replicate the architecture at more established spa towns such as Bath in an attempt to appear more affluent and reputable.

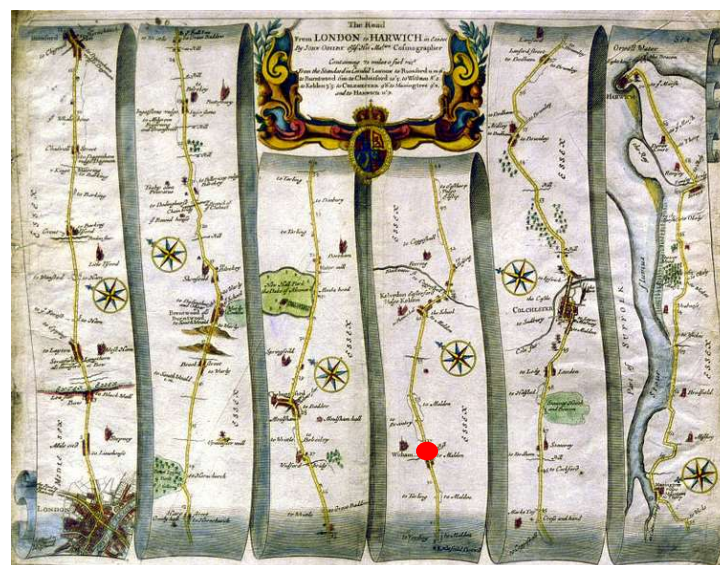


Figure 63

Photograph showing a road map by John Ogilvy (1675) showing the route from London to Harwich. The location of Witham has been marked

Source: Commons Wikimedia, 2011

Although the site at Woodford was located in an increasingly urban environment this is probably due to its location on the outskirts of London. The spring was first alluded to in 1285 (British History Online, 2016) although its exact whereabouts are unclear. The area containing the site became progressively popular with wealthy people who required an easy access to London while also wishing to enjoy more scenic surroundings. Although reference to the well site was made in 1766 through the name of the local inn, The Three Wells, the site itself did not progress in the same manner as Witham or Hockley (British History Online, 2017). By the time the area was visited by Christy and Thresh there was little evidence to suggest where the site had been and consequently two sites were proposed as potential locations. While the site at Colchester was located in an urban environment this is due to its location within the earliest recorded English town. The area was initially inhabited by the Trinovantes tribe prior to the Roman conquest and subsequent occupancy from 44 CE and was first documented as a town in 77 CE (Lambert, 2015). Even at the end of the nineteenth century there were large areas of green space found within the environs of the town. The spread of urbanism within this area becomes apparent by the 1950s (Figure 64).



Figure 64  
Ordnance Survey maps (1897 and 1952) indicating the likely well site and the extent of green space on the outskirts of Colchester in the late nineteenth century compared to the mid-twentieth century  
Source: Edina Digimap, 2018

The sites which for the purpose of this research have been defined as ‘commercial’ locations are all located in rural areas. The site at Fobbing was located on the edge of Martinhole Wood within an area of farmland but was situated near what is now known as the A13 road. It is likely that visitors to the site or transport of the water from the site would have used this thoroughfare. Both sites located at West Tilbury were situated on a hill close to the Thames Marshes. The location was also close to Tilbury Fort; an artillery fort constructed under the orders of Henry VIII in 1539 to protect the dockyards in London. There was a coaching road leading to the fort (Bingley Doyle, 1969 p1050) which was close to both well sites making transportation of goods such as mineral water convenient. The proximity of the River Thames provided another means of conveyance.

### 6.5.2 Discussion of Landscape Types and Spa Typologies Regarding Essex and English Case Study Sites

For the purposes of this research the comparison will concentrate on the largest spa sites located in Essex where site users considered the site to be a leisure resort and consequently would spend a long period of time there. It is for this reason that the sites at West Tilbury and Fobbing have been omitted as although well renowned the sites were either used for water export or for a brief visit.

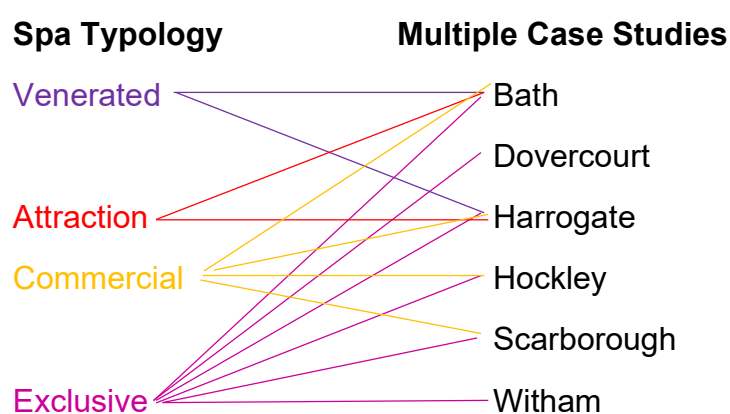


Figure 65  
Diagram showing links between socio-economic spa typologies and English case study sites

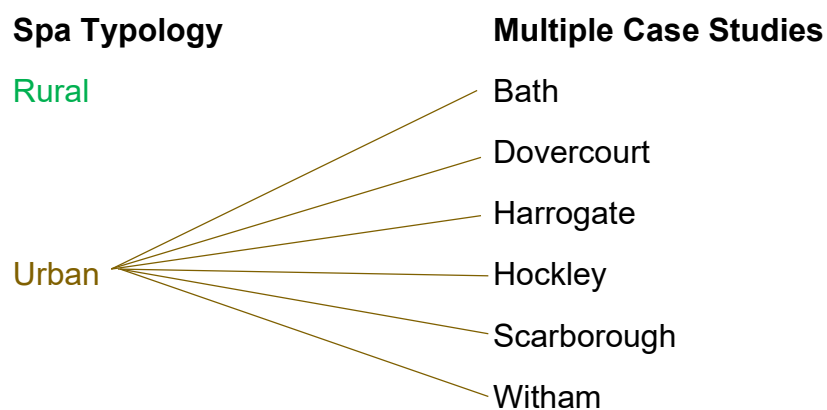


Figure 66

Diagram showing links between physical spa typologies and English case study sites

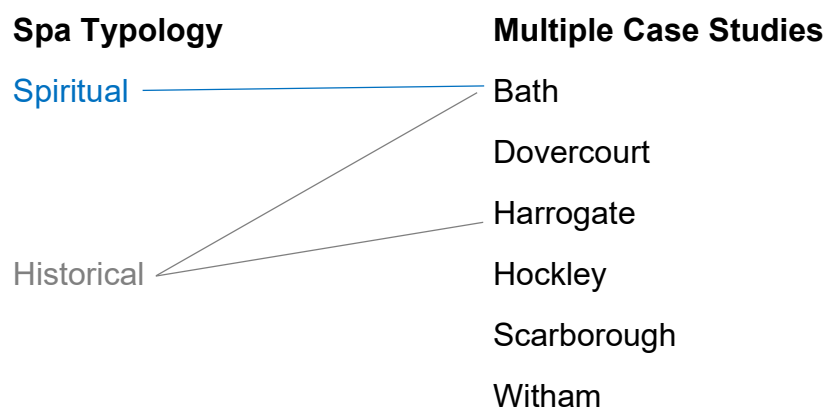


Figure 67

Diagram showing links between cultural spa typologies and English case study sites

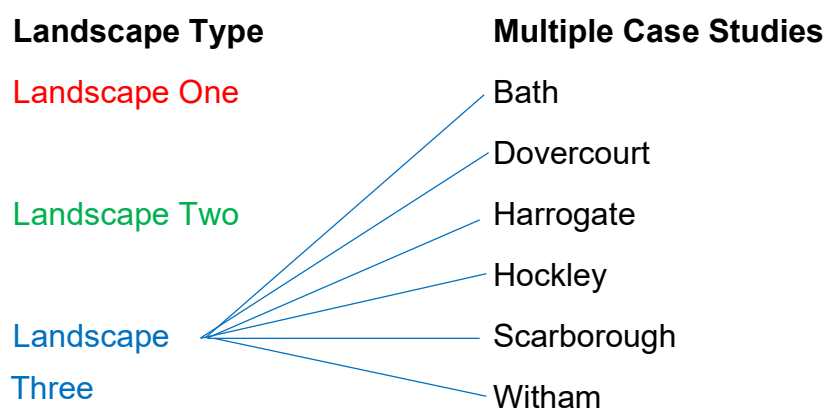


Figure 68

Diagram showing links between the English case study sites and the landscape categories described by Jackson

Examination of the socio-economic typology provides an insight into why these sites proved successful. The sites were all considered as exclusive locations, visited by the affluent for both therapy and leisure. Harrogate was a unique location due to the variety of waters present at the site which enabled visitors to enjoy a range of treatments either at the Pump Room or other locations such as the Royal Bath which offered therapies such as mud baths and steam rooms (Turkish Baths, 2013). Following a rigorous daily regimen, patrons could then spend time at a range of facilities including the Royal Hall, whose interior contained a theatre, concert rooms, billiard rooms and a promenade (Royal Hall Restoration Trust, 2017). Although a smaller location, those visiting Hockley were able to attend balls, parties or picnics in nearby Hockley Woods (Tate, 1899 p129) while the nearby hotel facilities included a coffee room (Vingoe, 1999 p68). The other socio-economic characteristics highlight the emphasis of different locations and perhaps provide some insight into their longer-term success. While accessibility of water for the less affluent may not be considered an advantage to an exclusive site the fact that the water had been appreciated by local people over an extended period of time is indicative of the value of the site and could, perhaps, be implemented as a marketing tool. Harrogate and Bath are the only locations considered to be both venerated and attraction sites. Consideration of the commercial aspect shows that Bath, Harrogate, Hockley and Scarborough perceived a value in the export of water from the site. Although the site at Hockley was unable to emulate the success of Bath, Harrogate and Scarborough, the authorities and individuals linked with these sites understood the commercial advantage of selling water at locations other than the site itself such as the water warehouses located in London. These commercial enterprises allowed the water to be utilised by a wider audience than those able to visit the site itself. From a physical perspective, it is unsurprising to note that the sites were all located in urban areas. The urban location of these sites substantiates Jackson's (1984 p151) landscape category three in which a location evolves to support the requirements of industry or the resources connected with the site. These sites, with varying degrees of success, all exhibit development connected with the therapeutic water emanating from the landscape. This supports Cosgrove's (1984 p215) assertions that from the

eighteenth-century towns were beginning to create their own unique identity, in this case, around therapeutic water.

Scrutiny of the cultural typology underlines how unimportant spiritual elements were with regards to the development of a successful English spa site. Only Bath can be considered a site with spiritual associations having initially been established as a devotional religious site dedicated to Sulis, a Celtic goddess. The Southwest of Britain, including Bath, was ruled by the Dobunni, an Iron Age tribe who believed the site at Bath to be a location where their priests were able to form attachments with the underworld. The site experienced further development of spiritual elements during the Roman invasion including a temple and bathing facilities between 60-70 CE (Bird and Cunliffe, 2006 p9). This lack of emphasis on spirituality within England contrasts with successful sites of the Classical period such as Kos and Pergamon where links to previously spiritual aspects were valued. The site at Kos was established at a revered site previously devoted to Apollo Kyparissos who transformed into a Cypress tree following his death (Theoi Project, 2017).

The English case study sites derived their success from the eighteenth century, a period when faith was generally celebrated collectively within a specified building or within a domestic environment rather than within the wider landscape. This view concurs with Hubert (1994, p1-12) who states that spiritual sites tend to have associations with the broader environment such as mountains or water sources where worshippers leave offerings. She continues by asserting that the spiritual value of the landscape has been lost in England where spiritual matters are limited to religious buildings. The emphasis at English sites, in contrast to the Classical sites, was one of therapy but also leisure, evident from the types of buildings established at these sites such as theatres, assembly rooms and coffee houses. It is perhaps more likely that those visiting the locations had more eclectic reasons for their site visit. It is interesting to note that in many cases the architecture associated with these sites was influenced by temples familiar in the Classical period. Many English sites incorporated design features such as Doric columns within the architecture of the spa buildings even in Essex as shown in Figures 69 and 70. Inclusion of classical elements while reinforcing the perception of therapeutic water being a historically



recognised concept, also supported the impression that those visiting such places were cultivated and sophisticated members of society, thus reinforcing their high status.



Figure 69  
Photograph of the Temple of Concordia, Sicily circa  
400BCE  
Source: Ancient History, 2014



Figure 70  
Image showing a postcard of the Pump Room, Hockley,  
circa 1900  
Source: Taylor, 2017

The city of Bath is the only example in the English case study sites where a sense of history was apparent, the Pump Room having been constructed on a previously Celtic and Roman site. This provided visitors to the site with further opportunities for exploration when not receiving therapeutic treatment. Bath, in common with the other case study sites, understood the value of outdoor pursuits be they walking through a planned garden such as the Valley Pleasure Gardens in Harrogate or along the promenade at Dovercourt. Although the site at Dovercourt in Essex was unable to offer patrons historical remains such as those at Bath, the site had previously been inhabited by the Romans and the spa facilities included a museum acknowledging this and displaying a selection of archaeological remains and fossils (Cowell, 2001 p44). Bath is the only English case study site to fulfil all the socio-economic and cultural typologies as well as in all likelihood being the most recognised well site in England. While Bath was fortunate to exist within a location that possessed history and a wider landscape providing ample opportunity for exploration, those overseeing the development of the spa and the town understood the importance of creating a place which combined therapy and leisure even within the setting of an Essex market town.

### 6.5.3 Discussion of Landscape Types and Spa Typologies Regarding European Case Study Sites

Analysis of the spring sites in Essex has indicated commonalities in location and the specific value placed on the location by the various user groups. It is now necessary to evaluate the typologies and landscape categories of case study sites both in England and in Europe in order to ascertain possible connections between successful spa sites and those which failed to thrive. Scrutiny of these sites will emphasise the key drivers essential to the success of the most prosperous sites.

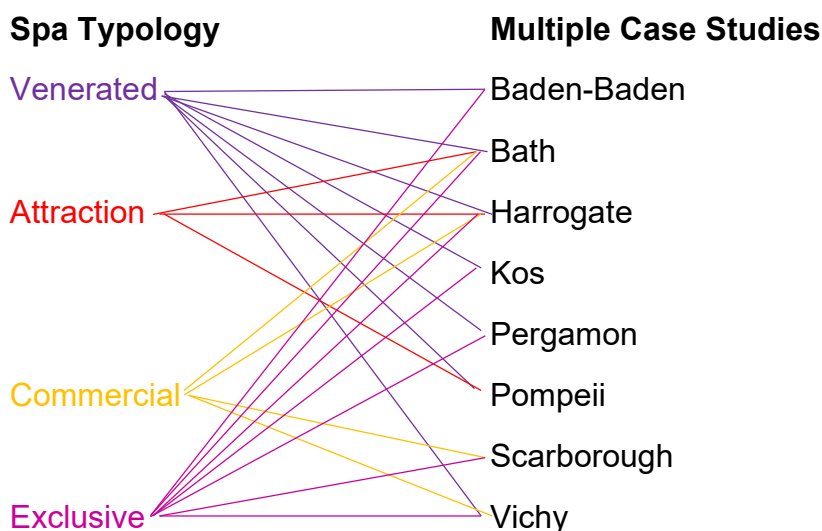


Figure 71

Chart showing links between socio-economic spa typologies and European case study sites

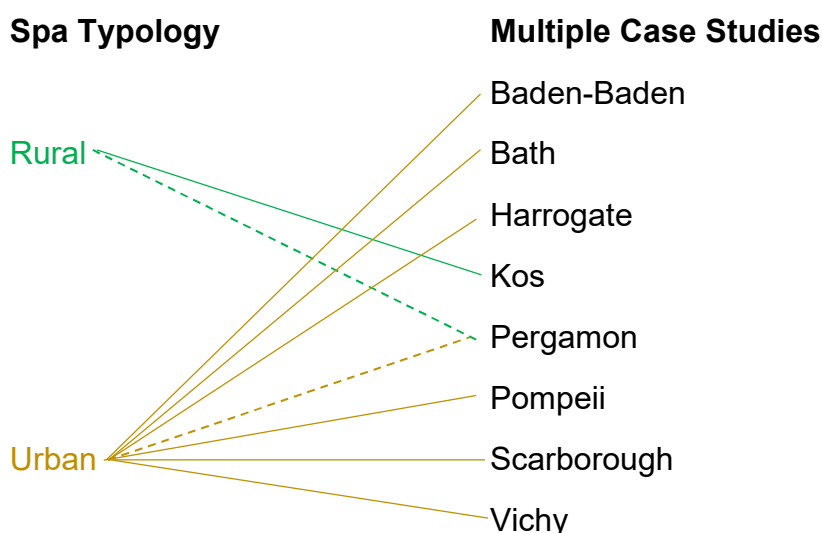


Figure 72

Chart showing links between physical spa typologies and European case study sites

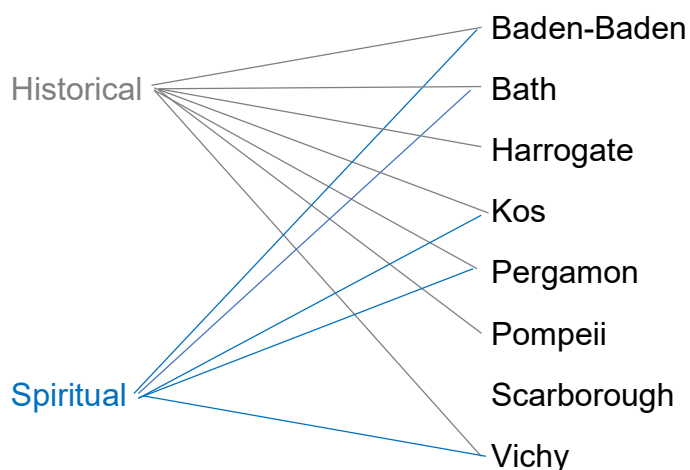


Figure 73

Diagram showing links between cultural spa typologies and European case study sites

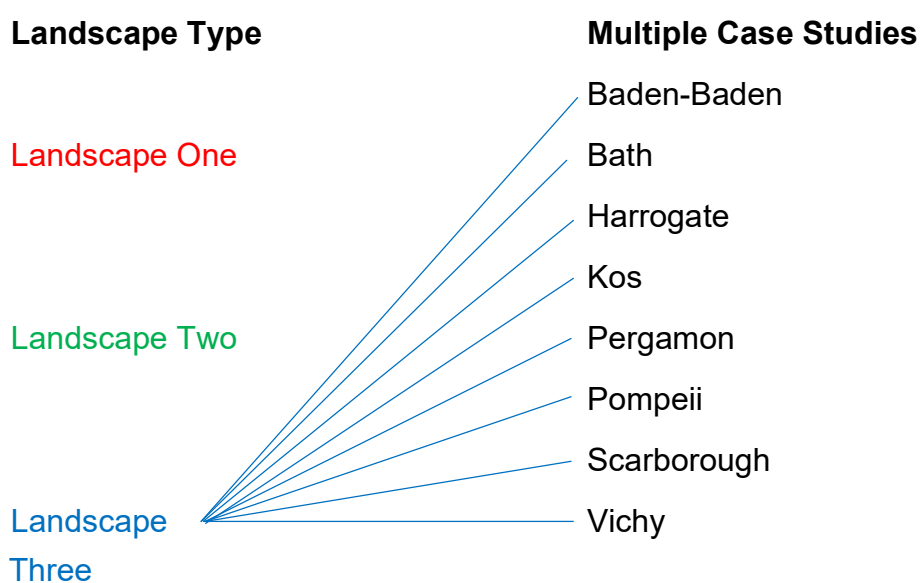


Figure 74

Diagram showing links between the European case study sites and the landscape categories described by Jackson

Analysis of spa typologies and their relationship with landscape classification has highlighted similarities and differences between the European case study sites. When examination of socio-economic typologies is undertaken with regards to European case study sites (Figure 71), it is noticeable that apart from Scarborough the locations were all initially venerated by site users indicating a long-term understanding of the curative properties of the water. Pompeii is the only case study site that fulfils the criteria of being an attraction site as it was designed to meet the

needs of different layers within Roman society rather than being geared towards the requirements of a social elite. The four public baths located there would have been accessible to all social classes and thus it would not have been unusual for slaves to utilise specific facilities at these locations (Wiederholt, 2004 p4), reinforcing the concept of a lack of social restriction. Although the sites at Bath and Harrogate made provision for access to water for the impoverished through the establishment of hospitals, such as that founded in Bath in 1742 (Mitchell, 1986 p196), or an outside pump at the Pump Room at Harrogate, these site users were kept away from those paying for treatment thus rendering the sites exclusive rather than attraction. It is interesting to note that the origins of many of the case study sites deemed to be exclusive were initially utilised by many layers of society. The site at Vichy was initially founded as part of a Célestian monastery where the infirm could be treated until 1527 when the site was acquired by the monarchy (Gordon, 2016 p38). Although the case study sites were all successful locations, in some cases still providing therapeutic treatments, only half undertook significant commercial activity. This may be because these sites understood the value in providing a therapeutic option for those unable to visit the spring. In the case of Vichy, consumers were able to obtain a range of items prepared from mineral salts. These included 'Comprimés de Vichy', a tablet dissolved in a glass of water and then drunk and the renowned 'Pastilles' which were taken before meals to alleviate dyspepsia (Raimbouville, 1898 p14). Perhaps the remaining sites had a desire to remain exclusive by restricting access to their water solely to those visiting the site or perhaps believed themselves to be sufficiently successful. Sites such as Baden Baden advertised themselves as possessing the most current treatments and state of the art facilities such as the Friedrichsbad established in the late nineteenth century, so perhaps considered investment in other areas such as export of water to be unnecessary.

The majority of the European case study sites also fulfil the criteria of a historical typology (Figure 73), having been valued for their therapeutic value for a sustained period. Although the emphasis on the manner and status of healing might have changed, the site itself was able to survive sustained usage. The majority of the European case study sites are also locations where spiritual

elements were valued, the exceptions being Scarborough, Harrogate and Pompeii. In the case of Scarborough and Harrogate this was due to the manner in which faith was celebrated in England while in the case of Pompeii, three of the public baths were privately funded and located in an area adjacent to shops and tavernas, indicating a more commercial emphasis (Koloski-Ostrow, 2004 p226). The remainder of the sites either suggest spiritual elements traced back to the pre-Roman period or, as in the cases of Vichy and Baden Baden were incorporated into monastic sites. The sites at Pergamon and Kos combined facilities focussed on healing with a variety of temples and altars, placing the need for spirituality within the therapeutic process. These sites had also developed from previously valued locations. The site at Baden Baden, originally a Roman settlement recognised for its therapeutic qualities, was typical of many places during that period having been absorbed into the Weissenberg Monastery in the twelfth century (Sanner, 2000 p17), again linking healing with faith.

Although many of the case study sites would have initially been situated in areas compatible with Jackson's Landscape One (Figure 74), they all evolved into a location where the requirements of the visitor influenced the manner in which the site transformed. While the site at Kos remained within a rural location, the site grew to meet the needs of those seeking treatment there (Figure 72). As the site became increasingly recognised, a further terrace and temple were built to accommodate the growing number of visitors (Sakula, 1984 p685). The remainder of the sites are all positioned in urban areas. This reflects the assertions of Jackson (1984 p151) and Cosgrove (1984 p215) who emphasise how locations evolve to meet the requirements of the resources found there and the people working with or enjoying said resources.

#### **6.5.4 Comparison of Typology Results for European Case Study Sites and Essex Sites**

Analysis of spa landscape typologies in combination the landscape criteria indicated by Jackson and Cosgrove suggests there were a larger percentage of European case study sites (87.5 %) which the research considers having developed as venerated sites when compared to those located in Essex (74%). This may be because several of the Essex sites, including that at West Tilbury Hall, originated as agricultural wells excavated with the intention of providing water for

livestock prior to achieving recognition as a healing well containing water suitable for human usage (Bingley Doyle, 1969 p1050). The European case study sites all existed in urban locations although 25% started as a rural site for a short while prior to considerable development. This contrasts with the Essex sites of which 78% were in a rural location which remained unchanged during the lifetime of the well. Accessibility to the successful sites, in distinction to some Essex sites where the site was reached on foot, was usually possible by road, rail or, as in the case of Dovercourt, by ship. Ease of access, however, was not a prerequisite of a flourishing location as demonstrated by the location of the Asklepion at Kos where the demanding journey to the site was perceived as a necessary pilgrimage, preparing the visitor for their forthcoming therapy (Sakula, 1984 p683).

Many of the European case study sites (55.5%) were attraction sites for at least part of their development which contrasts with a figure of 8.7% in Essex. This low figure reflects the small number of Essex sites which were visited by the wealthier classes, inferring the majority of locations were appreciated and utilised by the less prosperous while the wealthy either attended sites such as Hockley or sought treatment at locations away from the county. Half of the European case study sites retained a commercial aspect to their development contrasting markedly with the Essex sites where only 17% enjoyed a commercial characteristic. The site at West Tilbury was considered to be one of the most successful sites in Essex despite having never encouraged attendance by those seeking a cure and relying solely on export of the water to warehouses in London (Cowell, 2001 p11). The European case study sites were almost completely exclusive locations (87.5%) while only 13% of the Essex sites catered for affluent patrons. This statistic may be ingenuous as the European case study sites were all successful in contrast to the sites cited by Christy and Thresh (1910) in Essex which focussed on one county rather than a cross section of English sites. The majority of European case study sites (87.5%) possessed a definite historical background contrasting with 74% of the Essex sites. Over two thirds (62.5%) of the European case study sites were also considered to be spiritual sites in distinction to locations in Essex where only 22% fulfilled this criterion. Some of the Essex sites suffer from a dearth of information

due to their vernacular history so the figure concerning spirituality may not be wholly accurate. When the landscape type is taken into consideration, all the European case study sites fulfilled the criteria of Jacksons (1984 p151) third landscape and Cosgrove's (1984 p215) assertions regarding eighteenth century towns where a location evolves and adapts to satisfy the requirements of those inhabiting or using the resources connected with a site. Although Cosgrove was discussing English urban development it is plausible that such evolution also occurred in Europe. In contrast, only 22% of the Essex sites met these requirements with 74% of the sites being recognisable as landscape type one, a rural, vernacular landscape of working communities who held an appreciation for their society and the traditions associated with it. It is unsurprising that successful European sites evolved away from vernacular landscapes into more developed locations.

#### **6.5.5 Comparisons of the Essex, English and European Case Study Sites Using the Theoretical Model**

Analysis was also undertaken of each well site in order to evaluate whether the various attributes connected with Place Attachment Theory were compatible with each location. Low and Altman (1992 p2) describe Place Attachment as the 'bonding of people to places' while Seamon (2014 p11) defines the process of attachment as the indiscernible connection between a location and the people who function within that environment. The theoretical model divides the process of attachment into three elements, the first of which relates to societal attachment and considers aspects such as the importance of site memory and an understanding of a perceived health benefit to the success of a site. Attention was given to developmental attachment which focussed on biophilic elements associated with the evolution of well sites such as aesthetic and naturalistic concerns. These were described by Wilson (1984 p81) as 'the innate emotional affiliation of human beings to other living organisms. Examination of physical attachments was also undertaken to appreciate the importance of criteria such as geology, topography and site legibility to the success of a site. Seamon (2014 p17) suggests that place interaction not only occurs through engagement with a site but also through the construction of buildings within the location.

6.5.6 Societal Attachment

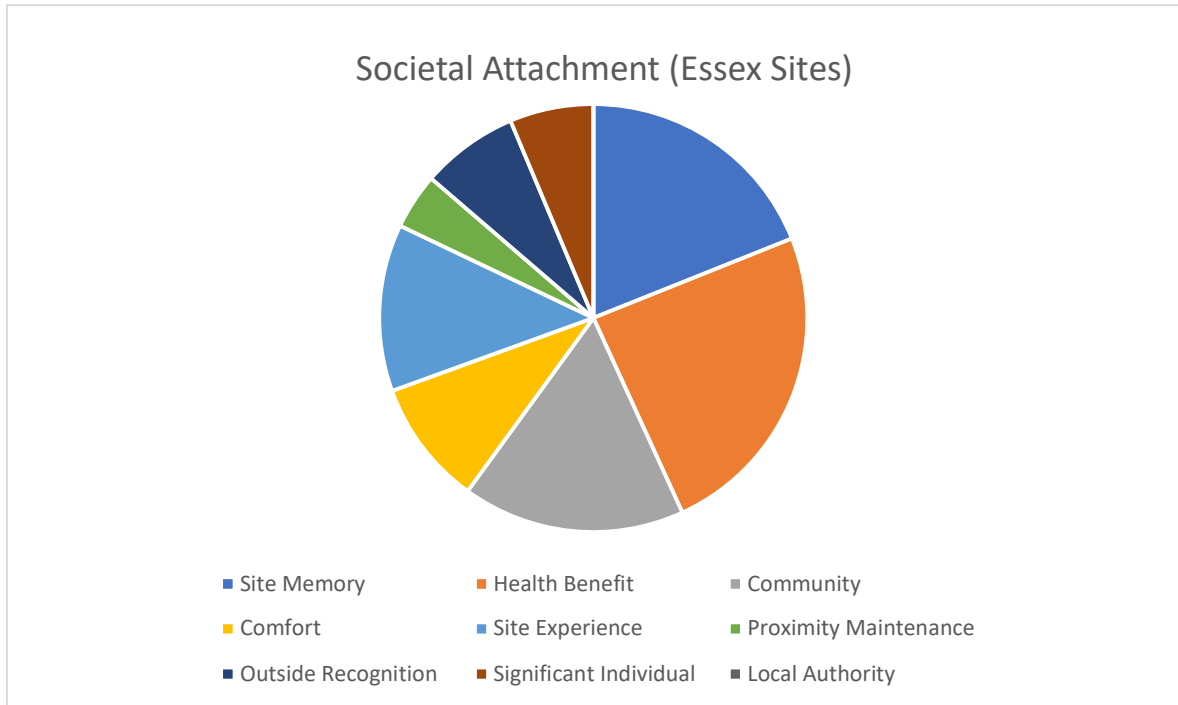


Figure 75  
Chart showing the value of societal attachments with regards to the Essex well sites

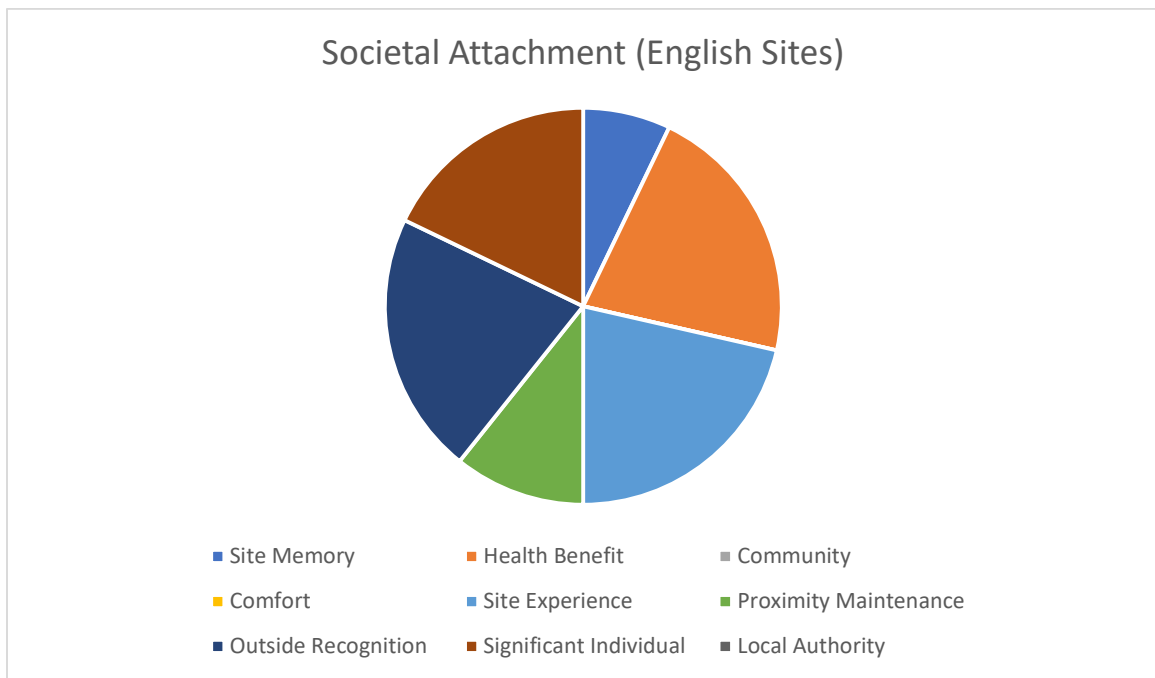
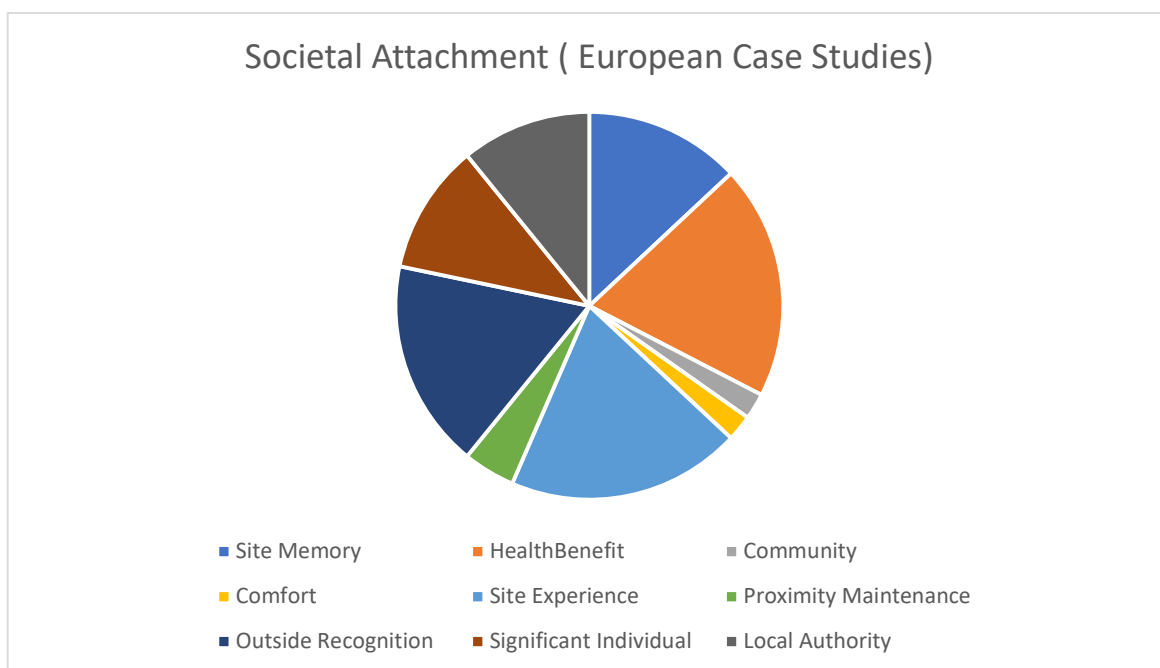


Figure 76  
Chart showing the value of societal attachments with regards to English case study sites





**Figure 77**  
Diagram showing the popularity of societal attachments with regards to the European case study sites

Figures 75, 76 and 77 demonstrate the apparent similarities and differences when considering the importance of societal attachments to the development of Essex well sites, English and European case study locations. As expected, the perceived health benefit when either imbibing or bathing in potentially therapeutic water was of importance when examining the evidence available for all categories of location. This would appear to make sense as the principal motive behind the progression of these sites was a belief that the water located there possessed healing capabilities. With regards to the Essex sites there were two further categories which reflected the behaviours and needs of the site users. The first of these was site memory, an important concept during the lifetime of many of these sites from the medieval period until the eighteenth century when the knowledge of an allegedly therapeutic water passed down by word of mouth to subsequent generations might have been more important to the success of these sites rather than the results of experiments recorded by physicians such as Doctor Martin Trinder (1783). This assertion is supported by Halbwachs (1980 p156) who described the importance of shared recollection to the development of a location. The notion of community was of importance to the evolution of many Essex sites, in this case referring to a place that was well known and shared

by the people living in close proximity to it. While the research suggests that community value was significant in the development of local well sites, the prominence of a significant individual instrumental in the evolution of successful sites was limited to five locations: Dovercourt, Fobbing, Hockley, West Tilbury and Witham. Interestingly, even in the case of the more successful Essex well sites there was negligible input from local authority organisations such as town councils or parish boards, which may have enhanced the achievement of flourishing enterprises, contrasting with analysis of the case study locations.

When comparing the English sites (Figure 76), the importance of health benefits to their success is predictable. The significance of site experience was also central to those attending these locations. The Essex sites recorded in this analysis were targeted at affluent patrons seeking a therapeutic 'experience rather than the more typical Essex well located within a vernacular landscape. Outside recognition of therapeutic qualities was important to the success of these sites, again contrasting with traditional Essex sites where site memory was a key factor in their continued development. A significant individual prepared to invest in the English sites contrasts with vernacular sites valued by the immediate community. In the case of the Essex sites this was generally an entrepreneur who understood the potential of the water located within their immediate environment such as James Fawcett and more notably John Bagshaw M. P who both discovered a therapeutic water and subsequently invested in the urban expansion of Dovercourt (Rouse, 2013 p7). In other locations, such as Bath, this individual might be concerned with the management of the site such as Richard 'Beau' Nash who was employed as Master of Ceremonies (Hembry, 1990 p136). Analysis of English case study sites indicates the irrelevance of community value to the affluent locations while site memory was also of little importance to their evolution.

Consideration of the results concerning the European case study sites highlights that the concept of site memory was of importance to half the sites while the notion of community involvement was important only at Pompeii. While many of the European sites had evolved from venerated places as in the case of Vichy, those visiting these locations from the eighteenth century onwards were

concerned with a 'resort experience' rather than considering the history of the site. A sense of community evident at Pompeii is likely to be resulting from Roman views on bathing as a ritual enjoyed by both rich and poor (Kolowski-Ostrow, 2004 p226). The diagram (Figure 77) emphasises the importance of the type of experience enjoyed by visitors while attending one of the case study sites. These locations were exclusive and attracted a certain class of patron who, in turn, expected a particular level of comfort when visiting such a site. The success of the European case study sites was also largely dependent on significant individuals who either invested in the sites, authorized taxation contributing to the development of the facilities or attracted further visitors to the resort due to their 'celebrity'. In the case of Baden Baden, eminent visitors included Queen Victoria (Sanner, 2000 p17) and Mark Twain (Clay Large, 2015 p106). The willingness of local authorities to invest in the case study resorts was also instrumental to their success. In the case of Germany, the Margraves were contributory to the evolution of spa resorts through their realisation that the taxation of attendees could enable the construction of additional facilities (Bacon, 1997 p126). The creation of organisations tasked with overseeing the regimes at spa resorts was another aspect of development by either individual or authority involvement. In the case of France, Napoleon I established the Paris Academy of Medicine to regulate spa resorts (Weisz, 2011 p137) while in Poland the Balneologic Commission was established for the same purpose (Durydiwka, 2014 p44). European sites benefitted from recognition of their therapeutic qualities and state-of-the-art facilities away from their immediate environment. This acknowledgement was achieved through a combination of significant individuals and authorities, contemporary amenities and an influx of notable attendees.

### 6.5.7 Developmental Attachment

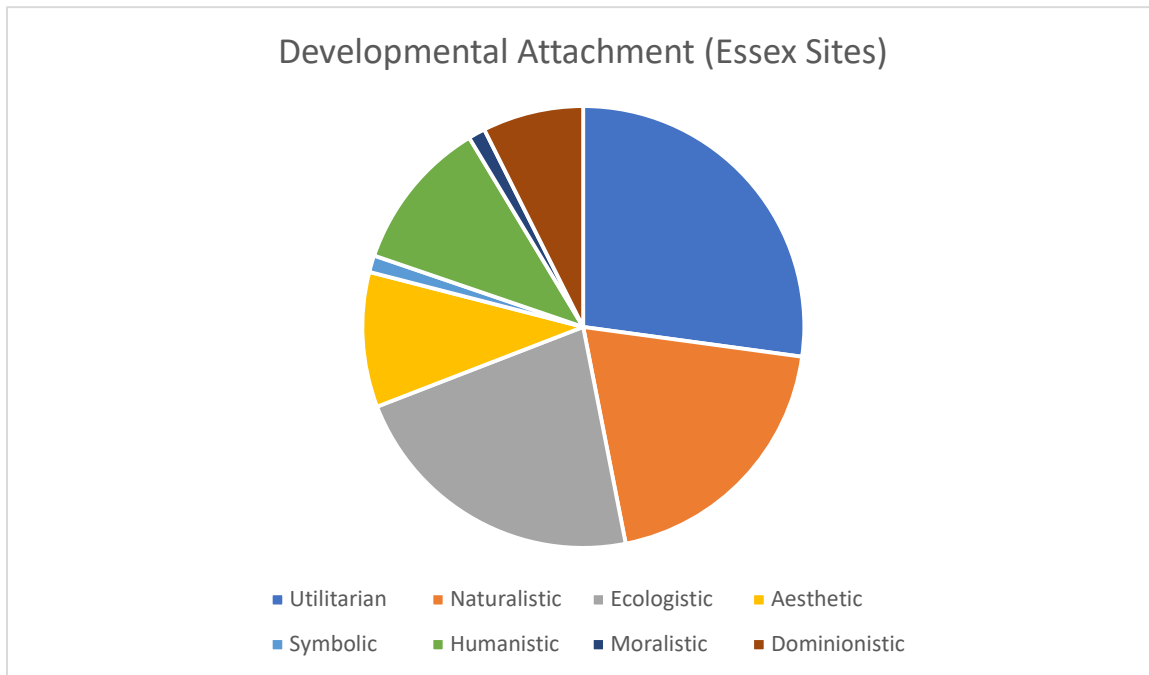


Figure 78  
Chart showing the popularity of biophilic attachments with regards to the Essex well sites

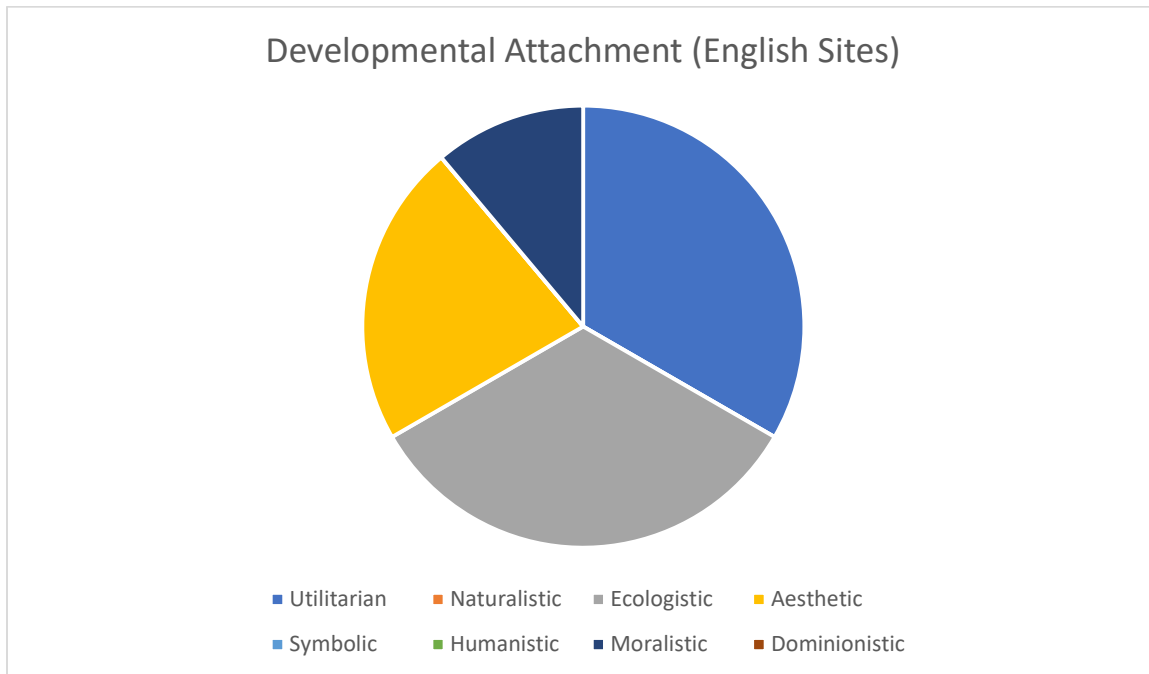


Figure 79  
Chart showing the popularity of biophilic attachments with regards to the English sites

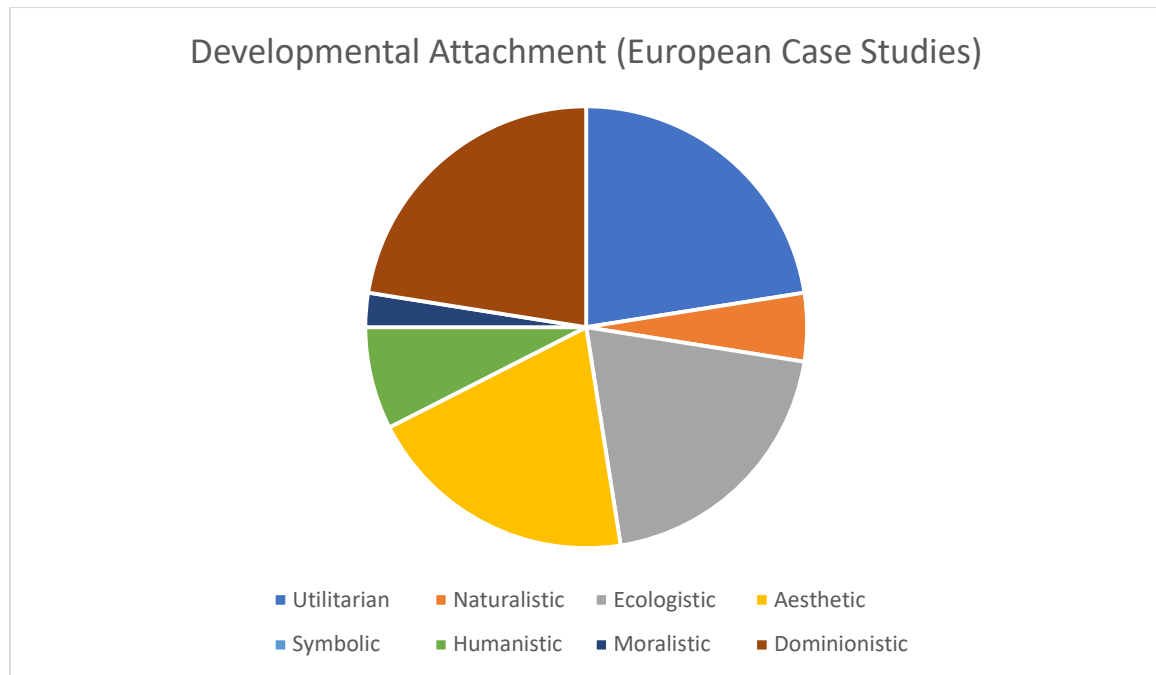


Figure 80

Chart showing the popularity of biophilic attachments with regards to the European case study sites

This diagram is concerned with the biophilic aspects of Place Attachment Theory which have been described by Wilson (1984), Kellert (1999) and Ramoie (2014) as examining the requirements of people within a natural location. When considering the biophilic elements of Essex, English and European case study sites there are again some similarities and differences (Figures 78, 79 and 80). All categories of site underline the importance of the utilitarian aspect of biophilia to spa locations. This is to be expected as this component reflects the understanding of resources at a location being used to benefit a community, either local or from further afield, in this case a perceived therapeutic water (Kellert, 1999 p45). The figures all demonstrate the importance of the ecologistic perspective to the development of a site which again would appear appropriate as there has been a recognition at all sites that the water located there had apparent healing qualities, be they understood at a rudimentary level or through analysis by a physician. With regards to Essex sites (Figure 78) the naturalistic element of biophilia is important to site attachment. This component reflects the understanding of the importance of the natural environment to the site, perhaps through particular trees growing there or the view from the site.

This appreciation of the natural landscape is supported by Gardner's (1999) description of naturalistic intelligence where people can find connections with their environment. The categories placed some emphasis on the humanistic element of biophilia which is concerned with the emotional associations linked with a site. Examples of this are South Weald in Essex where, according to the local vicar; Canon Fraser, patients from the local leprosy hospital would utilise the water (Christy and Thresh, 1910 p14) and the Asklepion site at Kos where grateful patrons would regularly make donations as thanks for their cure, an example of this being the amphitheatre at Epidaurus (Clay Large, 2015 p17).

In contrast the European case study sites (Figure 80) seems to place a greater emphasis on the dominionistic element of biophilia, a category only reflected in six of the Essex sites (Figure 78) and, according to Kellert (1999 p56), reflecting man's inherent need to control the natural world. This desire exposes the subsequent purpose of the well sites which develop into celebrated resort towns as places where the original site has been urbanised and created into a place of luxury and occasion. With regards to the European case study sites, the aesthetic element of biophilia is also foremost to site evolution, as by developing an original water source into facilities which, while being functional are also sympathetically designed, fulfils the concept of using nature to create an attractive, considered urban location. This view is supported by the philosopher F. R Tennant who, when discussing his 'Aesthetic Principle', asserted that humans have the ability to appreciate beauty existing within the natural world despite the fact it has no value when helping them with survival.

Few of the sites indicate moralistic interests such as the care and concern for the original site. In the case of the Essex sites (Figure 78) this might be due to little information regarding individual views about specific sites at a time when many people would have been unable to record their views in a permanent manner. An example of this hierarchy in literacy is the well at Wanstead which was described in a letter by John Chamberlain to Sir Dudley Carleton (1619) as being similar in taste to that at Tunbridge Wells. He continues by voicing his concerns that the well may dry up due to its popularity (Christy and Thresh, 1910 p12). We are unable to ascertain from this

letter whether Mr Chamberlain's fears derive from an awareness that the well has the potential to cure the common ailments of many people or stem from a more selfish viewpoint. His anxieties regarding the lifespan of the well are probably no different to those of other users of who, due to their social status, were unable to record their views for posterity. In relation to the European case study sites (Figure 80) many of the users were visitors to the area and thus may not have shared the same concerns regarding the long-term endurance of a water source as those residing at a location. Those familiar with a place may possess a greater awareness of the sustainability of the water found there.

### 6.5.8 Physical Attachment

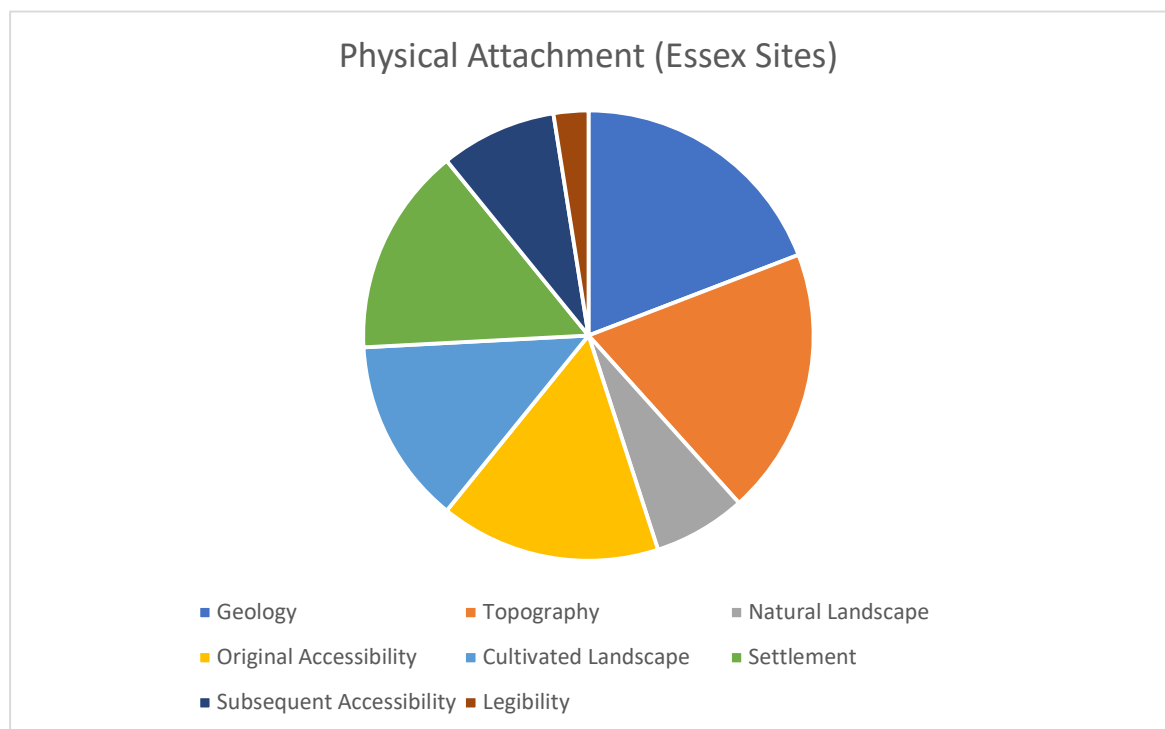
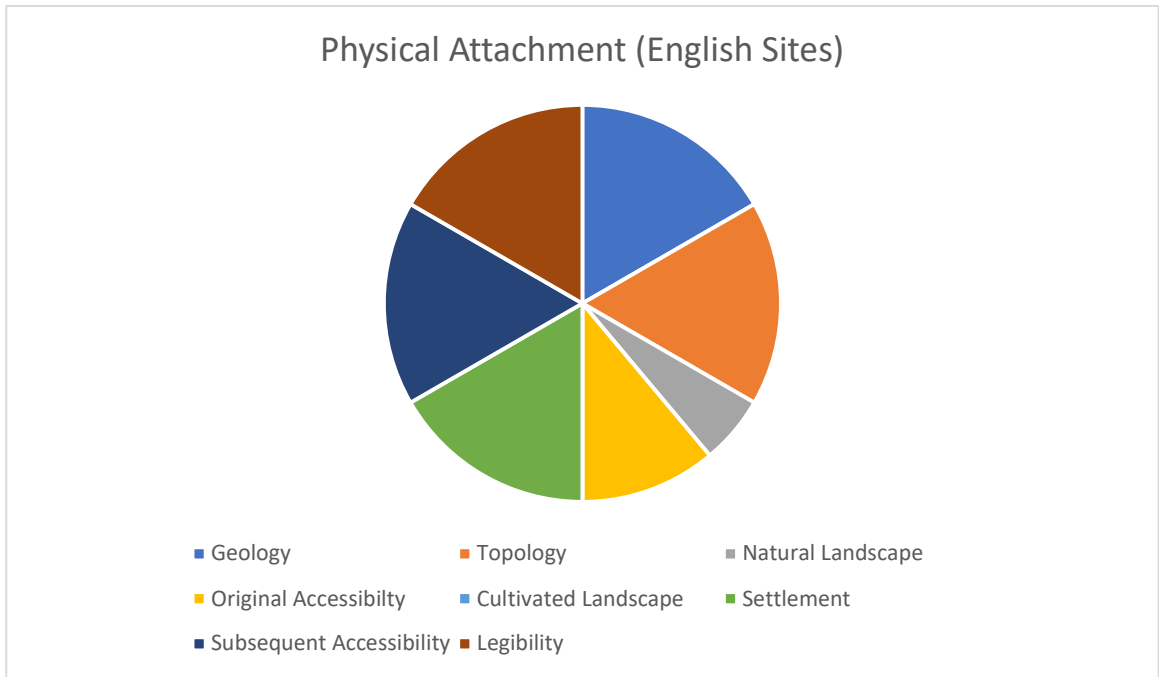
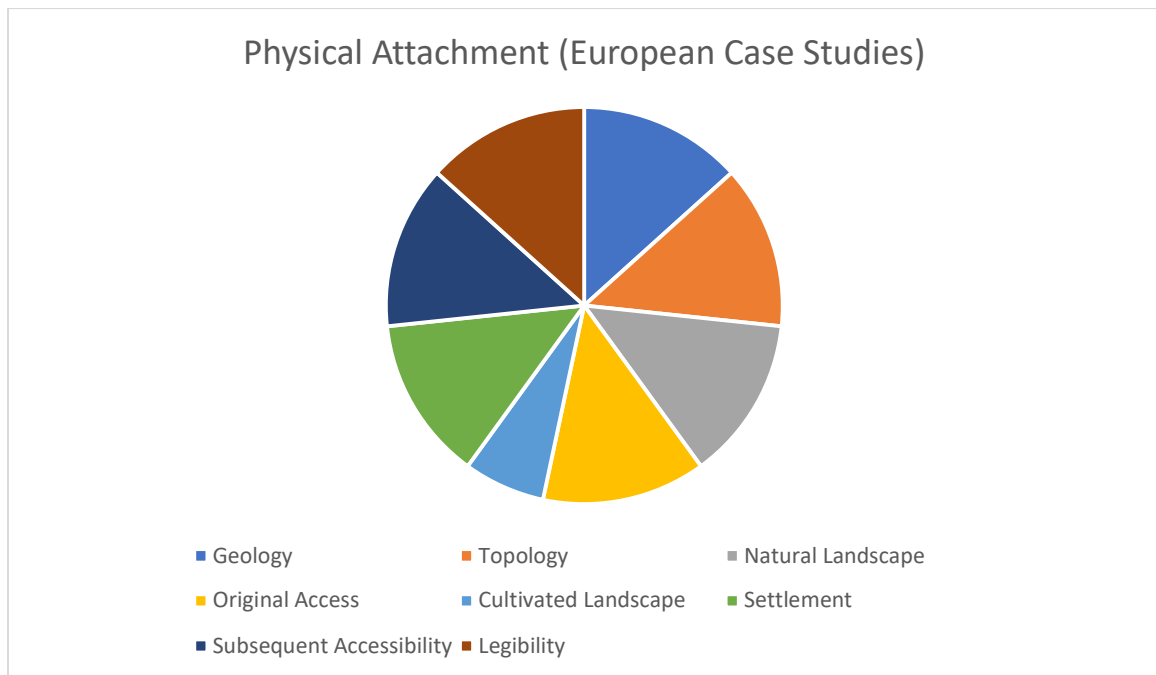


Figure 81  
Chart showing the popularity of physical attachments with regards to Essex well sites



**Figure 82**  
 Chart showing the popularity of physical attachments with regards to English sites



**Figure 83**  
 Chart showing the popularity of physical attachments with regards to European Case Study sites



When considering the significance of physical attachments to the development of Essex, English and European case study sites (Figures 81, 82 and 83) there are several categories essential to the evolution of each location. Geology and topology were principal to the progression of all the case studies regardless of size or location as without a combination of both elements, the existence of natural, therapeutic water would be impossible. The location of Baden Baden on a thermal fault within the Upper Rhine Graben is an example of the importance of tectonic activity to the formation of mineral waters (Sanner, 2000 p18). Another prominent category regarding the progression of most sites was the concept of a proximate settlement.

The four Essex sites challenging the importance of this category were all situated in farmland and in the case of three; South Benfleet, Wethersfield and Woodham Ferrers, were relatively short lived and, according to Christy and Thresh (1910), had all but disappeared by the start of the twentieth century. The final site, Fobbing, achieved recognition in the 1920s and while being situated close to farm buildings was isolated from other properties. When reflecting on the progression of Essex well sites the significance of original accessibility to site users becomes apparent. As already stated, many of the locations were situated within a vernacular landscape, designated as Landscape One by Jackson (1984 p115). Site users were likely to reside close to the well making accessibility to the site of primary importance. The category suggesting the value of a cultivated landscape was key to many Essex sites due to the vernacular nature of the location in predominantly agricultural areas. Physical attachment elements of lesser importance to the majority of Essex sites were legibility and subsequent accessibility. These elements proved to be more significant in wells that evolved within urban areas and catered for an affluent clientele such as Hockley and Dovercourt where the understanding of the arrangement of a location and how to proceed around the site were critical to patrons. Subsequent accessibility was also essential to the site at Fobbing where consumers required access to the pump room from the farm buildings.

It is not particularly unexpected to ascertain that the English and European case study sites placed greater emphasis on categories concerned with an increasingly urbanised and ordered landscape. The European sites all originated from an early settlement perhaps, as in the case of

Baden Baden, a Roman town (UNESCO 2016). The classifications associated with concepts such as site legibility and subsequent site accessibility held relevance for all the case study sites. Following his numerous visits to Vichy, Emperor Napoleon III instructed his architects to reconfigure the town in order that the main roads all led to the spa buildings, rendering navigation of the town a straightforward task for visitors (Gordon, 2012 p44). Creation of specific spa areas was similarly common in towns such as Bath and Baden Baden. The physical aspect concerning settlement is significant to many of the case study sites, a predictable outcome when the purpose of the location is considered. Sites such as Baden Baden were constructed with the requirements of spa facilities at the forefront of urban development evident from the employment of Friedrich Weinbrenner to design definite spa districts of Oos, Kurchaus and Badischerhof for the benefit of spa patrons (UNESCO, 2016).

The European case study locations all place emphasis on the natural landscape to those visiting the site. In the case of Pergamon the Kybele Sanctuary, a shrine devoted to the Goddess of the mountain, was situated across from the site. The visual link to this site was perhaps a device to engender reverential emotions in those seeking therapy. The spa facilities at Scarborough were located on the coast in an area known as South Bay. As well as using the spa facilities, patrons could partake in sea bathing or walk along the coastal paths (Scarborough Archaeological and Historical Society, 2003 p51). The component reflecting the significance of a cultivated landscape was less important to the European case studies as many of the locations had been established therapeutic sites for an extended period and had evolved into more urban locations. Pompeii, Pergamon and Kos were locations where the element of landscape was important to their initial development. Although these sites evolved from early vernacular sites into renowned therapeutic locations, their existence as classical sites resulted in a reliance on the surrounding agricultural landscape to provide sustenance for those residing within the community. Later locations such as Vichy would have found it easier to import food not locally available, an option not necessarily viable in the case of an island location such as Kos. Foxhall (1996 p65) asserts that in the case of Southern Greece, cultivated areas would have co-existed with human settlements and might

have included systems where trees, particularly Olive (*Olea europaea*) were grown in trenches on precipitous slopes, a common feature in the landscape of Kos.

## **7 Conclusions**

### **7.1 Finding Answers to the Research Question**

The research was undertaken to answer the question 'What processes contributed to the evolution of spa landscapes in Essex from spatial and historical contexts and what were the subsequent legacies of these landscapes?'. This has been achieved through answering a series of objectives which entailed an examination of the relevant literature with the intention of revealing the chronology of spa landscapes in Essex while placing them within an English and European context. An examination of the significance placed on therapeutic water by different user groups through history was undertaken through a comparison of shared themes. Analysis was undertaken to establish areas of landscape theory which were applicable to both the locations in Essex and more successful spa landscapes both in England and Europe. A scrutiny of landscape theory models was undertaken to assess their efficacy and through this it was determined that a more appropriate model needed to be devised and tested as part of this work.

While the scholar Walton (2011 p149) supports the view that the history of the inland spas of Britain is a field that has been largely disregarded, this research has focussed on revealing the place, process and legacy of hidden spa landscapes in Essex, bringing together previously undervalued and under researched information. Essex possessed several sites, including Hockley and Witham, with the potential to have developed into celebrated resorts which were well respected by eighteenth century physicians such as Martin Trinder (1783) and nineteenth century advocates of water therapy such as Augustus Granville (1841). The analysis of Christy and Thresh (1910) declared the usage of mineral waters in Essex to be virtually obsolete by the time of their analysis. This research has, through the compilation of well data sheets, created a narrative of the main well sites and discovered whether there existed common factors resulting in the failure of the spa industry within Essex as well as rediscovering landscapes that were both complex and interesting.

## 7.2 Contributions to Revealing and Understanding Essex Spa Landscapes

The collation of information regarding the sites discussed by Christy and Thresh succeeded in providing a previously unreported narrative of each site combining both chronological analysis and observations of the sites in their present state. This was then compared with evidence concerning key English and European sites, the intention being to place Essex spa landscapes within a wider context.

The research was successful in ascertaining the contribution spa development provided to the process of urban initiation within Essex locations. Information compiled in the Well Data Sheets (Appendix) demonstrated that successful English spa locations such as those at Bath, Harrogate and Scarborough flourished through the support of local authorities who understood the benefit that the associated leisure requirements offered their town, an example being the creation of the 1841 Improvement Act which allowed for the management of the spa industry in Harrogate (Hembry, 1997 p134). Analysis of information compiled in the Well Data Sheets for Essex spa landscapes indicated that similar authorities linked to Essex resorts such as Hockley failed to appreciate that investment might be necessary to allow for the eventual success of a location. Essex sites such as Hockley and Dovercourt were reliant on the capital of their investors which limited the extent of spa infrastructure which could be provided. The lack of potential of Hockley as an urban initiator can be contrasted with the resort of Southend-on-Sea, a nearby coastal town located on the northern side of the Thames Estuary whose reputation as a sea bathing resort began to grow in the eighteenth century.

In the case of Southend, the popularity of sea bathing continued into the nineteenth century, evident from a visit to the town by the writer Augustus Granville as part of his research for a travel book titled *“The Spas of England and Principal Sea Bathing Places”*. He had visited the spa at Hockley en route and had envisaged a situation where visitors there could subsequently travel to Southend for additional sea bathing therapy (Granville, 1841 p614). The Borough Council established organisations such as the Southend Pier Company and the Pier Committee with the intention of constructing and administering the organisation of the pier and the surrounding

coastline. Minutes from meeting of the Borough Council (Southend Borough Council, 1894a) demonstrate the recognition that visitors to the resort had an expectation of certain facilities.

The success of sea bathing at Southend is likely to have impacted upon the development of the spa at Hockley, located a few miles away as the town already had implemented a range of facilities and types of accommodation necessary to attract the affluent classes. The emerging spa resort at Hockley was unable to compete with a more established coastal location. It is perhaps worth considering whether Southend Borough Council simply began to finance sea bathing once it was proven to be a sound investment. While the investors at Hockley had grand intentions to create a popular spa resort comprising of a pump room, a hotel and villas, they initiated their plans at a time when sea bathing, especially in Essex, was growing in popularity. Without any forthcoming authority investment, it was sadly inevitable that visitors would seek therapy and amusement elsewhere. The legacy of sites such as Hockley and Dovercourt is one of missed opportunity rather than urban initiation.

### **7.3 New Theoretical Model and Categorisation of Spa Landscapes**

During the research it became apparent that Place Attachment Theory was an important aspect in the reasons behind the development of spa landscapes. While previous authors such as Low and Altman (1992) and Devine-Wright (2014) had created models to explain their research, it became clear that a new exemplar was necessary to interpret, explore and explain the findings of this enquiry. Much of the existing research base was directed at interpreting Place Attachment at current or future landscapes and proved extraneous to an understanding of the concept at historic locations, many of which were vernacular. Lewicka (2011 p208) has emphasised the potential confusion of Place Attachment Theory where users are attempting to place too many variables within it. For the purposes of this research, it was necessary to consider the aspects of Place Attachment relevant to both historic but predominantly vernacular spa landscapes. While the model has initially been designed with the intention of interpreting small, local spa landscapes, its use for the analysis of other vernacular sites would be possible.

Through case study research of sites in Essex it became apparent that spa landscapes, however small, are not a homogenous group but rather can embrace a range of attributes. This view develops from the research of authors such as Jackson (1984) and Antrop (2005) who assert that landscape, regardless of size, can assume a variety of forms contingent to the needs of site users. The information collated in the Well Data Sheets demonstrates that Essex spa landscapes ranged from small vernacular sites such as Marks Hall to ambitious locations such as that at Dovercourt. It is interesting to note that the site in Essex perceived by Christy and Thresh to be the most successful (West Tilbury) was not a location visited either by local people or more affluent patrons but exported the entirety of its water to the water warehouses of London or consulting rooms of physicians such as Dr John Andree and Sir Hans Sloane (Cowell, 2001 p13). Careful analysis of the site at West Tilbury led to the understanding of the variety of spa sites existing within Essex and the requirement to create a series of landscape types which accurately illustrated their properties. Evaluation of the development of spa landscapes indicated that the categorisation of spa landscapes has not previously been undertaken but is a necessary tool in appraising the range of spa types.

The research discovered that spa landscapes could be divided into three typologies: Socio-Economic; Physical; and Cultural. Each typology could be further separated into sub-categories including Venerated, Attraction and Urban. Although the typologies were created with the intention of better understanding landscape types within Essex, they could be utilised in the analysis of spa landscapes both in England and Europe. While the typologies will enable a link between certain types of resort, they will also offer insights into why some locations lacked the success of other resorts that, at first glance, appear similar.

The new Place Attachment model was initially created with the intention of providing an explanation as to why people found comfort through accessing the spa landscapes of Essex while the spa typologies presented an insight into the variety of spa locations existing within the county. Both could be utilised to further comprehend spa development in other areas of England but also

in a European context to extend the understanding of the growth particularly of small, vernacular sites within the framework of more established locations.

While the reasons for the failure of the spa industry in Essex have been set out it is important to remember that many locations still maintain some site memory, however small, in the form of street and park names or through the names of associated buildings. The research has demonstrated that the Essex spa landscapes previously discussed by eighteenth century physicians and twentieth century academics have been allowed, both through an urban expansion indifferent to vernacular history and a collective disinterest by those in a position of influence, to disappear. While it is appropriate to admit that the burgeoning Essex spa resorts were never likely to compete with resorts such as Bath or Scarborough, there is still a great deal to be learnt, admired and shared with residents of the county.



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- Cannell, E. (2019) Photograph showing the security surrounding West Tilbury Hall
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## **Explanation of Well Data Sheets**

The well data sheets record historic and contemporary information regarding the Essex well sites listed by Christy and Thresh (1910) in their research as well as successful English spa sites located in Bath; Somerset, Harrogate; Yorkshire, and Scarborough; Yorkshire. While the information contained within this appendix provides an explanation of the development of spa landscapes within Essex when contrasted with more established well sites, the intention is that each case study can exist as a stand-alone document providing a chronology of each location or, alternatively, can be studied in their entirety.

### **1. General Information**

The information listed within this category comprises of background evidence concerning each site. This classification is divided into several sections.

#### **Historic and Contemporary Name of Well Site**

Many of the well sites listed by Christy and Thresh were initially known by a name other than their contemporary one or by more than one name at various points in their history. For example, the well at Chigwell was originally known as 'Cingheuualla' (Christy and Thresh, 1910 p43) while the well at Fobbing was originally known as the Vange Well or Cash's Well No.5 (Cowell, 2001 p51). The provision of all known names for each site affords users of each data sheet with a complete record of site names.

#### **Initial Description**

The water existing at the majority of Essex well sites were initially studied by physicians in the seventeenth and eighteenth centuries including Benjamin Allen (1699) and Martin Trinder (1783). The date of these original observations is necessary to appreciate the age and period over which recognition became apparent at specific well sites. Some early research was more rudimental than that undertaken by subsequent scientists. By comparing their analysis of the sites with that

of Christy and Thresh it is possible to ascertain the continued recognition of some spring sites while appreciating the manner in which such investigation had evolved.

### **Nearest Settlement and Approximate Ordnance Survey Map References**

These provide information regarding the location of the site in relation to nearby settlements. The Ordnance Survey map reference provides an approximate location for the well site, especially where the exact location of the site is unclear.

### **Date and Time of Field Visit**

The precise time and date of the visit is recorded in order to establish the elements of the site visible on a specific date. It is possible that some sites will suffer from urban encroachment in the future. The site at Felsted is one example where this is a distinct probability as the owner of the location has been awarded permission to construct eight houses upon the original well site (Andersons, 2018).

## **2. Location Map**

This provides context as to the location of the well site within the relevant county.

## **3. Local Context**

This provides a current visual context of the well site which can be compared with the historical maps in order to ascertain the rural or urban evolution of each site. The information on this map will be contemporary to the date of the field visit. In the case of some sites, the Essex Field Group have undertaken research of the area and have provided satellite mapping of the location. These have been included to provide additional site context.

#### **4. Landscape Context**

Landscape is distinguished by an interrelating assortment of features and can reflect a large area or, as in the case of this research, the space surrounding a well site. The table communicates information of specific landscape components, both man-made and natural, such as village, railway and woodland and their approximate proximity to the well site, either one mile, five miles or ten miles away. These elements are unlikely to change dramatically but should be examined in conjunction with the contemporary information.

#### **5. Historic Access and Connection**

This examines the original accessibility of each site and the probable social demographic of potential site users. Attention will be given to the most likely method of site access while analysis of other possible means of approach will also be included. Consideration will be given as to whether accessibility was a contributory factor to the eventual success or failure of the site.

#### **6. Historic Maps**

These provide information as to whether the site originally possessed an urban, sub-urban or rural character. Historic maps provide a visual context not only of the location of the well site but also the type of landscape surrounding it. Analysis of historic maps will also provide visual evidence of man-made and natural features which have either subsequently emerged, evolved, or disappeared. Where possible, a selection of historic maps will be included for the purpose of making comparisons regarding historic site development which can then be assessed in conjunction with more contemporary maps of the same site.

## **7. Geological Map**

This presents information regarding the surface geology of each well site in the context of a specific county. Individual types of rocks and the sediment overlaying them are colour coded and classified in a legend. While this type of map will allow for a theoretical interpretation of each site, comparisons can then be made between sites across the county regarding local surface geology examining any similarities between the geology evident at different locations within the same county. A comparison of the geology present at different sites can be made to ascertain whether water with a similar geological footprint was being utilised for similar ailments

## **8. Water Analysis**

This provides information regarding the initial scrutiny of the water such as that by Doctor Benjamin Allen (1699) or Doctor Martin Trinder (1783) but also, where available, and in the case of the Essex well sites, analysis of the water by Christy and Thresh (1910). The early scientific evaluations tended to focus on the appearance of the water and the reaction of the water when mixed with a selection of natural substances such as galls. The water was sometimes heated either with other constituents such as milk or on its own. These observations differ from twentieth century examinations where observations included the geological elements likely to have resulted in specific constituents being perceptible in the spring water and whether these components would render the water as medicinal.

## **9. Alleged Curative Properties**

This presents a description of any curative effects following treatment with the water and begins with analysis of sites by Benjamin Allen (1699) and Martin Trinder (1783). Early analysis tends to include more effusive descriptions of therapy resulting in a myriad of alleged cures while that provided by Christy and Thresh (1910) tends to be more matter of fact.

## **10. Chronological Development**

Provides a chronology of the well site from its initial reference in sources such as the Domesday Book through to written descriptions of the water located there such as physicians such as Dr Martin Trinder (1783). Discussion of the site in the twentieth century by Christy and Thresh (1910) will also be included. Where applicable, discussion of further site evolution will be considered. A range of archival material will be required to provide an historical examination including map data, drawings and photographs, unpublished sources, and contemporary historical accounts of the site.

## **11. Contemporary Landscape Components**

These elements examine the existing remains of the initial spring site and consider the following categories.

### **Architecture**

This affords a record of any architectural remains which can be linked to the original well site and might include large built structures such as a pump room or smaller elements such as pipe work or fencing linked with a site. The purpose of this section is not to record subsequent architecture devoid of any links to the original site.

### **Transport Links**

This provides information concerning elements which may have been present when the well site was at its most popular, for example, a small country lane, a turnpike road or railway line and how these have evolved. Consideration will be given as to whether these links would have been advantageous to site users as in some cases, they may have been too far from the site to provide any benefit.

**Water**

Provides details regarding the existence of water likely to have been linked with the original site. As with the category regarding architecture, subsequent development of water within the site without links to the original well will not be included.

**Vegetation**

Offers information concerning green spaces linked to the original well site and might include large open spaces or woodland. Examination of historic map data will inform areas where original vegetation still exists. Information is included regarding other vegetation within the site relevant to subsequent site development.

**12. Description of the site in its current form**

Provides evidence regarding whether the well site has remained relatively unchanged or if there is little evidence of the original site due to ensuing rural or urban alteration to the location. Examination of historic map data, photographs and written accounts will help to ascertain similarities and differences with the original site.

**13. Site Memory**

Offers information regarding local awareness of the original site and might include street or school names. Taylor (2008 p1) underlines connections between landscape and site memory stating: "Landscape can therefore be seen as a cultural construct in which our sense of place and memories inhere". Such recognition demonstrates whether the original site has retained a value within its community.

# Well Data Sheet: Bath

## 1. General Information

Historic Name:	Aquae Sulis
Contemporary Name:	Bath
First Written Description:	Dr William Turner
Nearest Settlement:	Bath
Approximate OS Map Reference:	ST 75029 64375
Date of Field Visit:	3/4/2018
Time of Field Visit:	1.30pm (weather sunny)

## 2. Location Map

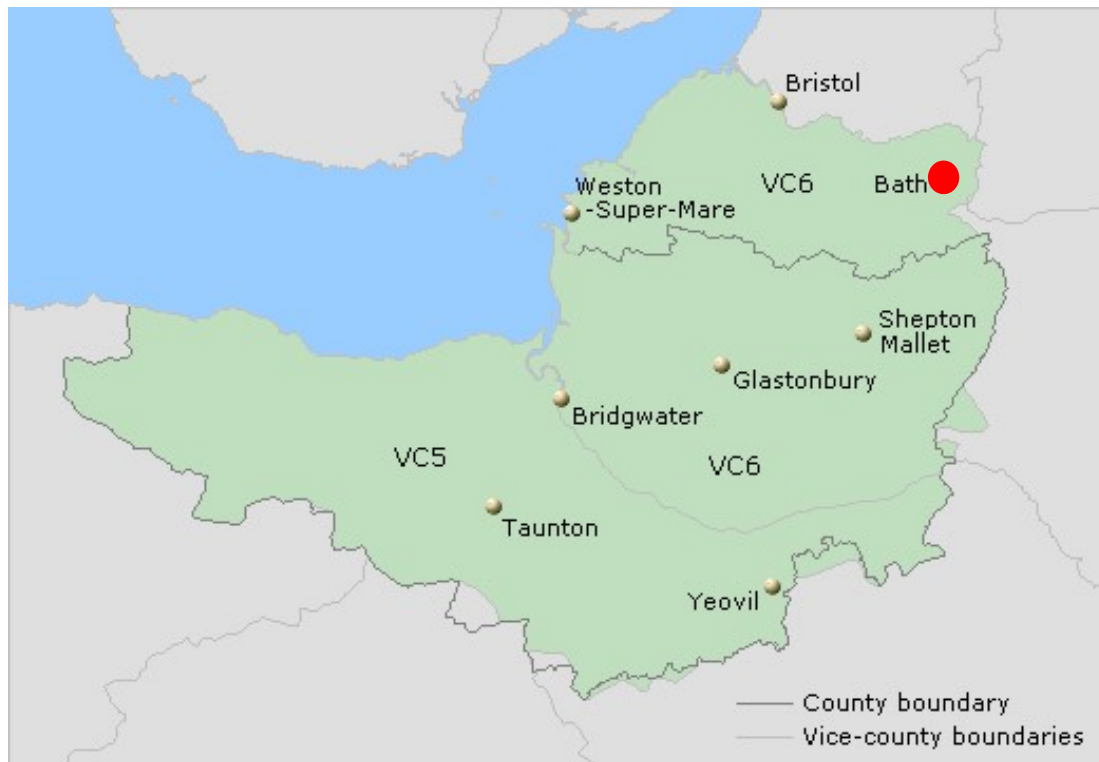


Figure 84  
Map of Somerset showing the wider context of the location of Bath.  
Source: Somerset Moth Group, 2020.

Bath is situated in the northeast of Somerset (Figure 84) approximately twenty-five metres above sea level. The location of the pump room is in an urban area (Figure 85). The wider landscape context of the site is shown in Table 7.



### 3. Local Context

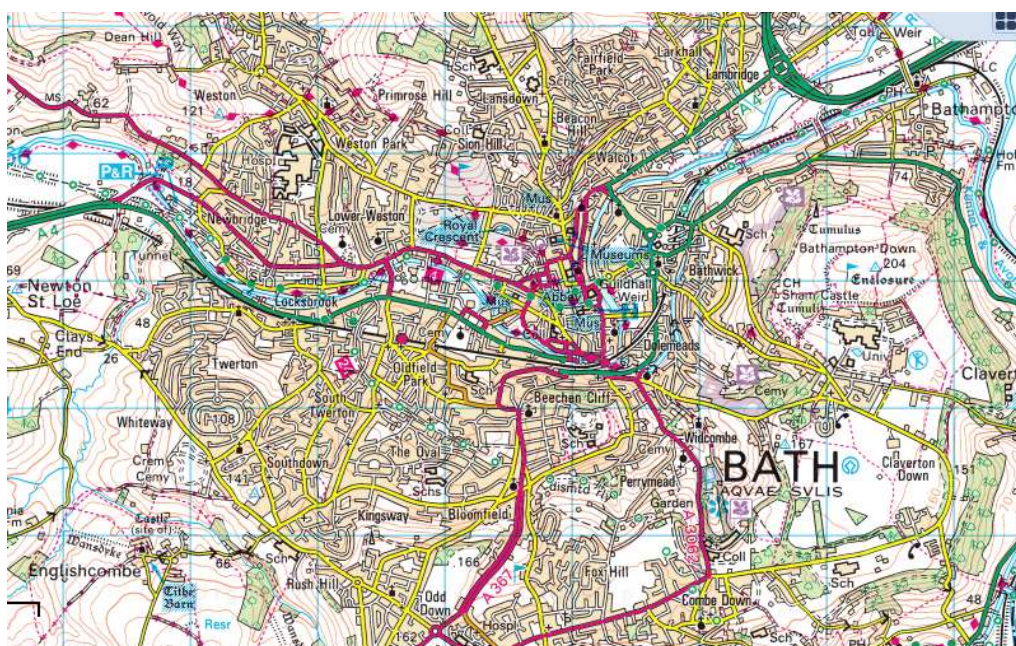


Figure 85  
Ordnance Survey map of Bath, Somerset  
Source: Edina Digimap, 2018

### 4. Landscape Context

Table 7  
Table showing the wider landscape context of Bath, Somerset

Landscape Component	1 Mile Radius	5 Mile Radius	10 Mile Radius
Village		Twerton	
Town	Bath		
Road		Kelston Road	
Railway	Bath Station		
Woodland		Bathampton Wood	
Forest			
River	Avon		

### 5. Historic Access and Connection

The site at Bath was predominantly utilised by the aristocracy who would probably have travelled to the site by carriage. The railway station was opened in 1840 but it is unlikely that patrons would have travelled in this manner as it was a mode of transport favoured by the lower classes.

## 6. Historic Maps

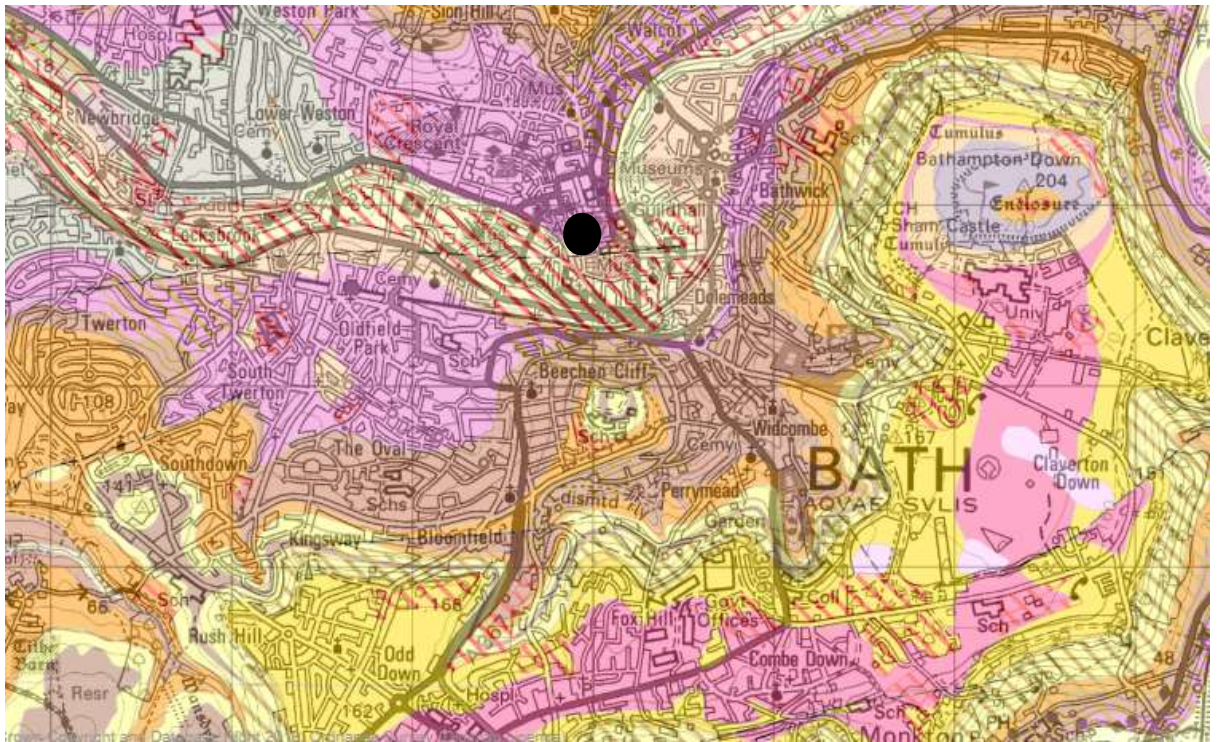


Figure 86  
Ordnance Survey map of Bath, Somerset (1805) showing the approximate location of the Pump Room  
Source: University of Portsmouth, 2018



Figure 87  
Ordnance Survey map of Bath, Somerset (1887) showing the approximate location of the Pump Room  
Source: Edina Digimap, 2018

### 7. Geological Map



	Mercia Mudstone Group - Mudstone (MMG-MDST)	Early Triassic - Late Triassic epoch		Dyrham Formation - Siltstone (DYS-SLST)	Early Jurassic epoch
	Blue Anchor Formation - Mudstone (BAN-MDST)	Late Triassic epoch		Bridport Sand Formation - Sandstone (BDS-SDST)	Early Jurassic epoch
	Blue Lias Formation - Limestone And Mudstone, Interbedded (BLI-LSMD)	Late Triassic - Early Jurassic epoch		Inferior Oolite Group - Limestone, Ooidal (INO-LMOOL)	Mid Jurassic epoch
	Penarth Group - Mudstone (PNG-MDST)	Late Triassic epoch		Inferior Oolite Group - Limestone (INO-LMST)	Mid Jurassic epoch
	Charmouth Formation - Mudstone (CHAM-MDST)	Early Jurassic epoch		Bath Oolite Member - Limestone, Ooidal (BHO-LMOOL)	Mid Jurassic epoch

Figure 88  
Map showing the surface geology of the city of Bath, Somerset  
Source: Edina Digimap, 2018

## 8. Water Analysis

The mineral water at Bath has been analysed (Table 8) and recommended by many physicians including Mr Phillips in 1806 (Forbes, 1835 p497) and Sir William Ramsay, F.R.S. (British Spa Federation, p5) in 1912. Their findings are as follows (each result is measured in grains per gallon).

Table 8  
Table comparing the analysis of water at Bath Spa, Somerset by Phillips (1806) and Ramsay (1912)

Constituent	Phillips (1806)	Ramsay (1912)
Calcium Sulphate	86.41	102.880
Sodium Chloride	31.68	23.500
Sodium Sulphate	14.40	2.030
Calcium Carbonate	7.68	0.207
Silica	1.92	8.750
Carbonate of Iron	0.02	15.800
Strontium Sulphate		9.080
Potassium Sulphate		0.120
Magnesium Chloride		1.960
Lithium Chloride		Traces
Bromine		1.600
Total Solids	142.11	165.927

## 9. Alleged Curative Properties

Phillips described the water as being colourless but that when left uncovered, it turned pale yellow. The water had a chalybeate taste when warm, but this diminished as the water cooled. The temperature of the Baths ranged from 109°C to 117°C. Phillips conducted a series of experiments on a gallon of the mineral water, including observing that when infused with nut galls, the water turned purple in colour. He indicated that if taken internally the water would alleviate symptoms of overindulgence while if used externally would ease Gout, Rheumatism, and Leprosy. Ramsay described the water as being odourless and flavourless. He stated that the water took on a green hue when stored in large amounts. Ramsay indicated that the temperature of the baths ranged between 117°C and 120°C and recommended the water for the treatment of Gout, Arthritis, nervous complaints, skin diseases and complaints of the nose and throat. The thermal nature of the water can be attributed to Carboniferous Limestone located in the area as shown in Figure 88 (Barron, 2015). Ramsay describes how even in the early twentieth century there was still a formal routine connected with taking the waters at the pump room. He described how in the winter season there were musicians playing in the pump room during the morning drinking hour while in the summer season the waters were also distributed at the Colonnade Fountain where morning concerts were given (p12). Ramsay (1912) described the varied baths which could be used in conjunction with massage and electrotherapy. He recommended that treatments should last for between three and four weeks.

## 10. Chronological Development

The water at Bath was atypical of that at other English spa resorts as a geological fault leading into the Earth's volcanic core resulted in a surface water with a temperature of 45°C (Rotherham, 2014 p20). The city of Bath became a prominent settlement during the Celtic period. There is a legend which describes the life of a Celtic prince, Bladud, who was banished from the royal court when he contracted Leprosy. The prince became a swineherd and noticed that the pigs seemed to recover from a skin condition after immersing themselves in the mud adjacent to a spring. He decided to do the same and was allegedly cured and returned to his family. When he became king, Bladud founded the city of Bath on the site of the swamp in 863 BCE (Rotherham, 2014 p36). The Romans established the town of Aquae Sulis in 43 CE close to the original Celtic town and built a large bathing complex (Figure 89). The Baths eventually covered an area of seven acres. Recent archaeology has shown that the Roman site had previously been a religious shrine dedicated to the Celtic Goddess Sulis (Rotherham, 2014 p4). Following the Saxon invasion, the site had been ravaged. The location was then re-established by Benedictine monks who founded a monastery with bathing facilities (Mitchell, 1986 p189). The site subsequently became known as Ackmancaestor, which translates as 'sick man's town' and was described by the historian Nennius as: "A hot lake... surrounded by a wall, made of brick and stone, and men may go there to bathe at any time..." (Rotherham, 2014 p5).



Figure 89  
Photograph of the Roman bathing complex, Bath, Somerset  
Source: Visit Bath, 2018

By the twelfth century Bath was beginning to gain a reputation as a place of healing. In the early twelfth century the Bishop of Bath was John of Tours who had trained as a physician. At this stage, the bathing was divided into private and public but continued to be used up until the fifteenth century (Hembry, 1990 p2). During the 1530s, the destruction of the well sites in Bath was demanded by Thomas Cromwell as they were considered to possess Catholic overtones (Neesam, 2005 p69). The well site at Bath was re-opened by Elizabeth I in 1559 in an attempt to halt the large numbers of Catholics visiting well sites in Europe (Hembry, 1990 p5). The physician Dr William Turner was important to the development of spa towns such as Bath. During the reign of Mary Tudor, he had been exiled to Europe, especially Italy and Germany. On his return, he wrote the first book describing English mineral waters titled '*A book of the natures and properties as well of the baths in England as of other baths in Germany and Italy*' (Hembry, 1990 p7). He lamented the condition of the baths at Bath which he claimed could cure more than eighty

illnesses and urged people to utilise the mineral waters in England rather than travelling abroad (Mitchell, 1986 p191).

Following the dissolution of the monasteries, Bath continued to develop as a spa town. In 1552 the crown granted all monastic lands to the corporation of Bath. During the subsequent thirty years the area around and including the Baths became civic property. After 1569 the town council began investing in spa infrastructure, for example, £4000 was spent on the stone, timber and labour required for house building (Hembry, 1990 p27). Although this type of investment was specifically for the improvement of facilities for the wealthy classes, the town was also considered a place of healing for the poor. The Poor Law Act of 1552 mentions Bath as a place where the sick could attend in search of a cure (Mitchell, 1986 p189). The growth of the city was further recognised in 1590 when it was awarded a Charter of Incorporation which provided the corporation with greater jurisdiction (Hembry, 1990 p35).

A royal connection was also important to the expansion of the city. In 1613, Anne of Denmark, the wife of James I became the first member of the royal family to visit Bath with the intention of acquiring a cure for her Gout (Hembry, 1990 p39). In the early seventeenth century Bath was becoming an increasingly popular spa town but due to its reputation was becoming increasingly congested resulting in the baths struggled to keep up with demand (Figure 90). Bath contained many medieval buildings which bordered unpaved roads while sanitary provision was still primitive. Most visitors would stay at inns, often sharing a room with other guests (Rotherham, 2014 p38). The spa industry was affected by the advent of the Civil War when the town was commissioned as a garrison town and civic money was spent on military equipment rather than influential visitors. The town was captured by Royalist troops in 1643 and was visited by King Charles in 1644. Following the Battle of Naseby in 1645 Bath was recaptured by Parliamentarian supporters. During Oliver Cromwell's reign, Bath was no longer able to function as a spa resort, but some Royalist captives and injured soldiers were able to use the waters as part of their cure. For example, in 1652 the Council of State gave £1000 for the treatment of one hundred and eighty-six soldiers in the town (Hembry, 1990 p62).



Figure 90  
Drawing of 'The King's Bath and the Queen's Bath at Bath' by T. Johnson (1675)  
Source: Bath in Time, 2018

Royal patronage increased again in the early eighteenth century, following the Restoration, when Queen Anne visited the city in order to find relief for Gout. Until this period, it was usual for patrons of spa towns to bathe in the spa water. This changed in the early eighteenth century when a physician, Dr William Oliver, began to recommend the drinking of spa water either as an

alternative or in conjunction with bathing (Mitchell, 1986 p194). The eighteenth century was a period of huge social and architectural change. In 1705, Richard 'Beau' Nash (Figure 91) arrived in the city and procured the role of 'Master of Ceremonies', a position which gave him control of the entire social etiquette. Nash had lived in London and recognised areas where the spa culture at Bath required organisation. A set of rules were drawn up for the pump room so that new visitors would be clear about their expected behaviour (Hembry, 1990 p136). Nash also worked with the corporation, discussing what the monies raised from subscriptions could be used for. His suggestions included improving road access. The enhancement to the infrastructure culminated with an Act in 1787 which sanctioned the turnpiking of roads leading into Bath (Hembry, 1990 p114). During this period architectural improvements included a new pump room (1706) and the first assembly room (1708) (Mitchell, 1986 p194). The arrival of Nash propelled Bath into a location for polite society. The continued entitlement for the poor to utilise the waters perhaps did not have the support of the many visitors to the city resulting in the repealing of the law giving unlimited access to the water in 1714 (Rotherham, 2014 p39). Although a general hospital was built, providing free access to the poor, this was not erected until 1742 (Mitchell, 1986 p196).



Figure 91  
Pastel drawing of Richard 'Beau' Nash by W. Hoare (1742)  
Source: Bath in Time, 2018

While the local geology and topology were instrumental in creating a landscape, which provided a thermal spring, it was also a contributor to the architectural style implemented in the city. Bath is famous for buildings constructed from Jurassic Limestone, a local resource. The Palladian architecture was constructed through collaboration between a local quarry owner, Ralph Allen, and the architect John Wood (Mitchell, 1986 p196). Bath became famous for a range of crescents, squares and for the creation of a formal road layout (Figures 86 and 87) (Rotherham, 2014 p39). Wood was responsible for creating the Assembly Rooms and the Royal Crescent in the 1770s (Hembry, 1990 p114). By 1789, the Bath Improvement Act provided the city council with the power to pull down areas which were poorly built and remodel the city (Manko, 2007). Within a few years the corporation of Bath realised that visitors to the town would enjoy spending time in beautiful green spaces and employed James Gale to design Sydney Gardens (Figure 92). The site included groves, waterfalls and attractive views (Hembry, 1997 p56).



Figure 92  
 Photograph of the Temple of Minerva, Sydney Gardens, Bath, Somerset c1910  
 Source: Bath in Time, 2018

By the close of the eighteenth century, Bath boasted an array of beautiful buildings including theatres, coffee houses and houses but had become the victim of changing fashions with the affluent classes (Figures 93 and 94). The fashion for sea bathing was becoming increasingly popular. King George III had begun to visit the seaside town of Weymouth in the 1780s while the Prince Regent was spending a great deal of time and money on his Pavilion in Brighton (Mitchell, 1986 p198). By 1815 Europe had become increasingly peaceful and proved attractive to spa visitors who wanted the kudos of visiting a foreign spa resort. European spas were often located in beautiful locations, near mountains, something English resorts such as Bath were unable to compete with. During her visit to Bath in 1815 Madame D'Arblay writes: "This place, with regard to superfine visitors, fills slowly, and the season is expected, not only to be late, but thin of company, from the many families that are rambling abroad" (Hembry, 1997 p56).



Figure 93  
 Watercolour of 'The Crescent', by John Claude Nattes (1804)  
 Source: The Bath Magazine, 2018





Figure 94  
 Photograph of The Crescent, Bath, Somerset  
 Source: Cannell, 2018

Spa resorts such as Bath also found a change in the intention of those visiting spas. People were beginning to move to locations such as Bath due to the attractions of a beautiful environment, a range of facilities such as theatres, libraries, coffee houses and parks coupled with a sophisticated social sphere. While this new class of resident enjoyed living in a beautiful location, the result was a reduction in the numbers visiting the city for the social season (Hembry, 1997 p6).

## 11. Contemporary Landscape Components

Table 9  
 Table describing landscape components in the vicinity of the Pump Room, Bath, Somerset

<b>Architecture</b>	The present pump room was opened in 1795 above the Roman baths which were founded on a Saxon site in approximately 75 CE. The building is currently used as a restaurant
<b>Transport Links</b>	Most visitors would have accessed the city via the turnpike road, constructed in the late eighteenth century (Hembry, 1990 p114). The main access roads to the town are based on these original roads. The city of Bath has had railway access since the mid-nineteenth century.
<b>Water</b>	There are still three baths located within this site: The King's Bath, Great Bath and Circular Bath. Elsewhere in the city the Hot Bath and Cross Bath still exist. The museum and pump room offer visitors a complementary glass of spa water (warm and sulphur heavy but not unpleasant) from the eighteenth-century tap (Figure 95).
<b>Vegetation</b>	Sydney Gardens (1793) are located in the Bathwick area of the city. They are a listed garden and have undergone recent renovation.



Figure 95  
Photograph showing the eighteenth-century pump  
Source: Cannell, 2018



Figure 96  
Photograph of a street sign in Bath, Somerset  
Source: Cannell, 2018

## 12. Description of the Site in its Current Form

The pump room is adjacent to a museum which focuses on the development of the Roman Baths. The pump room itself is used as a restaurant while elements of the site can be used as a wedding venue. The assembly rooms are now a National Trust Museum and can be hired for weddings and have been used as a film set for both 'The Duchess' and 'Persuasion' (Baber and Birch, 2018). The Guildhall houses both the register office and Mayor's parlour but also has rooms available for hire. The city celebrates the Georgian era during the annual Jane Austen Festival much of which takes place at locations such as the pump room and assembly rooms.

## 13. Site Memory

The city of Bath is justifiably proud of both its Roman and Georgian heritage. There are several museums dedicated to both these periods of history. Street signs located in the areas of the city designed by John Wood the Elder pay tribute to his design (Figure 96). Finials located on buildings in the royal crescent have been carved in the form of acorns in recognition of the origins of Bath when Prince Bladud was a humble swine herd (Figure 97). Further recognition of the architect is evident in the street names 'John Street' and 'Wood Street'. The importance of therapeutic water is evident from locations such as the Royal Mineral Water Hospital (Figure 98) and street names such as Beau Street and Hot Bath Street which indicate the value of spa water to the city.



Figure 97  
Stone finial carved in tribute to John Wood the Elder  
Source: Getty Images, 2018



Figure 98  
Façade of the Royal Mineral Water Hospital, Bath, Somerset  
Source: Bath Newseum, 2013

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Cannell, E. (2018) Photograph of the Royal Crescent, Bath, Somerset

# Well Data Sheet: Chigwell Row

## 1. General Information

Historic Name:	Chigwell Row Spring, Cing Well
Contemporary Name:	Chigwell Row Spring
First Written Description:	Morant, 1768
Nearest Settlement:	Chigwell Row
Approximate OS Map Reference:	TQ 4597 92562
Date of Field Visit:	27.5.2017
Time of Field Visit:	12.40pm (weather sunny)

## 2. Location Map



Figure 99  
Map of Essex showing the wider context of the location of Chigwell Row  
Source: Althistory, 2017

The site is situated in an urban area of southeast Essex (Figures 99 and 100). Chigwell Row is located approximately fifty metres above sea level. The wider landscape context of the site is shown in Table 10.

### 3. Local Context



Figure 100  
Ordnance Survey map of Chigwell Row, Essex showing the location of the Chigwell Row Spring  
Source: Edina Digimap, 2017

### 4. Landscape Context

Table 10  
Table showing the wider landscape context of the well at Chigwell Row, Essex

Landscape Component	1 Mile Radius	5 Mile Radius	10 Mile Radius
Village	Chigwell Row		
Town		Romford	
Road	Manor Road		
Railway	Grange Hill (1903)		
Woodland	Daylop Hill		
Forest	Hainault Forest		
River		River Roding	

## 5. Historic Access and Connection

The rural location of this well (Figures 101 and 102) and the period of its popularity demonstrate that this well was probably used by local people who travelled to the site on foot.

## 6. Historic Maps



Figure 101  
Ordnance Survey map of Chigwell Row, Essex (1805) showing the approximate location of the  
Chigwell Row Spring  
Source: University of Portsmouth, 2017

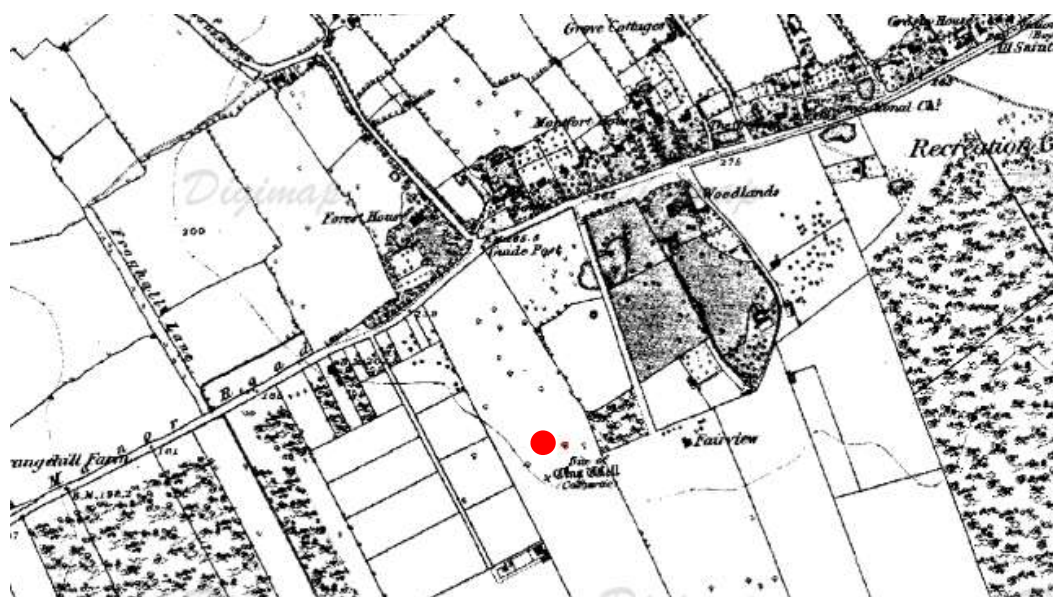


Figure 102  
Ordnance Survey map of Chigwell Row, Essex (1881) showing the location of the Chigwell Row Spring  
Source: Edina Digimap, 2017



## 7. Geological Map

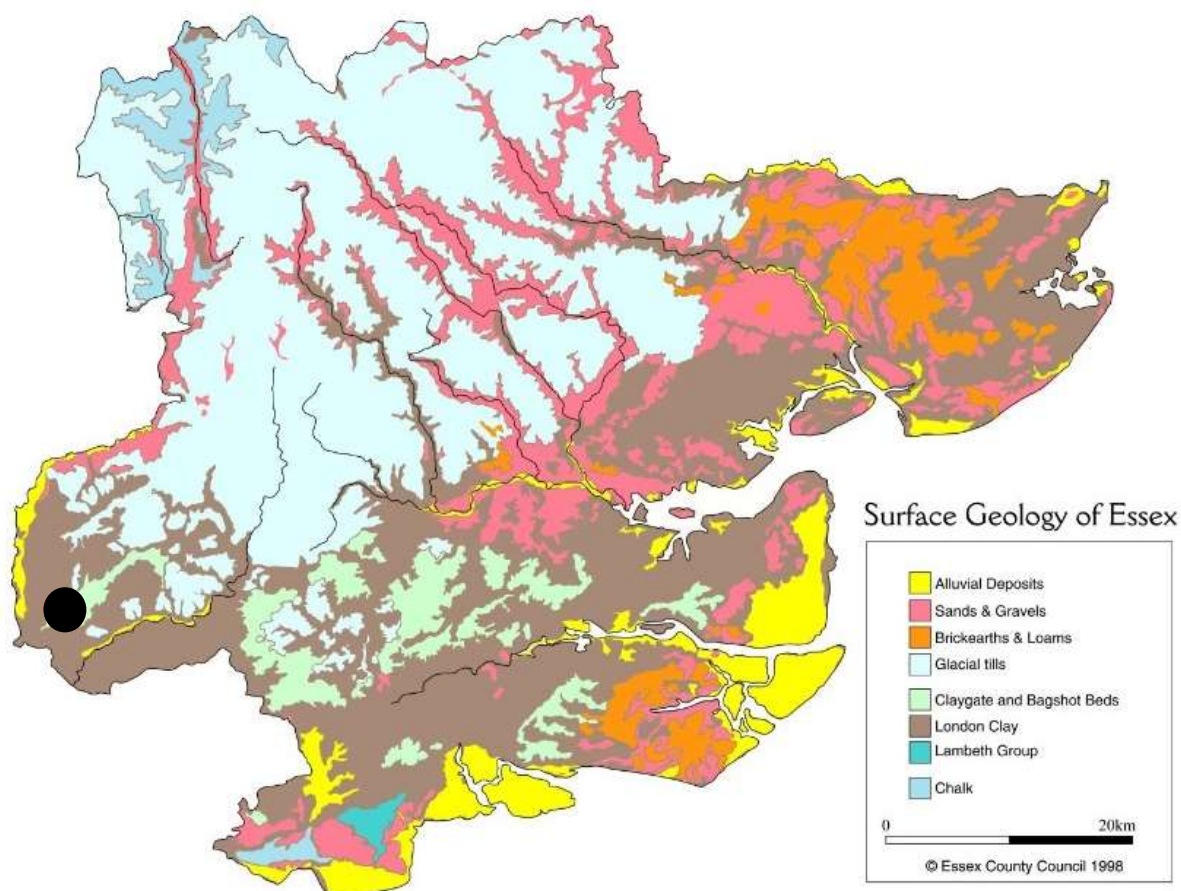


Figure 103  
Map showing the surface geology of Essex and location of Chigwell Row on London Clay and Bagshot Beds  
Source: Geo Essex, 2016

## 8. Water Analysis

Although the water at Chigwell Row was analysed anonymously in 1775, the likely analyst being Martin Trinder, this study focussed on the behaviour of the water when mixed with other components rather than the constituent parts of the water itself. Unfortunately, this pamphlet was never published, and there are only scant details held in the archives of the Essex Field Club. The well was subsequently studied by Phillip Morant (1789) who described the site as a 'purgative spring' (Foord, 1910 p131). An elderly resident of the area informed Christy and Thresh that a local physician called Doctor Reeve declared the water 'as good as any medicine as a purgative' (Christy and Thresh, 1910 p45).

Christy and Thresh were unable to collect a sample of the water for analysis as the well had been filled in at the end of the nineteenth century. It is therefore impossible to ascertain whether the water did possess purgative qualities. Christy and Thresh and their colleague Mr Dalton suggest that in the area of the spring the London Clay is laying at a thickness of 400ft so the water may be credited to the sandy beds of the Bagshot Sands (Figure 103).

## 9. Alleged Curative Properties

The well Chigwell was originally described as having cathartic properties in the late 17<sup>th</sup> century. It was subsequently described by Dr Frewin and Philip Morant as being a purgative water. This would suggest that the water was used as a laxative. Although the well was no longer in existence by the early twentieth century, an elderly resident indicated that the water was known for its emetic attributes (Christy and Thresh, 1910 p45).

## 10. Chronological Development

The village of Chigwell Row is mentioned in the Domesday book where it is described as Cingheuualla or King's Well. The first actual mention of a medicinal well was in the late seventeenth century when a well with Cathartic properties is mentioned (St Mary's Church, 2017). It is likely that this well was initially used by local people as the spring was not described in print until 1768 by Philip Morant (Christy and Thresh, 1910 p43). The spring was located behind a windmill, surrounded by trees, on the south side of the main road in a large meadow known as Park Field (Figure 104) (Cowell, 2001 p64).



Figure 104  
Ordnance Survey map of Chigwell Row, Essex (1898) showing the location of the Chigwell Row Spring  
Source: Edina Digimap, 2017

Prior to this, the merits of the spring had been advocated by Dr Richard Frewin (1681-1761) who was born nearby and was a regular visitor although the historian A. S. Foord (1910 p131) asserted that he was not as highly considered as physicians such as Trinder or Allen. By the time the well was visited by Christy and Thresh in 1907, there was only a hollow indicating where the well might have been. While in conversation with a local resident, Mr College, Christy and Thresh discovered that the well had been located in a hollow place, bricked round the edges and with steps leading into the water. Any superfluous water was passed through pipes into a nearby ditch. Mr College described how the well had been drained and filled in during the 1880s (Christy and Thresh, 1910 p44). Christy and Thresh subsequently discovered a draft of an anonymous pamphlet referring to the well at Chigwell Row. They attributed this work to Dr Martin Trinder (1747-1818) following the style of writing, the experiments undertaken and the fact that Trinder lived in Romford, approximately 4 miles from the well (Essex Field Club, 2017).

## 11. Contemporary Landscape Components

Table 11  
Table describing the contemporary landscape components in the vicinity of the Chigwell Row Spring, Essex

<b>Architecture</b>	It is unlikely that the original site contained any buildings given that it was utilised by local people. The current architecture is synonymous with a housing estate and school (Figure 105).
<b>Transport Links</b>	The site is located in an urban area. Although the site has reasonable transport links due to the urban nature of the area, these would have been established after the spring. It is likely that the site was accessed by foot.
<b>Water</b>	There was no water visible at the site, the location of which in the grounds of a school.
<b>Vegetation</b>	The site is located in a housing estate. The vegetation visible within the location is typical of a housing estate, consisting of gardens, grass verges and trees planted at the roadside (Figure 106).



Figure 105  
View of the architecture at the Chigwell Row Site  
Source: Cannell, 2017



Figure 106  
View of the vegetation at the Chigwell Row Site  
Source: Cannell, 2017

## 13. Site Memory

Although the housing estate contained no evidence of the well site in the form of street names, the school located just behind the site is called Wells Park School (Figure 107).



Figure 107  
Sign located at the side of Wells Park School, Chigwell, Essex  
Source: Cannell, 2017

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### Unpublished

Cannell, E. (2017) Photograph showing the architecture at the location of the Chigwell Row Spring.

Cannell, E. (2017) Photograph showing the vegetation at the location of the Chigwell Row Spring.

Cannell, E. (2017) Photograph showing signage at Wells Park School, Chigwell Row.

# Well Data Sheet: Colchester

## 1. General Information

Historic Name:	St Anne's Well
Contemporary Name:	The Colchester Spring
First Written Description:	Benjamin Allen, 1699
Nearest Settlement:	Colchester
Approximate OS Map Reference:	TM 01159 25437
Date of Field Visit:	4.6.2017
Time of Field Visit:	12.15pm (weather dry)

## 2. Location Map



Figure 108  
Map of Essex showing the wider context of the location of Colchester  
Source: Althistory, 2017

The site is situated in an urban area in the northeast of the county (Figures 108 and 109). Colchester is located approximately eight metres above sea level. The wider landscape context of the site is shown in Table 12.

### 3. Local Context

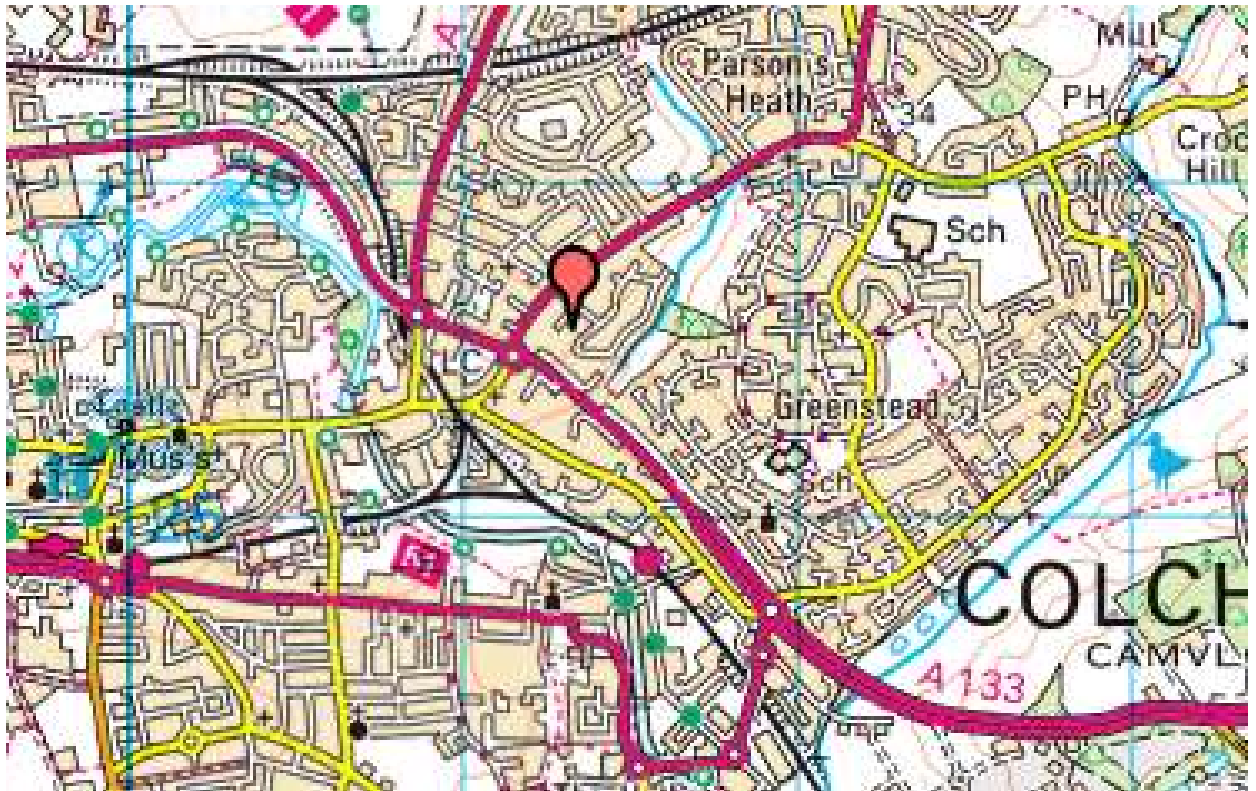


Figure 109  
Ordnance Survey map of Colchester, Essex showing the possible location of the Colchester Spring  
Source: Edina Digimap, 2016

### 4. Landscape Context

Table 12  
Table showing the wider landscape context of Colchester, Essex

Landscape Component	1 Mile Radius	5 Mile Radius	10 Mile Radius
Village	Greenstead		
Town	Colchester		
Road	Harwich Road		
Railway	Colchester		
Woodland	Welsh Wood		
Forest			
River	River Colne		

### 5. Historic Access and Connection

There is very little written about this spring which suggests that it was used by a restricted group of people, possibly living within walking distance (Figures 110 and 111). The lack of written evidence makes it difficult to ascertain the exact reasons for the popularity of this site.

## 6. Historic Maps



Figure 110  
 Ordnance Survey map of Colchester, Essex (1805) showing the likely location of the well site  
 Source: University of Portsmouth, 2017



Figure 111  
 Ordnance Survey map of Colchester, Essex (1876) showing the possible location of the Colchester Spring  
 Source: Edina Digimap, 2016

### 7. Geological Map

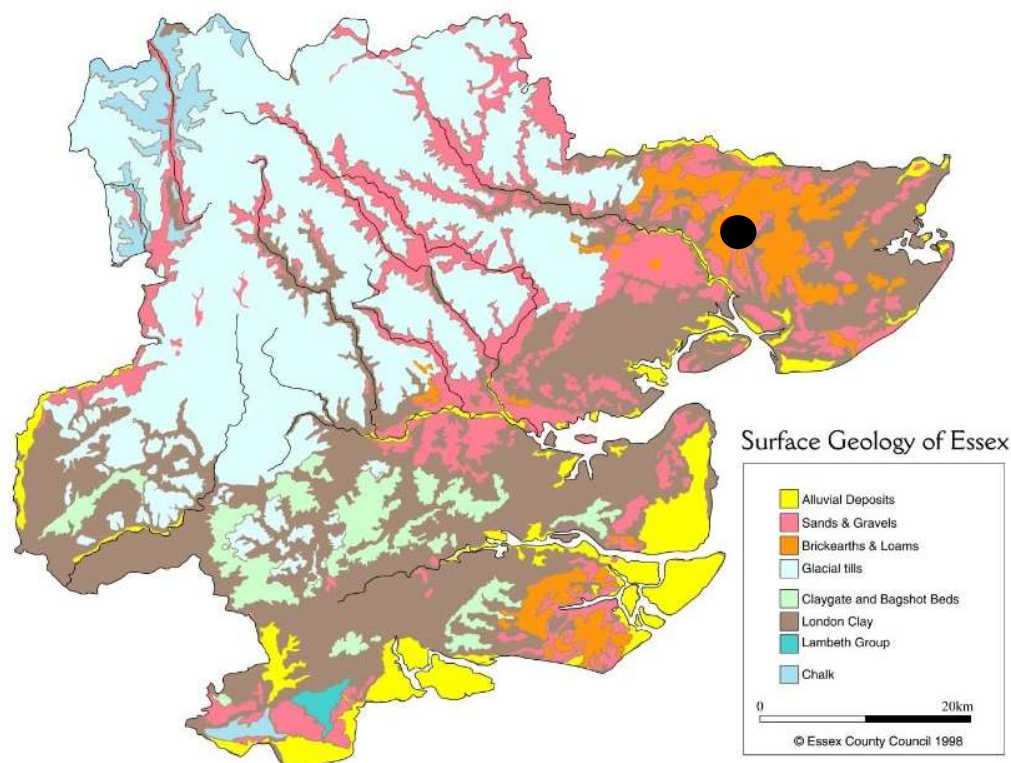


Figure 112  
 Map showing the surface geology of Essex and location of Colchester on London Clay and Reading Beds  
 Source: Geo Essex, 2016'

### 8. Water Analysis

Christy and Thresh were unable to locate the Colchester Spring and therefore no contemporary analysis of the water has taken place. The physician Benjamin Allen (1699) described the spring water as being a purging variety. Christy and Thresh (1910) and their colleague Mr Dalton infer that the spring probably lay on the London Clay slopes situated to the North of the River Colne. They state that there is a projection of Reading Beds about one mile eastward from the church (Figures 112 and 113).



Figure 113  
 Geological map of the area including the suggested location of the Colchester Spring  
 Source: Edina Digimap, 2016



## 9. Alleged Curative Properties

The water was analysed by Benjamin Allen (1699 p158) who claimed that it should be used as a purgative.

## 10. Chronological Development

Although there were several springs located at various times in Colchester, this is perhaps the most likely setting for the spring. This well is located near to the London to Harwich road which was a pilgrimage route in the medieval period. The well was mentioned by Benjamin Allen in 1699 (p128), who described it as a purging water located in the North of the town. By 1768 this well had acquired a hermit who was known as “Master of the hospital of St Anne de Halywell”. The location of the well was unknown by the time the location was visited by Christy and Thresh (1910, p31).

## 11. Contemporary Landscape Components

Table 13  
Table describing contemporary landscape components in the vicinity of the Colchester site

<b>Architecture</b>	There was none visible at the location. The site is in a busy residential street as shown in Figure 114.
<b>Transport Links</b>	The site is located in close proximity to the Harwich Road which has been in existence since at least 1765.
<b>Water</b>	There was none visible at the site location.
<b>Vegetation</b>	In keeping with that of a residential area consisting mainly of front gardens. There are some trees planted to the north of the road as shown in Figure 115.



Figure 114  
Photograph showing the residential nature of the site  
Source: Cannell, 2017



Figure 115  
Photograph showing tree planting close to the site  
Source: Cannell, 2017

## **12. Description of the Site in its Current Form**

The site is located close to a main road in a predominantly residential part of Colchester. There is no water located in the vicinity.

## **13. Site Memory**

There are no indications of an historical well site in the local area either in the form of street names or other media.

## Sources

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### Unpublished

Cannell, E. (2017) Photograph showing the residential location of the Colchester Spring

Cannell, E. (2017) Photograph showing vegetation to the north of the Colchester Spring

## Well Data Sheet: **Dovercourt**

### 1. General Information

Historic Name:	Dovercourt Spa
Contemporary Name:	Dovercourt Spa
First Written Description:	Silas Taylor, 1676
Nearest Settlement:	Dovercourt
Approximate OS Map Reference:	TM 25391 31614
Date of Field Visit:	25/8/2019
Time of Site Visit:	2.15pm (weather hot and sunny)

### 2. Location Map



Figure 116  
Map of Essex showing the wider context of the location of Dovercourt  
Source: Althistory, 2017

Dovercourt is situated on the eastern coast of Essex. The location remains coastal (Figures 116 and 117) and is located approximately five metres above sea level. The wider landscape context of the site is shown in Table 14.

### 3. Local Context

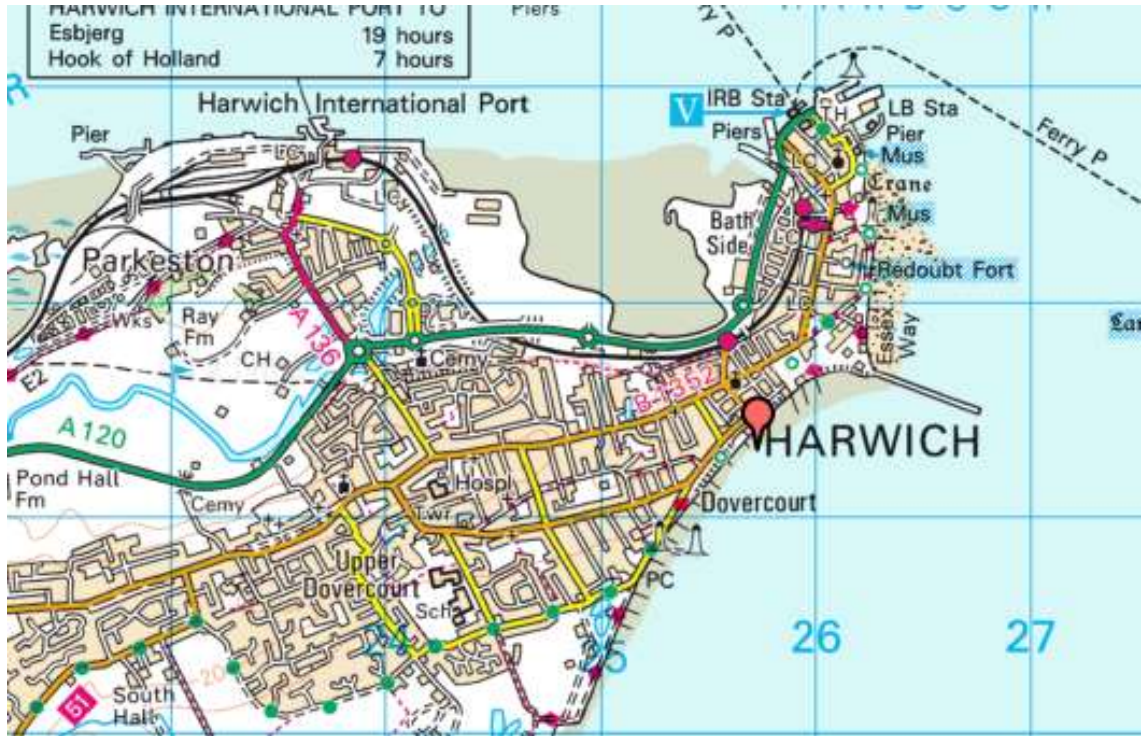


Figure 117  
 Ordnance Survey map of Harwich and Dovercourt showing the location of Dovercourt Spa  
 Source, Edina Digimap, 2017

### 4. Landscape Context

Table 14  
 Table showing the landscape context of Dovercourt Spa, Essex

Landscape Component	1 Mile Radius	5 Mile Radius	10 Mile Radius
Village		Little Oakley	
Town	Harwich		
Road	High Street		
Railway	Dovercourt Station		
Woodland		Little Oakelyhall Wood	
Forest			
River		River Stour	

## 5. Historic Access and Connection

Visitors were able to access the spa by train or by road (Figures 119, 120 and 121). It was also possible to arrive by paddle steamer (Weaver, 1990 p39). The Great Eastern Railway Company began running a fleet of paddle steamers from Ipswich which stopped at Harwich (Figure 118). This would have provided visitors to the spa with an alternative means of accessing the location.



Figure 118  
 Photograph of the paddle steamer SS Orwell and Stour  
 Source: Harwich and Dovercourt, 2019

## 6. Historic Maps



Figure 119  
 Extract of a map first published in the London magazine, 1765, showing Dovercourt, Essex  
 Source: Ancestry.com, 2017



Figure 120  
 Ordnance Survey map of Dovercourt, Essex (1805) showing the subsequent location of Dovercourt Spa  
 Source: University of Portsmouth, 2017



Figure 121  
 Ordnance Survey map of Dovercourt, Essex (1876) showing the location of the spa  
 Source: Edina Digimap, 2017

## 7. Geological Map

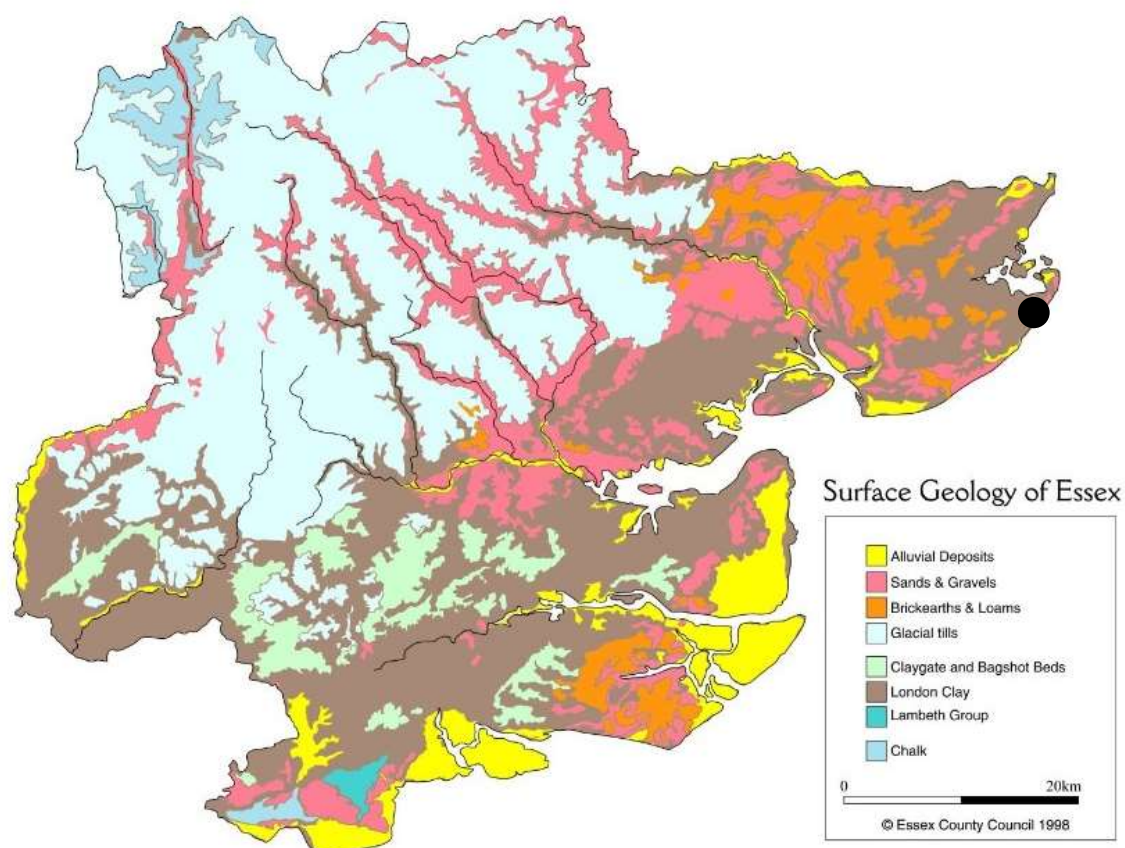


Figure 122  
Geological map of Essex showing the location of Dovercourt. on London Clay  
Source: Geo Essex, 2016.

## 8. Water Analysis

In their publication of 1910, Christy and Thresh describe the scientific analysis of a London chemist who they refer to as Mr Lever (Table 15).

Table 15  
Table showing the scientific analysis of the water at Dovercourt Spa, Essex undertaken by Mr Lever

Constituent	Number of Grains
Oxide of Iron	3
Carbonate and Sulphate of Lime	6
Carbonate and Sulphate of Magnesia	3
Sodium Chloride	1



Although Christy and Thresh fail to identify exactly when he undertook this analysis, other sources suggest that John Bagshaw requested this evaluation which would imply that it took place in the 1850s (Cowell, 2001 p41). Mr Lever examined six pints of the water and his measurements are all recorded in grains. Christy and Thresh assert that due to the amount of Iron oxide, the water can be described as chalybeate. The water comes from the base of a high cliff of London Clay (Figure 122).

## 9. Alleged Curative Properties

A guide to Dovercourt from the mid-nineteenth century claimed that the water would stimulate perspiration and invigorate the system. It was recommended that visitors drank two or three glasses per day although this could be increased (Cowell, 2001 p42). A visitor's guide to Dovercourt (1871, p35) stated that the water would soften the skin, purify the blood and clear the digestive system (Christy and Thresh, 1910 p61).

## 10. Chronological Development

The initial description of a spring at Dovercourt is communicated by Silas Taylor, the manager of The King's Stores, Harwich, in 1676. He described a spring which issued from the cliff between Beacon Hill and Harwich and then ran into the sea (Christy and Thresh, 1910 p60). It is plausible that this spring would have been utilised by the Romans as a considerable number of artefacts dating from this period have been discovered in this area (Cowell, 2001 p39). Taylor (1730 p100) describes the spring as having: "excellent, clear and delightful water well approved by those who have judgement to distinguish waters. Christy and Thresh (1910 p60) assert that it is unlikely that the origins of this spring are the same as that which eventually became known as the Dovercourt Spa as the subsequent spring was chalybeate in composition and therefore unlikely to be a water that people would drink for pleasure.

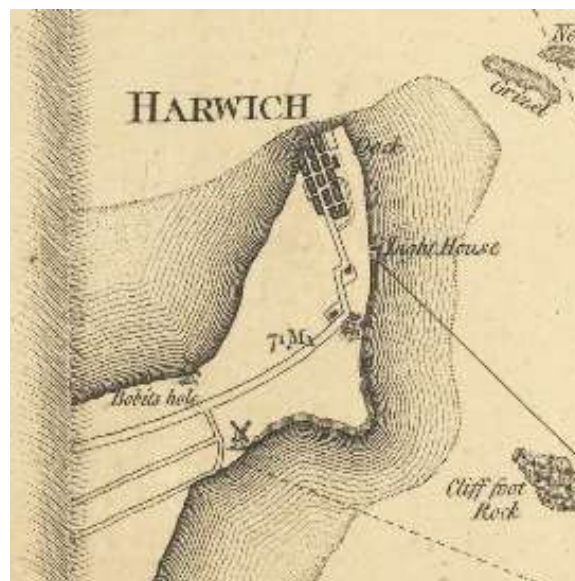


Figure 123  
Extract of the Chapman and André map (1777) showing Harwich and Dovercourt, Essex  
Source: Bvbp.mcu.es/ca, 2017

The Chapman and André map of Essex (Figure 123) shows Dovercourt as an insignificant settlement with a few buildings. The windmill is located where Orwell Terrace and Marine Parade were constructed (Figure 125). A local historian, Mike Rouse (2013 p7), suggests that coastal areas were often viewed with apprehension by people who perceived the coast as a place of danger. The East Anglian coastline was also often at risk from European invasion. For these reasons, only those who relied on the coast for their employment would choose to live in these areas.

At the beginning of the nineteenth century Dovercourt was a small settlement consisting of a few houses built around All Saints Church (archaeology data service, 2016). The potential for the area was recognised by the M.P. for Harwich, John Bagshaw who built a property known as Cliff House in 1845 (Figure 124). The location for the property was an area of open land between the lighthouse at Harwich and the Green at Dovercourt (Harwich and Dovercourt, 2017).

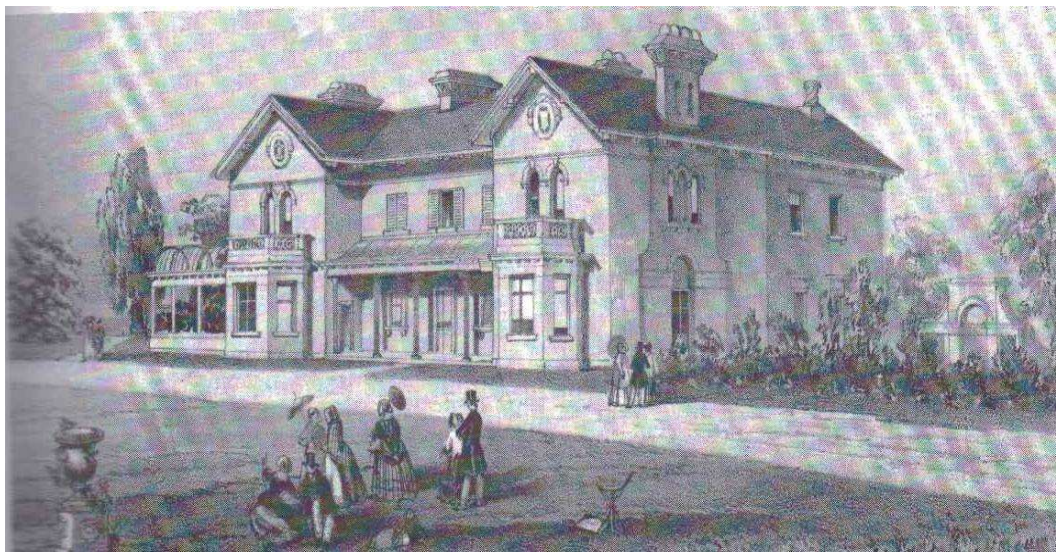


Figure 124  
Engraving of Cliff House, Dovercourt, Essex circa 1845  
Source: Harwichanddovercourt.co.uk, 2017.

Before becoming a member of Parliament, Bagshaw had acquired his wealth through employment in the East India Company and the establishment of other businesses in India. As well as building Cliff House, he also took control of the shipyard at Harwich (Rouse, 2013 p7) and was committed to ensuring the improvement of the Port, evident from his support of the Quays and Pier Act, 1851 (Weaver, 1990 p38). Bagshaw had visited Scarborough and subsequently bought much of the land at Lower Dovercourt with the intention of creating a spa town in its style. While Cliff House was under construction, a chalybeate spring was discovered in the grounds (Cowell, 2001 p39). It is unclear whether Bagshaw's intention was to develop the existing spring and that the discovery of a subsequent spring on his property was merely fortuitous. Bagshaw commissioned his architect, W.H. Lindsey to design an imposing development on the clifftop which would include a spa building, pump room, museum, reading room and library. A local architect, Horace Darken, tendered plans for a spa building which was to be constructed beneath the cliff in order to protect the view from Orwell Terrace (Figure 125). An Ipswich architect, James Butterworth submitted plans for the parcels of land surrounding the spa area (Cowell, 2001 p39). Bagshaw linked the opening of his spa, on August 28<sup>th</sup>, 1854, with the opening of the Eastern Counties Railway line to Harwich. Guests of the opening boarded paddle steamers to view the spa from the sea and subsequently attended the spa where they had the opportunity to drink the

water (Cowell, 2001 p41). The dignitaries included The Earl of Stradbroke, the Duke of Wellington and Lord Stanley who sailed on the steamer Atlanta from Ipswich (Weaver, 1990 p39).



Figure 125

Lithograph of Dovercourt, Essex (1854) showing Orwell Terrace in the background and the spa nestled in the cliff  
Source: Harwich and Dovercourt, 2017

The spa (Figure 126) is described as, “A pretty building erected on a broad walled terrace at the base of a cliff, sheltered from northerly winds... It is an ornamental cottage, something in the style of a Pompeiian Villa (Cowell, 2001 p42). This comment alludes to the classical period when therapeutic water was highly valued. The spa itself consisted of reading and smoking rooms, a pump room and a library (Ward Lock, 1910 p11). The pump room contained a dolphin headed bracket which was used for drawing the water and contained large windows which overlooked the coast. The library included a stained- glass door which contained a likeness of Queen Elizabeth I and opened out into a conservatory containing many plants (Cowell, 2001 p44). A guidebook from 1910 describes the grounds of the spa as being tastefully laid out. This book also mentions a collection of Roman antiquities and fossils which were displayed in the library (Ward Lock, p12).



Figure 126

Postcard circa 1880 showing the spa at Dovercourt, Essex  
Source: Harwich and Dovercourt, 2017

Bagshaw held ambitions to develop Dovercourt into a seaside resort. The initial phase of his planned development was Orwell Terrace which was finished in 1857 (Figure 127). The cliff top was landscaped from the terrace as far as Mill Lane. The landscaping included a grotto, various protective shelters and a small waterfall. A garden was created at the south end of Orwell Terrace outside Bank Sea House which belonged to Bagshaw’s son. Bagshaw also built a promenade

which continued as far as Dovercourt Lighthouse. These enterprises cost approximately £10,000 (Harwich and Dovercourt, 2016).



Figure 127  
 Photograph of Dovercourt Spa and Orwell Terrace, circa 1880  
 Source: Harwichanddovercourt.com, 2017

A guidebook from the 1850s suggested that the spa water should be consumed first thing in the morning while warm. Patients would then undertake some gentle exercise, perhaps a walk along the promenade, and consume a light breakfast. Patients began their treatment by consuming two or three glasses each day but would increase the dosage until they began to experience symptoms of perspiration, intensified stimulation and invigoration (Cowell, 2001 p42). A visitor's guide to Harwich published in 1871 described the effects of the spa water as: "tonic and stomachic. It softens and moisturises the skin, corrects secretions and purifies the blood" (Christy and Thresh, 1910 p62).



Figure 128  
 Photograph of the spa site following demolition, circa 1920  
 Source: Harwichanddovercourt.com, 2017.

Bagshaw's ambitious plans for the development of Dovercourt were never fulfilled as he was declared bankrupt in 1859 (Harwichanddovercourt.com). The spa site was sold to the Woods and Forest Department by Bagshaw as he approached bankruptcy. The upkeep of the amenities was through subscription and from visitors to local hotels. At this point a Mrs Jarrold was responsible for the facilities (Cowell, 2001 p43). In 1895 Henry Warren became the proprietor of the spa and

is mentioned by Christy and Thresh (1910 p63). The spa buildings continued to be utilised by the Woods and Forest Department until 1910 when they were leased to the council for thirty-one years at an annual rent of £100. There were several attempts to refurbish the spa facilities but by 1911 there was a proposition to demolish the spa buildings which were considered dangerous and unattractive. While the council had plans to renovate the buildings replant the gardens at a cost of £2000, leasing them for concerts the proposal was postponed. Eventually the area was given a face-lift and re-opened on 22<sup>nd</sup> June. The spa continued in this rather patched up state until the outbreak of the First World War when the buildings were taken over by a unit of the Essex Force Royal Engineers. Following the end of the war the Borough Surveyor confirmed that the spa buildings were unsafe and required demolition. The council offered a prize of £52.10.0 for the best design of new spa facilities but received no entries. The buildings were finally demolished in 1920 (Figure 128) (Cowell, 2001 p48). By the creation of this Ordnance Survey map in 1923, the site of Cliff House had been transformed into a bandstand with surrounding gardens while the spa buildings had been demolished (Figure 129).



Figure 129 Dovercourt  
Ordnance Survey map of Dovercourt, Essex (1923) showing developments to the area previously inhabited by the Dovercourt Spa buildings

## 11. Contemporary Landscape Components

Table 16  
Table showing the contemporary landscape components in the vicinity of Dovercourt Spa, Essex

<b>Architecture</b>	The original spa buildings were demolished in 1920. Part of Bagshaw's original intention was to construct a series of terraces for use by visitors to the resort. Only Orwell Terrace was constructed and remains in a somewhat dilapidated condition (Figure 130).
<b>Transport Links</b>	The site is located close to a railway station which was originally opened on the same day as the spa. Access to the town is via the A120 road which was the original postal road linking Harwich to London.
<b>Water</b>	There is no evidence of the original well excavated by Bagshaw during the construction of his house.
<b>Vegetation</b>	The spa site had a coastal location. Photographs from the late nineteenth century show some vegetation. The area currently has vegetation in similar areas such as Marram Grass ( <i>Ammophila</i> ) and Sea Buckthorn ( <i>Hippophae</i> ).



Figure 130  
 Photograph of Orwell Terrace, Dovercourt, Essex  
 Source: Cannell, 2019

## 12. Description of the Site in its Current Form

The site is located close to a public park and the coast in an area popular with families, cyclists and dogwalkers. The park has Green Flag status and at the time of study was well maintained and free of litter (Figure 131). The coastal area where the spa was originally located is home to many beach huts and a paved coastal footpath (Figures 132 and 133). Unfortunately, the last surviving remnants of the spa appear to have been removed during this refurbishment. This is suggested by a sign provided by the Harwich and Dovercourt Historical Society which originally states the location of some remnant remains. This part of the sign has been subsequently erased (Figure 134).



Figure 131  
 Photograph of Cliff Park, Dovercourt, Essex  
 Source: Cannell, 2019



Figure 132  
 Photograph of the coastline at Dovercourt, Essex  
 Source: Cannell, 2019



Figure 133  
Photographic view of the bay at Dovercourt, Essex  
Source: Cannell, 2019



Figure 134  
Explanatory sign with some information removed  
Source: Cannell, 2019

### 13. Site Memory

Although there are no remnant remains of either the spa or Bagshaw's house the Harwich and Dovercourt Historical Society has provided signs to describe what was present at these locations (Figures 135 and 136). The floor plan of Bagshaw's property, Cliff House, has been demarcated by a series of bricks (Figure 136). While Orwell Road and Terrace still exist, there are few other indications of the spa. A nearby road was called 'Bagshaw Road' referencing the founder of the spa.



Figure 135  
Information sign at Cliff Park, Dovercourt, Essex  
Source: Cannell, 2019



Figure 136  
Brick Demarcation of Cliff House, Dovercourt, Essex  
Source: Cannell, 2019

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Cannell, E. (2019) Brick Demarcation of Cliff House, Dovercourt, Essex

Cannell, E. (2019) Explanatory sign with some information removed

Cannell, E. (2019) Information sign at Cliff Park, Dovercourt, Essex

Cannell, E. (2019) Photograph of Orwell Terrace, Dovercourt, Essex

Cannell, E. (2019) Photograph of the coastline at Dovercourt, Essex

Cannell, E. (2019) Photograph of Orwell Terrace, Dovercourt, Essex

Cannell, E. (2019) Photographic view of the bay at Dovercourt, Essex

# Well Data Sheet: Felsted

## 1. General Information

Historic Name:	Felsted Well
Contemporary Name:	The Felsted (Dunmow) Well
First Written Description:	Benjamin Allen, 1699
Nearest Settlement:	Felsted
Approximate OS Map Reference:	TL 66625 21124
Date of Field Visit:	18.5.2019
Time of Field Visit:	2.00pm (weather sunny)

## 2. Location Map



Figure 137  
Map of Essex showing the wider location of Felsted  
Source: Althistory, 2017

The site is situated in northeast Essex and is still located in a relatively rural area (Figures 137 and 138). Felsted is located approximately seventy metres above sea level. The wider landscape context of the site is shown in Table 17.

### 3. Local Context



Figure 138  
Ordnance Survey map of Felsted, Essex showing the approximate location of the Felsted Spring  
Source: Digimap, 2017

### 4. Landscape Context

Table 17  
Table showing the wider landscape context of Felsted, Essex

Landscape Component	1 Mile Radius	5 Mile Radius	10 Mile Radius
Village	Felsted		
Town		Great Dunmow	
Road	Country lanes		
Railway	Felsted Station nearby		
Woodland		Outskirts of Gt Dunmow	
Forest			
River	River Chelmer		

### 5. Historic Access and Connection

Although the well at Felsted is situated close to the Station (Figure 138), this was not operational until 1883 (Catford, 2005). Much of the evidence regarding this well suggests that it was at its peak of popularity in the eighteenth century, long before the arrival of the railway. It would seem likely that, due to its rural location, this well was frequented by local people, including the monks at Dunmow Priory and the local population, as described by Christy and Thresh (1910), who were also using the water for domestic purposes (Figures 139 and 140).

## 6. Historic Maps

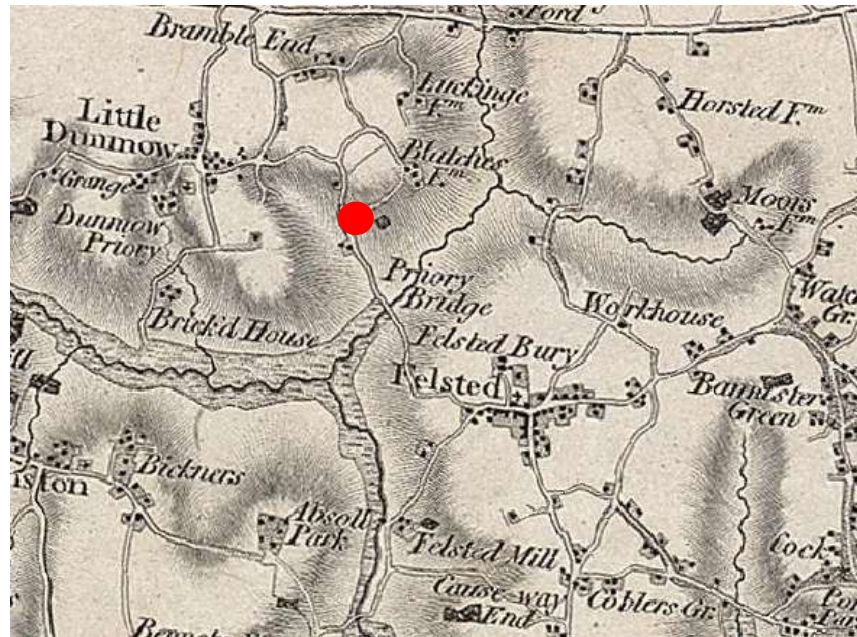


Figure 139  
Ordnance Survey map of Felsted, Essex (1805) showing the approximate location of the well site  
Source: University of Portsmouth, 2017



Figure 140  
Ordnance Survey map of Felsted, Essex (1881) showing the location of Felsted Spring  
Source: Digimap, 2017

## 7. Geological Map

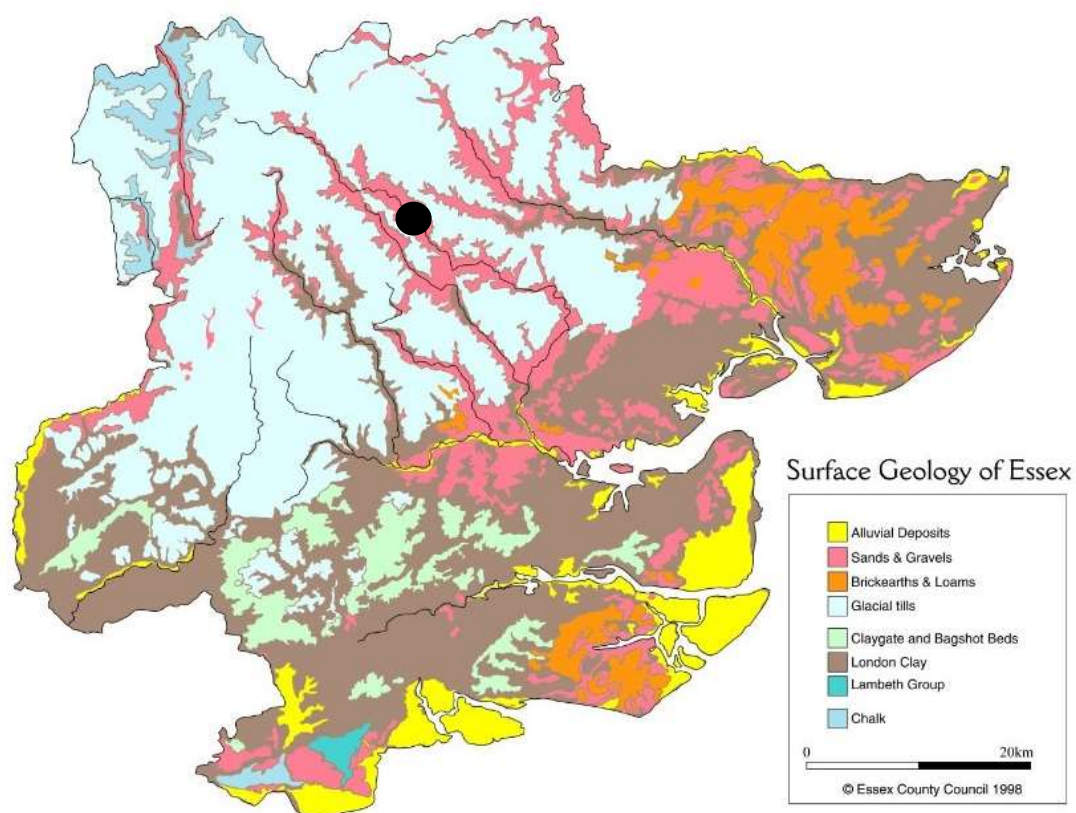


Figure 141  
Map showing the surface geology of Essex and the location of Felsted on sands and gravels  
Source: Geo Essex, 2016

## 8. Water Analysis

The water at Felsted was analysed by Christy and Thresh (Table 18) in July 1907 with the following results.

Table 18  
Table showing the constituents of the water at Felsted, Essex following analysis by Christy and Thresh

Constituent	Parts per 100,000
Calcium Carbonate	28.0
Calcium Sulphate	12.9
Magnesium Sulphate	3.57
Sodium Sulphate	2.2
Sodium Chloride	3.9
Sodium Nitrate	0.96
Ferrous Carbonate	0.1
Silica	1.43

Christy and Thresh describe this as a boulder clay water and suggest that a strip of boulder clay might lay near the well (Figure 141). They allude to the presence of enough iron to give a chalybeate taste but insufficient to be of medicinal value. Mr Dalton from the Essex Field Club suggested that the site of this spring is located on London Gravel, some distance below the Glacial Gravel and in an area outside of any infiltration from the boulder clay. He suggests that its Carbonate of Lime may derive from the layer of London Clay (Christy and Thresh, 1910 p29).

## 9. Alleged Curative Properties

The water was described by Benjamin Allen (1699 p160) as proving effective in the treatment of obstructions of the glands. Dr Martin Trinder (1783 p55) concurred with Allen but also claimed that the water was effective in the treatment of convulsions and even those having suffered a stroke.

## 10. Chronological Development

It is highly probable that the well at Felsted was a familiar and much-frequented place for local people. The local historian John French describes how during the construction of the railway station Roman remains were found which indicated human habitation. The well was then utilised by the monks at Little Dunmow Priory (Christy and Thresh, 1910 p27). The map below (Figure 142) demonstrates that the distance travelled by the monks would have been approximately six hundred metres, so this assertion is plausible.



Figure 142  
Ordnance Survey map of Felsted, Essex (1875) showing the likely distance travelled by the monks at Little Dunmow Priory to the spring at Felsted using existing public footpaths as a suggested guide  
Sources: Digimap, 2017 and Essex Highways, 2016

The well at Felsted was initially mentioned by Benjamin Allen in 1699 who described its location as “in a field adjoining to the Right Honourable, the Earl of Manchester’s place at Leez in Essex”. He continued by stating that the spring is “in gravel and is so small as to be considerable only that it is a breeding pond”. Allen described the results of his analysis of the water including that it “rendered milky a solution of Sal Saturni”. Allen described the water as being an excellent treatment for obstructions of the glands (Trinder, 1783 p55). This well was omitted from Allen’s

subsequent treatise of 1711 (Christy and Thresh, 1910 p25). The Felsted well was mentioned by Donald Monroe in 1770 (p268) although much of his analysis seems to replicate that of Allen. The spring was further analysed in 1783 by Trinder who carried out a series of twelve experiments. He described the water as being “ferruginous in taste, not turbid but having much red ochreous earth about it”. Trinder defines the Felsted water as being a “comparatively light and pure chalybeate water” and that it should be drunk “at the fountain head”. He continues by making favourable comparisons with the water at Tunbridge Wells, describing how it exceeds it in lightness. Trinder recommends the water for patients who are subject to convulsive diseases although it is also a universal tonic (p56). John French describes how the spring had originally been located by the side of the road but that the area was cordoned off after the Enclosures Act of 1830, although a small path remained (Figure 142). He also described that the well continued to be utilised by local people at this point (Christy and Thresh, 1910 p27).



Figure 143  
Ordnance Survey map of Felsted, Essex (1875) showing Priory Lodge and the site where the spring was located  
Digimap, 2017

In 1910 the spring was built into the garden wall of Priory Lodge, Felsted (Cowell, 2001 p68). By the time of Christy and Thresh’s study there was some confusion as to which well was the one mentioned by Allen in the seventeenth century as there were several wells located in Felsted. They were certain that this was the correct well due to the pronounced iron taste which was not present in any other water. At the time of their study the well sides had been bricked and it was surrounded by greenery (Figure 143).



Figure 144  
Photograph of the spring at Felsted, Essex, circa 1907  
Source: Christy and Thresh 1910



Figure 145  
Photograph showing the current condition of the spring  
Source: Cannell, 2019

The water was still being used by the inhabitants of the local cottages for everyday purposes (Christy and Thresh, 1910 p28). The site is currently a recorded scheduled monument and is described as a brick circular well shaft with an unknown depth or diameter (Uttlesford History, 2016).

## 11. Contemporary Landscape Components



Figure 146  
Photograph showing the location of the spring site  
Source: Cannell, 2019



Figure 147  
Photograph showing the rural location of the site  
Source: Cannell, 2019

Table 19  
Table showing the contemporary landscape components in the vicinity of the Felsted Spring

<b>Architecture</b>	The foundations of the stone photographed by Christy and Thresh (1910) are still visible (Figure 144). The brickwork recorded by Christy and Thresh at the sides of the well is no longer visible. The opening of the well is covered by a metal grid secured by a railway sleeper (Figure 145).
<b>Transport Links</b>	The spring site is now situated in a rear garden (Figure 146). The road layout is relatively unchanged.
<b>Water</b>	Although the well still exists, it was impossible to ascertain whether any water was present due to the condition of the site.
<b>Vegetation</b>	The spring site is currently located in a rear garden adjacent to farmland and the Flicht Way. The field was part of an arable farm although it was difficult to ascertain the specific crop. The site was surrounded by trees and groundcover including nettles and grass (Figure 147).

## 12. Description of Site in its current form

The site is currently located in the rear garden of Priory Lodge, Felsted adjacent to a field. The well site is in a poor state. The well opening is protected by a metal grid secured by a railway sleeper. There is some dilapidated fencing surrounding the well opening. The site is accessible from the rear garden of the property or from the adjacent field. The site is currently being marketed as a location for eight properties although there was no evidence of any preliminary work being undertaken during the field visit (Figure 148).





Figure 148  
 Site plan showing intended building at the Felsted spring site  
 Source: Andersons, 2018

### 13. Site Memory

Although there is no recognition of the well in the immediate locality, the house owner (Mr B Moore) was able to provide some interesting information regarding the history of the site having lived there for nearly seventy years. Mr Moore did not remember the well-being marked as shown in the photograph by Christy and Thresh (Figure 144) which would suggest that the stonework was removed between 1910 and 1945. Mr Moore remembered using the water at the site to water his mother’s garden. He stated that the well dried up following the construction of a new housing development across the road from his house (Figure 148). He assumed that this was because of the installation of additional water pipes. There was no recognition of the well in the immediate locality.

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**Unpublished**

Cannell, E. (2019) Photograph showing the current condition of the Felsted spring

Cannell, E. (2019) Photograph showing the location of the spring site at Felsted, Essex

Cannell, E. (2019) Photograph showing the rural location of the site at Felsted, Essex

**Personal Communication**

Moore, B. (2019) Informal interview conducted on 18.5.2019 with Mr B Moore, owner of Priory Lodge, Felsted regarding his knowledge of the Felsted Spring.

# Well Data Sheet: Fobbing

## 1. General Information

Historic Name:	Cash's Well, Vange Well No.5
Contemporary Name:	Cash's Well
First Written Description:	Edwin Cash, 1901
Nearest Settlement:	Fobbing
Approximate OS Map Reference:	TQ 78700 98623
Date of Field Visit:	28.8.2017
Time of Field Visit:	10.55 am (weather sunny)

## 2. Location Map



Figure 149  
Map of Essex showing the wider context of the location of Fobbing  
Source: Althistory, 2017

Fobbing is situated in the southeast of the county and is now located in a country park run by Essex County Council (Figures 149 and 150). The site is approximately one hundred and seventeen metres above sea level. The wider landscape context of the well site is shown in Table 20.

### 3. Location Map



Figure 150  
Ordnance Survey map of Fobbing, Essex showing the approximate location of Cash's Well  
Source: Edina Digimap, 2017

### 4. Landscape Context

Table 20  
Table showing the landscape context of the well site at Fobbing, Essex

Landscape Component	1 Mile Radius	5 Mile Radius	10 Mile Radius
Village		Vange	
Town		Laindon	
Road	Dry Street		
Railway	London to Southend		
Woodland	Martinhole Wood		
Forest			
River	Fobbing Creek		

### 5. Historic Access and Connection

The site was located in Martinhole Wood, an area near Hovels Farm (Figure 151). An Ordnance Survey map dated 1939 (Figure 152) shows several footpaths which would have been used to access the site from the farm. The site is located close to what is now the A13 road, so it is likely that visitors would have travelled to the site via this route and then walked to the well.

## 6. Historic Maps



Figure 151  
Ordnance Survey map of Fobbing, Essex (1805) showing the approximate location of Cash's Well  
Source: University of Portsmouth, 2017



Figure 152  
Ordnance Survey map of Fobbing, Essex (1924) showing the location of Cash's Well  
Source: Edina Digimap, 2017

## 7. Geological Map

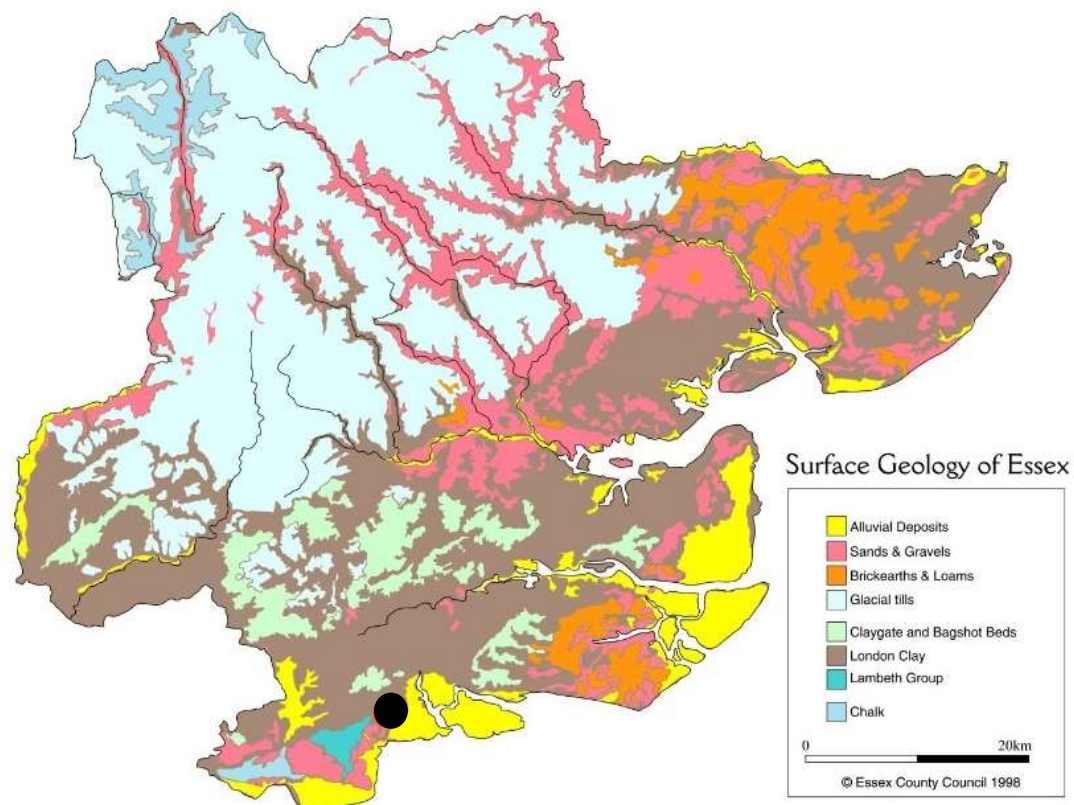


Figure 153  
Map showing the surface geology of Essex and the location of Fobbing on London Clay  
Source: Geo Essex, 2016

## 8. Water Analysis

A sample of the water was collected for analysis by Dr J Thresh during 1922, the subsequent results were published in *The Lancet* in December 1922 (Table 21). The sample was purchased in a sealed bottle at the site of the well. Thresh describes the water as lying approximately sixteen feet below ground level. His findings are as follows (each result is measured in parts per 100,000).

Table 21  
Table showing the results of scientific analysis of the water at Fobbing, Essex by Dr J Thresh, 1922

Constituent	Parts per 100,000
Calcium Carbonate	46.5
Calcium Sulphate	88.7
Magnesium Sulphate	495.0
Potassium Sulphate	38.4
Sodium Sulphate	144.8
Sodium Chloride	60.3
Water of Hydration, Silica etc	86.3

Following analysis Dr Thresh declared the sample taken from Vange to be a strong, sulphated water. Thresh asserted that this type of water was typical of those found in London Clay (Figure 153) and described how, in the case of this water, the water had intercalated with crystals of sodium, magnesium and potassium. He suggested that if the water were taken under medical supervision, it could prove beneficial to some patients (Thresh, p1258 1922).

## 9. Alleged Curative Properties

Edwin Cash marketed the water at Vange as a “famous medicinal water” (Payne, 1981 p26). Claims were made that the water would be of benefit to those suffering from Rheumatism, stomach problems or nervous complaints (Hill, 1999 p56). An analysis of the water was also published in *The Lancet* by John Thresh in 1922.

## 10. Chronological Development

A well was originally dug by the owner of Hovels Farm in 1898 although it was initially unused due to an aftertaste of the water. The summer of 1900 was a particularly dry one, so the farmer, Mr King, used the well to provide water for his cattle who seemed to thrive, suffering from fewer stomach complaints (Figure 154). The reputation of the water reached the attention a publican in Islington called Edwin Cash who owned the nearby land (Bingley and Offord, 1999).



Figure 154  
Ordnance Survey map of Fobbing, Essex (1896) showing the location of Hovel's Farm and Cash's Well  
Source: Edina Digimap, 2017

Farmer King agreed that Edwin Cash could have a sample of the water analysed by Dr Rideal who declared that water to contain large amounts of magnesium, sodium and potassium sulphates. Dr Rideal recommended that the water could prove beneficial to those suffering from rickets or from stomach complaints. Edwin Cash offered to buy Hovels Farm but was only able to purchase some of the land (Cowell, 2001 p50). A new well was sunk on the site by Mr Cash in 1902 but development of the site as a commercial enterprise did not occur until 1919 following Mr



Cash's retirement from his pub. A subsequent well was dug and covered with a wooden structure. Bottles of the water were sold for two shillings and threepence (Pewsey, 2009 p34).

Edwin Cash established a limited company, The Vange Water Company in 1921 with offices in Cheapside (Figure 155). The properties of the water came to the attention of a wider audience in 1922 when the *Westminster Gazette* published an article with the headline "Wonder Well in an Essex Village". Claims were made that Vange Water would prove of benefit for those suffering from stomach, rheumatic or nervous complaints (Hill, 1999 p56). The well was also becoming better known in medical circles. In December 1922, Dr J Thresh analysed a sample and described his findings in *The Lancet*. The water was also of interest to a London radiographer, Mr Monson, who asserted that the mud at Southend possessed medicinal qualities and suggested that Southend Council could build hydro's in Vange and Southend where people could receive the benefit of both treatments (Cowell, 2001 p51).

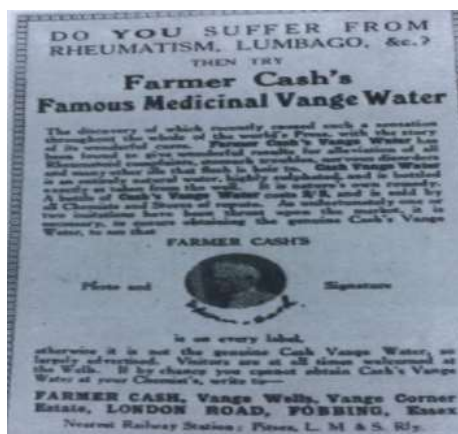


Figure 155  
Newspaper advertisement for Vange Water circa 1920  
Source: Payne, 1981

Following these articles, the well at Vange became increasingly popular. At its peak, the well was supplying ten gallons per day to visitors and ninety gallons for shipment to other parts of the country. A rumour suggesting that the well had dried up was reported to the *Westminster Gazette* who published an article on October 10<sup>th</sup>, 1922. Mr Cash took legal action against the newspaper and was awarded damages in May 1923. By 1923 Mr Cash had built a further three wells. The first of these collapsed while the second failed to yield sufficient water. The final well (Number 5) was successful and was protected by an ostentatious building in the style of a classical temple. A bottling shed (Figure 156) was built nearby (Bingley and Offord, 1999).



Figure 156  
Photograph of the bottling shed circa 1924 with Edwin Cash located on the far left  
Source: Payne, 1981

The Vange Water Company was terminated trading in 1924. A rival local water company was suspected of selling contaminated water and this in turn affected sales of the water from Cash's Well. A nearby farm was converted into the West Ham Tuberculosis Hospital as shown in Figure 157. There was speculation that drainage from this site could flow into the source of the well which affected sales of the water (Cox, 2006). The property was sold in 1926 (Cowell, 2001 p56).

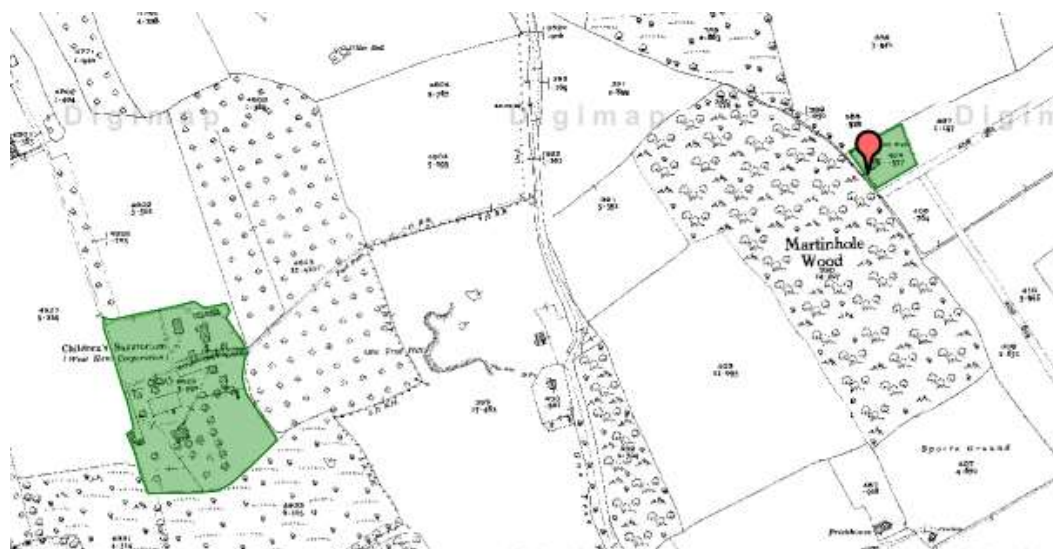


Figure 157  
Ordnance Survey map of Fobbing, Essex 1939 showing the location of the West Ham Tuberculosis Hospital and Cash's Well  
Source: Edina Digimap, 2017

## 11. Contemporary Landscape Components

Table 22  
Table describing the contemporary landscape components in the vicinity of Cash's Well, Fobbing, Essex

<b>Architecture</b>	The site contains the remnant remains of a 'Grecian' style temple (Figure 158) with some foundations of a bottling shed in close proximity (Figure 159). There was evidence of pipe work probably used to transport water through the site
<b>Transport Links</b>	The site is located on the outskirts of Martinhole Wood. An Ordnance Survey map (1922) indicates several footpaths leading to the site as shown in Figure 160. The A127 road is situated close by.
<b>Water</b>	There was no water visible in the well itself although a toad was observed within the pipework of the bottling shed suggesting that some water may still be present.
<b>Vegetation</b>	Site situated on the edge of woodland. The 'temple' and foundations of the bottling shed are covered with Ivy and Brambles. Beyond the site there is farmland



Figure 158  
Photograph showing remnant remains of Cash's Well  
Source: Cannell, 2017



Figure 159  
Photograph showing remnant remains of the bottling shed  
Source: Cannell, 2017



Figure 160  
Ordnance Survey map of Fobbing, Essex (1922) showing two possible footpath routes to Cash's Well  
Source: Edina Digimap, 2017

## 12. Description of Site in its Current Form

The site is situated within woodland and is currently poorly maintained. The area is littered with detritus including discarded food wrappers and plastic water bottles. The structure itself is covered with graffiti and appears to have been badly treated by some visitors to the site. Figure 158 demonstrates how little maintenance has been undertaken by the site owners, Essex County Council. This lack of upkeep has rendered some areas of the site quite hazardous as shown in Figure 159. Visitors need to take great care when moving around the site.

## 13. Site Memory

The site is situated on a slight hill which has been flattened in order to position the well buildings. The flattened area extends out to approximately twenty metres. A brook is located approximately twenty metres behind the building. The site is located within woodland as shown in Figure 161. On the date of the field visit there were other visitors to the site who appeared keen to locate the pump room. Although snippets of conversation suggested that they had an awareness of the original purpose of the site there is little local mention of the well in the locality. The site is located within Langdon Hills Country Park and while there were many signposts describing local wildlife and the ecological aspects of the visitor's centre there did not appear to be any signage linked with the well site.



Figure 161  
Photograph showing the woodland surrounding Cash's Well, Fobbing, Essex  
Source: Cannell, 2017

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Cannell, E. (2017) Photograph of the bottling shed foundations at Cash's Well, Fobbing, Essex

Cannell, E. (2017) Photograph showing the landscape surrounding Cash's Well, Fobbing, Essex

# Well Data Sheet: **Gidea Hall**

## 1. General Information

Historic Name:	Gidea Hall Spring
Contemporary Name:	Gidea Hall Spring
First Written Description:	Dr M Trinder, 1783
Nearest Settlement:	Romford
Approximate OS Map Reference	TQ 52037 89705
Date of Field Visit:	17.3.2019
Time of Site Visit:	11.05am (weather sunny)

## 2. Location Map



Figure 162  
Map of Essex showing the wider context of the location of Gidea Park  
Source: Althistory, 2017

The site is situated in an urban area in southeast Essex called Gidea Park (Figures 162 and 163) and is situated approximately thirty metres above sea level. Table 23 shows the wider landscape context of the site.

### 3. Local Context

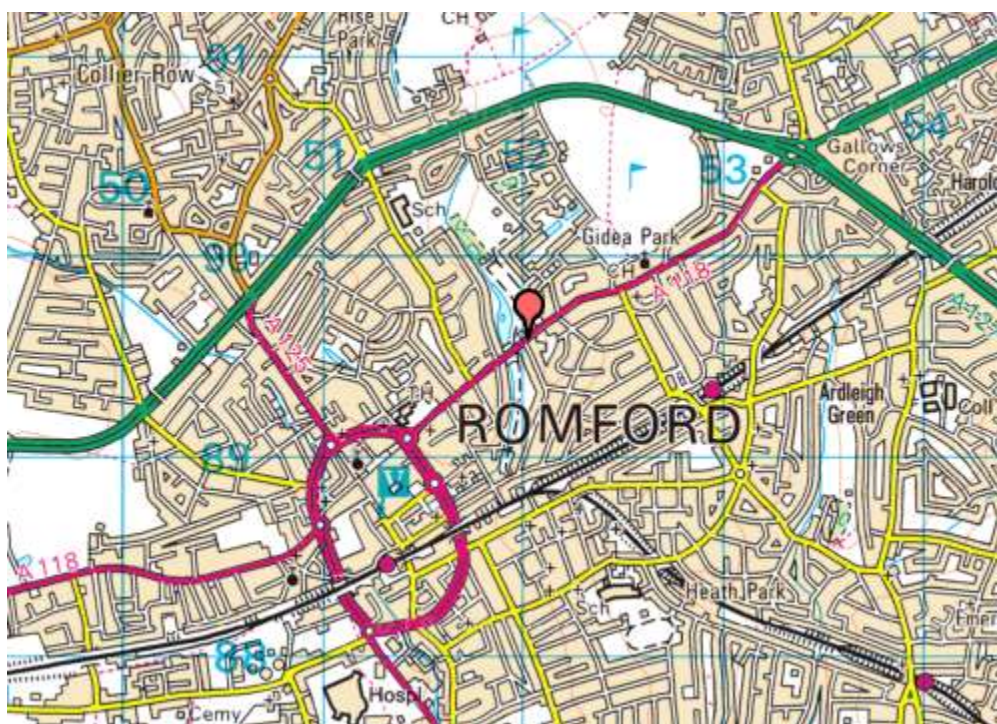


Figure 163  
Ordnance Survey map of Romford, Essex showing the location of the well  
Source: Edina Digimap, 2016

### 4. Landscape Context

Table 23  
Table showing the landscape context of the well at Gidea Park, Essex

Landscape Component	1 Mile Radius	5 Mile Radius	10 Mile Radius
Village	Hare Street		
Town	Romford		
Road	Roman Road		
Railway	Romford		
Woodland	Gidea Hall Parkland		
Forest			Epping (11m)
River	Black's Brook		

### 5. Historic Access and Connection

Descriptions of this site such as those by Lewis (1840) and Christy and Thresh (1910) mention how the well was utilised by local people, especially for bathing their eyes. It is therefore unlikely that transport links such as the Roman road adjacent to Gidea Hall and the railway station would have been beneficial to the site. It is far more likely that the well would have been visited on foot due to the rural nature of the location at the time of its popularity (Figures 164 and 165).

## 6. Historic Maps



Figure 164  
 Ordnance Survey map of Romford, Essex (1805) showing the location of the Gidea Hall Spring  
 Source: University of Portsmouth, 2017



Figure 165  
 Ordnance Survey map of Romford, Essex (1871) showing the location of the Gidea Hall Spring  
 Source: Edina Digimap, 2017



## 7. Geological Map

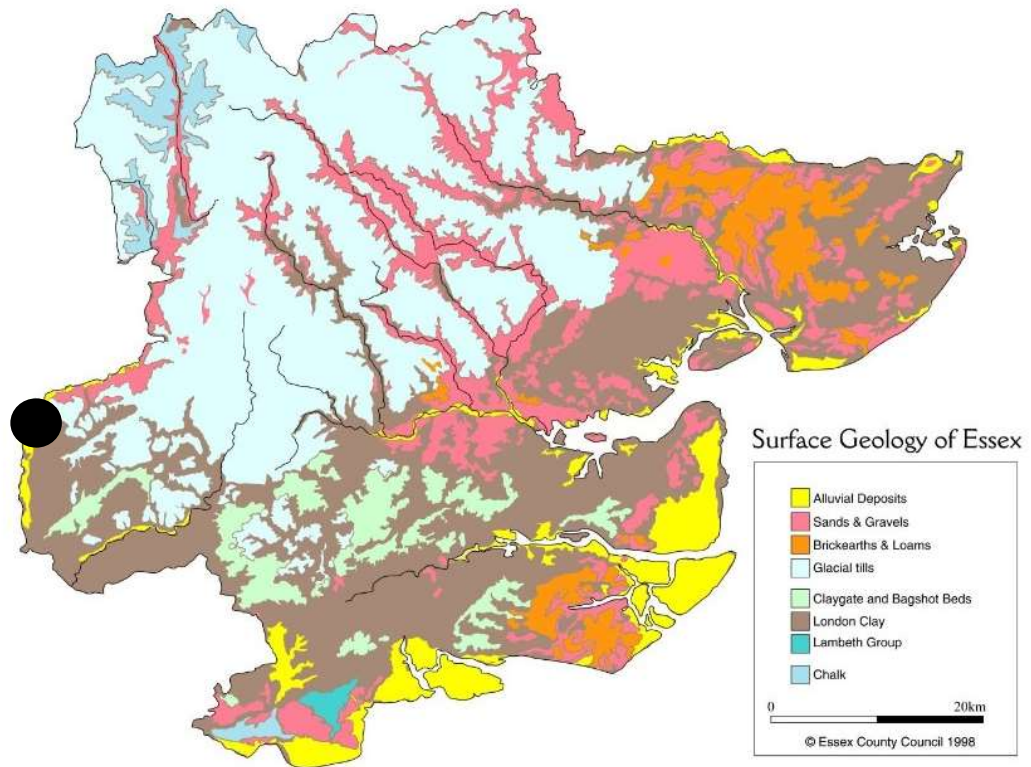


Figure 166  
Map of Essex showing the geological context of Gidea Park on London Clay and Bagshot Beds  
Source: Geo Essex, 2016

## 8. Water Analysis

Although the water at Gidea Hall was analysed by Martin Trinder in 1783, this study focussed on the behaviour of the water when mixed with other components rather than the constituent parts of the water itself. For example, in his seventh experiment he describes that: “Fixed and volatile alkalis cast down a red sediment (p14)”. Trinder also described how the water was able to withstand being transported from the site. He also suggested that it could be preserved if a few drops of sulphur oil were added to it. He concludes by describing the water as being: “in the first class of chalybeates. It is also impregnated with magnesia salt and sulphur” (p17). He recommended that the drinking of tea should be avoided as it would interfere with the iron in the water, rendering it less effective.

A sample of the water was unable to be collected for analysis by Christy and Thresh as the well had been filled in by the local council. It is therefore impossible to ascertain whether the water was medicinal. Christy and Thresh suggested that it is likely that the water came from the intersection of London Clay and Thames Gravel (Figure 166).

## 9. Alleged Curative Properties

The water at Gidea Hall was analysed by Martin Trinder (1783, p18) who claimed that the water would alleviate the symptoms of oedema and fever. He also asserted that the water was an effective purgative. Trinder also maintained that the water would strengthen the nervous system and could clear obstructions in the spleen, uterus and liver. Trinder recommended that the water be drunk cold as there it contained enough sulphur to make warming unnecessary. Trinder indicated that a fountain should be erected in honour of this water with the inscription,

“obstructum referat, durum terit, humida ficcat  
Debile fortificat, fi tamen arte bibis”

This can be translated as ‘Those who drink this water will be strengthened’.

## 10. Chronological Development

The Gidea Hall Spring was first noted by Dr Martin Trinder (1783 p13) who states that the spring is located on the bank of a canal in the grounds of Gidea Hall (Figure 167). He describes how a large amount of ochreous soil was present in the channel of the spring and in the surrounding land.



Figure 167  
Photograph of Gidea Hall, circa 1914  
Source: Havering Museum, 2016



Figure 168  
Photograph of the opening ceremony of Raphael Park  
Source: London Borough of Havering, 2018

The well was mentioned by Samuel Lewis who stated, “There is a mineral spring of some repute among the poor people of the neighbourhood, in the park of Gidea Hall” (1840 p613). Gidea Hall was bought by Sir Herbert Henry Raphael in 1897. In 1902 Raphael gifted twenty acres of parkland, including Black’s Canal, for use as a public park to the local council (Open Buildings, 2017). In 1904, another fifty-five acres were purchased, and the park was named Raphael Park in honour of its benefactor (Figure 168). Once the area was designated as a public park the well was drained, filled in and covered over in order to keep visitors safe. The well was no longer accessible when the site was visited by Christy and Thresh in 1907 although the park Superintendent (Mr Sibthorpe) informed them that the well was originally approximately three feet in diameter, bricked round and with steps leading down to the water. He described that there was ferruginous residue around the well head. The overflow from the well ran into a small channel and subsequently into the lake. Mr Sibthorpe described how local people used to collect the water and use it for medicinal purposes, especially for sore eyes and confirmed that he had bathed his own eyes with the water (Figure 169). It is interesting to note that Dr Trinder makes no mention of the Gidea Hall Water being beneficial to the treatment of eye discomfort but rather recommends that

a quart of the water be drunk daily for use as a purgative (1783 p16). Perhaps this is an example of local people finding their own remedy.



Figure 169

Ordnance Survey map of Romford, Essex (1871) showing a suggested pedestrian route to the Gidea Hall Spring  
Source: Edina Digimap, 2016

## 11. Contemporary Landscape Components

Table 24

Table describing the contemporary landscape components in the vicinity of the Gidea Hall Spring

<b>Architecture</b>	It is unlikely that the original site contained any buildings given that it was utilised by local people. The current architecture is synonymous with a public park and the surrounding urban infrastructure.
<b>Transport Links</b>	The site is located in central Romford. The A118 road is adjacent to the site. It is likely that visitors to the site travelled on foot before this road was constructed.
<b>Water</b>	The lake, which was in evidence when Raphael Park was a private residence, is still enjoyed by visitors to the park (Figure 170). The well was drained many years ago.
<b>Vegetation</b>	The site is located in a popular park containing a wide variety of trees, shrubs and grassed areas (Figure 171).



Figure 170

Photograph showing the lake at Raphael Park, Romford, Essex  
Source: Cannell, 2019



Figure 171

Photograph showing the vegetation at Raphael Park, Romford, Essex  
Source: Cannell, 2019

## 12. Description of the Site in its Current Form

The site is currently a public park located within Romford, containing a large pond originally part of the Gidea Hall estate. The site contains a variety of well-maintained trees and shrubs as well as children's play equipment and a café. Raphael Park was being well used by families, dog walkers and people exercising during the site visit. The signage contained within the park suggests that it is valued by both the local authority and a range of user groups.

## 13. Site Memory

There is no reference to the Gidea Hall well site in the surrounding urban infrastructure. Although signs at the entrance to the park describe the history of its development, they do not mention the original well (Figure 172).



Figure 172  
 Photograph of a welcome sign at Raphael Park, Romford, Essex  
 Source: Cannell, 2019

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### Unpublished

Cannell, E. (2019) Photograph showing the lake at Raphael Park, Romford, Essex

Cannell, E. (2019) Photograph showing the vegetation at Raphael Park, Romford, Essex

Cannell, E. (2019) Photograph showing a welcome sign at Raphael Park, Romford, Essex

## Well Data Sheet: Harrogate

### 1. General Information

Historic Name:	Harrogate Spaw
Contemporary Name:	Harrogate Spa
First Written Description:	William Slingsby (Tewit Well, 1571)
Nearest Settlement:	Harrogate
Approximate OS Map Reference:	TQ 78700 98623
Date of Field Visit:	25.10.2017
Time of Field Visit:	11.00am (weather overcast)

### 2. Location Map



Figure 173  
Map of Yorkshire showing the wider context of the location of Harrogate.  
Source: examiner.co.uk, 2017.

Harrogate is situated in North Yorkshire (Figure 173) approximately one hundred and twenty-five metres above sea level. Since the discovery of the initial spa, the area has become increasingly urbanised which is evident from Figures 174, 175, 176 and 177. The wider landscape context of the area is shown in Table 25.

### 3. Local Context

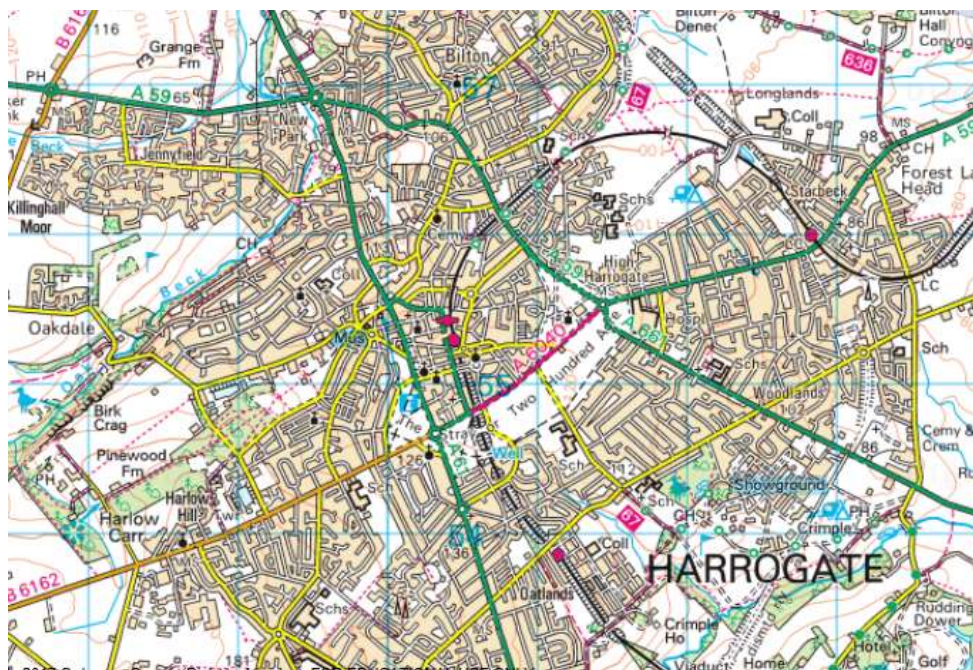


Figure 174  
Ordnance Survey map of Harrogate, Yorkshire  
Source: Edina Digimap, 2017

### 4. Landscape Context

Table 25  
Table showing the wider landscape context of Harrogate, Yorkshire

Landscape Component	1 Mile Radius	5 Mile Radius	10 Mile Radius
Village	Smithy Hill		
Town		Knaresborough	
Road	Otley Road		
Railway	Opened in 1862		
Woodland		Hookstone Wood	
Forest			
River		River Nidd	

### 5. Historic Access and Connection

Harrogate is relatively equidistant from London and Edinburgh and was accessible from large northern towns. By 1838 there were eighteen daily stagecoaches running from towns such as Manchester and Leeds (Hembry, 1997 p134). Harrogate's original railway was built in 1848 and was called Brunswick Station. It was built some distance from the spa facilities, so visitors still required other transport (Harrogate Borough Council, 2015 p7). Important to the development of the town was the construction of a more central railway station in 1862 which provided regional and national access but more importantly was closer to the spa buildings (Hembry, 1997 p 156).

## 6. Historic Maps



Figure 175  
Ordnance Survey map (1858) of Harrogate, showing the location of the Pump Room  
Source: University of Portsmouth, 2017



Figure 176  
Ordnance Survey map (1854) showing the location of the Pump Room and Tewit Well. Harrogate, Yorkshire  
Source: Edina Digimap, 2017

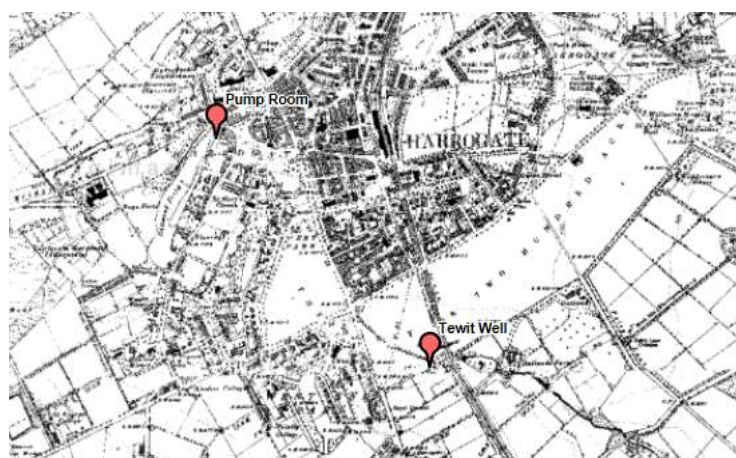


Figure 177  
Ordnance Survey map (1893) showing the location of the Pump Room and Tewit Well, Harrogate, Yorkshire  
Source: Edina Digimap, 2017



7. Geological Map

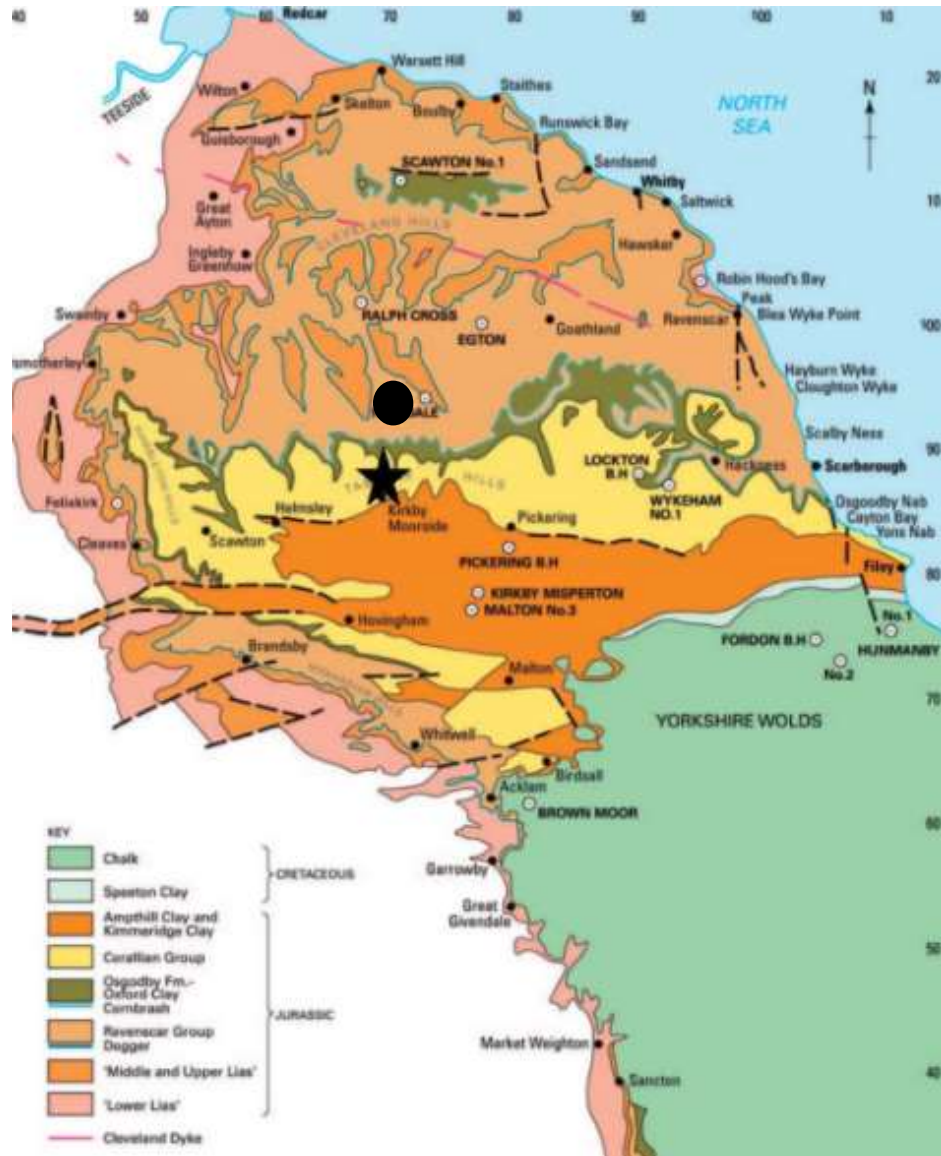


Figure 178  
 Map showing the surface geology of Yorkshire and the location of Harrogate ●  
 Source: palass, 2014.

## 8. Water Analysis

The various waters at Harrogate were analysed in 1794 by Dr T. Garnett in a work titled '*A Treatise on the Mineral Waters of Harrogate; containing a history of these waters, their chemical analysis, medical properties, and plain directions for their use*'. Many of the methods of analysis are very similar to those undertaken by Dr Martin Trinder with respect to mineral waters in Essex, such as mixing a wine glass of the water with six drops of a tincture of galls. In the case of the Tewit water, Dr Garnett observed that the water turned purple in colour (p63). Scientific analysis had developed in the almost one hundred years since the experiments of Martin Trinder, resulting in the use of pneumatic chemistry. An experiment was conducted with gas collected from the drinking well where a sparrow was placed in a glass jar with forty cubic inches of sulphur gas. The sparrow began to suffer convulsions within one minute and expired after two (p39). Dr Garnett analysed several of the Harrogate waters but just three are listed here (Tables 26, 27 and 28). All analysis was undertaken on a wine gallon of the water. Although Dr Garner chose not to discuss the geology of the area, Figure 178 provides some rudimental information.

### The Tewit Spaw

Table 26  
Table showing the results of scientific analysis undertaken by Dr Garner at the Tewit Well, Harrogate, Yorkshire

Constituent	Grains per wine gallon	Cubic inches per wine gallon
Carbonate of Lime	2.5	
Sulphate of Lime	4.0	
Carbonic Acid Gas		16
Azotic Gas		5

Dr Garnett described the Tewit water as clear and sparkling. He mentioned that on a visit to the well head he had observed large bubbles rising to the top of the well where they broke the surface.

### The Drinking Well

Table 27  
Table showing the results of scientific analysis undertaken by Dr Garner at the Drinking Well, Harrogate, Yorkshire

Constituent	oz	dwt	gr	Cubic inches
Sodium Chloride	1	5	15.5	
Calcium Chloride	0	0	13.0	
Magnesium Chloride	0	3	19	
Calcium Carbonate	0	0	18.5	
Magnesium Carbonate	0	0	5.5	
Magnesium Sulphate	0	0	10.5	
Carbonic Acid Gas				8
Azotic Gas				7
Hydrogen Sulphate gas				19

The Drinking Well one of four sulphur wells located close to one another but is the only one whose contents were imbibed. Garnett describes the water as being clear and effervescent when poured into a glass. The water had a salty taste and had a strong sulphurous odour. Dr Garnett noted that if the water were left in the open air it would quickly become cloudy, gaining a slight green hue. The water also left a white deposit on the container while losing its smell. He also observed many bubbles rising to the surface of the water, sometimes as many as three per minute (p39).

## Old Spaw Water

Table 28  
Table showing the results of scientific analysis undertaken by Dr Garner at the Old Spaw, Harrogate, Yorkshire

Constituent	Grains per wine gallon	Cubic inches per wine gallon
Iron Carbonate	2	
Sodium Sulphate	3	
Calcium Sulphate	1.5	
Carbonic Acid gas		15.75
Azotic gas		4.25

Dr Garnett (p53) described this water as being agreeable with a chalybeate taste. The water was clear and effervescent when poured into a wine glass.

### 9. Alleged Curative Properties

Due to the variety and number of wells located within Harrogate there were many suggested cures. These were published in a collection titled *'The Spas of Britain'* which was published in 1930 by the British Spa Federation with use by the medical profession as its intention. This book lists the various waters and suggests ways in which they can be used to treat patients. For example, the saline sulphur waters were noted to improve the symptoms of gout by up to forty percent while the number and volume of bowel movements increased by up to two hundred and fifty percent! It was also suggested that this water would help to improve the metabolism of patients (p83). This publication also described the various types of bathing available in the town including peat baths which were recommended for skin diseases and as a general muscle relaxant (p86). The book continues by noting that the Corporation of Harrogate employed a doctor, Arnold Woodmansey, to study the physical and medicinal benefits of the waters (p91).

### 10. Chronological Development

The first mineral well to be discovered in Harrogate was the Tewit Well which was located by William Slingsby in 1571. Slingsby had been travelling through Europe on military service and noticed the similarities between the Tewit water and the original spa water in Belgium (Rotherham, 2014, p29). The well originally became disused but was revived by Dr Timothy Bright, who, in 1596, named the Tewit Well 'The English Spa'. The site was then studied by Dr Edmund Deane (1626) who wrote a treatise titled *'The English Spaw Fountaine'*. This is the first time that the noun 'spa' was used to describe English mineral water (Neesam, 2005 p71). Although visitors to Harrogate would initially drink the water, the opportunity for warm water bathing was introduced by Dr George Neale in 1626. During the next one hundred years several wells were discovered with waters suitable for either bathing or drinking. During this period, visitors to the town would bathe at their accommodation rather than at specific baths and tended to stay in the town for bathing before returning to Knaresborough, a local town with better accommodation (Hembry, 1990 p96). In 1778 Harrogate was awarded, by order of Parliament, an enclosure of two hundred acres of land known as the Stray (Figure 179). This became an area where both residents and visitors could freely walk or drive (Harrogate Borough Council, 2015 p5). Visitors would also have been able to refer to a guidebook titled *'A History of the Castle, Town and Forest of Knaresborough with Harrogate and its Medicinal Waters'* written by Eli Hargrove in 1775. This book describes six wells, the entertainments held at the various hotels. A subsequent edition

(1798) refers to billiard rooms, a theatre and racecourse. Hargrove was an astute businessman who uses the guidebook to mention the library of which he was the owner (Neesam, 2005 p147).



Figure 179  
Lithograph showing The Stray, Harrogate, Yorkshire circa 1836  
Source: Harrogate Historical Society, 2004

The location of Harrogate was beneficial for any traffic journeying between London and Edinburgh. This resulted in visitors not only from affluent northern families but also travellers from other parts of the country. This growth in visitor numbers links with an increase in the number of medicinal wells being utilised which by the mid- eighteenth century had risen to sixteen. There is also a rise in the number of inns, including the Queen's Head and the Dragon thus causing a decline in the reliance on Knaresborough for accommodation. The increasing number of visitors and accommodation resulted in the town being recognised as 'Harrogate Spa' (Hembry, 1990 p204). Although much of the entertainment occurred in the inns or lodging houses, by 1800 Harrogate was beginning to develop into a spa town rather than a location with mineral wells. In 1800 a museum had been opened while assembly rooms were opened in 1806. Local businessmen realised the importance of maintaining the conditions of the well sites. Thomas Chippendale was commissioned to design an edifice to protect the sulphur well. The pump room was opened in 1808 in time for the spa season. By 1818 Harrogate was cementing a reputation for being a resort not only for the gentry but also wealthy northern industrialists (Neesam, 2005 p165).

The resort of Harrogate began to increase steadily between 1820 and 1830. The area around the Stray had previously been the focus for accommodation as it was near the Tewit Well. The area known as High Harrogate was an imaginary triangle bordered by three hotels, The Queen's Head, The Dragon and the Granby (Neesam, 2005 p285). As the sulphur well became more popular the area known as Low Harrogate began to develop. In the early 1820s roads such as Regent Parade and Devonshire Place had been constructed. By the 1830s, urban development also included spa buildings including a pump room and several public baths. The local town of Starbeck had recently opened bathing facilities and thus Harrogate needed to ensure that this type of facility was available in the town. By 1838 the resort of Harrogate increased in popularity resulting in eighteen daily stagecoaches running from towns such as Manchester and Leeds (Hembry, 1997 p134). As Harrogate was becoming an established and popular resort it was important that the expectations of visitors were being met. It was with this in mind that the Improvement act of 1841 was executed. The town elected twenty-one commissioners who oversaw the protection of the springs, repairing of paths and ensuring that the byelaws regarding the springs and open spaces

were being respected (Friends of Valley Gardens, 2010). In 1851 the commissioners employed Isaac Strutt to design and build a pump room (Figure 180) to protect the sulphur well. The previous cupola was moved to the Tewit Well.

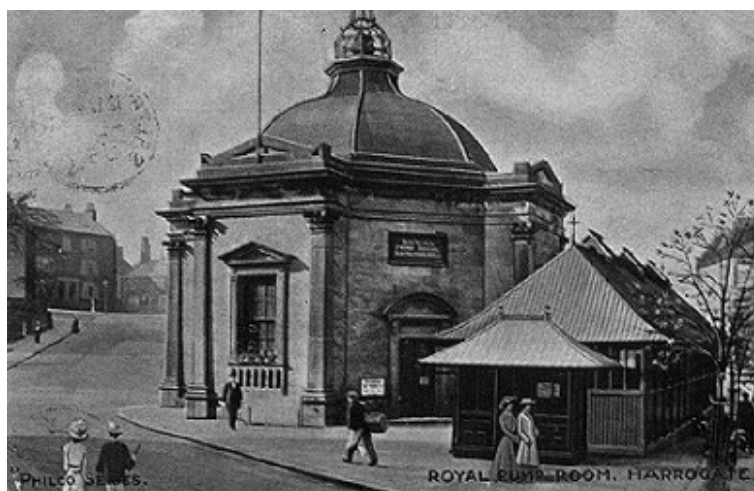


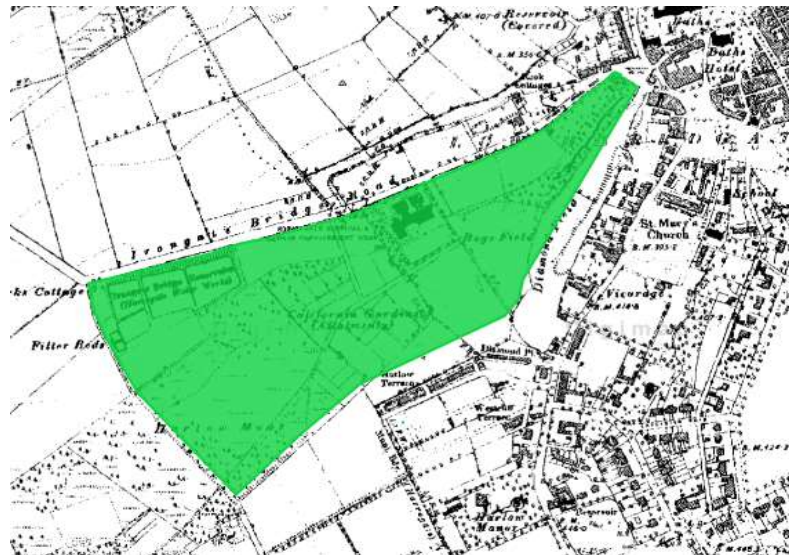
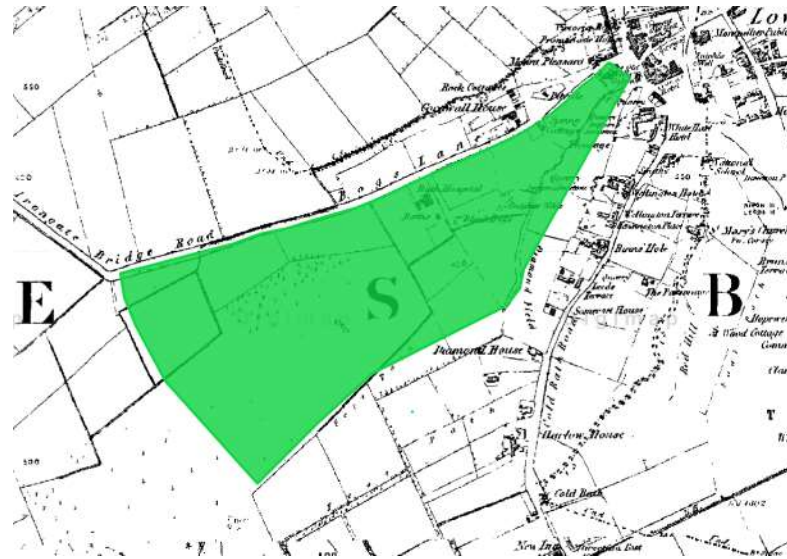
Figure 180  
Postcard of the Pump Room Harrogate, Yorkshire circa 1910  
Source: Harrogate Sulphur Soap, 2015

The Commissioners also oversaw the implementation of gas lights in 1846 (Hembry, 1997 p139). On a visit to Harrogate, Granville (1841, p71) noted a demarcation in the types of visitors attending the resort with the wealthy of the industrial north visiting in the early season while the aristocracy and gentry tended to visit later. Important to the development of the town was the construction of the railway in 1862 which provided regional and national access (Hembry, 1997 p 156). Harrogate continued to flourish as a spa resort during the remainder of the nineteenth and early twentieth century. The Royal Baths (Figure 181) were formally opened in 1897 and were regarded as offering some of the most up to date hydrotherapeutic treatments including mud baths, steam rooms, saline and peat baths as well as Turkish Baths. The complex was popular with the aristocracy including members of European royal families (Harrogate Turkish Baths, 2013). The Royal Hall, originally called the 'Kursaal' was originally built as an assembly rooms in 1903 and contained an expansive theatre. The building contained concert rooms, a billiard room and a promenade behind the theatre where visitors could walk while listening to a concert. There was originally a pleasure garden behind the edifice (Royal Hall Restoration Trust, 2017).



Figure 181  
Photograph of the Royal Baths Harrogate, Yorkshire circa 1900  
Source: Spence, 2017

Figures 182, 183 and 184  
 Ordnance Survey Maps of Harrogate, Yorkshire (1854, 1893 and 1910) showing the developments in the area known as Valley  
 Pleasure Grounds  
 Source: Edina Digimap, 2017



By the late 1850s the concept of a pleasure garden was beginning to be discussed. Many other spa resorts contained areas where visitors could enjoy the fresh air. The commissioners realised that to compete with these locations, Harrogate also required this facility. An area of privately-owned land called Bogs Field was located near to the sulphur well. This land had many well located within it including the Magnesia Well which was provided with a pump room in 1858. A Harrogate resident, David Simpson, suggested that this land should be made more accessible to residents and visitors who had to struggle through unmade paths to reach the wells. A tract of land was purchased, and the area furnished with pools, fountains and a network of paths, the development of which can be observed in Figures 182, 183 and 184 Harrogate. The first Park Superintendent was appointed in 1887. There were further additions to the site in the early twentieth century including a thatched tea-room and a bandstand, a photograph of which is shown in Figure 185 (Friends of Valley Gardens, 2010).



Figure 185  
Photograph of the bandstand in Valley Gardens Harrogate, Yorkshire circa 1900  
Source: Holman, 2017

## 11. Contemporary Landscape Components

Table 29  
Table describing contemporary landscape components in Harrogate, Yorkshire

<b>Architecture</b>	The town contains many buildings dating from the spa period including hotels and places for entertainment. There are many well heads including one protecting the Tewit Well (Figure 186). The Royal Pump Room (Figure 187) is now a museum while the Royal Baths incorporate a Turkish Spa and an upmarket Chinese restaurant. The Royal Hall was refurbished in 2008 and is now a beautiful theatre (Figures 188 and 189).
<b>Transport Links</b>	The railway (1862) provides easy access into the town. The main roads into Harrogate are unchanged since the eighteenth century.
<b>Water</b>	The basement of the Royal Pump Room contains the well head from two sulphur wells and a chalybeate well. There is a tap for one of the sulphur wells on the outside of the building. Other well heads are situated in the valley gardens while visitors can still utilise the spa at the Royal Baths.
<b>Vegetation</b>	The Stray is still a popular area for walking as is the Valley Garden. This site contains several well heads dating from the Victorian period, a band stand and tea rooms which date from the beginning of the twentieth century.



Figure 186  
Photographic view of the Tewit Well, Harrogate, Yorkshire  
Source: Cannell, 2017



Figure 187  
Photographic view of the Royal Pump Room, Harrogate, Yorkshire  
Source: Cannell, 2017

## 12. Description of Site in its Current Form

The site is still in regular use as a conference venue, a theatre and has large well-maintained area for walking. The town of Harrogate still contains many of the buildings which would have been familiar to spa users in the eighteenth and nineteenth centuries. The Royal Pump Room is now used as a local museum while many of the hotels recognisable to spa visitors such as the Old Swan and Granby are still welcoming patrons today. The local council, individual businessmen and historic organisations, both local and national, such as the Heritage Lottery Fund have helped to facilitate the restoration of buildings such as the Royal Hall, Royal Baths and the Royal Pump Room.



Figure 188  
Photographic view of the exterior of the Royal Hall,  
Harrogate, Yorkshire  
Source: Cannell, 2017



Figure 189  
Photographic view of the interior of the Royal Hall,  
Harrogate, Yorkshire  
Source: Cannell, 2017



### 13. Site Memory

The town of Harrogate embraces its spa history through the motto 'arx celebris fontibus' meaning a citadel famous for its springs. Many local buildings or businesses acknowledge their spa history in their logos including the Royal Hall and the Harrogate Spring Water Company (Figure 190). The Borough Council have placed brown plaques at the spa locations around the town (Figure 191), providing visitors with information about the buildings. There is also a heritage trail, available from the tourist information office, which signposts important buildings and locations around the town. Many of the roads within the town have kept their original names, referencing important people or places within national spa development including Crescent Road, Cold Bath Road and Regent Parade.



Figure 190  
Logo of the Royal Hall Theatre, Harrogate, Yorkshire  
Source: Harrogate Theatre, 2017

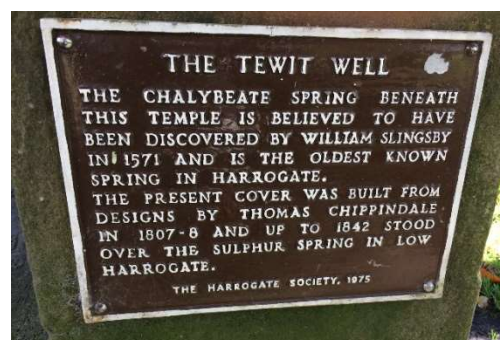


Figure 191  
Photograph of a brown plaque adjacent to the  
Tewit Well, Harrogate, Yorkshire  
Source: Cannell, 2017

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# Well Data Sheet: Hockley

## 1. General Information

Historic Name:	Hockley Spa
Contemporary Name:	Hockley Spa
First Written Description:	Granville, 1841
Nearest Settlement:	Hockley
Approximate OS Map Reference:	TQ 84168 92606
Date of Field Visit:	14.6.2018
Time of Field Visit:	1.10pm (weather sunny)

## 2. Location Map



Figure 192  
Map of Essex showing the wider context of the location of Hockley  
Source: Althistory, 2017

Hockley is situated in the southeast of Essex (Figure 192). The site is now located in an urban area (Figures 193 and 194). The wider landscape context of the site is shown in Table 30. Hockley is elevated approximately forty metres above sea level.

### 3. Local Context

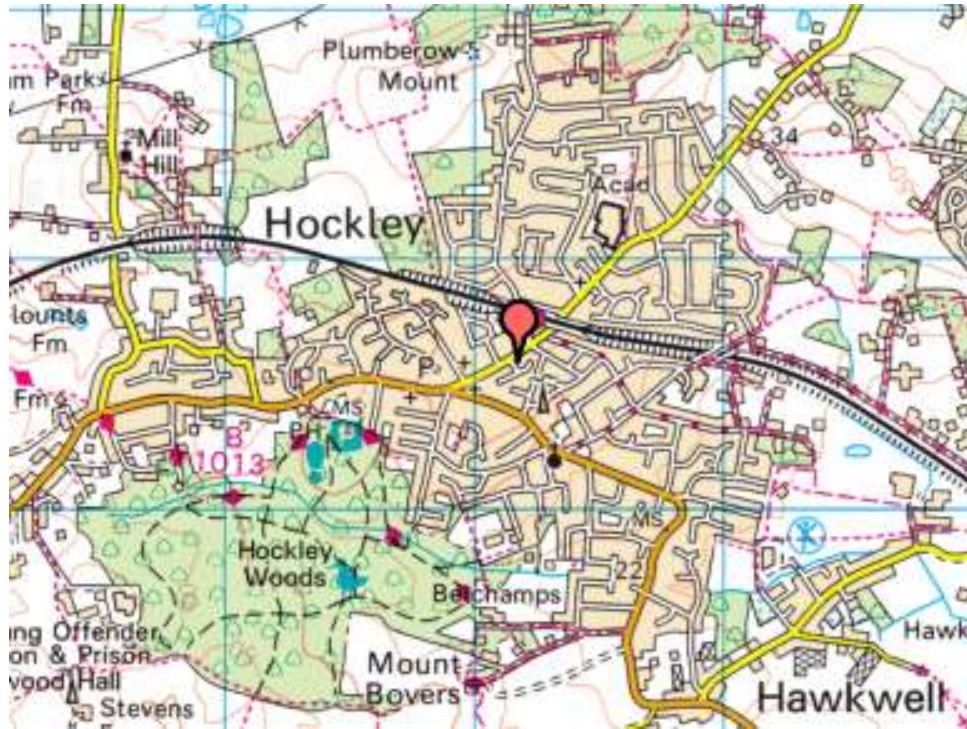


Figure 193  
Ordnance Survey map of Hockley, Essex showing the location of the Pump Room  
Source: Edina Digimap, 2016



Figure 194  
Satellite map of Hockley, Essex showing the location of the Pump Room  
Source: Essex Field Club, 2016

## 4. Landscape Context

Table 30  
Table showing the wider landscape context of Hockley, Essex

Landscape Component	1 Mile Radius	5 Mile Radius	10 Mile Radius
Village	Hockley		
Town		Rayleigh	
Road	Southend Road		
Railway	Built after demise of spa		
Woodland	Hockley Woods		
Forest			Danbury
River		River Crouch	

## 5. Historic Access and Connection

Granville (1841 p607) instructs visitors to Hockley that the most direct route involves travelling along the high turnpike and mail road to Ipswich, Great Yarmouth and Norwich, diverting at Shenfield Lodge before journeying to Rayleigh. Hockley is situated about two miles from Rayleigh (Table 30, Figure 192). Granville describes the entrance to Hockley as comprising of a few cottages and the Bull Public House. From this point travellers would then have journeyed to the lower part of Hockley (still known as the village) where there were three or four cottages including 'Hockley Spa Lodge' (Figures 195 and 196). Visitors would not have travelled by rail to Hockley as the railway station opened to the public on October 1889 (Cowell, 2001 p36). Figures 193 and 194 provide a contemporary context of the site location.

## 6. Historic Maps



Figure 195  
Ordnance Survey map of Hockley, Essex (1805) showing the subsequent location of the Pump Room  
Source: University of Portsmouth, 2017



Figure 196  
Ordnance Survey map of Hockley, Essex (1880) showing the location of the Pump Room  
Source: Edina Digimap, 2016

## 7. Geological Map

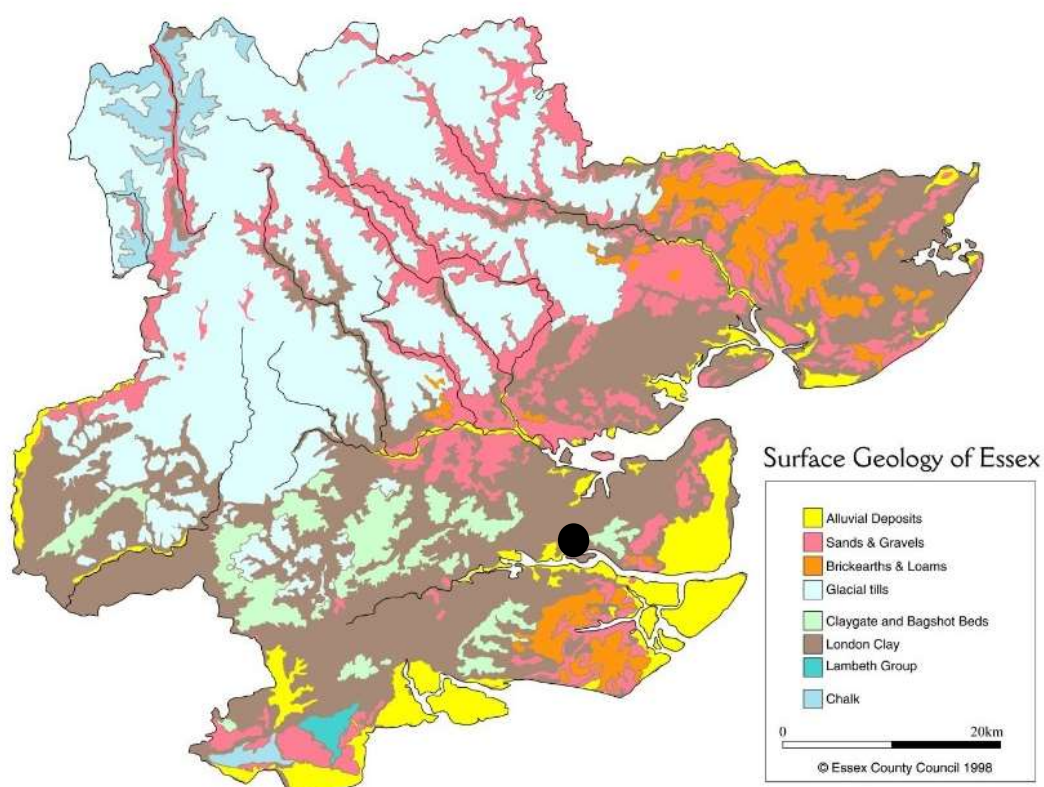


Figure 197  
Geological map of Essex showing the geological context of Hockley on London Clay, Claygate and Bagshot Beds  
Source: Geo Essex, 2016

In 1848 Samuel Lewis writes that “The surface is generally elevated, the soil heavy and rich productive, and the scenery embellished with luxuriant foliage”. Benton (1867 p272) states: “The soil is for most part heavy, towards Plumberow the soil is more adhesive- but good for turnips”.

## 8. Water Analysis

The mineral water at Hockley was analysed (Table 31) by Richard Phillips in 1841 and subsequently in 1907 by Christy and Thresh (1910 p58). Their findings are as follows (each result is measured in parts per 100,000).

Table 31  
Table comparing the analysis of Hockley water by Phillips (1841) and Christy and Thresh (1907)

Constituent	Phillips (1841)	Christy and Thresh (1907)
Calcium Carbonate	7.2	39.7
Calcium Sulphate	15.1	95.7
Magnesium Chloride	230.0	197.3
Sodium Chloride	136.7	95.0
Sodium Nitrate	0.0	1.2
Silica etc	0.0	1.3
Total Solids	453.8	430.4

In their research, Christy and Thresh (1910 p58) describe the water at Hockley as a genuine mineral water and of greater strength than any other water from Essex. They consider the lime salts to have no medicinal value and are perplexed by the large amount of Sodium Chloride in comparison with other Essex waters as there is little evidence as to why this chemical should be present. They suggest that the Lime and Magnesium Sulphate originate from thin layers of crystals present within London Clay (Figure 197).

## 9. Alleged Curative Properties

The well at Hockley was originally excavated by house owners Mr and Mrs Clay who believed that the water emanating from the site alleviated the symptoms of Mrs Clays asthma (Vingoe, 1999 p64). The water was analysed by the chemist Richard Phillips who stated that it would lessen the symptoms of asthma, scurvy and chronic stomach problems. He also claimed that the water was beneficial when easing 'determination of blood to the head'. It is unclear exactly which symptom/s Phillips is referring to in this statement. The water at Hockley Spa was also valued by Granville (1842 p612) who recommended that a pint and a half be drunk four times a day. He claimed that the water was a useful antacid in stomach complaints and in the dispersal of kidney stones. He also advised that it was successful in the alleviation of the symptoms of rickets in children.

## 10. Chronological Development

Hockley spa is the only location in Essex where intact remnants of an original pump room remain. The construction this edifice satisfies key biophilic criteria regarding a natural resource, in this case a spring, as it underwent both utilitarian and dominionistic adaptations in an attempt to attract a prosperous clientele. The spa was founded in 1842 following the endorsement of Dr A. Granville and Sir R. Phillips (Parish, 2008 p18). Granville happened upon Hockley following a recommendation from his friend, Sir Richard Phillips, when travelling to Southend to analyse the sea bathing facilities located there. He was not initially impressed with the county of Essex, stating: "Essex is a county with a bad name and when I heard of a spa being about to be established in that part of it which, like a peninsula, lies beneath the River Crouch and its marshes



to the North and the Thames and its lowlands to the South, I turned up my nose at the idea,” (Vingoe, 1999 p64)

As already identified, the spring at Hockley was originally discovered in 1838 by Robert and Letitia Clay, an elderly couple, formerly from Cheltenham. Mrs Clay was an asthmatic who found that her symptoms alleviated when she drank the water (Benton, 1867 p297). The development of the site benefitted from the insight of James Fawcett, a nephew of the Clays, who, appreciated the potential of the site as a location with not only therapeutic capabilities but also financial possibilities and thus established a simple spa facility at his house which he named Hockley Spa Lodge (Taylor, 2017 pers comm). During this initial phase of development, visitors drank one and a half pints of spa water four times each day while residing with Mr Fawcett. The water purported to help with kidney and stomach complaints and rickets (Vingoe, 1999 p65). In 1841, the enterprise caught the attention of a London-based chemist, Sir Richard Phillips, who stayed at Hockley Spa Lodge and subsequently recommended the water to his friend Augustus Granville. Fawcett was a London solicitor, who, once the potential of Hockley was being endorsed by eminent individuals, persuaded his friends to invest a large amount of money into the development of the spa as an exclusive, therapeutic location (Christy and Thresh, 1910 p57). Fawcett’s intention was to establish a large pump room, a hotel as well as ten villas and ten semi-detached villas. Until the construction of these buildings, the attraction of Hockley as a spa location to the wealthy would be limited. The enhancement of this site focussed on the intention of providing remedy for the affluent. Patrons of the establishment would travel from other areas and would require a high standard of accommodation and other facilities in order to enjoy their stay. Fawcett and his investors perhaps anticipated that their patrons would return while recommending the location to their friends. It is likely that these buildings would have been located on a site opposite the pump room as this land had been purchased by James Fawcett in the early 1840s (Taylor, 2017, pers comm). There would also be extensive pleasure grounds for clients of the spa. This Ordnance Survey Map dated 1880 demonstrates that many of Fawcett’s intended buildings and the pleasure grounds were never constructed (Figure 198).



Figure 198  
Ordnance Survey map of Hockley, Essex (1874) showing the likely location of the spa building  
Source: Edina Digimap, 2017

The pump room was constructed in a Classical Style (Figure 199) and was designed by the architect James Lockyer (Christy and Thresh, 1910 p57). The building was cross shaped and comprised of a central hall with four annexes (Figure 200). The interior contained marble fireplaces situated at each end of the main room, the walls were adorned with Sienna marble paper and mirrors while the room was lit by chandeliers. There were also tall, arched windows and Tuscan pilasters.

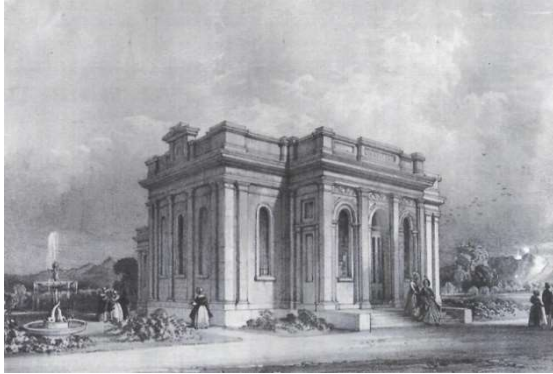


Figure 199  
Lithograph of the Pump Room, circa 1843  
Source: Taylor, 2017



Figure 200  
Postcard of the Pump Room pre-1904  
Source: Taylor, 2017

The *Essex Herald* in addition to describing the interior of the Pump Room (1843 p23) stated: “The whole appearance of the building with its two cloak-rooms, and other requisite apartments, bespeak liberality and good taste in the erection.” The quality of both the interior materials and items such as the chandeliers indicate the intention of this building being utilised by the wealthy. Behind the building was a bottling room, equipped with machinery which aerated the water as it emanated from the spring. Adjacent to the pump room was a coach house and stables (Vingoe, 1999 p65). Dr Henry Laver F.S.A lived in Hockley and wrote to Miller Christy about the construction of the pump room stating: “I remember seeing the workmen casting the plaster ornaments for the ceiling and it was the first time I had seen Roman cement to stucco a building.” (Christy and Thresh, 1910 p57). Hockley Spa was opened to the public on 8<sup>th</sup> June 1843. The *Essex Herald* (11<sup>th</sup> June 1843) states: “About two o’clock 150 ladies and gentlemen, a great number from the metropolis, sat down to a splendid breakfast in the Pump Room, supplied by Mr. Littlejohn, of King William Street, City.... Weippert’s band was in attendance and played favourite airs during the repast”. It is interesting to note that many of the visitors had travelled from London to participate in this event, perhaps wishing to be present at the establishment of a new spa resort. A description of the entertainment provided for visitors to the spa by a Hockley resident was recorded by William Tate (1899, p129) in the late nineteenth century. The resident had been a child when the pump room and spa were at their peak and stated: “...the grand ladies and gentlemen came from all parts and drank the waters, and they had balls and parties and concerts and what not, and picnics in the woods. ...thought ‘twas going to be one of the grandest places in the universe”. These contemporary statements affirm the intention of Fawcett to create an exclusive facility enjoyed by the monied classes.

The Spa hotel was built on the site of a small cottage to accommodate visitors to the spa who did not wish to lease a villa and was also designed by the architect James Lockyer (Figure 201). The historian Philip Benton describes how the cottage was previously owned by a local man named

William Hazard who died in 1808 at the grand age of 105 although there is no evidence to suggest his longevity could be attributed to his consumption of therapeutic water (Christy and Thresh, 1910 p58). The hotel contained a sitting room, coffee room, bar, and bedrooms with veneered marble sinks (Vingoe, 1999 p68). The hotel and pump room were initially managed by William Summershall. In 1848 Summershall, recognising the possibility of a commercial aspect to the resource, began to transport the spa water to several outlets in London (Hembry, 1997 p97). These included Sheens in Vauxhall and Whites in Cornhill. The *Essex Chronicle* printed a list of more than fifty druggists which sold Hockley Water (Cowell, 2001 p34). Through exporting the water to an audience removed from its original location Summershall was both ensuring another income source as well as perhaps introducing the resource to new users who might ultimately make a visit to the spa.



Figure 201  
Plate showing a photograph of the Spa Hotel, Hockley, Essex circa 1910  
Source: Phoenix FM, 2015

The success of the Hockley Spa was unfortunately short lived. Figure 198 highlights the lack of urban development undertaken by the 1880s. A local resident described the demise of the Spa and the outcome of the investors. She asserted that: "They all lost their money, every man Jack of 'em, and the company went into liquefaction, as they calls it, and, afterwards, so I've heard, got into the lawyers' hands. (Tate, 1899 p130). On May 16<sup>th</sup>, 1848, an advertisement regarding the sale of the Spa Hotel appeared in the *Essex Herald* and *Chelmsford Chronicle* newspapers as well as in public houses across Essex (British Newspaper Archive, 2017). In 1863, the Spa Hotel was sold to the Chelmsford Brewery for £350 who re-named it The Royal Oak. The pub had a poor reputation and was the location for the local poor to collect their dole money (Vingoe, 1999 p68). Benton writes that by 1871 the hotel was being leased as a beer shop for £10 per annum (Cowell, 2001 p36).

By 1873 the pump room was being leased as a Baptist chapel for £8 per year (Vingoe, 1999 p68). The building was also used by the Wesleyans, Salvationists and the Peculiar People, a religious sect unique to this part of Essex (Tate, 1899 p130). There were further attempts to revive the pump room. In 1880, a gentleman named Mr Laveaux spent £20 having the water analysed but proceeded no further with any plans. In the late 1890s a public liability company owned by Mr Coghlan and Mr Beck was established with the intention of re-developing the pump room, but this too was unsuccessful. In 1904, the pump room was bought by Mr J. Burgess who was planning to demolish the building and construct a family home on the site. He eventually utilised it as an

extension to his home which was built next door (Figure 202). The room was converted into a billiard room although visitors were still able to drink the water (Christy and Thresh, 1910 p58).



Figure 202  
Photograph showing the family home built by Mr Burgess in 1904  
Cannell, 2016

The property was sold by auction in 1944 following the death of Mr Burgess and was bought by the Schweppes company. They re-sold the property in 1950. Since this date, the pump room has had a variety of uses including a clothing factory and a printing works. (Cowell, 2001 p37). The pump room was under threat of demolition in 1967 but was granted Grade II listed building status in 1972 (Historic England, 2016). Many individuals appear to have held noble intentions to develop the spa site at Hockley into a commercial enterprise, however, may have been a lack of intent from local authorities to support these aims.

In 1980, the pump room was bought by Guinness Bros Ltd, a company that owned several snooker halls. During refurbishment, the well was rediscovered. After completing analysis of the water, Guinness Bros established a company with the intention of selling the water. The analysis estimated that the well could yield approximately two thousand litres of water per week. The company was called Hockley Spa Mineral Water Company Ltd and sold water directly to customers for 40p a litre. Although there was some initial interest the company eventually went into liquidation in 1989. The local council intended to sell the building as a potential nursing home but eventually it was bought as a private residence in the 1990s (Cowell, 2001 p38).

## 11. Contemporary Landscape Components

Table 32  
Table describing the contemporary landscape components in the vicinity of the Pump Room, Hockley, Essex

<b>Architecture</b>	The pump room was being refurbished in 2017/2018 and remains a private residence. The façade remains intact and was restored. The Spa Hotel was renamed the Spa Public House.
<b>Transport Links</b>	Spa Road and Southend Road are still in existence. The railway was built after the demise of the Spa, opening to the public in October 1889.
<b>Water</b>	The water source still exists under the floor of the Pump Room.
<b>Vegetation</b>	The vegetation is consistent with an urban area including barrier hedging and front gardens.

## 12. Description of the Site in its Current Form

The Pump Room is located on a busy road, close to a parade of shops constructed during the late 1950s and an industrial estate constructed in the early 1970s (Figure 203). There was some housing erected adjacent to the Pump Room in the early 2000s, reducing the significance of the building within the landscape as shown in Figure 204. There was some green space associated with the urban development, but no evidence of the gardens created to complement the original site. Table 31 provides information regarding the contemporary landscape.



Figure 203  
Photographic views taken of Spa Road, Hockley, Essex, from outside the Pump Room, looking North (left) and South (right)  
Source: Cannell, 2017



Figure 204  
Photograph of Spa House and the Pump Room, Hockley, Essex  
Source: Cannell, 2017

### 13. Site Memory

While not being necessarily typical of many Essex well sites where local knowledge of a spring could be traced back through many generations, the area surrounding the Pump Room demonstrates significant levels of contemporary site memory. The location of the Pump Room is reflected in the naming of 'Spa Road' while a sheltered housing complex called 'Spa Court' has been developed across the road from the site (Figure 205). The local dental surgery, Spa Dental Clinic, also echoes the site history.



Figure 205  
Photographs showing Spa Court sheltered housing complex and the Spa Public House, Hockley, Essex  
Source: Cannell, 2017

Originally called the 'Spa Hotel' but subsequently undergoing several changes of name, the local public house is once again known as the 'Spa' (Figure 205). A housing estate located approximately half a mile from the Pump Room has roads named after other famous spa towns. An Ordnance Survey map dated 1937 (Figure 206) shows Leamington Road and Harrogate Road while a further Ordnance Survey map dated 1966 (Figure 207) shows two further roads called Cheltenham Road and Tonbridge Road. This urban recognition coupled with the main road name suggests the perpetuation of site memory almost a century after the initial spa construction.

Increased value and recognition of the Hockley Spa is evident in the attitude of the local Parish Council who were creating a series of plaques to acknowledge the history of Hockley and intended to place one on the Pump Room. They are planning a heritage trail for the town which will include the Pump Room and hotel (Taylor, 2017, pers comm).

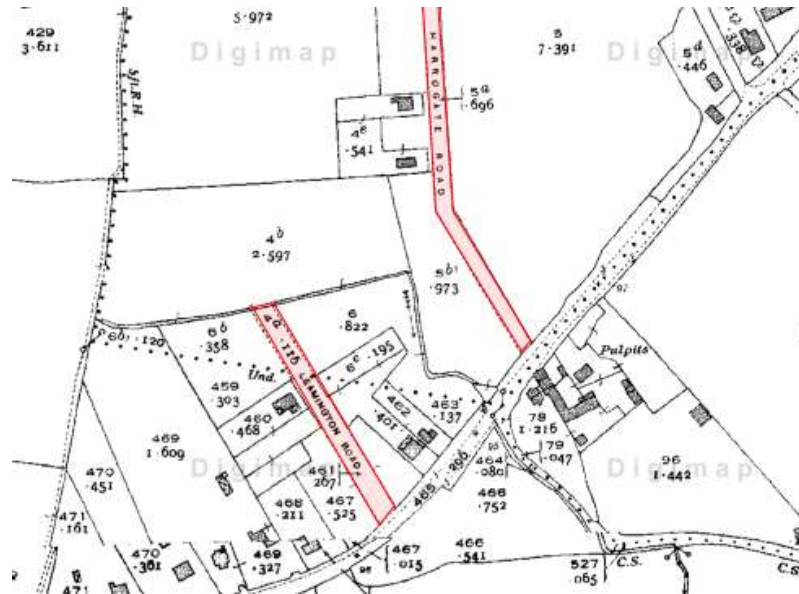


Figure 206  
Ordnance Survey map of Hockley, Essex (1937) showing roads named after key spa towns  
Source: Edina Digimap, 2017



Figure 207  
Ordnance Survey map of Hockley, Essex (1966) showing a continued trend in street names  
Source: Edina Digimap, 2017

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Cannell, E. (2017) Photograph of Spa Court, Hockley, Essex.

Cannell, E. (2017) Photograph of the Spa Public House, Hockley, Essex.

Taylor, P. (2017) Copy of a lithograph of the Pump Room, Hockley, Essex.

Taylor, P. (2017) Copy of a postcard of the Pump Room, Hockley, Essex pre-1904.

### **Personal Communication**

Taylor, P. (2017) Detailed conversation regarding the history of the Hockley Pump Room and the Spa Hotel with Paul Taylor, a local historian on 18<sup>th</sup> September 2017.

# Well Data Sheet: Hornchurch

## 1. General Information

Historic Name:	Hornchurch Lane Spring, Havering Well
Contemporary Name:	Hornchurch Lane Spring
First Written Description:	Dr M Trinder, 1783
Nearest Settlement:	Romford
Approximate OS Map Reference:	TQ 51666 87510
Date of Field Visit:	17.3.2019
Time of Field Visit:	12.30pm (weather sunny)

## 2. Location Map



Figure 208  
Map of Essex showing the wider context of the location of Hornchurch  
Source: Althistory, 2017

Hornchurch is situated in the southeast of the county in an urban area (Figures 208 and 209). It is located eleven metres above sea level. The wider landscape context of the site is shown in Table 33. This site is known as the Hornchurch or Havering Well.

### 3. Local Context



Figure 209  
Ordnance Survey map of Hornchurch, Essex showing the approximate location of the Hornchurch Spring  
Source: Edina Digimap, 2017

### 4. Landscape Context

Table 33  
Table showing the landscape context of the well at Hornchurch, Essex

Landscape Component	1 Mile Radius	5 Mile Radius	10 Mile Radius
Village	Hornchurch		
Town	Romford		
Road	Hornchurch Lane		
Railway	Romford Station		
Woodland		Burnt House Wood	
Forest			
River	River Ingrebourne		

### 5. Historic Access and Connection

Although the spring is located adjacent to roads leading to Upminster and Romford, it is likely that the spring would have been used by local people as described by Christy and Thresh who would not have required specific transport links but would have walked to the site (Figures 210 and 211).

## 6. Historic Maps



Figure 210  
Ordnance Survey map of Hornchurch, Essex (1805) showing the location of the Hornchurch Spring  
Source: University of Portsmouth, 2009-2017

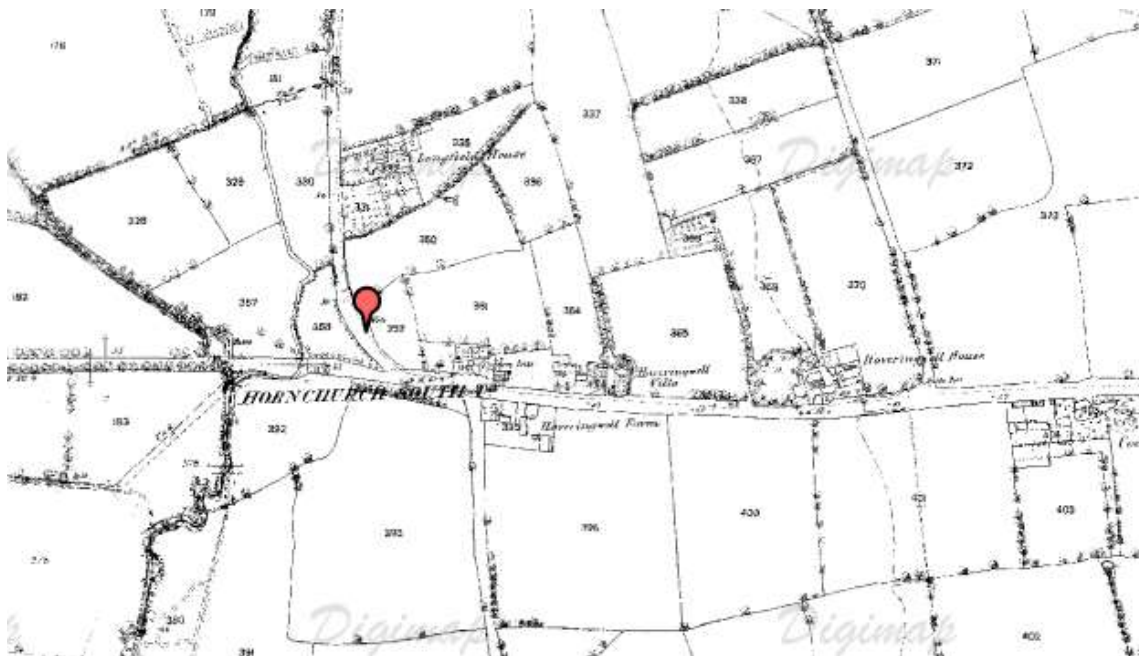


Figure 211  
Ordnance Survey map of Hornchurch, Essex (1867) showing a possible location for the Hornchurch Lane Spring  
Source: Edina Digimap, 2017

## 7. Geological Map

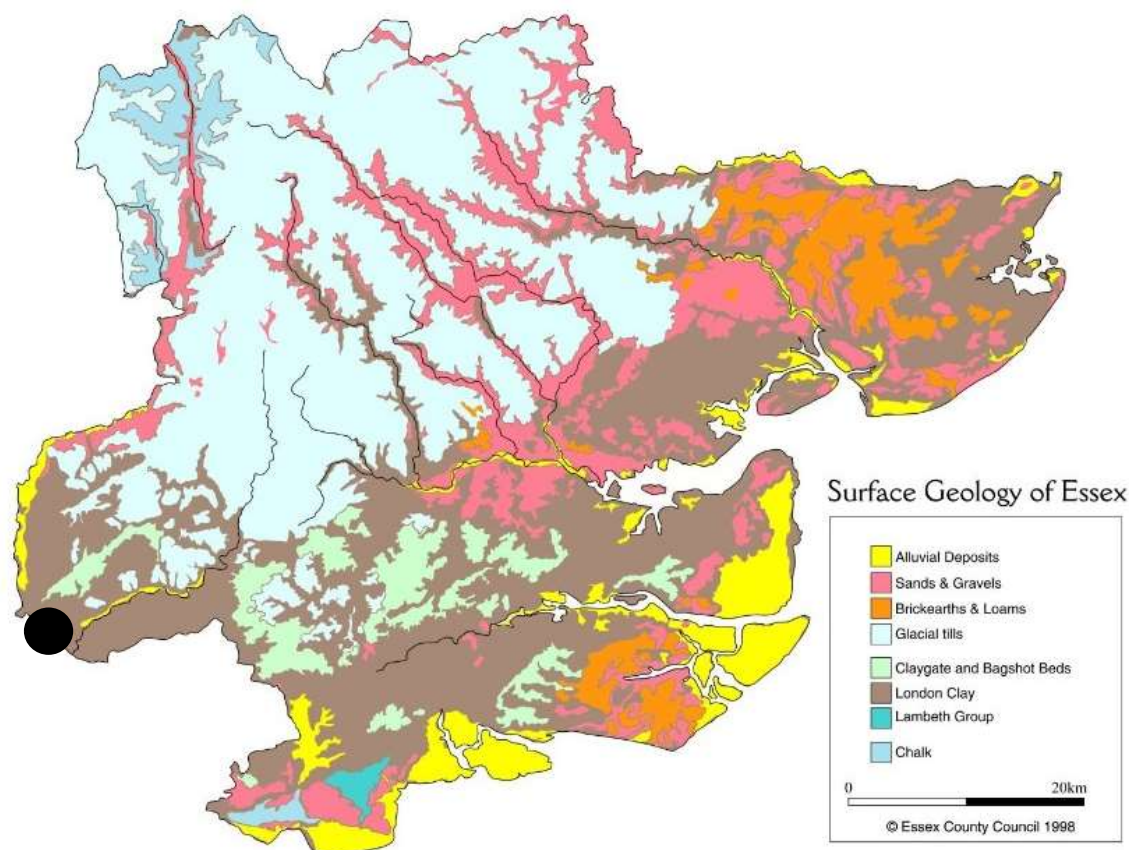


Figure 212  
Map showing the surface geology of Essex and the location of Hornchurch on London Clay.  
Source: Geo Essex, 2016.

## 8. Water Analysis

Although the water at Hornchurch was analysed by Martin Trinder in 1783, this study focussed on the behaviour of the water when mixed with other components rather than the constituent parts of the water itself. A sample of the water was collected for analysis by Christy and Thresh on September 10<sup>th</sup>, 1907 (Table 34). Their findings are as follows (each result is measured in parts per 100,000).

Table 34  
Table showing the results of scientific analysis on water from the Hornchurch well, Essex by Christy and Thresh, 1907

Constituent	Parts per 100,000
Calcium Carbonate	17.6
Calcium Sulphate	21.1
Magnesium Sulphate	5.9
Magnesium Chloride	1.17
Sodium Chloride	12.42
Sodium Nitrate	5.2
Silica etc	0.6

Christy and Thresh asserted that the water contained nothing to warrant the term 'medicinal water'. They noticed that it contained a reasonable amount of Calcium Sulphate, probably deriving from the selenite contained in London Clay (Figure 212). It is likely that the water passed through Thames Gravel, just below which the Calcium and Magnesium Sulphates and the Sodium Chloride would be supplied (1910, p48).

## 9. Alleged Curative Properties

The water was analysed by Dr Martin Trinder (1783 p23) who claimed that it would be of benefit in the treatment of gout and excess stomach acid. He stated that the water would be a useful remedy in the treatment of jaundice, scurvy and rheumatism. Trinder also claimed that the Havering Well water was particularly light, making it a useful addition in breadmaking. He also stated that if used in laundering clothes, less soap would be required. Christy and Thresh describe that local people were still using the water to bathe their eyes in the early twentieth century (1910 p47).

## 10. Chronological Development

The Hornchurch Lane Spring was initially described by Dr Martin Trinder (1783) whose description of the spring is as follows: "...about a mile from Romford, a small spring of water rises to view which I believe has not been hitherto much noticed nor regarded. It is perfectly clear, has no peculiar taste and is inodorous" (p20).

Trinder undertook fourteen experiments on a sample of the water and concluded that 'this almost pure water is impregnated with an alkaline salt and with but little or no terrestrial matter' (Christy and Thresh, 1910 p47). Christy and Thresh assert that this spring was also known as the Havering Well and that it was still in existence in 1907. They describe how the meadow land in which the spring was located contained many springs making it difficult to ascertain exactly where the spring head was but described a small barrel at the side of the road let into the ground so that the top of the spring was at ground level. Christy and Thresh felt that the spring was probably of greater importance in the past. The hamlet Havering Well was named because of the spring as were the properties Havering-Well Farm and Villa. They described that even at the turn of the century local people were still using the water to bathe their eyes.

## 11. Contemporary Landscape Components

Table 35  
Table describing the contemporary landscape components in the vicinity of the Havering Well Spring, Essex

<b>Architecture</b>	It is unlikely that the original site contained any buildings given that it was utilised by local people. The current architecture is synonymous with a busy urban area.
<b>Transport Links</b>	The site is in central Romford. Considering the site was previously the site of a healing spring it is interesting to note that the local hospital is located close by. The A124 road is adjacent to the site (Figure 213).
<b>Water</b>	There was no water visible at the site the location of which is now at the side of the road in an urban area.
<b>Vegetation</b>	The site is located in a busy urban area containing housing, a retail park and several busy roads. There was a great deal of street furniture but little evidence of vegetation apart from a few trees and shrubs planted at the roadside (Figure 213).



Figure 213  
Photographs showing the urban context of the Havering Well site  
Source: Cannell, 2019

## 12. Description of the Site in its Current Form

The site is located in an urban location close to the A124 road. The site contained a great deal of street furniture linked with the A road and accompanying footpaths. There was limited vegetation, consisting mainly of trees and shrubs at roadside. Most trees were London Plane *Platanus x acerifolia*.

## 13. Site Memory

There was nothing within the immediate landscape to suggest that a well had once been located in the area through the use of street or school names. The site is now urbanised and so the signage had relevance for the roads and businesses located there

## Sources

### Published

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### Unpublished

Cannell, E. (2019) Photograph showing the urban landscape surrounding the Havering Well site

Cannell, E. (2019) Photograph showing the urban landscape surrounding the Haver



# Well Data Sheet: Ilford

## 1. General Information

Historic Name:	St Chad's Well, Brick Well, Wooden Well
Contemporary Name:	St Chad's Well
First Written Description:	Christy and Thresh, 1910
Nearest Settlement:	Ilford
Approximate OS Map Reference:	TQ 47063 89580
Date of Field Visit:	17.3.2019
Time of Field Visit:	1.40pm (weather sunny/cloudy)

## 2. Location Map



Figure 214  
Map of Essex showing the wider context of the location of Ilford  
Source: Althistory, 2017

The site is situated in south Essex at a location which remains rural despite the urban encroachment of Ilford (Figures 214 and 215). Ilford is approximately twenty-five metres above sea level. The wider landscape context of the site is shown in Table 36.

### 3. Local Context



Figure 215  
Ordnance Survey map of Ilford, Essex showing the location of St Chad's Well  
Source: Edina Digimap, 2017

### 4. Landscape Context

Table 36  
Table showing the landscape context of the well at Ilford, Essex

Landscape Component	1 Mile Radius	5 Mile Radius	10 Mile Radius
Village			
Town		Romford	
Road	Billet Road		
Railway		Romford Station	
Woodland		Tile Kiln Wood	
Forest		Hainault Forest	
River		River Rom	

### 5. Historic Access and Connection

It is unlikely that people would have travelled any distance to visit this well. Christy and Thresh described the well as being used locally for domestic and healing purposes rather than a location visited by people in search of a cure. The rural location is highlighted in Figures 216 and 217.

## 6. Historic Maps



Figure 216  
 Ordnance Survey map of Ilford, Essex (1805) showing the approximate location of St Chad's Well  
 Source: University of Portsmouth, 2009-2017



Figure 217  
 Ordnance Survey map of Ilford, Essex (1881) showing the location of St Chad's Well  
 Source: Edina Digimap, 2017

## 7. Geological Map

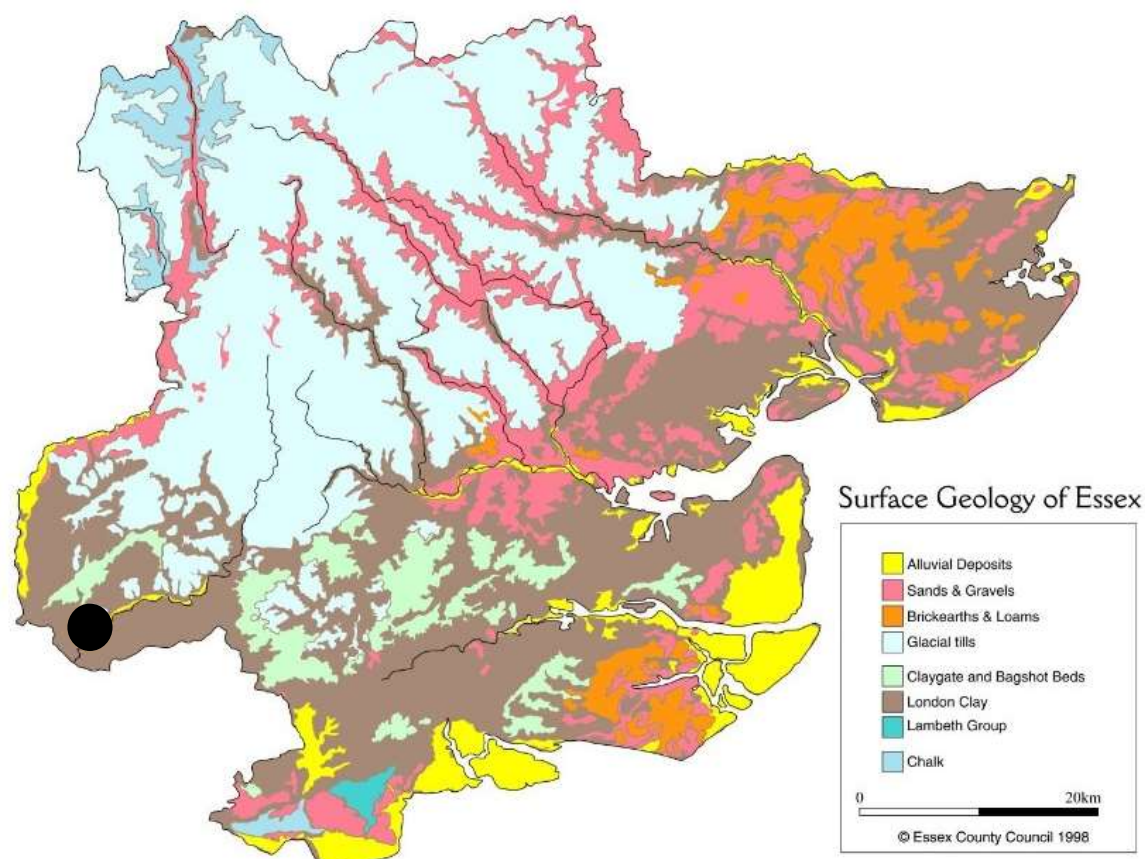


Figure 218  
Map showing the surface geology of Essex and the location of Ilford on London Clay, Sands and Gravels  
Source: Geo Essex, 2016

## 8. Water Analysis

A sample of this water was collected for analysis by Christy and Thresh on September 10<sup>th</sup>. 1907 (Table 37). Their findings are as follows (each result is measured in parts per 100,000).

Table 37  
Table showing scientific analysis by Christy and Thresh (1907) of the water at the Ilford Well, Essex

Constituent	Parts Per 100.000
Calcium Carbonate	9.7
Calcium Sulphate	22.4
Calcium Chloride	3.0
Magnesium Chloride	11.3
Sodium Chloride	0.5
Potassium/Sodium Nitrate	12.8
Silica etc	3.3

Christy and Thresh described this water as being atypical in nature as the magnesium salt is a chloride rather than a sulphate. They suggested that the water probably derived from gravel beds similar to those at the Havering Well although this water holds greater amounts of magnesium. Christy and Thresh noted that water had been contaminated by manured soil in the adjacent fields and contained large quantities of nitrates from the manured material. They suggested that the water derived from Thames Gravel at a junction with London Clay (Figures 218 and 219).

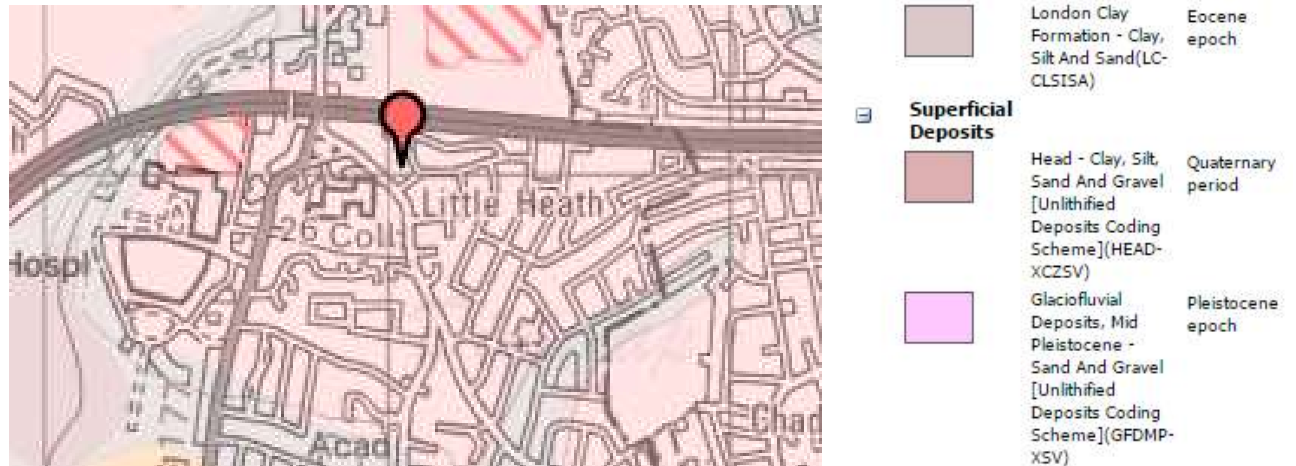


Figure 219  
Geological map of the area including St Chad's Well  
Source: Edina Digimap2017,

## 9. Alleged Curative Properties

There is little written about St Chad's well. During their analysis, Christy and Thresh (1910 p51) spoke to several residents who claimed that the water was used to alleviate the symptoms of sore eyes.

## 10. Chronological Development

The site is initially mentioned by Christy and Thresh after a visit in 1907 although it is likely that the site was much older. It is located on Billet Road and was covered by a dome of brickwork (Figure 220) which Christy and Thresh estimated derived from the eighteenth century (Cowell, 2001 p66).

The well is located near to the Roman Road connecting London and Colchester which was known as a pilgrimage route in the mediaeval period (St Chad's, 2017). Christy and Thresh describe that the well may originally been utilised by the Brother Bishops to baptise converts to their faith. They state that the well was used by local people who had problems with their eyesight while mentioning that the well was also used by local people for domestic purposes as there was a continual excess run off from the spring (Christy and Thresh, 1910 p51).



Figure 220  
 Photograph of St Chad's Well taken by Alfred Wire, 1907  
 Source: Essex Field Club, 2017

The wellhead was eventually lost when Billet Road was widened in the twentieth century. The site is marked by a bronze plaque located on the pavement near the property at 62 Billet Road (Figure 221). The plaque was erected to commemorate the Festival of Britain by the Borough Council in 1951 (Essex Field Group, 2017).



Figure 221  
 Photographs of a plaque erected by Ilford Borough Council to commemorate St Chad's Well  
 Source: Cannell, 2019

## 11. Contemporary Landscape Components

Table 38  
Table describing the contemporary landscape components in the vicinity of St Chad's Well, Ilford, Essex

<b>Architecture</b>	A plaque showing the location of the wellhead has been placed upon a small brick structure. There is no evidence of the wellhead photographed by Christy and Thresh which was moved as a result of urban highway development.
<b>Transport Links</b>	Billet road is still a busy thoroughfare for nearby housing. Although the width of the road has altered, its location is unchanged.
<b>Water</b>	There is evidence of water located behind the well marker. The water appears to continue in farmland across the road from the original well head (Figure 222).
<b>Vegetation</b>	The vegetation is consistent with that bordering farmland consisting of trees and groundcover such as nettles. The site was somewhat overrun with litter on the date of the field visit.



Figure 222  
Photographic views of the area opposite St Chad's Well  
Source: Cannell, 2019, Ilford, Essex

## 12. Description of the Site in its Current Form

The well is located on a busy road, close to two farms and a row of houses. Although there are housing estates located close to the site, the area remains surrounded by farmland. The site contained a great deal of litter which, interestingly, seemed to be located mainly around the site of the marker (Figure 223).



Figure 223  
Photographic views along Billet Road, Little Heath, Ilford, Essex  
Source: Cannell, 2019

### 13. Site Memory

Although there are no street names or schools alluding to the site in the immediate vicinity a local area is known as Chadwell Heath in tribute to St Chad while the local park (marked in green) is called St Chad's Park. This area is situated approximately 1500 metres south of the well site (Figure 224).

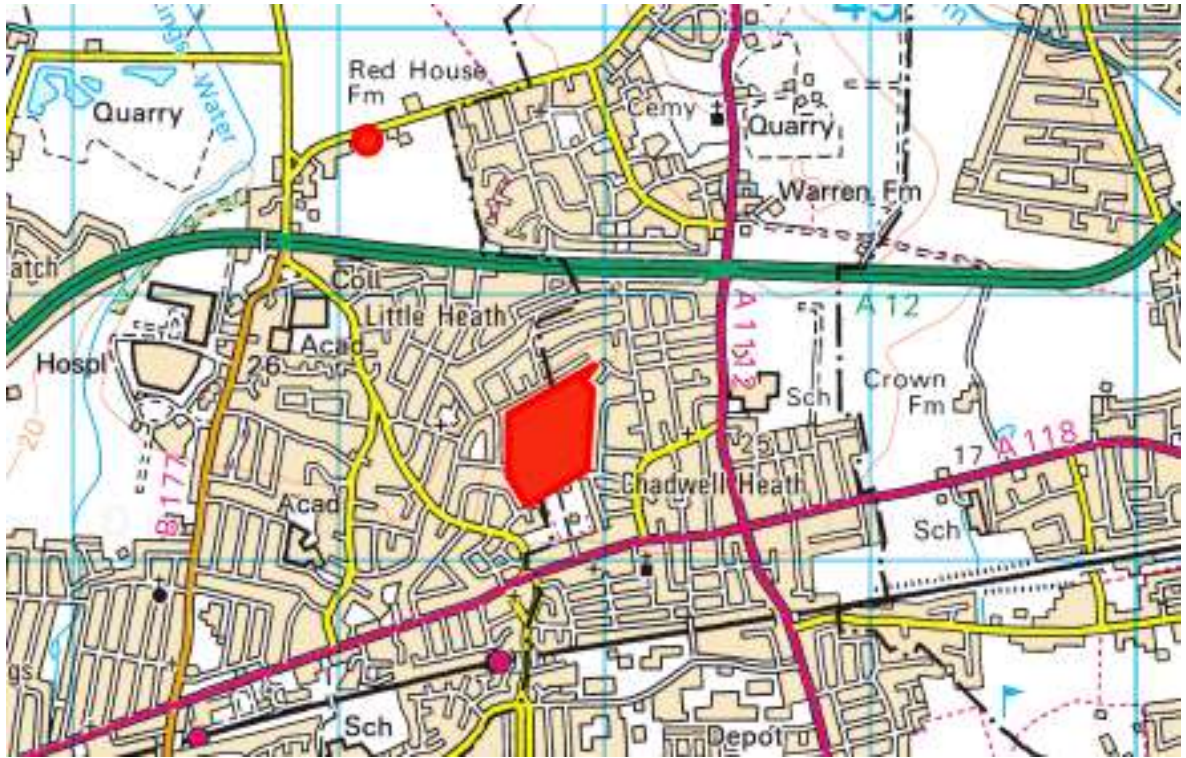


Figure 224

Ordnance Survey map of Ilford, Essex showing the location of Chadwell Heath and St Chad's Park in relation to St Chad's Well

Source: Edina Digimap, 2017



## Sources

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Wire, A. (1907) Photograph of St Chad's Well, Chadwell Heath. [www document] <http://essexfieldclub.org.uk> (Accessed 26<sup>th</sup> April 2017).

### Unpublished

Cannell, E. (2019) Photograph of the marker showing the location of St Chad's Well, Ilford.

Cannell, E. (2019) Photograph of the plaque marking the location of St Chad's Well, Ilford.

Cannell, E. (2019) Photographs showing views of Billet Road, Little Heath, Ilford.

Cannell, E. (2019) Photograph showing views of the area opposite St Chad's Well, Ilford.

# Well Data Sheet: Marks Hall

## 1. General Information

Historic Name:	Marks Hall Spring
Contemporary Name:	Marks Hall Spring
First Written Description:	Benjamin Allen, 1699
Nearest Settlement:	Coggeshall
Approximate OS Map Reference:	TL 82066 27300
Date of Field Visit:	25/8/2018
Time of Field Visit:	3.15pm (weather changeable)

## Location Map



Figure 225  
Map of Essex showing the wider context of the location of Marks Hall  
Source: Althistory, 2017

The site at Marks Hall is located in mid-Essex. The area is still predominantly rural and situated south of Halstead (Figures 225 and 226). Marks Hall is located approximately forty metres above sea level. The wider landscape context of the site is shown in Table 39.

### 3. Local Context



Figure 226  
Ordnance Survey map of Marks Hall, Essex showing the approximate location of the Marks Hall Spring  
Source: Edina Digimap, 2017

### 4. Landscape Context

Table 39  
Table showing the landscape context of the well at Marks Hall, Essex

Landscape Component	1 Mile Radius	5 Mile Radius	10 Mile Radius
Village	Greenstead		
Town	Halstead	Coggeshall	
Road	Small Local Roads		
Railway			
Woodland	Copps Wood		
Forest	Marks Hall Wood		
River	Bourne Brook		

### 5. Historic Access and Connection

The combination of the rural location of this spring and the small roads leading to the site result in the probability that the Marks Hall Spring was only ever used by local people to alleviate their aches and pains (Figures 227 and 228).

## 6. Historic Maps



Figure 227

Ordnance Survey map of Marks Hall, Essex (1805) showing the approximate location of the Marks Hall Spring  
 Source: University of Portsmouth, 2017

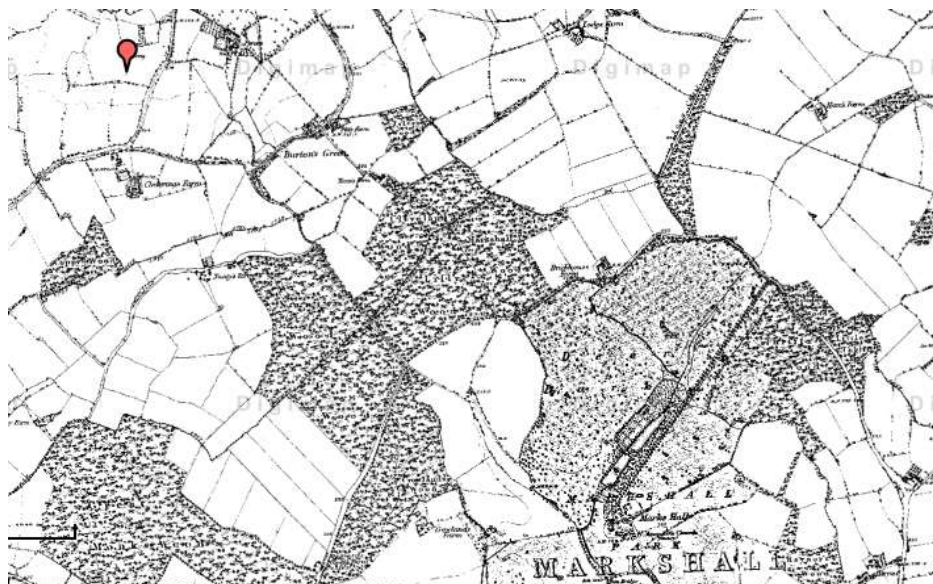


Figure 228

Ordnance Survey map of Marks Hall, Essex (1881) showing the location of the Marks Hall Spring  
 Source: Edina Digimap, 2017

## 7. Geological Map

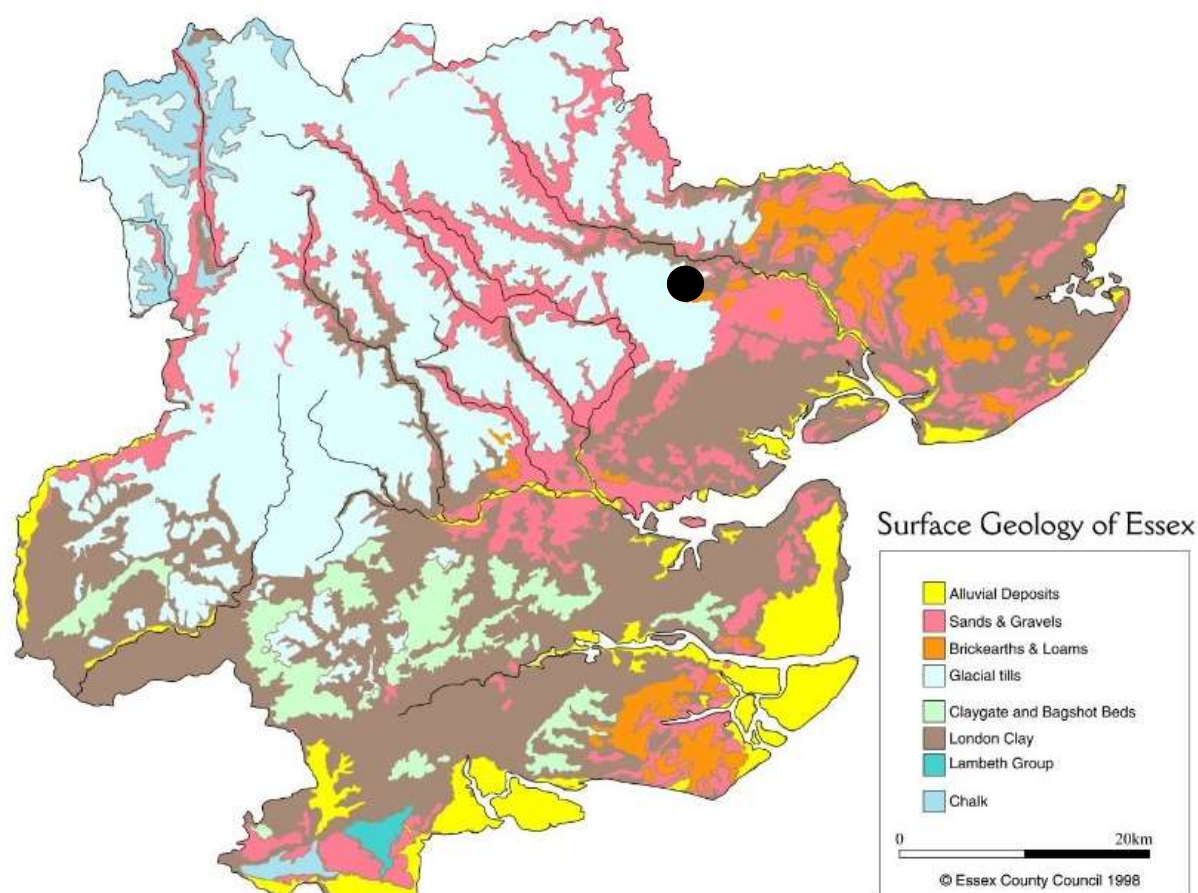


Figure 229  
Map showing the surface geology of Essex and location of Marks Hall on glacial gravel  
Source: Edina Digimap, 2017

## 8. Water Analysis

The water was initially analysed by Benjamin Allen (1699, p21) who focussed on the reaction of the water when mixed with other components rather than the constituent parts of the water itself. Allen described the water as being similar to the Knaresborough Spring; Yorkshire and pronounced the water itself as being a chalybeate water containing nitrous salt. He also stated that this water weighed the same as common water. The location of this spring was unknown by the time Christy and Thresh compiled their inventory but their colleague, Mr Dalton, concluded that the water derived from glacial gravel on the west side of Marks Hall Park as highlighted in Figures 229 and 230 (Christy and Thresh, 1910 p30).

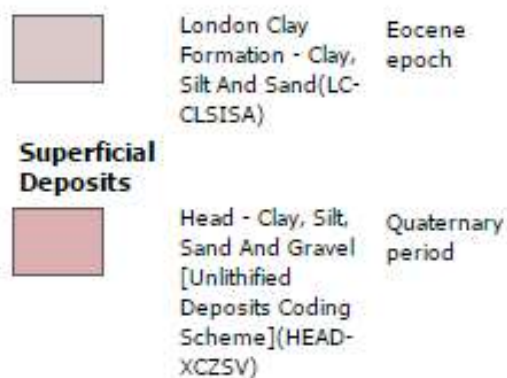


Figure 230  
Geological map of the area including the Marks Hall Spring, Essex  
Source: Edina Digimap, 2017

## 9. Alleged Curative Properties

There is no written evidence to suggest exactly which symptoms the well water would have alleviated although if the water was chalybeate as indicated by Dr Allen (1699) it is likely that it would have been used as a purgative as this tended to be the purpose of similar waters.

## 10. Chronological Development

The Marks Hall Spring was originally recorded by Benjamin Allen in 1699. Little is written about the spring which would suggest that it was small and used primarily by local people. Christy and Thresh were unable to locate the spring in the early 1900s. A spring is marked on an Ordnance Survey map dated 1876 (Figure 231) although an Ordnance Survey map dated 1924 shows no trace of the well (Figure 232). The spring site is described by Allen as laying somewhere in the Parish of Marks Hall so the spring marked on the earlier map would be credible.



Figure 231  
 Ordnance Survey map of Marks Hall, Essex (1876) showing the location Marks Hall Spring  
 Source: Edina Digimap, 2017



Figure 232  
 Ordnance Survey map of Marks Hall, Essex (1924) showing the location of the Marks Hall Spring,  
 now unmarked  
 Source: Edina Digimap, 2017

## 11. Contemporary Landscape Components

Table 40  
Table describing contemporary landscape components in the vicinity of the Marks Hall spring site

<b>Architecture</b>	There are no remnant remains at the site.
<b>Transport Links</b>	The site is situated in a rural location with a single-track road and a long walk across a field (Figure 233).
<b>Water</b>	There is no evidence of the original water source.
<b>Vegetation</b>	The vegetation is typical of that surrounding arable farmland, consisting of trees, shrubs and ground cover plants. Figure 234 shows the approximate location of the site.



Figure 233  
Photograph showing the route to the Marks Hall spring site  
Source: Cannell, 2018

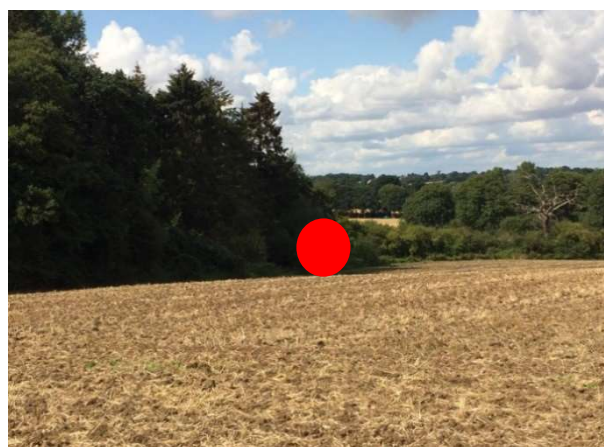


Figure 234  
Photograph showing the approximate location of the spring site  
Source: Cannell, 2018

## 12. Description of Site in its current form

The site is located in the far corner of a field and is surrounded by shrubs and trees.

## 13. Site Memory

There is no local recognition of the well site.



## Sources

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### Unpublished

Cannell, E. (2018) Photograph showing the approximate location of the Marks Hall Spring, Essex.

Cannell, E. (2018) Photograph showing the route to the Marks Hall Spring site.

# Well Data Sheet: The Rectors Well

## 1. General Information

Historic Name:	The Rector's Well
Contemporary Name:	The Rector's Well
First Written Description:	Martin Trinder, 1783
Nearest Settlement:	West Tilbury
Approximate OS Map Reference:	TQ 66096 77510
Date of Field Visit:	26.5.2019
Time of Field Visit:	11.05am (weather sunny)

## 2. Location Map



Figure 235  
Map of Essex showing the location of West Tilbury  
Source: Althistory, 2017

West Tilbury is situated in southeast Essex (Figure 235). The location remains rural as shown in Figure 236. West Tilbury is located twenty-three metres above sea level. The wider landscape context of the well site is shown in Table 41.

### 3. Local Context



Figure 236  
Ordnance Survey map of West Tilbury, Essex showing the location of the Rector's Well  
Source: Edina Digimap, 2016

### 4. Landscape Context

Table 41  
Table showing the landscape context of the well site near St James' Church, West Tilbury, Essex

Landscape Component	1 Mile Radius	5 Mile Radius	10 Mile Radius
Village	West Tilbury		
Town	Grays		
Road	Church Road		
Railway	London, Tilbury, Southend Line		
Woodland	Shrove Hill Wood		
Forest			
River	Thames		

### 5. Historic Access and Connection

This well seems to have been used primarily for the transportation of water to London for sale or export. Figure 237 shows a turnpike road near the site which perhaps provided a route to the capital. Tilbury, at this point, was a rural area (Figures 237 and 238) and so it is possible that the water was conveyed to the capital by boat as the River Thames is in close proximity to the site.

## 6. Historic Maps



Figure 237  
 Ordnance Survey map of West Tilbury, Essex (1805) showing the location of the Rector's Well  
 Source: University of Portsmouth 2017



Figure 238  
 Ordnance Survey map of West Tilbury, Essex (1873) showing the location of the Rector's Well  
 Source: Edina Digimap, 2016

## 7. Geological Map

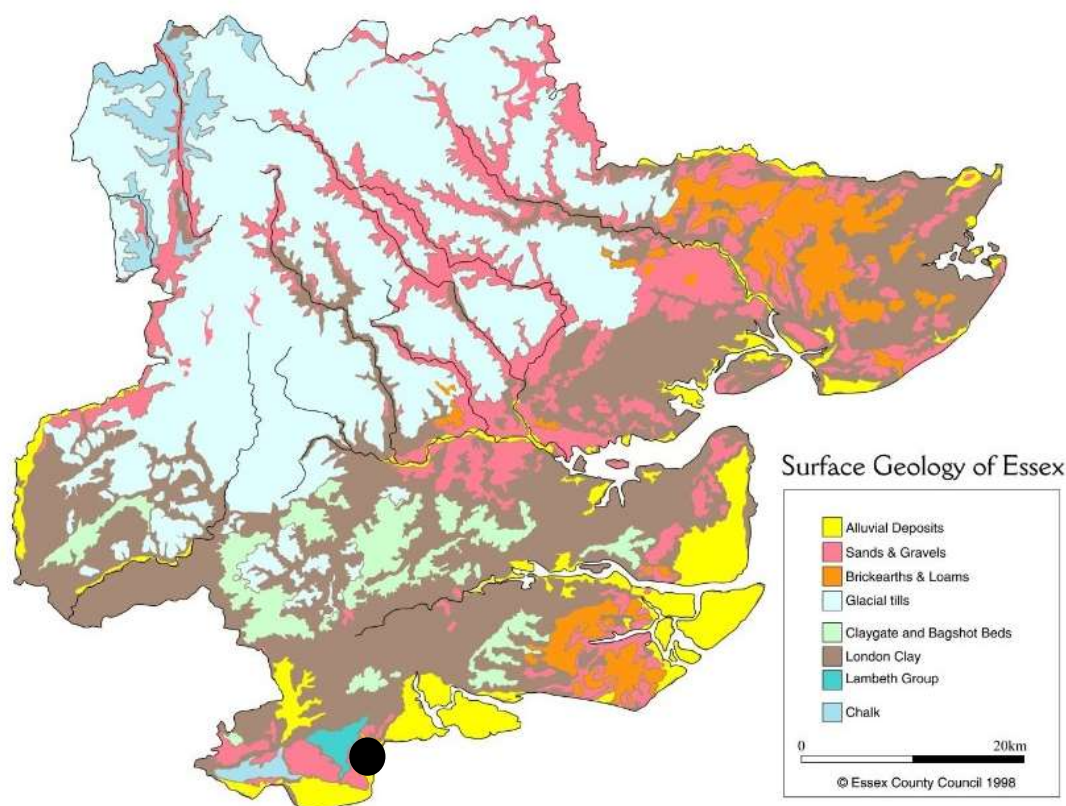


Figure 239  
Map showing the surface geology of Essex and location of West Tilbury on sands and gravels  
Source: Geo Essex, 2016

## 8. Water Analysis

The water was examined by Dr Martin Trinder in 1783 although his study focusses on the behaviour of the water when mixed with other components rather than the constituent parts of the water itself. Trinder described the water as “inodorous, having a pale-yellow colour and a pleasant taste” (Trinder, 1783 p9). A sample of the water was collected for analysis (Table 42) by Christy and Thresh on 14<sup>th</sup> September 1907 (Christy and Thresh, 1910 p41). The well was approximately four feet in diameter and was bricked to a depth of ten feet. The distance from ground level to water level was nineteen and a half feet. Christy and Thresh estimated that there was roughly three feet of water present in the well. They describe how the well was in a poor state; the water was polluted with a scum of vegetable matter and animal waste on the surface and was green in colour. Their findings are as follows (each result is measured in parts per 100,000).

Table 42  
Table showing results of scientific analysis by Christy and Thresh (1907) on water from the Rector's Well, West Tilbury, Essex

Constituent	Parts Per 100,000
Calcium Carbonate	27.7
Magnesium Carbonate	7.2
Sodium Carbonate	2.05
Sodium Sulphate	3.7
Sodium Chloride	18.8
Organic matter in residue	30.0
Silica etc	2.1

Christy and Thresh asserted that the water from this well was significant despite the levels of pollution as it is the only water in Essex containing Sodium Carbonate, something that would have deemed it to be a medicinal water in the eighteenth century. This type of water would have been used as an antacid. They surmise that the presence of Sodium Carbonate results from the Thanet Sands which surface at West Tilbury. The water also passes through Thames Gravel (See Figures 239 and 240).



Figure 240  
Geological map of the area including the Rector's Well.  
Source: Edina Digimap, 2016.

## 9. Alleged Curative Properties

The water was analysed by Dr Martin Trinder (1783 p9) who stated that it would be beneficial in alleviating the symptoms of an upset stomach.

## 10. Chronological Development

In the late 1770s the rector of St James' Church, West Tilbury (Figure 240) began to sell water to Owen's Warehouse in Temple Bar, London from a nearby spring. Trinder (1783, p9) states that the spring was located on the side of a hill in the vicinity of the church and that the pump was positioned in the Parsonage House. The spring is marked on Ordnance Survey maps well into the nineteenth century. This well soon became disused although when Christy and Thresh visited the area in 1907 the well was still visible and was situated in a field of marrows. They described the well as being unfenced and dangerous if people were unaware of its location (Christy and Thresh, 1910 p41). The spring is no longer visible although there is a cottage situated nearby which may possibly have been used by a caretaker of the site (Cowell, 2001 p15).



Figure 241  
Photograph of St James Church, West Tilbury, Essex  
Source: Cannell, 2019

## 11. Contemporary Landscape Components

Table 43  
Table describing the contemporary landscape components in the vicinity of the Rector's Well

<b>Architecture</b>	This site consisted of a pump within a domestic dwelling and as such never had any architecture associated with it.
<b>Transport Links</b>	The spring site is now situated to the rear of St James churchyard. (Figure 242). The road layout is relatively unchanged.
<b>Water</b>	There was no indication of a spring at the site
<b>Vegetation</b>	The spring site is currently located to the rear of a churchyard adjacent to farmland. The field adjacent to the site contained several horses, making it inaccessible. The site was surrounded by trees and groundcover including nettles and grass (Figure 243).



Figure 242  
Photograph from St James Churchyard into farmland  
Source: Cannell, 2019



Figure 243  
Photograph of the vegetation to the rear of St James Church.  
Source: Cannell, 2019

## 12. Description of the Site in its Current Form

The site is currently located to the rear of St James churchyard adjacent to farmland. The well site is in poor condition (Figures 242 and 243). There was no evidence of either the pump or a spring. The site is accessible through the churchyard of a presently deconsecrated church. Although access may be feasible from the adjacent field this was not possible during the field visit due to the presence of several horses. The churchyard was in an unkempt condition. The possible site was overgrown with nettles and other ground cover, making it difficult to investigate thoroughly due to the uneven nature of the ground.

## 13. Site Memory

Tilbury was originally a Roman location whose name means a fortified place belonging to Tila (Ancestry, 2020). There is no evidence such as road names to suggest that a well existed in this area although a local conurbation is called Chadwell St Mary (Figure 248). During the field visit a community group were collecting litter. Several individuals indicated that as well as the spring at the church, there was a well at the property next door (West Tilbury Hall). There was a large pond close to this property called Well House, built in 1480. This property had an underground stream which still feeds the pond (Figures 244, 245 and 246).

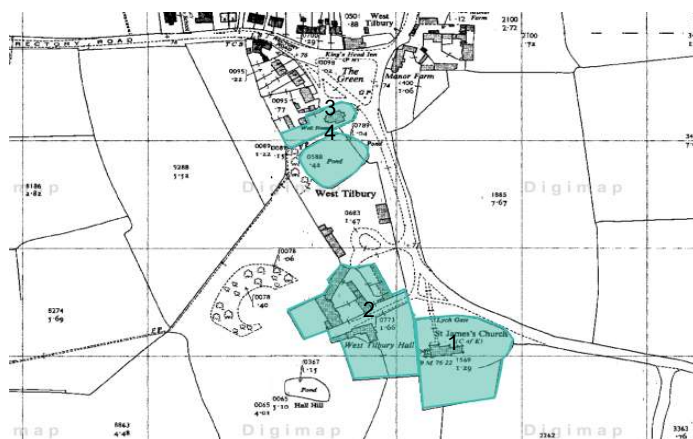


Figure 244  
Ordnance Survey map of West Tilbury, Essex (1963) showing the location of St James Church (1), West Tilbury Hall (2), Well House (3) and adjoining pond (4)  
Source: Edina Digimap, 2019



Figure 245  
Photograph showing the pond adjacent to Well House  
Source: Cannell, 2019



Figure 246  
Photograph of Well House, West Tilbury, Essex  
Source: Cannell, 2019



This pond was originally used by the village blacksmith who drove carts into the water when repairing the ironwork on the wheels as the cold water caused the iron to shrink, making it easier to remove them. West Tilbury is famous for being the location where Queen Elizabeth I gave her Armada speech in 1588. The group were able to indicate the likely fields where the troops listened to the speech (Figure 247 and 248).



Figure 247  
 Photograph showing the field where the troops listened to  
 the Armada Speech  
 Source: Cannell, 2019

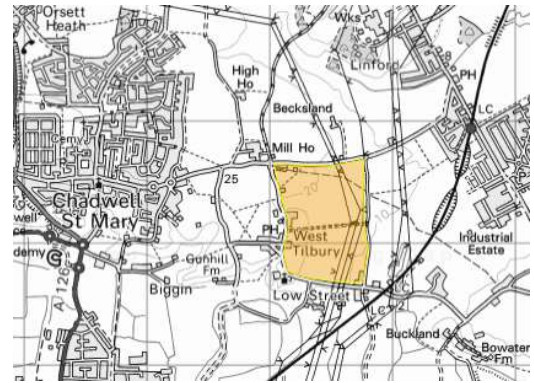


Figure 248  
 Ordnance Survey Map (1994) showing the same site  
 Source: Edina Digimap

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**Unpublished**

Cannell, E. (2019) Photograph showing the view from St James churchyard, West Tilbury, Essex into the adjacent fields.

Cannell, E. (2019) Photograph showing the fields where the troops listened to Queen Elizabeth I's Armada Speech at West Tilbury

Cannell, E. (2019) Photograph showing the pond adjacent to Well House, West Tilbury, Essex

Cannell, E. (2019) Photograph of St James Church, West Tilbury, Essex

Cannell, E. (2019) Photograph of the vegetation in St James churchyard, West Tilbury, Essex

Cannell, E. (2019) Photograph of Well House, West Tilbury, Essex

**Personal Communication**

West Tilbury Community Group. (2019) Informal discussion (26.5.2019) about well sites in West Tilbury and the likely location of troops listen to the Armada Speech given by Queen Elizabeth I.

## Well Data Sheet: Scarborough

### 1. General Information

Historic Name:	Scarborough Spaw
Contemporary Name:	Scarborough Spaw
First Written Description:	Dr Robert Wittie, 1660
Nearest Settlement:	Scarborough
Approximate OS Map Reference	TA 04463 87962
Date of Field Visit:	23.10.2017
Time of Field Visit:	3.00pm (weather overcast)

### 2. Location Map



Figure 249  
Map of Yorkshire showing the wider context of the location of Scarborough  
Source: examiner.co.uk, 2017

Scarborough is situated in North Yorkshire (Figure 249). As the reputation of Scarborough grew, the area became increasingly urbanised as is shown in Figures 250, 251, 252 and 253. The wider landscape context of the area is shown in Table 44. The spa site is located close to a large, sheltered bay known locally as the South Sands at the base of a steep cliff.

### 3. Local Context

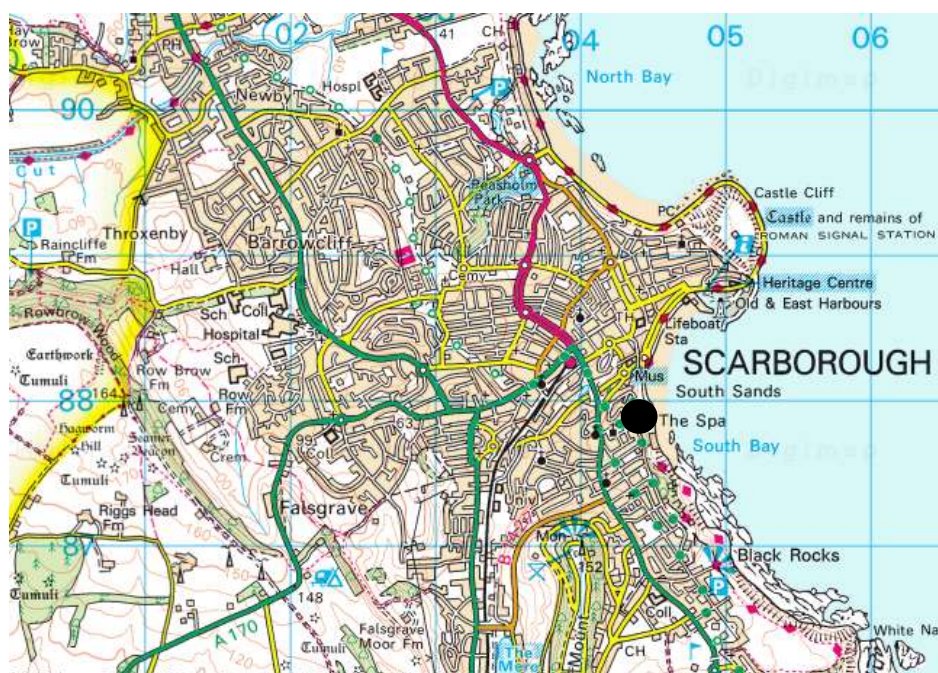


Figure 250  
Ordnance Survey map of Scarborough, Yorkshire  
Source: Edina Digimap, 2017

### 4. Landscape Context

Table 44  
Table showing the landscape context of the spa at Scarborough, Yorkshire

Landscape Component	1 Mile Radius	5 Mile Radius	10 Mile Radius
Village			
Town	Scarborough		
Road			
Railway	Scarborough Station		
Woodland			
Forest			
River		Derwent	

### 5. Historic Access and Connection

During the mid-1800s the spa at Scarborough was predominantly utilised by the northern aristocracy who would have travelled to the site by carriage. During this period, the local corporation constructed a coach road from the cliff top to the spa location in an attempt to render this journey less treacherous. By the 1750s the Great North Road had been turnpiked, making the journey to Scarborough more convenient (Hembry, 1990 p210). Due to the somewhat inconsistent condition of many roads, it was not uncommon for visitors to travel to Scarborough by boat. As the spa became more popular, the harbour was enhanced by extending the Old Pier in order to allow pleasure craft easier access (Sherman, 2017). The railway station in Scarborough opened to the public in 1883 but, in common with other seaside resorts such as Southend-on-Sea, Essex, was mostly utilised by day trippers rather than those wishing to stay longer (Historic England, 1990).

## 6. Historic Maps



Figure 251  
 Ordnance Survey map of Scarborough, Yorkshire (1805) showing the location of the Scarborough Spa  
 Source: University of Portsmouth, 2017



Figure 252  
 Ordnance Survey map of Scarborough, Yorkshire (1853) showing the location of the Scarborough Spa  
 Source: Edina Digimap, 2017



Figure 253  
 Ordnance Survey map of Scarborough, Yorkshire (1895) showing the location of the Scarborough Spa  
 Source: Edina Digimap, 2017

## 7. Geological Map

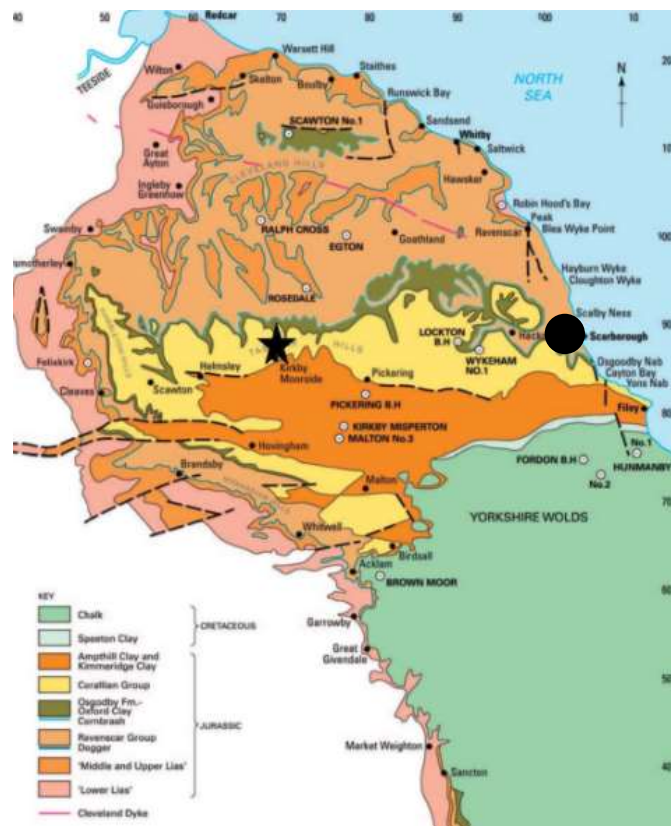


Figure 254  
 Map showing the surface geology of Yorkshire and the location of Scarborough  
 Source: palass.org, 2014

## 8. Water Analysis

The Water at Scarborough was analysed by Dr Thompson (Table 45) and were published by John Forbes in 1835 (p468). The saline contents of an imperial gallon were analysed. Thompson stated that he was unable to evaluate the gaseous or iron contents due to the long journey of the water from Scarborough to his laboratory in Glasgow. He did, however, assert that the water was less successful as a purgative than the waters of Leamington; Warwickshire or Cheltenham; Gloucestershire. Thompson described Scarborough as being renowned for two mineral springs, situated a quarter of a mile from the town. The wells are referred to as North and South. Each result is measured in parts per 100,000. Local physicians recommended that between five and eight pints daily for a period of four to six weeks. Patients would imbibe two and a half pints followed by exercise. This would be repeated until the requisite amount of water had been taken (SASH, 2003 p49). The surface geology of the location can be ascertained from Figure 254.

Table 45  
Table showing analysis of water from the North and South Wells, Scarborough, Yorkshire by Dr Thompson

Constituent	North Well	South Well
Magnesium Sulphate	105.94	22.41
Sulphate of Lime	47.64	147.12
Calcium Chloride	38.00	
Sodium Chloride	7.23	25.36
Magnesium Chloride		3.88
Carbonate of Lime		9.97

## 9. Alleged Curative Properties

The water at Scarborough was initially used during the Civil war by members of the aristocracy who had sought protection at Scarborough Castle to relieve the symptoms of scurvy. By the late seventeenth century Doctor John Wittie claimed the waters would be effective in the treatment of a wide range of conditions, including jaundice, vertigo, general nightmares and melancholic conditions. The use of the water as a purgative is evident from the construction of a wooden enclosure at the spa site in the early 1700s where patrons could wait until their symptoms had elapsed (SAHS, 2003 p49-50).

## 10. Chronological Development

It is believed that the mineral waters at Scarborough were discovered in 1620 by a local merchant's wife called Mrs Farrer who noticed a mineral spring emanating from the cliff approximately a quarter of a mile south of the town. The water stained the surrounding rocks a russet colour (Swift, 2017). The reputation of the water benefitted from the political situation of the seventeenth century when the gentry of Yorkshire took shelter in Scarborough Castle (Figure 255) to escape the vagaries of the civil war. During this period, the water was being used to alleviate the symptoms of scurvy but continued in popularity after the Restoration.



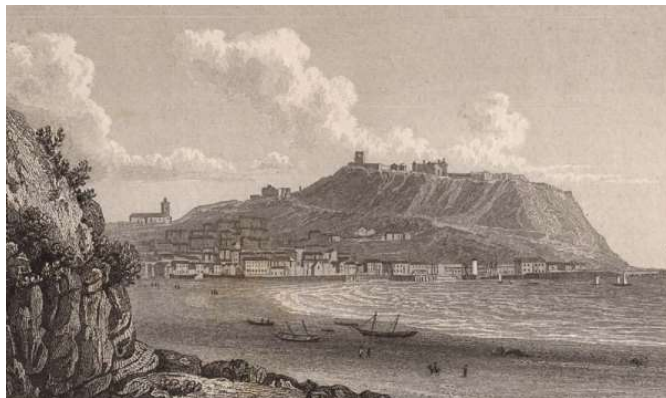


Figure 255  
Sketch of Scarborough Castle by William Westall (1829)  
Source: Robert Britton, 2017

Although by this point the spring had already been acknowledged as having restorative properties, it was recognised during the 1670s by two eminent physicians. Robert Wittie, a doctor from York, wrote a work titled '*Scarborough Spa*', in which he discussed the chemical and medicinal properties of the water, stating that the water would cure 'melancholic vapours, nightmares, apoplexy, catalepsie, epilepsie, vertigo and yellow and black jaundice' (SAHS, 2003 p49). William Simpson, a member of the Royal Society wrote several pamphlets including '*The Chymical Anatomy of the Scarborough, and other Spaws in Yorkshire*' (1669) and '*A History of Scarborough Spaw*' (1679) (Hembry, 1990 p75). The location of the spa was maintained by the local corporation who, in 1698, constructed a water cistern and a wharf to protect the site from the ravages of the sea. In 1700 the corporation added a house to the site, which was rented to Dickie Dickinson, the governor of the spa (Swift, 2017). Mr Dickinson adapted his houses for visitors to stay there and erected a basic wooden construction with the purpose of selling and dispensing bottles of the spring water (Hembry, 1990 p75). This shelter also had specific areas for men and women where the spa users could allow any symptoms to pass, in effect, a basic communal toilet (SAHS, 2003 p50). The Spa site is shown on John Cossins map of Scarborough dated 1725 (Figure 256).

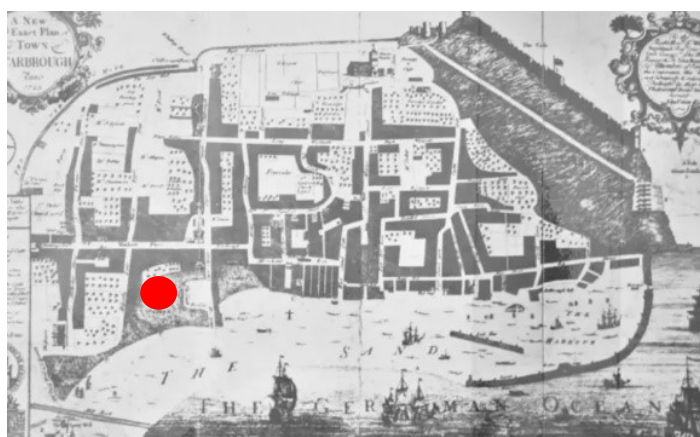


Figure 256  
Map of Scarborough by John Cossin showing the location of the spa site  
Source: Scarborough News, 2011

Visitors to Scarborough in the eighteenth century were not limited to activities in the area around the spa but could participate in boating and sea bathing or watching horse racing on the beach. Scarborough was one of the first places in England where bathing machines were utilised. At this point visitors to the spa had to access it via a series of steep steps which proved difficult for the infirm. The corporation realised that this could perhaps prove a disincentive to prospective visitors and so employed John Bland to erect a coach road from the cliff top down to the beach (Hembry, 1990 p210). By the 1730s it is estimated that at least one thousand visitors were using the spa waters annually, the majority of these being northern aristocracy. The site, however, experienced a series of setbacks during the 1730s (SAHS, 2003 p50). The wharf, built to protect the site, was washed away in 1735. This was followed by a cliff fall in 1737 which destroyed Mr Dickinson's house and the well site. The importance of the site to the economy of Scarborough is evident from the time taken to re-establish the site which took approximately five weeks (Swift, 2017). Following the problems of the 1730s, the local corporation realised that if Scarborough were to succeed as a spa town, they would need to invest in the infrastructure (Binns, 2003 p114). As Scarborough became more popular as a spa resort, it became clear that visitors were beginning to expect a range of activities for their entertainment. The typical spa visitor was based in the town for a month and thus would need plenty to do. During this period much of the spa development occurs in what is known as the Upper Town, with the original inns and rooms located in the Lower Town. New constructions included a coffee house, theatre, book shop and library culminating in a public garden in 1787 (SAHS, 2003 p52). It was usual during this period for visitors to use both the upper and lower town. While the theatre and library were popular pastimes, visitors also enjoyed the opportunity to watch horse racing on the beach or to take part in boating or bathing (Scarborough Spa, 2017). In 1778 Richard Joseph Sullivan stated that 'the bathing is the chief inducement for company to resort hither' (Binns, 2003 p121). Hembry (1990 p213) also highlights the importance of the turnpiking of the Great North Road in the 1750s as being significant to the development of Scarborough as a spa town.



Figure 257  
 Painting titled 'Sea Bathing at Scarborough' by Thomas Rowlandson, 1813  
 Source: Major, 2015.

The early nineteenth century witnessed a high level of building work in Scarborough. By 1834 The Crescent had been constructed in a similar vein to other spa towns, while terraces of new villas were created. A spa walk was created along the cliffs and became the location for lodging and residential houses (Hembry, 1997 p142). In 1826 the Cliff Bridge Company was formed and appointed Mr Cuthbert as the chief engineer. This company now also managed the operation of the spa, an undertaking previously carried out by the corporation. The Cliff Bridge was opened on July 19<sup>th</sup>, 1827 (Prescott, 2017). In 1836 another storm was to prove problematic to the function of the spa when the Old Spa House was destroyed. The Cliff Bridge Company succeeded in

obtaining the lease of the building and began to redesign the structure. The new building was designed by Henry Wyatt and included a saloon, concert hall, gardens and a promenade (Hembry, 1997 p144).

Among the many esteemed visitors to Scarborough was Dr Granville who visited the town during August 1839 in order to examine the spa facilities for his book, *The Spas of Northern England*. Granville was pleased by the location of the spa buildings and the 'flat, firm clean sands' in the vicinity. He was impressed with the condition of the sea bathing machines (Figure 257) and described the resort as 'the most pleasing' of the English Spas (Binns, 2003 p170). The spa continued to proceed as an urban initiator during the nineteenth century. Although the spa pavilion had been enlarged in the 1840s it was redesigned by Joseph Paxton and opened in 1858. Paxton was also contracted to design the Westbourne Estate which included the Royal and Oriol Crescents (Hembry, 1997 p170). The construction of the Valley Bridge enabled easier access to the South Bay leading to an increase in the construction of further roads and buildings (SASH, 2003 p57). The arrival of the railway in 1845 led to an increase in the creation of hotels and lodging houses as larger numbers of visitors, including the Prince of Wales were able to access the resort. The most prominent Hotel from this period was The Grand (Figure 258) which was erected in 1869, consisting of thirteen storeys (Hembry, 1997 p171).



Figure 258  
Photograph of The Grand Hotel Scarborough, circa 1890  
Source: Francis Frith, 2017.

The Spa Saloon was devastated by a fire on September 8<sup>th</sup>, 1876. A new Grand Hall was opened to the public in June 1879 demonstrating the importance of the spa facilities to the economy of Scarborough. This building helped to provide the town with a reputation for music, resulting in many renowned musicians performing at this venue (Swift, 2017). The town succeeded in promoting a host of temptations to draw in potential visitors. Scarborough contained many open spaces, the earliest of these being owned by William Bean and containing a pinery. Bean's garden was well established by the 1780s and was accessible to visitors through a subscription. Other popular gardens such as the Cliff and Crescent gardens were private enterprises requiring a subscription. The first public park was the People's Park which was renamed Valley Gardens in 1912. In 1889 the corporation bought a four-acre site which became known as Peasholm Park. The site was extended in 1911 and was landscaped by borough engineer Harry Smith who gave the area a Japanese theme. The site contained a stylised wooden bridge to the island which housed a Pagoda (Binns, 2003 p213). The Rotunda museum had opened in the 1860s and was described by Granville as being 'a most delightful source of amusement and intellectual gratification' (Binns, 2003 p171). Visitors could take a boat trip or could visit the local countryside, perhaps visit the Aquarium or attend the Theatre Royal (SASH, 2003 p60). Access to the spa was

improved in 1875 when the first cliff tram to be constructed in England was opened to the public (Swift, 2017). By 1879 work was beginning on the construction of the Foreshore Road which travelled between the harbour and Spa Bridge, providing visitors with two-mile coastal walk. Scarborough continued to develop into the twentieth century, although at this point the original spring was covered and no longer used (Hembry, 1997 p237).

## 11. Contemporary Landscape Components

Table 46  
Table describing contemporary landscape components in the vicinity of the Scarborough Spa, Yorkshire

<b>Architecture</b>	The building constructed by Thomas Verity in 1880 is currently being used as a conference centre and theatre. The open-air theatre is still regularly used during the summer.
<b>Transport Links</b>	There is a funicular (opened in 1875) which provides easy access from the cliff top. There is road access to the site although there is still a slight walk.
<b>Water</b>	There is no evidence of the original water source although the site is situated in a coastal location.
<b>Vegetation</b>	There are gardens to the rear of the spa site which are well maintained were being enjoyed by several people.

## 12. Description of Site in its current form

The site is still in regular use as a conference venue, a theatre and an area for outdoor concerts (Figure 259). The town of Scarborough still contains many of the buildings which would have been familiar to spa users in the eighteenth and nineteenth centuries. The Rotunda is still in use as a geological museum while many of the hotels recognisable to spa visitors are still welcoming patrons today.

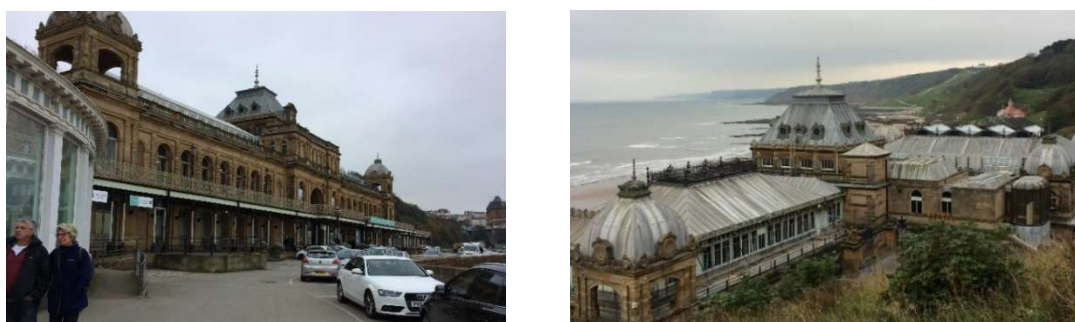


Figure 259  
Photographic views showing the site in its current form  
Source: Cannell, 2017

## 13. Site Memory

The town of Scarborough embraces its spa history using an emblem of the spa site as a logo in marketing material for the conference centre (Figure 260). There are many heritage maps located around the town which explain the buildings still visible such as the Valley Bridge (Figure 261) but also indicate where other buildings, now lost, were located. The maps give a small description of the buildings, describing their function. There is also a heritage trail which signposts important buildings and locations around the town.



Figure 260  
Marketing logo used by the Scarborough Spa Conference Centre  
Source: What 2 Do, 2017



Figure 261  
Photograph showing the Valley Bridge  
Source: Cannell, 2017

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Cannell, E. (2017) Photograph of the Valley Bridge, Scarborough, Yorkshire.

# Well Data Sheet: South Benfleet

## 1. General Information

Historic Name:	South Benfleet Spring
Contemporary Name:	South Benfleet Spring
First Written Description:	Christy and Thresh, 1910
Nearest Settlement:	Hadleigh
Approximate OS Map Reference:	TQ 80131 86866
Date of Field Visit:	1.6.2019
Time of Field Visit:	10.35am (weather sunny)

## 2. Location Map



Figure 262  
Map of Essex showing the wider context of the location of South Benfleet  
Source: Althistory, 2017

The site is situated in southeast Essex within Hadleigh Country Park which is currently owned by Essex County Council (Figures 262 and 263). Hadleigh is situated seventy metres above sea level. The wider landscape context of the site is shown in Table 47.



### 3. Location Map

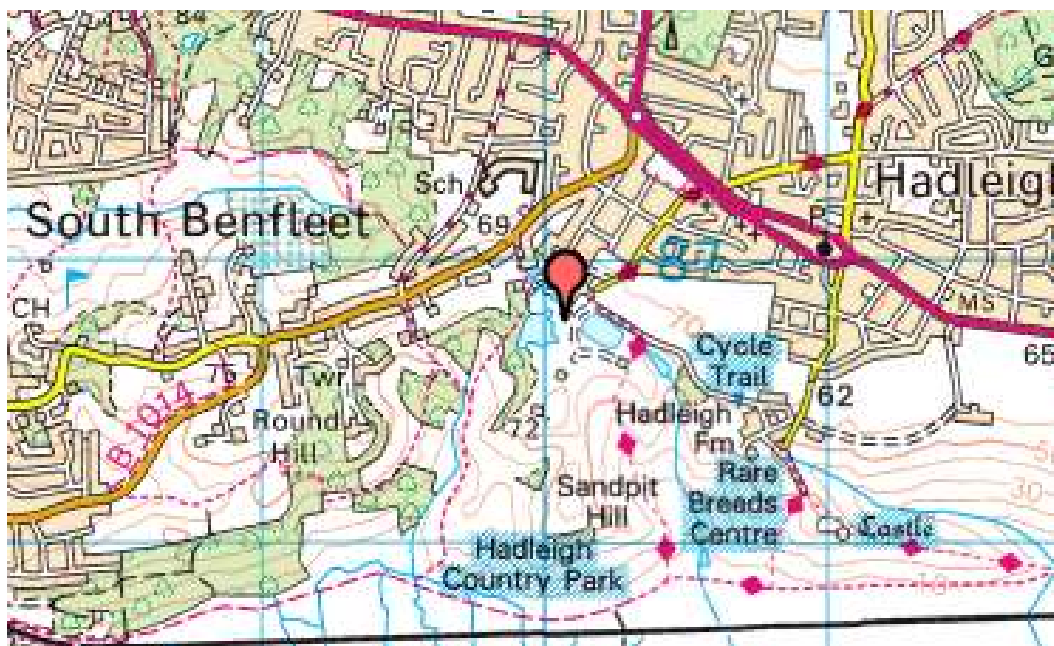


Figure 263  
Ordnance Survey map showing the location of Sayers Farm, South Benfleet, Essex  
Source: Edina Digimap, 2017

### 4. Landscape Context

Table 47  
Table showing the landscape context of the site at South Benfleet, Essex

Landscape Component	1 Mile Radius	5 Mile Radius	10 Mile Radius
Village		Hadleigh	
Town		Leigh on Sea	
Road	Chapel Lane		
Railway		Leigh on Sea	
Woodland	Shipwrights Wood		
Forest		Great Wood	
River	Thames		

### 5. Historic Access and Connection

Considering the combination of the rural location of this spring (Figures 264 and 265) and the small roads leading to the site it is probable that the South Benfleet Spring was only ever used by local people to alleviate their aches and pains.

## 6. Historic Maps



Figure 264  
Chapman and André map (1777) showing the location of Sayers Farm, South Benfleet, Essex  
Source: Benfleet History, 2017



Figure 265  
Ordnance Survey map (1876) showing the location of Sayers Farm, South Benfleet, Essex  
Source: Edina Digimap, 2017

## 7. Geological Map

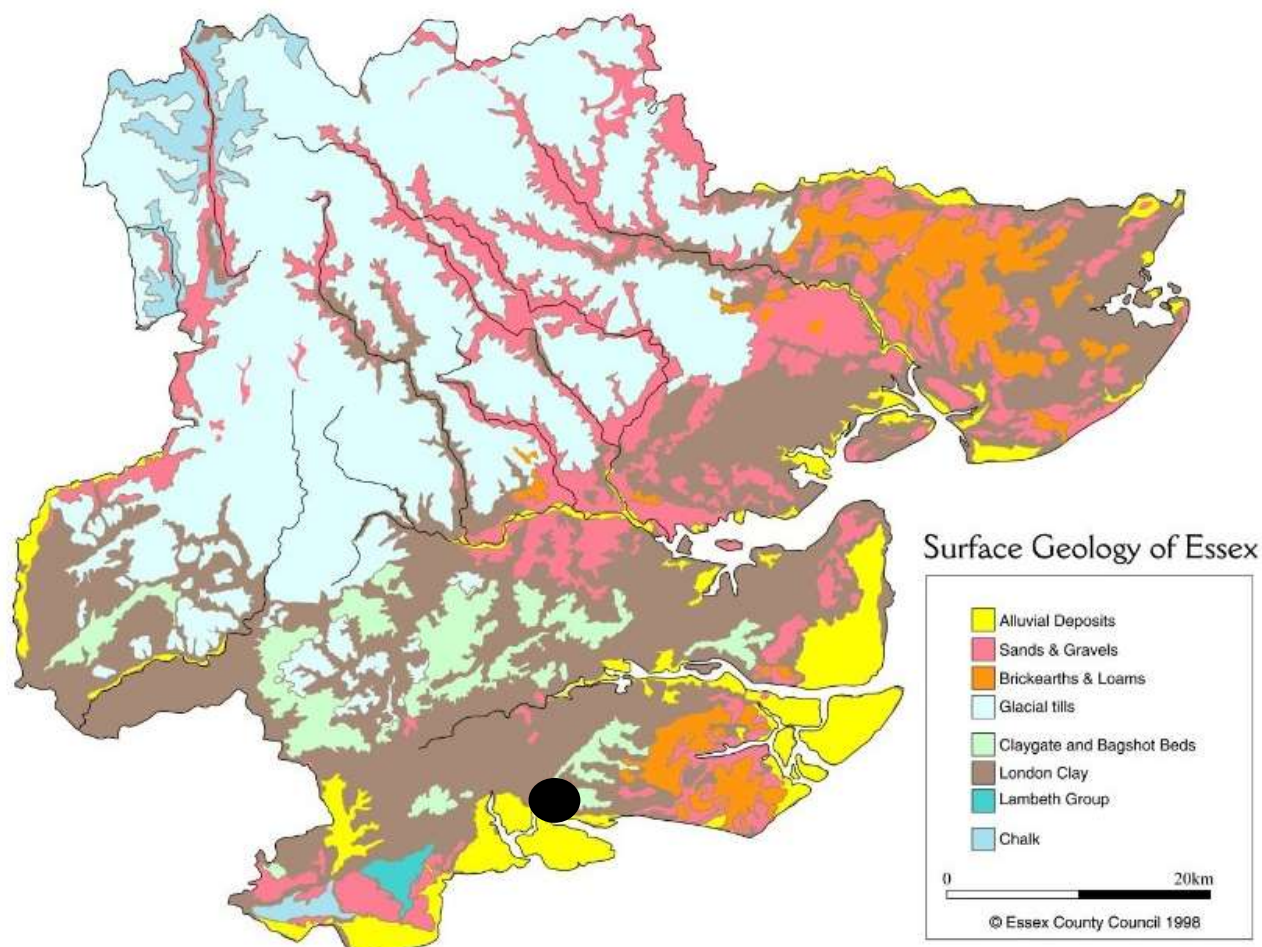


Figure 266

Map showing the surface geology of Essex and location of South Benfleet on London Clay and Bagshot Beds  
Source: Geo Essex, 2016

## 8. Water Analysis

The Spring at South Benfleet was situated on land liable to slippage and was unable to be located by Christy and Thresh. They spoke to Dr Henry Laver who had lived in the area during his childhood. He described the well as being small, 'simply a trickle' and tasted of sulphate of soda. He stated that the water had purgative qualities on both people and horses! (Christy and Thresh, 1910 p53). Figure 266 shows the surface geology of the area.

## 9. Alleged Cures

The only description of the South Benfleet well was from the reminiscences of local people who claimed that the water was used as a purgative. The verbal account of Dr Henry Laver asserted that the local farmers would use the water to purge their horses (Christy and Thresh, 1910 p53).

## 10. Chronological Development

There is very little written about this spring and the location was impossible to detect even a century ago. Archaeological evidence undertaken prior to the development of the site as the 2012 Olympic Mountain Biking course indicated that the area had originally been an Iron Age and Romano-British farmstead (Barclay, 2019). The site now contains a replica round house which is used by visiting school groups who are studying the history of the area. Much of the information was gathered from a conversation with Dr Henry Laver in the early 1900s. Laver had lived in the locality during his childhood, approximately fifty years hence. He described the location as being at the foot of a small face of London Clay as shown in Figure 266. The site was situated on Sayers Farm (Figure 267) which was leased by brothers called Woodward (Christy and Thresh, 1910 p53).



Figure 267  
Ordnance Survey map (1868) showing the location of Sayers Farm, South Benfleet, Essex  
Source: Edina Digimap, 2017

It is likely that Dr Laver was correct in his dating of the site as he mentions a conversation he had with Daniel Woodward about horses. Local tithe records indicate that the Woodward brothers leased the farm from James Patten in 1841 and that Daniel Woodward was no longer living at the farm by 1850 (Hadleigh History, 2012). Dr Laver described that the spring could be reached by walking down a lane leading from the middle of Hadleigh Common but indicated that the area was prone to land slippage. Much of the farmland in Hadleigh was bought by General Booth, founder of the Salvation Army in 1891. His intention was to establish a settlement where the poor and needy could learn a trade before working in overseas colonies. Records show that ninety men from the site were employed on a poultry farm owned by Cecil Rhodes in South Africa. Sayers Farm was utilised as a dairy farm although the surrounding land was used for brick making, an industry which became less important following World War One (Fautley, 2004 p224). When Christy and Thresh visited the site they could find no evidence of the spring or people who had used the spring in recent years (Christy and Thresh, 1910 p53). The Essex Rock and Mineral Society have recently undertaken investigations of the geology of this site. They support the assertions of Dr Laver that the area was prone to landslides by showing that the area is prone to rotational slipping, a process the London Clay absorbs water and subsequently flows downwards causing the sands above to also move (Essex Rock and Mineral Society, 2018).

## 11. Contemporary Landscape Components

Table 48  
Table describing the contemporary components in the vicinity of South Benfleet Spring, Essex

<b>Architecture</b>	There are no remnant remains associated with the spring site although Sayers Farm (now disused) remains (Figure 268)
<b>Transport Links</b>	The site is now situated in a country park. Access to the park follows the original road.
<b>Water</b>	There was no evidence of the original well although there are several waterfilled brick pits from the brickmaking industry of the late nineteenth century (Figure 269)
<b>Vegetation</b>	The site is a country park so there is a mix of vegetation including trees, shrubs and groundcover. Much of the site contains mountain biking trails established after the 2012 Olympics (Figures 270 and 271)



Figure 268  
Photograph showing Sayers Farm, South Benfleet, Essex  
Source: Cannell, 2019



Figure 269  
Photograph showing a waterfilled brick pit at the site  
Source: Cannell, 2019



Figure 270  
Photograph showing Mountain Biking trails at the South Benfleet site  
Source: Cannell, 2019



Figure 271  
Photograph showing the winners podium from the 2012 Olympic Mountain Biking competition  
Source: Cannell, 2019

## **12. Description of the Site in its Current Form**

The site is now part of the Hadleigh Country Park which hosted the Mountain Biking competitions in the 2012 Olympics. The location comprises of rolling hills which slope down to the Thames Estuary. Sayers Farm is now a dilapidated building which is located behind sturdy wooden fencing. A park ranger (Paul) was able to provide a little information about the building which had been a dairy farm until the 1970s. The water filled brick pits were those dug by the Salvation Army workers in the late nineteenth and early twentieth century. He was also able to explain that the part of the site containing Sayers Farm had a different geology to other areas as the Essex Clay was capped by Bagshot Sand. The original spring site is probably hidden beneath the car park or visitor's centre. Located within the park are biking and walking trails, a replica iron age round house as well as children's play areas. The site was being enjoyed by many families during the field visit. Although there is signage describing the wildlife common at the site and the history of an anti-aircraft battery located within the area, there is no mention of the South Benfleet Spring

## **13. Site Memory**

There was nothing within the immediate environment to suggest that a well had once been in the area either through street or school names.

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**Unpublished**

Cannell, E. (2019) Photograph showing mountain biking trails at the South Benfleet site, Essex

Cannell, E. (2019) Photograph showing Sayers Farm, South Benfleet, Essex

Cannell, E. (2019) Photograph showing a waterfilled brick pit at the South Benfleet site, Essex

Cannell, E. (2019) Photograph showing the winners podium from the 2012 Olympic mountain biking competition at the South Benfleet site, Essex

**Personal Communication**

Conversation with a park ranger, Paul, about the recent history of Sayers Farm on 1.6.2019



## Well Data Sheet: **South Weald**

### 1. General Information

Historic Name:	South Weald Spring
Contemporary Name:	South Weald Spring
First Written Description:	Benjamin Allen, 1699
Nearest Settlement:	South Weald
Approximate OS Map Reference:	TQ 56579 93619
Date of Field Visit:	9.6.2019
Time of Field Visit:	12.20pm (weather sunny)

### 2. Location Map



Figure 272  
Map of Essex showing the wider context of location of South Weald  
Source: Althistory, 2017

South Weald is situated in the south of the county (Figure 272). The site remains unspoilt as it is situated in the Weald Park Conservation Area (Figure 273). The immediate landscape context of the site is shown in Table 49. South Weald has an elevation of sixty-five metres above sea level. The contemporary and original rural nature of the location is evident in figures 274, 275 and 276.

### 3. Local Context

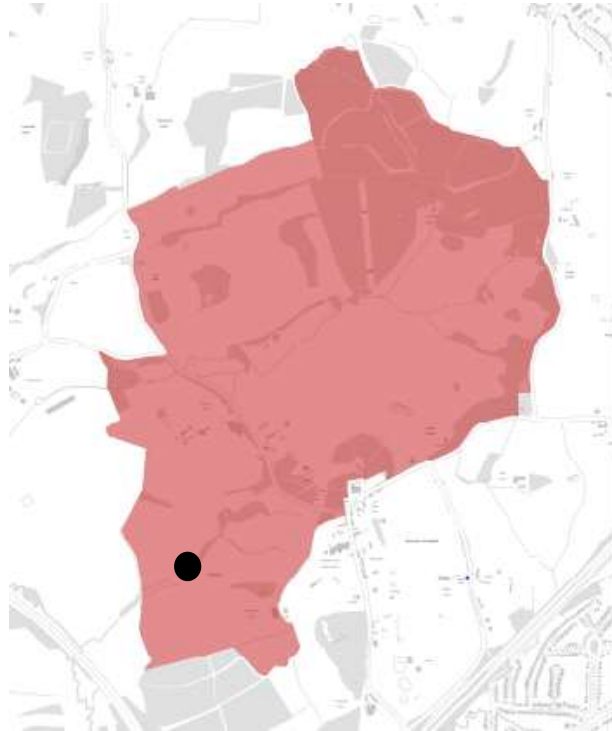


Figure 273  
Map showing the approximate location of the spring site within the Weald Park Conservation Area  
Source: Brentwood Borough Council, 2019



Figure 274  
Ordnance Survey map of South Weald, Essex showing the local context of the South Weald site  
Source: Edina Digimap, 2017

## 4. Landscape Context

Table 49  
Table showing the landscape context of the well at South Weald, Essex

Landscape Component	1 Mile Radius	5 Mile Radius	10 Mile Radius
Village	South Weald		
Town		Brentwood	
Road	Weald Lane		
Railway		Brentwood Station	
Woodland	Vicarage Wood		
Forest			Epping
River	Weald Brook		

## 5. Historic Access and Connection

Although the well at South Weald was near Brentwood which had good transport links, the accounts of people such as Canon Fraser and Charles Sworder indicate that the well was used by local people such as agricultural labourers and patients being treated at the nearby leprosy hospital.

## 6. Historic Maps



Figure 275  
Ordnance Survey map of South Weald, Essex (1805) showing the approximate location of the spring  
Source: University of Portsmouth, 2009-2017



Figure 276  
 Ordnance Survey map of South Weald, Essex (1881) showing a chalybeate spring in the grounds of Weald Hall  
 Source: Edina Digimap, 2017

### 7. Geological Map

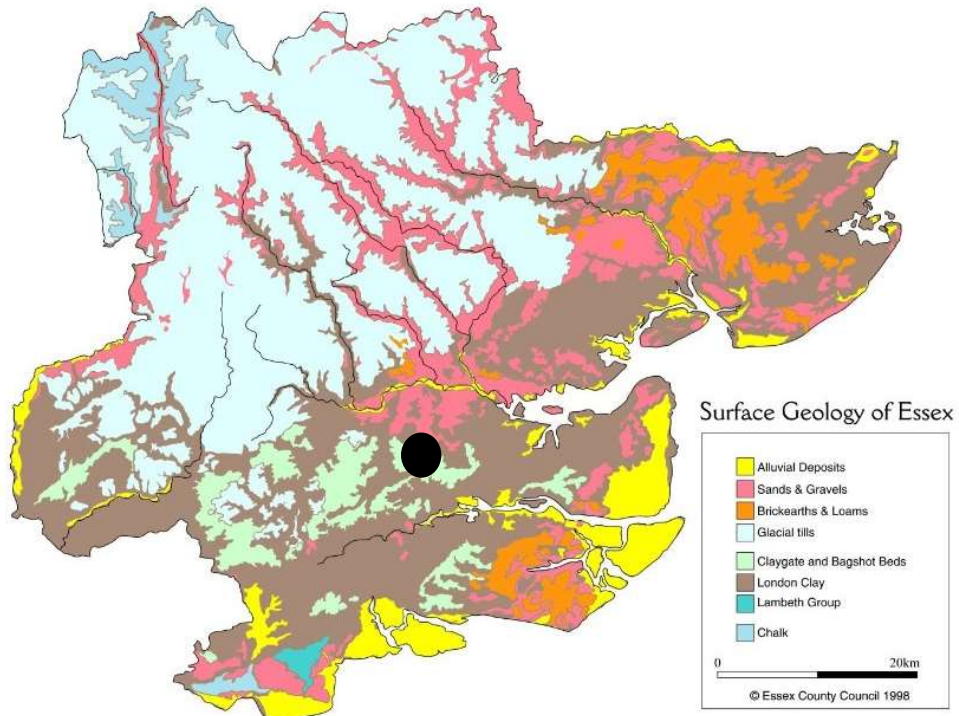


Figure 277  
 Geological map of Essex showing the location of South Weald on London Clay and Bagshot Sands  
 Source: Geo Essex, 2016

## 8. Water Analysis

The water at South Weald was analysed by Benjamin Allen (1699 p145) who described it as a water 'of taste lixivate, with a little bitterness and not free of the mawkish taste of the rest (a similar water) but not so nauseous as Epsom'. It was subsequently examined by Martin Trinder (1783) who declared the water to be 'of a bluish colour when viewed from the top. It has a faint but not disagreeable taste' (p32). The water was further studied by Christy and Thresh on April 18<sup>th</sup>, 1907 (1910, p16). Their findings are shown in Table 50.

Table 50  
Table showing results of analysis of the water at South Weald, Essex by Christy and Thresh (1907)

Constituent	Parts Per 100,000
Calcium Carbonate	17.0
Calcium Sulphate	59.2
Magnesium Sulphate	104.7
Sodium Sulphate	38.0
Sodium Chloride	10.9
Water of Hydration	15.8
Nitrates/Silica etc	3.4

In their research, Christy and Thresh (1910 p16) describe the water at South Weald as a general mineral water, somewhat comparable to that at Hockley but containing Sodium Sulphate and less Sodium Chloride. They conclude that the water comes from sandy beds in the topmost part of London Clay adjacent to a protrusion of Bagshot Sands as shown in Figure 277.

## 9. Alleged Curative Properties

The water was analysed by Benjamin Allen (1699 p146) who stated that it was effective in treating patients with a hypochondriacal complaint. He continued by claiming that the water was beneficial in the treatment of leprosy. The water was also analysed by Dr Martin Trinder (1783 p32) who initially described that the water was used by local people as a purgative or to bathe their sores. Trinder makes many claims for the water at South Weald. He asserts that the water should be used by women who have heavy bleeding during their menstrual cycle. He also claims that it will be beneficial to those suffering from bleeding haemorrhoids. Trinder continues by maintaining that the water will help those with diabetes or suffering from profuse sweating. He also recommends that the water be taken by those suffering from diarrhoea or dysentery (p33/34). Christy and Thresh (1910, p14) spoke to the vicar of South Weald, Reverend Canon Fraser, who stated that patients from the local leprosy hospital would use the water although he was unclear as to whether the water was ingested or put on the skin.

## 10. Chronological Development

This well was the subject of much local literature in the late seventeenth and eighteenth centuries. It was initially described by Benjamin Allen (1699, p145) in his work '*The natural history of the chalybeate and purging waters of England*'. Another contemporary acknowledgement of the therapeutic qualities of the water was provided by Sir John Bramston, a resident of nearby Roxwell, who, when taken ill in September 1699, took some Gascons Powder and drank Weald water (Christy and Thresh, 1910 p14). Gascons powder was taken by people in the belief that it would cure illnesses such as smallpox and measles (Myers, 2017 p58). This implies that the water

was already appreciated for its medicinal properties. The well was located in the grounds of Weald Hall which had initially been constructed by Sir Antony Browne in 1548. By the time Benjamin Allen had recognised the therapeutic attributes of the well, Weald Hall was under the ownership of Sir William Scroggs (Salisbury, 2017). Figure 278 shows that much of the original architecture to the rear of the building remained into the twentieth century.



Figure 278  
Photograph of the rear of Weald Hall, circa 1930, showing much of the original architecture  
Source: Brentwood Museum, 2019

The site was still recognised for its therapeutic qualities during the eighteenth century. In 1720, The Reverend Thomas Cox stated: “there are ‘some springs of a medicinal nature, as those of Upminster and Brentwood’” (Christy and Thresh, 1910 p140). Samuel Lewis (1735 p309) provided further detail about the well describing it as: “much used in summer’ and having properties similar to sea water”. Doctor Martin Trinder (1783) undertook a series of experiments to analyse the water and describes it as: “having a faint, but not disagreeable taste”. He described the well as being protected from the elements by a brick arch. Trinder asserted that local people washed their sores in the water and drank the water in order to purge their systems. Following his analysis, Trinder described the water as being selenic with trace amounts of sulphur which were not present in a large enough quantity to cause purgative effects (p29). Whites Directory (1848) describes the well as being a “chalybeate spring, to which the public are allowed free access” (History House, 2016). Figure 279 shows the Hall during this period.



Figure 279  
Photograph of the front elevation of Weald Hall c1870  
Source: Historic England, 2019

A former vicar of South Weald, Canon Fraser (1866), declares that: “the well was formerly much frequented and highly appreciated by the sick folk of the neighbourhood, and especially the poor lepers from the hospital in Brook Street, on account of its healing qualities. There are persons still living who can remember the day when the good people of Brentwood- the sick, the halt and the withered used to flock in crowds, to drink the waters of this spring”. Canon Fraser also describes how the brick work of the well was covered with graffiti from well visitors who had left their names or initials. The photograph taken by Christy and Thresh (Figure 280) unfortunately does not show the graffiti described by the clergyman fifty years previously.



Figure 280  
 Photograph of the South Weald well head 1907  
 Source: Christy and Thresh, 1910.

Christy and Thresh (1910 p15) describe a meeting of the Essex Naturalist Group (1893) where Charles Sworder explained how the well was visited after harvest time by farm workers from the villages of Stanford Rivers and Stapleford Tawney. Christy and Thresh visited the well in April 1907. They described the well as having an unmaintained appearance while the water appeared dirty. The taste of the water was described as like ditch water. Christy and Thresh recorded the water level as being below the adjacent ground and that the well itself contained approximately three or four feet of water. Following discussions with the owner of Weald Hall, Mr Tower, Christy and Thresh (1910 p14) discovered that residents still asked permission to use the water. On examination of the well head, they noticed that some of the names carved on the brickwork were probably contemporary. The South Weald estate was sold to the Metropolitan Railway County Estates Company in 1946. The Company demolished the Hall but retained the parkland. The northern aspect of the original parkland was purchased in 1953 by Essex County Council and was opened as a public space (British History, 2015 p74). The southern area, including the well site was retained by the Metropolitan Railway County Estates Company but is presently part of the Weald Park Conservation Area. The well at South Weald is clearly marked on Ordnance Survey maps until 1938, as shown in Figure 281, but has disappeared from the subsequent map published in 1967 perhaps indicating that by this point the well was no longer in existence.



Figure 281  
Ordnance Survey map of South Weald, Essex (1938) showing the final acknowledgement of a spring  
Source: Edina Digimap, 2017

## 11. Contemporary Landscape Components

Table 51  
Table showing the contemporary landscape components in the vicinity of the South Weald Well, Essex

<b>Architecture</b>	It is unlikely that the original site contained any buildings given that it was utilised by local people. The well head photographed by Christy and Thresh is no longer visible.
<b>Transport Links</b>	The site is located close to the main road (B1418). Map evidence from the Ordnance Survey map dated 1805 shows that this road remains in the same location. It is likely that this site was accessed via footpaths.
<b>Water</b>	There was a small stream situated in the vicinity of the well site but no indication of the original well head (Figures 282 and 283)
<b>Vegetation</b>	The suggested site is located close to a small, wooded area in the Weald Park Conservation Area (Figure 284). The footpath leading to the site was edged by Blackthorn and Hawthorn with groundcover including grass and nettles. The woodland contained similar vegetation. The fields surrounding the site contained a range of grasses such as Couch Grass ( <i>Elymus repens</i> )



Figure 282  
Photograph showing the view into the South Weald well site  
Source: Cannell, 2019



Figure 283  
Photograph showing the stream at the South Weald well site  
Source: Cannell, 2019





Figure 284  
Photograph showing the view out of the South Weald well site  
Source: Cannell, 2019

## 12. Description of the Site in its Current Form

The site is located in a hollow within the Weald Park Conservation Area and thus is unspoilt. The surrounding landscape consists of open spaces interspersed with small, wooded areas. The area beyond the site is under the ownership of Bennett's Farm. The actual site area is located within a small, arboreal area accessed by a public footpath and a walk across the conservation area. It is possible to walk through the area where the well was located although the space beyond the footpath was overgrown, making it impossible to ascertain any remnant remains of the arched well head. The route to the location was somewhat overgrown while the well location was free of litter suggesting that any human access was infrequent.

## 13. Site Memory

There was nothing within the immediate environment to suggest that a well had once been in the area either through the use of street or school names or neighbouring place names.

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### **Unpublished**

Cannell, E. (2019) Photograph showing the stream at the South Weald well site

Cannell, E. (2019) Photograph showing the view into the South Weald well site

Cannell, E. (2019) Photograph showing the view out of the South Weald well site

# Well Data Sheet: **Springfield**

## 1. General Information

Historic Name:	Springfield Spring
Contemporary Name:	Springfield Spring
First Written Description:	Dr Martin Trinder, 1783
Nearest Settlement:	Springfield
Approximate OS Map Reference:	TL 72716 06501
Date of Field Visit:	19.8.2017
Time of Field Visit:	13.20pm (cloudy but dry)

## 2. Location Map



Figure 285  
Map of Essex showing the wider context of the location of Springfield  
Source: Althistory, 2017

The site at Springfield is situated in the east of the county lying in an increasingly urban location (see Figures 285, 286 and 287). Springfield is located approximately thirty metres above sea level. The wider landscape context of the site is shown in Table 52.

### 3. Location Map

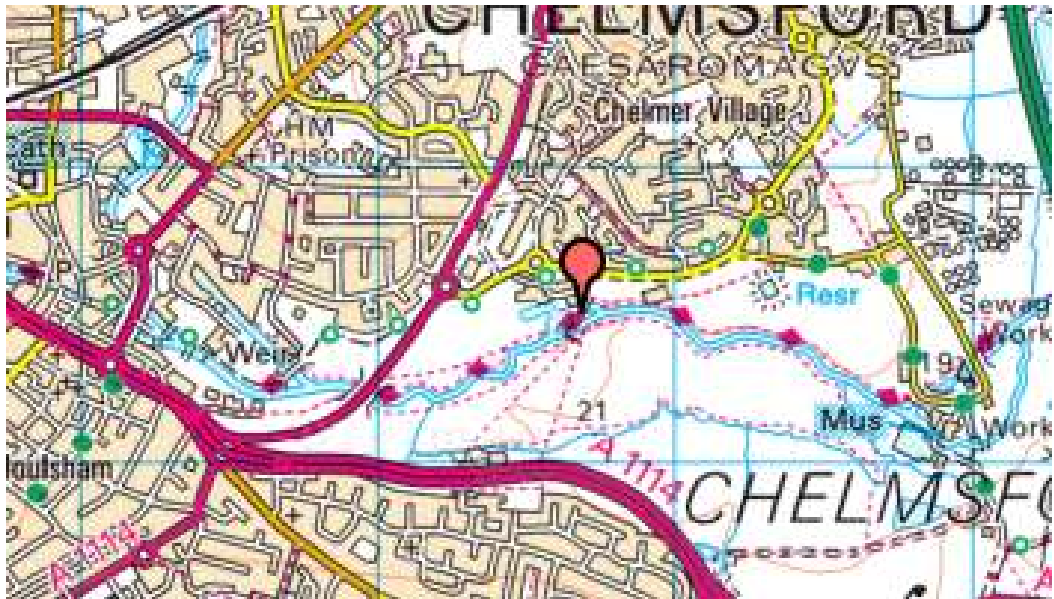


Figure 286  
Ordnance Survey map of Chelmsford, Essex showing the approximate location of the Springfield Spring  
Source: Edina Digimap, 2016



Figure 287  
Satellite map of the Springfield area showing the approximate location of the Springfield Spring.  
Source: Essex Field Club, 2016.

## 4. Landscape Context

Table 52  
Table showing the landscape context of the well site at Springfield, Essex

Landscape Component	1 Mile Radius	5 Mile Radius	10 Mile Radius
Village	Great Baddow		
Town	Chelmsford		
Road	Springfield Road		
Railway		Chelmsford (1843)	
Woodland	Blake's Wood		
Forest			Highwood, Ingatestone
River	Chelmer/Blackwater		

## 5. Historic Access and Connection

The spring at Springfield would appear to be an example of a well being used by local people to alleviate stomach problems or fever. The spring was situated in a rural location as shown in Figures 288 and 289. The railway arrived in Chelmsford in 1848, long after the spring had been recommended as having therapeutic properties and was located some distance from the site (see Table 52).

## 6. Historic Maps



Figure 288  
Ordnance Survey map of Chelmsford, Essex (1805) showing the approximate location of Springfield Spring  
Source: University of Portsmouth, 2017

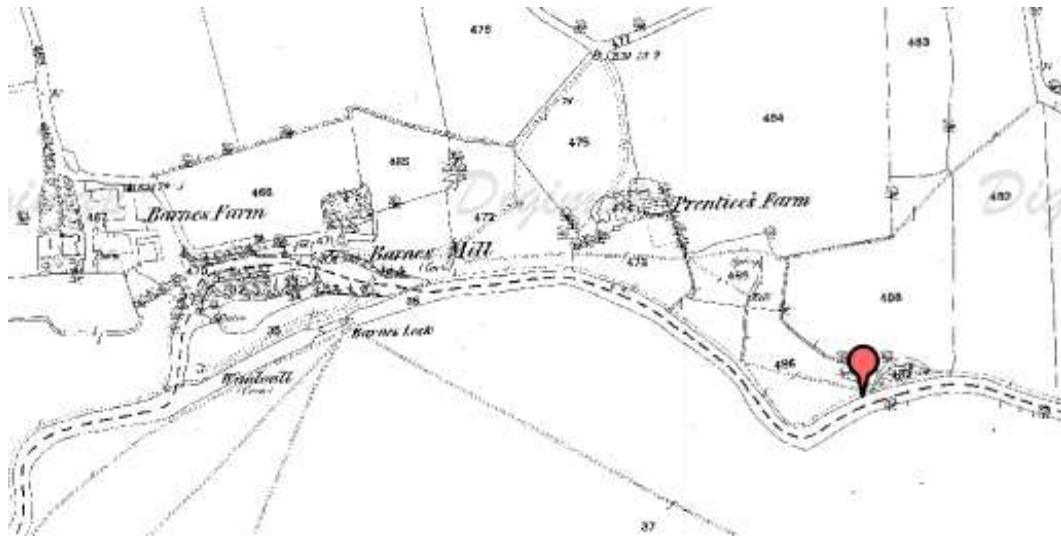


Figure 289  
 Ordnance survey map of Springfield, Essex (1880) showing the likely location of Springfield Spring.  
 Source: Edina Digimap, 2017.

### 7. Geological Map

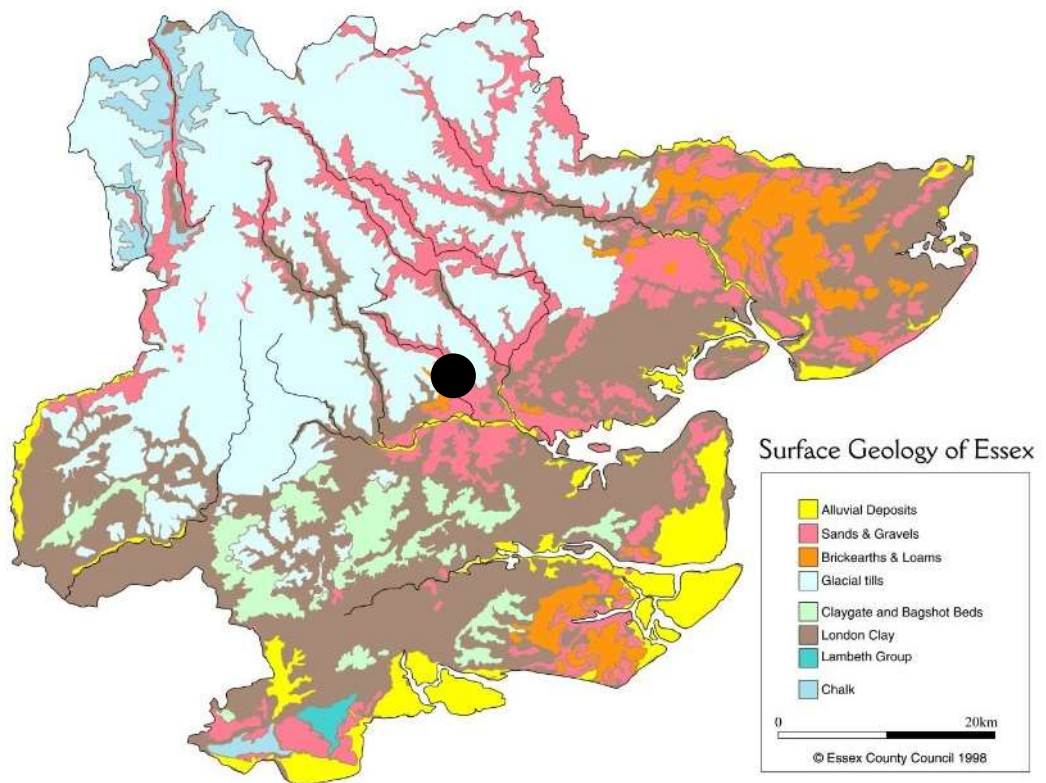


Figure 290  
 Map showing the surface geology of Essex and the location of Springfield on London Clay and glacial gravels  
 Source: Geo Essex, 2016

## 8. Water Analysis

Although the water at Springfield was analysed by Martin Trinder in 1783, this study focussed on the behaviour of the water when mixed with other components rather than the constituent parts of the water itself. For example, in his second experiment he describes that: “It effervesced with vitriolic acid and cast bubbles around the glass but no sediment: to this liquor caustic volatile alkali was applied but no sediment appeared” (p47). The physician Martin Trinder concludes by describing the water as being: “selenic and that it is too a small degree impregnated with iron and sulphur...It is a comparatively light water and acts as a purgative (p50). A sample of the water was unable to be collected for analysis by Christy and Thresh as the well had dried up. It is therefore impossible to ascertain whether the water was medicinal. In their analysis of the site, Christy and Thresh describe the site as resting on glacial gravels on the edge of the alluvium of the River Chelmer. They suggest the area is underlaid by London Clay as shown in Figure 290. Christy and Thresh proposed that the London Clay would contain sulphuric acid which could combine with lime from the gravel to create a faintly selenic water (1910 p51).

## 9. Alleged Curative Properties

The well was analysed by Dr Martin Trinder (1783 p50) who stated that the well had alleviated the symptoms of a lady suffering fever following a miscarriage. He also recommended that that a quart of the water should be drunk twice a day to alleviate the symptoms of constipation.

## 10. Chronological Development

During the eighteenth century there were several springs located in the parish of Springfield, so we cannot say with complete certainty which spring was analysed by Martin Trinder (Essex Field Club, 2017). The map (Figure 291) indicates the location of two of these springs. It is likely that the spring closest to Barnes Farm (Labelled 1) is the one described by Martin Trinder as in his research he identifies the spring at Springfield as being located near the River Chelmer about one mile to the east of Chelmsford in a field owned by Mr Pugh (Trinder, 1783 p50). The spring was originally located by the Chelmsford physician Henry Menish who used the spring water to treat his patients. Menish was friends with Martin Trinder which might explain why he decided to analyse this spring (Essex Field Club, 2017).



Figure 291  
Ordnance Survey map of Springfield, Essex (1897) showing two possible spring sites near the River Chelmer  
Source: Edina Digimap, 2017



Dr Menish began using the Springfield water after becoming frustrated with a chalybeate well located in the grounds of the Old County Gaol in Moulsham Street, Chelmsford. Due to the location within a prison, the water was sometimes difficult to obtain. Menish found the Springfield water advantageous when dealing with stomach complaints such as constipation and recommended a dosage of one quarter of a pint twice a day. The spring seems to fall out of favour with local physicians in the late eighteenth century although there is nothing to suggest that it fell out of favour with local people.

## 11. Contemporary Landscape Components

Table 53  
Table describing the contemporary landscape components in the vicinity of the Springfield Spring, Essex

<b>Architecture</b>	It is unlikely that the original site contained any buildings given that it was utilised by local people in a rural area.
<b>Transport Links</b>	The site is located in a semi-rural area on the outskirts of Chelmsford. Although the A1114 road is located nearby this was built after the spring fell into disuse. It is likely that site visitors were local people who accessed the site by foot.
<b>Water</b>	The original spring site is no longer visible although there was a brook running to the south of the site.
<b>Vegetation</b>	The site is located within a wooded area (Figure 292). It was only possible to look into the site as it is situated on private land. The area was overgrown



Figure 292  
Photograph showing the view into the Springfield spring site  
Source: Cannell, 2017



Figure 293  
Parish sign of Springfield, Essex  
Source: Essex Info, 2017

## 13. Site Memory

The site is located within an area of Chelmsford called Springfield. Figure 293 shows the parish sign with the River Chelmer depicted in the centre. This is most likely due to the number of springs situated within close proximity of the well site. There is no other recognition of the site either in the form of street names or local buildings.

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### Unpublished

Cannell, E. (2017) Photograph into the site of the Springfield Well, Essex

# Well Data Sheet: **Stapleford Abbots**

## 1. General Information

Historic Name:	The Forest Water
Contemporary Name:	The Stapleford Abbots Spring
First Written Description:	Martin Trinder, 1783
Nearest Settlement:	Stapleford Abbots
Approximate OS Map Reference:	TQ 51859 96914
Date of Field Visit:	13/7/2019
Time of Field Visit:	4.40pm (weather fair)

## 2. Location Map



Figure 294  
Map of Essex showing the wider context of the location of Stapleford Abbots  
Source: Althistory, 2017

Stapleford Abbots is situated in the south of the county (Figure 294) and remains a rural area as shown in Figure 295. Despite this, the site is close to the M25 road. The location is situated approximately forty metres above sea level. The wider landscape context of the site is shown in Table 54.

### 3. Location Map



Figure 295  
Ordnance Survey map of Stapleford Abbots, Essex showing the possible location of the Stapleford Abbots Spring  
Source: Edina Digimap, 2017

### 4. Landscape Context

Table 54  
Table showing the landscape context of the well site at Stapleford Abbots, Essex

Landscape Component	1 Mile Radius	5 Mile Radius	10 Mile Radius
Village	Stapleford Abbots		
Town		Romford	
Road	River Roding		
Railway		Romford	
Woodland	Curtis Mill Green		
Forest	Hainault Forest		
River	River Roding		

### 5. Historic Access and Connection

The rural location of this spring as shown in Figures 296 and 297 would suggest that it was always used by local people to cure their ailments or purge their systems. This is reinforced by the fact that the exact location of the site is unclear.

## 6. Historic Maps



Figure 296  
Ordnance Survey map of Stapleford Abbots, Essex (1805) showing the approximate location of the spring  
Source: University of Portsmouth, 2017



Figure 297  
Ordnance Survey map of Stapleford Abbots, Essex (1880) showing the possible location of the spring  
Source: Edina Digimap, 2017

## 7. Geological Map

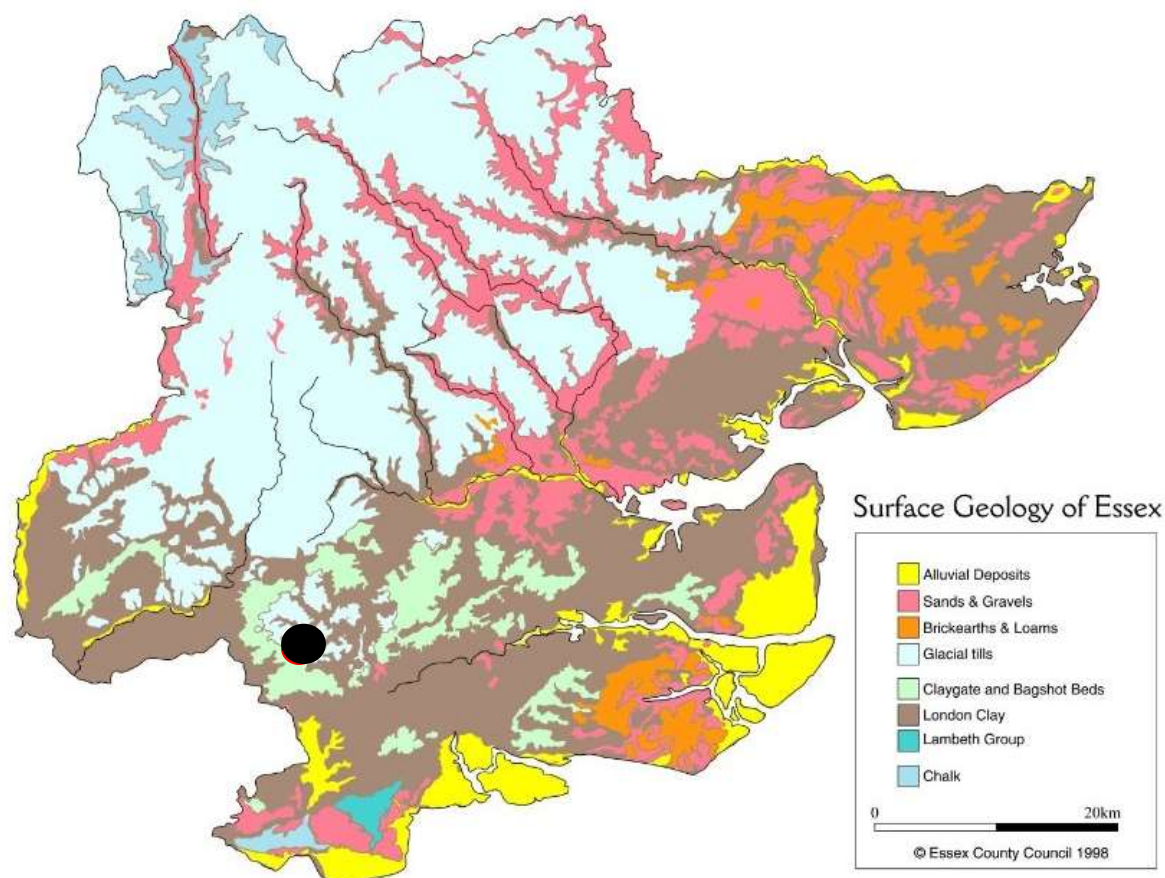


Figure 298

Map showing the surface geology of Essex and the location of Stapleford Abbots on London Clay and Bagshot Beds  
Source: Geo Essex, 2016

## 8. Water Analysis

Although the water at Stapleford Abbots was analysed by Martin Trinder in 1783, this study focussed primarily on the behaviour of the water when mixed with other components rather than the constituent parts of the water itself. Trinder described the water as having an earthy, salty taste (Sunderland, 1915 p58). He described it as having an earthy odour and being white in colour. Trinder carried out fourteen experiments on the water (1783, p24). A sample of water was collected for analysis by Christy and Thresh on September 12<sup>th</sup>, 1907. Their findings are as follows (Table 55). Christy and Thresh described the water as being tasteless, odourless and colourless but having no specific medicinal value. They suggested that the water derived from sands overlapped by boulder clay as shown in Figures 298 and 299 (1910, p51).

Table 55  
Table showing the results of scientific analysis undertaken by Christy and Thresh at the Stapleford Abbots well site, Essex

Constituent	Parts Per 100,000
Calcium Carbonate	5.5
Calcium Sulphate	9.8
Magnesium Sulphate	8.76
Magnesium Chloride	3.24
Sodium Chloride	3.9
Sodium Nitrate	4.8
Silica etc	1.5

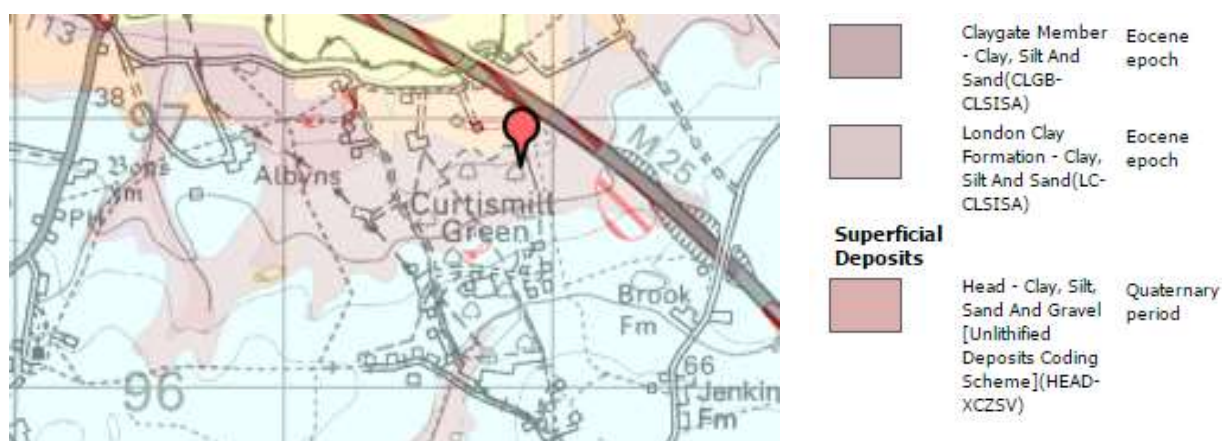


Figure 299  
Geological map of the area including the approximate location of the Stapleford Abbots Spring  
Source: Edina Digimap, 2017

## 9. Alleged Curative Properties

The water at Stapleford Abbots was analysed by Dr Martin Trinder in 1783 (p28). He asserted that the water would be beneficial to patients with flatulence, kidney problems or general nausea. He suggested that the water was warmed before drinking. He describes how the water was also used as a purgative by local people. Trinder also claimed that the water would alleviate pimples and other skin conditions although he is unclear as to whether the water should be imbibed or bathed on the skin. He declared the water would be useful in the cure of headaches, scurvy, inflamed eyes and sore legs.

## 10. Chronological Development

There is some confusion regarding the location of the Stapleford Abbots spring. The site was initially described by Martin Trinder (1783 p24) as: "rising on the north side of the forest, in the parish of Stapleford Abbots, on an ascent and nearly full south to a good house of grey brick on the neighbouring hill, about five miles from Romford". When Christy and Thresh began to investigate the site they found some inconsistencies as shown in Figure 300. The house described by Trinder was a property called Albyns however this was a red brick building. A local vicar called Reverend Prance undertook some local investigation and suggested that the site could be located within the vicinity of Richard's Stone in Curtis Mill Green, on the boundary of Hainault Forest.

There is a large house called Suttons located nearby but Christy and Thresh state that this house was painted white and that the original brick colour was unknown. This possible site lies just inside the parish boundary of Navestock.



Figure 300  
Ordnance Survey map of Stapleford Abbots, Essex (1876) showing the possible houses described by Martin Trinder  
Source: Edina Digimap, 2017

Christy and Thresh describe the well site as measuring fifteen feet by eight feet and with a depth of four feet. One side was bricked while the entire site was fenced to protect it from cattle. After analysis, the water was not deemed to be medicinal although it was used for domestic purposes (Christy and Thresh, 1910 p48). It would appear that this well was always used by local people. This vernacular element to the well corresponds with the portrayal of the well by Trinder who describes how nearby 'rustics' would drink between three or four pints of the water twice a year to purge their system (Sunderland, 1915 p58).

## 11. Contemporary Landscape Components

Table 56  
Table showing the contemporary landscape components in the vicinity of the Stapleford Abbots Well, Essex

<b>Architecture</b>	It is unlikely that the original site contained any buildings given that it was utilised by local people. The well head described by Christy and Thresh is no longer visible. The site is located on the perimeter of a golf club, so it is possible that the well has been filled in as a safety precaution (Figure 301).
<b>Transport Links</b>	The site is located close to a small local road. Map evidence from the Ordnance Survey map dated 1805 shows that this road remains in the same location. It is likely that this site was accessed via footpaths.
<b>Water</b>	There was no evidence of water relevant to the original well located at the site. Any nearby water was linked with the golf course.
<b>Vegetation</b>	The suggested site is located close to the perimeter of Stapleford Abbots Golf Club (Figure 302). The footpath leading to the site was edged by Blackthorn and Hawthorn with groundcover including grass and nettles. The golf course was edged with similar foliage while the greens comprised of vegetation such as Brent grass ( <i>Agrostis stolonifera</i> ).





Figure 301  
Likely location of the wellsite in overgrown condition  
Source: Cannell, 2019



Figure 302  
View into Stapleford Abbots Golf Club  
Source: Cannell, 2019



Figure 303  
Footpath leading to the Stapleford Abbots wellsite  
Source: Cannell, 2019



Figure 304  
Overgrown area close to the Stapleford Abbots wellsite  
Source: Cannell, 2019

## 12. Description of the Site in its Current Form

The site is located on the perimeter of Stapleford Abbots Golf Club and thus is relatively unspoilt. The surrounding landscape consists of farmland interspersed with small, wooded areas. The area beyond the site is under the ownership of the golf club. The actual site area is located within a small, arboreal area accessed by a public footpath at the edge of the golf club. It is possible to walk through the area where the well was located although the space beyond the footpath was overgrown, making it impossible to ascertain any remnant remains of the site as described by Christy and Thresh in 1907 (Figures 303 and 304). It is possible that the site has been filled in for health and safety purposes. The route to the site was somewhat overgrown while the well location was free of litter suggesting that any human access was infrequent. The farm track leading to this area was strewn with beer cans and laughing gas canisters, suggesting that the isolated location of the site made it a popular place for young people.

## 13. Site Memory

There was nothing within the immediate environment to suggest that a well had once been in the area either through the use of street or school names or neighbouring place names.

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### Unpublished

Cannell, E. (2019) Footpath leading to the Stapleford Abbots wellsite

Cannell, E. (2019) Likely location of wellsite in overgrown condition

Cannell, E. (2019) Overgrown area close to the Stapleford Abbots well site

Cannell, E. (2019) View into Stapleford Abbots Golf Club

# Well Data Sheet: Twinstead

## 1. General Information

Historic Name:	Twinstead Spring
Contemporary Name:	Twinstead Spring
First Written Description:	James Marriot Knight, 1791
Nearest Settlement:	Halstead
Approximate OS Map Reference:	TL 86073 36683
Date of Field Visit:	25/8/2018
Time of Field Visit:	11.40am (weather sunny)

## 2. Location Map



Figure 305  
Map of Essex showing the wider context of the location of Twinstead  
Source: Althistory, 2017

Twinstead is situated in the northeast of the county. The well site remains in a rural location (Figures 305 and 306). Twinstead is located approximately seventy metres above sea level. The wider landscape context of the site is shown in Table 57.

### 3. Location Map



Figure 306  
Ordnance Survey map of Twinstead, Essex  
Source: Edina Digimap, 2016

### 4. Landscape Context

Table 57  
Table showing the landscape context for the well site at Twinstead, Essex

Landscape Component	1 Mile Radius	5 Mile Radius	10 Mile Radius
Village	Twinstead		
Town		Halstead	
Road	Church Road		
Railway	Halstead		
Woodland	Twinstead Hall Wood		
Forest			
River	Stour		

### 5. Historic Access and Connection

Twinstead was a rural area in the late eighteenth century and so it is likely that any visitors to the site would have been local (Figures 307 and 308).

## 6. Historic Maps



Figure 307

Ordnance Survey map of Twinstead, Essex (1805) showing the approximate location of the Twinstead Spring  
 Source: University of Portsmouth, 2009-2017



Figure 308

Ordnance Survey map of Twinstead, Essex (1876) showing the approximate location of the Twinstead Spring  
 Source: Edina Digimap 2016

## 7. Geological Map

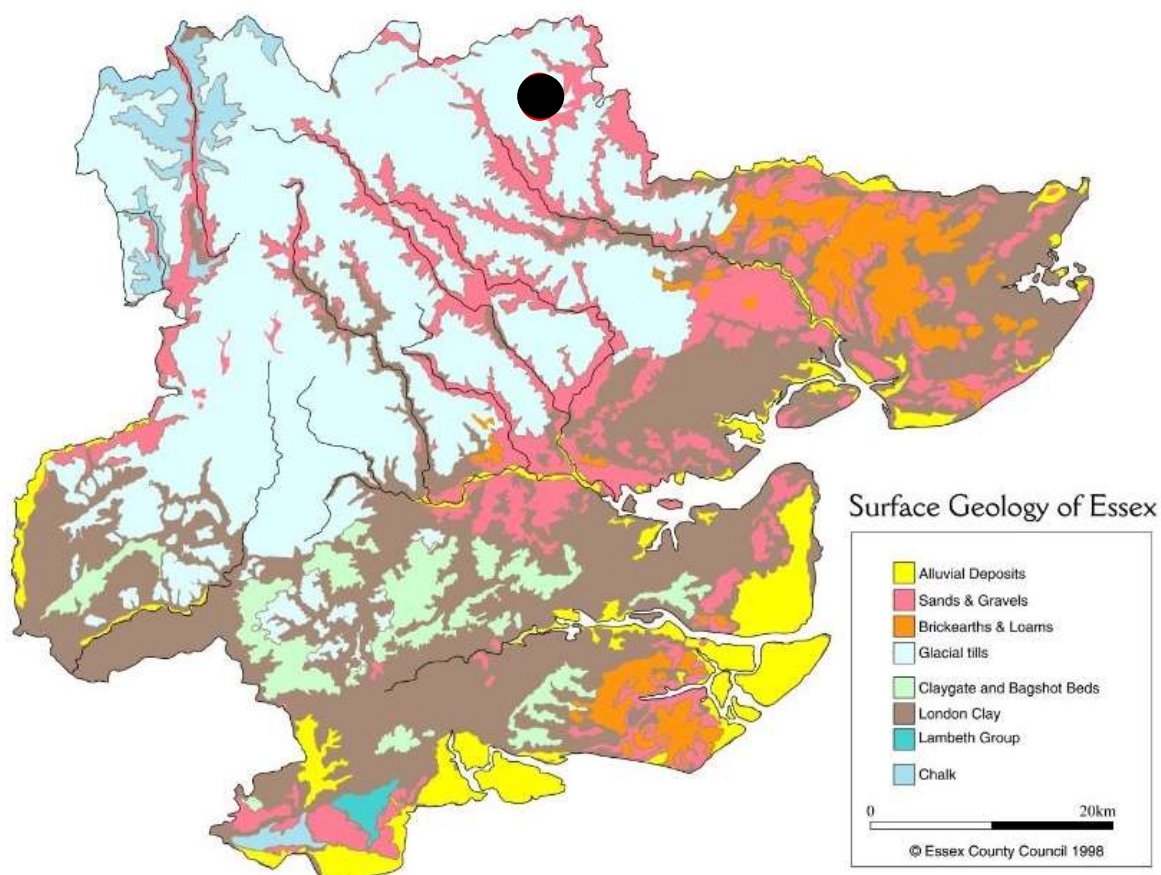


Figure 309  
Map showing the surface geology of Essex and location of Twinstead on London Clay and glacial gravels  
Source: Geo Essex, 2016

## 8. Water Analysis

Christy and Thresh were unable to locate the Twinstead Spring and therefore no contemporary analysis of the water has taken place. James Marriot Knight, the owner of Twinstead Hall, wrote in a letter dated 1791 that a mineral spring had been located in the glebe of St John's Parsonage. He described the spring as being sulphurous. Christy and Thresh and their colleague Mr Dalton infer that the spring probably lay on the junction of the glacial gravel in the lower part of the London Clay (Figures 309 and 310). They state that there is a projection of Reading Beds about one mile eastward from the church.

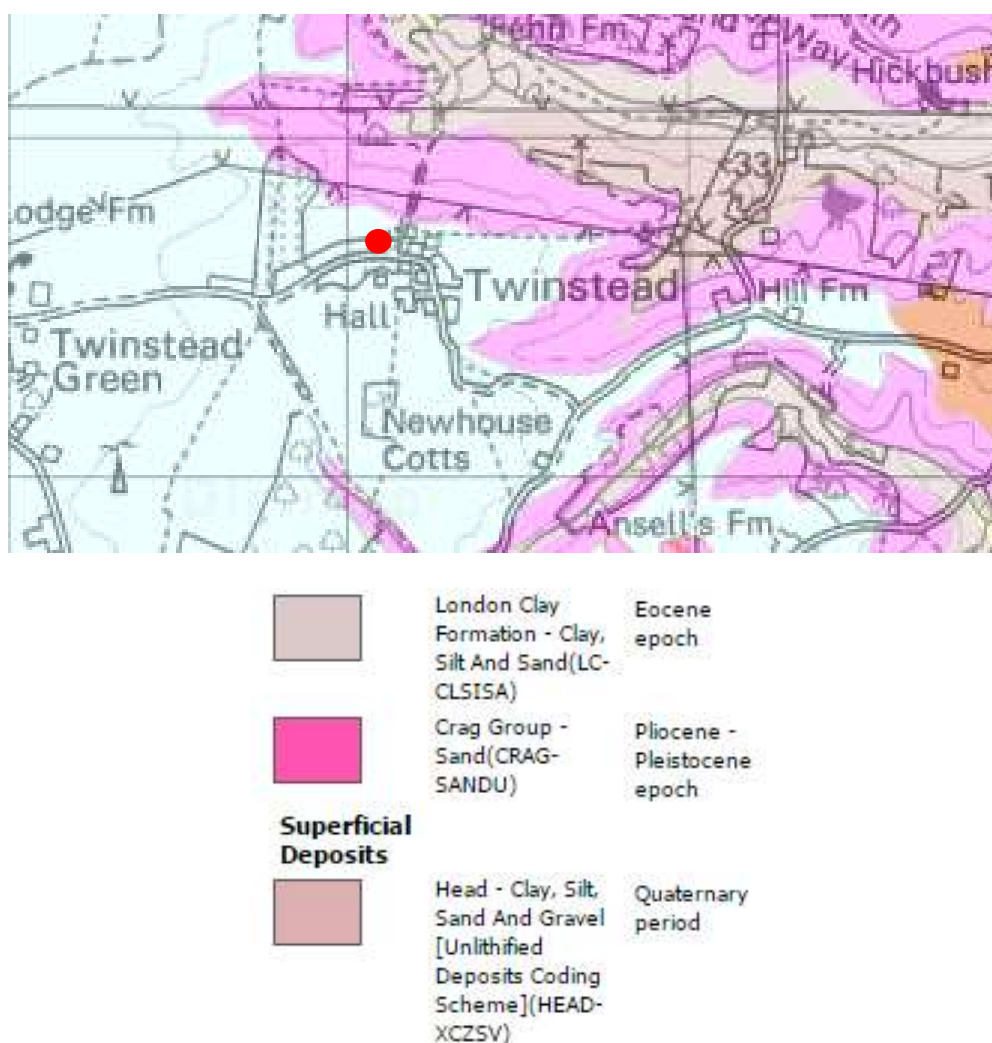


Figure 310  
Geological map of the area including the approximate location of the Twinstead Spring  
Source: Edina Digimap, 2016

## 9. Alleged Curative Properties

There is no indication as to how the water was used. As there is little information describing the content of the water it is difficult to make an educated guess.

## 10. Chronological Development

Christy and Thresh (1910, p51) state that a mineral spring was found in the parsonage glebe of the church of St John the Evangelist at Twinstead in 1791 (Figure 311). The owner of Twinstead Hall, Sir John Marriot Knight described in correspondence dated July 19<sup>th</sup>, 1791 that: "A medicinal man has discovered a very light mineral and sulphurous spring in the glebe of the parsonage...."

Prior to 1790, the church had been a ruin and was rebuilt by Mr Marriot Knight. His intention was to utilise the building as a church and a place for musical concerts. The local bishop declined to consecrate the building which was eventually demolished and rebuilt in the 1850s (King, 2012 p5)

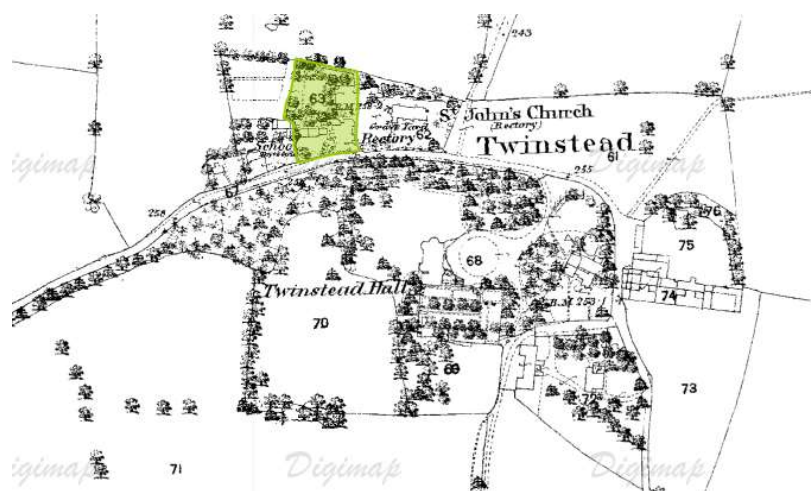


Figure 311  
Ordnance Survey map of Twinstead, Essex (1876) showing the location of the parsonage glebe  
Source: Edina Digimap, 2016

It seems rather coincidental that a mineral spring was located in the vicinity of a church which had just been rebuilt by the local landowner. The water is not described by analysts of Essex mineral waters, particularly Martin Trinder who wrote about similar springs in the area, including Witham, Felsted and Springfield. In their research Christy and Thresh do not infer that this well could have been sulphur based. While it is likely that there was a water source present at this site, perhaps its merits were overemphasised to encourage visitors to a new church.

## 11. Contemporary Landscape Components

Table 58  
Table describing contemporary landscape components in the vicinity of the Twinstead Spring site

<b>Architecture</b>	There are no remnant remains associated with the spring site although the adjoining church is still utilised by the local community.
<b>Transport Links</b>	This site is situated on a single-track road in a rural location.
<b>Water</b>	There is no evidence of the original water source.
<b>Vegetation</b>	There are trees and shrubs located at the rear of the graveyard which have spread into neighbouring gardens (Figures 312 and 313).

## 12. Description of Site in its current form

The site is located to the side of a graveyard and is overgrown with shrubs, trees and weeds. There are several domestic gardens located at the rear of the site (Figures 312 and 313). Twinstead Hall, home of Sir John Marriot Knight is still located opposite the church and remains a private residence (Figure 314).





Figure 312  
 Photograph showing the approximate location of the spring  
 site at Twinstead



Figure 313  
 Photograph showing nearby gardens at the  
 Twinstead site  
 Source: Cannell, 2018



Figure 314  
 Photograph showing the grounds of Twinstead Hall, Essex  
 Source: Cannell, 2018

### 13. Local Recognition of the well

There is no recognition of the well in the immediate locality.

## Sources

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### Unpublished

Cannell, E. (2018) Photograph showing the approximate location of the spring site at Twinstead, Essex

Cannell, E. (2018) Photograph showing the grounds of Twinstead Hall, Essex

Cannell, E. (2018) Photograph showing nearby gardens at the Twinstead site

# Well Data Sheet: Upminster

## 1. General Information

Historic Name:	Tyler's Well
Contemporary Name:	Tyler's Well
First Written Description:	Benjamin Allen, 1699
Nearest Settlement:	Upminster
Approximate OS Map Reference	TQ 56345 90764
Date of Field Visit:	17.3.2019
Time of Field Visit:	11.05pm (weather sunny/ light cloud)

## 2. Location Map



Figure 315  
Map of Essex showing the location of Upminster  
Source: Althistory, 2017

Upminster is situated in southeast Essex in a rural location as highlighted in Figures 315, 316 and 317. The wider landscape context of the site is shown in Table 59. Tyler's Common is elevated sixty-four metres above sea level.

### 3. Local Context



Figure 316  
Ordnance Survey map of Upminster, Essex showing the approximate location of Tyler's Well  
Source: Edina Digimap, 2016

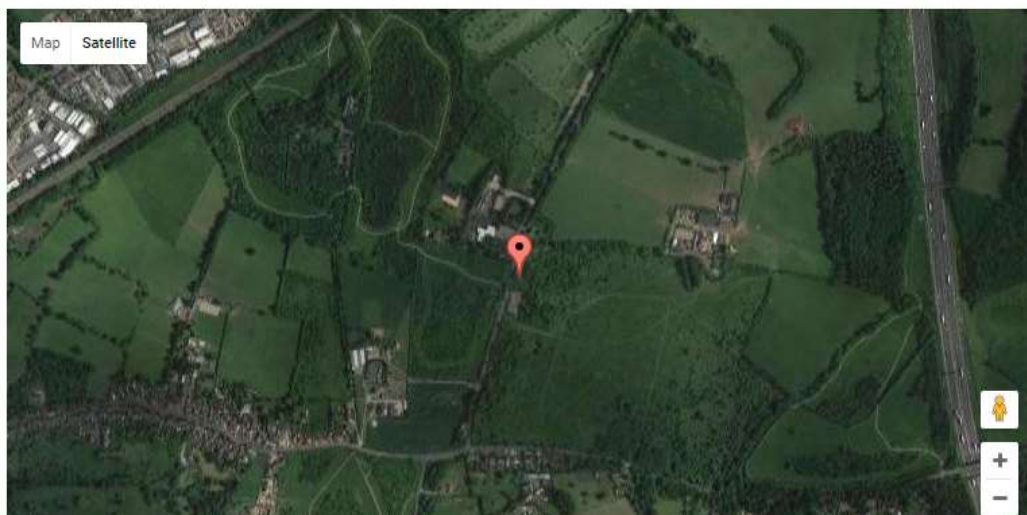


Figure 317  
Satellite map of Upminster, Essex showing the location of Tyler's Well  
Source: Essex Field Club, 2016

## 4. Landscape Context

Table 59  
Table showing the wider landscape context of the site at Tyler's Well, Essex

Landscape Component	1 Mile Radius	5 Mile Radius	10 Mile Radius
Village	Great Warley		
Town	Upminster		
Road	Adjacent local road		
Railway	Built after demise of well		
Woodland	Hall Lane		
Forest		Thorndon	
River	River Ingrebourne		

## 5. Historic Access and Connection

During the period when the well at Tyler's Common was at its most popular, the location of Upminster was an area of predominantly arable farming. Although there was a coach service that travelled through Upminster in the early nineteenth century and subsequently the arrival of The Eastern Counties Railway in 1839, the well has fallen into disuse by this time (British History Online, 2015). Tyler's Well would seem to be an example of a small well, used by local people to cure their ailments as highlighted in Figure 318. The rural location of the well site is also evident from map data shown in Figures 319 and 320.



Figure 318  
Photograph of Tyler's Common, Upminster, Essex circa 1900  
Source: Benton, 2016

## 6. Historic Maps

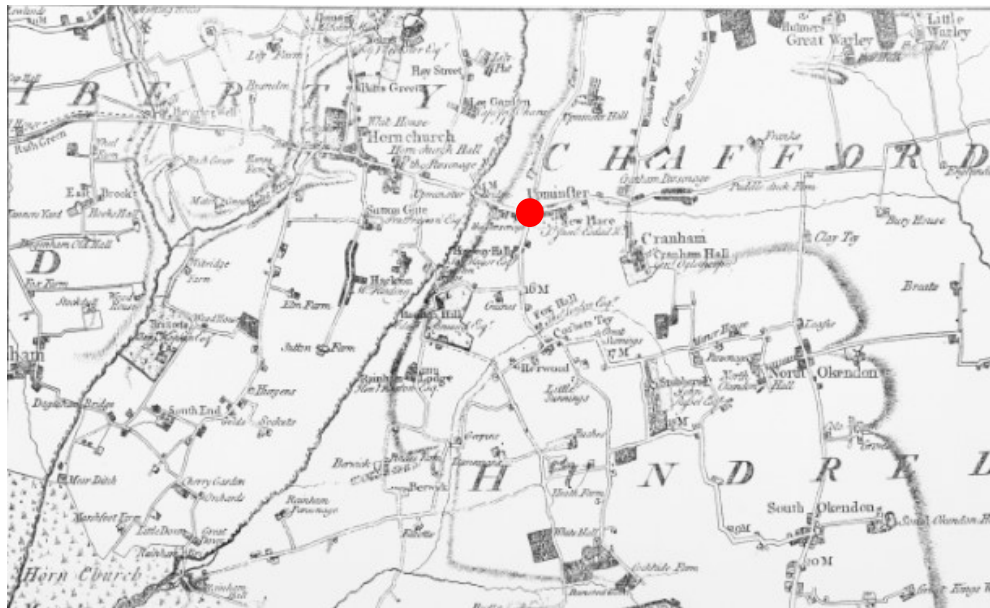


Figure 319  
Extract of a Map of Essex by Chapman and André, 1777, showing the location of Upminster  
Source: British History Online, 2016

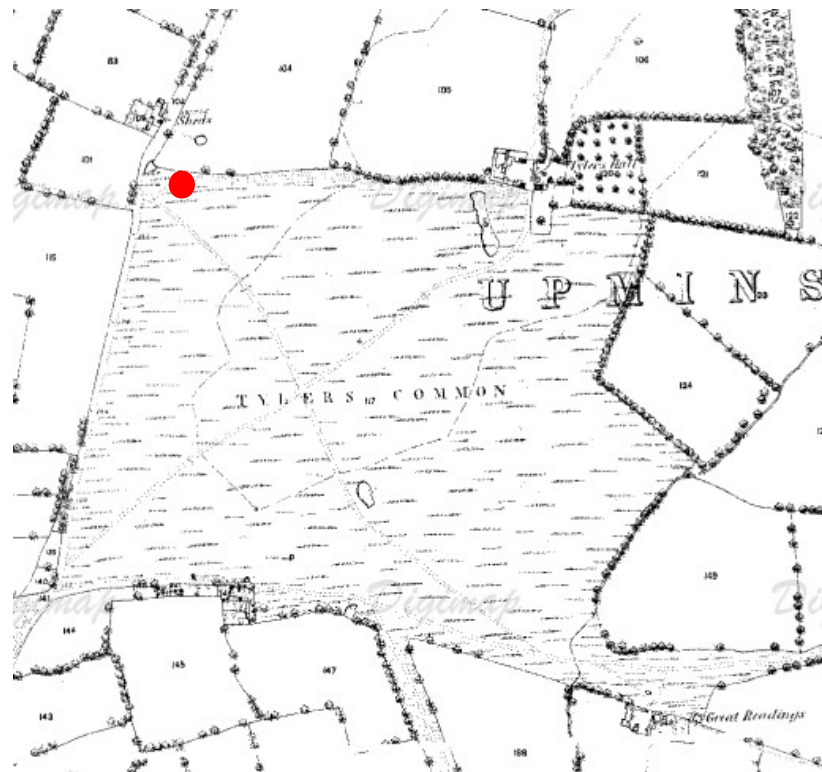


Figure 320  
Ordnance Survey Map of Upminster, Essex (1868) showing the approximate location of Tyler's Well  
Source: Edina Digimap, 2016

### 7. Geological Maps

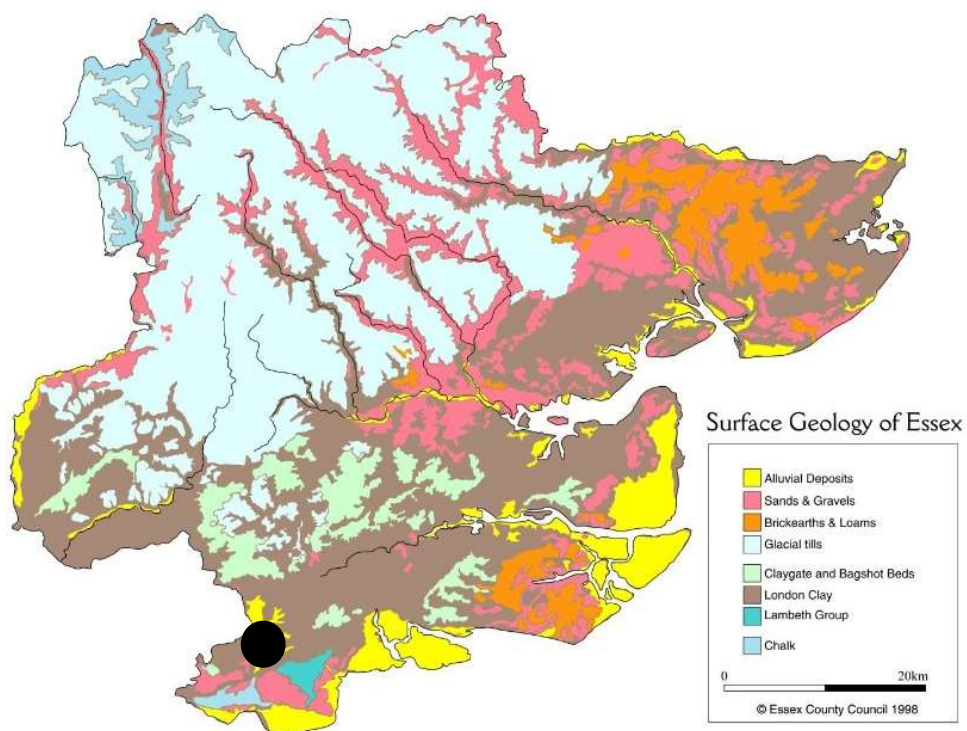


Figure 321  
Map showing the surface geology of Essex and location of Upminster on London Clay  
Source: Geo Essex, 2016

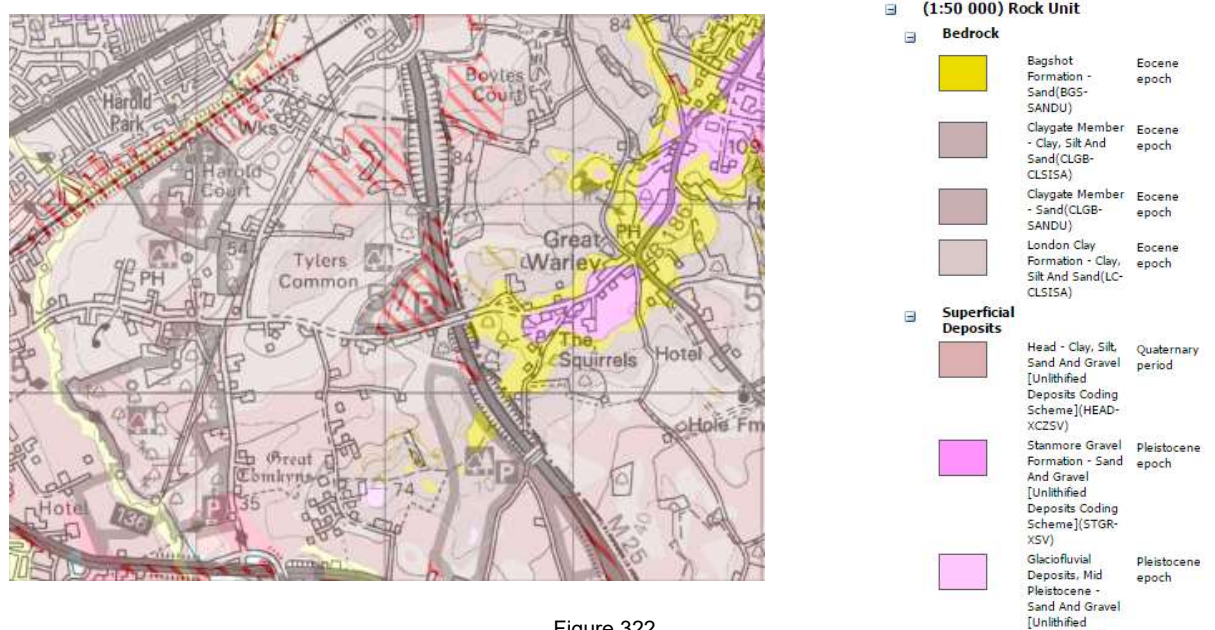


Figure 322  
Geological map of the Upminster area including Tyler's Common  
Source: Edina Digimap, 2016

## 8. Water Analysis

Although the water at Upminster was analysed by Benjamin Allen in 1699 and Martin Trinder in 1783 both these studies focussed on the behaviour of the water when mixed with other components rather than the constituent parts of the water itself. A sample of the water was collected for analysis by Christy and Thresh on 18<sup>th</sup> April 1907 when the surface water was approximately twelve inches below ground level. Their findings are shown in Table 60 (each result is measured in parts per 100,000).

Table 60  
Table showing results of scientific analysis undertaken by Christy and Thresh (1907) on water from Tyler's Well, Essex

Constituent	Parts Per 100,000
Calcium Carbonate	30.8
Calcium Sulphate	89.8
Magnesium Sulphate	129.4
Sodium Sulphate	13.9
Sodium Chloride	15.2
Water of Hydration	19.4
Nitrates, Silica etc	0.5

In their research, Christy and Thresh describe the sample at Upminster as a genuine mineral water stating that it had a similar character to the water at South Weald but contained much less Sodium Chloride than Hockley Spa water.

## 9. Alleged Curative Properties

Although the water was initially analysed by Benjamin Allen (1699), Philip Morant (1768) was the first physician to suggest how the water should be used in treatment, recommending that it would ease stomach acidity, soothe nausea and haemorrhoids (Christy and Thresh, 1910 p31). The well was analysed by Dr Martin Trinder (1783 p39) who asserted that the water would prove beneficial to the treatment of a range of complaints. He recommended that the water be ingested by those suffering from a persistent fever and that it would prove effective as a purgative. Trinder continued by asserting that the water would be an effective treatment for urinary problems. He also suggested that the water would be a successful remedy for flatulence, loss of appetite, back pain and swelling of the feet.

## 10. Chronological Development

The well at Upminster was mentioned by several scientific writers in the seventeenth and eighteenth centuries although in 1880 it is described as "known to few persons" (Wilson, 1880 p18). The earliest mention of the well is by the physician Benjamin Allen who describes the water as being "very clear and of taste bitter with a sweet nauseous taste. In the quantity of nine ounces six drams and six grains outweighed common water fifty-five grains" (Allen, 1699 p148). Allen continues by describing a variety of experiments carried out in his analysis of the water including that it made an effervescence when mixed with oil of vitriol and that it rendered a solution of sal saturni milky. Unfortunately, these experiments leave the reader with little indication as to what ailments this water would be beneficial for. The well was referred to by the Reverend Thomas Cox in 1720 who stated, when writing about Essex, that there were 'some springs of a medicinal nature, as those of Upminster and Brentwood (Christy and Thresh, 1910 p14). In November 1745, the physician Dr Rutty had samples of the water sent to Dublin for analysis. These samples had



been bottled for some time (Christy and Thresh, 1910) so it is unclear whether the results would have been as accurate as if the water had been fresh. Ruttly states: “it was clear and void of sediment; smelt fetid like the scamerings of a gun; had the flavour of lac sulphiris; and was bitter in the throat.”

In 1734, the spring was cleaned out and fenced in by Champion Branfill Esq, the owner of Upminster Hall (Figure 323). Eventually the well fell into disrepair and was described by an anonymous writer as being “unenclosed and nearly filled with mud, which, and the water, are both of a most nauseous smell, but tasteless... The smell strongly resembles that issuing from a smith’s trough in which a hot iron is plunged” (Wilson, 1880 p19). The physician Martin Trinder conducted a series of experiments in an attempt to analyse the water. He describes it as having “the taste of a weak solution of the Epsom salts in water but is earthier. It is somewhat turbid, and its colour is greenish (Trinder, 1783 p35). Trinder’s experiments included mixing the water with distilled vinegar and with syrup of violets. Following the experiments, Trinder concluded that the water would be of benefit to patients with choleric problems and those who were hectically disposed. Trinder continues by recommending the water for those who suffer from the heat, flatulence, redundancy of blood, loss of appetite, pains in the back and swellings of the feet! (p38).



Figure 323  
Photograph of Upminster Hall Farm circa 1900  
Source: Benton, 2018

The site of the spring was visited by a local historian, T.L. Wilson who noticed that “if the water rises up, it is impregnated with mineral salts, formed from the decomposed pyrites which the clay beneath contains (Figures 321 and 322). Such water is generally limpid, or soft” (Wilson, 1880 p19). The site was subsequently visited by The Essex Field Club in 1890. They noted that the well was brick lined and enclosed by a wooden fence (Figure 324), built by the descendants of Champion Branfill, to keep cattle away (Essex Field Club, 2016). One of the visitors observed that “Pieces of the dried earth- a kind of iron clay which was thrown out when the well was fenced can still be picked up, and on breaking apart, the tiny clusters of white crystals may be seen, embedded in the red clay, consisting, probably, of sulphates of magnesia and lime” (Christy and Thresh, 1910). Christy and Thresh noted that at the beginning of the twentieth century the well was totally abandoned and surrounded by grass and brambles. They described the well as being roughly four feet in diameter and that the depth to the bottom was approximately five feet, nine inches. The samples of surface water tasted weakly of iron while those taken from the bottom had

a much stronger odour. Christy and Thresh described the site as a standing spring and note that it was unlikely that the water would ever overflow and run away (Christy and Thresh, 1910).



Figure 324  
Sketch of the well site at Tyler's Common (Cole 1893)  
Source: Essex Field Club, 2016

## 11. Contemporary Landscape Components

Table 61  
Table describing the contemporary components in the vicinity of Tyler's Well, Upminster, Essex

<b>Architecture</b>	There are no remnant remains associated with the spring site although there is a farmhouse and riding school located in the vicinity.
<b>Transport Links</b>	The site is located on common land close to a minor road.
<b>Water</b>	The site was waterlogged when the field visit took place. Despite this there was no evidence of the original well site.
<b>Vegetation</b>	The vegetation was typical of common land, consisting of trees and shrubs with open grassed areas (Figure 325).



Figure 325  
Photographic views taken of Tyler's Common, Upminster, Essex  
Source: Cannell, 2019

## 12. Description of the Site in its Current Form

The site was located at the top of a hill on the highest part of the common close to Tyler's Hall Farm (Figure 326).



Figure 326  
Photographic view into Tyler's Hall Farm  
Source: Cannell, 2019

## 13. Site Memory

There is no evidence of contemporary site memory regarding the spring site at Tyler's Common although many of the local farms including Tyler's Hall Farm and Sutton's Farm have retained their names for generations.

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**Unpublished**

Cannell, E. (2019) Photograph showing the landscape surrounding the well site at Upminster, Essex

Cannell, E. (2019) Photograph showing a water source visible at Tyler's Common, Upminster, Essex.

Cannell, E. (2019) Photograph showing the view into Tyler's Farm, Upminster, Essex.

# Well Data Sheet: **Wanstead**

## 1. General Information

Historic Name:	Wanstead Spring
Contemporary Name:	Wanstead Spring
First Written Description:	John Chamberlain, 1619
Nearest Settlement:	Wanstead
Approximate OS Map Reference:	TQ 40342 87910
Date of Field Visit:	13.7.2019
Time of Site Visit:	5.50pm (weather sunny)

## 2. Location Map



Figure 327  
Map of Essex showing the location of Wanstead  
Source: Althistory, 2017

Wanstead is situated in southern Essex (Figure 327). The two likely well sites are located within a local park and woodland close to an urban area (Figure 328). Wanstead Park is located twenty metres above sea level. The landscape context of the area is shown in Table 62.

### 3. Local Context

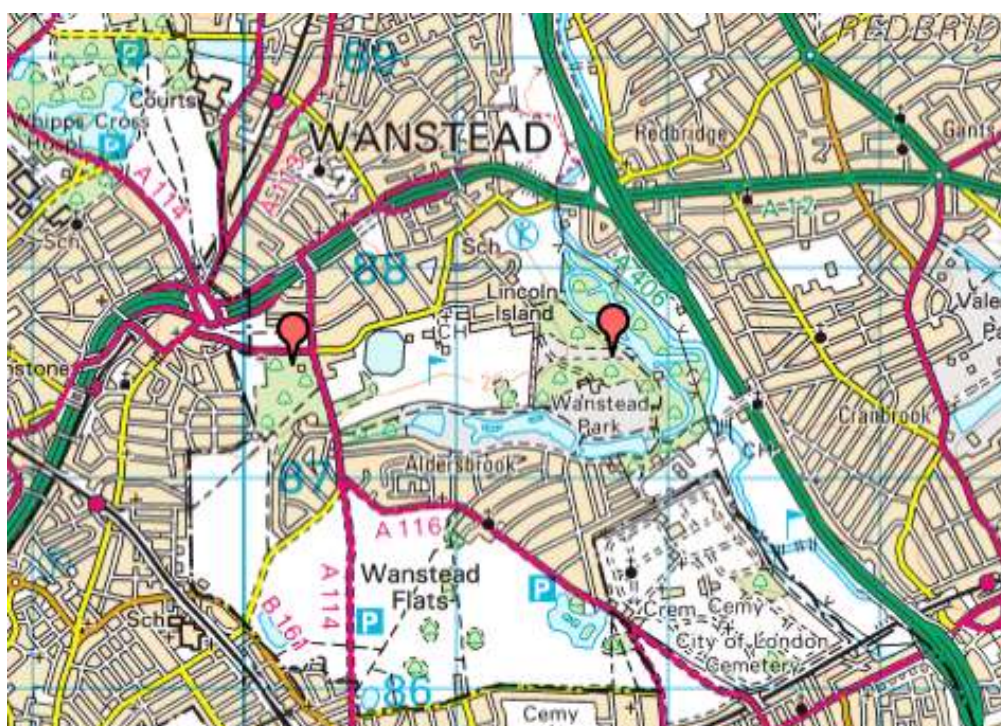


Figure 328

Ordnance Survey map of Wanstead, Essex showing the possible locations of the Wanstead Spring  
Source: Edina Digimap, 2016

### 4. Landscape Context

Table 62

Table showing the landscape context of the well site at Wanstead, Essex

Landscape Component	1 Mile Radius	5 Mile Radius	10 Mile Radius
Village		Barking Side	
Town	Wanstead		
Road	Blake Hall Road		
Railway		Ilford	
Woodland	Bush Wood		
Forest	Epping		
River	River Roding		

### 5. Historic Access and Connection

Although Wanstead was a fairly accessible area having rail access by the 1850s it would seem that this well was likely to have been used by local people who would arrive at the location on foot or more prosperous people with social or familial links to the location. Figures 329 and 330 Wanstead suggests a planned landscape within the grounds of Wanstead Hall underlining the value of the site to a range of social classes.

## 6. Historic Maps

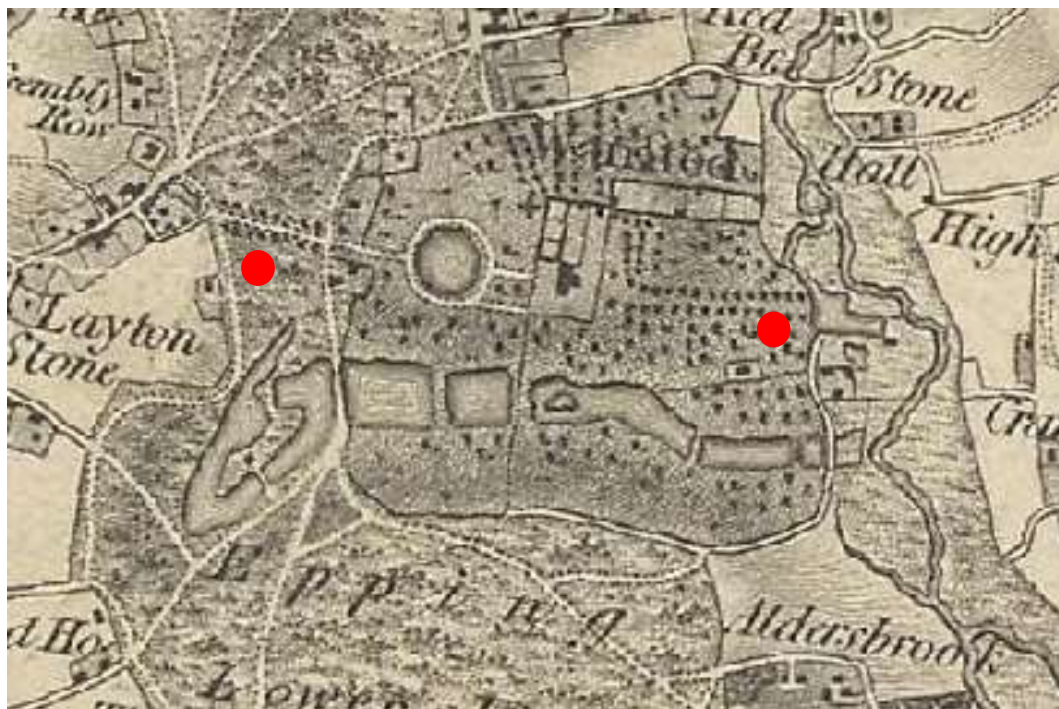


Figure 329  
Ordnance Survey map of Wanstead, Essex (1805) showing the Wanstead Park estate and the most likely well locations  
Source: University of Portsmouth, 2017

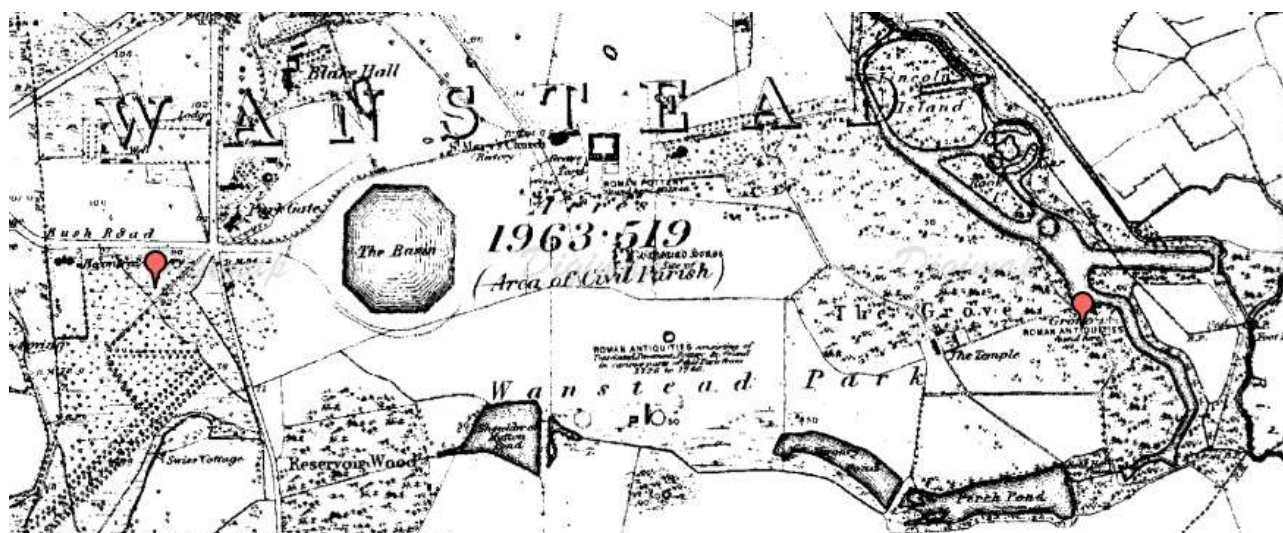


Figure 330  
Ordnance Survey map of Wanstead, Essex (1876) showing the two possible locations of the Wanstead Spring within the Park estate  
Source: Edina Digimap, 2017



## 7. Geological Map

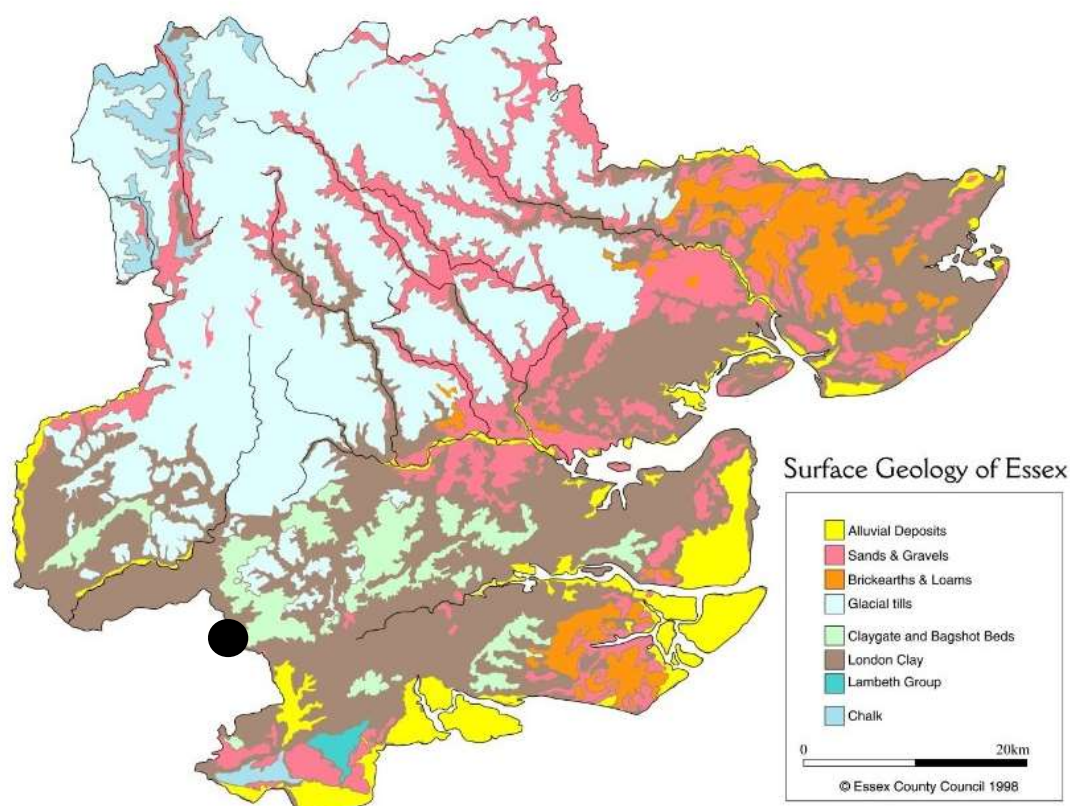
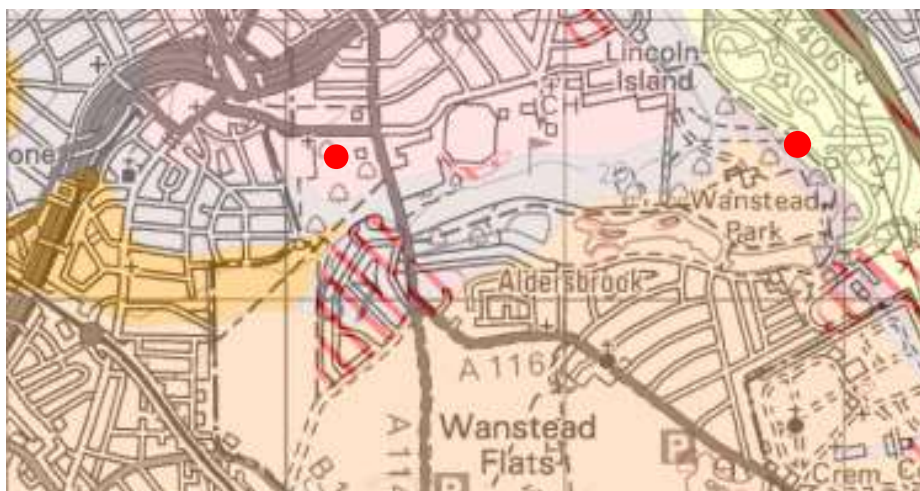


Figure 331  
Geological map of Essex showing the location of Wanstead on London Clay and gravels  
Source: Geo Essex, 2016

## 8. Water Analysis

Although Christy and Thresh were unable to identify the specific location of the Wanstead Spring there are some clues as to the possible constituents of the water. A local resident called Mr Merryman describes that in the 1870s a fountain was constructed in Bush Wood near to the site of the spring. When maintenance work was undertaken on the drainage to the fountain the water was found to be extremely ferruginous. A colleague of Christy and Thresh; Mr Dalton suggested that the ferruginous qualities of the water would derive from the gravels of the Snaresbrook Plateau and pyrites contained in London Clay as shown in Figures 331 and 332 (Christy and Thresh, 1910 p12).





	London Clay Formation - Clay, Silt And Sand(LC-CL5ISA)	Eocene epoch
	Head - Clay, Silt, Sand And Gravel [Unlithified Deposits Coding Scheme][HEAD-XCZSV]	Quaternary period
	Boyn Hill Gravel Member - Sand And Gravel [Unlithified Deposits Coding Scheme][BHT-XSV]	Pleistocene epoch
	Hackney Gravel Member - Sand And Gravel [Unlithified]	Pleistocene epoch

Figure 332  
Geological map of the likely locations of the Wanstead Spring  
Source: Edina Digimap, 2017

## 9. Alleged Curative Properties

The well at Wanstead was known in the early seventeenth century and was described by John Chamberlain as being comparable with waters at Tunbridge Wells and Spa. There is little analysis of the water which would support this claim. A local, elderly resident recounted that the spring contained chalybeate water and was drunk by local people to improve their appetite. It was believed that bathing your ankles in the water would strengthen the bones (Christy and Thresh, 1910 p12). Both these testimonies to the efficacy of the water are at best hearsay and have no scientific analysis to support them.

## 10. Chronological Development

The Ordnance Survey maps from the nineteenth century indicate areas in Wanstead Park where Roman antiquities were located (Figure 333). Archaeological excavations in the 1980s suggested that there was Roman habitation on the site between the first and fifth centuries although no villa was detected (Wanstead Wildlife, 2014). Although Roman habitation by no means is indication of a spring, it does suggest that there were important water sources in the area.



Figure 333  
Ordnance Survey map of Wanstead, Essex (1876) showing the location of Roman antiquities within the Wanstead Park estate  
Source: Edina Digimap, 2017

A mineral spring had been discovered in Wanstead in the early seventeenth century. It is initially mentioned in a letter from John Chamberlain to Sir Dudley Carleton, dated 23<sup>rd</sup> August, 1619 (Cowell, 2001 p67). The author compares the water with those at Tunbridge Wells and Spa. The writer voices his fears that the well will dry up through its popularity which might indicate that the spring was small (Christy and Thresh, 1910 p11). Wanstead became a fashionable haven for affluent Londoners in the eighteenth century due to its proximity to the capital and to Epping Forest which had been popular for hunting since the fifteenth century (Wanstead Wildlife, 2014). The Roque map (Figure 334) supports the idea that Wanstead was an area enjoyed by the affluent classes.

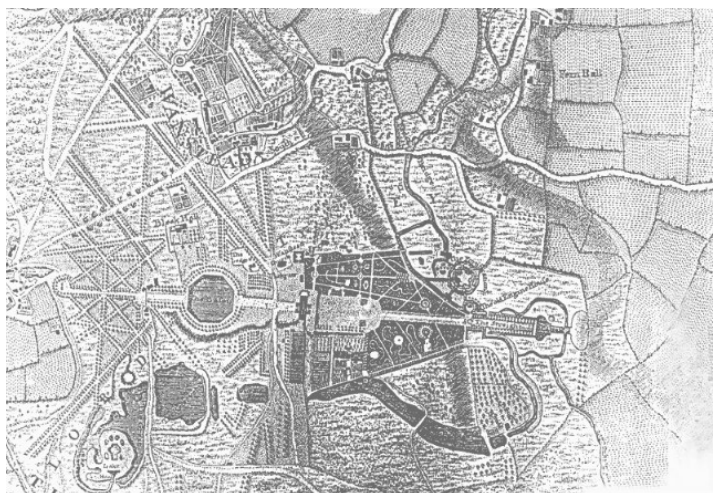


Figure 334  
Extract from Rocque map (1745) showing the Wanstead Park estate  
Source: Wanstead Wildlife, 2014

An elderly resident of Wanstead called Mr Merryman described how the water left a reddish deposit around the spring site. He explained that people would drink the water to improve their appetite while others would bathe their ankles in it to strengthen their bones. This would perhaps have occurred in the mid-nineteenth century (Christy and Thresh, 1910 p12). If he is recounting his own memories, it is likely that Mr Merryman would be discussing the 1850s although it is entirely possible that he is discussing family or local anecdotes. By the time the site was visited by Christy and Thresh there was little evidence for a Spring. There is some suggestion that the spring might have been located in Bush Wood as discussed by Christy, Thresh and Dalton (Leyton and Leytonstone Historical Society, 2016). The other possible location was in the area containing the grotto and hermitage in Wanstead Park although Christy and Thresh felt that this water did not have the appearance of a ferruginous water by the time of their visit in 1907. Christy and Thresh had also heard that the spring may have been located in the grounds of a property called 'The Grove' (Figures 335, 336 and 337 Wanstead) where its use was restricted to the affluent (1910 p11). The Grove was re-built between 1818 and 1824, eventually being demolished in 1889. By the time, Christy and Thresh visited the site, the Counties Estate was being constructed in the area (Counties Residents Association, 2016) making it impossible to locate any water.



Figure 335  
Sketch of Wanstead Grove, circa 1820  
Source: Counties Residents Association, 2016

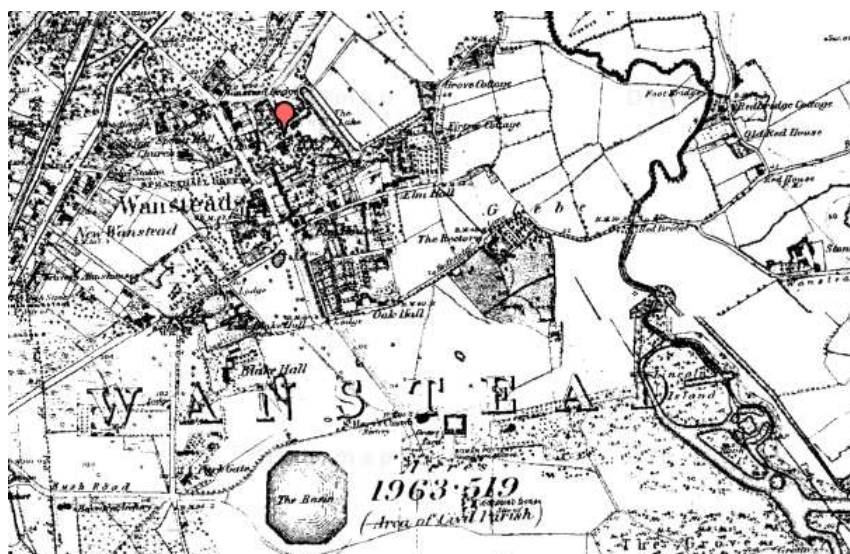


Figure 336  
Ordnance Survey map of Wanstead, Essex (1876) showing the location of The Grove  
Source: Edina Digimap, 2017





Figure 338  
View of the original lake at Wanstead Park, Essex  
Source: Cannell, 2019



Figure 339  
View of the original lake at Wanstead Park, Essex  
Source: Cannell, 2019



Figure 340  
Footpath and vegetation close to the original wellsite  
Source: Cannell, 2019



Figure 341  
View of The Temple, Wanstead Park  
Source: Cannell, 2019

## 12. Description of the Site in its Current Form

The site is located close to a lake within Wanstead Park, an area popular with families and, cyclists and dogwalkers. The surrounding landscape consists of open spaces interspersed with small, wooded areas accessible by a series of footpaths. The actual site area is located within an open area accessed by public footpaths which follow the route of the lake. Close to the site is a Grade II listed building called The Temple which dates from the mid-eighteenth century (Figure 341). This is the only surviving remnant remains of the original site. The site is a thriving local resource which offers the local community a range of activities including open air theatre and guided walks.

## 13. Site Memory

The hamlet of Wanstead was originally recorded in the Domesday Book. The name means a house located on a hill or barrow (Hidden London, 2020). The site visit determined that there was nothing within the immediate environment to suggest that a well had once been located in the area either through the use of street or school names or neighbouring place names.

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**Unpublished**

Cannell, E. (2019) Footpath and vegetation close to the well site at Wanstead Park, Essex

Cannell, E. (2019) View of the original lake at Wanstead Park, Essex

Cannell, E. (2019) View of the original lake at Wanstead Park, Essex

Cannell, E. (2019) View of The Temple, Wanstead Park, Essex



# Well Data Sheet: **West Tilbury**

## 1. General information

Historic Name:	Tilbury Hall Well
Contemporary Name:	West Tilbury Well
First Written Description:	John Andree, 1737
Nearest Settlement:	West Tilbury
Approximate OS Map Reference:	TQ 66000 78504
Date of Field Visit:	26.5.2019
Time of Site Visit:	11.50am (weather sunny)

## 2. Location Map



Figure 342  
Map of Essex showing the wider context of the location of Tilbury  
Source: Althistory, 2017

The site is in southeast Essex in an area that remains rural (Figures 342 and 343). Tilbury is situated twenty-three metres above sea level. The landscape context of the location is shown in Table 64.

### 3. Local Context



Figure 343

Ordnance Survey map of West Tilbury, Essex showing the approximate location of the West Tilbury Well  
Source: Edina Digimap, 2016

### 4. Landscape Context

Table 64

Table showing the landscape context of the site at West Tilbury, Essex

Landscape Component	1 Mile Radius	5 Mile Radius	10 Mile Radius
Village	West Tilbury		
Town	Grays		
Road	Church Road		
Railway	London, Tilbury, Southend Line		
Woodland	Shrove Hill Wood		
Forest			
River		Thames	

### 5. Historic Access and Connection

The well at Tilbury Hall was originally used by residents and workers of the farm (Figures 344 and 345). As the reputation of the water grew, it was consumed by friends and family of the owners. This water tended to be exported, either to London or overseas so an adequate road system would be necessary. Alternatively, water may have been transported along the River Thames, less than a mile away from the well.

## 6. Historic Maps



Figure 344  
 Ordnance Survey map of West Tilbury, Essex (1805) showing the location of the West Tilbury Well  
 Source: University of Portsmouth, 2009-2017



Figure 345  
 Ordnance Survey map of West Tilbury, Essex (1864) showing the location of the West Tilbury Well  
 Source: Edina Digimap, 2017

## 7. Geological Map

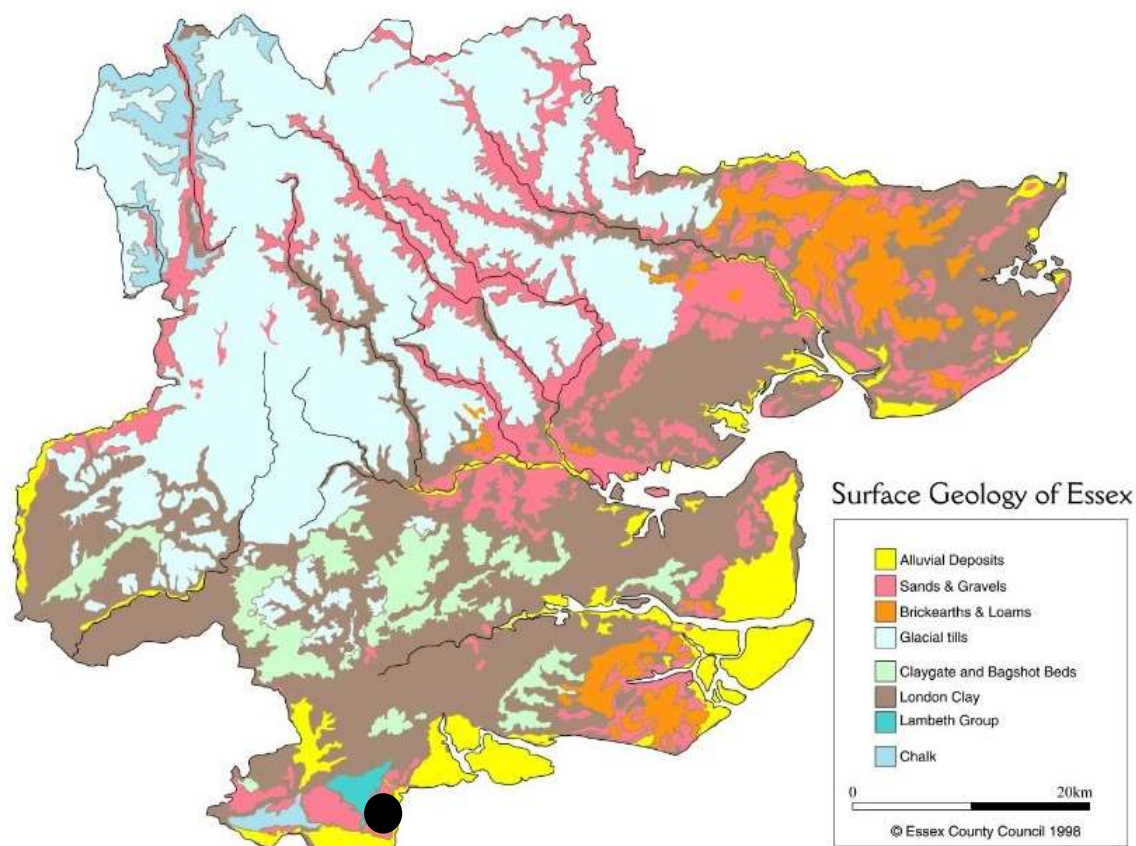


Figure 346  
Map showing the surface geology of Essex and location of West Tilbury on sands and gravels  
Source: Geo Essex, 2016

## 8. Water Analysis

The well at West Tilbury Hall was initially analysed by Dr John Andree in 1740, pronouncing the water as being “straw coloured and pleasant tasting”. He described how some bottles of the water had been transported to the West Indies and back without any problems. He stated that the water would alleviate many illnesses including gout and scurvy. The reputation of West Tilbury water was growing, and samples of the water were analysed by Dr John Rutty in Dublin. The water was then evaluated by Dr Bryan Higgins on behalf of Mr Ellison, a chemist and seller of mineral waters, in 1779 (Table 65). His findings were based on one Winchester gallon (Christy and Thresh, 1910 p39).

Table 65  
Results of scientific analysis of the Tilbury water carried out by Dr B Higgins in 1779

Constituent	Dwt	grs
Calcerous Earth saturated with acidulous gas	1	13
True Nitre with fixed vegetable alkali	2	1
Sea Salt	3	10
Mineral Alkali	0	1.5
Mineral oleaginous matter	0	1.25

The water was subsequently analysed by Dr Martin Trinder in 1783 although this study focussed on the behaviour of the water when mixed with other components rather than the constituent parts of the water itself. Trinder described the water as “pale, yellow in colour and having a soft taste”. He stated that the water was inodorous (Trinder, 1783 p1). A sample of the water was collected for analysis by Christy and Thresh on 2<sup>nd</sup> November 1907. Their findings are as follows (Table 66).

Table 66  
Results of scientific analysis of the Tilbury water carried out by Christy and Thresh in 1907

Constituent	Parts Per 100,000
Calcium Carbonate	30.8
Calcium Sulphate	89.8
Magnesium Sulphate	129.4
Sodium Sulphate	13.9
Sodium Chloride	15.2
Water of Hydration	19.4
Nitrates, Silica etc	0.5

Christy and Thresh stated that the water would be unsuitable for many household tasks due to the levels of Sodium Chloride present. Although Sodium Nitrate was present in the water, neither this nor the levels of Sodium Chloride were sufficient to regard it as a mineral water. The water in this well passes through old Thames gravel into the Thanet Sands as shown in Figure 346 (Christy and Thresh, 1910 p42).

## 9. Alleged Curative Properties

The possibilities of this water being a curative were initially discovered by the owner of the site, Mr Kellaway, who found that the water alleviated his stomach problems. It also seemed to make his gout less uncomfortable (Christy and Thresh, 1910 p32). The water was analysed by Dr Martin Trinder (1783 p9) who found it beneficial in the treatment of stomach complaints such as heartburn and indigestion. He also stated that it would alleviate stomach complaints associated with some forms of gout. He claimed that the water would cure the symptoms of nervous diseases and convulsions in young children. Trinder suggested that the water would ease the symptoms of diarrhoea. He recommended that patients should drink a quart of the water once a day.

## 10. Chronological Development

This well is described by Parish (2008 p34) as probably being the most successful well in the county as it was the most lucrative although he fails to indicate evidence for this assertion. The well was located at West Tilbury Hall which was situated on a hill above the Thames Marshes (Trinder, 1783 p1). The medicinal qualities of the water at Tilbury were initially discovered by the owner of the hall, Mr Kellaway, in 1724 when a well was dug in the dairy at the rear of the hall. The pump was located in the brewhouse (Cowell, 2001 p8). Kellaway made a visit to Tilbury from his London residence in 1727 and was suffering from a cold and an episode of gout. He was instructed to drink the water and discovered that his symptoms improved. Mr Kellaway enjoyed drinking the milk at his farm but found that it disagreed with his stomach. He began to drink water before drinking milk and found that his symptoms were alleviated (Bingley Doyle, 1969 p1050). The well was ignored until 1731 when Mr Kellaway returned to the farm after suffering a prolonged episode of diarrhoea. After drinking a mixture of water and wine he was restored to full health. Mr Kellaway also discovered that the water benefitted the health of his cattle, particularly the calves who suffered less diarrhoea and premature death (Christy and Thresh, 1910 p36).

Kellaway believed that the water at Tilbury could be a mineral water and so approached the medical profession with a view to analysing its properties. There was little interest in the water, so Kellaway began sharing the water with his acquaintances (Cowell, 2001 p9). The water was recommended to Dr John Andree who wrote a pamphlet commending its properties. Andree dedicated the pamphlet to Sir Hans Sloane, Royal Physician and President of the Royal Society. Both Andree and Sloane used the water to treat their patients (Bingley Doyle, 1969 p1050).

Rather than establishing a location where clients could travel to with the intention of taking the waters, Tilbury water was generally sold off site although it could be purchased directly from the well. During the 1760s Tilbury water could be bought at several retailers including the Jerusalem Coffee House in Pall Mall. The fortunes of Tilbury Hall Water increased in 1778 following the purchase of the hall by John Ellison, a chemist and seller of waters from his warehouses in London (Figure 347).

**A T ELLISON'S MINERAL WATER** Warehouse near  
Red Lion-Street, Whitechapel, are sold all Sorts of  
Mineral Waters now in Use, in the greatest Perfection, at  
the following Prices:

	l.	s.	d.
Bath and Scarborough Water, per Dozen	0	9	0
Bristol Hot Wells Water	0	7	0
Seltzer Water in large Stone Bottles	1	1	0
Jeflop's Well, or Stoke Water	0	8	0
Pyrmont Water, in three Pint Bottles	0	18	0
German Spa Water, in large Flasks	0	12	0
The same in small Flasks	0	9	0
Harrowgate Spa Water	0	12	0
Tilbury Alterative Water from the Old Well	0	10	0
Cheltenham Water	0	10	0
Sea and Tar War	0	6	0

N. B. Seltzer being perishable is sold from 14 s. to 21 s. per Dozen.  
At the same Place may be had fine Honey in Pots, at 5 d. per Pound. Genuine Spruce Beer, 12 s. 6 d. per Keg.

Figure 347

Advertisement listing the range of mineral waters available for purchase at Ellison's Red Lion Warehouse.  
Source: London Gazette 2017.

John Ellison bought the property at West Tilbury and began exporting water to the East and West Indies (Cruden, 1843 p413). Ellison was an astute businessman who published several adverts describing the healing powers of the water. He also encouraged vendors who wished to sell his water to write to him with their details. As a result of this Tilbury water was also sold in Bath,

Bristol and Harrogate, all locations with links to therapeutic water (Cowell, 2001 p11). Ellison also used a horse and cart to follow a pre-determined route from Whitechapel to St Albans Street three times per week (Bingley Doyle, 1969 p1050). It is not evident when exactly this well lost its popularity. Christy and Thresh assert that the last mention was in a book titled '*The beauties of England and Wales*' which was published in 1803 (1910 p40).

## 11. Contemporary Landscape Components

Table 67

Table describing the contemporary landscape components in the vicinity of the West Tilbury Well

<b>Architecture</b>	The site is currently a private residence with substantial walls surrounding it making appraisal of the site impossible (Figure 348)
<b>Transport Links</b>	The spring site is now situated in the grounds of West Tilbury Hall (Figure 349). The road layout is relatively unchanged since the eighteenth century.
<b>Water</b>	There was no indication of a spring at the site as access was unachievable.
<b>Vegetation</b>	The spring site is currently located within the grounds of West Tilbury Hall. There were fields in close proximity to the hall containing several horses, making them inaccessible. The grounds of the hall appeared to be well manicured while the nearby fields were surrounded by trees and groundcover such as nettles (Figure 350).



Figure 348

Photograph of the secure boundary wall of West Tilbury Hall  
Source: Cannell, 2019



Figure 349

Photograph showing the manicured grounds of West Tilbury Hall  
Source: Cannell, 2019



Figure 350

View of West Tilbury Hall from an adjacent field  
Source: Cannell, 2019

## 12. Description of the Site in Its Current Form

Access to the site was not possible as the site is presently a private residence. Tilbury Hall appears to have retained much of the original building.

## 13. Site Memory

Tilbury was originally a Roman location whose name means a fortified place belonging to Tila (Ancestry, 2020). There is no evidence such as road names to suggest that a well existed in this area although a local conurbation is called Chadwell St Mary (Figure 355). During the field visit a community group were collecting litter. Several individuals indicated that as well as the spring at the church, there was a well at the property next door (West Tilbury Hall). There was a large pond close to this property called Well House, built in 1480. This property had an underground stream which still feeds the pond (Figures 351, 352 and 353).

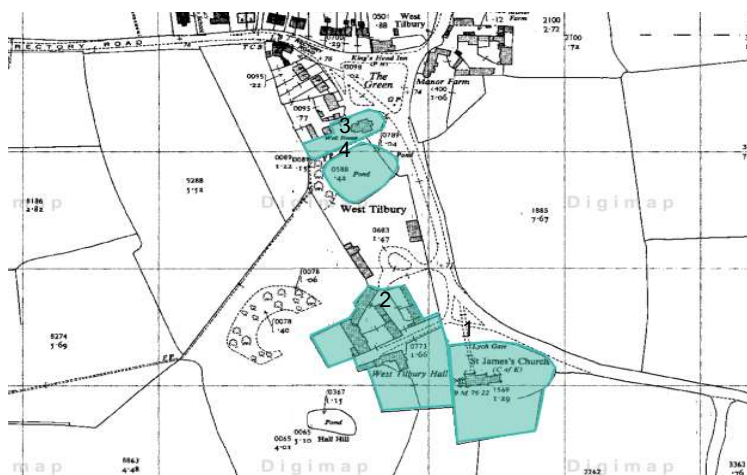


Figure 351  
Ordnance Survey map of West Tilbury, Essex (1963) showing the location of St James Church (1), West Tilbury Hall (2), Well House (3) and adjoining pond (4)  
Source: Edina Digimap, 2019



Figure 352  
Photograph showing the pond adjacent to Well House  
Source: Cannell, 2019



Figure 353  
Photograph of Well House, West Tilbury  
Source: Cannell, 2019



This pond was originally used by the village blacksmith who drove carts into the water when repairing the ironwork on the wheels as the cold water caused the iron to shrink, making it easier to remove. West Tilbury is famous for being the location where Queen Elizabeth I Gave her Armada speech. The group were able to indicate the likely fields where the troops listened to the speech (Figure 354 and 355).

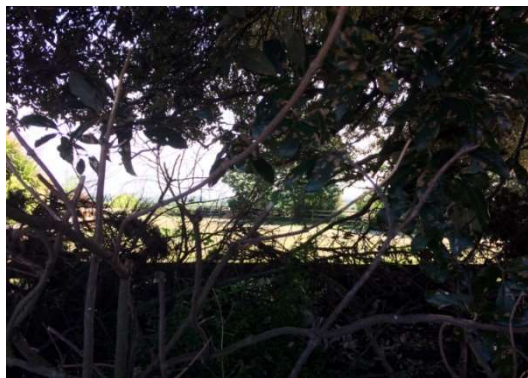


Figure 354  
Photograph showing the field where the troops listened to  
the Armada Speech  
Source: Cannell, 2019

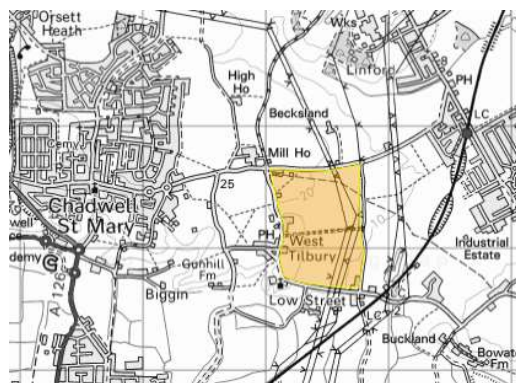


Figure 355  
Ordnance Survey Map (1994) showing the same site  
Source: Edina Digimap

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**Unpublished**

Cannell, E. (2019) Photograph showing the fields where the troops listened to Queen Elizabeth I's Armada Speech

Cannell, E. (2019) Photograph showing the pond adjacent to Well House, West Tilbury, Essex

Cannell, E. (2019) Photograph showing the security surrounding West Tilbury Hall, Essex

Cannell, E. (2019) Photograph showing the view into the garden of West Tilbury Hall, Essex

Cannell, E. (2019) Photograph of Well House, West Tilbury, Essex

Cannell, E. (2019) Photograph of West Tilbury Hall, Essex

**Personal Communication**

West Tilbury Community Group. (2019) Informal discussion (26.5.2019) about well sites in West Tilbury and the likely location of troops listen to the Armada Speech given by Queen Elizabeth I.

# Well Data Sheet: **Wethersfield**

## 1. General Information

Historic Name:	Wethersfield Spring
Contemporary Name:	Wethersfield Spring
First Written Description:	A gentleman compiler of 'A History of Essex', 1769
Nearest Settlement:	Wethersfield
Approximate OS Map Reference:	TL 72149 30633
Date of Field Visit:	25.8.2018
Time of Field Visit:	12.35pm (weather sunny)

## 2, Location Map



Figure 356  
Map of Essex showing the wider context of the location of Wethersfield  
Source: Althistory, 2017

The site is situated in north Essex and remains a rural location (Figures 356 and 357). Wethersfield is elevated approximately seventy-five metres above sea level. The wider landscape context of the well site is shown in Table 68.

### 3. Local Map



Figure 357  
Ordnance Survey map of Wethersfield, Essex showing the approximate location of the Wethersfield Spring  
Source: Edina Digimap, 2016

### 4. Landscape Context

Table 68  
Table showing the landscape context of the well site at Wethersfield, Essex

Landscape Component	1 Mile Radius	5 Mile Radius	10 Mile Radius
Village	Wethersfield		
Town		Braintree	
Road	Braintree Road		
Railway		Braintree	
Woodland	Poor Park		
Forest			
River	River Pant		

### 5. Historic Access and Connection

Due to the likelihood of this spring being a local resource, it is unlikely that transport links would have been of any significance. The rural nature of the location is evident in Figures 358 and 359.

## 6. Historic Maps



Figure 358  
 Ordnance Survey map of Wethersfield, Essex (1805) showing the approximate location of the Wethersfield Spring  
 Source: University of Portsmouth, 2009-2017



Figure 359  
 Ordnance Survey map of Wethersfield, Essex (1881) showing the possible locations of the Wethersfield Well  
 Source: Edina Digimap, 2016

## 7. Geological Map

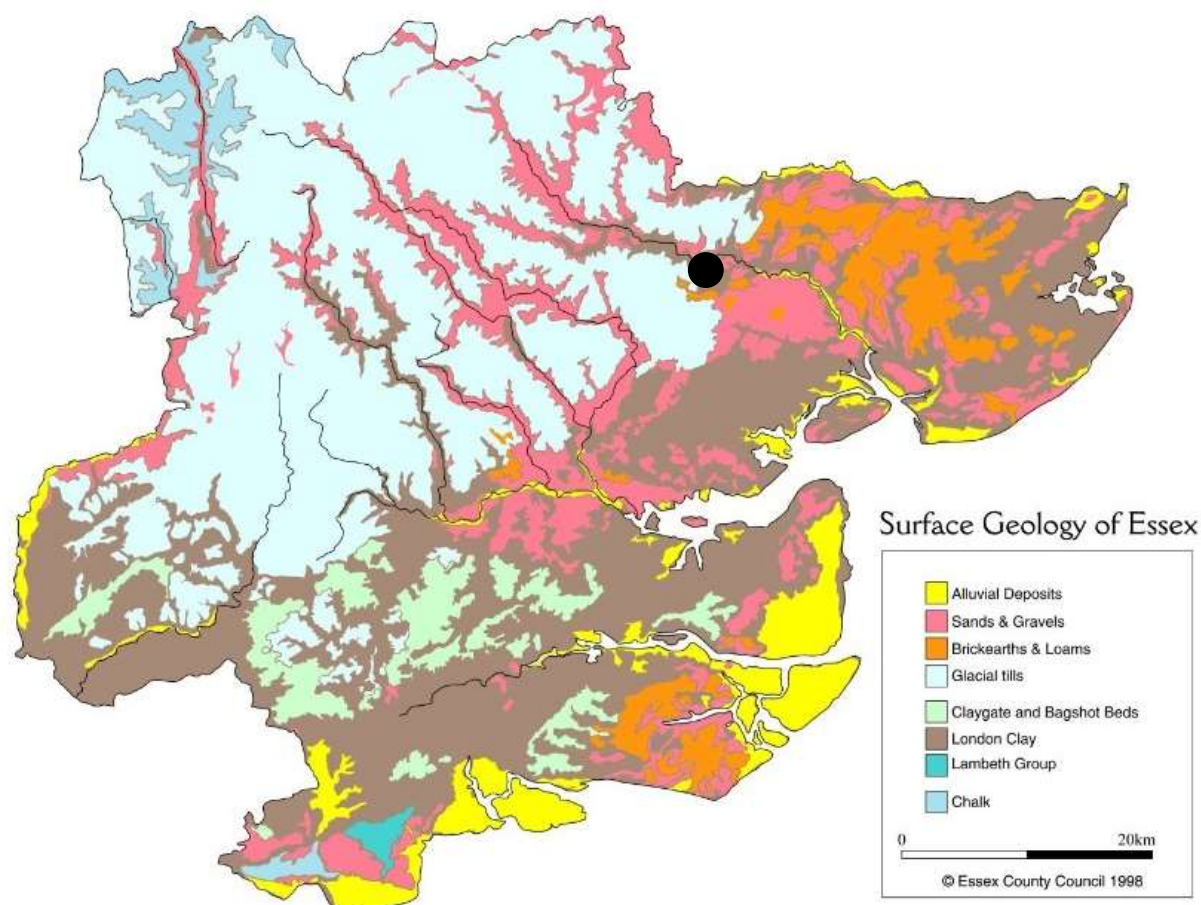


Figure 360  
Map showing the surface geology of Essex and location of Wethersfield on London Clay  
and glacial gravel  
Source: Geo Essex, 2016

## 8. Water Analysis

Although the Wethersfield Spring was initially described as a Chalybeate spring in 1769, no analysis was undertaken to support this claim. Christy and Thresh were unable to discover the exact location of the spring and thus could not verify claims made in the eighteenth century. Their colleague Mr Dalton asserts that the approximate location passes over a crest of London Clay overlaid with branches of Glacial Gravel as shown in Figures 360 and 361 (Christy and Thresh, 1910 p30).

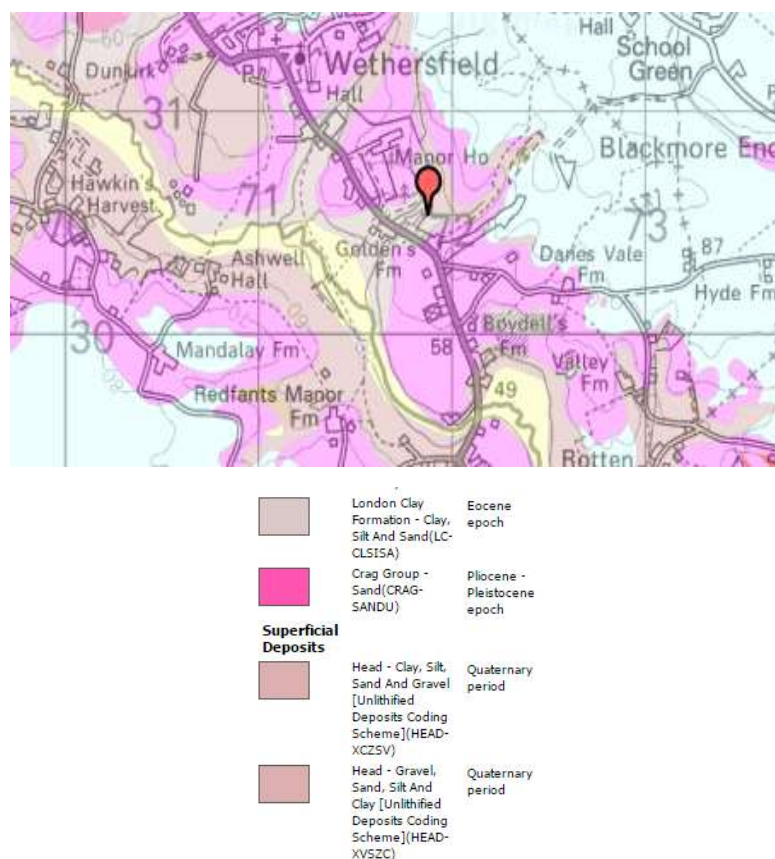


Figure 361  
Geological map of the area including the approximate location of the Wethersfield Spring  
Source: Edina Digimap, 2016

## 9. Alleged Curative Properties

There is little written about this well site, so it is impossible to ascertain why visitors of the site found it of value. An eighteenth-century account describes the well as being chalybeate which would suggest that people used the water as a purgative.

## 10. Chronological Development

The spring at Wethersfield was first described by the author of the 1769 *'History of Essex'*, an anonymous gentleman who described the well as an abandoned chalybeate spring. Christy and Thresh were unable to detect the exact location of this well (Christy and Thresh, 1910 p30). It is likely that this well was used by locate people to cure their ailments due to its rural location.



## 11. Contemporary Landscape Components

Table 69  
Table describing the contemporary landscape components in the vicinity of the Wethersfield Spring, Essex

<b>Architecture</b>	There are no remnant remains visible at the site.
<b>Transport Links</b>	The spring site is situated in an extremely rural location close to a narrow single-track road (Figure 362).
<b>Water</b>	There is no evidence of the original water source.
<b>Vegetation</b>	The spring site is currently located in arable farmland. At the time of the visit the field was being used to graze sheep (Figure 363).



Figure 362  
Photograph showing the rural location of the site  
Source: Cannell, 2018



Figure 363  
Photograph showing sheep grazing on the spring site  
Source: Cannell, 2018

## 12. Description of Site in its current form

The site is currently part of an arable farm.

## 13. Site Memory

There is no recognition of the well in the immediate locality.

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### Unpublished

Cannell, E. (2018) Photograph showing the rural location of the Wethersfield Spring site, Essex

Cannell, E. (2018) Photograph showing sheep grazing on the Wethersfield Spring site, Essex

# Well Data Sheet: **Witham**

## 1. General Information

Historic Name:	Witham Spa
Contemporary Name:	Witham Spa
First Written Description:	Benjamin Allen, 1699
Nearest Settlement:	Witham
Approximate OS Map Reference	TL 81069 15222
Date of Field Visit:	19/8/2017
Time of Field Visit:	14.35pm (weather cloudy and drizzly)

## 2. Location Map



Figure 364  
Map of Essex showing the wider context of the location of Witham  
Source: Althistory, 2017

Witham is situated northeast Essex (Figure 364) approximately twenty metres above sea level. The spring site is now located in an urban area as shown in figures 365 and 366. The original rural location of the site is shown in Figures 368-371. The local landscape context of the spa site is shown in Table 70.

### 3. Local Context



Figure 365  
 Ordnance Survey map of Witham, Essex showing the location of Witham Spa  
 Source: Edina Digimap, 2016



Figure 366  
 Satellite map of Witham, Essex showing the location of Witham Spa  
 Source: Essex Field Club, 2017

## 4. Landscape Context

Table 70  
Table showing the local context of the spa at Witham, Essex

Landscape Component	1 Mile Radius	5 Mile Radius	10 Mile Radius
Village	Faulkbourne		
Town	Witham		
Road	Terling Road		
Railway	Witham Station, 1848		
Woodland	Ardley Wood		
Forest			
River	River Brain		

## 5. Historic Access and Connection

The town of Witham was in a fortunate location as it was situated on the main road from London to Harwich as shown in Figure 367. Dr Taverner wrote that the road was “justly reputed one of the finest in England”. The entire route was turnpiked between 1695 and 1725. During this period people could pay to travel on a stage waggon containing produce and would take twenty-four hours to travel from London to Witham. Wealthier people could hire a post chaise from the inns in the town. Many of the inns were well equipped to cope with large numbers of carriages, for example, the George Inn had accommodation for up to seventy horses (Gyford, 2005 p39).

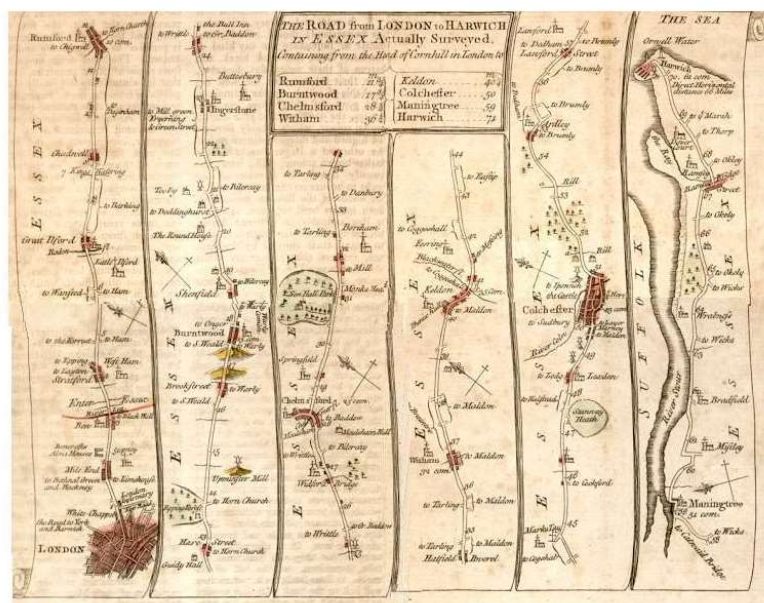


Figure 367  
Map showing the 'Road from London to Harwich in Essex'. Surveyed from the London Magazine, 1765  
Source: Ancestry.com, 2017.

Witham Station opened for public usage in 1848, well after the demise of the spa and thus, would not have been used as a means of transport.

## 6. Historic Maps



Figure 368  
 Extract of a map of Witham, Essex by Chapman and André (1777) showing the location of the spring at Powers Hall  
 Source: British History Online, 2016



Figure 369  
 Ordnance Survey map of Witham, Essex (1805) showing the location of Witham Spa  
 Source: University of Portsmouth, 2017

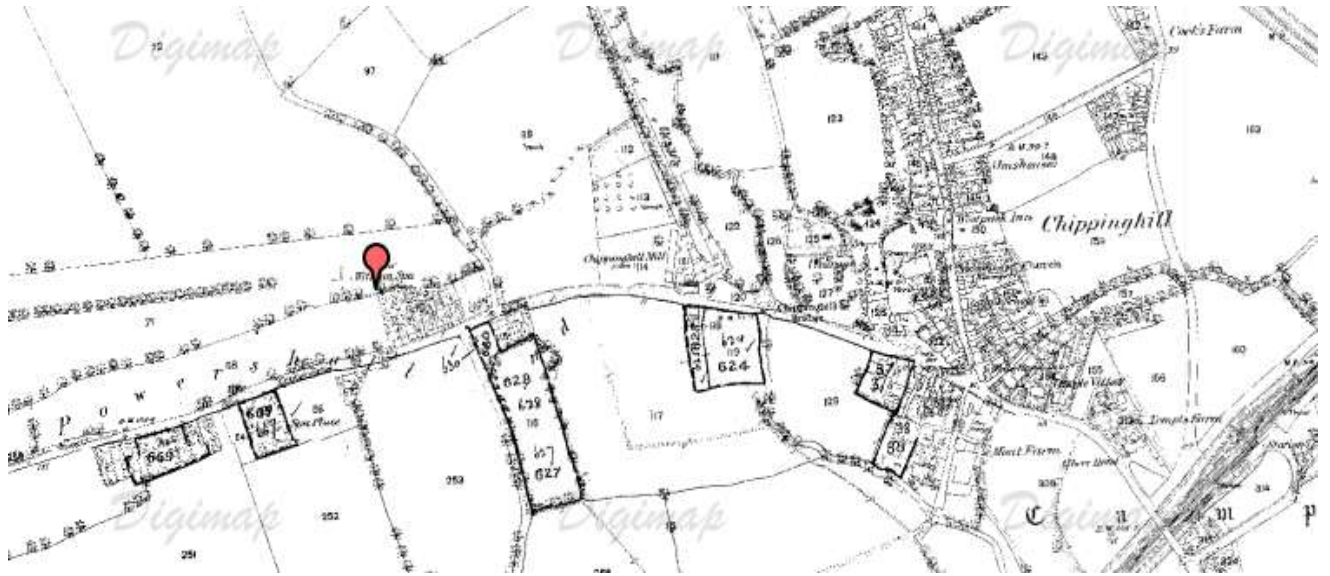


Figure 370  
Ordnance Survey map of Witham, Essex (1875) showing the location of Witham Spa  
Source: Edina Digimap, 2016

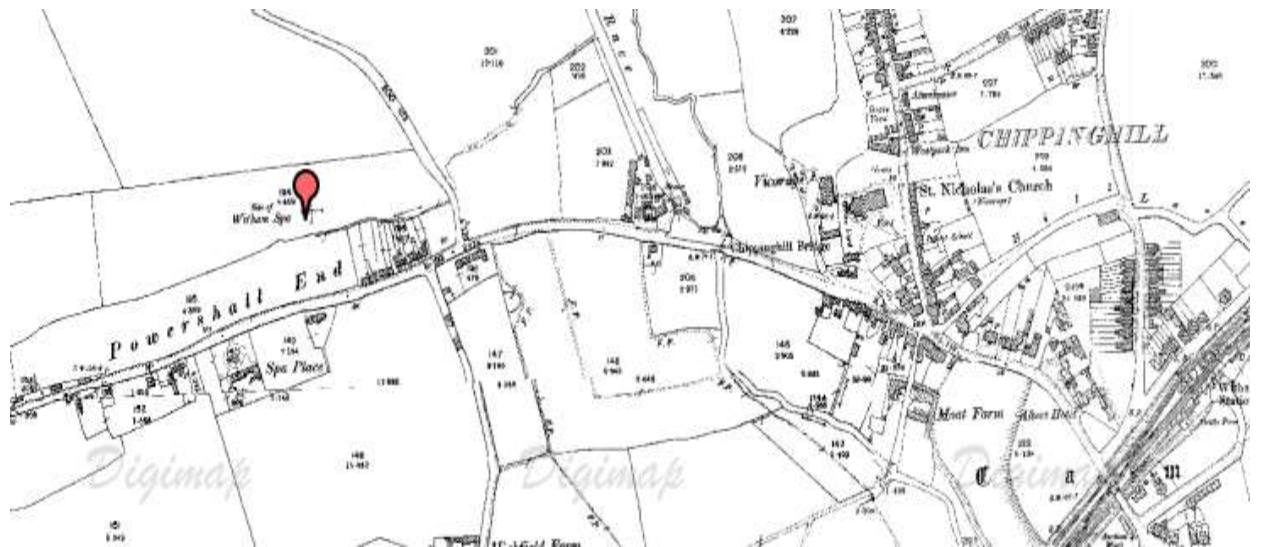


Figure 371  
Ordnance Survey map of Witham, Essex (1897) showing the location of Witham Spa  
Source: Edina Digimap, 2016

## 7. Geological Map

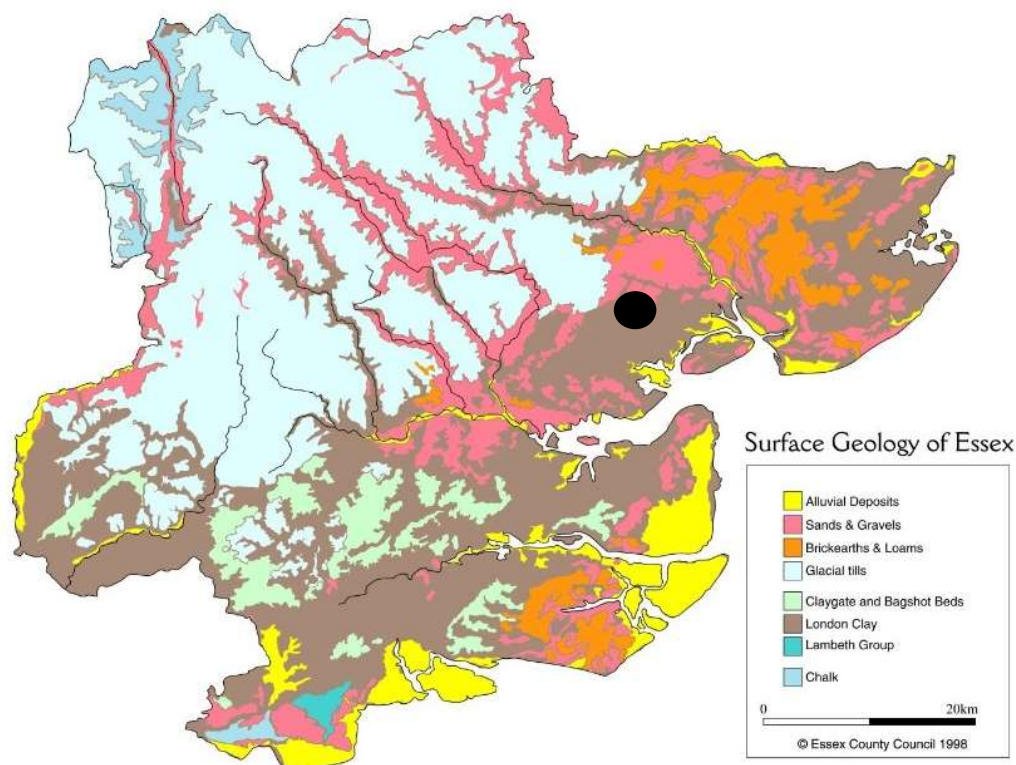


Figure 372  
Map showing the surface geology of Essex showing the location of Witham on London Clay  
Source: Geo Essex, 2016

## 8. Water Analysis

Although the water at Witham was analysed by Benjamin Allen in 1699 and Martin Trinder in 1783 both these studies focussed on the behaviour of the water when mixed with other components rather than the constituent parts of the water itself. In 1736, the physician James Taverner described the spring at Witham as: “a sulphurous chalybeate water, impregnated with a small quantity of salts, but carrying in it a larger proportion of an alcinat earth...as a chalybeate, it quickens the whole circulation, attenuates the blood, dissolves viscid humours and opens obstructions. From its salts, it incites, stimulates, dissolves, sily humours, promotes the several sectors, and is, very diuretic (Cowell, 2001 p21). The physician Martin Trinder described the water as being: “Perfectly clear and limpid. It has a ferruginous taste and it possesses at the spring head, a certain freshness which renders it agreeable to palate and stomach (1737 p41). A sample of the water was unable to be collected for analysis by Christy and Thresh as the well had dried up. It is therefore impossible to ascertain whether the water was medicinal. Figure 372 shows the surface geology of the area.



## 9. Alleged Cures

The water at Witham was analysed by Benjamin Allen (1699), Dr James Taverner (1737) and Dr Martin Trinder (1783) (Christy and Thresh, 1910 p21). Benjamin Allen described the appearance of the water when combined with other elements rather than any benefits it might have to the consumer. For example, following his analysis of the performance of the water when combined with galls Allen stated: "With Gall, a deep purple turning to ink, not very clear, and with Lignum Nephriticum a faint dull reddish" (p 25).

Dr Taverner (1737, p58-60) undertook a series of experiments in order to ascertain the healing qualities of the Witham water stating: "As a chalybeate it quickens the circulation, attenuates the blood, dissolves viscid humours and opens obstructions...As a sulphurous water, it is, likewise attenuating, resolving, desiccative, balsamick, pectoral, vulnerary and antiscobutick. From its salts, it is in particular very diuretick".

According to Trinder's experiments, the water at Witham had the ability to thin the blood, assist the healing of wounds, prevent scurvy and act as a diuretic. The physician Martin Trinder who undertook fourteen experiments. Trinder described the water as being a light chalybeate which, if used in conjunction with cold bathing, relaxation, a balanced diet and temperance would help those with a nervous disorder. He also stated that it had the ability to strengthen the constitution of those who had been suffering from a prolonged illness (p45).

## 10. Chronological Development

The mineral spring at Witham was discovered in the mid-seventeenth century and was initially analysed by Dr Benjamin Allen in 1699 in a work titled '*The natural history of the Chalybeate and purging waters of England*' in a chapter titled '*The water at Witham in Essex, in Sir Edward Southcott's ground*'. Allen described the water as being a chalybeate water that contains a nitrous salt. The spring was omitted from the second edition of this book indicating perhaps that Allen no longer regarded the spring in a positive light (Christy and Thresh, 1910 p19). The spring does not seem to have been well used in the early eighteenth century until the well was re-dug in 1737 by James Taverner, a local doctor who then described the perceived properties in his work, '*An essay upon the Witham Spa*' (Cowell, 2001 p17). The water was also analysed by Dr Martin Trinder (1783) who described the location as being about a mile from Witham in the grounds adjoining Witham Place as shown in Figures 373 and 374 (p41).

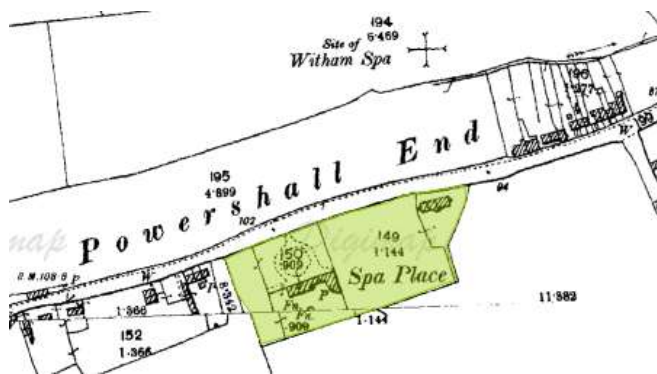


Figure 373  
Ordnance Survey map (1897) showing Spa Place  
Source: Edina Digimap, 2017



Figure 374  
Photograph of Spa Place, Witham, Essex  
Source: Cannell, 2017

Witham's location on the main road from London to Harwich meant that there was an established town at the time when Taverner was developing his enterprise. This is evident from maps such as those created by Chapman and André. The writer Daniel Defoe visited Witham in 1724 and described the town as having 'an exceptional number of gentlemen of good fortunes' (Gyford, 2005 p29). Taverner re-dug the well, moving the location from that of Allen's well. He felt that the original well had been excavated too near a mineral stratum and that the original reservoir was too large. He considered that common water had seeped into the reservoir causing it to dilute. Taverner's new well head was located twelve feet lower than the surface level (Christy and Thresh, 1910 p21). Taverner's Well is described as located three quarters of a mile from the town. Christy and Thresh (1910 p24) describe the well as being on the side of a gentle slope and close to an avenue of lime trees.

In November 1735 Dr Taverner and Mr Martin Carter, a local lawyer seeking a sound investment, leased the lower part of an area known as the Walk Field from Sir Edward Southcott and his wife, The owners of Witham Place, for a period of twenty-one years at a fee of one pound per year. In 1741 Taverner and Carter leased the entire field (Figure 375) for nine pounds per year (Cowell, 2001 p18). The agreement included aspects such as the potential profits to be obtained from selling the water, permitting entrance to the Walk Field, and the leasing of shops. The leasehold also focussed on payment of wages to servants or dippers and the procurement of bottles for the spring water (Gyford, 2005 p37).



Figure 375  
Ordnance Survey map of Witham, Essex (1875) highlighting the Walk Field and the areas leased from the Southcott family  
Source: Edina Digimap, 2017

As well as describing the benefits of the consumption of the Witham water, Taverner emphasised the difficulty in transporting his product stating: "the mineral spirit is of so volatile a nature as to make it escape upon carriage, tho' the bottles are ever so carefully corked and cemented; whence it becomes necessary for those who would drink it to advantage to come to the spring and take it upon the spot" (Cowell, 2001 p22)'.

The spa was opened in June 1737. Taverner placed adverts in local newspapers including the *Colchester Courier* and the *Ipswich Journal*. An example of which is shown in Figure 376. The location of the spa was somewhat rural, so Dr Taverner persuaded local inns to accommodate and entertain patrons of the spring. The White Hart and George inns arranged balls, concerts, and dinners while the Black Boy held cock fights (Witham Town Council, 2017). The George Inn boasted an assembly room, dining rooms, bed chambers, wine vaults and a beer cellar. The town briefly possessed a theatre where a dramatic romance was presented. The play had previously been shown at the Theatre Royal, Drury Lane (Gyford, 2005 p38).

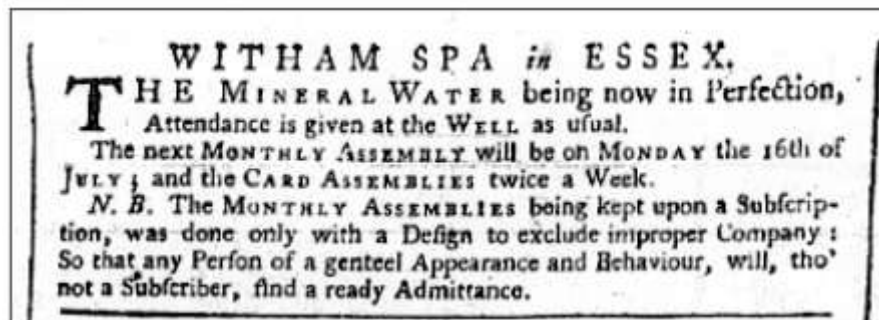


Figure 376  
Advertisement describing admission to assembly activities at Witham Spa  
Source: Gyford, 2005

As with most spa resorts, visitors to Witham were generally expected to take out a subscription for admittance to activities during the spa season although Taverner placed the following advert in local newspapers in June 1743. I wonder if the spa was perhaps not attracting quite the numbers of clientele expected by Taverner or whether he wanted to make the assembly activities available to the local gentry who may not choose to subscribe to a spa in their locality. While there is, much information regarding the activities available to the clientele in Witham there is little evidence concerning the buildings. The historian Phillip Morant described that the Great Hall at New Hall, Boreham was moved to Witham. He explains that the owner, John Olmius was dismantling two wings of the hall and that he “pulled down part of that overgrown edifice, reserving enough for a handsome and convenient seat for his own use” (Christy and Thresh, 1910 p24). New Hall is now a public school. Following conversations with the school archivist, it would appear that although there was building work undertaken at the site in 1737 there is no mention of a ‘Great Hall’ and nothing within the archives to support claims that any building material was moved to Witham (Beer, 2017, pers comm).

From analysing adverts such as those in the *Ipswich Journal* we can suppose that the spa comprised of a room for the provision of assemblies and balls, a room for purchasing tickets to the spa and a pump room. A house called Spa Place was built for a doctor and his patients. The popularity of the spa waned following the death of Dr Taverner in 1848 and by the time of Morant’s work the *Antiquities of Essex* (1768) is described as a project that ‘soon came to nothing’. The potential of the spa was revived in the late eighteenth century to such an extent that it was referred to by Dr Martin Trinder in his work of 1783. By the early twentieth century, the location of Witham Spa was almost impossible to find. On their visit in 1910, Christy and Thresh (p24) relied on the input of elderly residents to confirm the site. Although the spa did not perhaps achieve its full potential the town of Witham did benefit through the spa becoming an urban initiator. Many buildings in Newland Street added a Georgian façade to their previously timber-framed frontages as shown in Figure 377 (Witham.gov). Buildings such as Spa Place and Barnardiston House were built to accommodate the fledgling spa business (Cowell, 2001 p24).



Figure 377  
 Photograph of Newland Street, Witham showing the Georgian facades of many buildings  
 Source: Gyford, 2005

## 11. Contemporary Landscape Components

Table 71  
 Table describing contemporary landscape components of the site at Witham, Essex

<b>Architecture</b>	There are no remnant remains regarding the spa itself, but the house of Dr Taverner is situated nearby (Figure 374).
<b>Transport Links</b>	The nearby roads follow the route of the existing routes present at the time of the spa.
<b>Water</b>	There was none visible at the site.
<b>Vegetation</b>	The site is located within a local park. Other vegetation is in keeping with a residential area (Figure 378).



Figure 378  
 Photograph showing the recreational area located on the spring site  
 Source: Braintree and Witham Times

## 12. Description of Site in its current form

The site is situated within a green space surrounded by residential housing on three sides and a main road on the other. The area is typical of a park space situated in a housing estate. There is nothing within the site to suggest a spa was ever located here.

## 13. Site Memory

The site is located near to a road called Spa Road (Figure 379). The property of Dr Taverner is located nearby and is still called 'Spa Place'.

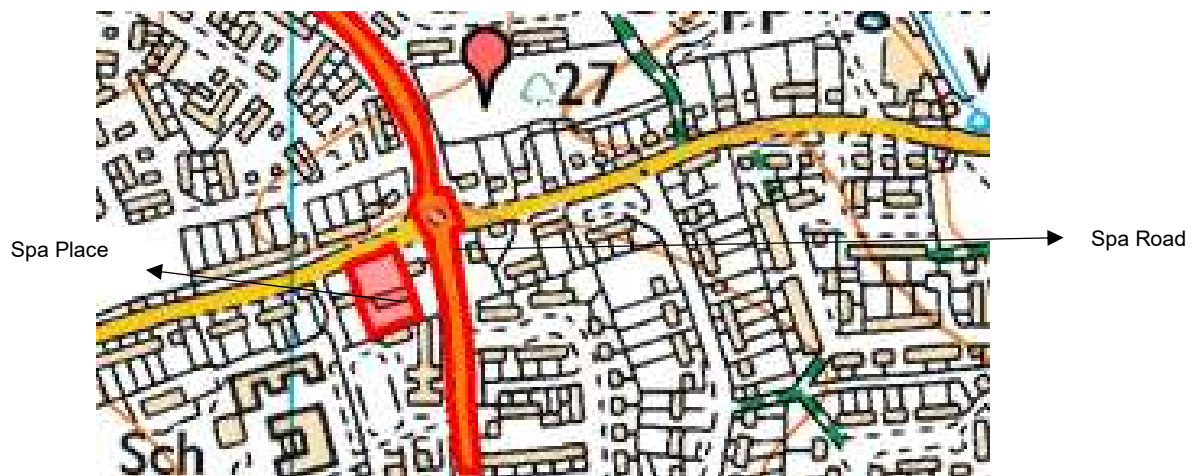


Figure 379  
Ordnance Survey map of Witham, Essex showing the location of Spa Road and Spa Place  
Source: Edina Digimap, 2017

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Witham Town Council. (2017) *The Spa and Social Life* [www document] <http://witham.gov.uk/site/visit-witham/heritage> (Accessed 20th March 2017).

### **Unpublished**

Cannell, E. (2017) Photograph of Spa Place, Witham, Essex

Cannell, E. (2017) Photograph showing a street sign on Spa Road, Witham, Essex

### **Personal Communication**

Beer, S. (2017). E-mail conversation with Stella Beer, archivist at New Hall School, Boreham regarding the likelihood of links between building material from New Hall being used at Witham Spa.

## Well Data Sheet: **Woodford Wells**

### 1. General Information

Historic Name:	Woodford Wells
Contemporary Names:	Woodford Wells
First Written Description:	Dr B Allen, 1711
Nearest Settlement:	Woodford Wells
Approximate OS Map Reference:	TL 40547 92964
Date of Field Visit:	27.5.2017
Time of Field Visit:	2.45pm (weather sunny)

### 2. Location Map



Figure 380  
Map of Essex showing the wider context of the location of Woodford Wells  
Source: Althistory, 2017

Woodford Wells is situated in the south of Essex in an urban area (Figures 380 and 381). The area is located approximately sixty metres above sea level. The landscape context of the area is shown in Table 72.



### 3. Local Context

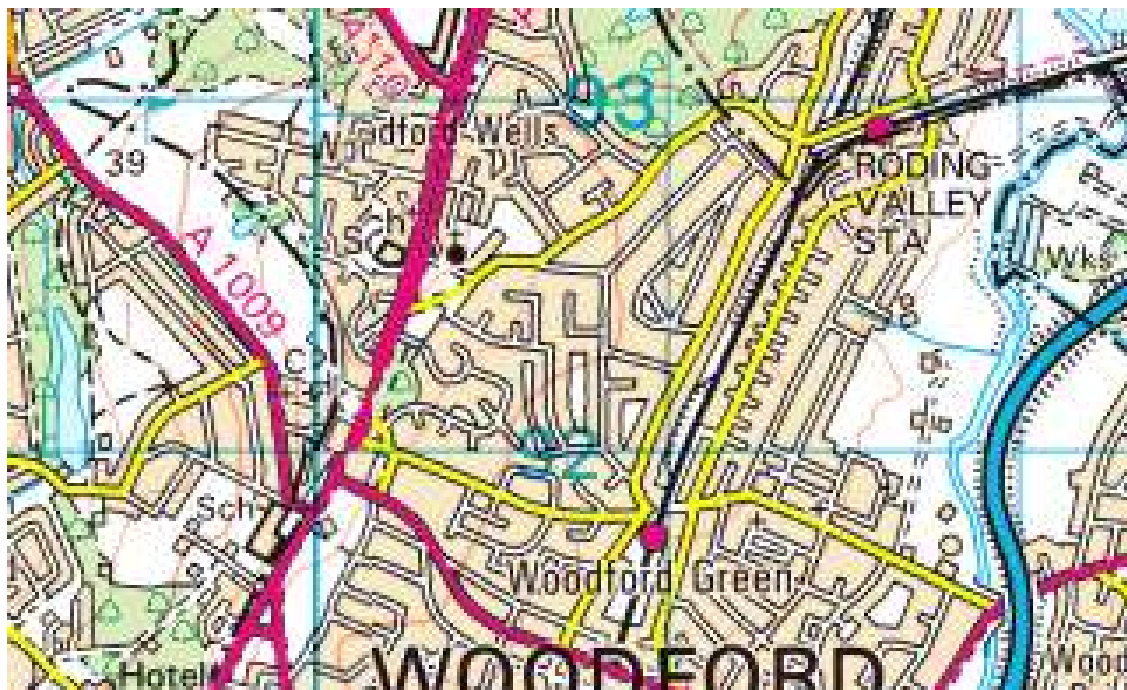


Figure 381  
Ordnance Survey map of Woodford, Essex showing the local context of Woodford Wells.  
Source: Edina Digimap, 2017

### 4. Landscape Context

Table 72  
Table showing the landscape context of the well sites in Woodford, Essex

Landscape Component	1 Mile Radius	5 Mile Radius	10 Mile Radius
Village	Woodford Wells		
Town	Buckhurst Hill		
Road	High Road		
Railway	Woodford Station		
Woodland	Monkham's Wood		
Forest	Epping Forest		
River	River Ching		

### 5. Historic Access and Connection

Although there are good transport links in the vicinity of the well sites, it is likely that it was predominantly used by local people who would probably have walked to the site (Figures 382 and 383).

## 6. Historic Maps



Figure 382  
Ordnance Survey map of Woodford, Essex (1805) showing the location of the Woodford Wells  
Source: University of Portsmouth, 2017



Figure 383  
Ordnance Survey map of Woodford, Essex (1872) showing the location of the Woodford Wells  
Source: Edina Digimap, 2017

## 7. Geological Map

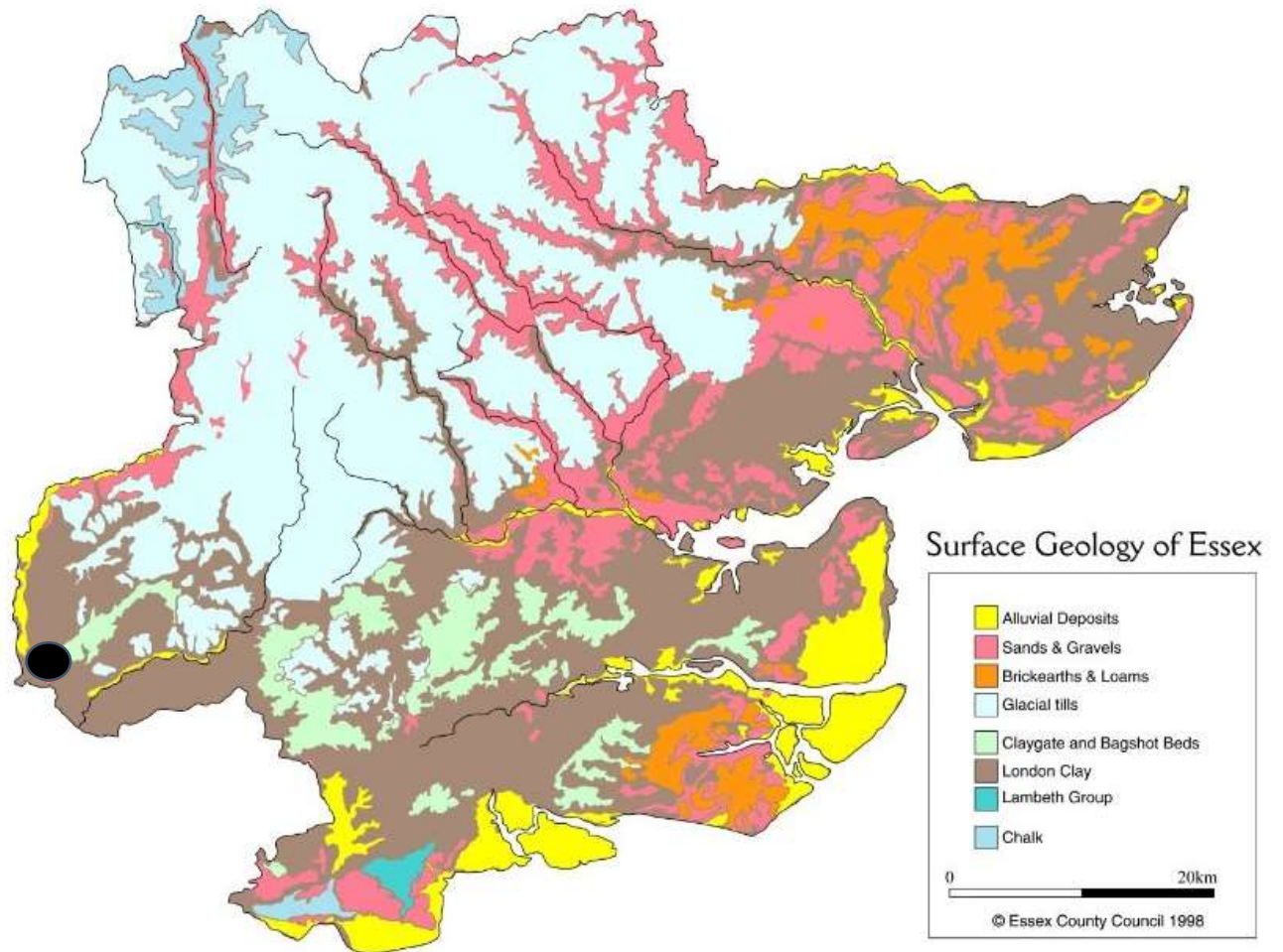


Figure 384  
Map showing the surface geology of Essex and location of Woodford Wells on London Clay and glacial tills  
Source: Geo Essex, 2016

## 8. Water Analysis

Although the water at Woodford Wells was analysed by Benjamin Allen in 1711, his study focussed on the behaviour of the water when mixed with other components rather than the constituent parts of the water itself. There was some disagreement in the early twentieth century as there were two possible well sites in Woodford Wells. The first of these is annotated on Ordnance Survey maps dating back to the mid-nineteenth century while the second site was brought to the attention of Christy and Thresh by H. Cole in 1907 (See Figure 385).

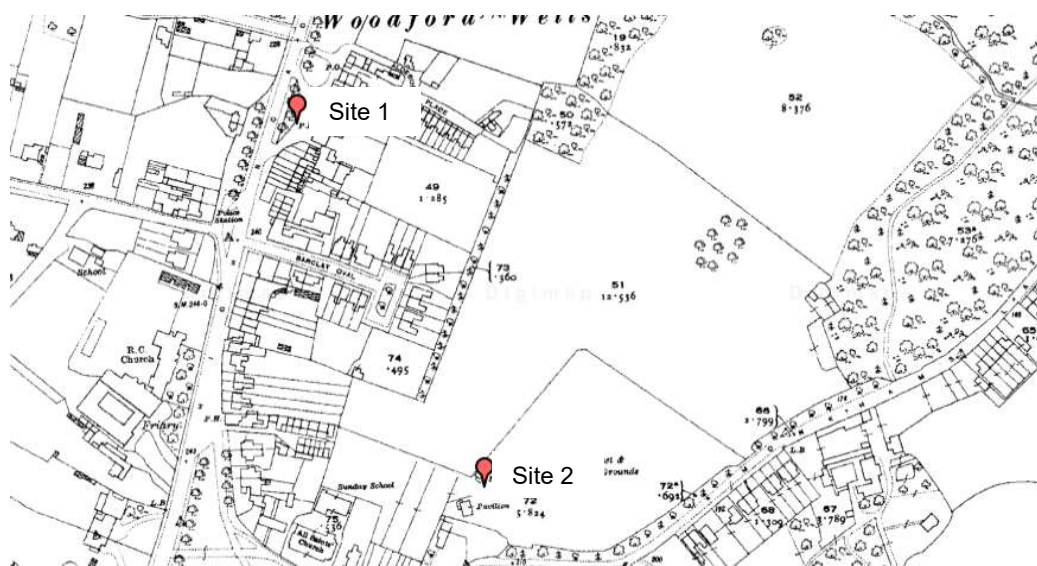


Figure 385

Ordnance Survey map (of Woodford, Essex 1920) showing the location of both sites visited by Christy and Thresh in 1907  
Source: Digimap, 2017

Christy and Thresh were unable to obtain any water from the first site; the following analysis derives from the second site (Figure 385 shows the location of both sites). Christy and Thresh visited the location on November 13<sup>th</sup>, 1907. They described the well as being a bricked structure, four feet in diameter and containing four feet, three inches of water. The water was located six feet below the surface. Their findings are recorded in Table 73.

Table 73

Table showing the results of scientific analysis undertaken by Christ and Thresh at Woodford Wells, Essex (2<sup>nd</sup> site)

Constituent	Parts Per 100,000
Calcium Carbonate	1.66
Calcium Sulphate	8.29
Magnesium Sulphate	5.40
Sodium Sulphate	1.55
Sodium Chloride	3.30
Sodium Nitrate	1.78
Iron	Minute trace
Silica	0.0

Following their analysis, Christy and Thresh stated that the well did not contain a medicinal water. Their colleague, Mr Dalton stated that the water derived from a patch of glacial gravel capping a ridge of London Clay between the Rivers Roding and Ching as shown in Figure 384 (Christy and Thresh, 1910 p32).

## 9. Alleged Cures

Although the well at Woodford was analysed by Benjamin Allen and was remarked upon in other contemporary literature, there is little explanation as to why people valued this water. The only description of the healing properties of Woodford Wells was by Philip Morant who stated that: "Woodford Wells were formerly in repute as purgative and good for many illnesses" (Green, 1996). It seems that the water at this site would have been used as a laxative.

## 10. Chronological Development

The mineral well at Woodford was first mentioned by Benjamin Allen in 1711 (p19), who describes the water as including an alkaline salt similar to salt of tartar and salt of vegetables (Epsom Salts). In 1722 Samuel Goldsmith, a local innkeeper was permitted to build a coach house and stable at the end of his business called the 'Sign of the Wells' (Cowell, 2001 p63). By the time that Ordnance Survey maps of the area had been undertaken the name of the inn had changed to the 'Horse and Well' (Edina Digimap,2017, Figure 386). Figure 387 shows the inn circa 1900.



Figure 386

Ordnance Survey map of Woodford, Essex (1863) showing the location of the Horse and Well Public House  
Source: Edina Digimap, 2017



Figure 387

Photograph of the Horse and Well public House, circa 1900  
Source: Woodford Historical Society, 2012

The well appears to have had limited popularity as by 1768, Philip Morant, writing in his *'Histories and Antiquities of Essex'* (p39) describes the area as 'formerly in repute as a purgative' but was now 'wholly neglected'. Woodford Wells was also described by Daniel Lysons in 1796 as being located near the nine-mile stone in the forest (British History Online, 2017 p287). This stone was located approximately one hundred yards South of the Horse and Well Inn. Although this well had

a short period of fame, it was mentioned in a poem written by Thomas Hood in 1829 and was titled 'The Adventures of John Huggins with the Epping Hunt'.

"Now many a sign at Woodford Town  
Its inn-vitation tells  
But Huggins, full of ills, of course,  
Betook him of the wells"

The wells were also described by James Thorne in 1876 (p736) who stated, 'though the wells are neglected, an ornamental drinking fountain with a full roof of enamelled tiles on the green by the Horse at the Well serves to recall their memory.' By the time the site was visited by Christy and Thresh, the well site located near the Horse and Well Inn was no longer visible. Another old well was recommended to Christy and Thresh (Figure 388). Analysis of this site showed little evidence of a medicinal well. As both sites were plausible locations for Benjamin Allen's initial analysis it is unlikely that it can be proven whether the Woodford Well was medicinal.



Figure 388  
Sketch by H. Cole of the second mineral well in Woodford Wells, 1907  
Source: Christy and Thresh, 1910.

## 11. Contemporary Landscape Components

Christy and Thresh were unable to assess which of the sites at Woodford Wells was the original well site. The research has examined both sites and described the locations in their current form (Tables 74 and 75).

### Woodford Wells 1

Table 74  
Table describing the contemporary landscape components in the vicinity of the Woodford Wells Spring, Essex (1)

<b>Architecture</b>	The original pub called the Horse and Groom still exists but is now called the Horse and Well (Figure 389). This area contains mixed architecture. Some Edwardian style housing located on the opposite side of the main road (A104) while a modern car showroom is located on the site.
<b>Transport Links</b>	Located to the side of a main road leading into Woodford Wells. This road is marked on 19 <sup>th</sup> century O/S maps but is now much more prominent.
<b>Water</b>	There was no evidence of water.
<b>Vegetation</b>	There was little vegetation as the site is now located adjacent to a main road and a car showroom.



Figure 389  
Photograph showing the Horse and Well Public House, Woodford, Essex  
Source: Pubs History, 2017

## 12. Description of the Site in its Current Form

The site is now located in a busy urban area adjacent to the A104 road. The Horse and Well public house is situated next to the site which is now the location of a car dealership.

## 13. Site Memory

The site is located in an area known as Woodford Wells, a name first used in relation to spring sites by Benjamin Allen in 1711 (Cowell, 2001 p63). The public house is called the 'Horse and Well'. There was no further recognition of the well in the immediate area.

### Woodford Wells 2

Table 75  
Table describing the contemporary landscape components in the vicinity of the Woodford Wells Spring, Essex (2)

<b>Architecture</b>	There are cricket and sports pitches on the site which are unchanged since a visit by Christy and Thresh in 1907. The buildings are modern (Figure 390).
<b>Transport Links</b>	The large roads in existence at the time of the well remain but have since been added to as the immediate area has become more urbanised.
<b>Water</b>	There was no evidence of the well site mentioned by Christy and Thresh.
<b>Vegetation</b>	The cricket pitch is surrounded by established trees which could possibly have been standing at the time of the visit by Christy and Thresh. There is also vegetation synonymous with a housing estate such as gardens, trees and grass verges (Figure 391).



Figure 390  
 Photograph showing the cricket pitch at the Woodford Wells site  
 Source: Cannell, 2017



Figure 391  
 Photograph of the area surrounding the Woodford Wells site  
 Source: Cannell, 2017

## 12. Description of the Site in its Current Form

The site remains the home ground for Woodford Wells Cricket Club although the pavilion is a modern construction. The site consists of cricket pitches and a car park. The club is situated within a housing estate comprising of housing from the 1930/40s (Figure 391).

## 13. Site Memory

The site is in an area known as Woodford Wells, a name first used in relation to spring sites by Benjamin Allen in 1711 (Cowell, 2001 p63). There is no reference to the well site in street names although there is a school located nearby called Wells Primary School.



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### Unpublished

Cannell, E. (2017) Photograph showing the cricket pitch at the Woodford Wells site.

Cannell, E. (2017) Photograph showing the area surrounding the Woodford Wells site.

## Wells Data Sheet: Woodham Ferrers

### 1. General Information

Historic Name:	Woodham Ferrers Spring
Contemporary Name:	Woodham Ferrers Spring
First Written Description:	Benjamin Allen, 1699
Nearest Settlement:	Woodham Ferrers
Approximate OS Map Reference:	TQ 88069 99630
Date of Field Visit:	1.6.2019
Time of Field Visit:	12.20pm (weather sunny)

### 2. Location Map



Figure 392  
Map of Essex showing the wider context of the location of Woodham Ferrers  
Source: Althistory, 2017

Woodham Ferrers is situated in east Essex in what remains a rural location (Figures 392 and 393). The site is located approximately fifty metres above sea level. The wider landscape context of the well site is shown in Table 76.

### 3. Local Context

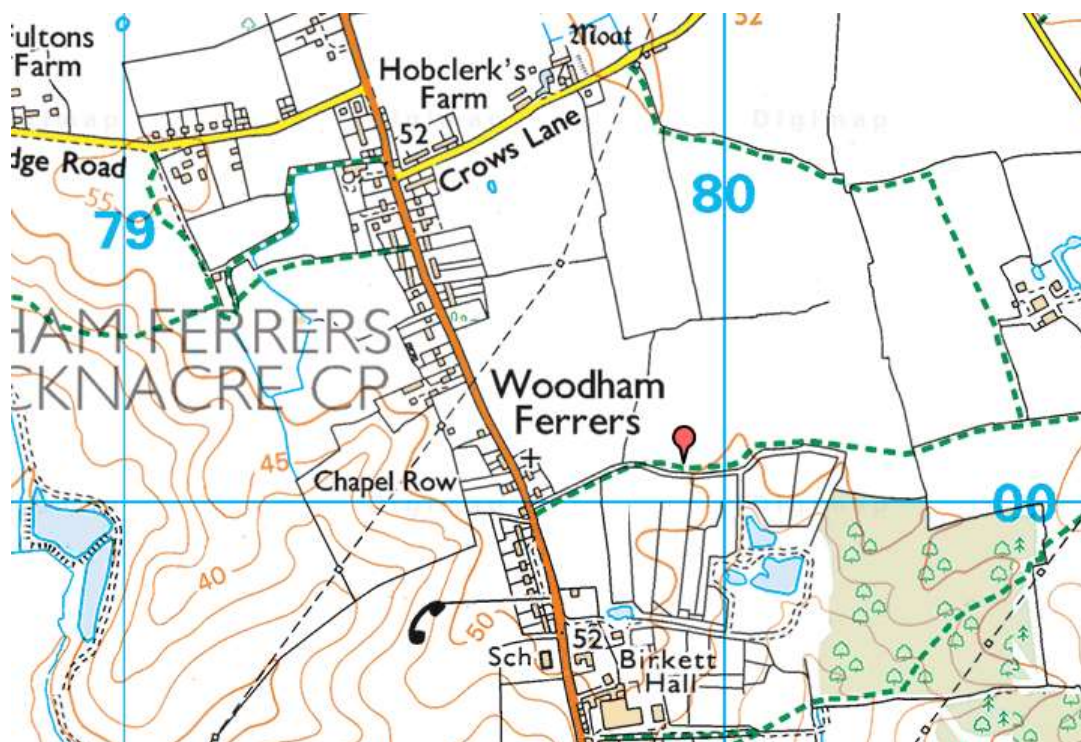


Figure 393  
Ordnance Survey map of Woodham Ferrers, Essex showing the approximate location of the Woodham Ferrers Spring  
Source: Edina Digimap, 2017

### 4. Landscape Context

Table 76  
Table showing the landscape context of the well site at Woodham Ferrers, Essex

Landscape Component	1 Mile Radius	5 Mile Radius	10 Mile Radius
Village	Woodham Ferrers		
Town		Sth Woodham Ferrers	
Road	Main Road (B1418)		
Railway		South Woodham Ferrers 1889	
Woodland		Thrift Wood	
Forest			
River		River Crouch	

### 5. Historic Access and Connection

It is likely that this spring was used by local people in order cure their ailments. There are footpaths near to two of the likely spring sites which reinforces this hypothesis. Woodham Ferrers was a rural community with few large roads nearby (Figures 394 and 395). The station at South Woodham Ferrers was not constructed until 1889, well after the demise of the Woodham Ferrers spring.

6. Historic Maps



Figure 394  
 Ordnance Survey map of Woodham Ferrers, Essex (1805) showing the approximate location of the Woodham Ferrers Spring  
 Source: University of Portsmouth, 2017



Figure 395  
 Ordnance Survey map of Woodham Ferrers, Essex (1880) showing the approximate location of the Woodham Ferrers Spring  
 Source: Edina Digimap, 2017

## 7. Geological Map

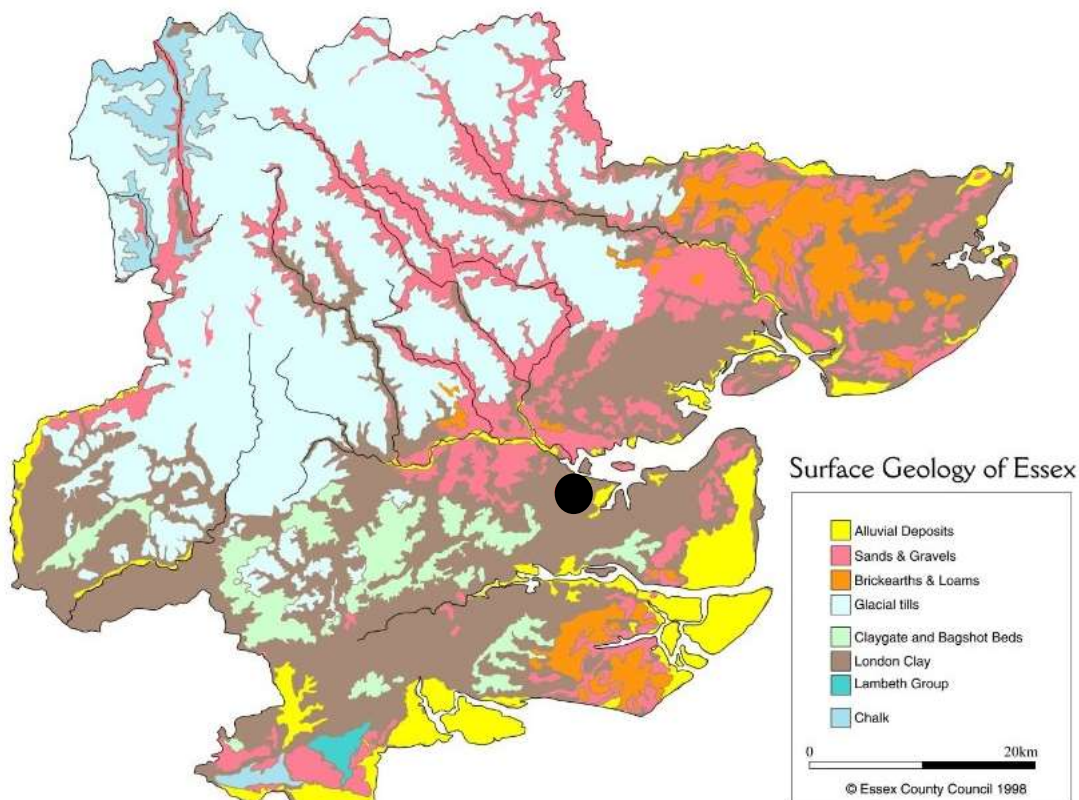


Figure 396  
Map showing the surface geology of Essex and location of Woodham Ferrers on London Clay  
Source: Geo Essex, 2016

## 8. Water Analysis

The well was analysed by Benjamin Allen in 1699 who described it as a 'chalybeate purging water'. He describes the soil found adjacent to the well as containing fragments of earth whose colouration was of brimstone (yellow) and ferruginous (reddish brown). He also outlines worm shaped solids in the soil which consisted of iron. Allen describes the water as being clear, tasting of chalybeate but with a nauseous sweet taste typical of purging waters (Allen, 1699 p158). Allen re-visited the site in 1711 and refers to the poor location of the spring. He suggests that due to air entering the well, people walking past, and its repeated draining the spring was likely to become contaminated. Christy and Thresh were unable to locate the source of the spring and so were unable to undertake their own examination of the water. They suggest that the spring was likely to have risen in an area of London Clay (Figure 396) including marcasite and selenite (Christy and Thresh, 1910 p30). A geological map of the area shows a pocket of Essex Clay which supports the likely location for the spring (Figure 397).

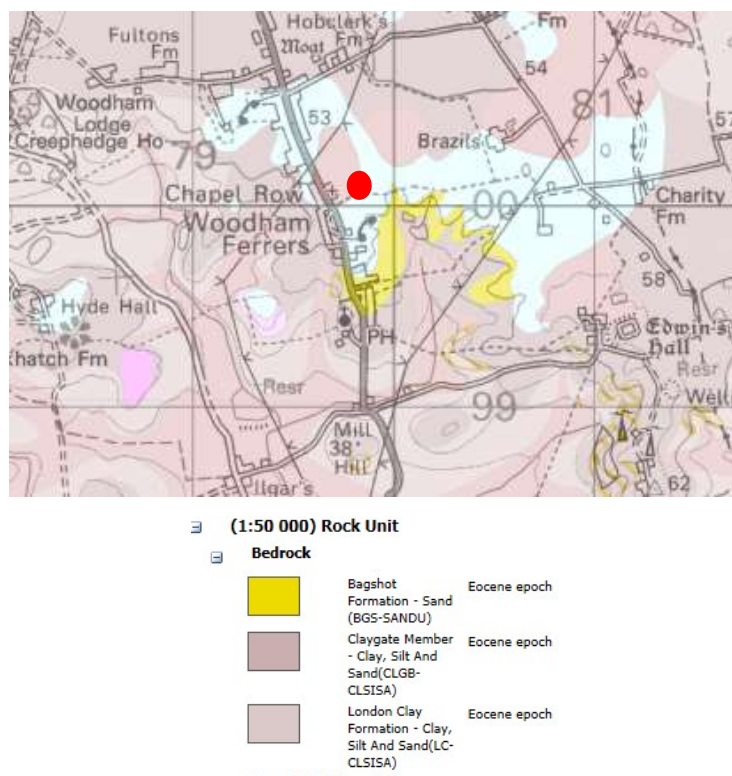


Figure 397  
Geological map and legend indicating the likely bedrock in the area of the Woodham Ferrers Spring  
Source: Edina Digimap, 2017

## 9. Alleged Curative Properties

There is little written about the well at Woodham Ferrers. Benjamin Allen visited the site twice, and, after analysis, described the water as being a 'chalybeate purging water' (1699, p158). This would suggest that the water was used as a laxative.

## 10. Chronological Development

By the time, the possible site for the spring at Woodham Ferrers was visited by Christy and Thresh (1910) there was little to indicate where the location may be. The spring was well considered by Benjamin Allen who wrote about the spring in 1699 and 1711 (Christy and Thresh, 1910 p30). After this the spring seems to disappear. In his literature, Allen suggests that over-use and contamination may be a likely cause for the depletion of the well even during his studies so we must assume that perhaps the well simply dried up. Christy and Thresh often relied upon local knowledge to locate less obvious wells. They were unable to do this in the case of this well which would imply that the well had been lost for some time.

By studying the location of Woodham Ferrers in the nineteenth century and contemporary geological maps there is a site where two footpaths intersect in a pocket of London Clay (Figures 397 and 398). This would seem to suggest a possible location for the spring as Allen (1699) suggested that the site was close to a footpath.

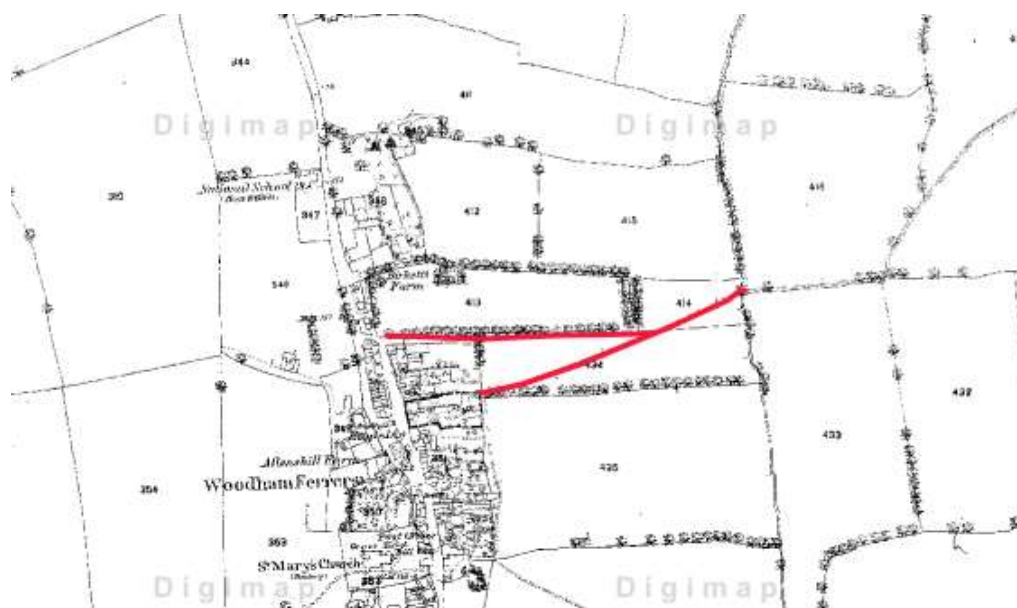


Figure 398  
Ordnance Survey map of Woodham Ferrers, Essex (1873) showing a possible location for the Woodham Ferrers Spring  
Source: Edina Digimap, 2017

## 11. Contemporary Landscape Components

Table 77  
Table showing the contemporary landscape components in the vicinity of the Woodham Well

<b>Architecture</b>	It is unlikely that the original site contained any buildings given that it was utilised by local people.
<b>Transport Links</b>	The site is located close to the main road (B1418). Map evidence from the Ordnance Survey map dated 1805 shows that this road remains in the same location. It is likely that this site was accessed via footpaths.
<b>Water</b>	There was no water visible at the suggested location.
<b>Vegetation</b>	The suggested site is located on a footpath at the side of arable farmland. The closest fields were empty or contained horses (Figure 399). The footpath was edged by Blackthorn and Hawthorn with groundcover including grass and nettles (Figure 400).

## 12. Description of the Site in its Current Form

The suggested site is located in a rural area on a footpath that is indicated on nineteenth century Ordnance Survey maps. The footpath is adjacent to an arable farm. The other side of the path is edged by Hawthorn *Crataegus monogyna*, Blackthorn *Prunus spinosa* and Dog Wood *Rosa canina*. The ground cover consisted of predominantly grass and nettle.



Figure 399  
Photograph showing the rural landscape adjacent to the site  
Source: Cannell, 2019



Figure 400  
Photograph showing the footpath by the suggested site  
Source: Cannell, 2019

### 13. Site Memory

There was nothing within the immediate environment to suggest that a well had once been in the area through the use of street or school names.



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### Unpublished

Cannell, E. (2019) Photograph showing the rural landscape adjacent to the site at Woodham Ferrers, Essex.

Cannell, E. (2019) Photograph showing the footpath by the suggested site at Woodham Ferrers, Essex.