

POST MEDIEVAL AND MODERN (INDUSTRIAL, MILITARY, INSTITUTIONS AND DESIGNED LANDSCAPES) HAMPSHIRE AND BERKSHIRE

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November 2006

Introduction

Hampshire.

Hampshire is dominated by the chalk landscape which runs in a broad belt, east west, across the middle of the county. The northern edge runs through Pilot Hill and Basingstoke, the southern edge through Kings Somborne and Horndean. These are large, open and fertile landscapes dominated by agriculture. Agriculture is the principle force behind the character of the landscape and the evolution of the transport network and such industry as exists. There are large vistas, with nucleated villages, isolated farms and large extents of formal enclosure. Market towns developed linked by transport routes. Small scale processing using the water power available from streams was supported by, and eventually replaced by, growing industrialisation in some towns, usually those where modern transport (such as rail) allowed development. These towns expanded and changed in character, whilst other less well placed towns continue to retain their market town character.

North and south of the chalk are bands of tertiary deposits, sands, gravels and clays. Less fertile and less easy to farm for much of their history they have been dominated by Royal Forest. Their release from forest and small scale nature of the agricultural development has led to a medieval landscape, with dispersed settlement and common edge settlement with frequent small scale isolated farms. The geology does provide opportunities for extractive industry, and the cheapness of the land, and in the north the proximity to London, led to the establishment of military training areas, and parks and gardens developed by London's new wealthy classes. The New Forest is a distinctive area, with forest, common and heath, which retains many unique qualities.

To the east is a north south band of clay cap over the chalk, where woodland has dominated, backed by steeply folding gault and greensand, with a distinctive 'hanger' landscape. The main river valleys, the Avon, Test, Itchen, Loddon and Blackwater have provided routeways, and are extensively exploited in areas for gravel extraction.

The coast has provided an outward face to the county. Trade and the development of ports and their supportive industries and transport links. It is also a frontier with defences from many periods, as well as the naval facilities to maintain a world fleet. The main county town of Winchester has been an important ecclesiastical and royal centre. The extensive church and royal landholdings in Hampshire as a results have had a fundamental impact on the evolution of Hampshire's landscape.

The county of **Berkshire** has been subject to considerable change in terms of modern administration in the latter part of the 20th century. In 1974 a significant part of the old county across the Vale of the White Horse and including the former County Town of Abingdon was removed from the administrative area and became part of Oxfordshire.

In 1998 the administration of the county was split between six Unitary Authorities, Bracknell Forest, Reading, Slough, West Berkshire, Windsor and Maidenhead and Wokingham.

West Berkshire

The modern county splits easily into western and eastern halves along modern administrative boundaries. West Berkshire (52% of the county) is on the whole quite distinct from the unitary authorities that make up the eastern half of the county.

West Berkshire is made up of three distinct zones.

The northern part of the district is dominated by the chalk uplands of the Berkshire (or Lambourn) Downs. This area is typical of the rolling countryside of much of central southern England, with large areas of arable cultivation with pockets of surviving chalk grassland, usually on the steeper slopes. Settlement is characterised by nucleated villages, ribbon villages in the main valleys and dispersed farmsteads.

The Kennet Valley dominates the southern side of the district. Although still a largely rural area the main towns in West Berkshire, Hungerford, Newbury and Thatcham are found in this valley. Hungerford and Newbury have managed to retain their post medieval character, influenced by their medieval origins. Thatcham has been subject to significant expansion over the last 20 years that has eroded much of its historic character. The modern landscape in the valley is dominated by extensive gravel extraction and the growing influence of industrial and housing development. The valley has been an important transport route, especially in the post medieval period when the Kennet and Avon Canal, the A4 turnpike coaching route and the railway line to the south west were key features.

Flanking the Kennet Valley to the north and south are areas influenced by the presence of plateau gravel deposits. These areas are characterised by common land, dispersed settlement patterns and significant areas of woodland. South of the Kennet this area has also seen the development of significant Cold war sites at Greenham Common and Aldermaston, both on former World War II airfields.

East Berkshire

East Berkshire, whilst having obvious similarities with the western half of the Royal County, incorporates a more diverse geological and topographical character and therefore a comparative diversification in land use and settlement patterns. Areas can be subjectively identified as terraced river valley landscapes, rare chalk downland, heathland, and historic forest for example. It can also be diversified to a greater extent in taking into account not only topographical and geological formation models, but also areas where geological depositional sequences have limited inferred usage, survival of material and interpretation, thereby incorporating a different perspective into a relevant field of assessment. The ribbon settlements indicative of riverside occupation still continued into the Post-medieval period along the Rivers Kennet, Thames and the Loddon, but these were also focal points for industry and settlement growth (Reading, Slough, & Wokingham). This is no more apparent than at the confluence of the Rivers Thames and Kennet and their manipulation from late

medieval and Post-medieval industry. Certainly canalisation of these courses have been known from as early as the Romano-British period, but this activity and the associated functions was really monopolised in the Post-medieval. Agriculture of the richer chalk downs and lowland beds flourished in response to added economic growth, while the heavier areas of clay capitalised on the emerging brick and tile industries as well as more general livestock farming. The sudden move away from ecclesiastical influence (Reading, Abingdon and Salisbury) had a great impact on the overall formation of the anthropogenic landscape aiding the expansion of the Royal forest and later reallocation of lands to the gentry classes and their dependants.

Areas of London Clay dominate the south and central sections of the landscape (South Wokingham and Bracknell) meeting with a mixed formation of sands and lower terrace gravel sequences as the landscape converges with the Kennet and Thames Valleys. As the District of Wokingham meets South Reading, the heavy clays meet the edge of the gravel plateaus and terraces including the Reading Bed formations, and as these dip to the north a combination of water meadow and glacial silt sequences have helped form a rich landscape capable of supporting a mixture of agriculture and industry. The consequential rise in topography to the north of the Thames as the terrace meets the edge of the Chiltern ridge makes the chalk bedrock a larger influence on the overall utility and function of the land, with the glacial upper plateau of the gravel terraces (Lynch Hill and Boyn terraces) forming a rich agricultural landscape that has dominated this area throughout its history (e.g. Remenham, Warfield, Sonning).

Moving east towards the north of Wokingham District, sands and gravels (Bagshot Beds) become a larger influence, but these also comprise intermediate caps of clay deposits. The sands and free draining deposits linked with the southern Bracknell locations of Crowthorne and Finchampstead for example have provided a rich and specific functional landscape with areas of heath, woodland and forestry playing a major part in the areas historic development. These elements had kept far reaching development and settlement to a minimal level, but with the later Post-medieval period came added economic and social pressures that continue today causing a further spread of activity.

The Royal Borough, although to some extent protected by its Royal status, has been impacted through the utilisation of its geological resource, with extraction of sand and gravels from the terraces of the Thames. In addition, more direct manipulation of the associated water courses in this area have provided for increased population and industry. Maidenhead in particular transformed from its medieval origins during the Post-medieval period into a more diversely functional location for these reasons, whilst locations such as Eton have remained more isolated from surrounding influences of socio-economic expansion. This is also characterised by the example of the development of Slough from a collective of villages of medieval origin (Langley, Cippenham, Upton, Colnbrook) into an industrial base for the east of the county.

The geological disparity of the eastern half of the county has had both a direct and indirect affect upon archaeology, both as a resource and as an interpretative model. The heavy London Clays of the south and centre of the collective boroughs has produced a mixed level of information particularly in respect of relative models concerning earlier periods of archaeological interest. The land has been considered

unsuitable for prehistoric agrarian exploitation and in parts, has been disregarded for specific medieval development, having been assumed in the greater part to have been heavily wooded. Occasional sites are now showing that these blanket statements regarding interpretation are not wholly justified. This has a direct impact upon the generic perspective of interpretation and potential with regard to the Post-medieval development of the landscape, with known Post-medieval settlements assumed to grow from a development in technical and agricultural capabilities now being considered to be a re-development of existing historic landscapes.

It is certainly the case that the economic core of Berkshire has been fed by the social and industrial development of towns such as Reading, Maidenhead and Slough, whose growth was encouraged and facilitated by the rapid expansion of London during the later Post-medieval period and the eventual infrastructure network of the A4 Bath Road and the Great Western Railway. This importance defined in part by the association with its border counties and the capital have influenced the development of East Berkshire in to the 21st century and has certainly helped create one of the richest administrative zones in the south of England.

Nature and scope of the evidence base

Post Medieval and Modern influences dominate the rural and urban scene to the point of ubiquity. It is an enormous archaeological resource of extraordinary variability. Its value also ranges widely, and there is a strong association with historical research. It also a period of massive and frequently rapid change making an overall characterisation of the resource difficult to define.

The agenda therefore often becomes the protection of the diversity and richness of the historic environment more than the protection of an intellectual resource, and commensurate with that, where preservation is not possible or feasible, the needs and methods of archaeological recording are often limited and need to be carefully chosen. Current recording priorities are less pointed to individual monuments and more reflecting of the need to acquire information about the range and scale and distribution of the resource and its present survival.

This is illustrated by the fact that archaeologists are at the forefront of trying to understand the nature of the modern landscape and the processes that have resulted in the evolution of that resource. Historic Landscape Characterisation (HLC), which identifies the historic processes that can be traced in the modern landscape, has been completed for Hampshire (Lambrick G and Bramhill P, 1999) and West Berkshire, but has not been undertaken for the eastern half of Berkshire.

Within this period archaeological studies are likely to be supplemental to, integrated with or stimulated by, historical studies. However, documentary resources are partial, both in terms of what survives and in terms of what aspects they illustrate. Therefore whilst the nature and growth of a early post medieval pottery trade, scale, distribution and employment practices may be well represented in documentation, the processes of production and the nature of the product from particular kilns within particular periods may rely on archaeological study rather than historical study.

In Berkshire a useful summary of the main historical sources has been published as the 'Historical atlas of Berkshire' (Dils 1998). This includes useful datasets including the location of key industrial sites, population statistics and a breakdown of the county by agricultural activity, but includes little analysis or discussion.

Historical sources are diverse, with written sources and records of transactions; drawn maps, plans and surveys; the printed material in books and newsprint, the great variety of illustrative and pictorial material including photographs and film, sound recordings, and in some aspects the oral evidence of those alive who participated in or witnessed events or industries.

There is the evidence left by early recorders, such as William Cobbett. There is the accumulated records that can be found in the journals of the Hampshire Field Club. There are the formal record of professional and amateur archaeologists and researchers in many cases published results, and including societies dedicated to the post medieval, military and industrial eras. The Victoria County Histories are an important source, in particular providing a review of the historical treatment of the principal crafts and industries of the county. They often include detailed discussion about particular towns, industries, military associations, railways, roads and canals. Their range and detail is bewildering.

There are implication studies, such as the Extensive Urban Surveys, Astill's (1978) and Hughes Small town studies of Berkshire and Hampshire respectively. There is the Hampshire villages survey, and the Historic Landscape Character Assessments. Many of the archaeological observations and sources are recorded within the Historic Environment Records, but such is the nature of the era that even these extensive documents can represent little more than inadequate indexes.

For Winchester there is an Urban Archaeological Database (UAD). Although originally with a cut of date of 1700 post medieval and modern data is being added. The UAD includes information on domestic / occupation, religious, defensive (including WWII and Cold War sites), transportation sites and finds within the City of Winchester, its historic suburbs and its hinterland. There is also a UAD for Southampton.

Railways, canals and military topics in particular, along with histories of individual settlements, seem to have been subject to study by individuals with an interest in a particular place or topic. There are many detailed publications resulting from this, which draw together historical and archaeological research, personal observation and interpretation.

Rural Hampshire and Berkshire

Mixed farming predominates in the medieval period to produce the range of goods that were required. The chalk downs become increasingly important for their sheep. In the 16th century there was a major impact arising from the break up of monastic lands. Vast swathes of land and buildings were transferred from religious to royal and eventually to secular hands. There was also increase toward leasing out lands by church rather than managing them directly. This was an important impact as the church was a large land owner in both Berkshire and Hampshire. The Bishops of

Salisbury controlled large tracts of land particularly to the northeast of Reading, and the Bishop of Winchester had extensive holdings across Hampshire.

The 17th and 18th Centuries saw a rapid increase in population, with an average increase of 40% in town populations. Regional farming specialisation increased over the same period. There was growth in large farming estates with new land-owners drawn from the successful merchant or professional classes. The late-medieval legacy of land-uses, of open field agriculture with an emphasis on grazing for sheep slowly dissolved through early post-medieval enclosure by agreement (for grazing or consolidation of farm units) up to about 1730 and then increasingly by parliamentary act, a process accelerating after 1800 until, by mid 19th century, the land was largely enclosed. One major effect was the creation of a new landscape of hedged and usually rectilinear fields, creating formal landscapes from common land, and also creating farm land from 'waste' land. Sheep declined in favour of arable with the transformation of the open upland areas of grazing on the Downs, and on the upper flanks of the valleys, by enclosure and conversion to arable. This was a process not completed until the mid 19th century. Although the mid 18th century saw a depression in corn prices, Berkshire and Hampshire farmers were in a position to supply London, military bases and export markets, at a time when there were advances in transport. By the early 19th century market gardening was emerging in the south of Hampshire to the west of Portsmouth, reflecting both the quality of the soil and the ability to transport goods quickly to London.

The spread of arable over the downs during the Napoleonic war was stimulated by prices (which were in turn stimulated by the war). This meant that land and agricultural systems were worth investing in hence the enclosure acts, and new farming practices and new farm complexes. At end of war the grain price collapsed causing depression across the farming industry. Although this recovered, cheap grain imports, allowed by the repeal of the Corn Law in 1836 depressed prices again. There was diversification from grain, for example milk and dairy produce to supply London and emerging urban populations, which was helped by the development of the railway network which could get produce to the towns and to London whilst it was still fresh. In the areas where grain remained dominant the response to the lower prices was for farming to become more intensive and to aim at increased the productivity, again with attendant investment in farms and farm buildings. The archaeology of agricultural buildings across Hampshire and Berkshire reflect the evolution of farm improvement, the opportunities for diversification and the fluctuation in farm prices. However in Berkshire and Hampshire dating can be difficult at times due to retention of archaic styles.

There is an archaeology both of the evolution of the agricultural landscape, for example the enclosures landscapes, and also the farms themselves. Farm buildings and farm complexes were developed, with investment, to make them more efficient and to benefit from modern understanding of agricultural good practice. There were model farms and some farms were even serviced by narrow gauge rail lines (the marriage of industrial and rural), for example at Tidmarsh where there was an engine shed and turn table that survive. Within the available evidence of this process there is a range of local small scale agricultural buildings which can be studied. These including barns, cattle sheds, granaries and cart sheds. They also include dove cotes and stables which are frequently associated with higher status sites and in some cases

display high design values beyond their functionality. In the east of Hampshire oast houses reflect the hop gardens of that area, which was a very local diversification based on the nature of the Greensand soils. There are some surviving examples, although often in a disused or reused state. Farm building complexes are arranged in different ways, for instance with a courtyard to allow cattle to shelter. Today farm complexes are often dominated by more modern large scale industrial agricultural buildings in addition to any historic survivals.

One regionally important historic landscape from this period are water meadows which are important aspect of the chalk valley bottom in Hampshire, Wiltshire, Dorset and in the Kennet valley in Berkshire. Water meadows are distinctive valley bottom meadows where arrangements of carriers and drains allowed the meadow to be flooded late in the winter supplying the field with nutrients and protecting the grass from frost. A recent study has identified from aerial photographs and map regression the water meadows of Hampshire. (OAU 2000).

Farm buildings are an important part of the resource that reflects the changing fortunes and emphasis of agriculture in the region. Although a great deal of the evidence has been lost through unsympathetic barn conversion, demolition or neglect there remains a resource of structures available for research. The RCHM(E)'s survey of English farmsteads in the early 1990's (RCHM(E) 1997 included a swathe of West Berkshire. More recently farmstead characterisation studies in northern Hampshire have suggested another avenue of analysis and understanding (Ref). A great deal more work is also being undertaken as a result of the planning process with farm buildings being recorded in advance of demolition or alteration (Edwards 2005b, Do you have one to add?)

Urban Development in Hampshire and Berkshire

Over the same period the growing towns provided a local market for agricultural products, and increasingly were places where industrialisation in the use and processing of those products was carried out by the rising urban populations. The woollen cloth industry, tanning and brewing were presents in most towns on some scale, and are betrayed by street and house names such as Dye House and Rack Lane, Tannery Lane etc. Specialised drying grounds are sometimes marked on maps or, as at Reading, depicted in topographic drawing. Andover in particular was noted for its cloth, and the town's populations grew with the growth in the cloth trade. Newbury cloth producers had a national reputation in the 16th century, though the industry was in decline by the 17th century (Peacock 2003). Flax was grown in the in south west of Hampshire to make canvas for, amongst other things, sails. Around Fordingbridge there were 500 looms.

These urban industries were generally small scale and local but as transport improved (road, canal and finally rail) fewer but larger industrial complexes replaced the smaller local industries. Brewing provides a good example of this change from the 18th century to the present day. Small breweries in almost every community were replaced by larger breweries in the main towns, which were able to supply the wider markets by rail and steam wagon. Through the 20th century many of these town breweries went out of use and the brewery complexes were redeveloped. For example there were 80 breweries in Hampshire in 1900 and only 3 by 1970. There were more brewery sites than breweries as many of the old sites in towns were retained as

storage and distribution centres. Reading provides an example. One of the main examples in Berkshire was the Simonds Brewery in Reading, established Broad Street, in 1785. Simonds was sold to Courage Brewery, in 1960, by which time the brewery had expanded to both sides of Bridge Street on the banks of the Kennet. Courages took over other brewery sites in the region for distribution, such as at Alton. The town centre Courage's site was replaced by a modern brewing complex by the M4. The town centre site demolished and redeveloped in the 1990's.

As arable and grain came to dominate in Hampshire and sheep declined from the mid to late 17th century, so the wool based textile industries in the towns also declined, causing much hardship in the urban population. The decline in Andover led to poverty and hardship, although prosperity returned later in 17th century as the industry moved towards industrial scale production and away from cottage industries. By the late 19th century the expansion of the main towns was reflected by an expansion in large suburbs through the late 19th and early 20th. These are often dominated by blocks of housing associated with industrial complexes; rows of terraced housing for the workers; housing of slightly higher quality such as bay window or small front garden for supervisors; stand alone villas for management and owners. These areas are also associated with churches, schools and small shops and dairies, with small local workshop and even stables built into the layout, creating complex and integrated urban landscapes. In the north of England such areas have recently been under threat, but in the south many of these Victorian and Edwardian brick buildings are valued and retained, and conservation areas have been applied to whole neighbourhoods. It is often the industrial elements which have been superseded and replaced. A good example is at Brookvale in Basingstoke where the Thornycroft works has now been replaced by a supermarket, but the housing is a conservation area. There are extensive areas in Reading and Newbury that meet this description, with significant industries, such as Reading's Brewing, Biscuits and Seeds?. This is one archaeology of towns, the spread of town suburbs to meet the needs of the rising population, and the associated industrialisation. Evidence of the previous small scale industry has frequently been removed by later development, and even the larger industrial scale developments are subject to redevelopment pressure.

The archaeology of the towns is dominated by the surviving buildings (civic, mediaeval, residential, industrial, military), structures associated with infrastructure (roads, bridges, canals, rail, tramlines), civic development (town hall, almshouses, hospitals, water treatment), and what they tell us of the changing fortunes of the town (Where towns did prosper many of the older buildings were re-fronted in new styles and with more fashionable materials), the lives lifestyles and social development of the population, industrial and military advance and changing social aspirations. Recent characterisation and assessment studies of town sin the area, in particular Newbury (Oxford Archaeology 2006), have demonstrated the wealth of features that survive within towns relating to the post-medieval and modern periods. There is below-ground archaeology which supports this study in particular through the recovery of plans and the collection of material culture (by products, industrial and domestic waste). For post-medieval levels, the potential is negated in some towns by the widespread loss or disturbance of the ground.

Winchester City provides some interesting examples. At the Brooks a number of post-medieval pits, wells and structures (including the massive foundations of the Queen

Brewery) were recorded. Debris from a kiln, almost certainly identified with a mid-18th century pipe maker called Jon Marchant was found. Eight horse skeletons buried in shallow graves were excavated from the site of a former stables and blacksmiths workshop. Amongst the post-medieval finds assemblage was a remarkable collection of objects associated with drinking from a well (glass wine bottles, glasses, stamped clay pipes and large stoneware tankards). At Silchester Place, Hyde Street, archaeological monitoring in 2000 and 2001 recorded ephemeral remains of possible 16-18th century garden features, associated with the demolished Hyde House (constructed following the demolition of Hyde Abbey). Elsewhere within the site 17th-19th pits associated with tenement plots and a series of brick and masonry walls shown on historic maps were recorded.

Remains of 16th, 17th, 18th and 19th century date, relating to tenement plots, buildings / structures (including cellars), pits, wells and a 19th century clay pipe 'muffle' kiln were excavated at St Johns Street, Winchester. A post-medieval earth closet or privy was excavated at St Clement Street. A good assemblage of 18th century pottery recovered from St Thomas Street.

Understanding the nature and change of industrial growth and change is assisted by the industrial business reviews and surveys that were produced the late 19th and early 20th century. However, excavations with a post-medieval content in London confirmed the value of artefact studies of this period, illuminating the personal, for dating, providing insight into status and cultural and trading connections. Under particular threat currently are the small industrial workshops near to the old town centres which, with Brownfield targets, are often subject to redevelopment.

Industrial

Extraction

Many of the pits that result from extraction are shown on maps and this provides a valuable historical access to understanding the nature of the exploitation of these resources through time. However, very Small scale undertaken at a 'cottage industry' and by individuals, may be unmapped.

Clay

Hampshire and Berkshire are not a heavily industrialised counties, remaining largely rural, but there are some local industries some of which were supported by the exploitation of the clay deposits. Notably the brick and tile industries, such as at Basingstoke, Fareham (famous for Fareham reds) and Bishops Waltham. Early Ordnance Survey maps show the scale of what was essentially a rural industry in West Berkshire, with significant production sites at Kintbury and Hermitage, and several other smaller scale production sites. Archaeological excavation in advance of a gravel quarry at Raghill near Aldermaston revealed details of two temporary brick kilns of 16th or early 17th century date, probably built to supply bricks for specific new building on the Aldermaston Estate (Wessex Archaeology 2005).

This prolific brick industry informed the local vernacular tradition and from 16th century onwards (Eton College was recorded as having a brick works and associated extraction pits within what is modern day Slough from the mid 15th century) use of brick was an important and pervading building material locally. (Hardy's name for the

town that is based on Reading, where there were many brick yards and the town is noted for the predominance of brick, is Aldbrickham). But local brick yards also supplied products widely. Individual kiln sites have been identified through archaeological investigation on several sites in Bracknell for example (Peacock Farm, Easthampstead, 2006, OA unpublished; RAF Staff College, Bracknell, 2006 TVAS, unpublished). But local brick yards also supplied products widely, particularly to London but also overseas markets. Burseldon brick works exported from a quay on the River Hamble.

Whilst there were many small local pits, sometimes associated with a small industry (sometimes attached to a farm), some of the pits, as at Binfields in Basingstoke, were of enormous scale. At Upton Grey a clay pit was serviced by an arm and wharf from the canal. In other cases some were served by their own railway branch line. There are examples at Reading, at Prosect Park Brickworks and Tilehurst Potteries. There is the Star Works brick works to the east of Wargrave at Knowl Hill, where there was also Chalk mining. These sites are examples of multi-functional industrial sites combining raw materials with economic production.

In addition pottery was made from local clay, such as the White body green glazed pottery in the north east of the county which supplied London, kilns of which are recorded at Cove. At Inkpen in West Berkshire there was pottery industry.

The fine clay deposits were suitable for the production of pipe clay, used for clay pipe making. Notable production industries existed at Wellow and East Woodhay.

Chalk

The chalk supported widespread small scale chalk extraction, largely for agricultural purposes. This has left an archaeology of 'dells' and disused pits although many of these are being filled in over time. There were many lime kilns where chalk was burnt to make lime as a fertiliser. Most large farms had their own pit and kiln. These were common but now there are few left. In places the harder chalk was extracted to support a lime industry for mortar, such as at Burghclere where the pit, the remains of kilns and a tramway survive. Another example is at Butser. These extraction sites are much larger than the small agricultural lime dells and are associated with lime kiln complexes. There were also Lime kilns at Twyford pumping station where it was used to soften the water. Chalk was extracted to make whiting and whiting works are recorded, such as at Irish Hill near Kintbury. At Caversham, chalk and gravel was extracted, and at star works, chalk and clay.

Gravel

Gravel has been extracted across Hampshire and Berkshire, and for a considerable time this has been associated with small scale local pits, often operated to supply local building needs, including road surfacing. There are many small gravel pits across the county, and in places these have a close association with the road network. At a later date, ballast pits for the railways have left a legacy of larger scale extraction for railway use, but which was easily shipped along the rail lines to where it was needed and therefore not so tied to a small local scale. In the modern period some areas, such as high plateau gravels and valley gravels, particularly in the Avon, Kennet, Coln and Thames Valleys, have been extracted on a very large scale, altering the landscape altogether.

Malmstone

There was small amount of stone extraction, Malmstone, (coarse sandstone), from Binstead and Selborne. This was small scale and local, but contributes to local distinctiveness within the vernacular in parts of East Hampshire, closely following the Upper Greensand in a narrow belt. A similar material was quarried in Berkshire (localised compaction of sand deposits) known as Berkshire Sarsens. This stone was used throughout Berkshire's history and was utilised, albeit on a small scale, throughout the post-medieval period. Likewise, 'pudding stone' (a sandy conglomerate from the southern part of Berkshire) was also extracted for basic building material. Hampshire and Berkshire's overall lack of high standard stone for building is one reason that the region's brick and tile industries developed to such a scale and influence.

Industries

Mills

The streams of Hampshire and Berkshire have always been a source of power. Chalk steams are particularly suitable as the flow is steady and reliable. Many impressive mills of the industrial era survive. Initially there was spread of local mills, small and rural, processing rural produce, just as described as far back as the Domesday Book. Through time some of these developed into large establishments, especially where associated with large towns and powerful streams. The Abbey Mill in Reading, was utilised in form or another from the 12th to the 20th century as a corn mill. Most of those that survive to the modern period developed to the extent that the original mill was extended and the machinery was replaced by modern machinery, for example the installation of turbines, and few have much original equipment in them. Examples of such sites are known throughout Berkshire including sites on tributary streams of the Thames in Slough. Marsh Mill, Remenham, which was located on the main Thames channel, was working up to around 1970. Armfield (Ringwood) produced turbines, which increased the efficiency, dominated the Hampshire market and many mills were re fitted with this technology. Some, such as at Sherfield on Loddon, are open to the public where there is equipment surviving or re installed equipment. The Whitchurch Silk Mill is open to the public and continues to operate the textile machinery. Some mills, such as on the Avon, were further upgraded in the 20th century for the production of electricity (for example Ringwood Hydro Electric Power Co). On the coast there are some examples of tide mills, such as at Eling and Emsworth. Whilst many mill buildings survive describing the evolution of the harnessing of water power in the face of changing technology both on the river and in competition with the river, few working examples survive.

There has been little modern study of mills in Berkshire with the only significant survey being carried out in the 1960's (Kenneth Major 1969). Even this work resulted in a simple list of mills with little analysis or interpretation.

The quality of the water, in addition to the power it supplied, was the basis of a paper industry in places from the 17th century onwards, as at Laverstoke, from 1719. Although many of the current building date to 1881 there are earlier buildings even dating to the 18th century). Here paper was produced by the Portal family. The mill complex eventually developing into a large complex producing bank note paper.

Before the 17th century paper was not produced in Hampshire. There were later paper mills at Romsey and Stoneham. Other mills included feed mills, textile mills, saw mills in the woodland and shipbuilding areas, and mills to power iron works. Mills, through their presence on (and over) the river, and the ponds and races that divert water through or alongside the building, can frequently be traced from maps. Often they are identified specifically on maps.

Lower water levels due to increased abstraction for increased urban populations had an impact on the effectiveness of river mills. In addition an increase in the use of imported grain meant milling relocated to large mills at the point where the grain was landed and were powered by modern fuels. There was also a move towards new roller milling and away from stone grinding as found in the small local mills. Eventually many mills were abandoned, and the buildings allowed to collapse or converted to domestic use. Many of the surviving examples date to the 18th and 19th centuries.

For example in Winchester, Durngate Mill (18th century on the site of earlier mills) ceased to operate in the mid-20th century and was demolished in 1966, prior to which a programme of historic building recording was carried out. Remains of the mill races survive as does some of the machinery in the archives of Winchester Museums.

There are few examples of windmills. There is one at Bursledon, and some windmill towers survive in a truncated and reused state. The understanding of the distribution of windmills is currently poor. They are likely to have been considerably more frequent than current archaeological records suggest, and their early demise, as they did not benefit from the technological developments that water mills were able to harness, means that they are less frequently represented on accurate modern mapping.

There were wind pumps to pump water up to agricultural establishments on the downs. Some of these survive, as at Crux Easton, but many more are marked on maps.

Cloth Industry

The woollen cloth industry were presents in most towns on some scale, and are betrayed by street and house names such as Dye House and Rack Lane. Specialised drying grounds are sometimes marked on maps or, as at Reading, depicted in topographic drawing. Andover in particular was noted for its cloth, and the town's populations grew with the growth in the cloth trade. Newbury cloth producers had a national reputation in the 16th century, though the industry was in decline by the 17th century (Peacock 2003). Flax was grown in the in south west of Hampshire to make canvas for, amongst other things, sails. Around Fordingbridge there were 500 looms.

Tanning

Many towns had tanneries, and this is reflected in place names such as Tannery Lane. A tannery was excavated at Fordingbridge during redevelopment of the Greyhound Hotel, for example.

Brewing

There were small breweries in almost every community, which over time were replaced by larger breweries in the main towns, which were able to supply the wider

markets by rail and steam wagon. Many of the brewery complexes have been redeveloped and modern breweries on the edge of towns have replaced them.

Parchment Works

The purity of the spring water at Havant supported the Havant Parchment works, which until recently was one of only two surviving examples and although recently converted to residential use it continues to display the essential elements of the industrial process. There was historically parchment production in Andover.

Shipbuilding

The New Forest and the Forest of Bere, both close to the coast, supplied timber for the shipbuilding industry, on the Hamble and on the Beaulieu River. Bucklers Hard is a good example. At Bucklers Hard wooden ships were built until the 18th century. Ship building declined locally as the emphasis shifted from wooden to iron ship construction, where the coal and iron deposits of the north were better able to support emerging large scale ship building industry. The local iron industry had notably been based on the ship building industry and significant innovations to the industry were developed at Funtley in Hampshire. The iron works at Funtley supplied the navy with iron processed from iron scrap brought in from the dockyard. Rich iron ores are found and exploited from the tertiary deposits in Hampshire (but the iron industry was small in Hampshire). There was an iron works at Sowley in the New Forest, also supporting ship building. The woodland of the New Forest and the Forest of Bere produced charcoal which was necessary for the iron works. The ship building and the supporting industries, including rope making, canvas sail making, coopering and vicutalling, have a distinct heritage represented both by buildings and archaeological remains, and the Hampshire coastal heritage reflects these.

Whilst the emphasis shifted northwards as iron ship developed, the Hampshire coast remains noted for smaller craft, for example the power boat industry at Hythe, and the marine manufacturer Vospers. There was also in modern times a yacht construction industry. Southampton's waterfront developed less for construction and more for the liner trade, leaving a rich heritage of docks and piers, and over time this was supplemented by the sea boat station at Hythe, where flying boats were made and from which civilian international flights embarked.

Gunpowder

Woodland supported a local charcoal industry and within that a gunpowder industry such as the Schultze gunpowder factory at Fritham. (1865 to 1923) This industry supplied the navy and army depots. Priddys Hard was the major powder store for the navy.

Manufacturing

Although manufacturing has not been strong in Hampshire there were some notable local industries, such as Taskers and Thornycroft, which carried out small scale manufacturing locally. Much of this was aimed, at least initially, at the local agricultural market, principally machinery, transport and traction engines. A good example being the small foundry located in the village of Bucklebury north of Thatcham (Kenneth major 1970). This reflects changing technology and the economic prosperity. An example the is Waterloo iron works at Andover. They produced cast iron goods such as bridge sections. These industries have now declined.

The Eastleigh carriage works and locomotive works which developed in the mid to late 19th and early 20th centuries lent southern Hampshire a local industrial character, and even as it declines it is the focus of modern industrial development. There were engineering works in Berkshire in Newbury and Compton.

Colthrop Mill on the eastern edge of Thatcham was a major paper mill specialising in the production of cardboard products (Allen 1985 & 1987). The large plant that developed through the 19th and early 20th century has all but disappeared now.

Salt

On the New Forest coast the salt industry, whose origins go back to much earlier times, was an important industry particularly in the Lymington area. In the 16th and 17th centuries it retained its prominence due to a production patent that was granted. Coal was imported to heat the boiling pans and salt was exported. There is a rich heritage of the salterns themselves creating a distinctive landscape of evaporation pans and channels. There were pump houses and wind pumps to pump the brine up to the boiling pans along with salt related industrial buildings, such as the houses that held the boiling pans. Little survives of the buildings. Lymington was at its most prosperous in the late 17th century, but was in decline in the early 19th century, in the face of changing trade patterns, tax regimes (the crippling salt tax) and production methods, and also because of the cost of importing coal to maintain it.

Fishing

The 'sea' fishing industry in Hampshire was never dominant, and perhaps can be described as apathetic. Fresh water fish were an important part of diet in this period, but fish farming as an industry is relatively modern, although re-visiting a medieval tradition reflected in their fishponds many of which had been abandoned or become landscape features or ornamental features.

Lighthouses

The archaeology of shipping also includes the lighthouses, which go back to the medieval period, but surviving examples at Hurst Castle, and at Southsea Castle are 19th century in date. There is also a lighthouse at Calshot.

Oysters

There was thriving oyster industry in the harbours of the Solent, producing vast quantities of oyster for the urban markets particularly after transport networks allowed rapid transport to large populations such as London. The industry went into decline, in part due to celebrated illness outbreaks caused by decreased water cleanliness. There is an archaeology of oyster beds along the coast, such as at Emsworth and in Langston Harbour.

Glass

There was a limited glass industry at Buckholt, whose survival is now solely archaeological and historical.

Aircraft industry

A distinctly 20th century industry is that of aircraft development and production. The important role of Farnborough is noted within the military discussion, but there were

important aircraft factories in Reading, and at Woodley, Supermarine in Southampton and Avro at Hamble. Eastleigh airfields is noted for the test flights of the Spitfire.

Water

In the development of healthy communities and towns, the supply and treatment of water was an important facet of the improvements of the 19th century. There are no large reservoirs in Hampshire and Berkshire and most water is acquired from rivers or from aquifer abstraction, and therefore pumping houses are important. There are many examples of pumping stations and treatment water works (also often associated with pumping houses eg Garnier Road, Winchester). It is notable how impressive the scale and design quality of these buildings is, reflecting civic pride in the achievement of the industry out of all proportion to the treatment of buildings of the water industry today. Many of the early water industry buildings are of great visual and architectural value. Examples include Garnier Road pumping station in Winchester, and the Twyford, Eastney, Otterbourne pumping stations and the Romney Lock pumping station at Windsor. These buildings also often house surviving early engines which have laboured on since the late 19th and early 20th centuries. Twyford pumping station has five bottle kilns from the lime works which supplied the water softening works. Because of the hills of Hampshire and Berkshire there are only small service reservoirs rather than water towers. Nevertheless there are some impressive and often dominant examples, as at Tilehurst, Reading and Wash Common, Newbury.

In rural areas small local pumps were used for abstraction and there are examples of wind pumps and pumping houses on the downs, as well as examples of animal powered wheels to raise water, and even man powered examples (as at Dummer). At Hackwood there is a water powered water pump.

Gas

There were also gas works in many towns, 40 in total in Hampshire. The earlier examples have since been redeveloped, as gas production changed in scale and source, from coal gas to natural gas, with oil products dominating from the 1950s. By 1949 there were only 18 sites left in Hampshire. The coal gas complexes were often placed close to railway lines or canals as they relied on coal, such as the Kenavon Drive site, Reading. Perhaps the most notable structures of this industry are the vast gas holders, as can be seen at Reading. Some early examples survive.

Electricity

There were three large power stations in Hampshire in the late 20th century, but in the early 20th century there were local electricity supplies, from water power as has been noted, and also at the gas plant at Farnborough, where gas driven turbines generated electricity. There are pylons which carry the electricity. In some striking landscapes they are condemned as detracting factors. In other places they provide industrial monuments of impressive scale that provide the landscape with an added dimension.

Transport

Road

Turnpike

Roads have existed since earliest times along which goods and people have moved. The notable road related archaeology of the post medieval period is the Turnpike

roads system of the 18th century. It is diverse and the roads stitch Hampshire and Berkshire together and both to the wider country. Turnpike Trusts looked after stretches of road and raised tolls for the use of those stretches of road. They have an archaeology of the roads themselves and the associated milestones and mile posts, of which the heritage is much recorded and enjoys a high public profile. Although survival is patchy historical maps fill the gaps. There are toll house, and sometimes the associated cross banks survive, as in the New Forest, that prevented traffic by passing the toll house. There are examples of side walls to roads, as between Overton and Whitchurch, and of course a rich heritage of bridges.

Much of the infrastructure of this early road network has been lost but some elements do survive. There is a notable group of water pumps, used to damp down the dusty surface of the road, surviving along the A4 (London to Bath road) in Berkshire. Milestones are another common feature which can be seen in roadside verges throughout the two counties. The A4 is notable for its development through the various phases of road function from being a mere route way to utilisation by the postal service from as early as 1579.

Coaching

There is also the attendant heritage of the coaching era, with distinctive coaching inns, both in the main towns and at staging points along the route. The A4 Great Bath Road (which took up to 50 coaches a day) is well endowed with such features, through Reading, Newbury and Hungerford. There is a rich pictorial history of the coaching era that supports archaeological study.

Car

From the mid twentieth century, as car travel became more popular, roadside cafes were established, sometimes very informal buildings such as dis-used rail carriages. Other elements, which survive very poorly, are AA phone boxes and AA posts, which have become redundant in the era with easy access to communication. There is an archaeology of the early garages and forecourts, which are becoming rarer as they are redeveloped. For example the early 20th century garage at Newtown in Newbury. Many early garages developed from the smithies and workshops along the roads, but few buildings showing this primitive evolution survive. One is recorded at East Tisted. This may be a heritage easily overlooked and lost

Trams

There were electric trams at the main urban centres such as Southampton and Reading, and elements of the systems may be traceable in places. The power station at Reading survived until relatively recently and rails could still be traced in the road.

Water

River

Goods have probably been moved along the Thames since earliest times. In the more recent past the Thames was navigable by the installation of weirs and locks, initially flash locks, and then turf sided locks and then chambered locks. New cuts were also constructed where necessary. However, the archaeology of the operation of river and wharfing of the earliest times is mostly lost behind more recent development. There is a more recent industry of river cruising and boat racing (Regattas). This brought about a continuing growth aspect to river use, that of the social, sport and leisure industries

of the last 150 years. The general sequence of river utility in any given area is one that has been little investigated.

Canal and Navigations

The development of canals to move bulk goods more cheaply and rapidly than by road develops in the 17th and early 18th centuries. The Titchfield canal was built in 1611, and might claim to be the first canal constructed. Titchfield canal connects Titchfield port to the sea and has a Sea Lock.

Initially Navigations were constructed, the improvements of rivers to enable traffic, with bridges, locks, sluices and new cuts. The River Wey, the Kennet Navigation as far as Newbury and the Itchen Navigation are examples. Some structures on the Wey Navigation are scheduled. The Itchen Navigation is a particularly important example as the failure to develop before abandonment means that the turf sided locks survive in some numbers. Turf sided locks are an early lock form, but which use a lot of water and so where possible canals replaced them with chamber locks. Hence elsewhere they survive in very limited numbers. The Itchen navigation operated from 1710, and it had 15 locks with wharves at Southampton and Blackbridge in Winchester. There was an attempt to make the Avon a navigation in the late 17th century, but this was quickly unsuccessful and the works to the lower reaches were washed away by a flood.

The Kennet and Avon canal, which extended the Kennet Navigation to the River Avon at Bath, also has surviving turf side locks (albeit partially redeveloped), some of which have been subject to archaeological investigation during restoration works (Harding and Newman 1990). This canal contains a range of surviving feature recognised as of national significance and several of the locals in Berkshire are designated as scheduled monuments.

The Basingstoke canal, which was opened in 1794 to link to the Wey Navigation. It was intend to go further west but was overtaken by the development of the railways and closed in 1906.

the Southampton to Salisbury canal, and the Andover canal opened in 1794. There was also an attempt to connect London to Portsmouth via the Portsea Canal, which links the bottom of the Arun canal, though cuts and the harbours, to Portsmouth. The canals have a rich archaeology which is celebrated and through the efforts of volunteers many stretches have been reclaimed. In most cases the canals were short lived as the development of the railways system over took them, although the Kennet and Avon was maintained by the Great Western Railway, who were required to maintain canal operation. In others, such as the Andover canal, the railway (1859) utilised the canal as the track bed and little survives. The Kennet and Avon, and the Basingstoke canal as far as the Greywell tunnel, have been restored to use. The restoration process frequently provides an opportunity to investigate early features.

The archaeology of canals includes the cuts, locks, wharfs as at Newbury, bridges of many types, aqueducts and tunnels (The Greywell tunnel is 1200 yards long), canal related buildings (the wharf building at Newbury is an excellent example), and the heritage of the barges themselves.. The Basingstoke canal has an aqueduct where the river flows under the canal using syphons. In addition the Basingstoke canal and the

Kennet and Avon canal have a rich military heritage arising out of their incorporation into the GHQ stop line. The canals also attracted growth to those sides of the settlements, as at Reading, and attracted local responses even in small rural towns, such as Odiham, where a wharf developed on the very edge of the town (although apparently it did not bring additional prosperity). Canals brought a new element to the urban development of towns along their towpaths.

Ports

There was also coastal trade, both movement of goods along the coast and movement of goods by export overseas. Emsworth, Fareham, Titchfield and Lymington had port developments and an associated heritage of industry to support the coastal trade. There is also the archaeology of vessels. Many can be traced as hulks on the foreshore.

The importance of Southampton as a port, both for goods and people should not be overlooked (particularly before the development of inland transport networks, and before the shift of sea borne trade focus away from Southampton towards Bristol). The first dock was built between 1838 and 1842, and further docks followed culminating in the Empress Dock in 1892. Subsequent development and expansion of the port capacity to the west left the east docks with many older features intact as redevelopment moved westward. Some have now been filled in and or redeveloped. The docks were linked to rail travel and hotels, as the port developed as a major departure point for liners.

Railway

By the 1840s railway had started to revolutionised inland communication. With higher speed, greater bulk, and lower cost, they became important arteries of trade, enabling industrial growth and the development of markets. They are arguably the basis of the economic growth and industrialisation of Britain and all that followed from that. The railways had a profound impact in Hampshire and Berkshire, as in the rest of the country. As the railways system developed, from 1840 at the earliest to 1925 at the latest, it enabled goods to be moved in bulk, quickly and cheaply including local agricultural produce. Some towns prospered and developed in response to the arrival of the railways, whilst other towns like Odiham were condemned to smaller rural market roles by the absence of a line. One distinctive response to the railways were the developed of watercress beds, which have a short shelf life after harvesting. In the case of Arlesford such was the significance of this the line itself became known as the Watercress Line and still is today. In the south soft fruits and market gardening developed with the products moved by rail to London, Fareham for instance was well known for its strawberries.

The main lines were the development of the Great Western Railway (GWR) in 1838 connecting London and Bristol, the first intercity passenger railway in the world, which is recognised as a major industrial archaeological monument in its own right, and is included on the UK World Heritage Site candidate list. There are many aspects of the railway that survive, such as the cuttings, embankments, bridges and stations.

The London to Southampton line was the earliest in Hampshire (1840). The GWR also branched south to Basingstoke. The Southampton line was extended west from Basingstoke to Salisbury, and a branch line went south to Alton. Other lines crossed

the New Forest, linked from Reading to Newbury and beyond along the Kennet valley to the south west of England. Didcot was linked to Southampton creating an important connection between the port and the industrial midlands. Important, but late in date, is the link Portsmouth to London.

Other small rural lines filled the network, such as the line that ran up to Lambourn valley. Many of the smaller lines and some larger lines became disused, some in the 1930s and some in the 1960s (such as Didcot to Southampton line). They have an evocative archaeology, but also in some cases have features which survive as archaeological relicts which do not survive on the main lines which are still in use, where modernisation and health and safety have resulted in original features being removed or updated.

The lines are associated with major engineering works, both earthworks and bridges and viaducts. The earlier lines would allow only lower gradients and the associated works are often more impressive in scale. The line from Basingstoke to Winchester includes major tunnels and cuttings. It is remarkable that had these earthworks been created in the prehistoric, Roman or medieval eras we would look upon them with wonder, and yet they were built on the back of manual labour with great speed and are amongst the most impressive industrial monuments every achieved yet daily pass before our gaze without comment.

There were local spur lines used by the military, such as at Bramley RNAD, and at Marchwood Port (where there is a transverser and signal systems of an age that does not survive in use elsewhere on the main lines). There is a branch line to the ordnance factory at Burghfield. There was a spur line to the First World War camp at Magdalen Hill and another to Park Prewett Hospital at Basingstoke. Indeed there is a rich narrow gauge railway heritage of and by the military at Longmoor Ranges where the army built military railways for training, (which incidentally have cultural associations based on their use in the filming of several notable films). There are also a small gauge local railway systems associated with Hythe Pier (the longest pier on the south coast), Southampton Port and Fawley Power Station.

There is a range of archaeology associated with the railway lines, including the stations, bridges, embankments, cuttings signals and signal boxes, viaducts as at Hockley and Hurtsbourne (dated to 1854 and monumentally spectacular). There were also tunnels, that at Privet being over 1000 yards long. Bridges over the Thames are in particular large scale and impressive. There is also the archaeology of defence lines that follow the rail lines in places (such as east of Basingstoke) and of defence associated with the railway line itself (as at Basingstoke station). There is the archaeology of siding and goods yards. Some of the large examples survive as at Reading and Eastleigh, but there were frequently small goods yards associated with small rural stations many of which have been redeveloped, often for light industrial, such as at Oakley. Large junctions and siding developed in some places, for instance important junctions developed at Basingstoke and Reading.

At Eastleigh the carriage works (1888) and the engineering works Eastliegh locomotive works (1909) were developed, and stimulated the growth of this previously small settlement to an industrial complex unique in Hampshire, much of which can be traced today but is little studied or understood. The archaeological

features that comprise the railway heritage features come from all dates of the railway lines as they were built, modernised and dismantled, but some of the large and fundamental infrastructure is truly monumental in its own right.

Railways also enable and stimulated the movement of people and in particular visitors to the coast, for example from London, developing coastal holidays and day trips. There is an archaeology of piers and later holiday camps, such as Solent Breezes.

Railways in particular seem to have been subject to study by groups and individuals and are the subject of a rich vein of publication.

Military Heritage

Hampshire has a rich and nationally important military heritage, representing each of the three services. Notably Aldershot, home of the British Army, Portsmouth a strategic naval base, and Farnborough the cradle of technical military aviation. The military heritage of Hampshire, representing as it does the home of the forces and the defence of the nation is an important aspect of the historic environment.

Civil War

The English Civil War was a period where there is an archaeology of conflict from the relatively modern period. English Heritage has included the battlefields at Newbury (1643) (Roberts 2003) and Cheriton (1644) on the register of Historic Battlefields (English Heritage a) A second major and historically significant battle took place north of Newbury in 1644, this is not included on the register due to its built up nature, but is included in an appendix to the register. Both of the battles at Newbury are regarded as turning points in the Civil War, but the details of the engagements are only known from contemporary sources that are often conflicting in their accounts.

There were important sieges at Old Basing, Donnington and Reading, and there were skirmishes all over both counties as the armies ebbed and flowed. There are frequent references to them, although some may be local folklore. There was a well known skirmish at Alton, in 1643, evidence for which can still be traced on the fabric of the church, and a skirmish at Andover prior to the Battle of Newbury in 1644. The archaeology of these battles is poorly understood, and has been impacted to some degree by metal detecting modern agriculture, landscape change and development. However, as has been illustrated by recent work on other battlefields, the archaeological potential of these sites is significant, especially at the site of the first battle of Newbury where historical accounts are confused and development pressure is significant.

There is physical evidence of the defences associated with military activity, particularly the sieges at Donnington (Harrington 2003) and Old Basing. The defences at Donnington are particularly clear. There are a series of small earthworks around Bentley and Alton which are believed to represent redoubts controlling the road to London. There were also large scale defences built around Reading in a complete circuit which were mapped, but archaeological evidence has been limited and requires further clarification (e.g. Unpublished Silver Street Excavations, Foundation Archaeology 2001) to plot the specific defensive line of the town. Forbury Gardens

still shows evidence on the ground for a civil war redoubt on the north line of the ditch and bank.

There is also the archaeology of the destruction of this period that accompanied the campaigns. Donnington Castle and Old Basing were slighted to the point of destruction, the defences of Reading likewise. Other places, such as at Winchester and Bishops Waltham, there was also destruction. There is therefore an archaeology of the destruction during the conflict of structures that predate the period of conflict.

Post Medieval

There were a series of camps around Hampshire and Berkshire associated with the various military and militia movements. These are not well understood. The camps are mentioned in accounts and occasionally figure in illustrations. Several existed around Winchester, south of Winchester Castle, north of the town at Barton Farm, and west of the town at Magelden Hill. The nature of the associated archaeology and their inherent importance is far from clear.

There were other camps associated with training in later periods, perhaps the best known being that on Easthampstead Plain, where the redoubts and the camp kitchens survive and are scheduled. There is also an archaeology on that plain of subsequent military training exercises. There is also archaeological evidence of this event in Hampshire at Camp Plantation. Indeed, the open heath south west of London was much used for training, and there is probably a greater range of archaeology of military training available in this landscape than has hitherto been identified. Old maps show the locations of ranges and redoubts from later periods. It is because of its open and agriculturally poor nature and its proximity to London that this area developed as the national's principal training ground (until it moved to Salisbury Plain), and for this reason that the various training establishments develop here, including Aldershot and Sandhurst. Later major sites develop in the Woolmer area and at Minley, still within the agriculturally ambivalent heath landscape. In addition the Brown Down ranges on the coast by Gosport are believed to be amongst the earliest military ranges in the country. The archaeology of the training in the area of Aldershot may prove to be of national importance when better understood.

The development of Aldershot itself merits study. In particular those developments which reflect the changing status of the soldiery, social concerns, and emerging understanding of the principles of care and hygiene. We can see the evolution of the barrack from the principles of the prison to the principles of health and sanitation. The development of military hospitals, and associated churches. For example there was the Cambridge military hospital at Aldershot. Barracks such as Peninsular Barracks at Winchester are both historically important and architecturally impressive. It was a Royal Palace of Charles II (unfinished), converted to barracks in 18th-19th century before destruction by fire in 1894. The substantial foundations and cellars of the palace have been recorded.

Later barrack developments include the 'block like' militia barracks that were developed in garrison towns, of which Brock Barracks in Reading is an excellent example. The military hospital at Netley was once the longest building in Britain. It was a purpose built military hospital on the water front of the Solent to receive the wounded soldiers from global conflicts. It is perhaps still extraordinary that such a

monumental building was demolished so recently. Halsar Hospital is the naval equivalent, built in Gosport at a much earlier period (1746 – 1762) it was the first purpose built military hospital, and it still stands although much developed and evolved.

Portsmouth

The importance of Portsmouth as a naval base is acknowledged and reflected in the extensive use of scheduling for structures around the historic dockyards. It has a nationally important collection of coastal defence structures, associated with the town and with the Solent in general. Portsmouth's fortifications start to develop from the late 15th Century, initially defending the town, port and harbour and reflecting its established importance as a fleet base. As the defences develop they encompass greater areas and defensive remits. In the 17th century these defences also incorporated Gosport as the navy supply and victualling centre. The fortifications describe and demonstrate the military advances in attack and the attendant response of defence. The defences of Portsmouth include a remarkable range of forts and styles and describe the changing technology of attack and defences. Fort Cumberland is Britain's only 'Star' fort. From Southsea Castle with the first with a gun bastion to Palmerston forts of 1860s. These vast forts ring Portsmouth and face landward to defend against attack to secure the naval port, as opposed to merely defence against seaborne assault. They are matched by forts off shore such as Horse Sands and No Mans Fort. This heritage is further accentuated by the defences of the twentieth century along the Solent coast including anti shipping searchlights, mine and torpedo systems, anti aircraft sites and coastal defences including pillboxes.

The role of Gosport is vitally important as a supply base, and in this role providing the first elements of industrial scale supply operations from Royal Clarence Yard (1827), as a well as an armaments depot. Priddy's Hard is nationally important, and possibly the foremost example of an ordnance yard in the country. These ordnance facilities were later supplemented by inland supply depots, such as at Bramley and East Dean, which were linked to the port by railways. They have a distinctive archaeology of their own, East Dean being associated with underground stockpiling and RNAD Bramley being an extensive surface depot with an extensive internal railway to serve well spaced storage huts, spaced to ensure safety from blasts between huts should an accident occur. There was also wider impact beyond the port, many industries building up in the area to supply the navy's needs, including the iron works at Funtley, (which were supplied with navy scrap iron to be wrought and re supplied to the navy), silviculture and food supplies.

The coastal defence archaeology also extends up the coast and is exemplified by sites such as Calshot and Hurst, Hurst in particular demonstrating the evolution of coastal defence works through the 19th and 20th the centuries, by the gun batteries that flank it. Along the coast there are 16th century castles, there are defences in response to the continental threats of the 17th century, the Napoleonic wars, the major late 19th century defences against the threat of French and Russian attack, and the pragmatic developments associated with the extra ordinary and all consuming conflicts of the 20th century.

Portsmouth was connected in the 18th century to London by a semaphore/telegraph system, and two other semaphore lines ran through the Hampshire from Plymouth. A

short signal could travel between Portsmouth and London in as little as 31 seconds. These fell out of use after the Napoleonic war but a new system was put in place to Portsmouth in 1822, and to Plymouth in 1829. There are Admiralty telegraph houses at Sherfield English, Farliegh Chamberlyne and Binstead.

World War I

The First World War, although an overwhelmingly overseas conflict, is reflected in the additions to coastal defence reflecting the threat and technology of navies of the time. In addition, and for the first time, there are also anti aircraft defences. Inland there is a legacy of First World War camps and training grounds, although most were temporary and the archaeology can be difficult to interpret. Relatively few First World War practice trenches have been found in Hampshire to date, but it seems likely that, as the county is noted as an embarkation point with major training camps, more will be found/recognised. There were large camps such as at Hazeley Down and at Magdalen Hill where the camp covered several miles and was serviced by its own rail line. Despite their vast size only marginal traces exist. There were many small and local camps such as on Basingstoke Common which are frequently noted in local history accounts but do not seem to have been studied. The local hospitals received wounded soldiers from the front and Park Prewett at Basingstoke had its own rail spur to service the hospital and traces of this still exist

Immediately prior to the First World War the army was experimenting with balloons and early army flying at Farnborough. From that period onwards the Farnborough aircraft establishment and royal aircraft factory made it the home for the evolution and development of aviation for the nation. There are nationally important industrial archaeological remains at Farnborough, including the wind tunnels, Pystock (associated with the development of the jet engine) and the balloon sheds. There are also small but interesting features such as Cody's tree, to which early flying machines were tethered, and the road names of the airfield and associated housing in themselves reflect the importance of aviation to the town.

Immediately prior to and during the course of the war a number of airfields were established, such as Lee on Solent, Calshot (1913) and Beaulieu. The degree of complexity and subsequent survival varies greatly, but first two of these are considered to be of such importance in the degree to which they reflect this period and subsequent evolution that they have been identified by English Heritage as airfields meriting protection. The hangars at Calshot are listed. Calshot is also noted for its historical associations with the Schneider Trophy and the development of seaplanes culminating indirectly to the development of the Spitfire. Close by at Hythe fast boats for the RAF were developed, at times including an historical association with TE Lawrence.

The First World War brings us a heritage of permanent army, navy and air force establishment, much adapted subsequently, adding a new chapter to an already rich heritage. However, the archaeology of temporary bases and camps, and the location and extent of those camps is very poorly understood.

Although military memorials to individuals go back to the civil war, and the South African war resulted in a number of notable memorials based on the sacrifice made by communities, it is after the First World War that such community and institution

based memorials proliferate. There is a rich and poignant heritage of memorials, reflecting art, symbolism, some modern and some inspired by ancient traditions, some with figurative sculpture others with vernacular form. They are generally well cared for but frequently poorly understood or their potential for local study weakly realised. Perhaps the most notable amongst them on the Hampshire Berkshire border is the Sandham Memorial chapel. In some places the memorials had functional relevance, such as recreation grounds as at Basingstoke, hospitals as at Andover and lych gates at churches. In some cases the memorials included artefacts of the time, such as the Tank at Basingstoke, but few if any of these have survived in Hampshire or Berkshire. Many of these memorials were reused for subsequent wars.

Inter war

Between the wars perhaps the most important impact was the Airfield Expansion Programme. These new airfields reflected changing technology of aircraft and aircraft weapons, the perceptions of the threat and the response to threat (including for instance fighter defence and bomber offence airfields). They add a new dimension to the location and nature of airfields and adaptation to existing ones. Odiham, built in 1936, is considered to be an excellent example with many of the expansion period features surviving. The architecture and layout of these and wartime airfields continue to aspire to good design. A Georgian-esque architecture prevails, and the bases were laid out in a dispersed pattern recognising the danger of aerial attack from bombers. Late in this period sites associated with radar are established.

World War II

There are many airfields in Hampshire and Berkshire (Brooks 2000) from Second World War in various states of continuing use, of disuse, of reuse and of removal. These represent the main phases of military flying evolution including fighter bases, like Ibsely and Middle Wallop; naval flying such as Worthy Down and Lee on Solent; bombers and training bases in Berkshire, and forward landing grounds in Hampshire such as Winkton; and small almost un-noted communication airfields for small aircraft, such as Smiths Lawn at Windsor. At Eastliegh a dummy aircraft deck was laid out to practice landing on aircraft carriers.

Some such as Calshot and Lee on Solent, are regarded as nationally important survivals. Farnborough in particular has a major heritage of aviation technical innovation, including Pystock associated with the development of the jet engine, and the wind tunnel, as well as a nationally important historical connections. Eastliegh is noted as the home of the Spitfire. The scale, layout, location, date and infrastructure reflect changing technology and phases of the war.

Airfields are associated with a range of structures, notably the hangars, and runways. There were dispersal and technical areas and accommodation and Mess areas. The control towers are often the most iconic buildings. There are also battle control stations, air raid shelters, anti aircraft and airfields defence features, such as pillboxes and including Hamilton Picket pillboxes of which scheduled examples survive at Middle Wallop. Many of the structures are to standard designs and rely on the coherence of the surviving infrastructure or on historical associations for their importance. Many airfields have been abandoned altogether, and small and temporary fields may have no trace. Others have small amounts of surviving structure, or have left a layout or imprint in the landscape that can be traced, such as Chilbolton. Some

are betrayed only by a single surviving structure, such as Sheffield Bottom in Berkshire, now demolished but recorded (Oxford Archaeology 2004) or Marwell in Hampshire where reused hangars show the past military associations. Some have found alternative uses, such as the race track at Thruxton and often dispersals and technical areas have developed industrially.

As well as the airfields there is a bombing range in Ashley Walk in the New Forest, which was important and extensive and associated with the development of much Second World War bombing technology. It is also noted for the presence of a U boat pen deep in the forest. There are also military communications/radar establishments, as was recently uncovered during gravel extraction in the New Forest.

Associated with the recognition of the impact of air warfare both before and during the Second World War is the legacy of civilian defence, with air raid shelters on a range of scales from refuges of strengthened locations in houses, to individual garden shelters like the Anderson shelter, the large scale public shelters and the factory and workplace shelters. An example was recorded and partially preserved on Jewry Street in Winchester in 1998, and archaeologically investigated in 2005. There were also ARP centres (as at Romsey library), fire watch posts (one was attached to the demolished Courage Brewery buildings), emergency water supplies etc. Many of these leave traces that can be found today, particularly painted signs on the sides of buildings, but which are susceptible to being lost.

Anti aircraft and search light installations to protect both civilian and military targets were widespread. These formed defensive areas, such as around Portsmouth and Southampton, and were both permanent and temporary (such as Divers sites to meet the V1 offensive) and heavy and light. Few installations survive well, most do not survive at all, and others survive in a fragmentary state. There are scheduled examples on Sinah common and to the rear of Portsdown Hill. There may be an association of such sites and the development of schools after the war, and small elements of the buildings may survive overlooked within school grounds. A number of search light battery headquarters have survived as domestic dwellings in Hampshire.

Other associated sites include Bombing decoy sites, a number of which existed around Hampshire and Berkshire, as well as airfield decoy sites. These types of site leave little archaeological trace, although some elements have been found on island in Langston harbour and on the salt marshes of the New Forest coast. In some cases the generator buildings (as at North Waltham near Basingstoke) or the crew air raid shelter may survive as an isolated building, the extensive but ephemeral structures having been removed. Royal Observer Corps sites were also established, one of which can still be traced at Upham in Hampshire.

There is a rich archaeology of defences from the last war. Most notable are the 'stop' lines built in 1940, in anticipation of the threatened invasion. These, it has been argued, are the single largest engineering operation undertaken by the military, and are certainly the archaeology of an internationally important political decision to resist invasion rather than sue for peace. The principal local defence line is the GHQ line, which comes past Aldershot, follows the canal and rail and river barriers up to Sherfield on Loddon, and from there crosses to the Kennet and Avon canal, which it then follows westwards. The River Thames is also an important physical barrier that

was taken up as a stop line, but the defences are largely on the far bank. The main elements are the pillboxes, which come in a range of designs; anti tank blocks, often along side main routes and bridging points to prevent vehicles by passing obstacles. There are also spigot mortar emplacements, as at Railroad Heath, Fleet, overlooking a railway bridge. There were miles of anti tank ditch dug. The pillboxes, obstacle and anti tank ditch in the Sulham gap, which links the GHQ line to the Thames, is an important surviving section where the degree of survival and coherence is notable (Foot 2006). Both the Kennet and Avon and the Basingstoke canal present important sections of stop line where the strategic and tactical arrangements are clear. Towns like Basingstoke and Newbury were designated as defensive nodes or tank islands and were protected in their approaches, and from time to time small elements of the evidence is encountered under or along side the roads, some times during road works. For example a series of small hollows have recently appeared on the canal bridge in Hungerford where anti-tank obstacles had been located (Coe pers Comm), and a series of sockets for 'hedgehog' obstacles appeared in road works on the old A34 in Newbury.

There are also defences along the coast from this period. Many of the anti invasion obstacles were temporary and removed after the war. The pillboxes on the coast are vulnerable to redevelopment and to loss through coastal erosion. There were also anti glider defences, where obstacles were placed to prevent glider landings in likely fields. These took the form of erected poles, or of lattices of dug trenches. Section of these have been observed on aerial photographs in the New Forest but whether there are surviving examples remains to be established.

There is also a rich history of the preparation for D Day. There were many camps particularly in the south of Hampshire, both for troops and equipment. These camps can be traced from military maps. In West Berkshire a significant component of the US airborne forces were based and undertook their training in the run-up to the invasion. There were also troops billeted within existing buildings, such as the chicken sheds at Hatch Warren Farm, Basingstoke and the pig styes on Netley common. All communities will have had small camps or billets. Large country houses were requisitioned during the war by the military. There are hard roads and tracks through woods (as at the Vyne) dating to these period, and often the bases of huts and air raid shelters. In other cases there may only the remains slit trenches and pits. In places there are road widening, and lay-bys, examples of which survive in the New Forest, where vehicles were parked up waiting for embarkation. There were training areas. In some places these will have left physical remains, such as tank training ranges, or the engineering training at Minley and Woolmer. A mock up of Merville battery in northern France (a section of the Atlantic wall) was built below Walbury Hill to facilitate assault training. There was also more routine training, such as rifle butts, a large example of which is at Martin Down in Hampshire.

On the coast there were construction sites for elements of the Mulberry Harbour that facilitated the invasion, as at Stone Point Lepe and at Stokes Bay. The former was acknowledged as of national importance and recorded (by RCHME), but is being eroded by the sea. An example of a caisson survives in Langstson Harbour where it broke its back. Other elements, such as 'Beetles' that carried the road to the shore, and oil barrages can be found revetting the shore line at Dibden bay (They were bought back after the war). There is the archaeology of the oil pipeline (Pluto) that runs

across the county, including the installations at Micheldever Station (?). There are also examples of landing craft long the coasts, as hulks or in places as house boats. There are embarkation points, and the Dolphins and beach mat hardening at Stone Point demonstrate this. Many places in Southampton, Portsmouth and at other places along the coast have embarkation infrastructure surviving and have strong associations with D Day. Another notable survival, potentially of national importance, is the transverser at Marchwood Military port. This feature was built in preparation for D Day and supplying the invasion. The D Day operation was planned from Southwick and there are remains of this pivotally important episode in the house. There is also a suggestion that there may be associated camps and remains in the woods around the house. Airfields played a major role in the invasion. There were Advanced Landing Grounds in the New Forest with pierced steel runways that supported the invasion with air cover, but of which little survives today. There were also major troop air assaults launched from Membury, Aldermaston and Greenham Common airbases.

The Defence of Britain project was designed to record these local military features. There were major published reports on clear themes, such as anti aircraft sites, and there were local researchers collecting information about the smaller scale local items. It is hoped that this information can inform strategic guidance on the range and value of these diverse remains.

Post War

The subsequent cold war has had its own archaeology. The prospect of nuclear attack resulted in developments of weaponry. Nuclear ordnance continues to be designed and built at Aldermaston and Burghfield, large industrial complexes developing at these sites. In the case of Aldermaston these developed mainly along the old run way and within the technical and dispersal areas of the air base. Interestingly in neither case will map regression help establish the nature of the development, as neither site appears on maps. There is also a large armament depot from this period at Welford.

Greenham Common developed as major base during the cold war, and the run way was extended to make it the longest in Europe, although this was ripped up after the cold war. The most notable features of the site are the Cruise Missile storage and maintenance facility and bunkers. There has also been some interest in the archaeology of the protest movement associated with Greenham Common. Recently a major survey of the WWII and Cold War structures that survive has been carried out at Greenham Common, which has included oral evidence (CGMS 2006). There has also been a major study involving archaeological techniques, oral history and historical research on the Women's Peace Camps that developed following the arrival of the Cruise Missiles at Greenham Common in the 1980's (Anderton and Schofield 200, Roseneil 2006 & Beck et al forthcoming).

(A large 'Ban the Bomb' slogan cut into the side of Beacon Hill can discerned on aerial photographs)

ROC bunkers were built to track the progress of nuclear plumes, and these were built throughout both counties. These are usually only evident as concrete entrances and low earth mounds. There is an example at Stone Point, Lepe. There is also an ROC

headquarters buildings in Winchester which is listed due to its importance, but may actually be earmarked for demolition.

Designed Landscapes

Hampshire and Berkshire have many examples of designed landscapes, and these distinctive and significant landscape components reflect social and economic trends. Berkshire has 27 and Hampshire has 57 parks and gardens on the current English Heritage register (English Heritage (b)), although it is recognised that there are many more significant sites that have not received appropriate recognition to date.

Hampshire and Berkshire have many examples of designed landscapes, and these distinctive and significant landscape components reflect social and economic trends. The dissolution of the Monasteries of the monasteries between 1536 and 1540 led to the release of land from which large estates developed, and the re use of monastic buildings and grounds for grand houses and designed gardens. The examples at Titchfield and Mottisfont were established on the site of the former monasteries. During the 16th century gardens were also the setting for royal pageants such as the crescent shaped lake with ornamented islands created at Elvetham for the visit of Queen Elizabeth in 1591. Estates and country houses with gardens were developed from the late 16th the century. The new fashions of the Renaissance were overlain on medieval traditions, resulting in such things as knot gardens, a recreated example of which exists at Old Basing House. The small intricate and tightly defined gardens developed in time, through the great Elizabethan gardens, as at Shaw House near Newbury, and the 17th gardens with their walled gardens, terraces, statuary and fountains, grottos and waterfalls reflecting continental influences, to encompass views and vistas controlled by the estate right up to the horizon. The garden, park and estate merging into one landscape. Bramshill is an example of a house and landscape designed as one entity with the house held at the centre of two avenues, set within a deer park. This conversion of a functional open parkland of the 16th and 17th centuries into a more formalised arrangement can be seen across the two counties with examples being Ditton Park (Slough) and Billingbear Park (Bracknell Forest), both of which comprised 18th and 19th century country houses and underwent alteration into the 20th century.

Later in the 17th century with the restoration of Charles II the formal French style was widely adopted and many tree avenues were established and the origins of some of the avenues in Hampshire may date from this period such as at Lainston House and The Grove, Nursling. The formal French style gave way to the more natural English Landscape Style which emphasised irregularity had no obvious walls or boundaries and idealised nature. It also incorporated a taste for classical sculpture, antiquities and landscape acquired by noblemen visiting Italy and other European countries on their grand tours. One feature that developed in these gardens was the Ha Ha, a sunk fence or concealed ditch created the impression that the grass sward of the garden was seamlessly joined to that of the park and giving uninterrupted views of the surrounding landscape. Probably one of the first in Hampshire was designed by Charles Bridgeman at Westbury House, East Meon and there is another example at The Wakes Selbourne, in Hampshire. One proponent of 'The landscape Style' was 'Capability' Brown, who was involved in the design of a number of estates in the area and examples of his work exists, such as Benham Park and Sandleford Priory in West Berkshire. Plans of his designs have survived for Cadland House and Highclere

Castle. One of the leading successors to Brown was Humphry Repton who followed the principles of Brown but modified them to suit some of the picturesque ideas popular at the end of the eighteenth century. Repton was well known for his Red Books that showed the landscape before and after his proposed improvements. The Red book survives for Stratton Park however his proposals to move the house were never carried out. He was also involved with the design for Herriard Park which included an octagonal walled garden. The nineteenth century saw the developing interest in horticulture and the growing of exotics and the extensive development of walled gardens, pineapple and melon grounds, vine and peach houses and conservatories.

The picturesque style often extended to the whole estate and Rotherfield Park is a complete example of an early nineteenth century picturesque park which included improvements to the whole village. The picturesque cottage became fashionable in the landscape as objects of interest. A fine example of a Cottage Orn  is Houghton Lodge near Stockbridge which had extensive views over the River Test and may have been established largely as a rural retreat for fishing and shooting.

By the late nineteenth century architects took a renewed interest in gardens which were seen as an integral part of the design and were influenced and inspired by earlier styles of architecture. Moundsmere Manor designed by Sir Reginald Blomfield is an example said to be modelled on Hampton Court. The Arts and Crafts Style championed the unity of the arts in which the house, the furnishing of the interior and the garden were considered as a whole and the garden was often seen as an outdoor extension of the house. There are many examples of this style in the area including gardens created by the partnership of Sir Edwin Lutyens and Gertrude Jekyll such as Marsh Court, Stockbridge and Folly Farm, Sulhamstead and a cluster of houses and gardens designed by Ingo Triggs in East Hampshire.

There is a clear landscape heritage of parks and gardens, as well as the role they play in providing the setting to important buildings. These estates describe the changing fortunes and social structures, and have an archaeology; ice houses; intricate beds; earthworks; viewing mounds; parterres; walks; paths, steps, terraces, walls, ponds and lakes (such as at Bearwood home of John Walters, the owner of the Times newspaper, one of the deepest man made lakes in the area). There were water features, even forts in lakes, lodges, follies, carriage rides, impressive drives, views, vistas, walled gardens and glass houses and even exotic species maintained by extra ordinary structures (such as for the Amazonian water lily, and the Pineapple Houses at Leigh Park, now Stauton Country Park)

There are many influences on the designed landscape. The movement of wealthy individuals from London into the adjacent countryside was popular and influenced by the development of roads and railways. A clear penumbra of large estates can be traced in the north east of Hampshire and the east of Berkshire and in the Thames Valley. In north east Hampshire many of these were laid out on land of poor agricultural quality. Many large country estates were set up in the early 19th century in Hampshire. There were also influences on a villa scale of retiring officers associated with Aldershot, Portsmouth and colonial officers on the New Forest coast, leading to distinctive landscapes of villas and sometimes small yet impressive gardens.

In the chalk valleys of the downs are estates which thrive on hunting, shooting and fishing, with elaborate stables and carefully control hunting environments. They are often associated with individual stretches of fishing stream. Broadlands is a good example. The larger country houses of the county, as are summarised in Pevsner. Some remain in private hands, others are cared for by the National Trust. Some in commercial and institutional hands may be under pressures of change. For example hotel and office use, and sometimes with associated landscape change such as the introduction of golf courses.

The general absence of large nineteenth century manufacturing towns and industrial works may account for the relatively few significant public parks. However some fine parks and open spaces were established such as Victoria Park, Portsmouth, Southsea Common and Southampton Central Parks. There are also cemeteries which are notable for their design, selection and layout of planting, and for their lodges, chapels, walls, railings, gates and monuments. These include Southampton Old Cemetery, Aldershot Military Cemetery and Magdalen Hill Cemetery, Winchester.

Additional Buildings of the social elite

Many Post-medieval complexes of the aristocracy and the residences of the nouveaux riche of the middle class businessmen comprised examples of buildings of a particular vernacular that merit note from both a social and architectural perspective.

Dovecotes

There are dozens if not scores of known dovecote structures throughout the counties of Berkshire and Hampshire, but there is a variation in design that may represent function, aesthetic and location. These structures were often built to support the kitchen of a large household, but were also to provide a supplement and a protected stock of fowl for hunting. The buildings therefore, represent a social and practical function of a specific era in British history.

Icehouses

These were functional structures that presented a fashionable vernacular statement of the wealthy; the provision of winter ice during the summer (Ice House Hill, Swinley Park, Bracknell Forest, Site of the Bishop's Palace in Sonning). The function of the buildings also provided a foothold in both contemporary and later industrial design providing the architecture of insulation and began progression during the second half of the 18th century into the commercial world of industrial ice manufacture.

Institutions

Hospitals

There is an archaeology of institutions amongst which are hospitals. They have their origins in small local establishments, such as cottage hospitals, almshouses and plague houses. They develop in time into larger more centralised establishments, with facilities and buildings which better reflect the needs of patients and medical advances. Winchester County Hospital in Colebrook Street (built in 1736) was the first such institution outside London. The current building dates to 19th century and was built on an impressive scale. There are also almshouses, poor houses and lunatic asylums, isolation hospitals and plague houses. The archaeology of the care of the old

and infirm, and the control of disease are increasingly merged as study recedes backwards through time. Many of these buildings have undergone dramatic change through time, reflecting changing social contexts and medical advances. The smaller buildings, cottage hospital, have mostly ceased to be used. Many of the large institutions, such as lunatic asylums and work houses, have of late also become redundant with changing attitudes to mental health. One of the most famous examples of such institutions is Broadmoor Hospital located in Crowthorne, Bracknell Forest. This institution was a model asylum for the mentally ill and formed (along with Wellington College) the core reason for the development of Crowthorne as a village settlement in the mid 19th century. Little investigation and standing building recording / examination has been undertaken so far, but given current and future development trends, these may become a more frequent occurrence (OA unpublished document, 2003, Survey of the Superintendents House, Broadmoor Hospital, Crowthorne). Some have been redeveloped, sometimes to residential use, follow. Work houses were constructed following the Poor Law Act of 1834, the buildings transferring into the NHS in 1946 finding medical uses, but many of these buildings have now become redundant and redeveloped or reused.

At Winchester there was a building assessment of a late 19th century isolation hospital prior to its demolition, with some archaeological investigation. There was also recording of St Paul's Hospital, a former workhouse of early 19th century date.

Prisons

Prisons, likewise, develop from small local lock ups (one survives by the village of Aldermaston) to more centralised buildings displaying the Victorian values of the period that begat them, as at Winchester and Reading. These were buildings that secured dignity for the prisoners without remitting the punishment, and are buildings of an imposing and daunting character. Some work has been done on the development of the more industrial scale institutions (Chalkin 1978), but again little research has been undertaken on this subject in the area. The massive foundations of the County Bridewell, a debtors prison opened in 1787, which had its own chapel and infirmary) were located during archaeological investigations in 1998-9.

19th Century Police Stations also survive in a number of locations. Although very rarely used for their original function they often still bear signs and date stones which reveal their origin, as at Whitchurch in Hampshire, and at Wokingham in Berkshire.

Post Office

Post Offices also become important building within towns, and the smaller scale archaeology of the post boxes is of merit.

Civic Buildings

There are many civic buildings dating to the 19th century which adopt attitudes of civic pride and which often form the key buildings in many towns today. The Guildhall in Winchester and the Town Hall in Reading are prime examples, but most towns can boast a Town Hall of some scale and dignity. On a more modest scale, but still often of quality and designed to impress were the covered markets and corn markets as at Newbury, Winchester and Basingstoke. In places Neo Classical covered markets survive. A programme of historic building recording was carried out during redevelopment of the former Corn Exchange, Winchester (early 19th century in date)

A weighing machine located to the rear of the building was uncovered during archaeological excavation of the site.

Likewise court buildings were imposing. In the case of Winchester the court and the civic administration were based on the old castle complex. The court was within the Great Hall of the castle, and the Grand Jury Room remains attached within the County Council's offices.

Schools

Whilst Schools likewise develop, by their nature they must continue to reflect small and local communities. Many are adapted and redeveloped, but some such as Shinfield School Green appear to be good surviving examples. A more restrictive example of the schooling legacy is that of the public schools such as Eton College. Certainly Eton as an example has had a huge impact and influence on the surrounding area being a major land owner and developer throughout east Berkshire. Other examples in the county are Wellington College and Reading Blue Coats School. The provision of libraries and museums by their city fathers is in part a civic and in part an educational function, although there are a number of libraries there are few bespoke museum buildings. There is an example at Winchester. There was some reuse of civic buildings, such as the library at Winchester based in the old Corn Exchange, and the Museum in Reading based in the old Town Hall.

Religion

Religion provides a rich seam. Following the dissolution of the monasteries, some monastic buildings were stripped of saleable materials, demolished, (Overton Church was extended with materials purchased from the demolition of Titchfield abbey) sold or re-developed, or in the case of Romsey Abbey and others, retained as the parish church. The associated land was distributed by the King to faithful public servants or sold to land-speculator. Many churches were rebuilt through the post medieval and modern periods and reflect the prosperity and designs of their times. There is a wonderful variety which would be hard to summarise, and they are usually associated with a range of memorials and monuments. There are also many religions, and a diversity that exists within Christianity, that are reflected in religious buildings. There are chapels and friendly houses and 'tin tabernacles', usually buildings of modest scale. There are synagogues and mosques, and Roman Catholic as well as Church of England establishments. Many of the smaller houses, particularly chapels, have been redeveloped or re used, and some larger churches have been made redundant. A few have been demolished.

The most impressive and important religious building, Winchester Cathedral is associated with Wolvesey Palace (late 17th century)

Part of this post-medieval palace was demolished in the late 18th century.

Many places of worship have or had burial grounds attached, including Quaker burial grounds. (The Quaker cemetery at St Giles Hill, Winchester, of late 17th – 18th century date, has been the subject of several archaeological investigations). Later large parish or municipal cemeteries are established, such as "Cemetery Junction" in Reading. These cemeteries contain interesting examples of funerary monuments. There are also burials associated with episodes of mass burial outside usual burial grounds, such as the plague pits of Winchester, or the civil war burials of the Battle of Newbury.

Poor Houses & Work Houses

Most towns of any scale had establishments such as these. Linked and associated to both schools and religion, many of these establishments of civic humanitarianism related more pertinently to a location's industry. The extraction of the poor, particularly children, into a controlled environment where people were often reliant upon a civic 'factory' to provide food and a bed led to a social acceptance of such institutions. The site of the Reading Oracle was established in 1627 and functioned until 1850 providing, initially, a workforce for the industrial benefactor John Kendrick's cloth industry. These study of these institutions provide an insight into the changing perception of socio-economic provision for the 'unfortunates' of Post-medieval England. The effect on the immediate areas of these establishments is an important aspect to any Post-medieval development of many towns in England.

Entertainment and Leisure

There is an archaeology of theatres and cinemas, which reflect entertainment through time. Many are distinctive of the eras in which they were developed, for example many cinemas being built in the 1920 and 1950s. However, the change in cinema going patterns replaced the needs for large auditoriums for smaller multi screen cinemas, and many have been redeveloped, for example the Art Deco recently demolished in Reading. (Foundations Archaeology, 2003, unpublished Document, Building Recording at 25-26 Friar Street, Reading). And others have been reused, as shops or warehouses. There were a number of Theatres in Aldershot to meet the large transient population of the military town.

'Sports stadium are a common feature of the historic environment especially in the major towns, developing from the late 19th Century through the 20th century. Many of the more interesting early examples in Hampshire and Berkshire have been demolished or redeveloped to comply with current health and safety considerations. However, Fratton Park, the home of Portsmouth Football club retains some of its original stands, including a historically and architecturally important stand designed by Archibald Leitch, the pre-eminent Sports ground architect of the early 20th century (Inglis 2006).'

Horse racing is an important part of the history of Berkshire. The Lambourn Downs are one of the most important horse racing training areas in England and the County is home to two top class racing venues, Ascot and Newbury. Golf has also left a legacy on the landscape of the two Counties. In eastern Berkshire are a group of some of the most famous golf courses in the world including Wentworth and Sunningdale, all designed and layed out in the early 20th century. Some courses have an even older pedigree, for example Newbury and Crookham opened in 1873, the 7th oldest golf club in England (Bownes 1998).

In the field of social activity and entertainment there remains much to be studied, both in documentary studies and in identifying and recording the physical manifestations of clubs and social organisations, including Masonic lodges and the offices of other brotherhoods and friendly societies.

Additional aspects to entertainment or leisure activities should include the great influence the sport of horse racing has had upon the counties of Hampshire and

Berkshire, with Ascot, Newbury, Windsor and Tweseldown to name but a few. Certainly the wider impact of these activities came to fruition during the Victorian period and their influences remain today, although little note of their impacts has been made archaeologically. Associated with this is the race horse industry, closely related to the agricultural landscape, of which that in the Lambourne area is a nationally notable example.

Bibliography

Apology. In preparing this documents I have drawn on experience and knowledge acquired whilst working for Berkshire County Council and Hampshire County Council over twenty years, and reflects conversations, reading and site visits over those years. In consequence the bibliography offered here is a pale reflection of the degree to which this documents reflects published sources and the advice and opinions of others, but I cannot recall which facts are from published sources and which from personal observation. I have set out below key publications and/or publications I have read (or re read) recently in preparing this documents. Colleagues who have contributed have provided references, which are included. **My apologies to those whose work I may have invoked but whose publication is not listed here.**

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