

**THE SOLENT THAMES RESEARCH FRAMEWORK RESOURCE  
ASSESSMENT  
POST-MEDIEVAL AND MODERN PERIOD (AD 1540 - )**

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### **Introduction**

The period from 1540 to the present encompasses a vast amount of change to society, stretching as it does from the end of the feudal medieval system to a multi-cultural, globally oriented state, which increasingly depends on the use of Information Technology. This transition has been punctuated by the protestant reformation of the 16th century, conflicts over religion and power structure, including regicide in the 17th century, the Industrial and Agricultural revolutions of the 18th and early 19th century and a series of major wars. Although land battles have not taken place on British soil since the 18th century, setting aside terrorism, civilians have become increasingly involved in these wars.

The period has also seen the development of capitalism, with Britain leading the Industrial Revolution and becoming a major trading nation. Trade was followed by colonisation and by the second half of the 19th century the British Empire included vast areas across the world, despite the independence of the United States in 1783. The second half of the 20th century saw the end of imperialism. London became a centre of global importance as a result of trade and empire, but has maintained its status as a financial centre.

The Solent Thames region generally is prosperous, benefiting from relative proximity to London and good communications routes. The Isle of Wight has its own particular issues, but has never been completely isolated from major events. The historic counties of Oxfordshire, Berkshire, Buckinghamshire, Hampshire and the Isle of Wight were already long established political units by the start of the period, although the Isle of Wight was officially part of Hampshire from the late 19<sup>th</sup> century until 1974. The boundaries of the other counties also remained essentially unaltered until the second half of the 20th century.

Since then the biggest changes have taken place in Berkshire. In the 1974 local government reorganisation a large area of land in the Vale of the White Horse was transferred to Oxfordshire and at the same time the Slough area was transferred to Berkshire from Buckinghamshire. At this point Bournemouth was also transferred from Hampshire to Dorset. In 1998 Berkshire was split into six Unitary Authorities, Bracknell Forest, Reading, Slough, West Berkshire, Windsor and Maidenhead and Wokingham. Buckinghamshire too was changed by the creation of the Milton Keynes

Unitary Authority. Portsmouth and Southampton are also now Unitary Authorities.

## **Inheritance**

This period begins in c.1540 when Henry VIII was carrying out his reformation of the Church of England and following the dissolution of the monasteries in 1536-39. The Church had been a major land owner in the Solent Thames region. The change to secular ownership initially had little impact on the pattern of settlement and land use which existed in the mid 16th century, although those areas that had been directly farmed as part of monastic estates naturally saw some change as a result.

A bigger change was the deliberate slighting of former monastic buildings, many of which were plundered for their materials or converted to new (usually domestic) uses; Hampshire in particular contains some fine examples of former monastic buildings transformed into fine country houses, examples including Mottisfont, Netley and Titchfield. Further changes occurred with the dissolution of chantries and hospitals after 1547, several of which found new uses in endowing new or existing almshouses and hospitals.

There were a number of thriving market towns in all the counties by this period, some such as Burford, Oxfordshire made prosperous by the wool trade. Larger urban settlements existed at the ports of Southampton and Portsmouth, at the historic centres of Winchester, Reading and Oxford, the latter boosted by the growth of the University in the 16<sup>th</sup> century.

A number of forests survived across the area, including the New Forest and those in the hands of the three principal landowners: the crown, monastic houses and the Bishop of Winchester whose estates extended well beyond Hampshire itself. Within these forests there were still extensive areas of woodland. Across most of the area there was a mixture of open fields, common grazing lands and water meadows.

The majority of the population still lived in the countryside at the beginning of this period, governed by the manorial system. This feudal way of life gradually broke down, but some elements of its influence persisted into the 19th and even 20th centuries.

## **Nature of the Evidence**

The amount of historical source material for the post-medieval and modern periods is enormous. Antiquaries wrote about visits and journeys and published their surveys of particular counties (Sweet 2004). For the Solent Thames region the picture is mixed: for Buckinghamshire there are Browne Willis in the 18th century, Lipscomb (1847) and Sheahan (1861); for Oxfordshire Plot (1677) and Wood in Oxford itself (1674); for Hampshire and the Isle of Wight Woodward (1861-9); for Berkshire King (1887). Speed's 18th century history of Southampton was published by Davies (1883). Local societies have long existed and their archives and the journals they established and continue to publish remain an important resource. Maps are another valuable resource, mainly of 17th century or later date, although Agas produced his map of Oxford in 1578. Tithe maps, enclosure maps, estate maps and county maps all predate the Ordnance Survey, whose tremendous coverage began in the early 19th century.

One of the most useful published sources is the Victoria County Histories, which provide an overview on a parish by parish basis. Unfortunately, those for much of the region were produced at a fairly early stage when the scope was generally limited to manorial and church history. For Oxfordshire there is almost the opposite problem with very broad coverage and the series still incomplete. Buckinghamshire and Oxfordshire were also included in *The Landscape of Britain* series (Reed 1979, Emery 1974).

For the built environment there are Pevsner's *Buildings of England* (those for Hampshire and the Isle of Wight are currently being revised) and for Buckinghamshire and Oxford City the RCHME Inventory volumes.

During the 20th and 21st centuries there have been numerous publications of county, parish and thematic histories, for example *The Story of Victorian Shanklin* (Parker 1977) and the many 'Books of' various towns published by Phillimore. Some care is needed with some of these recent local histories as there is often an emphasis on photographs, spiced with personal reminiscences, rather than serious and impartial research.

In addition to these documentary sources there have been a number of research initiatives in recent years, the results from several of which are presented as electronic resources. GIS has been used to generate mapping and some is available to the general public through interactive websites. Urban surveys were carried out for Oxfordshire, Berkshire and Hampshire in the 1970s. The EH funded programme of urban survey launched in the 1990s is providing updates of these surveys, with GIS components, and extending into previously unsurveyed areas. Work on the small towns of Hampshire and the Isle of Wight is complete and Oxfordshire and Buckinghamshire are underway. The parallel programme of more intensive studies of larger towns and cities has covered Oxford, Winchester and Southampton, the first two of which an Urban Archaeological Database (UAD) is available, complementing the HER.

Another relevant research programme is Historic Landscape Characterisation (HLC). This has been carried out for Hampshire, West Berkshire, Buckinghamshire and the Chilterns (extending to areas beyond the Thames Solent Region). There has also been the Hampshire Villages survey and the Whittlewood Project, which covers parts of Buckinghamshire.

The Defence of Britain Survey was a national initiative to record military remains, ranging in scale from anti-tank trenches to airfields. This huge database is a valuable resource, although not in fact covering the Isle of Wight, and the project has generated a number of published syntheses. A new project to extend the scope of the defence record, now including air raid shelters and other civilian facilities, was launched in 2007. The area has also featured in a number of the thematic syntheses produced by EH e.g. Dangerous Energy and Cold War as well as non-military themes such as Hospitals.

Individuals and local groups have also carried out research projects. A *Historical*

*Atlas of Berkshire* was compiled by Joan Dils and a study of Buckinghamshire mills masterminded by Mike Farley (Farley 2007).

The weakest aspect of evidence is almost certainly that from archaeological excavations and surveys. Building studies are becoming more common, but there have only been a limited number of major excavation programmes on sites from this period, such as the Newbury Wharf area, and most are in urban contexts. The bulk of post-medieval work has been on industrial sites.

Although the contribution of environmental archaeology and geoarchaeology is significantly less for this period than earlier ones, there is still knowledge to be gained. In addition to changes in the landscape, industries and the economic marketplace environmental evidence may shed light on climate changes, such as the Little Ice Age, and an increasing use of exotic, imported substances, such as spices. The impact of the agricultural revolution may also be detected in the record.

The sheer quantity and variety of available evidence for this period indicates strongly the need for co-ordination and co-operation across a range of stakeholders. A combination of efforts from archaeologists, architectural historians, conservation officers, national and local historians (across both the professional and 'voluntary' sectors) is essential.

## **Chronology**

Determination of the dividing line between the medieval and post-medieval periods has traditionally been a matter of debate, but the Protestant Reformation under Henry VIII represented a point of radical change to the structure of society in England and Wales, suggesting a suitable point to place the division, usually at around 1540. However, the changes in beliefs and attitudes which underlay this event date from a much earlier period and continued well into the later 16<sup>th</sup> century and beyond.

The division between the post-medieval and modern periods is even more subjective, although the MIDAS Data Standard uses 1901. It is probably more useful to regard the two as a continuum, within which there are a number of possible subdivisions relating to major events or periods of development, e.g. the Civil War or the industrial revolution. No end date is proposed for this period. The rate at which the world changes continues to increase rapidly so that features constructed during the later 20th century have already reached the end of their useful life and their possible preservation and level of recording are matters for immediate concern.

Within this period the detailed chronology of change is an important issue. The rate at which the impact of events is visible within the broader social and economic context, and whether there are regional variations in this time-scale may also be significant.

While documentary sources can be used to date events or construction of some buildings, it is still necessary to look at typology and chronological sequences of for example pottery. Absolute dating is available from dendrochronology, which does not always support accepted interpretations. Roof beams in the South Lodge at Ashdown Park had felling dates of 1767, although the lodges existed by 1716 and no alteration

had been recorded (<http://www.dendrochronology.net/oxfordshire.asp>).

## **Landscape and land use**

During the post-medieval period the pattern of mixed arable and pastoral farming across the region was changed by enclosure. This was carried out in order to promote grazing, to consolidate small farms into larger units and later for emparkment. Some areas had already been enclosed in the medieval period, for example where large areas of land were under Church control. Until the early 18th century enclosure was usually, but not always carried out by agreement: the Stonors and Rice Griffin caused riots by their enclosures in Didcot in 1539 and 1597 (Lingham 2006). The pace of land change accelerated when enclosure by parliamentary act became common practice. Between 1761 and 1860 most of north Buckinghamshire (including what is now Milton Keynes) was enclosed (Turner 1973a-c); Oxfordshire maintained large areas of unenclosed land up to the late 18th century (Emery 1974). Enclosure was a gradual process in Hampshire and Berkshire (Wordie 1984). The traditional pattern of sheep grazing on the open downland declined and more arable production introduced, stimulated by military need and nearness to London. Later diversification into market gardening and dairy production helped offset decline in grain prices.

Again the pattern for the Isle of Wight is different. Here there were many absentee landlords until the 19th century and the overall picture was of small farms. Large sheep runs were a feature, one such estate being at Swainston in the 17th century (Jones 2003). In Freshwater some piecemeal enclosure of open strips was taking place in 19th century. Large landowners became more actively engaged in agriculture during the 19th century, for example the Seeley, Ward and Northcourt estates as well as the royal estate at Osborne where Prince Albert established a number of model farms.

Model farms were also built in other parts of the region, such as Coleshill, Oxfordshire and in Hampshire some were even equipped with narrow gauge railways, for example at Tidmarsh. A particularly elaborate industrialisation of an estate was established at Buscot, Oxfordshire.

One of the best ways to study the changing pattern of the landscape during this period is through cartographic sources, particularly where enclosure maps survive. The HLC studies, completed for Buckinghamshire, Hampshire (although excluding Southampton) and West Berkshire, are another good source. The changes to the settlements resulting from enclosure are discussed below.

During this period most of the former medieval hunting forests were disafforested. In Buckinghamshire this included Bernwood (1632), Salcey (1825), and Whaddon (1841), and for Oxfordshire Shotover (1660) and Wychwood (1857), this last not converted to farmland until the 1850s. Forests have not been well studied apart from Bernwood (Broad & Hoyle 1997), and Wychwood (Schumer, 1984). Much of the eastern part of Berkshire lay within the royal Windsor Great Forest, where some land was sold off during the 17th century to help Parliament pay for their army.

After the Windsor Forest Enclosure Act was passed in 1813 the Crown retained a large portion for its private use, now Windsor Great Park and ownership of other

larger areas. Managed pine forests were established on the heathland after WWI to replace timber used in the war effort (Bracknell Forest BC 1999). In the south of Hampshire is the New Forest, another former royal forest, now a National Park. Forest Law had undergone some reforms over time but was only formally ended in the later 20th century.

The Chilterns area also retains significant amounts of (primarily beech) woodland. It was particularly important for its post-medieval industries, such as the local furniture industry (Hepple & Doggett 1994). Thinner wood was useful as a supply of firewood, a significant export from the region to London, as well as fencing, furniture or brooms for example. Thicker branches would be used in construction. These practices continued in the Chiltern region until the canals and railways facilitated a move to coal as a fuel in London. The growth of the city in the 16<sup>th</sup> and 17<sup>th</sup> centuries had produced a great demand for wood and development of many small wharves (Hepple & Doggett 1994).

Corn was an even more important product and woodland was cleared to increase the area of land available for agriculture. Some of the grain produced was converted to malt and supplied to brewers, including some in London. London provided a huge market for grain and animals, the latter fattened if not bred in the region. Milk was also shipped to the capital particularly from Berkshire after the railways facilitated its swift movement. Close to the capital market gardens were established, some with orchards, such as Veitch of Langley Marish who from c 1880 was producing apples, pears and roses. The earliest recorded nurseries were the Royal Nurseries in Slough, established by Thomas Brown in 1774 (VCH Buckinghamshire III 1925).

Similar diversification of production can be seen in the hinterland around Southampton, probably to serve that town but possibly also supplying London by rail.

Designed landscapes are a very common feature across the region, many included within the EH Register of Parks and Gardens. Some have been studied in detail: Ashridge (Wainwright 1989) and Blenheim, Oxfordshire (Bond & Tiller 1997). The assemblage includes examples by some of the greatest names in landscape design including William Kent, Humphry Repton, Lancelot (Capability) Brown and Gertrude Jekyll. Not all of the landscapes of interest are associated with great houses and there are many smaller properties along the Thames of interest. Public landscapes should not be forgotten, both public parks and from the mid-19th century the municipal cemeteries, such as the well-preserved example at Henley-on-Thames. In Oxford many of the colleges have fine grounds (Batey 1982). The common fields and common of Southampton were retained as public parkland.

Several of the large estates have changed their uses and the associated parkland is often at risk from the need to provide a range of recreational facilities such as golf courses, as at Mapledurham, Oxfordshire. Built structures, including ice houses, bridges, grottoes and bridges, as well as statues and monuments are a vital part of designed landscapes and need to be recorded and preserved.

Water meadows do not survive well across the region generally, but the chalk valley bottoms of the Kennet Valley, Berkshire and most particularly of Hampshire are important (OAU 2000). Some commons, heaths and wastes have survived, notably in

the southern parts of Buckinghamshire and the Chilterns. These form an almost continuous band on the north bank of the Thames, and it is possible that they formed a route for transfer of cattle to London.

Evidence for land reclamation is also limited, although there has been work done on former gravel pits in Berkshire and Oxfordshire. Bembridge Haven and Newton Marsh in the Isle of Wight were drained in the 1880s and the 17th century respectively. Plans to drain Otmoor in Oxfordshire were halted after protests from local people in 1829 and it was again spared from a plan to drive the M40 across it in the 1980s.

Rivers across the region have obviously played their part in flood control and irrigation, often managed by dams and weirs. Flood meadows are still maintained along the Thames. Diversion of water for agriculture allowed the watercress beds on the Chess and Misbourne rivers in Buckinghamshire to thrive in the 19th century (Reed 1979), with other examples found at Ewelme, Oxfordshire and in the Itchen valley in Hampshire. One of the most important improvements to farm land came through the laying of land drains, networks of clay pipework which were of particular benefit on clay soils, such as can be found in many parts of the Thames Valley. The Verneys employed this improvement technique on their lands around the Claydons, Bucks (Broad 2004). Evidence for land drains is commonly seen on aerial photographs. Much marshland was also drained, including Otmoor, north of Oxford.

Apart from the effect of enclosure and changes to the balance between arable and pastoral farming, the use of land has not been well-researched. As the sparsity of references in the text for this section suggests there are many questions still to be answered.

### **Social organisation**

Throughout the post-medieval and modern periods there was a change in the level of control over society reducing the importance of the manorial system in favour of larger landowners in rural areas. In the towns the medieval guilds were either disbanded or reorganised to form the basis for civic corporations. The strengthening of the role of statutory authorities extended eventually to cover both town and country.

The rise of capitalism during this period and the development of the class system reinforced the differences between rich and poor, in terms of possessions and living conditions and access to opportunities for change. The region contains many examples of very grand properties, such as Blenheim, but towns like Oxford had their share of slum tenements e.g. St Ebbe's parish and the conditions of the rural poor were described by Flora Thompson in 'Lark Rise to Candleford'.

At the beginning of the post-medieval period the monarchy held vast areas of land in the Thames Valley and surrounding area. It was traditional for the monarch to spend much of the year travelling around the kingdom, either staying at their own properties or at the houses of the courtiers, with Chenies and Quarrendon both built to accommodate such visits. Elizabeth I spent time at Rycote Park, of which only the chapel and part of one tower survive. These progresses served several functions,

allowing the populace to see the monarch, royal justice to be enforced and a sufficient supply of food to be obtained. Until the improvements to road and river transport it was impossible for the huge numbers of the royal household to obtain sufficient food if they remained in one place for long.

The Thames Valley was particularly popular with royalty because of its suitability for hunting. It was also within fairly easy reach of London, allowing contact to be maintained with the capital and providing a safe haven from outbreaks of disease. Throughout the 16th and 17th century the monarchy began to spend an increasing proportion of their time at the properties near to the capital. Windsor Castle is the only one still remaining, its parkland forming the setting for various lodges built for various family members in the 18th and 19th centuries (Roberts 1997).

The proximity to London and influence of royalty encouraged the nobility and, in later periods, the wealthy, to build their own grand houses within the region. The Tudor mansions of Chenies and Quarrendon have already been mentioned, but the practice has continued. In the 19th century Disraeli purchased Hughendon Manor and both Chequers and Dorney Wood provide country retreats for serving politicians.

During the later medieval and for much of the post-medieval periods social provision relied on a mixture of private initiatives and parish level organisation. At the beginning of the period the redistribution of monastic property and resources caused difficulties for some of the schools, hospitals and almshouses they had formerly supported. However, in the Solent Thames region large areas were held by the Bishop of Winchester, the Dean and Chapter of Windsor, Eton College and the Oxbridge colleges who were able to provide continued support. It was not until the 19th century that more even provision began to be established through legislation such as the 'Poor Law Amendment Act' of 1834 and the 'Local Government Act' of 1872.

Municipal buildings and institutions provide the clearest evidence for these changes in responsibility. Oxfordshire has a number of 17th-century examples, including the town hall at Watlington and the former Berkshire county hall at Abingdon (1672-82) and 18th-century buildings at Wallingford and Woodstock, among others. Town halls and corn exchanges from the 19th century can be found at Banbury, Oxfordshire, Reading, Berkshire and Winchester, Hampshire for example. Until the end of the 19th century it remained common for the ground floor of these buildings to be left open to serve as a market, although many have since been enclosed. Witney, Oxfordshire had a separate market structure, the Butter Cross, constructed in the early 17th century. From a later period the Oxford Covered Market has been studied in detail (Graham 1979).

In Oxford the traditional association of the shire authority with the castle continued. The Old County Hall was built in 1840 within the former bailey and in 1914, the 1960s and 70s additional buildings were added to the complex. Courts were held there until recently. Winchester Castle similarly has housed civic buildings and courtrooms.

Oxford Castle also has a long tradition of use as a prison, finally closing its doors in the 1990s (OA 2006); others closed earlier including Abingdon, built in the early 19<sup>th</sup> century but in use as a grain store by the 1870s. There are a number of prisons still in use across the region, including Reading, Berkshire, made famous by Oscar Wilde and the high security establishment at Parkhurst on the Isle of Wight. New prisons

opened at Grendon Underwood and Bullingdon, Buckinghamshire in the late 20th century. Some smaller, earlier local lock-ups and prisons have survived, including an unusual pyramidal structure at Wheatley, Oxfordshire and Buckingham Gaol, now a museum. Former police stations also survive, where, even if they are no longer in use, there is evidence of their function, for example at Whitchurch, Hampshire and Wokingham, Berkshire. The magistrates' court in Thame, Oxfordshire has recently been converted into a town museum.

The range of provision for the sick and poor is huge. Foundation of almshouses was a popular way in which rich individuals could mark their gratitude for good fortune and this tradition extended into the 20th century. At Newbury, Berkshire there are many sets of almshouses from the 16th century onwards, including one block built in 1937 to house retired nurses (Higgott 2001). Newbury Museum occupies what remains of Kendrick's Workhouse. This wealthier clothier established premises in the town and in Reading in 1625 to provide work for the poor. The Reading building has been demolished completely (OA forthcoming).

In the 19th century the workhouse system was established where the poor were housed and put to work. Some of these were later converted into hospitals, often for mental patients. The Thame, Oxfordshire workhouse became an agricultural college and is currently being converted into flats. The Isle of Wight acquired its workhouse in the 1770s (Jones 1987). Of the purpose-built hospitals the Radcliffe Infirmary in Oxford of 1757 onwards is a particularly fine example. This has recently closed and has been taken over by Oxford University. Newbury's hospital met a less kind fate and was demolished to make way for sheltered housing. The County Lunatic Asylum, Whitecroft, Isle of Wight was built in 1894-6 and is about to undergo partial redevelopment, as is the former Berkshire County Asylum at Fairmile, Cholsey near Wallingford. Also on the IOW the Royal National Hospital for Diseases of the chest opened in Undercliff in 1868, but was demolished in 1968 (Laidlaw 1990).

Universal education was not introduced until the 19th century, after which there was a huge expansion in the number and type of school buildings. Most of the earlier foundations have survived, although many have changed from private foundations to become part of the state system, for example St Bartholomew's School, Newbury, Berkshire which originated as a medieval hospital. The schools established were not all under local authority control. Wellington College, Berkshire, for example, was founded in 1853 as a memorial to the Duke of Wellington (Pevsner 1966).

Further and higher education establishments were also provided along with provision for learning through museums, libraries and institutes. As discussed below the major example in the region is the University of Oxford, but there are large numbers elsewhere, Reading and Southampton being the other two oldest universities in the region with several more created in the last two decades of the 20<sup>th</sup> century.

Provision of water was not operated on a large scale in most areas before the 19th century. Many wells and pumps do survive, although few are still operational. At Stoke Row, Oxfordshire is the Maharajah's Well, unusual in being a gift to the poor of England from an Indian ruler, although there is in fact another gift from India at Ipsden, the next village.

There were urban waterworks in towns in the medieval and post-medieval periods, but few survive. In 1610 Otto Nicolson provided Oxford with a conduit, situated at Carfax in the centre of the town and subsequently relocated as a purely ornamental feature to the park at Nuneham Courtenay in 1787 where it remains. A conduit house at North Hinksey, still *in situ* supplied the original conduit with spring water.

There are various 19th and early 20th century waterworks and reservoirs across the region, some still used, for example the Headington Hill reservoir, Oxford. Remains of early sewage and gas works or electricity generation plants are less common, although the Oxford University engineering department now occupies the Oxford power station. This lies on the river, from which supplies of coal were delivered.

Very many public buildings have been replaced as they do not meet modern needs and it is not thought either economic or possible to update them. As a result demolition or conversion is being carried out on a vast scale, seldom preceded by an adequate period of recording. The former waterworks in Banbury, Oxfordshire, for example, was demolished in 2000 without any record at all being made.

Local government reorganisation in 1974 and 1998 is referred to above. There is as yet little physical evidence of these changes, apart from signage along the new boundaries. Some buildings have become redundant for municipal use; the Berkshire County Hall at Shinfield for example was sold in 1998 to the engineering company Foster Wheeler.

## **Settlement**

Patterns of settlement across the region demonstrate considerable variation, linked to the differences in geology and topography. It divides between the Central and South Eastern Provinces as defined by Roberts and Wrathmell (2001). Most of Hampshire, the Isle of Wight and parts of Berkshire fall into the East Wessex sub-province, an area of nucleated settlements. In the Thames sub-province the level of dispersed settlement increases, particularly in the Kennet Valley. Most of the rest of the region falls into the Inner Midlands where arable agriculture and nucleated settlement are the norm. Towards the west, in the Cotswold scarp and Vale are areas of very dispersed settlement.

At the beginning of this period Hampshire was mainly a dairy area, with pigs in the New Forest. Elsewhere farming was mixed between corn and livestock, primarily sheep. In the later period, away from the downs and woods farming was typical of the so-called 'champion country', with its emphasis on arable cultivation and well-developed nucleated villages.

The greatest influence on rural settlement during this period was enclosure, which was discussed earlier. The impact of this on rural settlement included a shift of farmsteads away from the villages themselves to new locations. The surviving farm buildings in the village were then re-used. The trend for population to transfer to the town increased from this period onwards. Some settlements were abandoned altogether, either because there was no work available as at Quarrendon, Buckinghamshire or because their location did not suit the plans of the landowner. Emparking was popular into the 19th century and resulted in the demolition of

villages at Stowe, Hartwell and Waddesdon, Buckinghamshire and Nuneham Courtney, Oxfordshire. Sometimes, as at Nuneham Courtenay, an entirely new village was built, designed to complement the park (Batey 1970; Airs 2002).

The growing influence of larger landowners led to the development of a bipartite division of many parishes into 'open' and 'closed' (Emery 1974). The closed parishes tended to have a single landowner who controlled the availability of housing, partly to protect them from the burden of poor relief. The houses tended to be of better quality, but facilities such as inns were not always provided. The open villages were larger, but of poorer layout and quality. The inhabitants would include craftsmen who travelled to work in local towns and a supply of agricultural workers to supplement the needs of the large estates. Open villages were associated with non-conformism and seen by polite society as disreputable,

Other villages developed around a particular industry, such as textiles or quarrying. Stonesfield and Headington were both Oxfordshire open parishes linked to stone extraction.

As well as the model villages built by the great estates there were occasional attempts by social activists during the 19th century to create a more rural alternative to urban life. The Chartist Land Company founded Charterville in 1847-8 close to Minster Lovell, Oxon. Each of the 90 homes was surrounded by its own farm plot. This initiative was not successful (Hadfield 1970, Tiller 1985).

Almost all of the towns which exist across the region were in existence by the end of the medieval period. Despite the impact of enclosure on the rural population only very limited growth took place before the end of the 18th century. Some towns experienced a downturn in prosperity in the post-medieval period, perhaps associated with difficulties in the wool and textile industries and not all were able to survive as towns or became fossilised, such as Burford, Oxfordshire.

Urban expansion in the 18th and 19th centuries was fuelled by the success of industries and improvements in communication systems. Better roads, canals and railways all contributed to the establishment of supply centres to meet the needs of the bigger urban areas and the various wars in which Britain was engaged. The relative proximity of the region to London and the presence of important military and naval facilities were important. Initially urban growth was concentrated around the historic core, with open spaces infilled and older properties redeveloped. The characterisation of towns and the morphology of these changes are beginning to form a routine part of urban studies (OA 2006). In Hampshire, Southampton changed from a spa town to a major port in the mid 19th century.

At the very end of the 19th century and throughout the 20th century suburban growth has taken place around most of the historic towns. In some places this has resulted in the absorption into the town of previously distinct villages, Shaw, Speen, Donnington and Greenham into Newbury, Berkshire and Iffley, Cowley and others around Oxford. Although not yet part of the city, Kidlington is another village on the edge of Oxford which has experienced a vast increase in size and is essentially now a town. Didcot is another Oxfordshire village which has evolved into a town, this time as a result of the railway in the 19th century. The railway also had a strong influence on Wolverton

where there was a big engineering works and on towns such as Amersham and Beaconsfield within Metroland. The growth of Newbury was fuelled by new estates to house workers from the atomic research establishments at Harwell and Burghfield. In the later part of the 20th century the fashion for trading and industrial estates and out-of-town shopping and recreation facilities pushed the urban boundaries further.

Planned new towns are less common across the region. Both Carterton in West Oxfordshire and Berinsfield in South Oxfordshire were built in the mid 20th century to house Oxford overspill and the region contains two much larger designated 'new' towns, Milton Keynes and Bracknell, both of which have engulfed a number of small, historic villages.

The Isle of Wight shows a different pattern of urban development. There were no towns on the island until the mid 17th century, although recent evidence has suggested that Cowes may have begun its development earlier than its present 19<sup>th</sup> century built form might suggest. The growth of Cowes was linked to its shipbuilding and mineral industries, but most of the other towns owe their status more to the growth in popularity of the seaside for leisure and health. Bournemouth, now part of Dorset, was another village which owes its considerable growth to the popularity of the seaside in the late Victorian period.

The eastern parts of Buckinghamshire and Berkshire became part of the London commuter belt in the early 20th century, places such as Amersham and Little Chalfont, Buckinghamshire forming part of 'Metroland' (Hepple & Doggett 1994). Slough, now in Berkshire, evolved not as a commuter suburb, but as a large trading estate. The light industrial belt of west London now extends further into the region along the so-called silicon valley.

### **Built environment**

During the 20th century the systematic study of buildings, vernacular as well as polite, became a popular field of study for professionals and volunteers. The Oxfordshire Architectural and Historical Society (OAHS) founded an Old Houses Committee in 1914, now the Oxfordshire Buildings Record which is currently involved in VCH initiatives in Burford and Henley. RCHME Inventory volumes were produced for both Oxford itself and Buckinghamshire, which discuss all the significant pre-1715 buildings. The Buildings Record on the Isle of Wight HER contains records for all pre-1840 buildings on the island. Pre-1700 buildings in parts of Buckinghamshire were assessed through the Whittlewood Project.

Although there have been many detailed surveys of particular buildings or groups of buildings, as described below, there have been fewer attempts to identify patterns in architectural styles on a county-wide scale, much less across the wider region. The use of local building materials and the relationship to the surrounding geology has received attention, in the Chiltern region (Whitehand 1967; CgMs 2006) and across Oxfordshire (Arnell 1947) for example. Although stone is still used for building in

areas where it is naturally abundant brick became the predominant material by the late 19th century. Some flint and rubble persisted, in the Chilterns and Isle of Wight in particular. In Buckinghamshire witchert was less popular after the 17th century, but continued in regular use in the centre of the county until the 1930s.

Urban buildings have been the subject of a number of studies linked to large-scale redevelopment, for example from Oxford during the demolition and site clearance for construction of the New Bodleian Library in 1937 (Pantin 1937, Bruce Mitford 1939) and the Clarendon Hotel in the 1950s (Jope and Pantin 1958). The building stock of the historic core formed part of the surveys of historic towns carried out in the 1970s (Astill 1978, Rodwell 1974, Hughes 1976), and are also featured in the ongoing programme of Extensive Urban Survey funded by EH (Edwards 1999) and a survey of Newbury for West Berkshire Council (OA 2006). Building recording has also taken place across the Chilterns where there is a plethora of design and materials employed, which might suggest an outward looking, experimental society (Moir 2003).

It is not really possible to make many general statements about housing stock and architecture across the region. Yellow brick features strongly in Victorian north Oxford, where St John's college released land for building in the later part of the 19th century (Hinchcliffe, 1992). In parts of Berkshire rubbed brick is often used for decorative detail. In the Isle of Wight styles are strongly influenced by the development of the island as a holiday resort, with marine villas and cottage orné surviving (Boynton 1966). East Cowes also has examples of the earliest concrete housing from 1852 ([www.iwias.org.uk/](http://www.iwias.org.uk/)). Some surviving post WW II prefabricated houses can be found, in Barton, Oxford for example.

There have also been a number of studies of housing in rural areas, for example at Ducklington and Little Milton (Portman 1960), both in Oxfordshire. The latter study investigated the rebuilding which took place during the earlier part of the period. During the development of the new town the Milton Keynes Archaeological Unit carried out a number of detailed studies on the villages which were to form its framework (Croft & Mynard 1993, Mynard & Zeepvat 1992).

Across the region there are many surviving country houses, representing the whole period. By no means all of them survive as private houses and of those that do many, such as Blenheim Palace, Oxfordshire or Beaulieu, Hampshire, rely on the income generated from public opening and event income. Many others have become schools (Stowe, Buckinghamshire), conference centres (Great Missenden Abbey, Buckinghamshire), offices (Hursley, Hampshire) or hotels (Cliveden, Buckinghamshire). Some survive only as monuments, often in the care of English Heritage (Appuldurcombe House, Isle of Wight) or the National Trust (Basildon Park, Berkshire). In some cases only features such as garden earthworks survive and surveys have been carried out on the Tudor site at Quarrendon (Everson) and Ascott, near Wing (EH).

The era of the large country house really ended with WW I, during which many families lost heirs. After the second war the added pressures of taxation and poor agricultural returns led to the demolition of many mansions, but the situation in much of the Solent Thames region was made easier by good communication with London.

Rich business men and show business personalities funded restoration work (George Harrison at Friars Park, Henley, Oxfordshire) and even had new mansions built, mostly recently in 1995 when Tusmore House, Oxfordshire was built for Wafic Said (Airs 2002).

A number of former monastic properties formed the basis for secular houses immediately after the Dissolution in the mid-16th century (Thame Park, Oxfordshire; Great Missenden Abbey, Buckinghamshire); Titchfield Abbey, Hampshire), but there were also new houses from that period (Shaw House, Berkshire; Wolverton Manor, Isle of Wight. A number of other notable houses were originally built in the 17th century, including Chastleton House, Oxfordshire, Radclive, Buckinghamshire, Bramshill, Hampshire and Stratfield Saye, Hampshire. This last is of particular interest for its later connection to the Duke of Wellington, who was given the estate by the nation. Although he had originally planned to have a new house built, he settled for a remodelling of the original. Similarly, another Prime Minister, Disraeli, altered an existing house at Hughendon Manor for his home. This contrasts with the extravagant Vanburgh and Hawksmoor creation of Blenheim Palace, the Duke of Marlborough's reward from a grateful nation in the 18th century.

Many other fine houses were constructed in the 18th century: in Oxfordshire Nuneham Courtenay for Lord Harcourt; Claydon House for the Verneys, West Wycombe for Sir Francis Dashwood, Stowe, Buckinghamshire; Norris Castle and Appuldurcombe House, Isle of Wight; Broadlands, Hampshire; Basildon Park, Berkshire. Building continued throughout the 19th century also and the selection includes examples from both major and less distinguished architects of the Victorian period (Mordaunt Crook, 1999). Major examples of Victorian building include Cliveden, Waddesdon and Mentmore, Buckinghamshire. Bearwood, Berkshire, Highclere Castle, Hampshire and Osborne, Isle of Wight, this last built for Queen Victoria and Prince Albert.

The scale of 20th century country house building is not nearly as great, but includes examples of most of the significant architectural trends. Inter-war examples include Overshot, Hinksey Hill, Oxfordshire and High and Over, Amersham, Buckinghamshire. New House, Luccombe, Isle of Wight is a rare war-time construction. In 1964 Stratton Park, Hampshire was completely rebuilt with only the portico of Dance's 1801 house maintained as a linked feature. Charters House, Berkshire was built in 1938. It has recently been divided into seven apartments, with adjoining new blocks providing space for over 20 more.

A wide variety of agricultural buildings were employed across the region and some work has been carried out on these. A RCHM(E) survey of English Farmsteads in the 1990s included parts of West Berkshire (RCHME 1997). A characterisation study of farmsteads in Hampshire has been published (Edwards 2005a) and there have been reports on individual buildings or complexes as part of the planning process. Farm buildings on the Isle of Wight were assessed in the 1980s (Brinton 1987). In Buckinghamshire and Oxfordshire the record is patchier, although agricultural buildings are surveyed by groups like the Oxfordshire Buildings Record and the Chilterns Society.

From the evidence available few regional trends or variations specific to the region

can yet be identified. On the Isle of Wight lobby-entry farmhouses survive from the 16th and 17th centuries, and other relatively early examples occur elsewhere, including Allbrook near Eastleigh, Hampshire and Mapledurham in Oxfordshire, dated 1659 and 1691 respectively (Roberts 2003; Platt 1994). The barns of south and east Oxfordshire have different patterns of roofing purlins from those in the Cotswold stone areas of the north and west.

Although there are a number of universities within the Solent Thames region, these are with one exception of late 19th or 20th century foundation and their buildings are therefore typical of public architecture from those periods. The exception, the University of Oxford, has a wide range of buildings from all periods. The medieval residential halls and colleges have expanded, through rebuilding and addition of new structures. New colleges have been founded and a large number of institutional buildings constructed, of which the Sheldonian Theatre, designed in 1663 by Sir Christopher Wren, is among the best known.

The buildings of the university and colleges, celebrated in description and illustration over a long period from Bereblock onwards (Durning 2006; Loggan 1676; etc. etc.) are well described in summary in the Royal Commission Inventory of 1939 (RCHM 1939), in the University volume of the VCH (VCH Oxfordshire III 1954) and latterly in the architectural sections of the History of the University (Catto et al., ed. 1984-2000), although the results of more modern research remain to be integrated in the published literature.

A more art/architectural historical approach is evident in the approach of many writers on Oxford's architecture, one of the best and most accessible accounts being that provided by Tyack (1998).

Some of the city's buildings have also benefited from more detailed archaeological analysis of their fabric, with investigation of the roof of Duke Humphrey's Library (OA 2001), the Radcliffe Camera (Gillam 1995) and the Old Ashmolean (Bennett et al. 2000) among them. Such investigations have raised the question of the plundering for re-use of historic fabric (such as happened with the recycling of the roof of the monastic college of St Mary for the chapel of Brasenose), and it is likely that much more remains to be identified of the practice.

Much new building in Oxford (as well as the extensive repairs to the old over the last 30 years, which have not always been used as an opportunity to record or preserve ancient fabric) has been carried out by local building firms, heirs or successors to those which built Oxford in the past. Some of these firms have been studied and histories published (Sturdy 1997; Law 1998).

Public buildings and structures and those associated with the church, warfare, transport and industry are mainly dealt with under the appropriate sections.

### **Ceremony, ritual and religion**

At the beginning of this period, the Protestant Reformation in England under Henry VIII was in process. A major component of this was the dissolution of the monasteries when their estates and buildings were confiscated and redistributed by the king. As

already discussed the effect on rural land organisation was dramatic. The fate of the religious complexes themselves was more varied as illustrated by large numbers of sites across the Solent Thames region. In some instances these and their immediate environs became the nucleus of a private estate. The houses at Great Missenden, Buckinghamshire, Thame Park, Oxfordshire and Beaulieu Abbey in Hampshire all incorporate some of the original buildings, while Netley, Mottisfont and Titchfield (all Hants) are spectacular examples of the conversion of the former monastic church itself to domestic use, a practice that was more common than sometimes thought (Doggett, 2002; Howard 2007). Elsewhere, many of the buildings were demolished to supply building stone, often over a prolonged period. The nave of Reading Abbey survived until 1643 when the stone was used in the town's civil war defences. Overton church was extended in the 16th century using material from Titchfield Abbey. Elsewhere the former monastic churches survived, becoming either the parish church, as at Dorchester, Romsey and Southwick, while Osney Abbey in Oxford was briefly Oxford Cathedral until this role passed to Christ Church. The latter demonstrates the benefits of associations between religious organisations and the secular authorities. Oxford Cathedral is the former St Frideswide's Priory, which also serves as the college chapel. The royal links with Windsor and Eton College enabled many of their possessions to survive.

Evidence for the monastic past exists in surviving ruins, including those of Reading, Titchfield and Netley Abbeys. However, the region does not have the spectacular, isolated sites seen in other parts of the country. All that remains of Bradwell Priory, near Milton Keynes are tithe barn, chapel, and bakehouse.

It was not only the monastic foundations which suffered during the reformation, but also guilds and charitable foundations. Again some of their property was swept away, but in many instances transfer to a secular institution or support from a private individual enabled their charitable activities to continue. In Buckingham the Guild of the Holy Trinity was abolished, but its Chantry Chapel survived as the home of the Royal Latin School. St Bartholomew's Hospital in Newbury survived as a workhouse, although without its burial ground, which disappeared under a new road layout.

The site of Quarr Abbey in the Isle of Wight is unique in the region. In the early 20th century a Benedictine house was established on the site of the medieval Cistercian monastery and continues in use today.

Within churches the reformation left its mark. Painted ceilings, statues and stained glass began to disappear, while royal coats of arms and protestant texts took their place. Many of the medieval wall paintings have been lost although careful removal of more recent plaster and whitewashing has uncovered some, e.g. in Oxfordshire at Dorchester Abbey and St Oswald's Church, Widford. This destruction was accelerated by the actions of Cromwell's armies. Many churches retain the plaques bearing the Royal Arms. Changes in the liturgy which eliminated the mass and changed the emphasis to communion and preaching were reflected in the construction of communion tables (few now survive) box pews and the elaborate pulpits and galleries which were installed. Few churches still maintain this layout in its entirety, but some box pews can be seen in many buildings including Southwick and at Rycote Chapel in Oxfordshire. This private chapel also has rare remains of the original painted ceiling.

Religious disputes in the 16th and 17th century were not just between protestant and catholic, but involved deep schisms over how the protestant church itself should develop. For many the links between Christianity and social justice were fundamental and a number of groups of non-conformists emerged, who did not accept the tenets of the established church. At Burford in Oxfordshire, where their mutiny was put down, there is a memorial to one short lived group, the Levellers, a section of the New Model Army. Originally non-conformists were outlawed and their places of worship were created within larger houses, or by converting outbuildings such as stables, such as the Congregational church in Finchdean, Hampshire. The first Oxford Methodist Church, visited by John Wesley in 1783, was in a 16<sup>th</sup> century house in New Inn Hall Street. In Niton, Isle of Wight, the village hall began life as a malthouse in c 1760, became a Baptist Church in 1823 and a school in 1848. There are some surviving examples across the region. Probably the best known non-conformist site is the Quaker Meeting House at Jordans near Beaconsfield, Bucks which was built in 1688, but was badly damaged by fire in 2005. Most of the non-conformist churches and chapels date from the late 18th and 19th centuries, utilising mostly Gothic and Classical architecture. The Baptist Chapel at Waddesdon, Bucks, is a rare example of a vernacular style, from 1792.

The Church of England did not undertake much church building in the 16th to 18th century, although some rebuilding took place, some of it on different sites. This rebuilding programme included St Luke's at Stoke Hammond, Bucks in the 17th century, St Peter le Bailey, Oxford in 1726, Banbury in 1790 and Buckingham church. Several new churches were associated with large estates, St Lawrence at West Wycombe and Hartwell church for example. When Lord Harcourt created Nuneham Park a new church was constructed, resembling a classical temple. Most new churches from this period were in towns, including Holy Trinity Gosport in 1696, St George Portsmouth 1754 in an American-Colonial style and St Peter Wallingford in 1760-9.

The 19th century witnessed a resurgence of interest in religion with the growth of the Evangelical and Oxford Movements. This period also saw large numbers of new churches mainly as the result of population growth in towns generating new parishes. These churches demonstrate a variety of styles with classical Romanesque, and Italianate structures in addition to those in the highly popular 'Middle Pointed' Gothic style, this last used to correct the 'mistakes' of the past and the favourite approach used in the many church restoration programmes. Many of the leading church architects of the period are represented across the region. Gilbert Scott was responsible for Bradfield, Highclere and Ryde amongst others. Street also carried out restoration work and designed new churches, including All Saints, Maidenhead and St Mary in Wheatley. Woodyer designed St Paul's, Wokingham, Burges the church at Fleet and Butterfield Dropmore and Horton-cum-Studey. Humbert designed Whippingham church, Isle of Wight, apparently with some help from Prince Albert. Blomfield produced the Italianate St Barnabas in Jericho, Oxford, but unfortunately the internal mosaic murals were only completed on one side of the church. Some major artists of the periods were involved in designing monuments and decorating churches. Oxford Cathedral contains a stained glass window by Morris and Burne Jones, whose Pre-Raphaelite influence can also be seen in the chapel of Exeter College. Extensive restoration work was carried out at the cathedral in 1871 by Sir Gilbert Scott and more in 1887-9. Winchester Cathedral was in danger of collapse

until Jackson carried out a major programme of work in 1905-12. Examples of churches by Street (e.g. Maidenhead, Wheatley) also need mentioning as do Victorian restoration work at Oxford and Winchester Cathedrals.

Pugin is only known to be responsible for one church in the region, the new Roman Catholic church in Marlow, Buckinghamshire. Easing of the restrictions on Catholics permitted the restoration of chapels at Stonor and Milton House in the 18th century and a new one at Mapledurham in 1794. In the 19th century RC parish churches began to be built and a cathedral was constructed in Winchester in 1926.

The Burial Act of 1854 halted burials in the overcrowded urban churchyards and led to the creation of municipal cemeteries, several of which are now also full. Often the area contained a number of chapels, to serve different denominations, as at Henley-on-Thames. In Oxford, Osney cemetery is located at least in part on the site of the former Osney Abbey. Non-conformist churches often had their own burial ground. Haddenham, Buckinghamshire has the remains of a Quaker burial ground and another has been identified at St Giles Hill, Winchester. Plague pits have been found in Winchester and some Civil War burials in Newbury. One cemetery in Abingdon, a Parliamentary town, contained a small number of Commonwealth graves. There has been little opportunity to excavate a significant assemblage of burials from this period, but work on the former hospital cemetery at Haslar, Hampshire is being carried out by Oxford Archaeology and Cranfield University. An investigation of a C17 burial vault at Thame Church was carried out in the late 1990s by Julian Lytton from V & A and David Miles of OAU, unfortunately never written up. The vault contained members of the Herbert family, who had built nearby Tythrop House.

The Solent Thames region has, like almost all of England, a multi-cultural population. The earliest significant immigrant groups were probably associated with the ports of Hampshire as there is a long tradition of Chinese and lascar seamen. Southampton experienced two waves of Protestant refugees from France, one in the 1560s and then Huguenots in the 17th century. Medieval St Julian's became the French Church. Little other sign of any religious activity has been identified in connection with these groups and the earliest non-Christian religious institutions recorded are synagogues. Jews settled in Portsmouth in the 1730s and acquired land for a burial ground in 1749, which remained in use until the 1990s. A purpose built synagogue opened in 1780, but in 1936 the congregation moved to a converted house in Southsea, taking many of the original fittings with them. In Southampton Old Cemetery one of the 1850s mortuary chapels was for the Jews. Another synagogue was built in Reading in 1901 and a school and centre for Jewish studies was founded at Mongewell Park, South Oxfordshire in 1953, although it closed in 1997. The synagogue there, now Listed Grade II, was built in 1963 by Thomas Hancock. During the later 20th century immigration, particularly from the Indian subcontinent, has further diversified the range of religious groups in the region. Of the numerous mosques which have opened, some are in converted buildings, but more recently purpose-built structures have begun to appear e.g. in Oxford and Reading.

The recording of churches and their fittings is not as comprehensive as might be expected. A detailed study has been carried out of Buckinghamshire stained glass with a catalogue and photographs available on the web ([www.buckinghamshirestainedglass.org.uk](http://www.buckinghamshirestainedglass.org.uk)) and some survey of Oxfordshire wall paintings was done.

NADFAS groups across the counties have been preparing inventories, but these records are not accessible locally.

There is a rich legacy of monuments in the churches, churchyards and cemeteries of the region, particularly those to the royal family in St George's Chapel, Windsor. Elaborate royal mausoleums have been constructed in Windsor Great Park at Frogmore, one for Queen Victoria and Prince Albert and the other for her mother, the Duchess of Kent. Another mausoleum was built by the Empress Eugenie of France at Farnborough, Hampshire together with a small abbey for its support. The numerous parks and estates across the region are full of memorials, for example the Column of Victory in Blenheim Park and an equestrian statue of George I at Hackwood Park and of George III in Windsor Great Park. Petersfield market-place features an equestrian statue of William of Orange. Equestrian statues are generally rare in England. Memorials are common in the region's towns and villages also, one of the most impressive being the Martyrs' Memorial in St Giles, Oxford. Often memorials incorporate a source of water, many for the Diamond Jubilee of Queen Victoria, but others form tributes to individuals or groups, such as the emigrants from Ascott-under-Wychwood, whose ship sank en route to New Zealand. Of course the largest group of memorials is war memorials, mostly commemorating the fallen of the First and Second World Wars but some, such as that on Coombe Hill near Wendover, Buckinghamshire and in Bonn Square, Oxford earlier conflicts. The 1919 Cenotaph in Southampton by Lutyens is thought to have served as a model for the Whitehall example.

A particularly unusual monument is the Boer War memorial on the village green at Latimer, Buckinghamshire, with a separate memorial to a horse wounded at the Battle of Boshof and subsequently brought back to England.

Pagan superstition is not completely absent from the archaeological record for this period. Witch bottles, shoes and dead cats among other objects have been found hidden in building and traces of apotropaic marks have also been identified. It is likely that such things are often either not recognised as significant or felt to be too embarrassing to discuss. Alterations to the ruins of Medmenham Abbey and caves at West Wycombe Park have been associated with pagan rituals through the activities of the Hellfire Club.

### **Warfare, defences and military installations**

The Portsmouth Naval Base was first established at the end of the 15th century, but enjoyed a period of growth during the reign of Henry VIII. From the 17th century onwards the facilities were gradually extended, with establishments of Haslar Naval Hospital and the Gosport victualling centre for example. Several components of the complex are now Scheduled Monuments. Many of the sites are no longer in use and recent defence cuts mean that the Ministry of Defence is reviewing its holdings. Archaeological work is being carried out in the gunboat yard and hospital cemetery at Haslar (Shortland *et al* 2008). It was from Portsmouth that the Mary Rose sailed in 1545 only to sink in the Solent where she remained until 1982. The archaeology of the Mary Rose has been extensively recorded, and published, while the ship itself is preserved for public view.

The threat of invasion also influenced the construction of land fortifications. Henry VIII commissioned a series of forts along the Hampshire coast and on the Isle of Wight, including Yarmouth, Cowes, Hurst Castle and Southsea and the medieval Carisbrooke castle on the Isle of Wight was surrounded between 1597 and 1602 by a series of artillery defences designed by Federigo Giambelli (Young 2000).

The Civil War of the mid 17th century led to many alterations and refurbishments to existing fortifications, some evidence for which has survived, at Donnington and Old Basing for example. More significant were defences around the more important towns. Some possible traces have been seen at Silver Street, Reading (Foundation Archaeology 2001) and the extensive royalist defences of Oxford have been excavated in several areas, for example Parks Road (Bradley *et al* 2006). Work in Oxford demonstrates the benefits of a research strategy as trenches are located after reference to the map created by the engineer of the defences, De Gomme. Various battles and skirmishes took place across the region, the locations of the First Battle of Newbury (1643), Chalgrove (1643) and Cropredy Bridge (1644) appearing in the *EH Register of Historic Battlefields*. Following the Parliamentary victory Cromwell ordered the slighting of many of the defences. Very little archaeological work has been done on this and the evidence from the conflicts themselves is minimal.

Of the fresh round of improvements to coastal defences that took place during the Napoleonic Wars little evidence remains, although some Admiralty Telegraph stations have survived. Semaphore signalling to link Portsmouth and London was established, first using a shutter system in 1796 and then one using fixed arms from 1822. An extension to Plymouth was never completed.

A perceived threat of invasion by the French remained and in the 1860s Palmerston authorised a vast network of coastal defences, one section of which was centred on the Solent. In addition to land forts a road was built along the south coast of the Isle of Wight and a series of seaforts constructed at Spithead. The land fortifications guarded against attack from the sea and from inland, with a number of forts lining Portdown Ridge above the town of Portsmouth. Many of these defences survive, often adapted for later purposes. A survey was carried out by EH (Saunders 1998), unfortunately not published in its entirety. The Palmerston Forts Society ([www.palmerstonforts.org.uk](http://www.palmerstonforts.org.uk)) has published several papers on specific sections of the complex.

Elsewhere Britain's standing army and local yeomanry grew in size, accompanied by more demand for barracks and training grounds. Although volunteer rifle ranges and small barracks were to be found in many towns it was on the heathland areas of the south of England, including parts of Berkshire and Hampshire, that the army had the greatest impact. The various barracks, hospitals and training grounds have evolved as military needs and improved attitudes to soldiers' welfare have changed. Many of these establishments have been closed or reduced in capacity and the level of recording of facilities has been disappointing, as they have until very recently not been seen as significant either as individual buildings or monuments. One building was moved to a museum when the Queen Elizabeth Barracks at Fleet, home to the Gurkhas, was sold for housing (OA 2004).

20th century conflicts have had a marked impact on the Solent Thames region. World War I (WWI) practice trenches have been identified in a number of locations and

some of the early military airfields were situated here, including an early seaplane base for the Fleet Air Arm at HMS Daedalus near Gosport, Hampshire. Some continued in use into the World War II (WWII) and beyond. Today several have become industrial parks, Witney, Oxfordshire for example. A grass airstrip constructed for the Royal Flying Corps still exists at Halton. During WWII the US forces established a base in Southampton, the main embarkation port for D-Day.

More airfields were established from the 1930s, with Harwell thought to be the first and RAF Bicester a particularly good example (Hance 2006, various incl CgMs, 2003). These housed bombers, fighters, gliders and other specialist planes. Recording of surviving features and airfield history have become popular areas for research and it is not possible to provide a detailed discussion here. During WWII large estates were requisitioned as research establishments (Ditton Park), training centres (Thame Park, Beaulieu), command centres (Langley House) and even prisoner of war camps (Water Stratford). A POW camp survey is expected (Thomas 2003) and a museum commemorating the SOE has recently opened at Beaulieu. The most well known example is Bletchley Park, home of the code-breakers, where again a museum has been established. Features associated with the civilian population, such as air raid shelters and home guard stations, are also under-recorded. One under-researched area is the reason for the development of a network of signal and intelligence facilities in Buckinghamshire.

During the Cold War a number of bases continued in use. Upper Heyford and Greenham Common are both associated with the US and their nuclear capability. The history and archaeology of the former has been investigated recently for the proposed Conservation Plan. High Wycombe is still the headquarters of NATO, complete with underground bunkers. Rockets development was carried out on the Isle of Wight by Saunders-Roe, who tested the Black knight and Black arrows rockets near The Needles , Isle of Wight. Rocket research and development was also carried out at Westcott Royal Ordnance Factory, Bucks where some of the surviving structures are under consideration for Listing.

Art associated with conflict is also found across the region, not just in the form of war memorials of which there are very many examples. US servicemen have left a lasting record at Upper Heyford and at Greenham Common there are also features left from the anti-nuclear protest camps. Memorials to victims of WWI can be found at Sandham, Burghclere where the purpose built chapel is decorated with Stanley Spencer murals. The village of Enham Alamein, Hants was originally constructed to house disabled servicemen and its name records a donation by the Egyptian government in recognition of the British success at that battle (Some additional development is planned here, which may provide the opportunity for recording work).

What has not been addressed specifically is the reuse of defensive features over time. Bembridge Fort in the IoW for example was constructed as part of the Palmerston defences and later equipped with pillboxes and other more recent structures. The effects on the landscape and society of military establishments should not be underestimated. Airfields require clearance of hedgerows and trees, not just within the perimeter of the site itself. Trees along the Ridgeway were removed to aid take off from Harwell and the horizon remains empty. The influx of people, including families, associated with military establishments could transform small rural

communities.

## **Material culture**

Post-medieval and modern artefacts have been recovered from excavation sites and form an increasing proportion of the entries on HERs, nearly one third for the Isle of Wight. The growth in popularity of metal detecting as a hobby and the work of the Portable Antiquities scheme have made a significant contribution to this increase. However, systematic analysis of the collected material has not been carried out to a significant extent. There have been a number of articles published for Oxford focusing on particular aspects of material culture, based on the large assemblages obtained during major development work in the city, in the St Ebbe's area and at the site of the Bodleian Library for example. Oxford College bottle seals, ceramics and clay pipes have all received some attention. The surviving wall paintings from Oxford, including the Golden Cross Inn and 3 Cornmarket, and from the rest of the county, such as Upper High Street in Thame, have also been studied. Winchester and Southampton have been the subject of extensive archaeological investigations, which again have produced large assemblages from urban contexts. In Buckinghamshire the work at Bierton in 1975-9 produced material, but in common with very many multi-period sites, the later periods were not given a great deal of attention.

Evidence for everyday material culture can also be found in many of the museums and major country houses across the region, where themed exhibitions and preserved room layouts form part of the visitor attractions. Standing buildings often retain features such as fireplaces, ovens and pumps or smaller fixtures and fittings such as bell-pulls, which can add to the understanding of everyday life. It is important that these should feature in buildings recording programmes and that householders are made more aware of their significance.

Documentary studies have also played a part in investigation of material culture through detailed inventories and probate records, which list furnishings and other goods on a room by room basis. Much work of this kind has been carried out through local societies.

The evidence for material culture from this period has a bias towards urban areas, where the majority of archaeological investigation has taken place, and the upper end of the social scale. Grand houses tend to undergo less radical modernisation. The record has also suffered from the lack of interest in the more recent past which has still to be overcome in many instances. Historical archaeology emerged as a major field in the mid 20th century in the USA, where colonisation by Europeans provided a fairly clear division.

## **Crafts, trade and industries**

In general, across the Solent Thames region agriculture was the principal form of land-use as discussed above and continues to be so outside the urban areas. Certain trades related to agricultural production have been practised across the whole of the region. Large numbers of water mills and windmills survive across the region and the locations of many more have been identified. In addition a number of tide mills are known from the coastal areas of Hampshire and the Isle of Wight. Mill surveys have

been carried out for all the counties, although the Berkshire work dates back to the 1960s and a new book on Buckinghamshire mills has just been compiled (Farley 2007). Durngate Mill, Winchester, was recorded before its demolition in 1966. Working water mills can be found at Mapledurham, Oxfordshire, and Ford End, Ivinghoe, Buckinghamshire. Buckinghamshire also has two restored post-mills, Brill and Pitstone, the latter to be the oldest surviving example in the country. The tower mill at Wheatley has recently undergone restoration (Wheatley Windmill Society) and the sails have been replaced. Another, unrestored example is located nearby at Great Haseley. The windmill at Bembridge, Isle of Wight is now maintained by the National Trust. Some mills have survived from the medieval period, but sites did change frequently. Survival for mills often depended on diversification from grain to fulling, saw or grist mills. At Bisham, Buckinghamshire, Temple Mills moved to brassworking. Gunpowder was manufactured at Osney Mill, Oxford, during the Civil War. The Schultze factory at Fritham, Hampshire also produced gunpowder from 1865 to 1923 for the military. The Whitchurch 'Silk' Mill, Hampshire is described below.

Although recent years have seen the closure of many breweries, brewing and malting were common across the region. Unfortunately the amount of recording carried out has been very limited, although a survey of the Oxfordshire Industries was published in 1985 (Bond & Rhodes). Major sites developed close to the easy transport route of the River Thames, at Wallingford and at Henley where the modern plant from Brakspears was removed in 2002 and the buildings converted to a hotel in 2004-5 (CgMs, 2004). In Reading the Courage Brewery remains a major manufacturing site. Many small local breweries have been taken over by larger organisations; for example Halls took over four Oxford brewers in 1897. Morrells was founded in the city in 1597, but in the late 1990s this also was taken over and production ceased. Their St Thomas Street plant has been recorded and excavated (TVAS 1999, OA 2007). Similar closures have taken place in the other counties including Strong's of Romsey, Hampshire.

### *Wool and textiles*

Sheep and wool production had developed during the medieval period into a major source of wealth for many landowners and the prosperity of towns across Oxfordshire, Berkshire and Hampshire in particular. Following a peak in the 16th century, the trade began to decay in the 17th century. For some towns this led to a loss of status, for example Burford, or a concentration on other industries, as happened in Reading and Newbury. Other towns managed to maintain their wool industry through specialist production. The most successful example was Witney where the blanket trade only ceased production in the late 1990s. Chipping Norton and Banbury moved to the production of Tweed while plush was manufactured in the latter town and its environs. Most of the cloth industry was carried out in relatively small workshops or in weavers' homes, although the specialist towns, particularly Witney had larger mills operating in the 19th century after mechanisation had taken place. Bliss Tweed Mill and the mill in Witney retain many original features, but are now residential buildings. Other workshops have experienced similar conversions, but many have been demolished. Little recording has been carried out, although English Heritage has carried out survey work for the *Textile Mills of the South-West* project, for which the detailed records are not readily accessible. Recent work in Newbury has shown that

parts of workshops can survive in the rear parts of later buildings. It is important that opportunities to explore similar locations should be exploited and that surviving evidence for the cloth industry is recorded. The extensive tenter grounds for drying cloth are generally now only known from historic maps.

Hemp and twine were used by a factory in Abingdon to make sacking. By the later 19th century coconut and rush matting were being produced and soon after 1900 the factory became Abingdon Carpets, now no longer based in the town. Behind Twitty's Almshouses in Abingdon a factory producing hemp sacks and linen was partly destroyed in 1838. It was taken over by a clothier, John Hyde, whose family established a clothing factory, specialising in cotton goods. Trading continued until 1931. In 1977-8 the site of the demolished factory was excavated and its various phases revealed (Wilson 1989).

James I was determined to establish a native silk industry and in 1607 began planting of mulberry trees at Broadlands, Romsey. Although the king was not successful in his ambitions, silk processing continued in Hampshire and Berkshire with the last operating plant, Whitchurch silk mill, closing in 1985. Huguenot refugees opened a silk factory in Southampton in the 17th century. The mill has been restored by the Hampshire Preservation Trust as a working museum. Andover had a tradition of home-working and there were also mills in Wokingham. However, this industry has not been studied in detail.

In the south-west of Hampshire another textile crop, flax, was grown. This raw material was woven into canvas, in particular to supply the local shipbuilders with sails. Around 500 looms have been noted in the Fordingbridge area. Sailmaking was also carried out in Reading, originally at the Oracle site and later at a factory in Katesgrove.

A much smaller scale production was that of lace. This was carried out in the Aylesbury and High Wycombe area as well as at Olney in the north of Buckinghamshire. In these areas, archaeological evidence is confined to occasional finds of pins or bobbins. A separate industry existed in the Isle of Wight, where a factory operated at Newport in the 19th century (Jones & Jones, 1987, 116).

### *Geological resources*

The Solent Thames region is crossed by bands of different geological date, the characteristics of which support a range of industries. The major river terraces of the Avon, Coln, Kennet and Thames have experienced large scale gravel extraction programmes for which archaeological investigations have concentrated on the evidence from earlier periods contained within or overlaid by the gravel. Small scale local gravel pits are also widespread.

The chalk bands of the Chilterns have also been exploited. A number of chalk pits and mines have been identified in Buckinghamshire (Farley 1979b, 138-9) and the Caversham area of Reading and cement working took place at Pitstone, Buckinghamshire and Chinnor, Oxfordshire. Concrete from the West Medina Mills in the Isle of Wight provided raw materials for some very early concrete houses ([www.iwias.org.uk](http://www.iwias.org.uk)). Surprisingly few lime kilns have been identified in north

Buckinghamshire within the limestone belt.

Good building stone occurs in various parts of the region. Probably the quarries at Taynton and Headington in Oxfordshire were the most important of these, and the industries, together with production of slate from Stonesfield, were examined in some detail by Arkell in 1947. Hampshire supplied some malmstone and Berkshire sarsen.

The abundance of clay across the region supported a brick and tile industry. Works were established in Hampshire, Berkshire and on the outskirts of Ryde and Cowes, Isle of Wight. Brick making was particularly common in Buckinghamshire, at Slough, Hedgerley, Great Linford and Calvert/Newton Longville. The plant at Great Linford was adjacent to the canal from which it supplied the building of Wolverton and New Bradwell in the 1880s. The Calvert plant continued to be operated by the London Brick Company into the 1980s and 90s. Pottery was also produced, in Tilehurst, Cove, Inkpen and Brill. Evidence for tile production in the post-medieval period is less common, but a 16th-century kiln has recently been excavated at Penn and there were also tile kilns at Little Brickhill in the 16th century.

Important local brick making centres were found across the Chilterns in the 18<sup>th</sup> century, several of them surviving into the 20<sup>th</sup> century and beyond. A well-preserved bottle kiln survives at Nettlebed, Oxfordshire and there are several abandoned clay pits in the vicinity. Chalfont St Giles and Chesham were important brick producing centres in Bucks, Matthews and Duntons still producing hand-made and locally sourced bricks today.

Pottery production took place at a number of locations in Buckinghamshire and Oxfordshire, but the major manufacturing site was at Brill, Buckinghamshire, where it continued until the 1860s. Excavations in the 1970s and 1980s identified the remains of kilns from the 16th century onwards (Farley 1979a, Yeoman 1988, Cocroft 1985).

Glass was produced at a few locations, including Buckholt, Hampshire and at Alum Bay, Cowes. The Ravenscroft Glassworks in Henley finally closed in the 1960s. Its success had been the result of discovery of a recipe for lead crystal, which relied on a particular type of sand from Nettlebed.

### *Small scale industry*

Several types of small-scale industrial production were taking place across the region. The elm woods of the Chilterns supported the furniture industry around High Wycombe, where there is museum to the crafts. Paper was produced at a number of locations close to rivers, such as Thatcham, Berkshire, High Wycombe, Buckinghamshire and Wolvercote, Oxfordshire. A Conservation Area has been designated by South Buckinghamshire Council to protect the remains of the Riverside works in Taplow. The latter site supplied paper to the Oxford University Press. Parchment was produced at a works in Havant, Hampshire, which originated in the early 19<sup>th</sup> century and continued to the 1920s (CgMs 2006) and in Andover, the former having closed only recently.

A by product of this industry was the relatively short-lived production of tarred paper roofs for buildings in the early 19<sup>th</sup> century, with examples recorded near Abingdon

and at Eynsham and Sandford-on-Thames (Airs 1998).

Needles were made in Long Crendon, Buckinghamshire, but the cottage industry never developed and disappeared after its competitors in Redditch (Warwickshire) went over to mechanised mass production. Straw plaiting for hats was another occupation mainly for Buckinghamshire women. Clockmaking was pursued in Oxford, North Oxfordshire and Newbury.

Leather production is another industry which uses much water. In Newbury on the Kennet, tanneries were common, possibly supplying manufacture of saddlery for the coach trade. Gloves were made in Witney, Woodstock and Charlbury (Leyland and Troughton 1974).

Fishing was obviously important in the coastal areas of the region, but the extent to which it formed a major part of the economy is uncertain. Some remains of a fishing hamlet survive at Steephill Cove, Isle of Wight. Oysters from the Solent were harvested at Emsworth and Langstone Bay and shipped to urban markets. Salt production survived as an important industry from the medieval period into the 19th century along the New Forest coast and at various sites on the Isle of Wight. At Lymington some remains of the salterns and coal-powered boiling houses can still be found. The cost of transporting coal and high salt taxes resulted in the end of manufacture.

### *Transport*

Production of means of transport was a significant element in the industry of the Solent Thames region. The largest component was shipbuilding, mostly in South Hampshire and on the Isle of Wight, at Hamble, Beaulieu and Bucklers Hard for example. Most were timber craft, made from wood from the New Forest and the Forest of Bere, but some iron ships were produced from metal from Funtley and Sowley. Powerboats were later produced at Hythe, Isle of Wight and Vospers also had a marine engineering works in the area, as well at Southampton. The island was also home to Saunders-Roe, the company which became the British Hovercraft Corporation in the 1960s. The Isle of Wight's shipyards are still dominated by the Cowes Hammerhead Crane erected in 1912, and thought to be the earliest extant crane in the UK.

Smaller craft for river use were manufactured elsewhere. Salter's Boatyard in Oxford was one site and there was extensive work carried out on the site before it was redeveloped for housing (OA 2000b). Tooley's Boatyard in Banbury is now a museum.

Aircraft were also manufactured in the region, in Reading, Woodley, Southampton and the Hamble. Saunders-Roe produced sea planes in Cowes and a company in Newbury was switched over to making gliders.

Wokingham was for a time a centre for coach building. The most important source of road vehicles is the car plant at Cowley, which grew from William Morris' garage in Longwall Street, Oxford. The plant has changed hands many times since its foundation and the current site, producing Minis for BMW, is much smaller than the

extent occupied at the height of production. When the rest was demolished little recording took place. Another car manufacturing plant existed in Abingdon, where MG was established by Cecil Kimber, who had been making sports cars from Morris' vehicles. The plant was sited in a former leather working warehouse. Production finally ceased in Abingdon in 1980 (Moylan 2006). Some of the plant was demolished, again without recording, and some is used by Oxford Engineering. Wantage too has some links with the motor industry, providing bases for the Williams Formula 1 motor racing teams.

Small foundries and engineering works existed across the region. In Wallingford was Wilder's, a company responsible for wells, manhole covers and iron kerbing (examples of which still survive in the town) as well as agricultural machinery. Other companies were known in Reading, Newbury, Andover, Eastleigh, Buckingham, and Lucy's Eagle Ironworks in Oxford. Wolverton was established by the London and Birmingham railway company for manufacture of railway engines and carriages. Further south was the Eastleigh carriage and locomotive works.

### *New industries*

New industries were established in the 20th century. Film studios were constructed at Denham, Buckinghamshire where Alexander Korda made some of his films, but the Hi-tech industries have been particularly important. Around Wantage are the headquarters of some of the Formula 1 motor racing teams. The Atomic Energy Research Establishment was based at Harwell where prototype nuclear reactors were built (Hance 2006). The site and its surrounding area have continued to attract similar initiatives such as the Diamond Light Source and JET at Culham. Radiation was also important to Amersham International and the Atomic Weapons Research Establishments at Aldermaston and Burghfield. From Slough to Reading the computer industry has established bases while Vodafone have made Newbury its headquarters.

### *Leisure*

Entertainment and sport have become more significant 'industries' in recent years. The Solent Thames region is home to Windsor, Ascot and Newbury racecourses, which have their particular development histories. Horse racing also took place on Port Meadow, Oxford and at Tweseldown, Hampshire. The horse racing industry has been influential in the development of the Lambourn Downs area of Berkshire, where many studs and gallops are located. Newbury has its own railway station and now a course range occupies the centre of the racetrack (OA 2006a). Polo is played at Windsor.

The region contains a number of professional football clubs, traditionally a strong feature in the social life of the working classes, although with major new stadia in recent years at Reading, Southampton and Oxford, most have moved away from their original locations, with the old sites redeveloped for housing. Only Portsmouth (at Fratton Park) now remain at their traditional home. Fratton Park contains one of the few remaining stands by the engineer Archibald Leitch, the leading pre-WWII architect for such facilities.

A small well-preserved (former professional) football stadium survives at The Recreation Ground, Aldershot and Buckinghamshire now also has its own professional team, the MK Dons, which relocated from Wimbledon in 2003 and since November 2007 has plays at stadium:mk.

The Thames itself has a significant role in water sports, particularly the Henley Regatta (the original 1913 grandstand at Phyllis Court having been rebuilt in the 1990s) and, more recently, international events on the Dorney Lake. The Solent is of course also a centre for water sport. Yachting takes place in the Hamble area and Cowes Royal Regatta has been taking place for nearly 200 years.

Shopping has developed from a necessity to a leisure activity, although the activity will always have also served a social function, particularly where markets brought people together from dispersed settlements. Recording of markets and shops is uncommon beyond photographic collections. Material from the former Capes store in Oxford is held by the Oxfordshire Museums Service following a survey on its 1970s closure (Foster 1973).

Cinemas and theatres have yet to receive the attention they deserve. Some have existed for a long time such as Theatre Royal in Winchester, which dates from 1850. The Theatre Royal in Windsor opened in 1903 and the Empire Variety Theatre in Southampton in 1928, although this became a cinema in 1933. The Holywell Music Room, Oxford, was the first purpose built concert hall, opening in 1742. The region does have a number of cinema buildings from the early 20th century including the Rivoli, Sandown, Isle of Wight from the 1930s, the Plaza, Southsea, Hampshire from 1928 and in Oxford the Electra of 1910-11 and one in Magdalen Street which was built in 1922-4. This is still operating as a multi-screen cinema.

Recording of industrial premises has been limited. Work was carried out at Spencer Corsets, Banbury and the Lucy's Foundry in Oxford was the subject of an MA dissertation, but this did not include recording of buildings.

### **Transport and communication**

Southampton has been an important trading port from the early medieval period, but it was in the mid 19th century that the dock area began to expand. During the post-medieval and modern periods the growth of passenger traffic also increased, - liners, ferries to Europe and the rest of the world (P&O, Cunard etc) and the Isle of Wight. Portsmouth has remained primarily a naval port, although it is now possible to catch ferries to the Isle of Wight and the continent. Several small ports serve the Isle of Wight. Cowes is the largest, but Ryde is the base for the hovercraft service in addition to a passenger ferry to the mainland. Regular ferries from Ryde began in 1796.

To help ensure safe passage for shipping various lighthouses have been erected around the coast. On the Isle of Wight the first lighthouse on the Needles was built in 1785. This and St Catherine's Lighthouse of 1840 have experienced problems with sea mists and have had various improvements made over the years (Insole & Parker 1979). The island also boasts a 6.1 m high triangular pillar, erected in 1735 at Ashey Down.

Rivers, particularly the Thames, have served as carriage routes for people and goods since the prehistoric period. Use of the Thames was in decline at the end of the medieval period, but from the 17th century onwards efforts were made to improve the navigation through dredging and construction of weirs and locks. These are mainly recorded in drawings and photographs (Siberechts of Henley, Taunt 1872, Banks and Stanley 1990), although some archaeological recording has been carried out at Iffley and Abingdon Swift Ditch locks (WA 2000, OA 2000a). Henley was a major gathering point for goods such as grain and timber (Plot 1677). These and coal were transferred to Oxford as well as London and stone from Headington was taken out (Prior 1981, 1982, Perberdy 1996). There were several wharf areas in Oxford, the best known along Fishers Row and from the 19th century in Jericho, where the boatyard has only recently closed. When Salter's Boatyard in Oxford was redeveloped an extensive programme of recording was carried out (OA 2000b).

Although goods are no longer moved by river the Thames is an important route for recreational cruising and the venue for numerous sporting events. Little work has been carried out on the craft employed although the River and Rowing Museum in Henley does house various sporting craft.

Construction of canals and the canalisation of stretches of river permitted easier freight movement by water. Construction of canals in the region actually began in 1611 when the Earl of Southampton dammed the River Meol and built the Titchfield Canal, the second canal in England. Of the major river improvement schemes, the River Wey was improved in 1653, the Itchen Navigation dates from 1710 and the Kennet Navigation section of the Kennet and Avon Canal opened between 1795 and 1810 (Hadfield 1970). This last enabled a significant wharf to be developed at Newbury (WA 1996, 1998).

A network of other canals was constructed to link the various waterways, including the Basingstoke and Andover Canals (1794) and the Berkshire and Wiltshire Canal in 1810. Further north the major canal linking London with Braunston, Northamptonshire passed through Buckinghamshire. This opened at the end of the 18th century and linked into the Grand Union Canal in the Midlands. A branch to Aylesbury has been closed and largely dismantled although traces remain. The most important site within Buckinghamshire was at Wolverton where an aqueduct, now a Scheduled Ancient Monument, opened in 1811 carrying the canal over the River Ouse (Faulkner 1972). The Oxford Canal from Coventry had opened in 1790 (Bloxham and Bond 1981), finally closing as a coal wharf in the 1950s. The route passed through Banbury where a dock has been excavated. Tooley's Boatyard had closed in 1995, but the historic workshops have been preserved as a museum (BUFAU 1999, 2000; OA 2003).

Many of the locks on these navigations were originally constructed with turf-sides, but these have generally been replaced. Garston Lock near Reading has survived as a working lock and that at Monkey Marsh, Thatcham has been excavated and recorded. (P.A, Harding & R. Newman 1990). Canal restoration groups are helping to restore many stretches of waterway and ensure the preservation of features.

One factor in the commercial demise of the canal and river network was the coming of the railways. Railway companies were formed sometimes to build very short

branch lines and these were in 1921 into the major companies which existed until nationalisation of the railways in 1948. The Solent Thames region falls mainly within the area operated by the Great Western Railway (GWR), but lines from the north were operated by the London Midland and Scottish Railway (LMS). The various lines are too numerous to discuss in detail here, but their histories are well documented in the vast published literature. Only parts of the network still survive, partly as a result of the cuts in the 1960s under Dr Beeching, although in the late 20th century reopening of lines began, such as the Chiltern Line from Birmingham to London.

There are large number of surviving structures and features of historical interest, usually on smaller or disused lines. Their preservation and recording owes much to volunteer organisations that run museums and operate trains over limited distances. There are six of these within the region: the Isle of Wight Steam Railway; Mid-Hants Watercress Railway; the Didcot Railway Centre, Cholsey and Wallingford Railway, Oxfordshire; Chinnor & Princes Risborough Railway (Oxfordshire/Buckinghamshire) and the Buckinghamshire Railway Centre at Quainton. Didcot owes its present size and significance in the county to the GWR works. The London and Birmingham Railway, later part of LMS, opened a major works at Wolverton in 1838 for manufacture of engines and carriages, which similarly established the town. Among the significant structures associated with the railway there is the Wolverton Viaduct over the River Ouse (Cockman 1974).

The LMS station in Oxford was an unusual building utilising the same technology as that employed in the building of the Crystal Palace. It opened in 1851 and then in 1999 it was dismantled and moved to the Railway Centre at Quainton, Buckinghamshire (OA 1999). North-west of the present Oxford Station are the remains of a turntable bridge over the Sheepwash Channel (OAU 1996).

The railway network never connected everywhere and in the 1870s the Duke of Buckingham attempted to plug one gap with the horse drawn Wotton Tramway which operated for 64 years of which some earthworks survive (Jones 1974). The Metropolitan Railway expanded into Buckinghamshire in the 1890s, allowing houses to be built on their land holdings route, helping to create the suburbs of Metroland (Hepple & Doggett, 1994).

At one time there was an extensive network of railway lines on Isle of Wight, linking the seaside resorts to the ports of Cowes, Ryde and Yarmouth. Primarily serving the tourist industry, these railways were a response to their development.

Until the post-medieval period responsibility for the maintenance of roads lay with individual parishes, which made little effort to keep the highways in good condition. During the 18th century a series of Turnpike Acts were passed, imposing a toll for travel along a particular section of road which was used to pay for maintenance (Albert 1972). In the Isle of Wight, however, the Turnpike Trust was not established until 1813. Toll collectors were provided with houses, many of which survive and are often now Listed Buildings. In Oxford there is one on the Botley Road and another at Folly Bridge for example.

A number of major routes from London, such as A4, A5, A40 and A31, pass through

the region. The turnpike system encouraged coach travel along these, bringing with it associated prosperity for a number of towns. Coaching inns survive, including the Kings Head, Aylesbury, Griffin, Amersham and George and Dragon, West Wycombe, Buckinghamshire; Chequers, Newbury, White Hart, Colnbrook and George, Reading, Berkshire; Three Cups, Stocksbridge, White Hart, Andover and Rd Lion, Fareham, Hampshire; Old Black Horse, Oxford, Old Crown, Faringdon and George, Dorchester-on-Thames, Oxfordshire. In the 20th century the M3, M4, M40 and M1 motorways have had a similar beneficial impact, most notably for the development of Milton Keynes.

As yet neglected subjects of study are motorway service stations, roadside transport cafés, such as Mac's Cafe on the A4 at Padworth, Berkshire which are currently rapidly disappearing from 'A' roads across the region to be demolished or converted to other uses. Even the distinctive chain of 1960s and 1970s 'Little Chef' restaurants is losing sites.

Milestones are commonly found, sometimes statutorily listed, and on the A4 in Berkshire several pumps set up to reduce the level of dust are still in position (Babtie). Roadside archaeology includes signposts as well as more recent features such as police boxes and those set up by the AA and RAC. There are only a few examples of the early garages which still survive. These often started life as blacksmiths' forges or bicycle repair shops. One early purpose-built garage is the Electric Filling Station, built on the south side of Newbury in 1934 (OA 2006). The history of road vehicles themselves is recorded at Beaulieu Motor Museum, Hants.

Various forms of public transport have been tried in towns. Tramways were constructed in Oxford, Reading and Southampton, although the only surviving evidence comes from maps. In Oxford the trams were only ever horse-drawn and not electrified as happened elsewhere (Hart 1972). Horse buses were the precursors to motor buses. At Long Hanborough, Oxfordshire is the Bus Museum, documenting their history.

Bridges are important features of the road network and many were originally built before the post-medieval period. Magdalen Bridge in Oxford was rebuilt in the 1770s and widened in 1835 and 1872 (VCH Oxfordshire IV 1979). Some bridges have been the subject of detailed studies, for example Wallingford Bridge, Oxon (Steane 1982). In Buckingham the bridge has some fine Coadstone decoration. Rather more unusual is the Floating Bridge in the Isle of Wight, which is in fact a chain ferry across the River Medina, linking East and West Cowes. This has operated in various forms since 1859 (<http://www.simplenpc.co.uk/Cowes.html#anchor71591>).

Despite its legacy of former military airfields, the region has not played a major role in the growth in commercial air travel. The only major airport is Southampton and there is a much smaller facility at Kidlington serving the Oxford area. However, the majority of sites which are still open for flying operate at club level, Booker near High Wycombe and Popham near Basingstoke for example.

An aspect of transport which has not been well researched is the place within society of the gangs of construction workers needed to build the canals, railways and major roads. Huge numbers of these would have moved into areas for the lifetime of the

project, requiring housing and some supporting infrastructure. Little is known about the lives of some 3,000 men employed on the Grand Junction Canal in 1793 (Faulkner 1972) for example. In more recent times the camps of environmental protestors have become a feature of major projects, affecting construction of the Winchester by-pass at Twyford Down and the Newbury by-pass.

## Legacy

The post-medieval and modern period witnessed the growth of Great Britain as a world power, building a trade network for the products of the industrial revolution. Although the British Empire no longer exists, the Solent remains an important part of the international network through its container port as well as the passenger facilities for cross-channel ferries and cruises.

For Britain, a sea-going nation which led the industrial revolution, the wider world has always been of importance. One sign of globalisation has been the growth of multi-cultural societies, but the presence of immigrant communities did not come as new to Hampshire with its major ports. These are now more common across the region, but particularly so in the east, in Slough, Reading and High Wycombe and some smaller centres like Chesham.

It is still possible to some extent to tell which county is which from the building materials and styles. However, new buildings are not always sensitive to this, employing instead a generic shopping mall or supermarket brand style. This erosion of regional/local character is a marked legacy, although by no means only within the Solent Thames region.

Until the later 20th century Britain was a manufacturing nation, but most of this capacity has now been exported to the Far East and Eastern Europe where production costs are less. As the Solent Thames region was never dependent on an industrial base, its prosperity has not suffered as much as that of other parts of Britain. Consumerism has had an impact on the infrastructure of the region through the proliferation of out-of-town shopping facilities, reconstruction of town centres for malls as well as altering the pattern of freight movement from its ports.

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