THE THAMES THROUGH TIME

The Archaeology of the Gravel Terraces of the Upper and Middle Thames: The Thames Valley in the Medieval and Post-Medieval Periods AD 1000–2000

Towns, Trade and Industry in the Thames Valley

AD 1500–2000

Historic England

Towns, trade and industry in the Thames Valley, c AD 1500–2000

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POST-MEDIEVAL TOWNS

by Anne Dodd

Introduction

The legacy of the medieval and post-medieval periods in Thames Valley towns is dwarfed by the scale of 20th-century redevelopment. Nonetheless, the core areas of these towns were a creation of the middle ages (and some even earlier), while much of their surviving historic character, documented in urban surveys and conservation plans throughout the region, is largely a product of the late/post-medieval period. The urban network of the Thames Valley remained broadly stable throughout most of the post-medieval period. Until the very end of the 19th century, there were to be no new additions to the existing urban settlements, and some smaller places struggled to maintain any meaningful urban functions. As transport improved, smaller markets lost out to larger central places that could offer a much wider range of goods and services.

Change came about slowly and the trends already visible in the late medieval period continued to be important. Key determinants in the success or failure of a town included its ability to trade with London and to take advantage of developments in communications and technology to diversify into new markets. Textile manufacturing remained important in the 16th century, but had declined by the end of the 17th century. Commodities such as wheat, barley and timber continued to be key regional exports, increasingly in processed forms as meal, flour, malt, and furniture, while market gardening and horticulture expanded with the growth of urban populations and the rising popularity of gardening. Elsewhere, other towns profited from specialising in niche markets, ranging from the distribution of West Country cheese through Lechlade to the education of the elite at Oxford. With the expansion of road distribution by waggon and packhorse from the 15th century and of coach travel from the late 17th century onwards, Thames Valley towns profited from supplying travel services, especially for the increasing numbers of commuters through the region. The establishment of the canal network in the late 18th century considerably expanded trade in places such as Lechlade and Reading, and enabled towns to access cheaper supplies of coal from the Midlands and

Somerset. But the Thames Valley also sold Londoners the less tangible benefits of fresh air, relaxation, peace and quiet. The potential of the region to provide space for privacy, leisure and recreation, and a refuge from outbreaks of dangerous diseases, was exploited by royalty from the time of Henry VII onwards, and emulated by bishops, courtiers, politicians, industrialists and bankers who developed country seats within relatively easy reach of the court and the capital. With the coming of the railways, there was an exodus of rich middle-class Londoners to Surrey and then east Berkshire and Buckinghamshire in search of healthy and agreeable places to live within commuting distance of the city, while the less affluent could visit for holidays and day trips. Although manufacturing played a role in the towns throughout the period, greatly increasing in scale in the late 18th and 19th centuries, the region remained essentially agricultural. Lesser settlements, particularly in the Upper Thames Valley, remained small market towns servicing their agricultural hinterland. They acted as centres for the collection and onward supply of agricultural produce and for the redistribution of imported goods. The larger places became centres for the processing of agricultural produce on an increasing scale, either as middlemen for the London brewery industry, or as end-producers such as Huntley and Palmer's cake and biscuit factory and Simonds brewery at Reading.

The 16th and 17th centuries

Population and the urban hierarchy

It seems that many Thames Valley towns came through the difficult late medieval period fairly well. Towns in the Middle Thames benefited particularly from the growing demands of the London market, while towns in the Upper Thames profited from the expansion of the woollen textile industry. At a national level, the second quarter of the 16th century saw the start of a hundred years of sustained population growth, and by the middle of the 17th century population levels had recovered to approximately their high medieval maximum. Thereafter, demographics remained steady for around a century until the exponential growth that accompanied the agricultural and industrial revolutions from the late 18th century onwards.

In the south-east of England, the great majority of the *c* 150 towns present in 1540 had fewer than 1000 inhabitants and the very largest had about 5000 (Chalklin 2000, 50). Based on available population estimates, the Thames Valley seems to have had a relatively high

proportion of more-populous towns, although there were also numerous places that were comparatively very small. At the start of the 16th century, Oxford and Reading were the major towns in the Upper and Middle Thames Valley respectively. Statistics derived from taxation records of 1524–5 suggest that both towns had around 3000–4000 inhabitants, though Reading was significantly the wealthier, ranking 12th in the country while Oxford ranked at 30th (Slack 2000, 351, table 11.1; A Dyer 2000). One hundred years later, both towns had seen a considerable population increase to somewhere between 5000 and 7500 inhabitants, but their relative prosperity had reversed, with Oxford benefiting from the resurgence of the university while Reading suffered from the loss of its cloth trade.

The population of Cirencester is estimated at around 2300–2400 in the early 16th century, rising to *c* 3000 by 1603 and *c* 4000 a century later (Rollison 2011, 38). Abingdon's population steadily grew during the 16th century, temporarily rising above 2000 before deducing slightly in the last few decades due to a notably high mortality rate (Jackson 2002, 67). From the beginning of the 17th century, the population of Abingdon exceeded 1900. Windsor's late medieval prosperity as a pilgrimage centre may have seen its population rise to some 2500 by the early 16th century (Lewis 2015), although it may not have grown much thereafter, while the recovery of Henley's river trade at the same time was accompanied by a rising population, with perhaps around 1000 inhabitants by 1524/5 and over 1400 by the 1640s living in over 250 houses (VCH 2011a, 22–3).

Much of the population increase in the larger Thames Valley towns came from inward migration. Dils (1993, 67) suggests that two in every three Reading residents came from elsewhere, while at Oxford, four-fifths of the town's apprentices in the early 16th century were new to the city, many travelling from Wales and north-western England (VCH 1979, 85–101). By the end of the century, long-distance migration had gradually declined, and a much higher proportion of the town's apprentices came from within 10 miles of the city (ibid.). However, repeated outbreaks of infectious disease took a heavy toll on urban populations, with epidemics of plague, typhus and influenza recorded in the region. In the poor suburban parish of St Giles at Reading, 122 people died, mostly from plague, between June and December 1608. In 1625, records indicate the spread of plague along the Thames from London to Windsor and Henley by late July and Abingdon by August (Dils 2012b, 62). The establishment of the royalist capital at Oxford during the Civil War drew the region's towns into the conflict; Oxford, Abingdon, Wallingford, Henley, Reading and Windsor all suffered the effects of requisitioning to support the opposing armies, the billeting of large numbers of troops in the region, and the damage

resulting from sieges and sporadic fighting. One of the most serious impacts was the role of troops in spreading diseases such as typhus. Death rates were three–four times higher than normal between 1643 and 1645 in the communities that were closest to military actions, and the worst affected were besieged towns like Reading and Abingdon (ibid.).

Oxford was given city status in 1542 when the new see was created (VCH 1979, 1). Reading had displaced Wallingford as the chief administrative town in Berkshire, though the quarterly assizes rotated between Reading, Abingdon, Newbury and (in the 17th century) Wallingford. All the Thames-side towns of Berkshire were chartered boroughs by the late 16th century, the charters of Wallingford (1155) and Windsor (1466) being medieval grants, and those of Reading (1542 and 1560) and Abingdon (1556) reconstituting town government after the dissolution of the abbeys and chantries. Elsewhere, Kingston had been granted a charter in 1200, Henley in 1568 and Maidenhead in 1581, in the latter case to re-constitute the dissolved medieval guild which had formerly dealt with the management and repair of the bridge (Over 1990). Elsewhere, the towns remained essentially under manorial and county jurisdictions. Some of the smaller medieval markets were struggling in this period, and a number of new grants were obtained in an attempt to revive them. The market at Fairford had lapsed by 1672 when it was renewed, and the market at Lechlade was in decline throughout the 17th and 18th century (Douthwaite and Devine 1998). At Bampton, the market house was ruinous in 1669, the market declining in 1673 and by 1766, it had been discontinued ‘for some years’ (VCH 1996). Markets and fairs had probably ceased altogether by the 17th century at Eynsham, although the right to hold them continued to be included in royal grants of the manor (VCH 1990). In the Middle Thames Valley, Wargrave and Cookham did not survive as towns into the post-medieval period, and an unsuccessful attempt to establish a new market at Marlow was made in the early 17th century (Green and Beckley 2014, 40). The market at Staines seems to have been in decline from the late medieval period onwards. By the time it was eventually discontinued in the mid-19th century, it had been a purely local market for some time, with grain being the staple commodity passing through (VCH 1962). Although the weekly market at Staines was revived in 1872, it was never of more than local importance. From the 16th century onwards, however, the appearance of shops in even the smallest market towns suggests that local people were finding alternative sources of supply, while the declining markets were increasingly focused on basic commodities such as grain and livestock.

Dissolution of the monasteries

In a wide-ranging review, Reed (2000a) has commented that the greatest overall impact on towns in the 16th and 17th centuries was probably that of the Reformation. The dissolution of the monasteries and the numerous late medieval chantries and religious fraternities in the second quarter of the 16th century had a considerable impact in the Thames Valley, where monastic control had been strong and where the upkeep of vital bridges was vested in a range of guilds and chantries. The dissolution not only removed institutions and buildings from the urban landscape, but also systems of governance and welfare provision that had long been the familiar routine of urban life, even if the authority of abbots had been increasingly resented and challenged. The old ecclesiastical landlords and rulers had to be replaced by new men, and in the wake of the dissolution, towns saw a massive transfer of land and assets to new owners. Typically, these were a mixture of favoured courtiers, royal servants who had won the gratitude of Henry VIII and Thomas Cromwell for services rendered, and rich local men who could smooth the process of dispossession and afford to buy the proceeds from the Crown. Where the local assets of former monasteries were used to underpin newly formed borough corporations, as at Abingdon and Reading, the long-term outcomes of the dissolution were broadly positive for the towns, with the release of wealth and power into more entrepreneurial hands, although the benefits were by no means equally shared out. Similarly, if the former monastic assets passed ultimately into the hands of a resident manorial lord inclined to take an active interest in local affairs, as at Cirencester, the town could benefit from their leadership and financial support. Perhaps the worst losses were to be for those places where the former monastic assets were dispersed among speculators and absentee landlords, as at Eynsham, with a subsequent lack of investment and dissipation of a sense of urban identity. However, such problems were not restricted to former monastic towns. The Crown's 'manor' of Cricklade was sold off in 1611 and changed hands frequently in the 18th century, as it was a useful asset for those interested in influencing Parliamentary elections there (VCH 2011b, 32).

At Cirencester, the richest Augustinian house in the country was dissolved in late 1539 and in 1540, the site was leased to a royal servant, Roger Basing. The lead was kept for the king and stripped off the buildings scheduled for demolition by July 1541, and the stone, timber and other materials were sold. The dismantling of the abbey followed a typical pattern. The abbey church and all the main conventual buildings were demolished, but the abbot's lodgings, barns and stables and baking, brewing and malting houses were retained. When Camden visited

in the 1570s, the abbey ruins were still visible but the site was uninhabited. It was purchased from Elizabeth I by her physician Richard Master who is thought to have built the mansion later called 'The Abbey', which stood on the site until 1780 when it was significantly remodelled (Fig. 1). The manor of Cirencester was granted to Lord Seymour of Sudeley, brother of Queen Jane Seymour and Edward, Duke of Somerset, and then passed by sale or inheritance through a succession of courtier families, until it was bought in 1695 by Sir Benjamin Bathurst. His son, the first Earl Bathurst, developed Cirencester Park, which remains the family seat to the present day (the Bathurst family were later responsible for building many of the town's public amenities, including the market house in 1819, the cattle market in 1867 and the first museum in 1849).

Abingdon Abbey was surrendered in February 1538. The demolition of the abbey buildings began almost immediately, with stone, lead, alabaster and marble being carted away for the king's use (Cox 1989, 133–4). The abbey's former checker, long gallery and mills were turned over to industrial use, while the gatehouse, the adjacent parish church, the hospital and the almoner's hall were retained (Fig. 2). The Crown sold off abbey properties within the town. Those who could afford to do so bought the properties they had formerly leased, while the Crown's steward, John Wellesborne (servant of Cromwell and brother of an abbey bailiff), and under-steward Thomas Denton, from a wealthy Berkshire land-owning family, bought up numerous houses and vacant plots. By 1554, Denton owned over 40 properties in the town, or about 10% of the total stock (Brod 2010, 6). Thomas Reade, a local gentleman, had inherited the leases of numerous abbey manors from his cousin Katherine Audlett, widow of the former abbey steward. In 1548, he was able to purchase the former abbey Barton from the Crown, and he subsequently built a mansion there, buying stone from the demolished tower of the abbey church in 1553 (Cox 1989, 140). The dissolution of the chantries in December 1547 dispossessed Abingdon's long-standing religious guilds, the Guild of Our Lady and the Fraternity of the Holy Cross. In the event, the charitable functions of the fraternity passed to a new foundation, Christ's Hospital. This was set up in 1553 through the efforts of Abingdon's most highly placed courtier, Sir John Mason, and the Berkshire Surveyor of the Court of Augmentations, Roger Amyce. In 1554, Amyce carried out a detailed survey of land in the town in preparation for the creation of the borough corporation in 1556. The overlap in personnel between the old fraternity, the new charity and the new borough council was considerable, and all the leading families of the town were involved (Brod 2010, 21). In the event, Christ's Hospital and the borough corporation ended up controlling over half the

properties in the town, some 250 in total, for which they paid the Crown £102 a year. The abbey itself, like the royal manor of Cirencester, was granted to Lord Seymour of Sudeley in 1547, but after his fall it was put into the hands of Sir John Mason. In 1553, it was sold on to William Blacknall, miller and entrepreneur, and eventually passed through his descendants to the Verney family. By the beginning of the 19th century, the remains of the monastic buildings had been dispersed to numerous different proprietors and parts of the site were in industrial use (VCH 1923).

Following the dissolution of Reading Abbey in the autumn of 1539, the Crown took back the royal manor and the abbey site, which was kept as a royal residence and occasionally visited by the Tudor monarchs. The burgesses were allowed to take over the Greyfriars' church for their new town hall, and in 1542 were granted a borough charter enabling them to take control of town government. Large grants of former abbey property were made to Thomas Vachell, MP for Reading, servant of Thomas Cromwell and helper of Dr London, the dissolution commissioner, and to William Grey, a favoured courtier who married into the local Blagrave family. Following the death of Henry VIII in 1547, the minority of his son, Edward VI, left the government of the kingdom in the hands of Edward Seymour, Duke of Somerset. In July 1548, Somerset acquired the manor of Reading and over the following year, he and Sir Richard Sackville, Chancellor of the Court of Augmentations, undertook the systematic dismantling of the abbey buildings, largely for the valuable lead from their roofs. Other materials removed and sold included building stone, paving and roof tiles, brass, iron and copper, glass, timber and even gravestones (Slade 2001, 26–7). In 1560, Elizabeth I granted the town a second and more generous charter, which gave the borough corporation over 300 urban properties, and passed over to them a few former abbey buildings, including the former guesthouse refectory and the school housed on its ground floor. The council created a new upper chamber here to serve as a new town hall. Charles I stayed at the royal residence, but further damage to the abbey site occurred during the Civil War (ibid., 33), and it was reported to be ruinous in a survey of 1650. Royal interest in Reading ceased with the Restoration, and the abbey site and remaining buildings were leased out (ibid., 36–7).

At Oxford, the possessions of Oseney Abbey, which had been the greatest single property owner in the town, passed almost intact to Henry VIII's foundation of Christ Church, which also acquired the site of Rewley Abbey by exchange in 1546 (Fig. 3). Much of the remainder passed to outsiders, notably the king's physician George Owen. The sites of the monastic colleges and of the former White Friars passed into college hands. Land speculation

seems to have played a considerable part in the break-up of Oxford's monastic and chantry property, with its price being inflated through multiple transactions. Tenements formerly belonging to St Thomas's chantry in St Mary's church, for example, were granted to two Londoners in 1549, sold to a St Alban's man the following day, and sold soon afterwards to James Dodwell, an Oxford mercer.

At Eynsham, the dissolution of the monastery saw the manor pass into the hands of the Stanley family, the earls of Derby, who occasionally lived in part of the abbey buildings until the death of Sir Edward Stanley in 1632 (VCH 1990). The Stanleys sold out in 1657 to Thomas Jordan, a Witney clothier, and thereafter the manor changed hands frequently until it was acquired by the Mason family in 1866 (Fig. 4). Thomas Jordan (d. 1716) built a house, perhaps intended as a manor house, on Eynsham heath. In 1696, the new building seems to have inspired a riot when 200 local men forced Jordan's wife Ursula to seek refuge there, threw rabbits taken from a nearby warren at her, and threatened to destroy both house and warren. Presumably the house or its associated enclosure was seen as a threat to the villagers' common rights. The warren, and therefore the house, seem to have been in Woodleys coppice, which soon acquired the alternative title Freeberry coppice. The house seems to have been demolished.

Towns and the economy in the late 16th and 17th century

If the early 16th century was dominated by religious change and its consequences, the late 16th–early 17th century was an age of expansion, as population increased, demand rose again for grain and other agricultural produce, and the volume of trade expanded substantially. This is reflected, for example, in the increasing number and size of barges on the Thames, the rising tide of complaints about the navigability of the Thames, leading ultimately to the improvements of the Oxford-Burcot Commission from 1623, and the continuing growth of the carrying-trade to London (see *River Thames* chapter). Agricultural incomes increased, and it has been estimated that the prosperity of small farmers in Oxfordshire, for example, rose by some two-thirds between 1580 and 1640 (Tiller 2010, 90). Rising prosperity was also reflected in the widespread rebuilding of houses in both town and country, which was underway in Oxfordshire from the 1550s into the late 17th century (Airs 2010, 92–3). Nevertheless, unemployment, pauperism and vagrancy were widespread, and this can be partly attributed to the long decline

of the textile industry, which had played such an important role in the medieval prosperity of the Thames Valley. There were severe slumps in English cloth exports in the 1550s and the 1620s, the latter particularly affecting Reading (Slack 2000, 355). Some towns seem to have persisted in cloth longer than others. Wool was still a considerable source of wealth in Cirencester in the early 17th century, and in 1608 weavers, card-makers, dyers and tuckers were still present in the town (Gerrard and Viner 1994). Weavers were listed at Lechlade in 1608, while wool staplers, combers, weavers and spinners were still present at Fairford in the 18th and 19th centuries (Douthwaite and Devine 1998). Gradually, however, textile manufacturing in Gloucestershire became concentrated in the Stroud valleys. At Bampton and Eynsham, reduced numbers of textile-workers recorded from the 17th century to the 19th appear to have been outworkers for the new specialised blanket makers of Witney (VCH 1990; 1996). Reading remained committed to the textile industry for longer, with some 30% of the workforce engaged in the textile trades in the 16th century and perhaps as many as 40% in the first half of the 17th century (Chalklin 2000, 54). In 1606, Reading exported 5753 broadcloths, 6% of the national total (Dils 1993, 73). Jackson (2002, 52) has suggested that the main cause for the decline in the Berkshire woollen industry in the 17th century was its failure to respond to changing fashions and markets, due to an expensive entrenched system of manufacturing, a lack of investment and an absence of entrepreneurial leadership. Faced with rising unemployment among textile-workers, the borough council tried to order the rich clothiers to find them work and forbade them to send work out of the town (Phillips 1990, 51).

The principal source of prosperity for English towns from the middle of the 16th century onwards was their role as markets and distribution centres for their rural hinterland (Slack 2000, 356), and many of the towns of the study region benefited from the expansion of inland trade, particularly those able to trade directly with London. A Dyer (2000, 535–6) notes that the rise of more commercialised and specialised farming can be seen in the south-east of England in the late medieval period and spread slowly across the country. By its nature, commercialised farming required access to sophisticated marketing structures; it generated growing surpluses, but also led to an increasing dependence on imports. These exchanges often took place over limited distances, for example where markets were established at a frontier between two different types of producer regions, but market towns also channelled goods into the trade networks leading to London. Henley's trade in grain to London had been recovering since the 1490s, and by the 1570s it was claimed that over 40% of London's grain came through the town (VCH 2011a, 83). Perhaps more significantly, the late 16th century also saw the rise

of malt production for export to London. Malt was lighter to carry than grain, meaning that larger loads could be transported, and the growing demand from London, coupled with good local supplies of barley, resulted in malting becoming a major part of the economy of many Thames Valley towns in the post-medieval period. In Henley, stables at the Bull Inn were said to have been converted into malting rooms in the 1570s, and by the 1630s there were at least 7 maltsters in the town (ibid., 84–5). The export of grain ready-ground into meal began in Henley in the late 17th century (ibid., 86).

Most of the crafts and industries of the time were based on the processing of raw materials from the agricultural hinterland (A Dyer 2000, 538). Apart from malting, these most commonly included tanning in areas where oak bark and cattle hides were readily available, milling, wax and tallow processing, and wood-working. The export of Chilterns wood to London remained a major part of the trade of towns like Henley and Marlow throughout the post-medieval period (VCH 2011, 86; Green and Beckley 2014, 40), but Chilterns wood was also processed closer to home, being turned into furniture, spoons, shovels and trenchers (Chalklin 2000, 59). In Abingdon, Henley and Reading there was a shift to the production of coarser textiles, with the processing of flax and hemp and the making of rope, sacking and sailcloth. Goods imported from outside the region included fine cloths such as satin and velvet, more commonplace wool and linen, imported edible luxuries such as sugar and spices, and haberdashery, and these were increasingly sold from mercers' or chandlers' shops. Artisan cobblers and other leather workers, tailors, woodworkers and ironmongers would also have been found in every town, and by the middle of the 17th century they were increasingly also selling from shops. In the late 17th century, even as small a town as Eynsham had shopkeepers, including William James, who died in 1698, a tallow chandler but evidently also a grocer, who sold sugar and tobacco (VCH 1990). Large numbers of people worked in services, including the production and supply of food and drink (butchers, fishmongers, bakers, brewers and increasing numbers of inn and alehouse keepers), the building trades, personal services (such as barbers), and increasingly the professions.

Virtually every town in the south-east had a lawyer, a surgeon and a schoolmaster by 1600 (Chalklin 2000, 54). Bargemasters are recorded at Eynsham in the mid-17th century, delivering fuel in large quantities (particularly furze from Eynsham heath) to Oxford bakers and brewers (VCH 1990). Bargemen and boat builders must have been ubiquitous in the region's towns, and were numerous at Kingston, for example, in the 17th century (Andrews 2003, 180). Bargemen, though not boat builders, were the single largest male occupational

group at Henley (see below). Nevertheless, although the same occupations tend to be found in all towns, the proportions of people employed in each would vary. At Maidenhead, innkeeping was the most populous trade mentioned in probate records at this time and Windsor also had a large number of inns in proportion to its population (eight were recorded in 1577) (Dils 2012a, 50–1). By contrast, at Cirencester in 1608 over 18% of men were engaged in the woollen trade (Gerrard and Viner 1994). The population of Lechlade in 1608 included 4 yeomen and 20 husbandmen (Douthwaite and Devine 1998), while Bampton became a notable centre for leather trades in the 17th century, with fellmongers, curriers, leather dressers, collarmakers and glovers frequently mentioned (VCH 1996). Oxford, of course, had a large and very specialised academic community, but the occupations of the townspeople followed the same patterns as elsewhere, with strong concentrations in food and drink trades, leather goods and building. Specialist cutlers increase at Oxford in the later 16th century, with 17 cutlers enrolling 37 apprentices between 1590 and 1609 (VCH 1979). From the middle of the 17th century occupation in the clothing, distributive and food and drink trades declines in favour of an increase in building, and new occupations such as market gardeners and nurserymen, tennis-court keepers, instrument makers, earthenware dealers and tobacco-pipe makers (ibid.). Oxford tradesmen issuing tokens in the late 17th century included two clock makers and ironmongers, a coffee-house keeper and a tobacconist.

The urban landscape

The disappearance of the religious houses of the region clearly had a significant impact in some towns. Although the sites of the religious precincts passed to new owners, or as in the case of Reading were retained by the Crown, there was no wholesale redevelopment. At Cirencester, Abingdon and Reading large parts of the abbey precincts remained open and ruinous for a very long time. At Oxford, the ruins of the Carmelite Friary are still to be seen on Loggan's map of 1675, and at Eynsham, Anthony Wood drew the ruined west end of the abbey church in 1657. Parts of the old sites and buildings were often given over to industrial uses, as at Cricklade, for example, where the Hospital of St John that had stood at the north gate of the town was sold by the Crown to a mercer of the town, and from 1640 until the 1860s or later the site was in use as a fellmonger's (VCH 2011b, 45).

Many towns in the region saw substantial growth in population during this period, but there is little sign of expansion in the built-up areas. This may reflect a lack of opportunity or incentive to build outwards, and complex multiple rights in common fields around towns, for example, continued to inhibit expansion well into the 19th century. The wealthy could afford to acquire or build large houses within the pre-existing urban area, and expansion of living and trading space by building 'up and down' is a characteristic feature of late medieval and early post-medieval towns, in which buildings might be several storeys high over cellars, with jetties providing additional space at first floor level and above. Poorer people might gravitate to the increasing numbers of courts and alleys of cottages that were constructed behind the main street frontage buildings, to rooms in subdivided houses, or to squatter settlements on the outskirts. Oxford seems to have filled up rapidly in the late 16th century, to the extent that the university authorities were becoming alarmed at the extent of new building as early as the 1580s (VCH 1979, 89). Cottage-building was being permitted by the city authorities on its waste, inside and outside the town walls (along Ship Street and Holywell Street, for example) and around the infilling castle moat. The council blamed this on 'the wonderful great number of poor people' who could not be housed anywhere else (ibid.). The university made several attempts to have cottages removed in the early 17th century, culminating in a survey of 1640, ordered by the Privy Council, which found that around 180 new houses had been built in the previous 20 years on formerly vacant ground. Not all of these, however, were the detested 'squabs', but some were expensive houses, such as the house built in Broad Street by the rector of Exeter College, which was worth £400. Some landlords were prosecuted in the university courts for the squalid condition of their property, including Thomas Broad, an apothecary, who had built 20 houses in St Thomas's parish, and a townswoman who had an 'alley of tenements' near the Star inn 'not fit for Christians to live in' (ibid.). Even towers on the city wall and the early 16th-century chapel of Our Lady at Smith Gate had been turned into domestic dwellings (ibid.). At Oxford, as elsewhere, many of the alleyways of courts were to be demolished in 19th-century slum clearance, but the alleyway next to the Chequers on the High Street still survives as an example of the many that formerly existed (ibid., 94). Even in a smaller town like Henley, there is evidence for the subdivision of houses in the 16th and 17th centuries, and the conversion of outbuildings, including brewhouses, barns and a gateway, into domestic accommodation. In the 1680s, there are mentions of houses in an alley and a court in Friday Street (VCH 2011a, 36).

For the better-off, however, rising standards of living led to extensive rebuilding of private property throughout the 16th and 17th centuries, as expectations of domestic comfort rose. The development of fireplaces and chimneys allowed the flooring-over of old open halls, and glass was increasingly used in place of shutters to close windows. Timber-framing persisted in many towns of the area throughout this period, and many towns have a few surviving examples of well-built houses dating from this time. Some have survived behind later updating in more fashionable styles, such as No. 46 High Street, Cricklade, a timber-framed house of *c* 1500 which was encased in coursed limestone in the early 17th century, with new windows, the insertion of a floor and chimney into the hall, and the building of a new north-west wing (VCH 2011b, 24).

Town-living became increasingly fashionable among the gentry and aristocracy during the 17th century, as West London began to be developed with aristocratic squares and terraced streets. Although the Thames Valley did not see any development of this type or scale, many towns gained grand town-houses in the new polite style of the 18th century, and in some places the townscape was altered by the creation of mansions and parks on a larger scale for the local gentry and aristocracy. An early example comes from Fairford, where work began on the building of Fairford Park, with elaborate formal gardens, just beyond the town to the north, in 1661 (Fig. 5; VCH 1981, 75).

Inns were often some of the largest buildings in towns of this period, and usually had multiple functions in addition to providing accommodation and stabling for travellers; typically, inns were used as meeting places for trade on market days and for a range of public and social functions. References to inns proliferate in town records of this period, reflecting the substantial increase in road travel. As early as 1589, Staines was required to provide horses for the government postal service, and references to the post and postmasters are common thereafter (VCH 1962, 15). In the later 16th century, there was a comprehensive redevelopment of the west side of the bridge approach road, providing space for inns, including the forerunners of the noted 18th-century Bush and Red Lion. At Cricklade, the town's inns provided 68 beds and stabling for 85 horses by 1686 (VCH 2011b, 52). At Fairford, the Bull, the George and the White Hart probably date from the 16th and 17th centuries, and by the late 17th century the economy of the town depended considerably on servicing road traffic (VCH 1981, 71, 73, 79). Lechlade had at least 10 innkeepers at the start of the 18th century (ibid., 110). Perhaps nothing sums up the way in which the region's towns had evolved as succinctly as the 1692 reference

to an inn called the Baptist's Head, which now occupied the bridge site of the former Hospital of St John.

There were relatively few other public buildings at this date. Most towns had some form of town or market hall, usually built in the traditional vernacular style with timber framing, open arcading on the ground floor to provide shelter on market day, and a meeting chamber and sometimes a school room on the first floor. By the end of the 17th century town halls were being rebuilt in stone and brick and adopting classical architectural features. The town halls of Wallingford (1671), Abingdon (1678–82) and Windsor (1687) were all built, or rebuilt, at this time. Elizabethan poor law legislation, culminating in the Poor Law Act of 1601, had made parishes responsible for collecting the poor rate and providing poor relief in the form of workhouses and 'outdoor relief' (essentially grants of money and necessities such as food and clothing). Much charitable provision nevertheless remained the preserve of private philanthropy. One of the most ambitious foundations in the region was the substantial Oracle workhouse built at Reading in the 1620s, paid for out of the legacy of John Kendrick, a wealthy clothier of the town. Elsewhere, almshouses built in the late medieval period continued to be maintained and new ones built. At Henley, for example, charitable bequests provided money for food, clothing and apprenticeships for the poor, and there were three separate almshouse foundations, providing accommodation for 22 old people (VCH 2011a, 130). A typical foundation is that of Humphrey Newbury, a maltster, who left £200 and houses on Duke Street, Hart Street and the Market Place as an endowment for an almshouse for 10 people, which was built in 1672. An adjacent separate range for 4 poor widows was added by the bequest of Ann Messenger, a merchant's widow, who died in 1670 (ibid., 131).

Few new Anglican churches were built in the period between the Reformation and the late 18th century, though several replacements, mainly in towns, favoured a classical style (examples include St Peter's, Wallingford (1760–9) and All Saints, Oxford (1720)). Although there were substantial groups of Protestant dissenters in the region, particularly in north Oxfordshire and the towns of Berkshire, these generally had little impact on the urban landscape before the 18th century. Early dissenting congregations had no purpose-built accommodation and met in private houses or other buildings to which they had access. When chapels were eventually built, they tended to be 'modest brick-built structures tucked away to avoid attention' (Reed 2000a, 304). Some of the earliest permanent sites are associated with the Quakers. The Quakers of Windsor bought a burial ground in 1671 near the Long Walk on King's Road. By 1720 it was linked to a meeting house at the junction of High Street and Sheet

Street and remained in use until the late 18th century. Two cottages were bought for the Henley Quaker meeting in 1672, and continued in use into the 19th century, and the Quakers in Cirencester converted a dwelling house in Thomas Street into a place for worship in 1673, with an associated burial ground. Oxford's Quaker congregation bought land for a meeting house and burial ground behind Nos. 63–4 St Giles, where the meeting house was complete by 1688 (VCH 1979, 415), and the Quakers in Staines had a meeting house behind the Market House.

Cirencester had a particularly strong early Baptist congregation, which met in the house of Joan Peltrace in Coxwell Street. This seems to have been converted into a permanent meeting house, which is referred to in a will of 1737 as a piece of land with a room called the Meeting House where 'for many years past' a Baptist congregation had worshipped. In 1856, the old buildings were considered to be dangerously ruinous and the present building was constructed on the same site. In Oxfordshire, Henley may have become a particular centre of dissent because it was relatively remote from the supervision of the authorities at Oxford, and it had one of the largest dissenting meetings in the county by 1669, with 300 members, which met every three weeks in the house of a London wine merchant in the town (VCH 2011a, 168). It is likely that these were Presbyterians. In 1672, Congregationalist meeting-house licences were obtained for a barn and two private houses in Henley, but the town authorities declined a request for the congregation to meet in the town hall (ibid.). A purpose-built meeting house replaced the barn in 1719 (ibid.). Abingdon's first Baptist Meeting House was built in 1700, although the building no longer survives, and by the same time the Reading Baptists held the freehold of a building and burial ground in Church Street, between London Street and Southampton Street. There was a Presbyterian meeting house by the market house in Staines in 1716, and the Oxford Presbyterians obtained their first purpose-built meeting house, now New Road Baptist Church, in 1721. The Oxford Baptists met in the house of one of their leaders, Richard Tidmarsh, a tanner who lived in Tidmarsh Lane, where it was said that Tidmarsh baptised people in the nearby Castle Mill stream (ibid., 417).

The 18th century

Population and the urban hierarchy

At a general level, it is likely that the population of most towns in the Thames Valley would have been relatively stable from around 1650 to around 1750, if it followed national trends. Oxford and Reading remained significantly larger than any other towns in the region. For Oxford, the 18th century was a period of stagnation in both university and city and by 1801 the combined population was just under 12,000 (VCH 1979). Reading's population in 1700 was probably around 7000, rising to 9700 by the time of the first census in 1801 (Corley 1993, 83). For Reading, however, the 18th century marked the beginning of its modern prosperity, when diversification into new industries (especially malting and brewing) replaced the old dependence on cloth, and improvements in road and water transport created new opportunities in distribution and services (Phillips 1990, 84). Nevertheless, both Oxford and Reading were now well down in the national hierarchy of towns. As early as 1700 they were already being overtaken in size by some of the newly industrialising towns of the Midlands and the north, such as Birmingham, Manchester, Leeds, Glasgow, Liverpool and Sunderland, and the new navy towns at Portsmouth and Chatham. London had grown faster than anywhere else, and in 1650, its population is estimated at 375,000 and had grown to 650,000 by 1750 (Chalklin 2000, 50). Towns within 15–20 miles, or a day's journey, of London had effectively been part of it since the early 17th century as far as goods, trade and prices were concerned (ibid., 56). The impact of the London market was bringing about some notable changes in its immediate hinterland, including expansion in the production of milk, eggs, butter, pork and bacon and a significant concentration of market gardening (Schofield 2004, 190–1). The sheer size of London inhibited the emergence of any other regional centres in the south-east (Chalklin 2000, 59).

Over the course of the 18th century, the populations of the smaller towns also increased. By 1801, the largest of them—Cirencester, Abingdon, Henley, Marlow and Windsor—seem to have had around 3000–4000 inhabitants, but Cricklade and Wallingford were falling markedly behind, with 1300 and 1700 inhabitants respectively. The populations of the smaller towns seem to have roughly doubled, with 900–1300 people probably living at Fairford, Lechlade, Bampton, Eynsham and Maidenhead (VCH 1990; 1996; Rollison 2011; WC 2009).

The urban economy

One of the most important factors in urban change in the 18th century was the effect of improvements in transport. Coaching expanded from the late 17th century and by the end of the century many of the towns of the Thames Valley had a stage coach service to London (Windsor 1658, Oxford 1661, Reading 1670, Henley 1672, Abingdon 1681, Cirencester 1696, and Wallingford 1696). The development of coaching and its close relationship with the improvement of roads from the 1750s is considered in the *Road, Rail and Aviation in the Thames Valley* chapter, which highlighted several important impacts within the region. There were direct effects on urban topography, reflected in the growth of coaching facilities such as inns and stabling, and, generally from the later 18th century, improvements to through-routes and bridges to cope with the increased volume of traffic (see below). Coaching and long-distance carrying services provided a stimulus to town economies, both directly through the provision of services, and (more difficult to quantify) indirectly as the speed and ease of communication increased. The Royal Mail was made available to the public from 1635; by the early 19th century, letters were carried up and down the Thames Valley from Bath to London overnight, and improving coach speeds meant that it was possible to travel to London and back in a day. The coach also provided a much wider group of middle-class customers with possibilities for social, recreational and cultural travel, and coaching services were typically used by the gentry, professionals, clergy, scholars, military men and increasing numbers of women (Townley 2009, 98). The growing popularity of Bath as a fashionable spa and resort in the 18th century did much to encourage coach travel on the roads across the region, leading between London and the west, and these were some of the first to be turnpiked (see *Road, Rail and Aviation* chapter). Coaches between Bath and London crowded the town of Cricklade, for example, and it is estimated that the town had as many as 22 inns and beer houses (WC 2009). In Lechlade, there were 11 innkeepers in 1755; the new Halfpenny Bridge was constructed in 1792 and improved communications revived the economy of the town. In 1794 the Oxford mail coach passed through twice daily, and the London to Cirencester service passed each way three times a week (Douthwaite and Devine 1998). By 1781, a coach leaving from the Bull on Bell Street, Henley, was offering a five-hour service to London. By the 1790s, eight long-distance services to London passed through Henley every day, and several more from Oxford (Townley 2009, 101), and in the heyday of coaching it was possible for a businessman to travel from Reading to the City, transact his business there, and return home all in the space of a day (Phillips 1990, 109). Fish sold at Billingsgate in the morning could be on sale in Reading by 2pm (ibid.). By this time, traffic on the Bath Road was bringing considerable prosperity to

Maidenhead and in the heyday of coaching some 90 services a day passed through the town (Over 1990). Marlow also benefited from the turnpiking of important roads in the 18th century and provided many road services, with stagecoaches and waggons to London. The Marlow 'flier' left twice a day for Piccadilly, a trip lasting three hours; for those unable to afford the stagecoach there was a twice weekly waggon service to the New Inn near the Old Bailey (Green and Beckley 2014). Slough developed during the 18th century as an important stage on the London road to the west. Daily coaches from London to Bath passed through Slough from the early 18th century, and Hounslow Heath and Maidenhead Thicket became a notorious haunt of highwaymen (Fraser 1937, 46–7). The mail coach service, inaugurated in 1784, passed through Slough on its 16-hour trip from London to Bristol (ibid.). In 1830, not long before the railways were to bring the coaching era to an end, mails and post-chaises passed to and from London every half hour daily from 4am to 6pm.

The scale at which coaching operated is striking. A survey of 1834, for example, revealed that 823 coaches passed through Maidenhead in two weeks, using 3000 horses (Over 1990); assuming the same 14-hour coaching day as at Slough, this would imply that coaches were passing through Maidenhead at a rate equivalent to one every 15 minutes. In addition, there would have been passenger waggon services, carriers' wagons taking goods to and from the Thames wharf, and the private horse and carriage traffic of the well to do. Large areas of the town were given over to coaching inns, including the Orkney Arms by the bridge, the Red Lion, the Bear, the Saracen's Head and the White Hart in the High Street, and one of the largest, the Sun, at the foot of Castle Hill, which had stabling for 40 horses (ibid.). Henley's inns included the White Hart and the Bear, with stabling for over 70 horses by the 1820s, and the *Bell*, with stabling for over 50 (Townley 2009, 102). The fashionable Red Lion stood near Henley Bridge and catered for private travellers as well as the stage coach trade. Celebrated visitors included Samuel Johnson, George III and his family, and possibly the Duke of Marlborough, who is said to have kept a furnished room there (ibid.). The coach trade provided a handsome income for the inn-keepers and provided employment for many others. In addition to the servants, kitchen staff and stable hands directly employed by the inns, their trade created demand for food and drink, presumably catered for by local farmers, bakers, butchers, brewers and market gardeners; the extensive stabling facilities must also have created a considerable demand for fodder for horses. Other occupations benefited as well, such as the coach-builders and ironmongers, blacksmiths, saddlers and harness-makers, wheelwrights, whip-maker, veterinary surgeons and livery stable keeper recorded at Maidenhead in 1830 (Over 1990).

The vast London market meant that river trade also continued to play a very important economic role in the life of Thames-side towns. By the 18th century the fair of St John the Baptist at Lechlade was specialising in cheese; by 1719 between 140 and 200 waggon loads were brought there for sale, and much more on horseback. Most of it was sold to London merchants, and by 1716 a wharf and warehouse at St John's Bridge were being used exclusively by the London Cheesemongers (Douthwaite and Devine 1998). By the 18th century, there were three main wharfs in the town, the Bell, Red Lion and Old wharfs, all of which were said to have been built in the mid-17th century. These formed a complex of wharfs and warehouses south of the town. The wharfage was considerably developed from 1813, when the Thames and Severn Canal Company bought Parkend Wharf and developed it with new warehouses and an agent's house (ibid., 27). In the early 18th century, Daniel Defoe observed that malt, meal and timber were shipped to London on great barges from Henley, Abingdon, Reading and Marlow, and in return coal, salt, grocery and tobacco were brought from London (ibid., 67). Furze from Eynsham Heath was transported by barge to Oxford and at Abingdon barges were used to transport the bells of the parish church of St Helen to Reading for recasting, and to bring in the new church organ from London (Cox 1999, 17). The construction of canals in the later 18th century considerably extended the reach of the inland waterborne trade along the Thames (see *The River Thames* chapter). As early as 1723, despite considerable local opposition at Reading, the Kennet Navigation had made the Kennet navigable as far as Newbury. The Oxford Canal, completed in 1790, linked the Thames with the industrial Midlands for the first time, and the Thames and Severn Canal, completed in 1789, created a continuous corridor for waterborne transport across the country from the Severn Estuary to London. The improved inland waterways network supplied Reading with coal and metal goods from the Midlands, pottery from Staffordshire, groceries from London and stone from Bath, while Reading exported flour (20,000 sacks in 1802), along with dairy produce, wool, malt and timber (Corley 1993, 85). The scale and significance of the canal network is illustrated by the fact that by 1835 some 50,000 tons of goods were moving in and out of Reading, of which only 100 tons went by road (ibid.).

Malting and brewing were the most widespread industries of the Thames Valley. Malting had been undertaken at a domestic scale for centuries, but during the 17th century there are the first signs of more substantial processing. The wills of Henley maltsters who died in the mid-17th century include substantial sums of money suggesting they were trading on a large scale; the malthouses of Henley, however, still seem to have been attached to the owners'

houses (Townley 2009, 69). By the 1720s, there are signs that the malting trade at Henley was becoming concentrated in the hands of a smaller number of men, with purpose-built malthouses replacing the domestic kilns (ibid., 117). In 1802, Mr Edward Thomas of Abingdon, who was a corndealer, seedsman and maltster, sold a business located on West St Helen Street that included a two-storeyed malthouse, three barley lofts and a new kiln, a large cistern to hold barley, a fuelhouse and a stable (Cox 1999, 145). By 1760, Berkshire had become the most important area for malting in England and Wales, and was producing 15,000 tons, or 5% of the national total; although towns like Abingdon, Wallingford and Henley were involved in the trade, it was Reading that sent the largest quantities to the great London breweries of Truman, Whitbread and Barclay Perkins (Corley 1993, 86). During the later 18th century, these breweries were doubling their output of beer to reach 800,000 barrels annually; they did not have the space to carry out their own malting and needed to buy in up to 2000 tons every year (ibid.). Reading maltsters made considerable profits from the trade, and this had the effect of building wealth in the town that was available for investment in new developments. Joseph Huntley, for example, was able to invest money his wife had inherited from her wealthy maltster father in setting up the biscuit-making enterprise that was to become Huntley and Palmers, one of Reading's most successful businesses (ibid.).

Malting, brewing and the keeping of inns and pubs were closely associated trades, and many entrepreneurs had multiple interests, like the late 18th-century brewer Robert Brakspear at Henley and George Wethered, a maltster from Penn, who established the Wethered Brewery in Marlow in 1758, where he also had a malting business. Many of the region's famous breweries originated at this time and were to continue production well into the second half of the 20th century. Wethereds continued to operate their Marlow brewery until after the Second World War; it was ultimately taken over by Whitbreads and closed in 1992 (Green and Beckley 2014, 50). Simonds brewery at Reading was founded in 1785 by William Blackall Simonds. His father, also William Simonds, had first moved to Reading in the 1760s, where he invested a legacy in setting up in malting. W B Simonds inherited the malting business and then decided to diversify into brewing. In 1790, the brewery moved to new premises by the Kennet, built for the purpose by Simonds' friend the celebrated architect Sir John Soane, who had been born the son of a bricklayer in Goring and educated at the grammar school at Reading (Corley 1993). Elsewhere, however, brewing continued on a rather less ambitious scale; at Abingdon, for example, one of the town's largest breweries was operating from the old abbey Long Gallery

and Checker and run by a succession of brewing families who lived in the former abbey kitchener's house overlooking the millstream (Cox 1999, 146).

Bricks and tiles had been made in the study area since the late medieval period, but the industry expanded as the fashion for building in brick spread down the social scale. Brick was manufactured at Nettlebed in the Chilterns and at Watlington, and had a long history at Reading, where there are mentions of brickmakers from as early as the 14th century (Ford 2012, 134–5). Bricks from Brockman's kiln at Tilehurst were used for the Oracle Workhouse (Fig. 6), and a kiln at Katesgrove existed at the time of the Civil War. By the late 18th and 19th century there were numerous kilns at Katesgrove, and the industry expanded enormously during the 19th century. Burnham and Marlow Brick Company was established in the 18th century; the works made yellow and multi-coloured stock bricks in clamps and red facers in brick kilns (Green and Beckley 2014, 51). Bricks had been made at Slough since at least the early 15th century, when they were supplied for the building of Eton College. The business was carried on and expanded by the Nash family, who came from Beaconsfield to settle at Upton Court in 1707. Thomas Nash started the Slough and Langley Brickfields around 1845 (Fraser 1937, 105). Iron foundries, operating on a larger scale than the traditional blacksmith, also appear around the late 18th century. One of the earliest at Reading was founded by Benjamin Williams in 1790. The Eagle Ironworks was founded in Jericho in Oxford by William Carter in 1812; the firm was taken over by William Lucy in the 1860s, and until the late 19th century catered for the local market, making cast-iron agricultural machinery, ornamental ironwork and lamp posts (VCH 1979, 42). Paper mills were established at several places during this period. Paper making began at Eynsham in 1682, when George Hagar, a London dyer, obtained a patent and set up paper mills to make white paper for printed books (VCH 1990). The mill passed to numerous different owners over the course of the 18th century but continued to be used for the manufacture of paper, including for bibles printed in Oxford. In 1804, the mill was bought by the brothers John and James Swann of Wolvercote paper mill, who introduced new machinery. The Swann brothers were friends of William Cobbett and supplied him with paper for the Political Register. They were supplying paper for the Clarendon Press at Oxford by 1805, and by 1837 they supplied the Press with a third of their total output from their three mills at Eynsham, Wolvercote and Sandford (ibid.).

Many towns had also diversified into more specialised manufactures, but often only on a relatively small scale. The great cloth trade of the medieval period had long gone, but textile production continued at a lower level and on a more specialised basis. At Abingdon, hemp-

dressing, sack-weaving and rope-making were carried on in small factories (Cox 1999, 17). In 1776, a property advertised for sale in West St Helen Street included 'convenient buildings well calculated for carrying on the sacking manufactory consisting of a double spinning-house, weaving- and hatchel-shops and a warehouse' (ibid., 145). Tanning was still taking place in its old medieval location at Abingdon, between Ock Street and the river Ock. In 1782, a tannery on the south side of the street had a yard containing a hundred pits conveniently near the Ock. The dwelling house was 'pleasantly situated' in the middle of the premises which included two acres of pasture, gardens, storehouses, a carthouse and stabling (ibid.). On the north side of Ock Street was a large malthouse with two granaries, and an extensive sacking manufactory with a weaving shop for 24 looms, on the floor above 3 dressing and spinning shops for 20 sets of spinners and large warehouses for hemp and sacking; the family used the parlour of their handsome brick house for their shop (ibid., 146).

At Reading, silk weaving had begun in the 17th century and continued into the 19th century, along with the manufacture of ribbons and satin (Phillips 1990, 84). Silk weaving was one of the new crafts introduced at the Oracle workhouse, originally founded to provide employment for the poor in the textile trade. Pins and sailcloth were also made there, as elsewhere in the town (ibid.). A Dutch entrepreneur called John Lofting (or Loftinck) established a new patent thimble machine in the 1690s, which mechanised the process of punching indentations into the thimble sides. He opened his first horse-powered thimble mill in Islington, but by 1697 he had moved to Marlow, where the water mill on the Thames could make twice as many thimbles and was conveniently close to an important supplier, the Temple Brass mills at Bisham, only a mile upriver. It is estimated that Lofting's mill produced over 2 million thimbles a year, most of them for export. Unfortunately, the business did not last long, and Lofting was declared bankrupt in 1700 with the mills subsequently being used for paper-making (Green and Beckley 2014, 42). In the later 18th century, the mills formed part of an integrated, countrywide, copper business linked to the Upper and Middle Bank Works at Swansea.

Retail shops had first appeared in the region's towns probably as early as the 16th century, but by the 18th century they were ubiquitous and were increasing their custom at the expense of the older markets and fairs. Some were the premises of artisan shopkeepers, like Roger Griffith, soap-boiler and tallow chandler, who put his business in Abingdon's Market Place up for sale in 1792. The property included furnaces, candle moulds, soap, candles and grocery goods (Cox 1999, 144). Other shops in the late 18th-century Market Place and High

Street included a grocer's and tea dealer's, Joseph Knapp's linen drapery and hatter's, Joseph Golding's cabinet and brazier business supplying bedsteads, bedding, chairs, matting, Bath stove grates and umbrellas, and Ballard's grocery business which was sold in 1800 with stock that included Howard's patent blacking balls, cedar pencils, sealing wax, brushes and leather shoes. Some shops were run by women: Mrs Evans's shop in 1803 contained 'a large and elegant assortment of mercery, drapery, hosiery and haberdashery goods' and was one of numerous shops in the town that 'furnished funerals', while Miss Blandy and Miss Burden ran a milliner's and haberdasher's (ibid.). Late 18th-century Henley had an even more diverse range of specialist shopkeepers, reflecting its increasingly fashionable character. By 1790, there were 18 grocers' shops in the town, mostly selling goods brought upriver from London. Shops of this type are likely to have been selling tea, coffee and cocoa as well as spices, dried fruit and sugar (Townley 2009, 117–8). There were brandy merchants at Henley from the 1770s, and confectioners soon after, along with booksellers and stationers, watchmakers, hairdressers, a wig maker, and retailers of specialist clothing such as a mantua maker, who probably specialised in silks (ibid.). Even a very small town like Fairford boasted a number of specialised traders in the 18th century, including a tobacconist in 1712, a clockmaker in 1754, a peruke maker in 1769, and a stationer and a hairdresser in the 1790s (VCH 1981, 79).

Banks first appear in the towns of the study region in the late 18th century and were almost invariably established by wealthy local entrepreneurs seeking new ways to use their capital. In 1777, Joseph, William and Benjamin Tomkins opened the first bank at Abingdon, and by the 1790s it had been joined by two others, Child and Prince, and Knapp and Co. (Cox 1999, 144). Reading's first bank, Marsh and Deane, was founded in 1788. Sir Charles Marsh had made his fortune in India, while John Deane had made his money as a maltster (Corley 1993, 90). W B Simonds was involved in the setting up of two banks, firstly as a partner in Stephens Blandy and Co. (absorbed into Lloyds Bank in the 20th century), and subsequently Simonds Bank, which later became part of Barclays (ibid., 91–2). A bank was founded at Henley in 1791 by the brewers Richard Hayward and Robert Brakspear, with their relative Mr Fisher (Townley 2009, 118).

Gentrification and social amenities

'Polite' society in the 18th and early 19th century was based on elaborate rounds of socialising, visiting, attendance at balls, parties, dinners and assemblies, participation in clubs and societies, and going to the theatre and concerts. There was a growing tendency from the late 17th century onwards for the aristocracy and gentry to buy houses in provincial towns, especially the county towns (Reed 2000a). Some were developed on a very substantial scale, such as Cirencester Park, the seat of the earls of Bathurst from the early 18th century (Fig. 7). Over the course of the 18th century, places for assemblies and 'polite' entertainment began to appear in provincial towns, catering for the local gentry and the growing ranks of urban professionals and men with new fortunes made in manufacturing, commerce and the colonies. During the 18th century improved roads and coach services made Henley and its much-admired scenic setting readily accessible from London, and this led to a transformation of its social tone (VCH 2011a, 132). The Prince of Wales had a house at Remenham from 1738 to 1751, and the town and its surrounding countryside attracted numerous rich incomers. The Prince of Wales was succeeded at Remenham by General Henry Seymour Conway, whose circle included Horace Walpole, David Hume and Thomas Gray (Townley 2009, 120). The Grote family at Badgemore House were London bankers of Dutch origin, while the Hodges family at Bolney Court, and the Freemans of Fawley Court, owned slave plantations in the West Indies (ibid.). King George III was a regular visitor to the Freemans at Fawley Court (VCH 2011a, 133). Charity balls and concerts were taking place from at least the 1750s, in the town hall or the better inns, and a Henley winter season (from October to January) was well established by the 1780s, with subscription assemblies, balls and professional and amateur dramatics performed by hired or travelling players, or by the local gentry themselves (ibid.). A gentlemen's club met regularly at the Red Lion by the 1790s. A similar range of entertainments was available at Reading, with regular assemblies and concerts (Phillips 1990, 93). Reading Theatre was built in Friar Street in 1788 by the actor-manager Henry Thornton, and for many years popular race meets were held on Bulmershe Heath. The Blagrave family were still prominent in local society, with houses at Southcote and at Calcot near Tilehurst. Among the newcomers, however, were numerous men who had made their money in India, including Francis Sykes at Basildon, George Vansittart at Bisham Abbey, William Watts at South Hill Park, Edward Golding at Maiden Erlegh, William Byam Martin at Earley Whiteknights and Major Charles Marsack at Caversham Park (ibid., 95–6). The house at Whiteknights was subsequently bought by the Marquis of Blandford, later 5th Duke of Marlborough, who spent a fortune on creating ornamental gardens that attracted many visitors (ibid.).

Even at a small and not very fashionable town like Abingdon there were race meets at Culham Heath throughout the 18th century and afterwards dinners and balls at the town's inns (Cox 1999, 99). By the middle of the 18th century plays were regularly put on in the market hall, and in 1755, Mr Linnett's company performed *Macbeth*, *Henry IV*, *The Merry Wives of Windsor*, Molière's *The Miser*, and *The Beggar's Opera*, 'all interspersed with the usual entertainments' (ibid.). Assemblies were regularly held in the council chamber. Oxford, perhaps surprisingly, had little reputation for social events such as banquets, balls or festivals, and in the 18th century the great social event was the Port Meadow races (VCH 2011a, 27). Oxford was, however, home to the first purpose-built public concert hall in Europe, the Holywell Music Room. Funded by public subscription, it opened in 1748 (Fig. 8).

The urban landscape

None of the towns in the study region expanded significantly during the 18th century, although many places saw the building of a few substantial individual houses, or the spread of cottages, outside the main urban area. Many towns saw extensive campaigns of rebuilding in their historic core, however, in which the old timber-framed houses were replaced or re-fronted in the fashionable classically-inspired styles of the time and provided with the newly introduced sash windows. In Cricklade, for example, there was a considerable amount of rebuilding activity in the early 18th century, with at least 36 houses surviving from the period, some possibly built after an extensive fire in 1723 (VCH 2011b, 26). By the 18th century the south end of the High Street near St Sampson's Church and the manor house was becoming a favoured location, where a number of fashionable houses were built (Fig. 9). Humbler houses were built at the north end of the High Street and at the east end of Calcutt Street, including some single-storey cottages with garrets (ibid., 27). Squatter settlements grew up on waste ground outside the old defences at the Forty, beside Purton Lane, where there were 12 cottages and houses, mostly of low quality, by *c* 1800.

At Fairford, the roadside suburb of Milton End began to develop west of the river crossing during the 18th century, and outside the town to the east a scatter of houses developed around a green on the London Road; this area, known as East End, became favoured by wealthier inhabitants who built substantial houses there during the late 18th and 19th centuries (Douthwaite and Devine 1998, 4). Lechlade was largely rebuilt in the very late 17th and 18th

centuries, when it enjoyed a period of modest prosperity generated by its increasing river and road trade (VCH 1981, 109). The new fashion for building in brick reached Henley certainly by the early 18th century and was presumably first introduced by the wealthy; the earliest surviving houses in the style are typically large, with five bays (VCH 2011a, 56). Early surviving examples include the Old Rectory on the waterfront, and Nos 53 and 55 New Street, all probably built by 1715 (ibid.). The earliest brick houses often feature elaborate brickwork and decorative detailing. A number of fine early 18th-century townhouses survive at Abingdon, built by the Tomkins family who were wealthy maltsters and built Abingdon's three grandest houses, Stratton House in Bath Street, The Clock House in Ock Street and Twickenham House in East St Helen Street. The Clock House dates from the 1720s; Stratton House was built in 1722, and Twickenham House in the 1750s. The Tomkins family were Baptists, and gave No. 35 Ock Street, a re-fronted timber-framed house of the mid-17th century, to the Baptist community as a house for their minister. No. 30 East St Helen St (now known as St Ethelwold's House) is another fine example of early 18th-century re-fronting of a complex and much older building, with a surviving back range of 1453–4.

There are numerous fine examples of 18th-century houses in Marlow, particularly in the High Street, St Peter Street and West Street. The buildings represent the status and importance of Marlow, both as a commercial centre and as a retreat for aristocrats from London. The most notable buildings are Marlow Place, built *c* 1720 for the 1st Earl of Portsmouth, and Court Garden, built *c* 1758 for Dr William Battie, a physician and proprietor of a large private asylum in London; he was also an architectural enthusiast and is believed to have designed the house himself (Fig. 10). Other prominent buildings of the period are Remnantz, Western House (the home of the poet Shelley), Cromwell House and Brampton House. At the same time, many older buildings on the High Street and West Street owned by merchants, traders and gentry, were refronted in the new Georgian style (Green and Beckley 2014). In the first quarter of the 18th century considerable building took place in Chertsey when it also became a fashionable retreat for the gentry from London (O'Connell 1977, 11). From the middle of the 18th century into the early 19th century brick houses became plainer and more austere, with less exuberant brickwork and an increasing use of stucco (VCH 2011a, 57). Houses of this period also often feature front doors recessed under a fanlight under a plain arch of rubbed brick, in place of the decorative surrounds of the earlier part of the century (ibid.). Surviving examples at Henley include Nos 3–5, 31, 39, 50 and 54 New Street, Nos 46 and 63 Bell Street and No. 33 Church Street. (ibid.). As in the 17th century, conversion and sub-

division of older buildings continued as a means of providing accommodation for the poor. Richard Swallow, market gardener of Henley, was letting out single rooms in a converted malthouse in 1786; a two-storeyed barn or stable in Greys Road had been converted into dwellings, and a number of older cottages and houses in Friday Street and at Nos 8–16 New Street had been converted from two tenements into five or six (VCH 2011a, 58–9). In Oxford, the building boom of the 17th century had subsided as demand decreased. The most notable surviving 18th-century houses were built along St Giles, the northern approach road to the city, while within the built-up area many 18th-century fronts are stucco facing on older timber-framed houses (VCH 1979, 99).

Improvement

From the later 17th century on, partly resulting from the increasing interest of the more affluent in urban society, there were campaigns for improvement in town amenities. Many towns, including Oxford, made attempts to improve water supply with the laying of pipes and the construction of cisterns and conduits (Reed 2000a, 311). The first attempts to provide a clean water supply to Oxford were made in the 17th century. Otho Nicholson, a wealth London lawyer, had paid for the building of the Carfax Conduit between 1615 and 1617. Water from springs was collected in a 2000-gallon tank at North Hinksey and ran through lead and elm pipes into the city. At Carfax, there were two cisterns, the upper for the university and the lower for the town (VCH 1979, 63). The conduit was removed by the Paving Commissioners as an obstruction in 1787 and replaced by a new water house on the north side of Carfax. A pump and waterwheel were installed at Folly Bridge in 1694, and water continued to be supplied throughout the 18th century, although the venture failed to attract enough consumers to make it financially viable (ibid.).

The second half of the 18th century was to be the great age of improvement, which set in motion processes that transformed the appearance and layout of many of the region's medieval towns. The scale of works to be undertaken was beyond the remit or capacity of parishes and boroughs, and Improvement Commissions, usually composed of leading men from the town and its neighbourhood, were appointed by private acts of Parliament to deal with a wide range of problems, typically paving, lighting, cleansing and policing the streets (Reed 2000b, 625). Over 400 acts were passed for provincial towns nationally (ibid.). The Oxford Improvement Act of 1771 was set up on the initiative of the university with a remit to supervise paving, cleansing, lighting and general improvement (VCH 1979, 47). It was a large body,

representing a wide range of interests, including university and corporation officials, one member elected by each parish and college and 250 named local residents, presumably individuals of local importance. The Commissioners had powers of compulsory purchase, making by-laws and levying tolls and local rates to finance their activities, and the Commission retained responsibility for the streets, paving, cleansing and lighting in Oxford until it was replaced by the Oxford Local Board of Health in 1864 (VCH 1979, 48). The Commission widened streets, demolished the old east and north gates, built a new covered market to remove the old obstructions of shambles and stalls from the central streets, rebuilt Magdalen Bridge, improved and built new roads leading out of the city to the east, extended and improved drainage in the city centre, though not in the outlying parts of the city, appointed street cleaners and upgraded the street lighting with lamps set 25 yards apart in the main streets (ibid, 47–61).

At Reading, the corporation applied for an act of Parliament in 1785 for authorisation to improve street paving, cleansing, lighting and policing, and to levy the necessary rates to cover the cost (Phillips 1990, 86). In contrast to Oxford, where the proposed commission had been widely welcomed, the proposals generated heated controversy, with opponents objecting to the cost and fearing the widespread destruction of houses for street widening. Even Reading's two MPs spoke on opposing sides when the bill came before Parliament. After the Act passed, the laying of the first new paving stone, outside the mayor's house, was marked by a day of civic celebrations, with a band, the ringing of church bells, a dinner at the Ship, and fireworks in the evening (ibid. 88). In keeping with this new spirit, the council decided to move out of the old council chamber on the upper floor of the abbey guesthouse, which it had occupied since the reign of Elizabeth I. The building was suffering from increasing structural weakness and the old pillars were a serious obstruction at assemblies and concerts to the dancers and audience (ibid.). The new town hall was a spacious hall built in the classical style, and its opening in August 1786 was marked by a concert and grand ball. As in many other towns, this was also the time when old bridges were replaced, and the rickety timber High Bridge on London Street was replaced in 1787 with a new stone bridge built by a London architect, at a cost of £3500. The paving of the central streets was completed by 1791, and by 1801, 174 oil lamps bracketed to the walls of houses were illuminating the main streets during the dark winter nights (ibid. 89).

The 19th century

Population and the urban hierarchy

The pace of change accelerated from the late 18th century. Reed (2000b) characterises this as 'a dramatic gearshift in many towns from the 1780s onwards, driven by rapid population growth and migration, and by technological innovation leading to mechanisation of transport and of manufacturing processes.' The population of England and Wales doubled from just under 9 million in 1801 to just under 18 million in 1851, and roughly doubled again to just under 33 million in 1901 (Dils 2012c, 116; Waller 1983, 7, table 2). Increasingly, people were abandoning the countryside in favour of the opportunities offered by towns or, towards the end of the period, migration to America or Britain's overseas colonies. In the early 18th century, roughly 20–25% of the population lived in towns; by 1801 this had risen to roughly 33%, by 1851 to 50% and by 1901 to just under 80% (Waller 1983, 1, table 2). The male agricultural workforce declined both relatively and absolutely over this period, with fewer than 12% of occupied males working in agriculture by the end of the 19th century, most of them under 20 or over 55 years of age (ibid., 190). Opportunities for rural industrial work also declined over this period, as trade unions sought to eliminate the outworking practices that they considered were acting to depress wages. Traditional cottage industries such as glove-making, lacemaking, furniture making and straw plaiting, all of which were significant rural occupations in parts of Oxfordshire and Buckinghamshire, were largely superseded by factory-based production by the end of the period (ibid. 193–4).

Rural depopulation occurred in numerous towns of the Thames Valley over the course of the 19th century. In Berkshire, a marked contrast developed between the rural west of the county, which saw stagnation or decline in population, and the east of the county, where the towns were growing very rapidly (see below). In Oxfordshire, population rose by only 10% between 1851 and 1901, and the population of the county fell between 1891 and 1901 (Nash 2010, 138). Population growth in Oxfordshire in the later 19th century was concentrated almost entirely in Oxford and its expanding suburbs, in Banbury and Chipping Norton in the north of the county, and in the extreme south-east, where Henley shared in the growing prosperity of east Berkshire (ibid.).

In broad terms, the town population figures for the study area reflect modest growth in the first half of the 19th century. By the second half of the period a marked divergence becomes clear, with growth concentrated in the larger urban centres of Oxford and Reading and in the

rapidly expanding towns of the Middle Thames, and stagnation or decline among the towns of the Upper Thames.

Trades, industries and the impact of the railways

Several Thames Valley towns grew rapidly in the 19th century, particularly those benefiting from technological developments that led to mechanisation of transport and manufacturing. The railways had a particularly significant impact in the region, bringing the towns of Surrey, east Berkshire and south-east Buckinghamshire within commuting distance of London.

The Great Western Railway line from London Paddington to Bristol was built between 1838 and 1841. Mainline towns like Maidenhead and Reading were the first to benefit. Maidenhead was originally the first terminus on the new main line and the first train from Paddington to Maidenhead ran on 31 May 1838, pulled by the Stephenson locomotive *North Star* which had, somewhat ironically, been brought by barge and unloaded at Maidenhead Bridge. The line opened to the public on 4 June. The first trains had to stop on the Buckinghamshire bank of the Thames at Maidenhead Riverside, but the completion of Brunel's railway bridge in 1839 brought the trains across the river to the new station of Maidenhead Boyn Hill. Almost immediately there was a massive influx of commuters (Over 1990). By 1851, the population of Maidenhead was nearly four times what it had been before the building of the railway. Slough was also on the main line, but Eton College had strenuously opposed the building of the railway and secured an injunction prohibiting the building of a station there (Fraser 1937, 51–2). Nevertheless, the trains invariably 'happened' to be held up by signals at Slough, and tickets for those wishing to take advantage of this were on sale at the Crown and the newly built North Star inns. By late 1839, the College had realised the advantages of the railway, having chartered a special train to take boys to see the coronation of Queen Victoria, and withdrew their opposition. Slough station was opened in 1840 and by 1841 the population had reached 2400. Queen Victoria made her first rail journey, from Slough to Paddington, on 13 June 1842, and afterwards used the railways constantly (ibid.).

However, the impact of the railway was negative as well as positive. Trains put the long-distance coach trade out of business almost overnight, and the Thames river trade was also affected. Those who lived by the coaching and river trade had been amongst the most vocal opponents of the building of railways, and in 1834 the Thames Commissioners had called the proposed Great Western Railway 'that most useless and mischievous project' (Townley 2009, 137). At Maidenhead, for example, it has been commented that 'even the footpads on

the Thicket faced redundancy' (Over 1990). Trains were not only faster, but they were also soon to become much cheaper. In 1796, for example, the coach fare from Abingdon to London was 14*s*, or 2¾d a mile, but in 1844 Parliament imposed a standard fare of 1d per mile for third class travel on the railways (Brown 1986, 113). Towns without a railway station immediately lost the business formerly created by long-distance coach travellers, although local coach services continued to run between towns that were not served by the trains, and between these towns and the nearest station. At Henley, for example, 26 long-distance coaches had passed through the town every day in 1830, but by 1852 there was only one coach a day to London, a twice-weekly service to High Wycombe, and an omnibus service to the GWR main line station at Twyford (Townley 2009, 138–9). Population growth in Henley slowed markedly between the opening of the railway and the eventual building of the branch line to Twyford (ibid.).

Eventually nearly all the towns in the study area had access to the railways through networks of branch lines, but these did not always bring the hoped-for revival of their fortunes. The railways were redrawing the marketing and trading map of the nation and the region, and the building of a branch line in itself would not now bring trade or visitors into a town that otherwise had little to offer. The building of branch lines had the most dramatic effects in the eastern part of our region, where they facilitated commuting to London. The branch line from Slough to Windsor was opened in 1849, and the population of Windsor doubled during the second half of the 19th century. A branch line to Marlow was opened in 1873, and this greatly enhanced its position as a riverside resort and a fashionable place from which to commute to the capital (Green and Beckley 2014). By the middle of the 19th century, Henley was in serious danger of turning into a backwater. Diversification was once again the answer, to use the railway to exploit the natural advantage of the town's attractive Thames-side setting, and the fashionable Regatta, established in 1839. A branch line to Henley from the main line station at Twyford was opened in 1857, and during the second half of the 19th century the Regatta attracted large crowds and became a regular fixture in the fashionable season (Fig. 11). The town also exploited the growing popularity of leisure boating on the Thames, and by the late 19th century it was once again a desirable place to live, with a rapidly expanding population (ibid., 141–7).

Despite the opposition of local landowners, the town of Reading had generally been very supportive of the Great Western Railway from the outset, and there was great public interest in the exhibition of detailed plans for the railway held at Reading Town Hall in 1834 (Phillips 1990, 113). The railway reached Reading from London in 1840, and the station

opened on 30 March. Thousands of people flocked into the town to see the new locomotives, which began running through the town from 6 am. In all, 17 trains passed through that day. Their speed was a source of astonishment; it took only an hour and five minutes to reach London, less than a quarter of the time taken by the old stage coaches (ibid., 114). In June 1841, the line was completed as far as Bristol creating a fast, cross-country link between London and the west. At Reading, as elsewhere, the railway immediately took the long-distance trade away from the coaching services and the Kennet and Avon canal, although local traffic continued (ibid., 115).

Reading's entrepreneurial community were quick to exploit the new opportunities offered by the trains. John Sutton, a local merchant, established Sutton's Seeds in 1807, and in 1837 he joined his botanist son Martin in new premises on the east of the Market Place, with a seed-trial garden planted over part of the former abbey precinct (Fig. 12). From there, they expanded their potential market exponentially by starting a mail order business, sending out catalogues via the newly established penny post, and despatching the resulting orders by rail. The firm's reputation for quality and service meant that it eventually became the largest business of its kind in the world (ibid., 116–18). Joseph Huntley had opened his biscuit shop in 1822, and initially profited from the coaching trade; his shop was opposite the *Crown*, one of Reading's chief coaching inns, and Huntley would send a boy over with a basket of biscuits to sell to passengers waiting for the coach there. Huntley's younger son, also Joseph, was in trade as an ironmonger next door to the *Crown*, and Huntley persuaded him to start making tin boxes for the biscuits, so that they would keep longer. The boxed biscuits were soon being exported by canal all over the south of England (ibid.). In 1841 George Palmer joined the firm. Palmer, in conjunction with William Exall, a Reading iron founder, developed new machinery that allowed much faster production, and in 1846 the firm took over the site of a former silk weaving factory in King's Road. By the end of the century Huntley and Palmer's was employing over 5000 people and had its own railway sidings from where its biscuits in their distinctive tins were exported all over the world (ibid., 118–21). Simonds brewery also benefited from exploiting new railway markets, obtaining contracts to supply station refreshment rooms on the South Eastern and London and South Western railways, and to supply the army at Aldershot and Gibraltar. In 1839 Simonds was producing 15,000 barrels a year and expanded to 115,000 barrels a year by 1885 (Brown 2012, 102). Huntley's associate William Exall was a partner in the iron founders Barrett, Exall and Andrewes. Known as the Reading Iron Works after 1864, the firm was based in Katesgrove and became renowned as a

specialist manufacturer of agricultural machinery, including steam engines and threshing machines, mowing and haymaking machines, ploughs and horse rakes (ibid., 121). Reading's good clay sources had been exploited for brick making for centuries, and the 19th century saw a significant expansion in the number of firms and the range of products. Kilns at Tilehurst, Coley and Katesgrove were manufacturing bricks, tiles, drain pipes, flower pots and terracotta on a large scale by the late 19th century (ibid., 122). At Slough, the Nash family, who had long been associated with the brick trade, formed the firm of H&J Nash Ltd in 1893. They manufactured some 14 million bricks annually. The Nash family were prominent in the public life of Slough and helped to fund St Mary's parish church (Fraser 1937, 105).

No other town in the region industrialised on the scale of Reading. The traditional industries linked to the processing of regional produce and the servicing of the rural hinterland nevertheless continued to play an important role. Cirencester's woollen textile trade had declined to a single mill making a worsted cloth by the early 19th century, and the principal manufacturing activity in the town was the making of edge tools for agricultural implements and machinery (Gerrard and Viner 1994, 130). By 1875 there were a number of small-scale smithies in the town operating alongside more substantial foundries, an iron works in Ashcroft Road, and the Cotswold Foundry (ibid.). Two breweries were operating in the town, along with Coles Mill, which processed wheat and animal feeds, and the Cotswold Bacon Factory at Chesterton (ibid.). Malting and brewing remained staple trades throughout the present study area, although Reading was by far the largest centre (Brown 2012, 102). Mapping of evidence for rural servicing trades in Berkshire, for example, shows that Abingdon, Wallingford, Reading, Maidenhead and Windsor continued to offer a wide range, comprising carpenters and joiners, blacksmiths and farriers, saddlers and harness makers, wheelwrights, tinsmiths, millwrights, leather trades, tanners and straw-hat makers (Creasy 2012, 104–5). The scale of these operations often grew substantially during the 19th century; mills and malthouses were larger and steam power was increasingly introduced from the 1830s (Brown 1986, 78–80). The urban steam-driven mills frequently put village millers out of business (ibid.). Some towns also profited from a degree of successful diversification away from a total dependence on their agricultural hinterland, and this was to be particularly important following the onset of the agricultural depression in the later 19th century. Henley and Marlow promoted themselves as riverside resorts, while Windsor and Oxford attracted increasing numbers of tourists and Oxford benefited from revival in the university from the middle of the 19th century. Paper making continued in the 19th century at the papermills at Eynsham and Wolvercote, and

Sandford Mill was adapted for paper making in 1826 (Trinder 2010, 118). Paper mills also operated at Hampton Gay, Rotherfield Peppard and Shiplake.

The substantial brickworks around Reading have been noted above, but smaller brick workings were to be found on the outskirts of most towns (ibid.). Technological improvements made cast iron both more durable and cheaper to produce, and by the 1850s foundries were common in market towns, generally supplying local needs for agricultural equipment, kitchen ranges, pillars, railings and pipes (Brown 1986, 87). Urban improvement also created demand for ironwork, and the foundries supplied mains gas pipes, lamp posts and manhole covers (ibid.). Following the onset of agricultural depression in the late 19th century, foundries had to diversify into new products and export markets in order to survive (ibid.). In addition to malting, brewing and tanning works, Abingdon was also the base for John Hyde's pioneering company for mass-produced cheap clothing, which was founded there in the 1840s. By 1851, Hyde may have been employing as many as 1400 people, many of them outworkers spread across the neighbouring parishes. In the 1860s, substantial numbers of tailoresses are recorded, probably working for Hyde, in Clifton Hampden, Culham, Dorchester, Eynsham, Warborough and Benson. He may also have been the employer of shirt makers as far away as Thame and Fritwell, dressmakers at Drayton St Leonard and needleworkers at Chiselhampton and the Baldons (Trinder 2010, 120).

Outworkers were also important in the local glove-making industry, with 33 glovers recorded at Eynsham in 1861, for example (ibid.), and in the same year there were 83 women sewing gloves in their own homes in Cricklade and nearby parishes (VCH 2011b, 45). There were numerous turners involved in manufacturing chair parts for the Chilterns furniture trade, including appreciable numbers in Rotherfield Greys, Goring and Caversham (ibid.). The Linoleum Manufacturing Company set up in Staines in 1864; by the last quarter of the 19th century the town's main employers were the linoleum factory, two breweries and the mustard mills of Finch, Rickman & Co (VCH 1962). Mineral water was produced in Staines from the 19th century, and around the turn of the century large laundries appeared (ibid.). At Slough, James Elliman, a draper, developed an effective embrocation, or ointment, for horses. He decided to market it and went into business around 1847 with his sons. The embrocation was very successful, and the Ellimans developed a Universal Embrocation for humans, advertised in 1864 as curing 'Rheumatism, Gout, Lumbago, Sprains, Bruises, Sore Throats, Toothache, Chaps, Chilblains, Weak Limbs, etc., applied outwardly. The same as supplied to the Crimean Army, General Garibaldi, etc.' (Fraser 1937, 106–7). By this time, Elliman's horse

embrocation was being marketed widely through a network of actively recruited town and country agents, and had reached as far as Queensland, Australia. In later life, James Elliman attributed his success largely to a combination of the excellence of the embrocation, combined with a policy of devoting half of his profits to advertising (ibid.). The firm continued in business into the second half of the 20th century, being taken over by Horlicks in 1961 (ibid.). During the last quarter of the 19th century, rising working- and middle-class incomes increased demand for ready prepared and packaged food, and many manufacturing enterprises were set up to cater for the new markets in preserved fruit, jam, canned vegetables, ketchups, pickles and sauces. James Cocks began manufacturing his famous Reading Sauce at the end of the 18th century and his son Charles moved the prospering business to a new factory on the King's Road in the 1830s. Ultimately, the firm was to lose out to the very similar Worcester Sauce manufactured by Lea and Perrins. Cooper's Oxford marmalade business began in 1874, moving to new factory premises near to Oxford station in 1903 (Fig. 13).

Trade listings from 19th-century Marlow provide an interesting snapshot of change and continuity in a small town at the fashionable end of the Thames Valley (Green and Beckley 2014, 99). A substantial number of farmers (varying from 14 to 25) appear in the listings from 1853 onwards, suggesting that the town still retained a partly agricultural character. Some of the old trades are still represented, with significant numbers of shoe and boot makers, tailors, butchers, builders and plumbers. If the returns are representative, however, they do show a marked decline in the type of occupations associated with industrial outworking. Between 1830 and 1864, milliners, lace makers, straw-hat makers and turners are recorded, but these either disappear altogether or are reduced to only one or two individuals in the later 19th century. Conversely, the records show a considerable strength in middle class occupations: alongside a variety of shopkeepers, mostly described as grocers and drapers, there are many dealers, several auctioneers, and insurance agents. Two and three wharfingers are recorded in 1830 and 1844, but only one in 1864 and thereafter the occupation disappears completely from the listings; by this time, however, a new category of Marine Store has appeared, perhaps reflecting the new emphasis on servicing the leisure boating trade. By 1883, there were also two photographers in the town.

Improvement

The work of the late 18th- and early 19th-century improvement commissioners had some beneficial effects, but problems were to multiply as urban populations began to expand at an

unprecedented rate. The effects of this were probably not uniform across the Thames Valley. Towns like Wallingford and Cricklade had been sizeable and populous in the 12th and 13th centuries but were not to regain their peak medieval population levels until well in to the 19th century. Even today there is much open space in both towns. At the other end of the scale, however, Reading and Oxford were becoming seriously overcrowded, as neither had expanded beyond its medieval boundaries. Reading's medieval town plan was essentially a creation of the late 12th century, but its growth into an important regional centre took place in the late medieval period, and its population probably expanded relatively steadily throughout. Crowding of houses in the central streets was already evident by the 16th century. By the middle of the 19th century the town was accommodating five times as many people, and a large proportion of the population were living in congested courts and narrow backstreets near to open cesspools, foul privies and stinking pigsties and slaughterhouses. Most people shared communal taps with water available for only a few hours a day, or used wells contaminated by adjacent cesspools, or fetched water from the river (Phillips 1990, 129). Outbreaks of cholera, typhoid, smallpox and scarlet fever were common and the death rate in Reading was far higher than other parts of Berkshire (ibid.).

Oxford had been a much more substantial place during the great phase of medieval population growth and may have had as many inhabitants in the late 13th century as it had in the late 17th. In between times, however, the growing university had absorbed much of the spare land in the city centre, and there was already pressure on space by the early 17th century. Three- and four-storey houses became common throughout the city, vacant plots were built up along the street frontages, large properties were subdivided, and new housing built in the yards behind, gardens were built over and the waste around the city walls and the castle was colonised (VCH 1979, 9). Similar infilling was occurring in the suburbs of St Thomas, St Giles and St Clement and along the edges of the town in Holywell (ibid). The pace of building slowed markedly in the 18th century although there was much stucco re-fronting of older buildings. By the early 19th century, as the city population rose rapidly, problems were again becoming evident. An enquiry in 1848 revealed a marked contrast between the comfortable university-dominated city centre, and the suburbs where working class housing was concentrated in areas that were often low-lying, ill-drained and subject to flooding (ibid., 31). Here, the report highlighted squalid old courts and alleys in the suburbs of St Thomas, St Ebbe's and the Red Lion Square area between Gloucester Green and Magdalen Street. Even the new working-class housing had been built without basic drainage (see below, *Suburbs*); the inhabitants were

dependent on open ditches and watercourses and foul open sewers (ibid., 51). Outbreaks of cholera in 1832, 1848/9 and 1854 were, predictably, most severe in these areas.

Clearing the slums and letting in the light, the fresh air and the police was widely regarded as desirable, but the lack of any consistent provision for rehousing the evicted poor meant that often the problem simply shifted from one street to another. Occasionally, useful action might result from local initiatives. At Cirencester, for example, private developers, philanthropists and councillors instigated a review of housing and public sanitation in the early 19th century, and from 1826, after the sale of Watermoor Common, new housing was being constructed to rehouse families moved from the market place and houses crowded around the south porch of the parish church (Gerrard and Viner 1994). At Windsor, Prince Albert sponsored the building of 28 red brick cottages for the poor around a green in the town centre in 1855, which became known as 'Prince Consort Model Cottages' (Bond 1984, 93).

In general, however, attempts at improvement in early 19th-century towns were frustrated by the inability of reformers to overcome resistance from vested interests and rate-payer and landlord opposition. The Oxford Paving Commissioners, for example, could order house owners to remove nuisances or provide a drain connection to the main sewer, but they lacked sanctions if the house owner refused, and they had only limited sources of revenue to finance new works (VCH 1979, 53). The Artisans' and Labourers' Dwellings Act of 1875 finally empowered local authorities to buy up, clear and redevelop slum areas and rehouse the inhabitants, with government loan facilities available to provide the necessary funding. At the same time, the Public Health Act of the same year enabled local authorities to pass bye-laws to regulate the standard of new houses, each of which was to be self-contained and to have its own sanitation and water. The result was the construction of what have come to be known as 'bye-law' houses in huge numbers during the last quarter of the 19th century, arranged in terraces along grids of open and easily cleaned streets. In the late 19th and early 20th century the development of omnibuses and trams powered by horse, steam and finally electricity, and the mass manufacturing of bicycles, brought commuting within the reach of a far larger group of lower middle and skilled working-class families.

The improvement of water supplies, sewage and rubbish disposal and drainage, which were so critical to public health, proceeded in a piecemeal fashion in the late 18th and early 19th centuries. At Reading, a waterworks had been started in 1694 with the installation of a pumping station to raise water from the Kennet near to St Giles Mill, but its power was inadequate, and it was soon abandoned. A century later a more powerful system was installed

in Broad Street, which could pipe water into the houses of people willing to pay for it. As Phillips (1990, 128) notes, however, given that the water was drawn from the Kennet downstream of numerous tanyards, brick kilns, iron works and gutter outlets, 'there was no great rush of customers, many people preferring their old-fashioned well-water'. The company's reputation was also undermined by a high incidence of burst pipes, flooded streets, and interruptions to the supply caused by fish and eels getting into the pipes (ibid.). In 1818, more powerful pumping machinery was installed, together with a high tank-tower built in Mill Lane and a second reservoir at Spring Gardens on Whitley Hill. This made the piped water available over much more of the town (ibid.). Nevertheless, many of the poor inhabitants were still relying on communal taps.

In 1826, Reading Corporation obtained an Act of Parliament granting them enhanced powers to deal with paving, lighting, cleansing and policing, and under the provisions of this act a regular weekly rubbish collection was introduced, for household rubbish and manure and dirt in the streets (ibid., 129). The Public Health Act of 1848 enabled the setting up of Local Boards of Health to deal with problems in individual towns. Although this legislation was not universally effective and was ultimately to be reinforced in 1875 (see above), in Reading a report to the newly created Board in 1850 contained comprehensive recommendations for widespread improvements. There was to be a constant supply of pure water to every house, a complete and efficient system of underground drainage and sewage disposal was to be created, pigsties, slaughterhouses and other nuisances were to be removed, the streets were to be provided with hard and durable surfaces kept clean with water from hydrants, public baths and washhouses were to be provided for the poor, and interment in the new cemetery was to be made compulsory (ibid., 130). Over the next ten years, there was an effective campaign of improvement in the town. Slums were demolished, and cesspools filled in. Town-centre slaughterhouses were closed, a new abattoir built near the new Cattle Market and the old, over-filled parish burial grounds were closed. The Council bought the Reading Waterworks Company and new waterworks were built at Southcote Mill, two miles upstream, where the water was filtered before being pumped to a new reservoir on the north side of Bath Road. This was replaced in 1870 by new waterworks at Fobney lock (ibid.).

The first improvements to Oxford's sewerage and drainage were undertaken by the Paving Commissioners. In 1778 a large covered drain, 9ft below street level, was constructed between Carfax and Magdalen Bridge, and others were added over the following years (VCH 1979, 61). Nevertheless, although underground sewers had been installed in most streets by

1851, they discharged directly into the rivers, several of them above the city waterworks (ibid.). Attempts to set up an effective Local Board of Health and empower systematic improvement were repeatedly frustrated by local vested interests until 1864, when a new Board took over the responsibilities of the Commissioners (ibid., 54). In 1867, the Thames Conservancy Board finally prohibited the discharge of sewage into the river, and by 1877 a pumping station and irrigation farm had been constructed at Littlemore. Existing waterworks at Folly Bridge were updated on several occasions in the early 19th century, but, as at Reading, the water remained unfiltered and was drawn from the river downstream of five sewage outfalls and the gasworks; as late as 1851 most inhabitants of Oxford preferred to rely on wells and only 340 of the 4585 houses in the city took the city water supply (ibid., 64). The major improvements came between 1854 and 1884, with the opening of a reservoir and pumping station at a gravel pit in South Hinksey, a high-level storage reservoir at Headington, and the installation of improved filtration.

The use of gas for street lighting was pioneered in the first decade of the 19th century, and the Reading Gas Light Company was set up in 1818 with its works in Bridge Street near the coal wharves (Phillips 1990, 128). Gas lamps were installed to replace the oil lamps in the central streets in 1819 and lit for the first time in November. In 1832, the rival Reading Union Gas Company was set up in Gas Lane, and the two continued in competition until they merged as the Reading Gas Company in 1862. The Oxford Gas Light and Coke Company was set up in 1818, and the gas works were built in St Ebbe's on the north bank of the Thames. Gas street lighting was introduced in 1819 and a gas lamp was in use in the town hall in 1823. The works were expanded in 1869, and in 1882 it was allowed to build further works and gasholders on the south bank of the river. By this time, it was supplying 3690 consumers (VCH 1979, 65). Acts of Parliament in the 1880s permitted the setting up of electricity supply systems by individuals, societies or local authorities, and in 1890 the Oxford Electric Company Ltd was formed, with a generating station at Oseney, a central switch station at No. 45 Broad St., and two small substations at King Street and Carfax. The works opened in 1892, and in their first year the company installed around 7000 35-watt lamps. By 1895, almost all the colleges and some university buildings were using electricity, and the company's operations were rapidly expanding (ibid., 66).

The church, hospitals and the poor

The rapid growth of urban populations from the late 18th century onwards presented a significant challenge for the Church of England. Many urban churches were now hopelessly inadequate for the burgeoning populations of their parishes, and a Church Building Act was passed by Parliament in 1818, with a grant of £1 million available for funding. The building of new Anglican churches and non-Conformist chapels accompanied the expansion of suburbs throughout the century. After 1791, Roman Catholic places of worship could be registered, although they were not allowed to have towers or bells and had to be set back from the road (Hodges 2010, 84), but the real impetus for the building of new Catholic churches came with the passing of the Roman Catholic Relief Act in 1829. Many old Anglican parish churches were by now in a poor state of repair. Some were demolished and replaced, while others underwent major campaigns of 'restoration' to recreate the appearance they might have had during the currency of the Decorated style of medieval Gothic architecture, between 1260 and 1360. The urban graveyards of the old medieval churches were also full and represented a significant health hazard. Every churchyard in Oxford was reported to be full by 1843, and that at St Ebbe's was said to be offensive to passers-by. At St Aldate's, matters had become so bad that the ground had to be tested with an iron rod in order to find space to dig a new grave (VCH 1979, 77). New parish burial grounds were consecrated in Oseney, Holywell and Jericho but these proved inadequate, and after much dispute the Corporation bought land for three new cemeteries at Rose Hill, Cutteslowe and Botley, which were dedicated by 1892 (ibid.). At Reading, a new cemetery had been opened in 1847 at the junction of the London and Wokingham Roads, but had been little used, partly because of sentimental attachment to the old burial grounds (Phillips 1990, 130). One of the recommendations of the new Board of Health in 1850 was that use of the new cemetery should be made compulsory.

The first hospitals were built in the 1720s and 30s in London with provincial infirmaries appearing from the 1730s, often financed by public subscription. The Radcliffe Infirmary in Oxford was founded with money from the legacy of Dr John Radcliffe and built on a 5-acre site north of the city centre donated by Thomas Rowney. The infirmary opened in 1770 and was supported largely by public subscriptions (VCH 1979, 72). Two asylums for the mentally ill were opened in the early 19th century, the Warneford Hospital in 1826 and the 'county asylum for pauper lunatics' at Littlemore in 1846. At Reading, a group of doctors formed the Reading Dispensary in Chain Street in 1802, to provide advice and medicine free of charge to poor patients (Phillips 1990, 127). In 1814, the dispensary began to provide free smallpox

vaccination for the poor. The Royal Berkshire Hospital was founded at Reading in 1839 on land donated by Viscount Sidmouth of Earleigh Court, with the building paid for by public subscription. The hospital had 80 beds but was soon struggling to cope with the demand. One of the unforeseen consequences was that people were using the new railway to travel to the hospital from distant parts of the country (ibid., 127).

The system of poor relief set up under Elizabeth I persisted into the early 19th century. By this time, it was widely perceived as expensive, inconsistent and too generous, especially to the rising numbers of able-bodied unemployed. At Reading, for example, the three urban parishes of St Mary's, St Laurence's and St Giles' each maintained a poorhouse and administered outdoor relief. A national Commission of Enquiry into the working of the Poor Law was set up in 1832. It was very critical of the provisions at Reading, where the three poor-houses were found to be clean and well-kept, with generous provisions of food and drink for the inhabitants, who were strong and healthy but not provided with any kind of employment. The Governor of St Laurence's poor-house commented that his charges found life there so agreeable that 'in general they never leave us' (Phillips 1990, 106). The Poor Law Amendment Act of 1834 was based on strict Utilitarian principles designed to make even the most inadequate level of self-sufficiency preferable to the harsh and punitive conditions of the new workhouses. Locally, parishes were to be grouped into new Poor Law Unions with a central workhouse; these were to be overseen by a local Union Board of Guardians, answerable to the Poor Law Commission in London and its inspectors (Gilliam and Tiller 2010, 144). Unions were generally based around a pre-existing centre of population (Durrant 2010, 84). The Berkshire Unions were based at Abingdon, Maidenhead (for Cookham), Reading, Wallingford and Windsor, and in Oxfordshire at Oxford and Henley. Workhouses were usually built on the outskirts of the focal towns of the Unions. At Reading, St Laurence's poorhouse, at the west end of Friar Street, served as the Union workhouse until 1867, when a new workhouse was constructed on the west edge of the town (ibid.). New workhouses generally conformed to a standard design with wings radiating from a central hub, allowing supervision of the inmates and segregation into young and old, male and female (Gilliam and Tiller 2010). By the late 19th century, most of their inhabitants were the young, the old and the sick, and workhouses tended to develop better medical provision and arrange for pauper children to attend school (ibid.). As attitudes towards unemployment slowly changed in the early 20th century new uses were found for workhouses, which were often re-used as hospitals or homes. Henley

workhouse, for example, became Townlands Hospital, and Reading Workhouse was the nucleus of the later Battle Hospital (ibid.).

Suburbs

Urban expansion began in the 19th century. Suburban development was usually local and speculative, occurring opportunistically when former agricultural land on town outskirts was consolidated by enclosure and farms or estates came onto the market. At Reading, the sale of land belonging to the Crown and the Corporation in the early 1830s provided an opportunity for suburban development on the east side of the town. Large detached and semi-detached middle-class stone houses in classical style were built in the 1830s and 1840s for the professional middle classes on King's Road, Eldon Road, and at Eldon Square, where the houses were laid out around three sides of a park (RBC 2005). To the west of the town centre, the old medieval Friar Street was extended westwards, and new middle-class housing was laid out along the Oxford Road, in Russell Street, Prospect Street, Baker Street, Sydney Terrace and Prospect Terrace, with the new Holy Trinity Church constructed in 1826 (Phillips 1990, 125). The development of terraces of working-class housing was underway by the mid-19th century. To the west and east of Eldon Road streets of terraced houses were laid out, largely consisting of well-built two-storey brick houses arranged in short terraces of differing design, reflecting the piecemeal nature of their development (RBC 2005). Streets of brick terraced housing were laid out to the west of the town, spreading out towards the railway lines, while more exclusive detached and semi-detached houses were built further south along Bath Road and Southcote Road (Phillips 1990, 125). Many of the new terraced houses were needed to accommodate the fast-growing workforce of Huntley and Palmer's, and the firm itself was responsible for developing workers' housing at Newtown and Norcot. The construction of new working-class housing, at Reading as elsewhere, often accompanied the removal of growing businesses out of the town centre to more spacious sites with better access to canals and coal wharves, and subsequently to the railways. At Reading, for example, Huntley and Palmer's moved from London Street to new premises on the newly built King's Road in 1846, near to the Kennet, the canal and the Great Western Railway. Nearby was the Cannon Brewery and the Gas Works (ibid., 119). Sutton's Seeds expanded outwards from their original site fronting onto the Market Place, until by the end of the century their premises covered nearly six acres and extended into King's Road, Abbey Square and Forbury (ibid., 118).

Speculative development of working-class housing at Oxford began in the early 19th century in the parishes of St Clement's east of Magdalen Bridge, St Ebbe's and St Thomas's on the west and south-west of the city centre, and in St Giles and St Mary Magdalen to the north (VCH 1979, 30). The University Press moved from its old city centre site to Walton Street in 1830 and this acted as a stimulus for the rapid development of the Jericho area. The new estates were laid out by speculative developers and the houses were built in small groups on individual lots, with the money often coming from the investment of savings and mortgage loans by 'small capitalists'; such people often built with the intention of living in one of the houses and letting the others (ibid., 31). The houses were mostly solidly-built two- and three-storey brick cottages, but these areas are low-lying and prone to flooding, and there were soon problems with drainage. Beaumont Street was laid out in 1820 as terraces of three storey ashlar-fronted houses for financiers, builders and prominent tradesmen; otherwise, little land considered suitable for middle-class housing was available at this time. Two of Oxford's most distinctive suburban areas were later 19th-century developments. North Oxford, an area containing many large, gabled Gothic villas and some distinctive cottage terraces, was developed by St John's College from 1860 onwards; St John's controlled the character of building in the area by insisting that all house designs had to be approved by college-appointed architects (ibid., 33). Despite its reputation as housing for dons and their families, most of the houses were taken by tradesmen (ibid., 34). To the east of the city centre, expansion beyond St Clement's and along the Cowley and Iffley Roads was facilitated by the enclosure of Cowley parish in 1853, and the pattern of enclosure became the basis for the subsequent layout of streets (ibid., 35). Much of central east Oxford was laid out by the National Freehold Land Society, and the Fairacres estate south of the Iffley Road was bought from Magdalen College by the Oxford Industrial and Provident Building Society in 1888. Much of the development of east Oxford was piecemeal, undertaken as blocks of land became available. Characteristically the housing consists of terraces of two-storey cottages of red or yellow brick, built on narrow plots. The Fairacres estate was developed as 'superior workingmen's houses', and Magdalen College, like St John's in North Oxford, insisted on approving the building plans. Development south of the city centre was limited until the Oxford Building and Investment Company laid out the Grandpont estate in 1879, much of it on reclaimed marshy ground (ibid., 36). Development of land west of the city followed the establishment of Oxford's two railway stations at the east end of the Botley Road; railway workers' housing was created at Oseney in the 1850s, and

piecemeal development continued in the area throughout the second half of the 19th century (ibid.).

In the eastern part of the Thames Valley, the building of the railways facilitated commuting to London, at first from the main line towns like Maidenhead, and quickly thereafter from towns with good branch-line connections. This provided the impetus for substantial expansion of towns like Maidenhead, where local builders constructed new villas within easy distance of the new railway station, and in the early 1860s local developers banded together to form the Maidenhead Improvement Company. Social exclusiveness remained a key consideration, however. In 1845, the Crown bought up the large Keppel estate in Windsor, which had recently come onto the market, to retain control of any housing development to be permitted there (Bond 1984, 90). The town was to remain segregated, with the artisan housing located in the low-lying and floodable area known as the Goosefields to the west, tradesmen's houses in the town centre, and the wealthy permitted access to Crown leases on the Keppel estate (ibid.).

TOWNS, INDUSTRY AND THE RETAIL REVOLUTION IN THE 20TH CENTURY

by Trevor Rowley

Introduction

The urban geography of the Thames Valley changed dramatically through the 20th century. Despite the Metropolitan Green Belt, London continued its outward spread westwards to engulf previously separate towns and villages such as Walton-on-Thames, Hounslow, Sutton and Staines. Railways, electric tramways and buses were instrumental in the rapid expansion of residential suburbs to begin with, but by the end of the century the orbital M25 effectively formed the western boundary of greater London. Between 1918 and 1939, the London conurbation doubled in size through the creation of London County Council housing estates and through the proliferation of private housing, most of it semi-detached (Brandon and Short 1990, 272). The presence of the capital was felt throughout the region. While London continued to expand, existing towns in the Thames Valley grew outwards along the main roads which connected them to adjacent centres. Their historic cores were adapted to contemporary needs and the improvements in the transport system encouraged towns to expand. As the cheap

transport system grew and as the price of farmland dropped dramatically, there was unprecedented scope for urban expansion. Despite the agricultural depression, it was a period of industrial and population growth in the Thames Valley in places like Slough and Oxford. Much of this growth was away from city centres and increasingly around the urban margins. The population of inner London continued to fall while that of settlements within a fifty-plus-mile radius of the City expanded exponentially. Despite London and Oxford's Green Belts, the division between town and country became increasingly blurred as the century progressed. In addition to the expansion of Thames Valley towns, there was increasing governmental direction in the location of new housing. Overspill housing estates and apartment blocks were attached to towns and villages, along with numerous new enterprises established in trading estates as work patterns changed. Whereas at the start of the century commuting to work was largely by train from the suburbs into central London, by the end commuting was a feature of most people's working lives, involving journeys in all directions. By 2000, a vastly improved and expanded network of roads enabled much of this travel to be by motor car.

The county towns of Oxford and Reading grew slowly to begin with, but at an increasingly accelerated pace as the century progressed. Other riverside towns, such as Windsor, Maidenhead and Abingdon, also grew in the second half of the century. Several settlements that had been little more than villages in 1900 had developed into medium-sized towns by 2000, most notably Slough, Didcot and Carterton. In addition to these newcomers, there was a planned post-Second World War new town at Bracknell (see below). As late as the 1930s there were few planning controls, and urban growth could take place haphazardly without constraint. A third of houses in England and Wales were built between 1918 and 1939, and in response to this uncontrolled development new planning regulations were brought into being. The Restriction of Ribbon Development Act 1935 tried to impose controls on the spread of developments along major routes out of cities representing the first serious attempt to restrain suburban sprawl (see *Road, Rail and Aviation* chapter). Post-war green belts were created around London and Oxford. These were areas of open space and low-density land use where, in theory, redevelopment was strictly controlled. After 1950, suburban expansion continued, but there was greater planning control. The 1950s and 1960s were the period of large-scale construction of council housing, for which the only places with sufficient land available were located on the suburban fringe. Throughout much of the Thames Valley to the east of the Chilterns the distinction between town and country became blurred. At the end of the century, despite inflated house prices, there was still economic and demographic pressure

to build many more homes in the region.

During the 1920s, the western and north-western suburbs of London became one of the principal industrial regions of Britain. This development was based on the munitions factories and depots which had been established around London during the First World War to supply the armies fighting on the Western Front. The Hyde, at Colindale, and Park Royal accounted for the greatest concentration of manufacturing activity in southern England at the time, while the Great West Road provided a showcase for London's new industries in the 1930s. There was a 'golden mile' of factories stretching westwards from the Chiswick roundabout, many of them producing motor accessories (Cherry and Pevsner 1994, 385).

J B Priestley remarked in the *English Journey* (1934) that the flavour of modern Britain was best savoured not in the centres of the great industrial towns but in the outer suburbs, traversed by new roads and dotted with new electric-powered factories. Industry powered by electricity developed in an apparently random fashion on scattered sites, while heavy industry such as shipbuilding, and long-established manufactures such as cutlery and footwear and cotton goods, continued to operate in traditional areas. The rapid increase in motor and lorry transport, coinciding with the extension of the electricity grid, enabled 'footloose' industry to take sites on less expensive land on the outskirts of towns, especially along new arterial or bypass roads. After the Second World War, two major areas of late 20th-century, high-technology industry developed along the M4 and the M40 corridors.

Pre-1914

In 1900, although traditional industries such as milling, brewing and tanning were already in decline in many of the region's small towns, new or derivative industry had begun to take their place. Competition from abroad and from more advanced technologies saw the disappearance of these agriculturally related activities from many communities during the first half of the century. However, as traditional heavy industries declined in the Midlands and the north of England, so London and the south-east became a magnet to workers and to new light industry. Thus, as the old industries declined, new industries moved into the region on a large scale at places such as Banbury, Reading and Swindon.

There was continued suburbanization to the west of London in the Edwardian period. Many companies were anxious to move their activities beyond the jurisdiction of London

County Council (and London rates) and took advantage of improved mobility to relocate on the edge of London. As industry moved, so did housing for its workers. However, the area to the west including the Thames Valley did not initially share in this expansion on the same scale as other hinterland areas. When a site for the British Empire Exhibition was being sought in 1924, *The Times* maintained that Wembley was unsuitable as it was 'some way out of London'. The region lacked the railway infrastructure above and below ground found to the north, east and increasingly to the south of the capital. Additionally, there was a belief that the heavy clay soils of Middlesex were unsuitable for housing and that the Surrey and Middlesex heathlands were suitable only for horticulture or golf.

Nevertheless, there were moves to provide transport links to the west. Electric trams were already operating within a six-mile radius of central London. By 1906, the London United Tramway Company was running an electric tram service to Kingston upon Thames (Rowley 2006, 87). The expansion of the tram network in this period was accompanied by the development of the motor bus. These two forms of transport saw the end of horse-drawn trams in London (the last one ran in 1915) and of horse-drawn buses (the last of which had stopped operating the previous year).

The Metropolitan Line railway was extended to South Harrow in 1903, South Acton by 1905 and Rayners Lane by 1910. By 1914, the Metropolitan Line was electrified as far as Harrow, powered by its own generating station at Neasden (Ball and Sutherland 2001). The Metropolitan Railway, completed in 1890, and the Great Central and Great Western Joint Railway, completed in 1906, arrived in south Buckinghamshire at the turn of the century. They brought with them large numbers of new houses around existing towns and villages for London commuters and weekenders. At Amersham and Beaconsfield, there were new settlements near the stations. Gerrards Cross grew from 75 houses in 1906 to 325 five years later, while at Marlow the colonisation of the beechwood common aroused much local opposition (Pevsner and Williamson 2003). Similarly, the spread of housing on to the North Downs in Surrey raised alarm in some quarters. In 1912, the *Spectator* objected that 'further placing of houses along the ridge can only spoil and disfigure the ridge as a whole...' (Brandon and Short 1990, 289).

In Oxford, there was a glimpse of the future when, in 1893, William R Morris, at the age of sixteen, started to make bicycles, and then moved on to building motor cycles in 1900. By 1903, he was selling and hiring out automobiles from a garage in Longwall Street, between Magdalen College and New College. Nine years later he began producing the 'bull-nosed' Morris automobiles from components bought from Coventry and Birmingham engineers and

with bodies made by Oxford coach builders. In 1913 he moved his former bicycle works in Oxford to an old military college at Cowley, then a village outside the city. During the war he took on engineering contracts for the Admiralty and his works were flourishing at the end of the war. In the brief boom that followed the war he was able to establish his position as a major national car producer. There was relatively little new housing in the Cowley area before the First World War, although new terraces were being built between the Iffley and Headington roads. After the war there was a housing boom, particularly in the vicinity of the motor works.

In the Upper Thames Valley, there was less growth in the smaller provincial towns, such as Abingdon on the Thames in Berkshire. In the 19th century, the railway and the Wiltshire and Berkshire Canal had brought the town moderate prosperity and had supported local malting, brewing and ironworking industries. The canal was abandoned in 1906, by which time it was carrying very little trade. A local writer, James Townsend, in 1910 referred to Abingdon as 'not wealthy, but picturesque and good to live in' (Horn 1987, 11). House building seems to have reached a peak about 1900 and then declined up until the First World War. The size of the population remained relatively static in the second half of the 19th century and in 1901 was 6689. The 25-inch Ordnance Survey map of 1910 shows several streets to the north-east of the town had been laid out some years earlier but had not yet been built up (OS Oxon Sheet 23.06, Bicester 1919).

Many other Thames-side towns continued virtually unchanged up to the outbreak of war. Increased use of the river for leisure activities encouraged the continued building of handsome villas in Henley, Maidenhead and Marlow. Maidenhead gained a risqué reputation in the early years of the century as a pretty river location convenient for short breaks from London. Marlow was more typical of the small Thames Valley towns as it only gradually shed many of its traditional activities in the early 20th century. The last Marlow Fair in the town centre was in 1903, when the town's citizens voted for its abolition. General Owen Williams received £200 from the urban district council to compensate for his loss of market tolls. A chair factory, largely employing women and children at cheap rates, closed in 1914. The cattle market, held near the railway station, lasted until 1939 and in the same year Marlow's paper and corn mills were pulled down.

At Swindon, where the railway works had brought a considerable expansion of working-class terraced housing in the 19th century, the old and new towns were incorporated into a single municipal borough in 1900, which proved a further stimulus to urban growth. New housing, catering for an emerging middle class, was built to the south-west of Old Town in the

Edwardian period, in The Mall, Westlecot Road and Belmont Crescent. These were large detached and semi-detached houses with substantial plots attached (OS Wiltshire Sheet 15.07, Swindon SW 1899).

Most of the region's market towns acquired similar middle-class residential neighbourhoods at this time. At Wokingham, for instance, the houses on Murdoch Road and South Drive, south of the old centre, are Edwardian detached villas. However, there were still open areas available for building on both roads as late as 1909 (OS Oxon Sheet 24.16, Burford 1919).

Case Study: Reading

In 1901, Reading had a population of 72,217, many employed in brewing (Simmonds), biscuit manufacturing (Huntley and Palmers) and seed distribution (Suttons—see above). However, although most of the outlying farms and market gardens had been absorbed by urbanisation in the second half of the 19th century, Reading was still surrounded by an agricultural hinterland. Accordingly, industrial mobility was limited, wages were low, and poverty was a feature of the first decade of the 20th century. A survey in 1912 revealed that one in five Reading families were still living in serious poverty, unable to maintain even the most basic standards of health (Corley 1993, 105–6).

In the early 20th century, the town centre developed several municipal facilities. McIlroys department store opened in 1903. This was a gothic extravaganza, nicknamed 'the crystal palace', which formed one of the architectural sights of the town. It survives today, somewhat stripped of elaborate ornament, but still providing a stark contrast with its neighbour, the Broad Street mall, a monument to 1960s brutalism. Marks and Spencer opened their first shop in 1904. In 1907, Reading acquired its second theatre, the Palace, on Cheapside, while two years later three cinemas were opened in the town. The recently established Reading University Extension College moved in 1906 to a new campus on a site on London Road donated by the Palmer family (of Huntley and Palmers), where it remained until its move to the Whiteknights estate campus in 1947 (Pevsner 1966, 203). The Shire Hall was built in 1904–11 and a telephone exchange in 1908 (ibid., 203–4).

Electric trams replaced horse-drawn buses in the city in 1903 (Hylton 2007) and Reading became the hub for motor bus routes operated by the British Automobile Traction

Company (later the Thames Valley Omnibus Company) in 1915 (Holmes 1984, 10). The town authority was expanded to incorporate Caversham on the Oxfordshire side of the Thames in 1911. It was not until after the war that there was a major programme of slum clearance and new estates of semi-detached brick houses were built.

Case Study: Carterton

A new type of agricultural settlement eventually resulted in one of the region's new urban centres. Carterton was founded soon after 1900 by William Carter of Branksome in Dorset. Carter was a speculator with a mission; through his company, Homesteads Ltd of London, he bought up estates in several counties in order to establish smallholdings and attract people back to the land in more financially viable versions of the Chartist settlement at Minster Lovell half a century earlier.

In 1900, Carter bought Rock Farm North, a 740-acre holding in Black Bourton parish. He divided up the original farm fields into three hundred plots of one acre each and new roads were established on a grid plan. The plots were sold at £25 each and mortgages were made available. The buyers were required to observe a building line measured from the roads and to erect boundary fences and walls at least 3 feet high. Many of the new settlers bought two or more plots. By the end of 1902, sixteen houses had been built and the following year Carterton was listed for the first time as a community in a local trades directory. By 1910, most of the plots had been sold and in 1931 the population of Black Bourton had risen to over 700, largely because of the success of market gardening on the newly established holdings. The early settlement was said to retain a 'colonial air' and a 'disjointed piecemeal look' due to the spread of single-storey dwellings over a large area. Public services were slow to arrive in the new settlement. For instance, piped water did not appear until 1938 and mains drainage until the 1950s. Similarly, electricity was not connected to most properties until after the Second World War.

The transformation of Carterton into a small town resulted from the presence of an RAF station sited in the adjacent parish of Brize Norton, established in 1937. After the Second World War it came under United States control, and subsequently it became the largest RAF station in Britain. The population of Carterton with Brize Norton rose to 9800 in 1971 and 15,000 by 2001. Although houses were provided by the RAF from 1938 onwards and bungalows were

built for American service families after the war, there was insufficient housing in the community. This shortage led to the presence of mobile homes and also less conventional housing, such as converted railway carriages. It was for a time a plotland community, with a plotland reputation. From the late 1960s there was a concerted effort by the RAF and others to provide sufficient housing and appropriate urban facilities. Thus, there was extensive rebuilding and new building, and houses from the original settlement became increasingly rare. Carterton has the feel of a small American town with its grid plan and low-level (and low-density) housing, which together with the associated public buildings is almost all built of red brick (VCH 2006, 101–12).

Between the Wars

During the First World War, there was relatively little bomb damage to housing in the Thames Valley, but wartime recruiting activity demonstrated that the quality of life for many working-class people was low in terms of health, education and employability, and that better housing was required. In the 1918 election, the Prime Minister, Lloyd George, claimed that he wanted to create 'a land fit for heroes to live in' and, under the 1919 Housing and Town Planning Act, the government provided subsidies to enable local authorities to undertake a large-scale programme of council house building. Two main subsidies were available: the Wheatley subsidy for local authorities and the Chamberlain subsidy for private builders. These subsidies, which continued into the 1930s, were the main source of funding for low-income housing and were largely responsible for fuelling the suburban explosion of the interwar years.

There were Victorian slums in a surprising number of Thames Valley towns. In fact, wherever Victorian labour-intensive industries had developed there was a legacy of substandard housing and work on slum clearance began in a piecemeal way between the wars. In Coley in central Reading, for example, slum clearance was accompanied by the building of new council estates at Whitley and Norcot (Hylton 2007, 205). At Windsor, slum clearance in the 1920s created what is now the River Street car park, and at High Wycombe there was extensive clearance of slum property in the Newlands area during the 1930s.

Middle-class families escaping the worst of the Depression thrived in an economy partly dependent on London and partly growing because of its own consumer durables, distributive, service and administrative jobs. From 1932 the building societies became more

active in permitting the growth of owner-occupation, and demand soared. Housing became available, affordable, and of a quality unimaginable only a few decades earlier. By 1933 private firms had finished over 618,000 houses in the Greater London area, compared with the local authority total of 153,000. Up to two-and-a-half million people were housed because of this private building around London between the wars.

On the claylands between Sutton and Kingston there was a great expansion of cheaper housing (under £1000); while further from London there were more expensive properties, around Epsom, for example, and on the heaths, south of Esher and Weybridge. For instance, the London County Council St Helier Estate, which straddles the 1926 Sutton bypass, had more than 40,000 inhabitants by 1939 (Brandon and Short 1990, 286). Feltham, for example, grew from a population of 4500 in 1901 to become a metropolitan suburb of 51,000 by 1961. By far the most dramatic growth in terms of numbers of people took place north of the Thames in Middlesex, west of the Great North Road. In west and north-west London, the population grew by 800,000 between 1921 and 1939. These years represented a decisive shift westwards in London's economic centre of gravity. Many areas shared in this expansion, but the largest effects were seen in the 1920s in Wembley (200% increase, to 48,000), Kingsbury immediately adjacent (800%, to around 17,000), and Hayes, Harlington and Harrow, which all showed rises of over 150%. Nor did the scale of growth decrease in the 1930s, when Harrow again doubled in size to reach 190,000 (as big as Salford), when Ruislip trebled to reach nearly 50,000, and when Wembley and Kingsbury absorbed another 56,000 between them. These were the suburbs of Metroland, each with its station on the Metropolitan Railway line out of Baker Street, each with its estate agent's selling point—of 'residences' rather than houses, of golf clubs, 'breezy heights', 'amiable undulations' and beech woods of 'tremulous loveliness'.

In Buckinghamshire, the First World War had halted development only briefly and hundreds of houses were newly built. The earliest houses and the largest of the later ones were individually designed, for example, those of the Camp Estate and in Windsor Road at Gerrards Cross. The Camp Estate was laid out in the 1930s around the perimeter of an Iron Age hill fort (21 acres) with the fort interior forming a central green. A private estate of well-to-do houses built on the eastern edge of Bulstrode Park, it is very typical of such Home Counties housing estates on the margins of large, landscaped eighteenth-century parks (*cf* the Surrey examples of Claremont and Esher Place). It has mature park trees as well as suburban evergreens, and houses that range in style from thatched or tile-hung Arts and Crafts cottages of the early 1930s through the meaner quasi-cottage styles of the 1950s to the over-egged neo-Georgian and neo-

Tudor of the 1980s. The houses and the tree-lined double rampart behind them enclose a secluded grass circle. The houses and their gardens have partly eroded the banks; some are even perched up on the outer bank (Pevsner and Williamson 2003, 342).

The interwar period saw the continued decline of traditional agricultural-related trades and crafts in the market towns of the region, while at the same time they were attracting new sources of wealth and outsiders were coming to live there. At Burford in western Oxfordshire by 1939 there were no longer any leather workers, only one tailor, one blacksmith and two builders. Catering for a new clientele, notably tourists, there were three motor garages and seven hotels. By the late 1940s, Burford's population consisted of first, a group of middle-class people, such as shopkeepers and teachers, who lived and worked in the town; secondly, retired incomers such as service officers; thirdly, a small group of working-class people, who increasingly lived in council houses. This pattern survived with modifications until the end of the century, when Burford was primarily a small retailing and service centre providing for its own population of the retired and commuters, and an increasing number of tourists. As in many attractive Cotswold towns there was a significant transitory service population in catering and the hotel industry (Catchpole *et al.* 2008, 118).

Many of the smaller towns in the Upper Thames Valley continued to expand more slowly. At Abingdon, an RAF airfield stimulated expansion in the 1930s. Between the wars, a major housing development took place at the Workhouse and Box Hill sites off Oxford Road. Further expansion occurred in Saxton Road, south of the town. At Banbury, traditional industries such as the Britannia agricultural machinery works, which closed in 1933, were replaced by new activities, some of which, such as United Dairies Ltd, retained an agricultural base. Banbury became a national collecting centre for milk, most of which went to London by rail and later by road (VCH 1972, 68). Added to which, Banbury's traditional role as a livestock market was greatly enhanced by the relocation of the market off the streets on to a bespoke site near the railway run by Midland Marts Ltd. Stock was collected from the whole of southern England and there were seasonal consignments of Scottish sheep and Irish cattle. Again, distribution was mainly to London and also the Midlands. By the 1960s, Banbury was the largest stock market in England, sales having risen from 9700 in 1924 to over 400,000 in the 1960s. Even more significant was the establishment of the Northern Aluminium Co. Ltd in 1931. This factory on land in Hardwick hamlet was designed to transform pig-aluminium imported from Canada into sheets. Initially the factory had a staff of 200 and was importing 250 tons of aluminium a month. An aluminium research unit was added in 1936. Both

establishments were taken over by the military during the Second World War, when aircraft parts were manufactured in Banbury. Spencer Corsets Ltd opened in a disused clothing factory in 1927 and Switchgear and Equipment Ltd, manufacturers of electrical equipment, moved into the old Britannia works in 1932 (VCH 1972, 68–9). These industries formed the basis of the Southam Industrial Estate founded in the 1950s.

Case study: Slough

The development that epitomised industry and urban growth in the interwar period in the south of England was the Slough Trading Estate. Until the mid-19th century, Slough consisted of a scatter of buildings within the parish of Upton-cum-Chalvey; its parish church was St Laurence, Upton. In the 19th century, the Great Western Railway and the Bath Road formed the backbone of the town, which was created by the amalgamation of settlements along their route. These included Chalvey, Cippenham, Colnbrook, George Green, Langley, Poyle, Upton and Wexham. The population rose steadily throughout the second half of the 19th century until the First World War, from 2405 (1841) to 11,543 (1911). The growth of the town is reflected by the gradual enlargement of St Mary's church between 1876 and 1913. From the mid-19th century there was a cattle market in Slough, which from 1881 was held near the railway station on a site now occupied by part of Thames Valley University (University of West London). The market moved to Wexham in 1961 but was closed in 1988, when it was taken over by housing development. The town grew even more prodigiously after the founding of the trading estate on War Office land to the west in 1920. By 1921, Slough's population had reached 16,000.

In 1917, a large repair depot to service the entire mechanized transport of the British army in France was established on the 668-acre Cippenham Court Farm, to the west of Slough. At the end of the war there were over a thousand vehicles awaiting repair; these and other military vehicles were bought by a syndicate of businessmen and sold off by auction. The trading estate was created in 1920 by a group of businessmen including Lord Perry, future Chairman of the Ford Motor Company. This was to form the basis of the Slough Trading Company Ltd, later Slough Estates Ltd, which leased factories to manufacturers; and from 1927 it began to build them in advance of requirements. The company installed a railway, roads, water, and gas, steam and electric power supplies. Plots for factories were laid out along formal avenues, some lined with grass verges. Many of the best-known consumer products of

the interwar period were made at Slough: O-Cedar mops, St Martins jam, Aspro, Mars bars, Chappie dog food and Black and Decker tools. The effect on the town and its neighbourhood was spectacular. By 1931, the population of the urban district had risen to over 33,000, and in the late 1930s there were over a hundred firms on the trading estate, employing more than 23,000 people. There was a simultaneous rapid expansion of residential development.

Streets of three-bedroomed semi-detached houses were built, often plastered white, with metal window frames set in rounded bays running across both houses, characteristic of the interwar years, as estates such as St Andrew's, Lewin Way, Bower Way and Westgate Crescent were formed in the former rural suburb of Cippenham. Small shopping parades were built to serve the new communities. By 1991, Cippenham's population alone was 9623, compared with 461 in 1881. More than 4000 private and council houses were built in the 1920s and 1930s, most of them in neighbouring parishes. By 1938, Slough had a population of 50,000 and was designated a borough. Although an attractive town hall was completed in 1936 (Fig. 14), little attempt was made to provide an appropriate town centre or municipal infrastructure.

The Second World War brought a temporary halt to Slough's expansion, although it played a major role in the war effort, producing military vehicles and munitions. The town was relatively unscathed by bombing, although inhabitants recall a semi-permanent pall of oil smoke providing camouflage as well as a poisonous atmosphere. Expansion started again by the early 1950s. The Britwell housing estate, just to the north-west of Slough, was designed to accommodate 2900 London County Council houses and a further 300 owned by Slough Borough Council. Like many other similar post-war developments, it was built with a basic social infrastructure of churches, community and health centres, a library and public houses. The first Londoners moved in to the estate in 1956.

By 1971, there were over 87,000 people living in Slough and 800 factories on the trading estate, making pharmaceuticals, confectionery, television sets and a wide range of machinery and electrical goods. Industrial development was not confined to the estate; for instance, ICI Paints Division was built in Wexham Road. Factories in Slough were rarely more than three storeys high and their entrance forecourts were often planted with trees and shrubs. Accordingly, the industrial landscape of Slough was gentler than that found over much of northern and midland England. Nevertheless, there was at the same time much rebuilding in the town's High Street; several tall, slab-sided office blocks of glass and concrete dominated the skyline, quite out of proportion with the 19th-century villas and terraced houses immediately behind them.

Residential development needed to keep pace with industrial growth, but as the century progressed stricter control meant the infilling of existing estates, in addition to the building of new ones such as the London County Council estate at Langley. Most of the houses associated with the various phases of Slough's industrial development are unexceptional. All the Victorian villas in and around Wellington Street were demolished as a dual carriageway to take the Bath Road traffic was constructed. In the 1960s, office blocks began to invade the streets around High Street, though the suburban character of some of the streets south of High Street had still not completely vanished by 2000. Many of the office blocks were rebuilt for a second or even a third time since the 1960s, as successive waves of prosperity (for instance, the one that followed the opening of the M4 through Slough in 1963) touched the town. In 2001, Slough had a population of 120,000, making it the second largest town in the ceremonial county of Berkshire.

The further expansion of Slough was restricted by several factors as the town extends mainly along the east-west axis of Bath Road. Expansion to the north has been prevented by the existence of several large parks and commons, and further encroachment into Burnham Beeches, Farnham and Stoke Commons and Black Park would not now be tolerated. Expansion to the south is effectively barred by the M4 motorway between the town and the Thames. Tuns Lane, the A355, provides the link between the town and the motorway, and at the same time it bypasses Eton and Windsor by means of a new bridge over the Thames. Another link road now joins this bypass to the old Windsor road. The view to the north from this road, encompassing factory and office blocks, electricity pylons and power station cooling towers, with airliners flying overhead every few minutes as they make their approach to Heathrow Airport, presents a stark contrast to the view to the south, where Eton College Chapel and the keep of Windsor Castle rise above the tree-lined horizon (Pevsner and Williamson 2003, 621–4).

Case study: Oxford

In the 20th century, Oxford became two towns: the historic university town, based on its medieval core, and an industrial town, centred on the newly created motor works and suburbs of Cowley. In 1900, despite some development along the roads leading to them, Iffley, Temple Cowley and Church Cowley were still quite separate villages from the ancient university city. The medieval common fields of Cowley had extended southwards from the Cowleys almost to

Magdalen Bridge, and it was the boundaries of the individual strips of these fields which were to form the basis of the streets between Iffley Road and Cowley Road. Indeed, the whole urban topography of this area was dictated by the original open-field divisions. By 1938, however, the two Cowleys had grown together to create the heart of the industrial centre of Cowley, which had virtually joined together with Oxford. Only the low-lying areas of Cowley Marsh and Lakefield impeded the total fusion of the two settlements. By the end of the century, although Cowley Marsh was still partially open, with college playing fields and other recreational areas, Cowley and Oxford were inseparable. Only the creation of the post-Second World War green belt stopped Oxford from joining with other surrounding settlements such as Wheatley or even Woodstock. The city grew in other directions: westwards down to Botley Road to join the villages of Hinksey; eastwards to expand Headington into a small town; southwards along the Abingdon Road to join Kennington; and north-eastwards to incorporate Old Marston.

In the first half of the 20th century, the village of Iffley became another suburb of Oxford. Iffley had always been within easy walking distance of Oxford and, at the turn of the century, a horse-drawn bus ran every half-hour between Iffley Turn and Broad Street, decreasing, in a sense, the distance between the two populations. By 1924, 17 ‘commercial residences’ had been built in Iffley. Its residents in the 20th century no longer worked the estates’ land, herded animals or ran the mill, which had burned down in 1908. They instead depended on the city of Oxford or the professionals settling in Iffley for their livelihood (VCH 1957, 193–8). To the north, the city almost joined with Kidlington, which was located within the green belt and had over 10,000 inhabitants and grew to be known as ‘the largest village in Europe’.

Some of the new suburban growth was criticised because of its lack of community spirit. It was perceived as cold, soulless, impersonal and class conscious. In some areas, walls were built separating private housing estates from council housing—the ‘Cutteslowe Walls’ in north Oxford are a particularly notorious example of this phenomenon. The Cutteslowe Walls were built in 1934 to keep the inhabitants of Cutteslowe council estate separate from an estate of middle-class houses built by the Urban Housing Company. Two seven-foot-high walls with iron spikes were erected across two streets by the private developer. Ostensibly, the walls were intended to reduce traffic in the private estate. However, they also effectively cut off council tenants’ direct access to the centre of Oxford. As a result of these walls, the Cutteslowe tenants were obliged to make a detour of nearly a mile, which, according to Arthur Wynn, writing in

the *Communist Review* in August 1935, cost the workers, and the children on their way to school, several extra hours a week. Four years later, the City Council demolished the walls with a steamroller, only to be ordered to rebuild them by the High Court. The saga did not finally end until 1959, when the City Council paid £1000 for the nine-inch stretches of land on which the walls stood and summarily demolished the 'insult to the working class'. Today, the only indication of the walls' former presence is an abrupt change of road name in the middle of the street. With the gentrification of privately-owned former council houses, the contrast between the old private homes and council houses is not obvious.

After the First World War, William Morris formed Morris Motors Ltd and set up a factory in the vacant military training college in the village of Cowley, two miles to the south-east of Oxford. This factory was soon turning out over fifty cars a week. Morris gained a reputation among bankers as being financially astute; consequently, when many older car firms in the Midlands closed during the 1920s slump, Morris was among the relatively few survivors able to obtain credit to modernise their production methods. By adopting flow production and standardising parts, he lowered production costs by about one quarter and broke the hold of American cars on the British market.

The number of people working for the company reflected its large share of the British car market; by 1924, 5500 employees worked at Cowley. At its post-war level, Morris Motors was by far the largest employer in Oxford, surpassing the 1600 at work in the printing industry. The success of Morris Motors in the 1920s attracted supporting factories to Oxford, further benefiting the city's working class. Osberton Radiators, a parts supplier for Morris, moved to Summertown in 1919, was purchased by Morris in 1925 and employed 1290 people by 1939. Similarly, Morris went into partnership with two American businessmen to create Pressed Steel at Cowley, providing all-steel car bodies to the adjacent assembly plant. Between the wars, Oxford's working class benefited from the rapid growth of the Cowley car factory in the form of high wages and a good work environment. Morris paid higher wages than Oxford's older industries, attracting labourers from the 'printing trade, college service and the railway'. Besides wages, the factory itself was an attractive work environment; Morris also sponsored sports days and thrift clubs (VCH 1957, 218–20).

The Morris firm experienced a boom period for car sales abroad as well as at home and by 1934 it was exporting up to 450 vehicles weekly (Fig. 15). At Cowley, the labour force commuted from within a radius of about twenty miles, and immigrants from many parts of the British Isles settled in the Oxford district. Large numbers of unemployed miners from the South

Wales coalfield settled in Oxford. Between the two world wars, 10,000 new houses were built in Oxford and its outer suburbs, and the number of people living within the extended city boundary rose by 30,000. By 1936, Oxford, along with two other automobile manufacturing centres, Coventry and Luton, was one of the three most prosperous towns in England outside London. Oxford became what John Betjeman called 'motopolis'. Just as the real price of houses fell during the interwar years, so too did the cost of a motor car. In the mid-1930s the average cost of a London house was £500, while a Rolls-Royce cost £2500. At the bottom end of the market, the Austin Seven and the Morris Eight sold for about £165.

Increased employment opportunities in the motor industry were reflected in the decline in the number of farm workers in Oxfordshire. Between 1921 and 1931 the number of farm workers, male and female, fell by 32 percent compared with the national average of 10 percent. Whiting estimates that by 1936 about 3000 ex-farm workers were part of the 5000-member workforce at Cowley, and together, Morris Motors, Pressed Steel and the radiator factory employed over 10,000 workers. The other major sources of employment in the city were Oxford University Press, with 800 employees, and there were 1100 college servants. In addition, there were large numbers employed in construction, and boat building was still important. This wide range of work ensured high employment in Oxford, at a time when much of the country was suffering heavy unemployment (Scargill 1993).

The presence of the car industry at Cowley was the major factor in the growth and prosperity of Oxford during the interwar period. Between 1921 and 1939 the population grew from 67,290 to 95,600, nearly six times the growth of the previous decade. This new labour force brought work to Oxford's service and construction industries. Four-fifths of the 5280 homes built in the 1930s, for example, were constructed by private builders for rent or sale to Morris workers. Headington and Cowley experienced massive growth during the interwar period, essentially evolving into suburbs of Oxford by 1939 (Tyack 1998, 295).

Oxford's growing population changed the physical landscape of the city. Its boundaries were officially expanded in 1928 to include the areas inhabited by people depending on the 'parent town' for employment (Fasnacht 1954, 210). What were once independent villages were enveloped by the suburban growth caused by the influx of workers to Morris' factories. Tyack (1998, 294–6) describes Temple Cowley as a 'rural hamlet' before the arrival of the car industry. Government and private developers built the suburbs, beginning with the government-sponsored council houses at the end of the Iffley and Cowley roads. Morris himself approached Headington Rural District Council in 1926, requesting housing for his

Cowley workers. In addition to government construction, F F Moss, a private developer, constructed Florence Park estate from 1933 to 1937 to provide housing to car workers unable to afford their own homes. While car workers moved into these new estates, the lower-wage employees remained in overcrowded housing in inner Oxford.

After 1945, the Morris workforce was swelled by Commonwealth immigrants and, by 2001, 12.9% of the city's population was from an identifiable ethnic minority. Although Pakistanis and Bangladeshis, who came to work in Oxford in the 1960s and 1970s, constitute the largest single group (at nearly 3%), there are also large Chinese and Indian communities. In 1974, Morris' parent company, British Leyland, collapsed, resulting in a steady decline in the importance of the motor industry to Oxford. The lasting change brought about by the emergence of Morris Motors in the 20th century was its contribution to the suburbanisation of Oxford. It has left physical evidence of its impact behind in the form of terraced houses at the foot of Headington Hill and in Cowley, and in the remnants of its factories.

During the 20th century, old Oxford, with its concentration of historic buildings, attracted an ever-growing stream of visitors. In the 1970s, Oxford was the most visited city in Britain, apart from London. The city centre contains one of the largest collections of protected historic buildings in the world. Tourism became another new industry, although often the city seemed to be fighting against it. Oxford became a 'honeypot site' along with Windsor, Bath, Stratford-upon-Avon and Stonehenge, one of that 'select' group of places that appeared on most overseas visitors' wish lists if they were based in London. In 1996, Oxford attracted over 5 million visitors, whose presence added to an already crowded centre but also provided over 8000 jobs (Breakell 1980).

Post-Second World War

After the Second World War, it was determined that one of London's new overspill towns should be in Berkshire. White Waltham was the first choice, but was rejected because it would use too much high-quality agricultural land and would conflict with the interests of the aerodrome. The choice fell on Bracknell, then a small town with a population below 6000, situated on a main road and railway line between Reading and London. The area of the new town was to be 2623 acres, and most of it was poor-quality land. The forested area to the south was to be retained as it was well managed and produced a valuable crop of timber.

Bracknell was designated a New Town in 1949, and Bracknell Development Corporation was set up to acquire land and carry out detailed surveys. As with its contemporaries, Bracknell New Town was designed around the concept of the car as integral to modern lifestyles. It was originally planned for a population of 25,000 and it was intended to occupy 1337 hectares of land on and around 'Old Bracknell' in the area now covered by Priestwood, Easthampstead, Bullbrook and Harmans Water. The existing town centre and industrial areas were to be retained, with new industry brought in to provide jobs. The town centre was developed around the earlier High Street and was planned to include a variety of shops, offices and businesses, and central and local government administrative buildings, with police and fire stations. Around the town centre, four residential neighbourhoods would each have their own shopping facilities, primary school, church, meeting hall, public house and play area. Many trees and wooded areas were preserved and large houses standing in their own grounds, considered to have a high amenity value, were retained. By 1960, 4026 dwellings had been completed, providing homes for over 14,000 people. New factories gave employment to 5000 people. To balance factory employment, the development corporation decided in 1958 to increase office employment. Accordingly, in 1960 the Meteorological Office moved to Bracknell, where it remained until 2003. The town has now expanded far beyond its intended size into farmland to the south, and by 2008, expansion was underway to the west of the town at Peacock Farm on the site of the former RAF Staff College. The town centre currently retains its original 1960s design.

For the most part, the county and market towns of the region continued as before in the first decade after the Second World War. There were few industrial black spots, although when J H B Peel travelled up the Thames from London to Reading in 1960 he was not impressed by his first sight of Reading, as his graphic description shows:

> First a power station appears, rearing like a poisonous fungus on the waste land; after that shunting sheds in various shades of British Rail dirt, followed by gas-works, tin huts and factories wreathed with pylons and cables ... a cancerous halo (Sinclair 2007, 33)

By 1980, many Thames Valley town centres had changed drastically, and in some cases, out of all recognition. After the Second World War, there was a desire to 'modernise' town centres to make them more attractive to the motorist and, where applicable, in some places

to remove surviving areas of slum housing. Although this was not a problem in many of the region's towns, there were still run-down housing areas in Reading, Windsor and Oxford. A block of 'back-to-back' slum houses in Maidenhead survived until the 1950s (OS Berkshire Sheet 24.14, Maidenhead 1897). The character of redevelopment varied according to the extent of the war damage and the preoccupations of the local authorities, whose powers were enhanced by the Town and Country Planning Act of 1947. Most of the out-of-London redevelopment schemes did not start until the late 1950s or early 1960s.

There were common themes in these new plans: the need for better roads and, above all, for a ring road around the town centre; the introduction of pedestrian shopping precincts; and the need to maintain population densities within the existing urban area to prevent the uncontrolled sprawl of the 1930s (and to retain rateable income). Several new overspill towns, such as Milton Keynes and Bracknell, were designed on the assumption that motor vehicles were to be fully integrated. Wide dual carriageway roads, large parking areas, numerous roundabouts, good landscaping and plentiful tree planting programmes have ensured that the motor is catered for and indeed essential to living in these towns.

The results of this alliance of local politicians, property developers, planning officers, road engineers and architects can be seen in almost every Thames Valley town. Even in Oxford, where much of the land was owned by the fiercely independent colleges of the university, the working-class district of St Ebbe's on the fringe of the central shopping area was flattened in the 1960s to make way for a barren landscape of roads, car parks, the Westgate shopping centre and an office block for the county council. Meanwhile, much of the resident population was rehoused on a new council estate at Blackbird Leys on the periphery of the city, reinforcing the tendency towards spatial segregation, a feature of urban development in England since the early 19th century.

Bland and impersonal buildings like these have resulted in a 'sameness' between town centres in the region, not evident before the Second World War. The Westgate Centre of the 1960s (now redeveloped) was an early version of the town-centre shopping mall. With its brutal multi-storey car park and architecturally mediocre library, it was never attractive or popular, and at the time of writing it is scheduled for demolition and replacement. The Oracle shopping centre in Reading was a larger and later form of mall, built more on American lines, on two levels, with more light and visual interest, but identical to thousands of similar ventures in the UK and abroad.

The building of new roads was often accompanied by the construction of offices for the

local authorities who planned them. Thus, the skyline of Aylesbury, a market town with only 51,000 inhabitants in 1991, is dominated by a twelve-storey concrete office tower reared up in 1963–6 to house the employees of Buckinghamshire County Council. The local government reforms of 1974 were followed by the building of yet more offices for the growing number of local authority employees. At Reading a new block of civic offices was erected next to an inner ring road in 1976, and the 19th-century town hall in the market place was lucky to escape demolition. Then the massive new Shire Hall for Berkshire was built next to the M4 motorway on the southern fringe of the town, only to become redundant in 1998 when the county council was abolished under legislation splitting the county into 'unitary authorities'.

Abingdon was typical of the post-war small-town development in the region. After the Second World War, the first major development came when the Ministry of Supply took over Fitzharris Manor grounds in response to the housing needs of the Atomic Energy Research Establishment developing on Harwell's RAF station. In the 1950s, emphasis was on council house building and by 1959 half the population lived in houses in council or AERE ownership. From the 1960s the pendulum swung to private ownership and new estates around the town. The railway closed for passenger traffic in 1963 and Abingdon, like so many small towns in the region, became reliant on motorised transport for most of its activities (the railway continued to carry freight until 1984). The site of the railway station and sidings is now occupied by apartments and a supermarket. The town has many car parks in the centre, including an ungainly multi-storey built in the 1970s.

Nevertheless, the town attracted new activities and with them came an increased population. The MG factory, an offshoot of Morris Motors, had taken over a leather factory in the town in 1929 and continued production, with an interval during the Second World War, until 1979. The local tradition in leather continued at Abingdon Tannery and Pavlova Leather, but did not last out the century. Similarly, malting and brewing died out. New science- and computer-based industries moved into the industrial estates that developed around the town. Abingdon has also grown in importance as an educational centre. In addition to state schools and a college of further education, there are a number of prestigious independent schools. Abingdon School, the girls' School of St Helen and St Katharine, and Our Lady's Convent are in the town, while Radley College and the European School are close by. Part of the centre of the town has been pedestrianised but, with no major stores based there, most shoppers look outside the town and it has proved to be something of a white elephant. An outer ring road was constructed and now forms the boundary to the built-up area. There is a small, standard retail

park to the west of the town, adjacent to the A34.

A major part in the evolution of the urban landscape in the 1960s and 1970s was played by the agencies of the Welfare State: The National Health Service and the local education authorities. Vast hospitals were built on the urban fringe, like Powell and Moya's Princess Margaret Hospital near the M4 at Swindon in 1957–9 and the John Radcliffe Hospital in Headington, Oxford. The impact of such buildings on their surroundings was greater than that of any Victorian hospital or workhouse. School building also expanded, especially after the decision to pursue comprehensive education taken in the 1960s and 1970s, and large, often dour, flat-roofed secondary schools are common on the fringes of towns throughout the region.

The rising importance of the private car and other forms of road transport after the Second World War gave suburbanisation a further boost. The edge of town, where there was more land available for car parking and expansion, became the favoured location for new offices, factories and shopping outlets. In the green belt of the south-east of England, where there is the most pressure for more housing developments, the controls have been generally effective. Green belts preserved agricultural land that would normally have been swallowed up by urban growth. Such urban fringe land, however, often suffered blight; ring roads and feeder roads have been built around cities, even those with green belts. These intrusions created truncated and odd-shaped fields, ripe for the development of supermarkets, garden centres, park-and-ride and a range of sports and leisure activities. Such developments were often able to sidestep planning regulations as in many cases it was argued that they met genuine community needs. Around many towns and cities there was creeping suburbanisation, where essentially non-agricultural and non-rural activities spread out into the surrounding countryside.

The journey northwards from Oxford to Woodstock, which lies within the Oxford Green Belt, now takes you past a range of these urban fringe activities: ribbon development, a park-and-ride car park, a major road intersection, a service station with hotels, shops and restaurants, a garden centre, a civil airfield, an industrial estate and an asylum seekers' centre. In 1900 it was all entirely open fields. Since the late 1970s the range and scale of demands for which the countryside can be exploited have changed. Leisure and sports interests and tourism are the biggest growth sectors. In the Home Counties, in what is known as the 'cocktail belt', and around many other conurbations, thousands of paddocks were preserved and created for the suburban horse and pony owners. 'Horsiculture' reflected the demand by urban dwellers for recreational horse riding within easy driving distance of their homes.

The later 20th century

The Thames Valley is now one of the world's key locations for many business interests and, as a 'core' region, it commands a high rental premium. Companies with central London offices have frequently found it cheaper to relocate beyond the M25 ring road, in turn creating higher site values and high housing demand in the rural areas. The modern rural industrial landscape has many faces, characterized by the rise of hi-tech, Research and Development and corporate 'command and control' facilities in the south-east. The so-called 'sunbelt crescent' runs from Hertfordshire, Buckinghamshire and Berkshire into Hampshire. Here three kinds of visual impact have been identified.

First, there are now many small/medium enterprises (SMEs), typically employing fewer than ten people, that have started up, sometimes in redundant agricultural buildings. In areas where farming has ceased to be profitable, these now house a variety of light industrial, service and domestic consumer industries, storage, handicraft and electronics companies. Flexible production of customised goods flourished during the 1980s in the south-east. There are tensions inherent in this conversion process, particularly where the landscape is protected by conservation status, and issues of signage or heavy lorry deliveries often compromise landscape quality, peace and sustainability.

Secondly, large numbers of purpose-built industrial and retail estates have sprung up since the 1980s and have contributed to the surge in rural development in the 'city beyond the city', partly because of the motorways which link the Thames Valley directly to the Channel Tunnel. Oxford forms a focus for such enterprises. The United Kingdom Atomic Energy Authority Harwell was established after the Second World War because of its proximity to the university and good rail links to London at Didcot. Harwell has now developed into a second-generation Science and Innovation Campus. This houses not only the well-established Rutherford Appleton Laboratory, but also the Diamond Synchrotron and ISIS, the world's largest pulsed neutron source. UKAEA also owns the Culham Science Centre, nine miles to the north of Harwell, which is home to the Joint European Torus (JET), the world's largest nuclear fusion research facility. Oxford University has two science parks just outside the city boundaries. The University of Surrey has a research park at Guildford and Brunel University has a science park at Uxbridge.

Thirdly, there are larger company buildings, often belonging to high-tech multinational corporations and located near communication routes, which also make a considerable impact on the landscape. This results in the imposition of modern architectural design in what was previously a rural setting, with an emphasis upon skilled and scientific research establishments. Typically, research and development companies expect a high environmental quality of life for their employees. The Berkshire section of the M4 motorway, known as the 'M4 corridor', has seen a proliferation of such buildings in recent years, from Heathrow at one end to Swindon at the other. A similar belt of high-technology industry, centred on High Wycombe, follows the line of the M40 motorway in Buckinghamshire.

Stockley Park is one of the most ambitious business parks, now typical of the region (www.stockleypark.co.uk). Sited close to Heathrow, between Hayes and West Drayton in the London borough of Hillingdon, it has an international perspective and an employment force of over 6500. Stockley Park was built on 450 acres of green belt land previously used for gravel extraction and then waste disposal. It was landscaped from 1985 to incorporate a public park, an 18-hole golf course, a nature reserve and a 100-acre business park. The landscaping involved moving 4 million cubic metres of rubbish, clay and gravel. It was the largest single civil-engineering project involving landfill transfer ever to have been undertaken in Europe. It was designed by Arup Associates and incorporates a range of high-quality late 20th-century buildings by architects such as Fosters Associates, Eric Parry Associates and Troughton McAslan. Companies based here include Glaxo Wellcome and Canon (Cherry and Pevsner 1994, 253–5). Another business park which involved a similar land improvement project was on the site of the old power station on the Thames just to the east of Reading. The Thames Valley Park occupies a 200-acre site in Sonning. The ash dumps have been landscaped and the site includes a nature reserve and water sports centre. Companies based here include Microsoft, SGI and Oracle (www.thamesvalleypark.co.uk).

The smaller towns in the region, particularly in Oxfordshire, also changed significantly. They have either mushroomed in size, like Thame, Witney and Bicester, or have become tourist 'honeypot' sites. Towns chosen for redevelopment increased their populations up to ten-fold in the 20th century and much of this growth occurred after 1970. The old town centres have become an irrelevance to most of the new inhabitants. Education, healthcare and shopping are all catered for on sites located on the edge of town. Consequently, the town centres have atrophied into a mix of specialist shops supplying goods such as greetings cards and mobile phones, with a generous supply of betting shops, food outlets, building societies, banks and

estate agents. Where it has been possible to insert shopping malls and supermarkets into or close to the centres in these expanded towns, the old centres have fared somewhat better.

Those small market towns which have not been chosen for wholesale expansion tend to be the more picturesque examples. For instance, Burford in western Oxfordshire is viewed as a classic Cotswold town, with a long, broad high street running down to a medieval bridge across the River Windrush. From the 1980s Burford was primarily a service town catering for tourists and a significant retired population. Additionally, as house prices rose in the 1980s, outsiders increasingly bought properties in the town as an investment. Added to which, the sale of two-thirds of the town's council houses meant that local workers were frozen out of the housing market. Burford's resident population shrank, and there were so few children that it became known as 'the town without children'. Most of the children attending the town's schools came from the surrounding area (Catchpole *et al.* 2008, 138).

Expansion that did occur in Burford has been in the form of infilling and modest housing estates, whose design respected existing landscape features such as established roads and field boundaries. These developments reflected Burford's status as a 'historic Cotswold town'. It was one of the first conservation areas in West Oxfordshire district and lies within the Cotswolds Area of Outstanding Natural Beauty. Additionally, there are numerous 'listed' buildings and even minor building alterations are closely monitored. There is even a specific 'Burford green' paint recommended for doors and other external woodwork. This imposition of a centralized concept of conservation recreates something of the old 'closed' village environment. Some authorities question the wisdom of freezing such townscapes in what they call 'a modern pastiche reflecting the romanticized, loosely Arts and Crafts principles behind much of the early 20th-century restoration work' (ibid., 147).

SUMMARY

The urban landscape of the Thames Valley has clearly changed beyond recognition from the end of the medieval period to the beginning of the 21st century. Within this period, the region witnessed two major historical events. Firstly, the dissolution in the 16th century not only saw the large monastic estates being broken down, with many abbeys and associated buildings becoming ruinous, but there were also significant impacts for many of the region's towns. The wholesale transfer of property and lands into secular hands signalled a notable change in the relationship between landlords and tenants, while many previous church properties were sold

off within towns. The second major historical event (or events) were the world wars of the early 20th century. Urban development largely ground to a halt. London took the brunt of bombing during the Blitz, though other Thames Valley towns were not completely immune, such as at Kingston-upon-Thames, Staines, and as far west as Reading (https://www.readingmuseum.org.uk/blog/day-reading-was-bombed-people%E2%80%99s-pantry-75-years-on). However, the post-war period saw economic development and population growth on a scale not seen before.

Urban populations in the 16th century ranged between *c* 1000 and 5000, roughly matching the size many of today's rural villages. Even Oxford only hosted around 12,000 inhabitants by the turn of the 18th century, which is comparable to modern Henley-on-Thames. Only in London was population growth exponential throughout the period. Population increase accelerated in the 19th century, and this was most dramatically seen in towns. Urban centres accounted for about a quarter of the national population in 1801, but by 1901 four out of every five people in Britain were living in a town or city. People were drawn by increasing economic opportunities brought about by technological developments and a huge expansion in the scale of manufacturing. Mechanisation of transport, accompanied by road improvement and the establishment of the railways, also made long-distance more viable. Urban population growth was driven by inward movement from the countryside, causing decline in rural populations and leaving less people to work in agriculture. Nonetheless, the towns were no doubt sustained by increasing farming yields brought about by the agricultural revolution that began in the preceding century.

Population growth continued on an even larger scale in the 20th century in the interwar years and post-Second World War. One major impact of this expansion was on the immediate surrounding countryside and smaller nearby settlements. It was around London where this was most keenly felt, with the capital beginning to incorporate settlements that would have been important towns in their own right only a few hundred years earlier, such as Brentford, Richmond and Kingston-upon-Thames. The rise of suburbs was also seen, albeit on a smaller scale, elsewhere, such as in Oxford with areas such as Ifley, Botley and Cowley becoming integral parts of the city. Cowley, as has been discussed, developed significantly through the growth of the car-manufacturing industry in this period. However, by this time, the existing medieval towns and cities did not account for all the population growth seen in the Thames Valley. Demand for work and housing saw new towns, such as Bracknell, develop, while places like Slough were transformed by technological advancements and developing infrastructure,

and eventually came to dominate local settlements of greater historical importance such as at Windsor.

Rural impacts are also notable. The countryside between Reading, Wokingham and Bracknell has been greatly impacted over the past 100 years, and it is only the establishment of the Metropolitan Greenbelt that has conserved much of the rurality between these towns and Maidenhead and Slough to their north-east. Early signs of the pitfalls of rapid urban expansion and housing development were seen at the beginning of the 20th century, and planning regulations, such as the Ribbon Development Act of 1935, were brought in to curb the worst excesses. But while the impact of the town on the countryside is often highlighted in negative terms, there has also been an increasing appreciation of the historic character of urban settlements, primarily as the scale of change has increased. In Berkshire, Reading and Wokingham now (at the time of writing) have no fewer than 30 conservation areas between them, while Oxford has 18 within its district boundary. However, given the massive changes seen over the past 500 years, and the current pressures and concerns of modern society, the urban landscape is likely to continue to develop and change over the next 500 years.

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