

Chapter 1 Introduction

PROJECT LOCATION AND METHODOLOGY (Figs 1.1-1.3; Pl. 1.1)

Between April 1996 and August 1998, Oxford Archaeology (OA; formerly Oxford Archaeological Unit) carried out extensive archaeological investigations on behalf of Hammerson UK Properties plc on the site of the Oracle shopping and leisure development in Reading, Berkshire (centred at NGR 7160 7320). The town of Reading has grown up around the lower reaches of the river Kennet, close to its confluence with the Thames, and the old core of the medieval town sits on a ridge of gravel above the floodplains of the rivers (Figs 1.1, 1.2).

The Oracle development (covering an area of some 8 ha) lies on the floodplain of the Kennet, immediately south of the town centre (Plate 1.1 and Fig. 1.3). The development area is bounded by Gun Street and Minster Street to the north, Bridge Street to the west, Duke Street to the east and Mill Lane to the south. It is bisected by the Kennet, and crossed by numerous small river channels that were historically important, but nowadays mostly survive in underground conduits. The most northerly of the channels is the Holy Brook, which flows along the edge of the floodplain and formerly fed the Abbey Mill. Some 20 m to the south, and roughly parallel, was the course of the Minster Mill Stream, which fed the Minster Mill. A third channel, the Back Brook, lay approximately halfway between the edge of the floodplain and the modern main course of the Kennet. South of the Kennet were the channels associated with the Town, or St Giles, Mill.

The archaeological investigations were mostly located on the floodplain, on river silts over the floodplain gravel terrace. At the north edge of the development, silts give way to terrace gravels and the underlying chalk, as the ground rises from 37.30 m OD on the floodplain to 41.50 m OD on Minster St. The archaeological investigations were carried out in two phases, one to the north and one to the south of the Kennet. North of the Kennet, a number of area excavations were designed to recover evidence for some of the earliest known historic buildings, water channels and mills in the area. Site 29 was located to investigate the 17th- to 19th-century Oracle workhouse, site 150 the Minster Mill, site 12 a 17th-century building known as the Yield Hall that had been demolished in 1935, site 101 the water channel known as the Back Brook and site 22 the George Hotel. The watching brief was given the general designation of site 28, with each individual observation allocated a Test Pit (TP) number. A single area excavation, site 300, and a

large-scale watching brief were carried out south of the Kennet to investigate the historically attested St Giles, or Town, mill. A fuller account of the project methodology can be found on the accompanying CD-ROM.

The results of the excavations and the most significant watching brief observations are described in the present volume. The results from site 22, the George Hotel, were not sufficiently promising to justify further analysis at post-excavation stage and this excavation is not further reported here. The records for site 22, and all other excavations and watching briefs from 1997-8 and the evaluation in 1996, can be found in the project archive, which has been deposited with Reading Museum. A microfiche copy of the archive has been deposited with the National Archaeological Record.

HISTORICAL AND ARCHAEOLOGICAL BACKGROUND (Plates 1.2-1.9)

Archaeological surveys and excavations suggest that the lower Kennet Valley may have been quite intensively settled as early as the mid to late Bronze Age (in the centuries around *c* 1000 BC), with evidence for intensification of land use and the establishment of ditched fields, and settlements of post-built roundhouses that may have attained the size of small villages (Lobb and Rose 1996, 81 and fig 15). Evidence from the earlier part of the Iron Age (from *c* 750 BC) suggests there may have been some shift and retrenchment of settlement, but by the end of the 1st century BC it is clear that the river valley supported dense occupation, with a structured system of settlements, often in rectangular enclosures surrounded by fields and approached by trackways (*ibid.*, 84). Lobb and Rose draw attention to the number of Iron Age coins found in the area of the Kennet/Thames confluence at Reading, and suggest this could mean a site of some importance in the area (*ibid.*, 85). Occupation intensified during the Roman period (AD 43-410), and the area will have come under the influence of the major Roman town at Silchester (Calleva Atrebatum). The nature and extent of Roman occupation at Reading itself remains unclear. Many of the known finds were made during the 19th century, and much of the area is now built-over. It seems likely that the area was occupied, not by a town, but by a number of farmsteads throughout the Roman period (*ibid.*, 86 and fig. 17). Most Roman finds at Reading have come from the areas south and east of the Kennet (Astill 1978, 77).

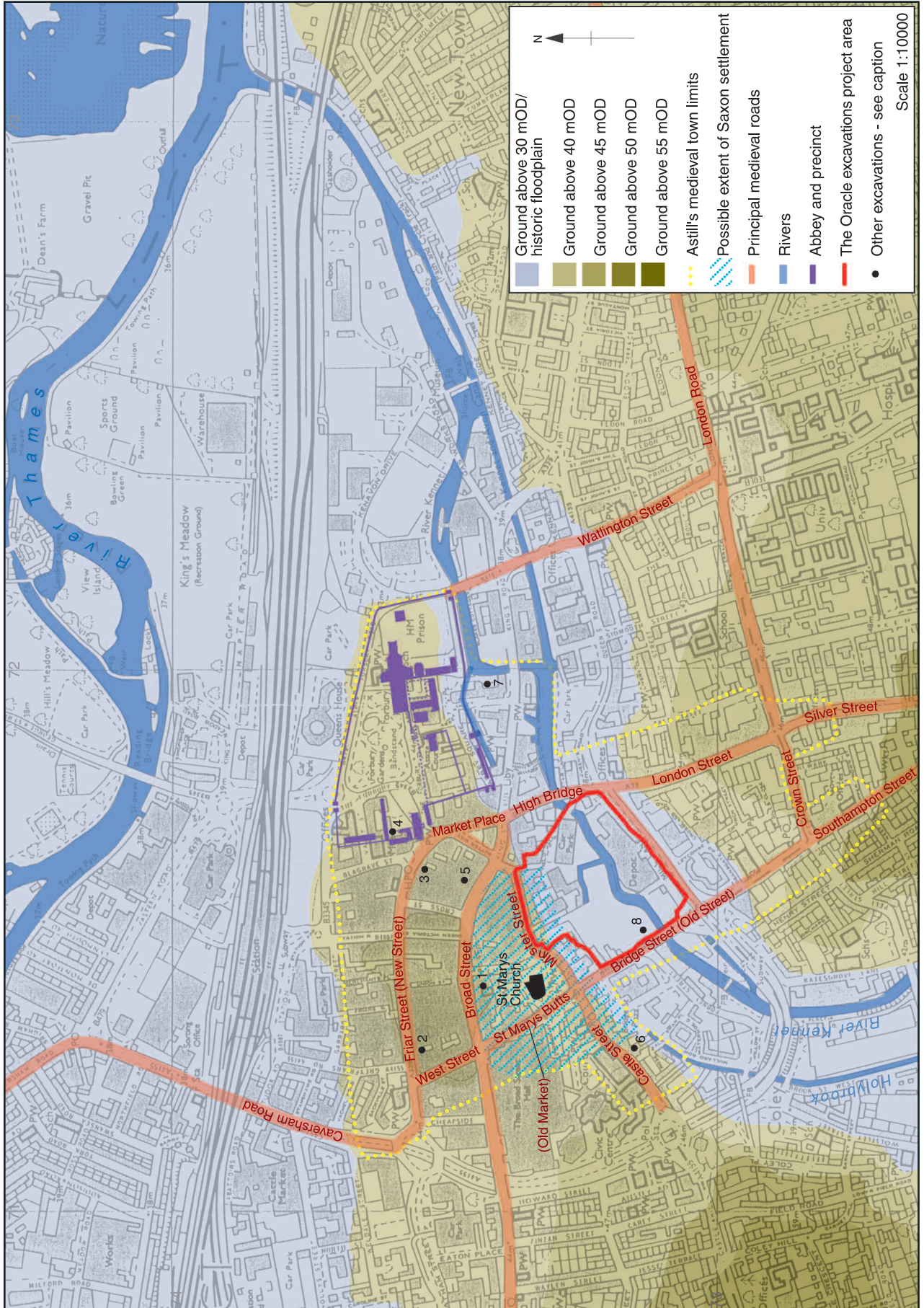


Plate 1.1 General view of the project area looking W with excavations of Yield Hall on Site 12 in the foreground



Fig. 1.1 National, regional and local location of the Oracle site, Reading

Under the Oracle



Following the withdrawal of the Romans from Britain in the early 5th century AD the evidence for occupation in the lower Kennet Valley becomes very sparse once again. The confluence of the Kennet and the Thames may, however, have been something of a focal point (see Lobb and Rose 1996, 93 and fig.18). Early to mid Saxon pottery and metalwork (c AD 450-850) was found in excavations of early levels beneath Reading Abbey (Slade 1975-6, 61, 63 and fig. 14), and a mixed inhumation and cremation cemetery of 5th- to 6th-century date was found during gravel digging in 1891 at Earley, a few hundred metres to the east of the Thames/Kennet confluence. Early to mid Saxon pottery occurs quite frequently on excavations within the centre of Reading, with 26 sherds found during Wessex Archaeology's waterfront excavations (Hawkes and Fasham 1997) and 18 sherds in OA's recent excavations at Broad St (Blinkhorn 2007a, 12-4). Early to mid Saxon pottery found during the Oracle excavations is noted by Paul Blinkhorn in Chapter 5, below. There is therefore good evidence that an early Saxon settlement existed in the vicinity of the later medieval town, but to date no structural evidence of it has been discovered. The name Reading is of a type associated with Anglo-Saxon settlements, and is thought to mean 'the people of Reada'.

The earliest documentary reference to a settlement at Reading dates from AD 870-871, when the Anglo-Saxon Chronicle records that the Viking army wintered there and repulsed the attacks of King Ethelred of Wessex and his brother Alfred (later King Alfred the Great). In his biography of King Alfred, Asser records that the Vikings built a rampart between the rivers Thames and Kennet 'on the right hand side of the royal vill' (Astill 1978, 75). Astill (ibid.) has suggested that the royal vill mentioned by Asser could have been situated around the area of St Mary's Church, where a coffin containing a hoard of 9th-century coins was found, and it is interesting that a sherd of Ipswich ware pottery, which tends to be associated with high status sites of the mid Saxon period in the region, was recovered during the recent excavations nearby at 90-93 Broad St (Blinkhorn 2007a, 13-4). Unfortunately there is very little evidence for the Viking winter camp itself, although it might plausibly have been near the site of the later abbey, at the east end of the wedge of gravel ridge, with its defensive rampart reflected in the western precinct wall of the abbey (Astill 1978, 77). Astill notes that the water meadows on the north side of the abbey precinct by the Thames are known as the Vastern, an Old English word meaning stronghold. The skeletons of a horse and a man with a 9th-century

Viking sword were found in this area in 1831 during the digging of a railway ballast pit (ibid.). A nunnery may have been in existence at Reading by the 11th century, possibly founded during the reign of King Edgar (959-75). Domesday Book records that Abbess Elveva held a church in Reading with an estate of 8 hides in 1066; the church (almost certainly St Mary's) and its estate were subsequently granted by William the Conqueror to his new foundation of Battle Abbey in Sussex in 1071.

By the time of Domesday Book there were two manors at Reading, one manor of 43 hides held by the king in demesne, and the other (assessed at 8 hides in 1066, but only 3 in 1086) was held with the church by the Abbot of Battle. Domesday Book also records the existence of a small borough at Reading; the king and the Abbot of Battle held 29 properties each, and a single property was held by Henry de Ferrers. Edward the Confessor seems to have been associated with the initial development of the borough, and the existence of coins minted at Reading between c 1044 and 1046 shows that a mint was operating there during his reign. Astill (ibid.) suggests that the late Saxon borough was probably focused on the Old Market and Old St (now Bridge St), where two major long-distance routes crossed (from Oxford to Winchester and from London to Bath). St Mary's Church stands at this crossroads, facing onto the market (see Fig. 1.2).

One of the most significant events in the history of Reading was Henry I's foundation of a Benedictine abbey on the land between the Thames and the Kennet in the early 12th century (see Fig 1.2). The act of foundation restored to religious use three former minster estates, at Reading, Cholsey and Leominster, that had fallen into lay (in fact royal) hands, and the king also recovered St Mary's Church from Battle Abbey to form part of the grant (Kemp 1986, 16-17). Work was begun on the abbey in 1121. The foundation charter of 1125 states that the abbey was to have Reading, Cholsey and Leominster, with their appurtenances, woodland, arable and pastures, meadows and waters, mills and fisheries, also with the churches, chapels, cemeteries and offerings and tithes, and a mint and moneyer at Reading

...Et donavi eidem monasterio ipsam Radingiam, Chelseiam quoque et Leominsteriam cum appendiciis suis cum silvis et agris et pasturis, cum pratis et aquis, cum molendinis et piscariis, cum ecclesiis quoque et capellis et cimiteriis et oblationibus et decimis, cum moneta et uno monetario apud Radingiam (ibid., 33).

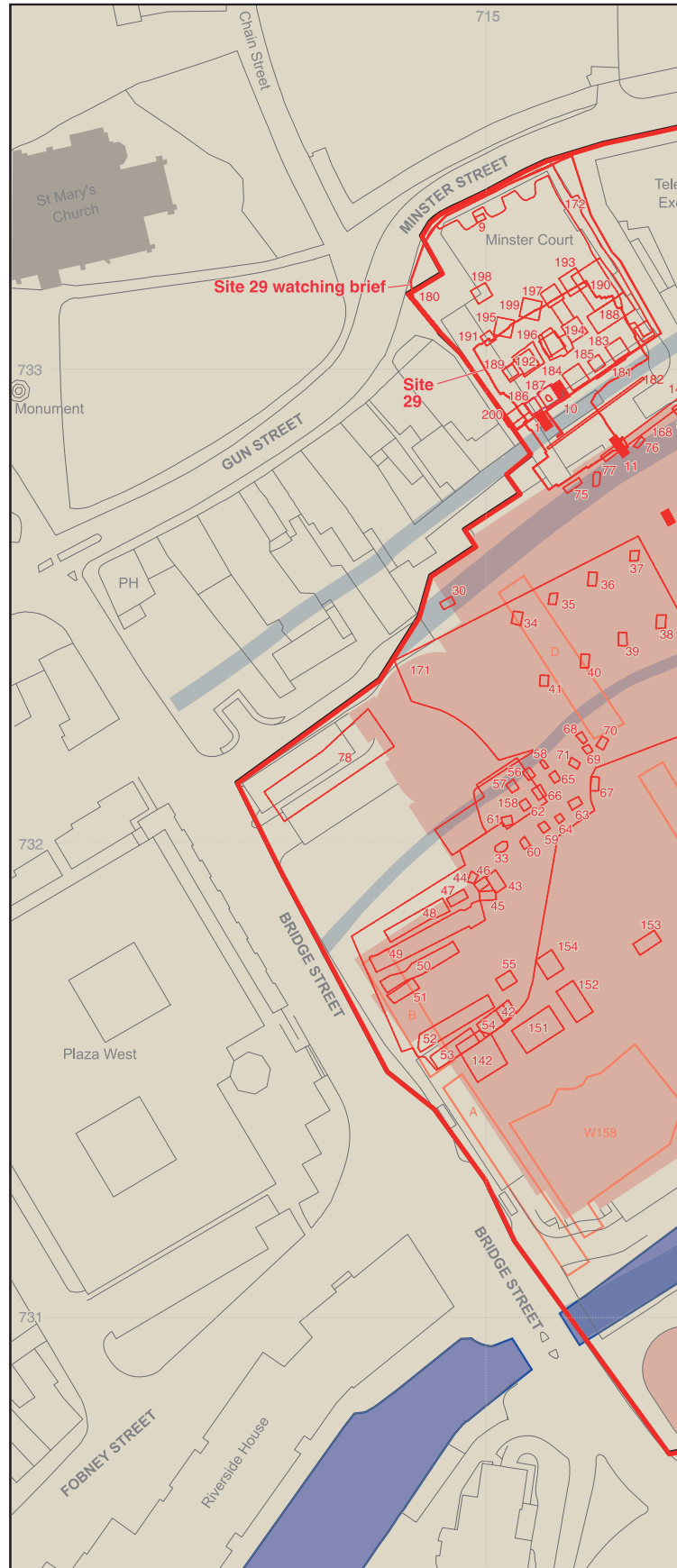
The main conventual buildings were completed by c 1126, and the church was consecrated in 1164.

Fig. 1.2 (opposite) The Oracle site located within the modern town centre (prior to the Oracle redevelopment) and modern topography, showing the conjectured medieval town limits after Astill 1978. Other excavations: [1] – 90-93 Broad St (Norton and Poore 2007); [2] – 99-105 Friar St (Ford and Ford 2005); [3] – Friar St (Atherton 1999); [4] – 1 Friar St (Pine 2005a); [5] – 7-8 Broad St (Scott and Hardy 2007); [6] – 31-37 Castle St (Pine 2005b); [7] – Abbey Wharf (Hawkes and Fasham 1997); [8] – Bridge St East (Hawkes and Fasham 1997)

The arrival of this prestigious and highly favoured royal foundation brought the little town great new opportunities for expansion, but also, as Astill points out, sowed the seeds of future conflict. Henry granted a 4-day fair at Reading, a source of income for the abbey but also presumably for the townspeople as traders and buyers would have come to stay in the town from far around. The abbey also built up an important collection of relics during the 12th century, the most famous of which was the hand of St James the Apostle, which was said to have been given to Henry by his daughter the Empress Matilda, and given by him to the abbey (Kemp 1970, 1-4; Kemp 1986, 39-40, no. 5 and note). The hand was widely promoted as possessing formidable powers of healing, and it made the abbey an important focus for pilgrimage, which was also encouraged by a series of grants of indulgences by bishops throughout England and Wales to those visiting the abbey for the saint's feast day (Kemp 1986, 148-156 nos 184-201). An additional 4-day fair was granted by Henry II and subsequently also by King John. However, there was to be much conflict between the abbey and the town in the future as the leading townsmen sought to create a measure of independent town government and defend their own rights and interests.

The 12th and 13th centuries were a period of rapid growth in towns, and Reading Abbey seems to have acted quickly to enhance the value of its borough, creating a new triangular market place outside its own main gate, with two curving, parallel streets (Broad St and New St) running westwards to the old main thoroughfare (Fig. 1.2). New St (now Friar St) is first documented in 1186. These streets are likely to have been laid out with new tenement plots for rent to attract settlers into the town. Probably around the same time the abbey seems to have been developing what is today London St, with wide burgage plots for rent to either side, as an alternative to the old route into the town from the south. A new bridge (later High Bridge) was built over the Kennet by 1186, bringing traffic directly to the abbey's gates (Astill 1978, 78). A serious quarrel broke out between the abbey and the townspeople during the decade from 1244 to 1254, and the terms of settlement suggest that the location of markets was a major source of contention. In the short-term, the townspeople gained a concession that the cornmarket would continue to be held in the Old Market outside St Mary's (ibid.), but in the end the abbey won. By the 14th century the area between the abbey's market place and the banks of the Kennet, where the town and abbey wharves were located had taken on a distinctly commercial character.

One of the other matters in dispute between the town and the abbey at this time was the attempt by the leading townspeople to establish a merchant guild to regulate trade in the town, with its own elected officers and hall. The dominant medieval trade guilds were associated with the major industry



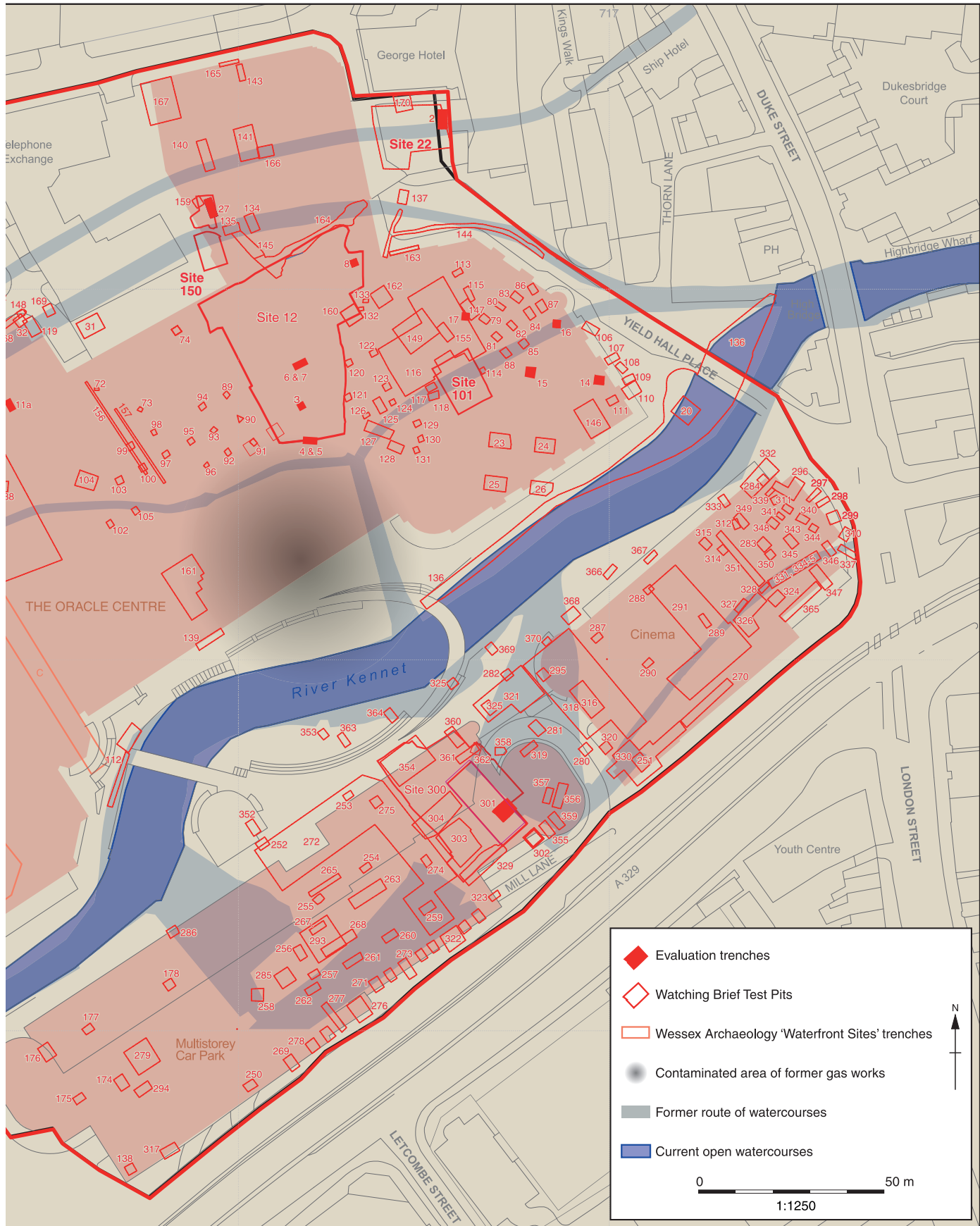


Fig. 1.3 Detailed plan of the project area showing the locations of all area excavations (Sites), evaluation trenches, and watching brief observations, superimposed on the buildings of the Oracle development

of the town, which was cloth working (ibid., 75); there was a gild of drapers by 1242 and later organisations for weavers, fullers and shoemakers. The gildhall is mentioned in a land grant of the period 1204-1220 and the agreement reached between the townspeople and the abbey in 1254 allowed that they should keep their gild and hall, but that the abbot should nominate the officers, the warden and bailiffs (ibid.). Numerous references to the gildhall in documents of the 14th, 15th and 16th centuries show that it stood on the floodplain, on an island between the Kennet and the 'Millbrook', and was accessed by a bridge and a lane (see Chapter 4, below). This was clearly not an ideal location for the town's most important civic building. Following the dissolution of the abbey in 1539, Dr London, one of the commissioners, wrote to Thomas Cromwell, asking that the town should be granted the church of the former Franciscan friary in New St to make a new gildhall, since 'ther town-hall ys a very small

house and stondith upon the ryver wher ys the comon wassching place of the most part of the town' (Coates 1802, 305). The new site was soon granted, and thereafter the old building was leased out. At the time of the Oracle excavations, it was unclear whether a house thought to be of 17th-century origins, which had come to be known as the Yield Hall and had been demolished in 1935, was in fact the successor of the original medieval gildhall on its floodplain site. The excavations at site 12 were designed in part to investigate this, and the results are described in Chapter 2, below; the medieval documentary evidence for the gildhall is reviewed by Joan Dils in Chapter 4.

The Kennet channels crossing the floodplain were an important resource both for the abbey and for the medieval town. At least three of them are definitely known to have powered mills during this period. Six mills at Reading are recorded in Domesday Book, but there is no information about their location and

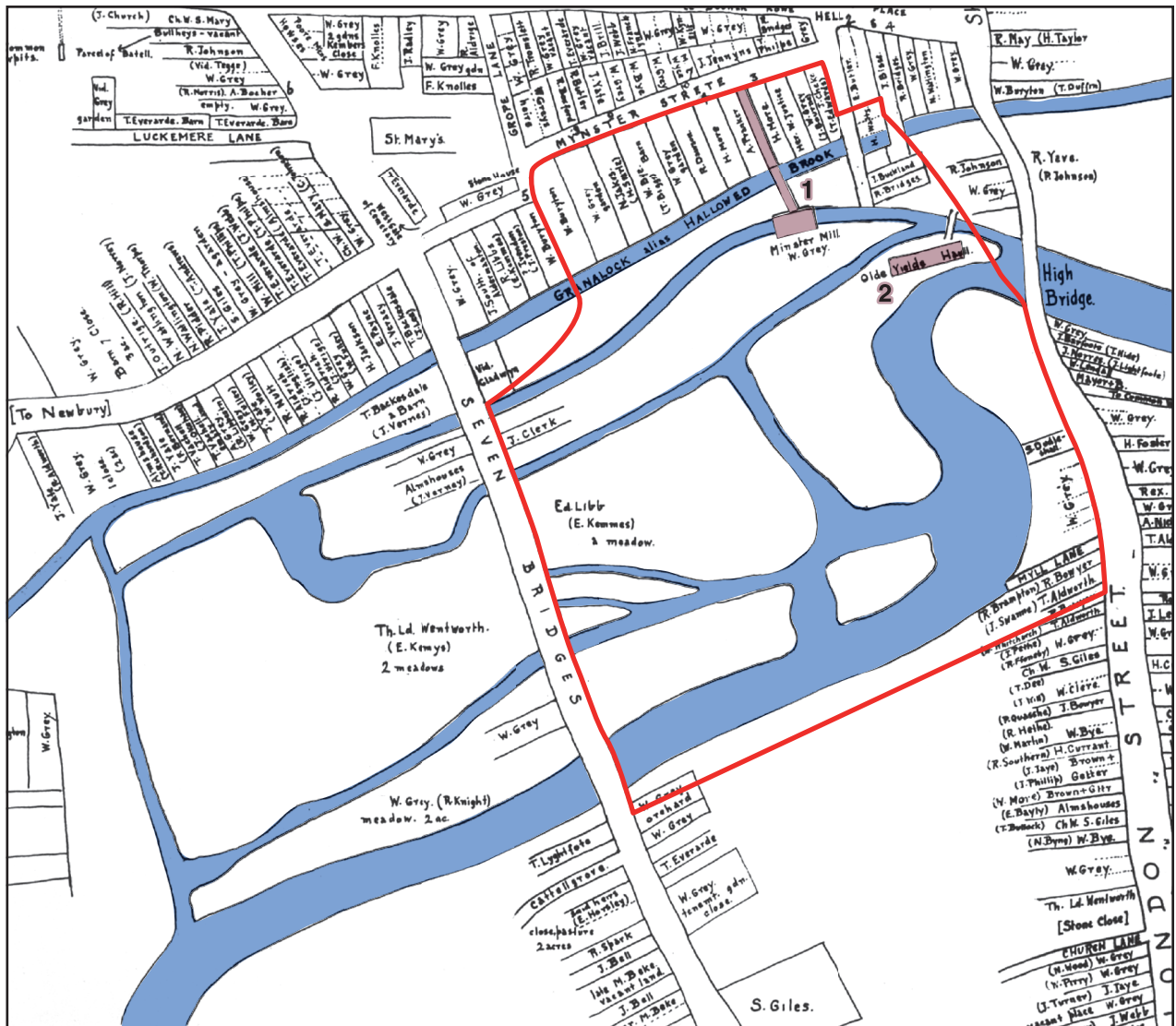


Plate 1.2 The project area shown on a detail of Amyce's survey of 1552 (drawn by S A Peyton in 1919): with [1] Minster Mill (Site 150) and [2] Yield Hall (Site 12) highlighted

they need not have been within the borough itself. Henry I's foundation charter gave all the mills of Reading to the abbey, which continued to control them until the Dissolution. The most northerly channel, the Holy Brook, powered the Abbey Mill, which was located on the south edge of the abbey precinct. Previous excavations on the site of this mill have been published in the *Berkshire Archaeological Journal*, and the mill seems to have been in continuous use from the 12th century to 1959 (Slade 1971-2; Hawkes 1991; Chandler 1997, 180). The channel may have been deliberately cut to bring water to the abbey's mill, and an abbey lease of the period 1173-1186 refers to a new ditch (*novum fossatum*) in this area (Kemp 1987, 115-6 No. 834). The Minster Mill was powered by the Minster Mill stream, and may have been one of the mills referred to in Domesday Book. The mill stream clearly had an early origin, as it marked the line of the parish boundary between the parishes of St Mary and St

Laurence to the north and St Giles to the south (see Plate 1.5). Minster Mill was certainly in operation in 1250, when it is mentioned in a land grant to the merchant gild (see Chapter 4, below). St Giles Mill was located south of the Kennet, and may be the mill mentioned in an abbey lease of 1173-1186; in the later 13th century it was being used to full broadcloths, one of Reading's major products (Chapter 4, below). After the dissolution of the abbey, Minster Mill and St Giles Mill were sold to William Grey, a wealthy citizen of the town, for the huge sum of £720. At the time of the sale (1545) both were described as two corn mills and a fulling mill, which probably means that two sets of grinding stones and a set of fulling stocks would have been present at each mill. One of the main aims of the Oracle excavations was to investigate the sites where these mills had stood. The resources of the Kennet floodplain were also extensively exploited by numerous other trades requiring water, and medieval and 16th-

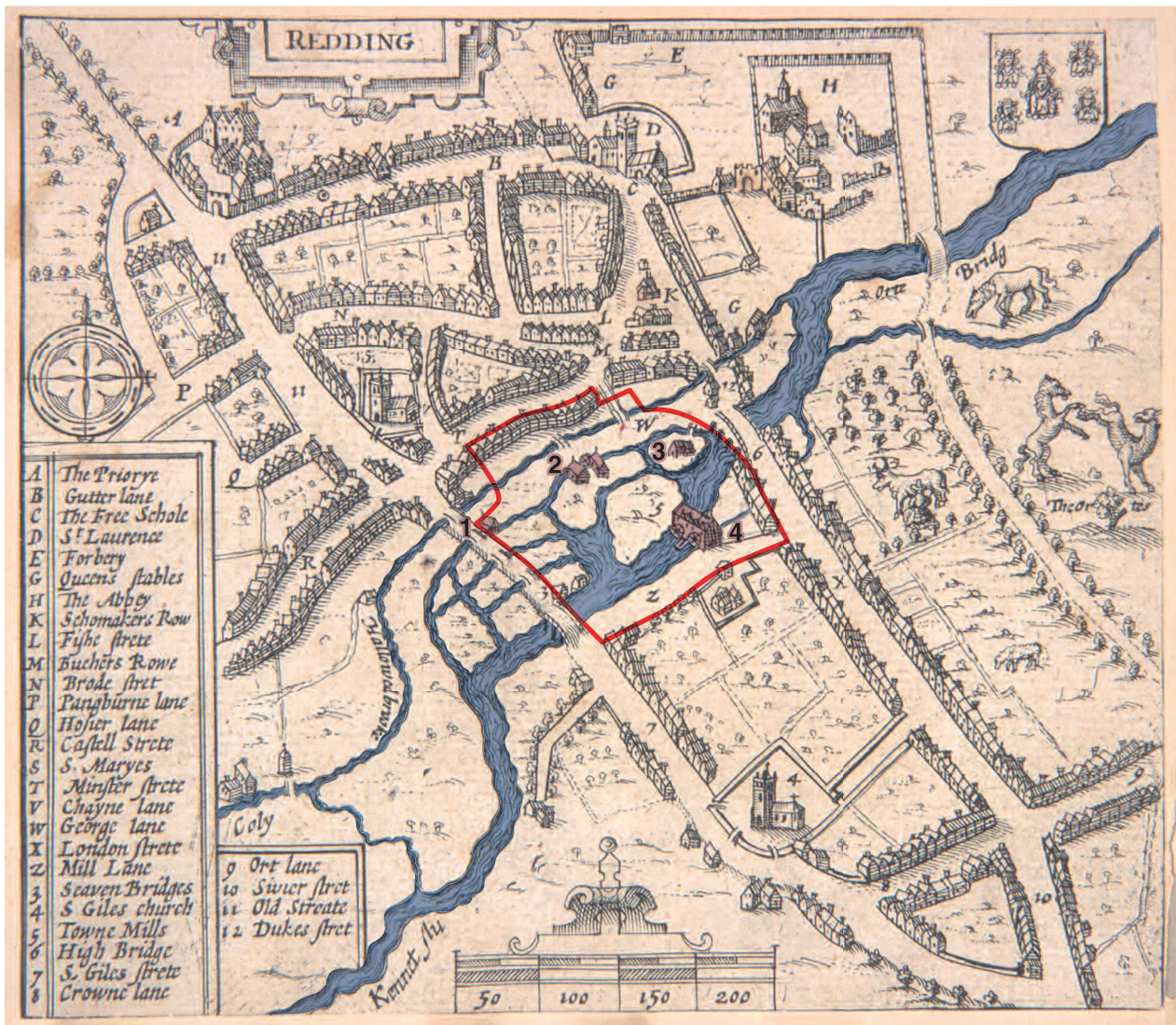


Plate 1.3 John Speed's map of Reading, 1611, with [1] the Dyehouse (Site 78), [2] Minster Mill (Site 150), [3] Yield Hall (Site 12) and [4] St Giles Mill (Site 300) highlighted

century documentary sources show that the area was being used for the tanning of leather, the dyeing and tentering (stretching) of cloth, for brewing and for fishing. Evidence for these activities was recovered during the excavations.

Astill comments (1978, 76) that Reading had become established as the major town in Berkshire by the 15th century, having long overtaken its earlier rival, Wallingford. The evidence for the town's increasing population in the later medieval

period is reviewed in Chapter 6, below, but it seems to have been accommodated by the subdivision of existing properties rather than expansion of the town into the surrounding countryside (*ibid.*, 76, 78). The scope for expansion was certainly limited by the existence of the abbey precinct and the Thames/Kennet confluence to the east, and the Thames water meadows to the north.

The dissolution of the monasteries, which took place across England in the late 1530s, must have

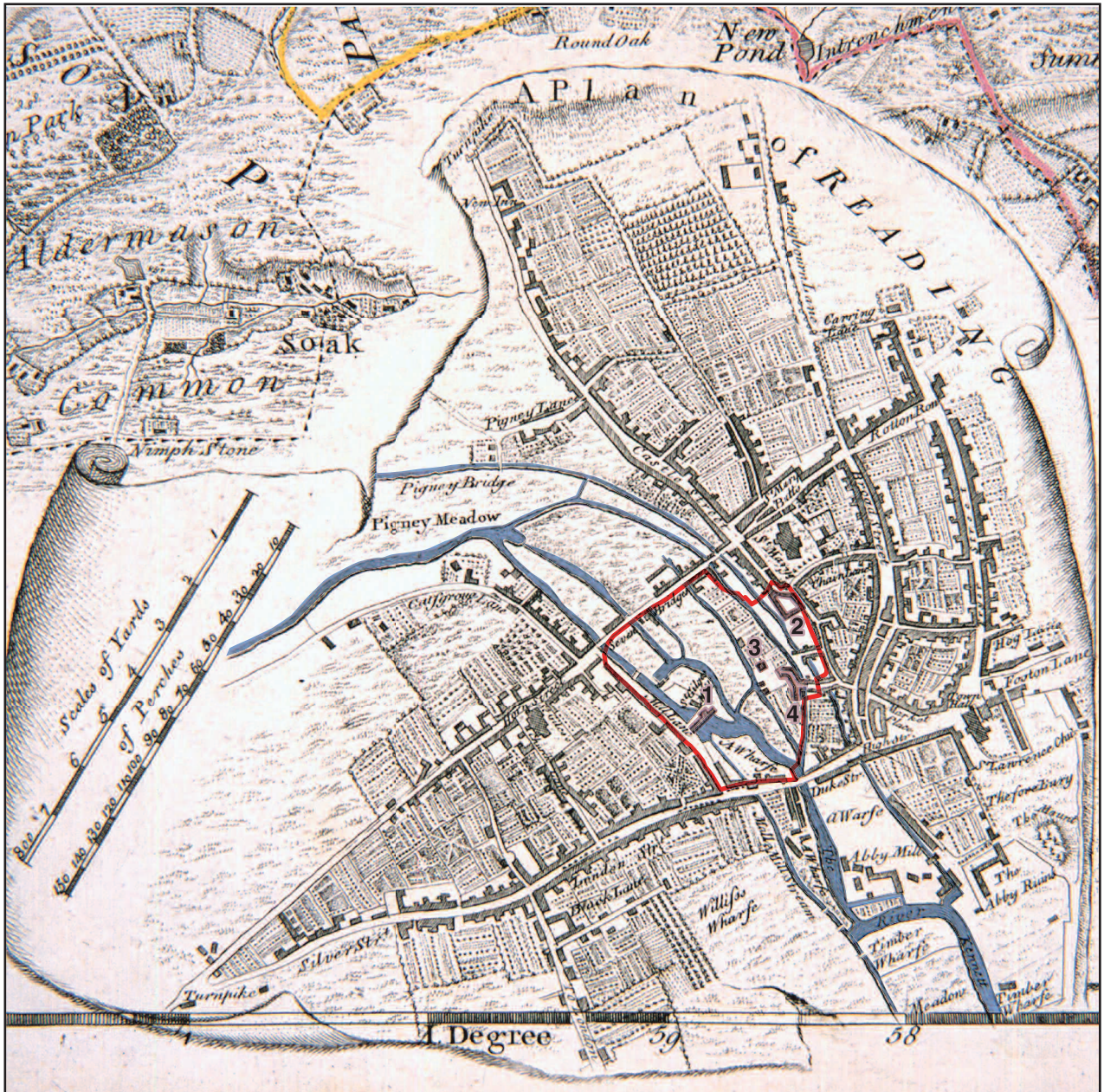


Plate 1.4 John Rocque's map of Reading, 1761, with [1] St Giles Mill (Site 300), [2] The Oracle (Site 29), [3] Minster Mill (Site 150) and [4] Yield Hall (Site 12) highlighted

Plate 1.5 The project area shown on a detail of Charles Tomkins' map of Reading, 1802 (published in C Coates *The History and Antiquities of Reading*) with [1] The Oracle (Site 29), [2] Minster Mill (Site 150), [3] Yield Hall (Site 12) and [4] St Giles Mill (Site 300) highlighted



had a major impact at Reading, which had existed in the shadow of the abbey for four hundred years. After 1539, although the abbey's assets were initially transferred to the Crown before sale, the control that the abbey had exercised over the town centre and the Kennet floodplain was lifted, and properties soon found their way into the hands of local entrepreneurs, particularly William Grey. This makes Reading a particularly interesting case-study for the local effects of the Dissolution, and there was a massive rebuilding of parts of the town during the 16th and early 17th centuries (Astill 1978, 76). In 1624, John Kendrick (a successful Reading cloth merchant) left the sum of £7500 to the borough for the construction and maintenance of a strong brick house with a garden, where the poor could be

provided with work producing high-quality cloth. A plot of land fronting onto Minster St was bought from Kendrick's brother in 1626, and the workhouse was constructed between 1627 and 1628; the production of cloth began immediately. The excavations on site 29 were located to investigate the workhouse, which had been demolished in the mid 19th century.

From the 16th century onwards, documentary sources become more abundant and these, together with maps, present increasingly detailed evidence for the changes that took place in the town. A survey of the town was compiled in 1552 by Roger Amyce (NA Misc. Bks. Land Rev vol. 187), and this was drawn up as a map by Peyton in 1919 (University of Reading, LMC 671). Part of the map, showing the project area, is reproduced as Plate 1.2;



Plate 1.6 The project area shown on a detail of the Board of Health map, 1853, highlighting [1] Minster Mill (Site 150), [2] Yield Hall (Site 12) and [3] St Giles Mill (Site 300)

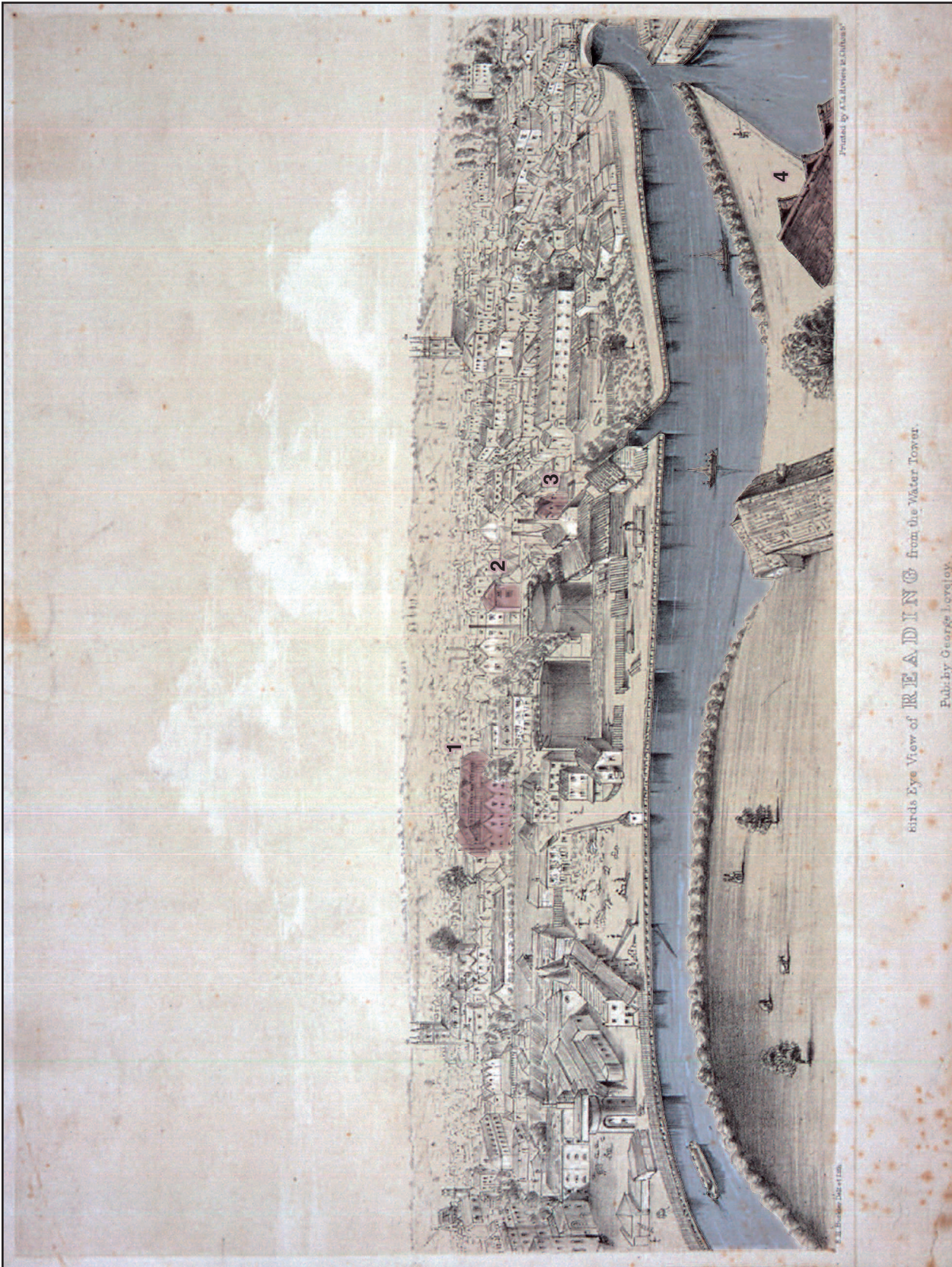


Plate 1.7 E H Buckler's bird's-eye view of Reading from the water tower, c 1850 (compare with Plate 1.6) with [1] The Oracle (Site 29), [2] Minster Mill (Site 150), [3] Yield Hall (Site 12) and [4] St Giles Mill (Site 300) highlighted

GUN ST.

EARLEY PL.

SEE SHEET N° 2

BRIDGE ST.

8

9

GAS LANE

THOMAS LIMITED

RIVER KENNET

Meadow

12

BAYNES & BEARD

WATER WORKS DEPT.

MILL WATER MILL LANE

CLARE PL.

ENT. STR. HALL

LOTHIERS



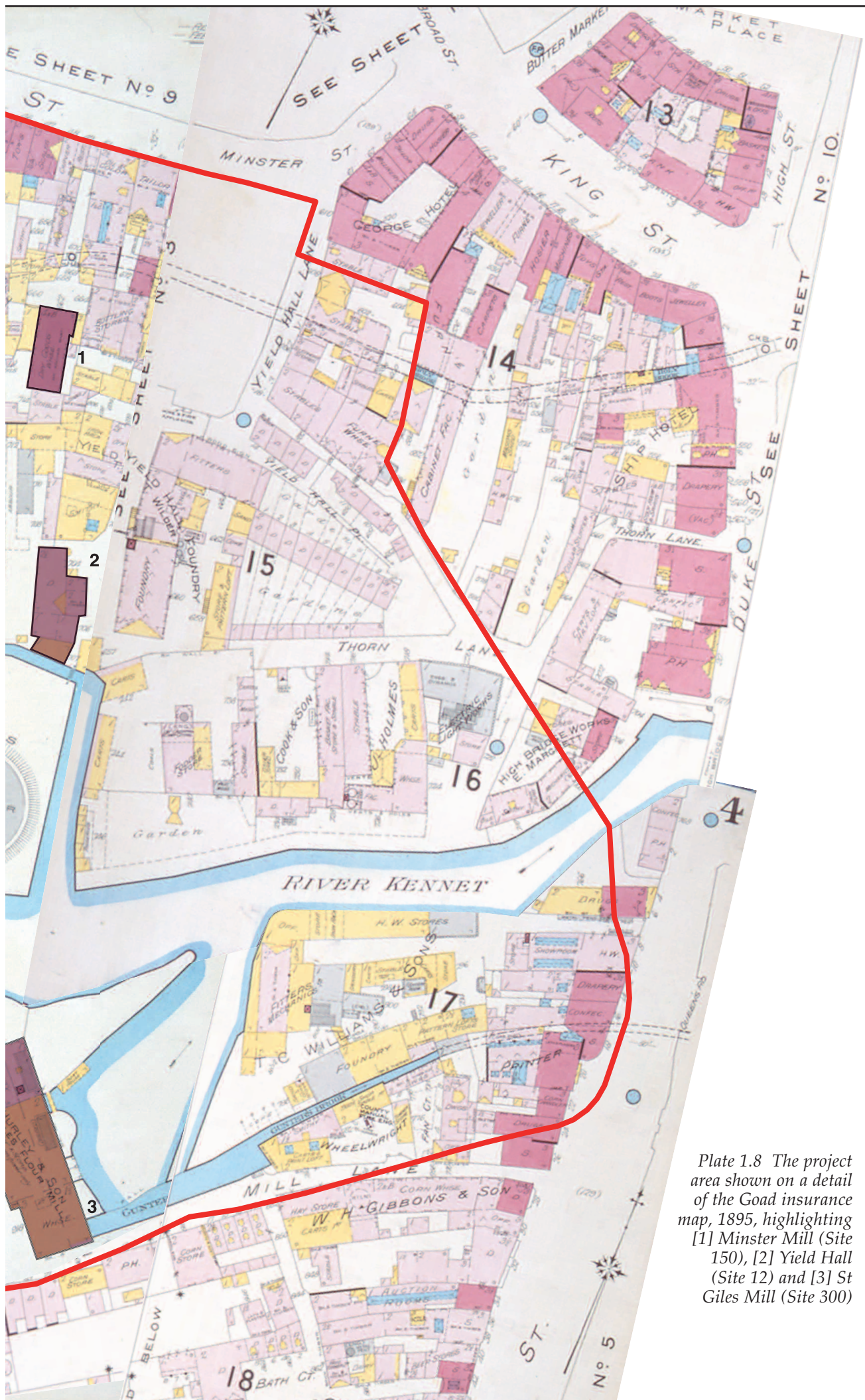


Plate 1.8 The project area shown on a detail of the Goad insurance map, 1895, highlighting [1] Minster Mill (Site 150), [2] Yield Hall (Site 12) and [3] St Giles Mill (Site 300)

although it cannot be relied on to locate properties precisely, it gives a good general indication of the final stage of medieval development of the town. The subdivision of properties into innumerable small holdings is very clear, especially in the crowded area north of Minster St, and along suburban London St. Within the Oracle project area, only the Yield Hall and Minster Mill are shown. Joan Dils has published a number of additions to Peyton's map (Dils 1980, 30-31), including St Giles Mill, and a former dyehouse located just east of Seven Bridges (now Bridge St) in the vicinity of the property marked 'J Clerk' by Peyton. One other point of interest on Peyton's map is the number of properties owned by William Grey (see above). Grey purchased a total of 197 former Reading Abbey properties in 1545 for the sum of £2133; he had no children, and on his death his fortune passed to his stepson, John Blagrave (see Chapter 4, below, for more detail).

The most famous early depiction of Reading is John Speed's map of 1611 (Plate 1.3). This shows the frontage of Minster St completely built up, and the Holy Brook, Minster Mill Stream and Back Brook dividing the floodplain into a series of small islands north of the main channel of the Kennet. The Minster Mill (depicted as two buildings with two waterwheels) is shown by Speed on the Minster Mill channel, and he also shows what is probably a schematic, rather than an accurate, representation of St Giles Mill built across the main channel of the Kennet. The large building shown on an island between the Minster Mill Stream and the Kennet is probably the Yield Hall. The small building Speed shows on the east side of Bridge St (called by him Seaven Bridges), at the point where the Minster Mill Stream emerges from under the bridge, may represent the early 17th-century dyehouse noted in this area by Dils (see above). The dyehouse was found in this location during the Oracle excavations (see Chapter 3 below).

Roque's map of 1752-3 (Plate 1.4; drawn with west to the top) shows that by the mid 18th century Reading had hardly grown beyond its medieval limits. Within the project area itself he shows the familiar St Giles Mill building, and the channels crossing the area are still unculverted. A small building to the west of St Giles Mill is probably the failed water pumping station constructed in the mid 1690s (Plates 3.38-9). The floodplain is mostly meadow and gardens. Yield Hall Lane can be seen crossing the Holy Brook and Minster Mill Stream (as on Speed's map), but on Roque's map it then divides into two branches, one leading east to an area that appears to be in cultivation, and the other running west to give access to an apparently uncultivated area containing three small buildings. This area corresponds to site 12 of the Oracle excava-

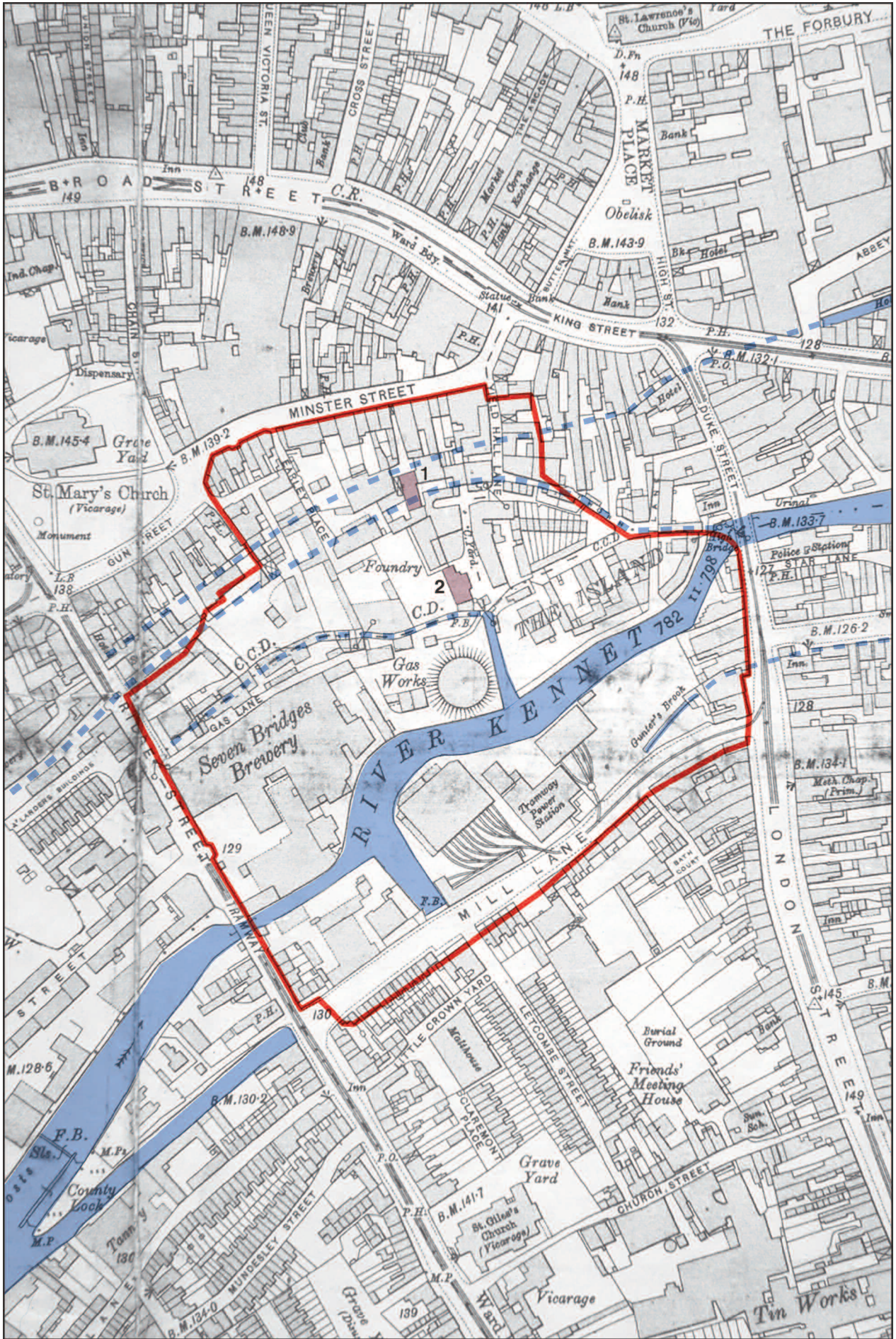
tions. Roque also provides the first evidence for a wharf upstream of High Bridge (Chandler 1997, 185), and this may reflect the improvements to the navigability of the Kennet undertaken between 1715 and 1723. Navigation through Reading apparently remained 'most intricate and dangerous' and 'a disgrace to the town' as late as 1816 (*ibid.*).

By 1802 Tomkins' map (Plate 1.5) shows the beginnings of the process of permanent build-up of the project area. On the west side of the project area, Seven Bridges Rd (now Bridge St) provided good access to the valley floor, and Simonds Brewery (established on the site by 1794) is shown here clearly with its Vinegar Yard behind. To the south are what appear to be warehouses around a courtyard, perhaps a precursor of Baynes and Beard's Timber Yard seen on the Goad Insurance Map of 1895 (see below). Within the project area, Tomkins shows the foundry at the end of Yield Hall Lane (here called George Lane), established immediately to the east of the Yield Hall itself. Minster Mill and St Giles Mill are both shown, and we have the first clear depiction of the Oracle workhouse on a general map.

The Board of Health Map of 1853 (Plate 1.6) and Buckler's bird's eye view of Reading from the water tower (Plate 1.7) show the landscape of the valley floor beginning to change, as the channels were increasingly buried in culverts. This opened up areas for smaller scale businesses, as well as for the already established brewery, foundry and wharves. Buckler shows the Oracle workhouse (see Plate 3.3 for detail), but it was demolished in 1850 and the Board of Health Map of 1853 shows the Minster St frontage developed for small shops (see Chapter 3, below). The most significant new features on this map are the three dark circles of the gas towers belonging to the Reading Gas Works Company. A row of terraced houses with gardens and detached privies can be seen next to the foundry.

By 1895, the Goad Insurance Map (Plate 1.8) gives the first clear indication of the detailed nature of the industries on the valley floor, with the function of each building labelled. During the 19th century Reading became an increasingly important centre for trade between the west country, the midlands and London, and it had a major role in servicing its agricultural hinterland. The familiar Holy Brook and Minster Mill channels have all but disappeared underground, and a huge variety of small-scale businesses have spread over this area. These include a tobacco factory, a dyehouse, a paint mill, furniture makers, stables, cartsheds, a coach builder, corn dealers, store-houses and a bottling store, in addition to the established brewery, gas works, timber yard and foundries. The eastern branch of the Back Brook (in

Plate 1.9 The project area shown on a detail of the 25 inch:1 mile Ordnance Survey map of 1909-10, with [1] Minster Mill (Site 150) and [2] Yield Hall (Site 12) highlighted



the area of site 101) has disappeared, to be replaced by an extension of Thorn Lane. The map also shows the last plan of St Giles Mill, labelled 'steam power only' only 6 years before its demolition for the creation of the Tramways Depot. Minster Mill has been decommissioned and is shown as a dry goods warehouse.

The final historic map, the Ordnance Survey 1:2500 plan of 1909/10 (Plate 1.9) marks the point at which the old, open character of the floodplain, with its water channels and meadows, has been completely masked by industry and housing. The west and south parts of the project area are dominated by the brewery, the gas works and the new Tramway buildings, which have replaced St Giles Mill, and the foundry dominates the area of site 12. The area south of Mill Lane is covered in high density terraced housing.

Previous excavations

At the time of Astill's survey of Reading's archaeological potential (1978), only the abbey had been subject to any archaeological excavation. Work here had been carried out by Cecil Slade during the 1960s and 1970s (Slade 1971-2; Slade 1975-6), and Alan Vince undertook trial excavations in 1979 to investigate part of the cloisters and an area south of the refectory (Vince *et al.* 1981-2). Elsewhere there had been extensive redevelopment within the historic core of the town, but no archaeological recording had taken place.

The situation changed in the early 1980s, when the town was facing substantial redevelopment. A total of eight town centre sites were investigated between 1981 and 1988 by the Berkshire Archaeological Trust and the Trust for Wessex Archaeology (now Wessex Archaeology) (Hawkes and Fasham 1997, esp. 6 and fig. 5), together with two sites on the Holy Brook further to the west. Five of the sites clustered in the area south of the abbey precinct, and along its Kennet wharf frontage. These revealed evidence of historic water channels, waterfront structures, timbers and occupation remains, and demonstrated that the floodplain had quite unexpectedly good archaeological potential. The results from the most significant trenches, at the Abbey Wharf, are discussed further in Chapter 6 of the present volume (for location, Fig. 1.2 No. 7). Only one of Hawkes and Fasham's sites, Bridge St East, was located within the Oracle development zone, in the western part formerly occupied by Simonds Brewery, and recently vacated by their successor Courage's Brewery in favour of an out of town site (see Figs 1.2 and 1.3). The excavations, which took place from 1985 to 1986, revealed a former channel of the Kennet with evidence for a series of timber revetments, beginning in the 11th century. The main channel was deliberately realigned in the 12th or 13th century, and thereafter seemed to have been made narrower. By the 18th century the former channel had been infilled and

the area reclaimed for wharfage. Industrial activities included hide processing (Hawkes and Fasham 1997, 193). Various borehole and trial pit investigations were carried out by Wessex Archaeology on the Oracle development site at around the same time, but the results were limited (Tatton-Brown 1996, 3).

A number of other excavations have taken place in the centre of Reading both before and since the Oracle fieldwork in the late 1990s, and have revealed information about the nature and chronology of the town's development. These are discussed further in Chapter 6 of the present volume, and the locations of the sites are shown on Figure 1.2.

THE REPORT (Table 1.1)

A programme of post-excavation assessment was carried out following the completion of site work (Ford *et al.* March 1999; Ford *et al.* April 1999). The potential of all sites and data for further analysis was considered, and a programme of post-excavation analysis leading to the publication of the present volume was drawn up. The results of the excavation are described on a site by site basis in Chapters 2 (medieval) and 3 (post-medieval) of this volume, followed by a discussion of documentary sources (Chapter 4). Chapter 5 reviews the evidence from the finds and environmental assemblages for trade and craft working in medieval and early post-medieval Reading, and Chapter 6 presents a synthetic overview and discussion. The full reports on the finds and environmental assemblages and the programme of dendrochronological dating can be found on the accompanying CD-ROM (Chapters 7-11).

Each of the main sites had its own phasing sequence. The site phase reference numbers have been retained in this report principally in order to allow cross-referencing with specialist reports and are identified as 'site sub-phase'. Site sub-phase numbers are identically structured, starting with the site number, followed by the site phase number, which is in some cases then followed by a further subdivision denoted by letters of the alphabet. Thus, for example, site sub-phase 2904a is site 29 (the Oracle workhouse site), phase 4, subdivision a. During the post-excavation analysis the site sub-phases were subsumed into ten Project Phases, which provide an overarching chronological framework for all sites taken together. Not all sites had evidence for all Project Phases. Table 1.1 provides a summary of the chronology and development of the Oracle excavations sites, with a concordance of Project Phases and major site sub-phases.

Dating

The dating is based primarily on the evidence of stratigraphy, pottery and dendrochronology. Some additional information is available from historical

Chapter 1

Table 1.1: Summary of project chronology

<i>Project Phase and date</i>	<i>Site</i>	<i>Site sub-phases</i>	<i>Sub-phase description</i>
1: before the mid 11th century			
	All	1200 1201 2900 10100, 10101a 15000 3000	Natural chalk Natural chalk and gravel and early river channels Natural chalk, silts and gravels Natural chalk Natural riverine sands, silts and gravels
2: mid 11th to mid 12th century			
	29	2901 2902a 2902b 2902c 2902d 2903a 2903b 2903c 2903d 2904a 2904b	3 large latrine pits on N side of site. Quarrying on S side of site Short-lived timber structures Second short-lived timber building Building goes out of use. Soil dumped or formed on site Pits cut through soil Construction of large timber-framed Building 5830 aligned on possible lane to west of site Maintenance/repair of Building 5830 Building 5830 destroyed by fire Soils form on the site Construction of Building 5820 using chalk and timber Addition of Building 5825 to S of Building 5820, using chalk, with wattle-fenced yard
	150	15001a 15001b 15001c, d 15002a 15002b 15002c	Man-made channel edges of Minster Mill Stream Flooding over the channel edges Minster Mill Stream channel edges recut, banks raised and revetted Pits and postholes on later mill site, one containing charred germinated oats and barley Surfaced lane created leading S from Minster St to site of mill Lane resurfaced with chalk and gravel
	300	3001a	A pond with associated channels and a consolidated bank surface suggest an early mill. An early 12th-century type of pitwheel found in pond silts
3: mid 12th to mid 13th century			
	29	2905a, b	Construction of Building 5840; occupation, development and maintenance
	12	1202 1203a, b	Revetment and cutting of channels on the floodplain Reclamation of floodplain land; first construction of Building 7410 with hearths and working surfaces; reclamation and construction observed elsewhere
	101	10101b, 10102a	Drain and boardwalk adjacent to Back Brook
4: mid 13th to late 14th century			
	29	2905c	Construction of Building 5860 as extension to Building 5840
	12	1204 1205	Establishment and use of tanners/tawyers pits on floodplain Demolition and reconstruction of Building 7410
	101	10102b	First observed revetment of Back Brook
	300	3001b 3002a	A new bypass channel created; revetments of mill leat and tailrace channel observed St Giles Mill reconstructed after c 1308
5: 15th century			
	29	2905e 2906a, b	Building 5860 demolished Area of site 29 left unoccupied, with dumping and possible cultivation
	12	1206	Revetment of channels; continuing use of waterside structures and tanning/tawying pits; continuing use and maintenance of Building 7410
	101	10103	Revetment of Back Brook; construction of fish holding tank
	300	3002b and c	Maintenance of mill structures and channels
6: 16th century			
	29	2907 2908a-d	Construction of new sandstone house, Building 5835 Establishment and use of tanning/clothworking complex
	12	1207a	Backfilling of medieval watercourses; reclamation of additional land and cutting of new channels; tanning complex goes out of use

Under the Oracle

Table 1.1: Summary of project chronology (continued)

<i>Project Phase and date</i>	<i>Site</i>	<i>Site sub-phases</i>	<i>Sub-phase description</i>
		1207b	Construction of the Yield Hall (Building 7412)
		1208a	Additions to the Yield Hall
		1208b	Reconstruction of Building 7410 with hearths
	101	10104a, b	Initial cut of formalised Back Brook; silting
		10105	Revetment of Back Brook
	300	3002d	Continued repairs and maintenance
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7: c 1600-1680			
	29	2908e	Decommissioning of the tanning/clothworking complex
		2909a	Construction of the Oracle Workhouse
	TP 78	7802a	Construction and use of dyehouse
	150	15006a	Realignment and revetting of Minster Mill stream
		15006b	Construction of new tailrace channel at Minster Mill
	12	1209a	Pits containing horncores and pottery on floodplain
		1209b	Extension of Yield Hall
		1209c-e	Modifications to Yield Hall
	101	10105c	Brick revetment added to Back Brook
		10106	Wooden platform built adjacent to Back Brook
		10107a, b	Wooden platform rebuilt in brick; ground level raised
	300	3003a	Reconstruction of St Giles Mill
<hr/>			
8: c 1680-1750			
	29	2909b	Occupation and restoration at the Oracle Workhouse
	150	15006c, 15007a-c	Reconstruction of the Minster Mill
	12	1209f	Modifications to Building 7410
		1210a	Rebuilding of Yield Hall
		1210b	Minor modifications to Building 7410
	101	10108a-c	New revetments to Back Brook
	300	3003b	Construction of water pumping mill west of St Giles Mill
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9: c 1750-1850			
	29	2909c	Occupation and minor repairs at Oracle Workhouse
	150	15008a, b;	
		15009a, b	Repairs to Minster Mill
	12	1211; 1212a	Occupation and modifications to the Yield Hall
	101	10109a, b	Flooding and strengthening of Back Brook revetment
	300	3004a	Major expansion of St Giles Mill
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10: after 1850			
	29		Demolition of the Oracle Workhouse by 1850 and subsequent use of the site
	150	150010,	
		150011a, b	Final use of Minster Mill; decommissioning and change of use by 1895
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20th century			
	12	1212b	Mixed domestic and industrial use of Yield Hall; demolition of Yield Hall in 1935
	101	10111; 10112	Silting and backfilling of the Back Brook channel
	300	3005	St Giles Mill converted to steam power by 1879; the mill demolished for the building of the Tramways Depot; Mill Lane Bus Garage

sources, such as the known date of construction of the Oracle workhouse in 1627-8.

Most of the earliest pottery at the site consisted of relatively undiagnostic sandy wares, which are thought to have come into production during the mid to late 11th century; these formed a large proportion of the pottery in contexts of Project Phase 2. Earlier pottery was only present in extremely small quantities, suggesting that the development of the project area began in the period *c* 1050-1075 at the earliest.

Project Phase 3 spans the period from approximately the mid 12th to the mid 13th centuries. The pottery assemblages of this phase are characterised by the appearance of Ashampstead and London-type wares, and smaller quantities of Surrey Whitewares. Project Phase 4 is dated from the later 13th century to the end of the 14th. This period sees major construction events at both site 29 and site 300, where a consistent group of dendrochronological results date the construction of Building 5860 to *c* 1270 and the reconstruction of St Giles Mill to shortly after 1308 with continuing modifications through the 14th century.

The pottery of Project Phase 4 shows an increase in Surrey Whitewares and the first appearance of 'Tudor Green' wares in very small quantities.

Project Phase 5 covers the 15th century. This sees a marked change in the composition of the pottery assemblage, with the disappearance of earlier types and their replacement by Surrey Whiteware, 'Tudor Green' wares, German stonewares and later medieval redwares. A number of 15th-century felling date ranges were obtained from timbers associated with revetments of the Minster Mill stream and with St Giles Mill. On site 29, Project Phase 5 is associated with the demolition of Building 5860 and the use of the site for gardens and/or animal pens. Significant quantities of pottery were present in the garden soils.

Project Phase 6 covers the 16th century, in which the character of use of some of the sites changes significantly once again. A number of timbers from the Back Brook and St Giles Mill gave 16th-century dendrochronological dates, and the pottery assemblage for Project Phase 6 includes the first appearance of post-medieval redware, Surrey border ware and characteristic continental imports. The main

expansion of the tanning complex on site 29 is dated to the third quarter of the 16th century by a series of dendrochronological dates from timbers in a strengthening of the Holy Brook channel revetment. At site 12, Project Phase 6 sees the backfilling of the medieval water channels with dumps containing late 15th- and early 16th-century pottery, followed by the construction and expansion of the building that came to be known as the Yield Hall.

Project Phase 7 is dated to the 17th century based on a variety of indicators at different sites. The Oracle workhouse on site 29 is known from documentary sources to have been built in 1627-8, and timbers used in constructions on sites 78, 150 (Minster Mill) and 300 (St Giles Mill) gave early 17th-century dendrochronological felling date ranges. English tin-glazed pottery first appears in contexts of this phase, and clay pipe is present from *c* 1610 onwards.

Project Phase 8 is dated to the period *c* 1680-1750. The rebuild of the Minster Mill (site 150) was dated to 1701 by dendrochronology, and the water pumping mill located in test pits upstream of St Giles Mill is known from documentary sources to have been constructed in the period 1694-6. Other dating evidence for contexts of this period came from assemblages of late 17th- and early 18th-century vessel glass, clay pipe and pottery, with numerous clay pipes datable to the years around the turn of the 18th century, and the first appearance of English stoneware, manufactured from *c* 1690 onwards.

Project Phase 9, *c* 1750-1850 is characterised by increasing quantities of English stonewares and refined earthenwares typical of the period, and clay pipes datable to the later 18th and early 19th centuries. Timbers from new mill races at St Giles Mill gave felling date ranges in the 1740s and 1750s, dating the substantial extension of the mill to the start of this phase, and continuing maintenance of the mill into the early 19th century was confirmed by a further dendrochronological date from a timber used to reinforce the channel structures. The mill is known from cartographic evidence to have been converted to steam power by 1877 at the latest. The Oracle workhouse is known from documentary and cartographic sources to have been demolished by 1850.

