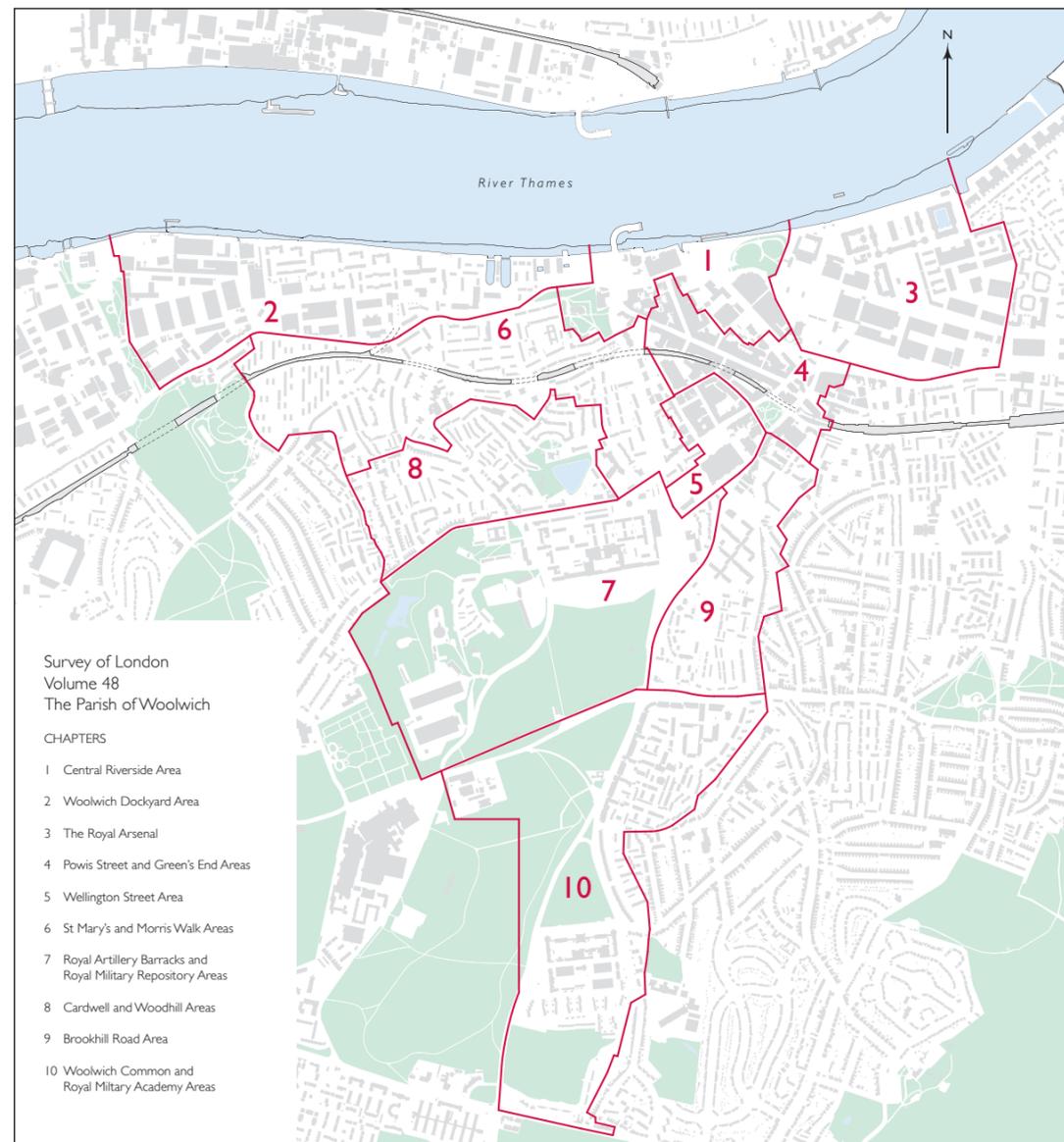


# Introduction



1. Woolwich. The red lines and numbers show the area described in this volume and its constituent chapters

Shortly before his death in 1965 Herbert Morrison, former leader of the London County Council and Cabinet minister, looked back across a distinguished London life to the place where he had launched his career: 'Woolwich has got a character of its own', he reflected. 'It doesn't quite feel that it's part of London. It feels it's a town, almost a provincial town.'<sup>1</sup> Woolwich was then at a cusp. Ahead lay devastating losses, of municipal identity when the Metropolitan Borough of Woolwich became a part of the London Borough of Greenwich, and of great manufacturing industries, so causing employment and prosperity to tumble. Fortunately for Morrison, he did not witness the fall. His Woolwich was a place that through more than four centuries had proudly anchored the nation's navy and military and acquired a centrifugal dynamic of its own. All the while it was also a satellite of London. When metropolitan boundaries were defined in 1888 they were contorted to embrace an unmistakably urban Woolwich.

Woolwich attracted early settlement and river crossings because the physical geography of the Thames basin made the locality unusually accessible. Henry VIII's decision in 1512 to make great warships here cast the dice for the special nature of subsequent development. By the 1720s Woolwich had long been, as Daniel Defoe put it, 'wholly taken up by, and in a manner raised from, the yards, and public works, erected there for the public service'.<sup>2</sup> Dockyard, ordnance and artillery made up the local lexicon. Arsenal was added to that in 1805. The making and deployment of the *matériel* and personnel of war burgeoned and the industrial town grew thickly populous. Woolwich in the 1840s, not a famously clean decade, was described as 'the dirtiest, filthiest, and most thoroughly mismanaged town of its size in the kingdom'.<sup>3</sup> By the century's end Woolwich was, perceptibly as well as formally, 'a closely-packed, toiling and moiling industrial quarter of London rather than a Kentish town as it once was'.<sup>4</sup>

It was not all tools of death and lethal sewage. There was also powerfully life-affirming mutuality, and another vocabulary took root – equitable, co-operative, polytechnic. At the beginning of the twentieth century Charles Booth reported that 'Each year Woolwich tends to become more and more entirely working class. It is one of the few districts in London where the workman has made the sides and crests of the steep hills his own'.<sup>5</sup> The toiling continued and the co-operation mutated from self-help to municipalism, Labour and the welfare state, still alongside the even more shape-shifting military state. Ian Nairn found Woolwich in the 1960s a place of 'Thumping self-centred vitality; complete freedom from the morning train to Town. It is always being rebuilt, as it must be – that is its nature'.<sup>6</sup> But then the manufacturing, public and private, and, more to the point, the money vanished. When McDonalds opened its first British restaurant in Powis Street in the 1970s, Woolwich had come to seem 'like some antique army pensioner, wounded in the wars and cast upon a not noticeably sympathetic world'.<sup>7</sup> Signs in the early years of the twenty-first century that fortunes were at last changing, and that another round of rebuilding was under way, lay behind the Survey of London's decision to address Woolwich. As *Property Week* claimed in April 2008: 'for many years it has been one of the capital's bleakest and most unloved suburbs, but now Woolwich is close to turning the corner'.<sup>8</sup> Within months money had performed another disappearing act. It may be returning, but the rest is not history.

The historic parish of Woolwich in what was once north-west Kent has a 1.5-mile (2.5km)-long frontage to the south bank of the river Thames and a hinterland the sides of which were largely defined by minor watercourses. This territory narrows as it rises up to higher ground to meet at its southern extremity the ancient London-Dover road. Approximately 735 acres (297 hectares) are covered here in ten chapters, each addressing a topographical district with some thematic or historical integrity (Ill. 1). The central riverside, much changed, had the earliest settlement. To the west was the naval dockyard, to the east the Royal Arsenal, treated here with the inclusion of some extra-parochial ground. Inland, the town's commercial centre grew up from the beginning of the nineteenth century, with what became a concentrated

municipal enclave on its south side. The hillsides to the west are residential; the lower reaches that were at first dependent on the proximity of the dockyard were wholly rebuilt in the late twentieth century as public housing. South-west of the town on the edge of Woolwich Common was where the Royal Artillery Barracks were placed in the 1770s. This garrison had a major impact on developments, principally residential, on both its north-west and east sides. Further south, across the expanse of the common, was the Royal Military Academy of 1803–6.

The parish of Woolwich also took in pieces of land on the north (Essex) side of the Thames. Lacking coherence, uninhabited until the nineteenth century, and separated since 1965 from the administration of Kentish Woolwich, these are not covered here. Neither are the parishes of Plumstead and Eltham, which were incorporated into the Borough of Woolwich in 1899 and altogether made one civil parish in 1930.

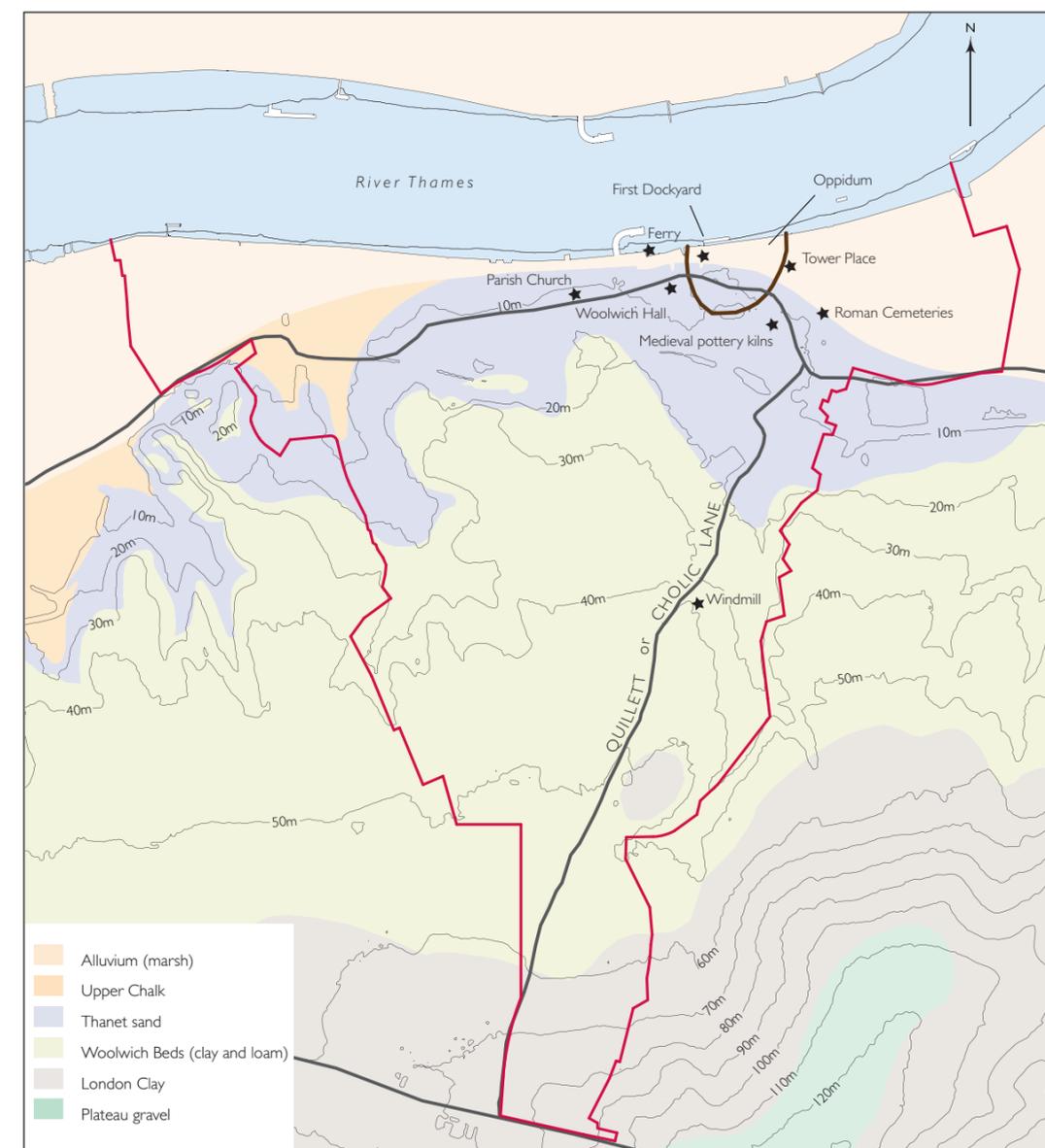
### *Woolwich before 1512*

Amid the alluvial floodplains that once flanked the lower tidal Thames a terrace of solid high ground met the river at Woolwich at an elevation of about 20–30ft (6–9m) (Ordnance Datum). Palaeocene Thanet beds, gravels and sands, and some chalk, provided fertile and well-drained soils. There was no comparable ground for miles, nothing else between Greenwich and Erith. Above the river the land rose around combs on the loamy ‘Woolwich beds’ of sand, pebble and shell up to a stiff London-clay plateau at an elevation of about 200ft (60m) on what became the common.

The gravel promontory at the Woolwich riverside hosted an important Iron Age settlement or enclosed oppidum, possibly a fort, established sometime between the third and first century BCE. This occupied the site that has lately been Royal Arsenal Gardens, between the Royal Arsenal to its east and, probably, Bell Water Gate to its west, possibly extending south to include the small hill that is now the site of Riverside House, and thus covering an area of around twelve acres with a river frontage of about 200ft (60m) (Ill. 2). Excavations have uncovered traces of occupation and the eastern sections of massive defensive ditches that overall spanned around 50–60ft (15–18m) with a depth of about 15ft (4–5m). It is conjectured that this defensive earthwork encircled the landward sides of a riverside settlement, the only one of its kind so far located in the London area, that may have been a significant port, anterior to London, a base for control of the river and its traffic with a secure crossing, also perhaps a home for one of the four ‘kings’ of the Belgic Cantii (recorded as Segovax, Carvilius, Cingetorix and Taximagulus) that Julius Caesar encountered in 55–54BCE. The place appears to have been abandoned and then reoccupied during the late-Roman period, probably the fourth century, by when the site was on the approach to London. Roman mixed-rite cemeteries have been located to the east in what became the Arsenal. Forerunners of the High Street and Church Street probably existed by this time as part of a Thames-side land route that linked settlements from Deptford to Erith, perhaps connected to the south to the main London–Dover road (Watling Street), which may itself have Iron Age origins, by a path up an eastern combe.<sup>9</sup>

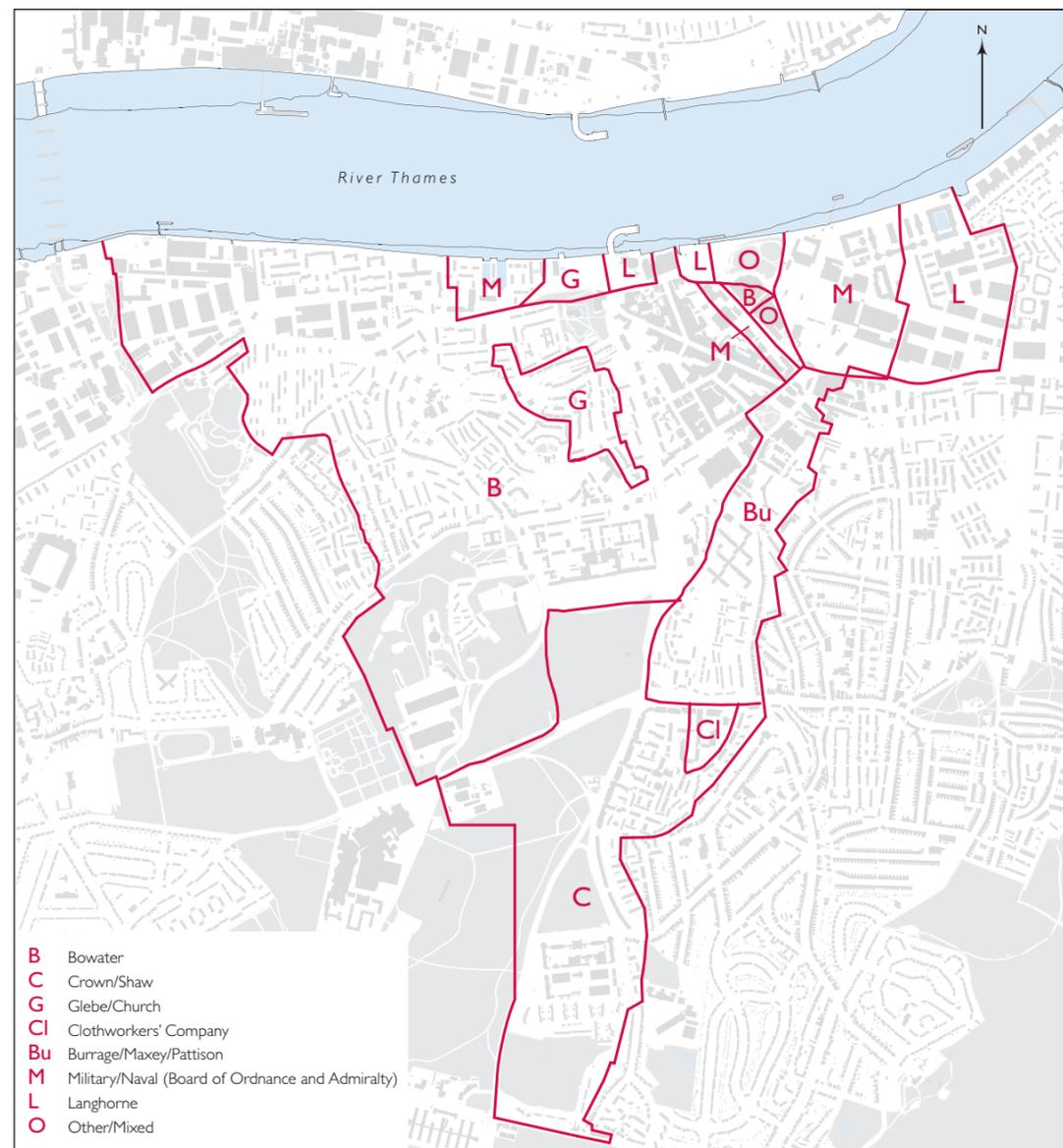
The location continued to matter because its solid ground provided a landing place for a port with a river crossing. There was a small late-Saxon settlement, and a ‘wic’ place-name suffix is suggestive of a trading port. The name Woolwich, very variously rendered in early sources, is likely to refer to a port from where wool was exported. However, other possibilities have been broached – a farm where wool was produced, a wooded dwelling place beside a river or the creeks of a river, a hill reach (from Danish), a place of pestilence, even a place where owls dwelt. A charter records that Aelfthryth, the youngest daughter of King Alfred, gave substantial Kentish lands that included *Vulwiche* (along with Lewisham and Greenwich) to the Abbey of St Peter, Ghent, in 918 after the death of her husband, Baudouin II, Count of Flanders. She lived in Ghent, and at her request Baudouin was buried in the Abbey. This document has been judged a forgery, but a gift from King Edgar of further lands in 964 does refer back to Aelfthryth’s gift, suggesting that this was indeed the first recorded instance of a grant of English lands to a Continental religious house. Thus, through the mediation of a prior based in Lewisham, and with a Danish interregnum, Woolwich was controlled from Ghent for nearly two centuries. For this reason, no doubt, the Domesday Book mentions *Hulviz* only in connection with an estate of sixty-three acres held by the Sheriff of Kent, probably land on the north side of the Thames that was not the Abbey’s.<sup>10</sup>

The fishing village that was medieval Woolwich was highly susceptible to flooding. In 1236 there were many deaths. Sections of the riverfront were periodically embanked and re-embanked and some housing



2. Early Woolwich, showing geology, contours, roads and principal sites up to the sixteenth century

may have clustered round a parish church, probably pre-Conquest in its origins, that was on a hill well to the west of the first settlement, just to the north of its extant eighteenth-century successor. First dedicated to St Lawrence, this church was rebuilt in stone, possibly around 1100 when Henry I gave it to the Priory and Convent of St Andrew and Bishop Gundulph in Rochester. Former Ghent lands including Woolwich passed to the royal manors of Dartford or Eltham in the same period. Then, in the 1150s, Henry II granted them to the royal Abbey of St Jean d’Angély in Saintonge, on a pilgrimage route in western France under Angevin control.



3. Principal landholdings in Woolwich, c.1710

This overseas ownership did not survive thirteenth-century warfare and the lands reverted to the Crown as part of the manor that from the early fourteenth century included a royal residence in Eltham. However, the greater part of the parish of Woolwich, excluding some central riverside and eastern sections and the common, were treated by this time as a separate 'manor'. This has been called Southall, perhaps erroneously, through the interpretation of transactions of the 1340s by Sir John Pulteney, the great merchant, financier and mayor of London. What in loose usage was also termed the manor of Woolwich was not a full manor, but a dependency of the royal manor of Eltham. It passed through numerous other hands and was divided before Nicholas Boughton reunified it via purchases of 1495 and 1503. Among the

parts of the parish that pertained to other landowners were a riverside quay held by the Priory of Holy Trinity, Aldgate, by the thirteenth century and a wharf at what is now Glass Yard, purchased in 1442 by the Priory of St Mary Overy, Southwark. Inland eastern fringes were part of what came later to be called the Burrage estate, mostly in the parish of Plumstead, after a fourteenth-century owner, Bartholomew Burghersh the elder, the second Lord Burghersh.

There was a medieval river crossing, probably close to where the Woolwich Free Ferry now plies, where the river's width would have been marginally more than its present 500 yards (450m). A ferry (royal because franchised by the King) certainly went across the Thames at Woolwich by the fourteenth century. It is mentioned in conveyances of 1308 and 1320–1 along with the lands at North Woolwich with which there was the long-standing Kentish link. The south-bank settlement had grown inland, beyond the great ditch, perhaps then still discernible, across the High Street and as far east as Warren Lane, near to which there was at least one large pottery kiln for the making of London ware. In the fifteenth century riverside wharfage may have included small-scale private shipbuilding or repair near Bell Water Gate. The parish church was rededicated, first perhaps to the Virgin Mary and then in the sixteenth century to St Mary Magdalene. East and west lay marshland. The southern parts of the parish, once wooded, were gradually cleared for agricultural use and as a common. From the 1450s there is a record of 'Wyndemylhill'.<sup>11</sup>

#### *Land ownership since 1512*

The beginnings of what eventually became a huge military estate in Woolwich lie in the use for naval shipbuilding from 1512 of a wharf at the centre of the town, immediately east of Bell Water Gate. Geography was again favourable. Woolwich is on a long straight reach of the Thames that had strong tides and deep water, just 8 miles/13km (as the crow flies) below London Bridge. The Crown purchased the yard in 1518 and, through subsequent primary use as an ordnance depot for the fitting out of ships, it became known as Gun Wharf. Naval shipbuilding moved to the west in the 1530s, beyond the parish church to a two-acre wharf known as Boughton's Docks after Sir Edward Boughton, who had inherited the 'manor' of Woolwich in 1518, established good connections at Court and picked up a knighthood in 1533. He also bought the Burrage estate and in 1539, thanks to the Dissolution, acquired the manor of Plumstead as well as an Act to disapply the Kentish tenurial custom of gavelkind whereby lands were divided between heirs. The Crown purchased the small dockyard in 1546. The physical constraints of the site meant that, when a naval ropeyard was established in Woolwich in 1573–6, it was elsewhere, on a comparatively flat stretch of ground extending south-eastwards from Gun Wharf, where Beresford Street now runs.

Another Boughton transaction was the sale in the 1530s of eastern riverside lands to Martin Bowes, who had accumulated a fortune working at the Royal Mint. Bowes otherwise built up riverside holdings in Woolwich and Plumstead, also taking advantage of the Dissolution, and erected Tower Place, a mansion on the east side of Woolwich, with extensive grounds on the marshes. By the 1650s the state, as what had become the Board of Ordnance, had escaped the confines of Gun Wharf to use these lands to the east for testing ordnance. The shock of the Dutch incursion in 1667 led the Crown to acquire full possession of the thirty-one-acre Tower Place estate and to build a defensive battery, giving up Gun Wharf in part exchange (Ill. 3). What came to be called Woolwich Warren and then the Royal Arsenal subsequently expanded eastwards across Plumstead and beyond. The naval dockyard was also gradually enlarged, first westwards via a lease of 1663, an acquisition that was made freehold before there was further growth, then eastwards in the 1720s, and yet further west and through reclamation from the river in the 1740s.

Meanwhile the 'manorial' demesne remained by far the greater part of the parish, including some of the town, the central and western riverside, and hillside lands to the south, but broken up not just by the military–naval and other riverside holdings, but also by fields to the south of the parish church that were held as glebe lands. It had more than once changed hands. Boughton's son Nicholas sold to Richard Heywood in 1554, and it then passed by 1580 to William Gilbourne, a London draper, who came to live in a mansion called Woolwich Hall on the south side of the High Street, where Hare Street now ends. Thence by marriage the estate eventually went to St Leger Scroope, on account of whose debts it was sold on in 1693 for £11,800 to two Richard Bowaters from a Coventry family, a citizen mercer of Kingsbury, Middlesex, and his nephew, a draper. Sir John Shaw, to whose father the Eltham manor had been leased in 1663, dredged up forgotten entitlements and in 1696 won a court decree that affirmed the overlordship



4. Frances Bowater, née Duncombe, painting of c. 1777 by Thomas Gainsborough

of Eltham. A settlement secured the Bowaters' Woolwich holding subject to the payment to Shaw of £3 os 8d annual rent. The Bowaters' principal interest in Woolwich may have been the profits that could be made from exploiting the hillsides for ballast – sand, gravel and chalk extraction.<sup>12</sup>

The Woolwich Estate passed in the 1730s to Edward Bowater, who probably then rebuilt an isolated hilltop retreat, later called Bowater House ('Mount Whoredom' by Rocque, see Ill. x), on the east side of what became Frances Street. Bowater had augmented his wealth by marriage and his principal residence was on Bruton Street in Mayfair. His eldest son, John, born in 1743, was baptized at St George's, Hanover Square. A younger son, Edward (1746–86), set himself up as a ship- and boat-builder on the riverside west of the naval dockyard in 1771, but debts incurred by John, who stayed on Bruton Street, forced the father to borrow £10,000 against the Woolwich estate in the same year. Two years later prosecution for debts of £2,400 placed the three Bowaters, Edward the elder and younger and John, in the custody of the Marshalsea.<sup>13</sup>

More money was raised – substantial Woolwich lands were leased, to the Board of Ordnance for an annual rent of £200 and to private buyers, and in 1775 the estate was remortgaged for £25,000. Though in 1776 debts of at least £1,232 remained unpaid, John Bowater was free and now had an address in Grosvenor Square. That summer he married the Hon. Frances Duncombe, the eldest daughter and erstwhile heir of Anthony Duncombe, Lord Feversham, who had inherited a fortune from his uncle, the financier Sir Charles Duncombe. Frances had lost her mother, Duncombe's second wife, Frances Bathurst, days after her birth in 1757; her father died when she was five. A wealthy orphan, she was also, if Thomas Gainsborough's portrait of around 1777 is to be believed, a beautiful woman (Ill. 4). There was, though, a complication. She had been expelled from her step-mother's home after, it was said, the interception of a letter that revealed flirtations with an admirer, a Mr Arabin, while she was betrothed to Jacob Pleydell-Bouverie, Viscount Folkestone; he soon after married Frances's younger step-sister, Anne Duncombe.

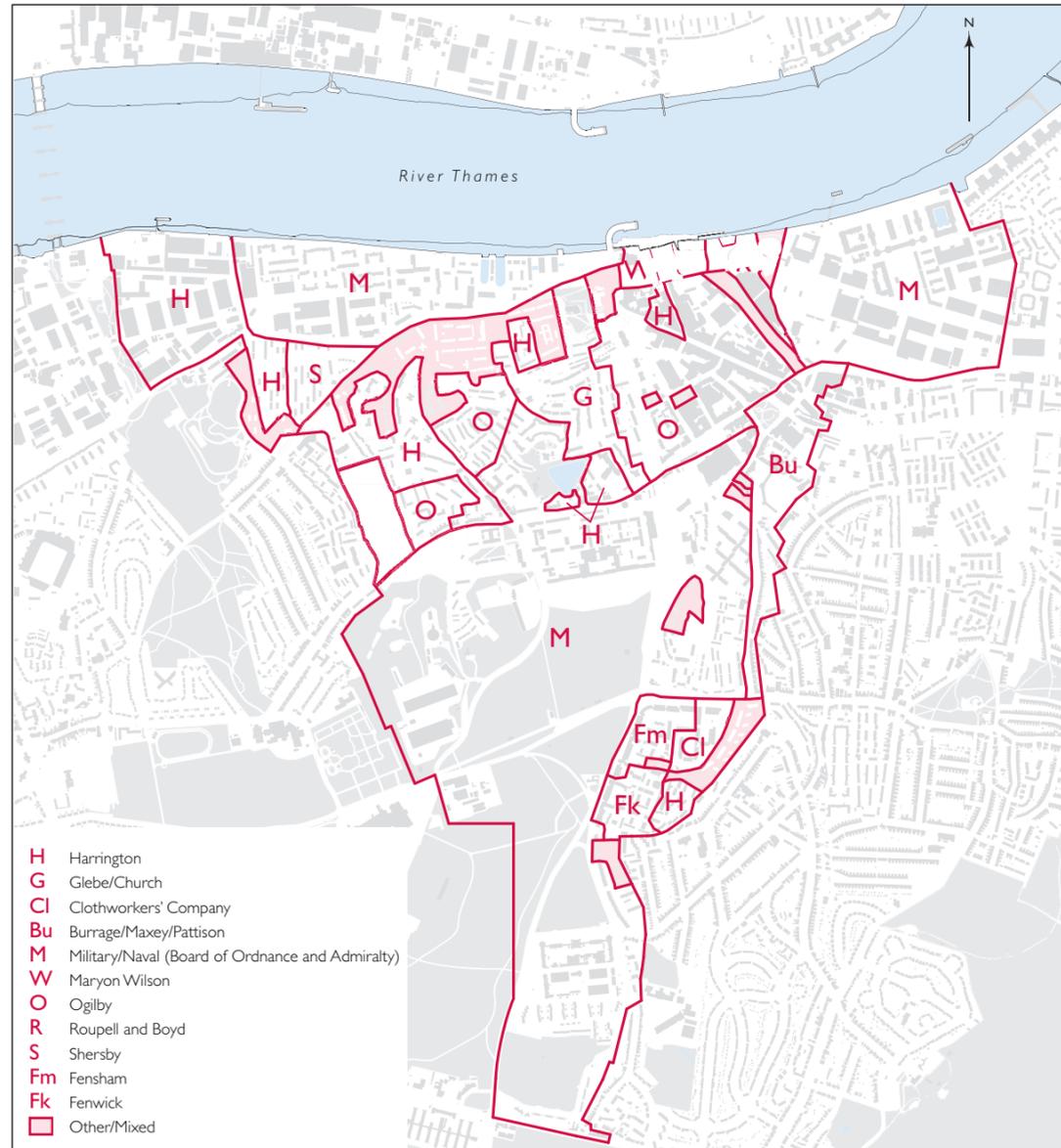
In August 1777 the elder Edward Bowater died and John Bowater inherited. Settlements arising from a dispute between Anne Duncombe and her mother then provided for the transfer of the Woolwich estate and Frances Bowater's estates in Leicestershire to her guardians and her father's executors as trustees. This was in return for lifetime annuities of £2,425 12s (the Woolwich rentals) to John Bowater and £1,000 to Frances, as well as payment of his mortgages and other debts, though not, it seems, all – they had risen to more than £15,000 (£2,200 was owed to John Linnell, the cabinet maker and upholsterer, more to jewellers, parfumeurs and booksellers). A month later, in August 1778, the couple fled abroad. From The Hague Bowater sought and gained a private Act of Parliament in 1779 to get round the terms of the trust and permit him to grant 99-year building leases, arguing that houses were much wanted in Woolwich and that the value of the land could be improved by as much as £28 per acre.<sup>14</sup>

The Bowaters moved on to Bonn; 'they could not travel to London without bodily danger.'<sup>15</sup> There Frances may have become a mistress of the Elector of Cologne, Maximilian Franz, at the court where the young Beethoven was making an impact. The Bowaters' marriage disintegrated, though both remained in Bonn through the 1780s. Frances converted to Catholicism and suffered facial disfigurement through disease or its treatment. In fear of revolution after the execution of Marie Antoinette she fled in 1794 to Leicester with the Elector's chaplain, Abbé Clement Döbler, who brought with him a manuscript of Beethoven's String Trio in E flat, op. 3. An upshot of this was the first performance of any of the composer's works outside Germany or Austria.<sup>16</sup>

John Bowater had returned to England by 1791, taking up residence in Half Moon Street, Mayfair. Before long he settled with a new partner, Sarah Hill. A much younger brother, George, lived in Bowater House from 1795. The family remained, 'notwithstanding their large possessions, in a situation such as would render a little ready money likely to be not an unwelcome article'.<sup>17</sup> Indeed, though more than £17,000 had been paid through his wife's estate, John Bowater's debts had risen to over £100,000. In 1799 a 99-year lease of the eastern part of the Bowater estate was granted to the Powis brothers, Greenwich brewers, with a view to laying new streets for development. Further large chunks went to Henry Rideout, a military contractor, and to the Board of Ordnance, which commandeered freeholds in 1802–4 and granted Bowater £29,338 13s compensation.

In September 1805 Isaac Blight, senior partner of Blight, Long and Blight, shipowners and ship-breakers, was murdered in his Rotherhithe home. Within a year the surviving senior partner, John Long, had established himself on what remained of the Bowater estate in Woolwich. Long operated sandpits and a wharf near the western parish boundary, and for £1,000 acquired and then developed more than ten acres on the west side of Frances Street at its top end, from where he ran a tavern and soon secured a lucrative contract as messman to the canteen of the Royal Artillery Barracks. In February 1807, John Bowater, now in his sixties, was imprisoned for debt, this time in the Fleet, for fifteen months. Frances Bowater, still in Leicestershire with Döbler, agreed to give up any claim to Woolwich once the debts, still more than £100,000, were paid. To this end the Woolwich estate was assigned in trust to Long in June 1809. He paid some creditors before the rest were finally reimbursed in April 1810 thanks to a Chancery decree relating to Frances Bowater's family estates.<sup>18</sup>

John Bowater died three months later. He had ended his days on the Edgware Road with Sarah Hill, their three children and possessions, which included paintings by Guido Reni and Adriaen van Ostade. Hill, Long and Richard Powis were his executors. Within a year all three had opened Chancery proceedings against the other two and, in Powis's case, Frances Bowater as well, who was allegedly now of



5. Principal landholdings in Woolwich, 1847

unsound mind. A decree in 1812 freed Long to put the estate up for auction in 734 lots and Robert Ogilby, an Irish linen merchant, bought substantial freeholds. Long staged another auction of around 500 houses in 1820. Frances Bowater died, without legitimate heirs, in 1827 and Long, also now deranged, followed a year later. New claims against Powis and Long's heirs and executors regarding the status of the estate were now filed by Joseph Harrington, a lawyer who, in 1815, had married Georgiana Mercote, the eldest daughter of John Bowater and Sarah Hill (her surname derived from Murcott, that of the elder Edward

Bowater's mother). Through Chancery the estate was divided in 1830 (Ill. 5). The auctions, from which Ogilby had ten of twenty-four sold parcels, were respected. Unsold lands went to the Harringtons. These two families retained control of gradually diminishing landholdings, though not without further disputes, until the 1960s.<sup>19</sup>

This story warrants telling at length because the Bowaters's pecuniary difficulties dovetailed with Britain's expanding martial requirements. They facilitated the massive growth of the military estate in Woolwich that largely determined the town's late-Georgian and subsequent topography. By the middle of the eighteenth century Woolwich had acquired yet greater military significance through arms manufacturing on the Warren and as the home of the Board of Ordnance's 'scientific corps' (artillery and engineers) and its military academy. It was a strategically vital, elite and educated place. Fifty-three acres were leased for the Royal Artillery Barracks in 1773, months after the Bowaters were imprisoned, and sales of 1779 and 1784 made further westward expansion of the naval dockyard possible. John Pitt, the 2nd Earl of Chatham, appointed Master-General of the Ordnance in 1801 when his younger brother was prime minister, took an especially close interest in Woolwich and initiated massively ambitious wartime works and land acquisitions. Behind the latter lay not just the wider wartime exigencies of the period's fundamental military transformations, but also more local factors – the Duke of York's desire for fortifications on Shooters Hill in response to invasion fears, new professional approaches to practical or field training, and the use of enclosure to obtain a cordon sanitaire. To these ends freeholds of the southern parts of the parish of Woolwich, including its common, were taken in 1802–4. Sixty acres of Bowater farmland became the Royal Military Repository, and the Royal Military Academy was placed at the far end of the eighty-acre common. Around thirty acres of the Burrage estate followed in 1808. Within a decade the Board of Ordnance had wrenched to itself ownership of about thirty per cent of the land area of Woolwich, having also taken adjoining parts of Charlton and Eltham while the Royal Arsenal continued to grow across Plumstead. Further Woolwich lands, on the east side of Frances Street, were added to the military–naval estate in 1842 and 1856.<sup>20</sup>

There, more or less, things stood until the 1950s when public ownership of land in Woolwich increased yet further through the London County Council and, more extensively, Woolwich Borough Council for the sake of housing programmes. Much was compulsorily purchased, especially tracts south of Woolwich Church Street and east of Woolwich Common. Then, as what had come to be termed the defence estate became surplus to military requirements, Greenwich Council acquired more land on the former dockyard, and east and north of the Royal Artillery Barracks, up to the 1970s for more housing and for government offices. The former Arsenal passed to a state development agency in 1997, and thence to the private sector (Berkeley Homes) in 2011.

#### *Naval–military presence and social history*

Around 1500 Woolwich had a population of just a few hundred. The naval dockyard brought growth, at first of a modest scale. By 1665, when Samuel Pepys (Clerk of the Acts to the Navy Board) decamped to Woolwich to escape the plague, the town comprised around 280 households. Only thirteen per cent, comparatively few, were exempt from the hearth tax. Among 1,200 or more people, about 300 worked in the dockyard. There was also glass and pottery manufacturing, but it was principally the navy, through the dockyard and ropeyard, that made Woolwich a prosperous, and thereby well-hearthed, place. The yards were enlarged to provide for the building, repair and supply of more and bigger ships, but settlement stayed compact and essentially linear.<sup>21</sup>

Significant further population increase followed in the early eighteenth century in the wake of major enhancements in the dockyard and on the Warren where the making of ammunition, guns and gun carriages had taken root alongside storage. There was town-centre rebuilding around a new market, and the parish church was replaced, thanks largely to money from the church-building commission of 1711. There were still very few buildings inland of the south sides of the ropeyard, High Street and Church Street, just humble scatters of cottages at Green's End and on the common (Ills 6–8). Agricultural use included orchards, with arable and dairy further south and west. Around 1720, when the population was said to be 1,300 families or 6,500 (a perhaps exaggerated claim – fewer than twenty towns in England were significantly more populous), the populated part of Woolwich was, as John Strype reported, 'low, and not



6. Woolwich from the north, 1739. Engraving by Samuel and Nathaniel Buck showing the Warren, later Royal Arsenal (left), the Ropeyard's turret (centre left), the briefly co-existent medieval and eighteenth-century parish churches (centre right), and the naval dockyard (right)

over healthful'.<sup>22</sup> The malarial marshland surrounds made it an undesirable posting; dockyard workmen had sometimes to be paid as much as a third more than their peers in other naval towns. The navy yards continued to dominate the local economy through the century, employing between 500 and 1,400 men. Sailors embarked and disembarked elsewhere, many further east in Kent, so were not a major local presence. The dockyard was one of six across southern England that were the greatest industrial establishments of the time, core facilities for the sea-power that underpinned world-conquering maritime trade. Great ships were built here.<sup>23</sup>

One consequence was that Woolwich had, for the time, an unusually high concentration of artisans, skilled wage labourers with secure jobs who walked between their homes and workplace. Many were literate, Nonconformist and culturally independent. Their work was democratically structured and there were early instances of industrialized co-operation. In 1675 ropemakers mutinied against new working rules and in the 1720s they formed a 'confederacy' that struck for higher wages. Dockyard workers, collaborating with peers in other naval towns, followed suit in later decades. An annual wage bill of around £20,000, generally paid much in arrears, fed spending power into Woolwich. The town already had around sixty inns and alehouses in the 1710s. The service economy attracted immigrants from the countryside, including Thomas Paine, who briefly kept a stay-maker's shop on the High Street around 1760. There were also Huguenots, Irish and some of African origins escaped from slavery. The town's narrow economic base meant acute poverty between wars when there was low employment in the yards. The Vestry struggled with social maintenance. For the artisans in the yards other forms of co-operation were devised. A shipwrights' windmill was built beside Cholic Lane in 1758 to make bread for an early (perhaps the first) retail society or food co-operative, and in 1775 the founding of the Amicable Benefit Society enhanced mutual security. Deep social fractures worsened that same year. In response to the century's most serious dockyard strike, one said to have compromised the response to the American rebellion, artillerymen were called in to help to discipline 'refractory workmen'.<sup>24</sup> Soldiers had often clashed with artisans, in alehouses and during earlier strikes. Georgian England held soldiering in contempt – a soldier's pay in 1806 was about a quarter that of a dockyard labourer, and there was widespread wariness of standing armies, a principal reason for the separate status of the Board of Ordnance. Yet the number of artillerymen resident in Woolwich rose from around 200 in the Warren in 1716 to around 900 in the hilltop barracks in the 1770s, growing to a substantial garrison of around 1,500 in 1801, when the population of Woolwich as a whole was recorded as 9,826 in 1,341 houses, not far off the size of a provincial county town. There was also another shackled if not cowed workforce – several hundred convicts lived in hulks moored in the river off Woolwich from 1776 until the 1850s. Altogether, 'that gay place, Woolwich', as William Cobbett later recalled and disparaged it, was a combustible mix.<sup>25</sup>



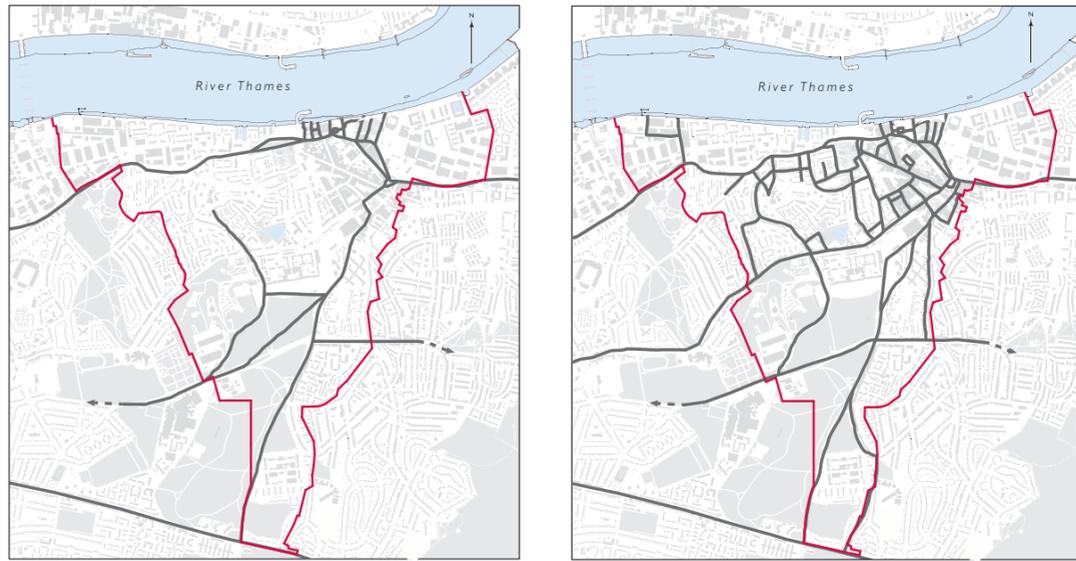
7. Woolwich in the 1740s, from John Rocque's *Exact Survey*



8. Riverside Woolwich, survey of 1748–9 by John Barker: A The Warren; B Pattison's sandpits; C Green's End; D Rope Yard walk; E Ragged Row; F Warren Lane; G Hardin's Lane; H Fletcher's Lane; I Old Market House; K Goldsmiths' Almshouses; L Old Orchard; M Meeting House; N Caribbee Isles; O Cutts's Wharf; P High Street; Q New Street; R Market House; S Bell Water Gate; T Surgeon Street; U Hog Lane; V Sow Alley; W Pig Court; X Glass Yard; Y Short's Alley; Z The King's Dock Yard;



a Pope's Orchard; b doudies Carribbe's; c New Alley; d Hill's Alley; e Church Hill; f the Church; g Dog Yard; h Cock Yard; i Cow Yard; k Rope Walk; l Cutts's Stairs; m Sheep Stairs; n Blue Anchor Stairs; o Bell Water Gate Stairs; p Green Dragon Stairs; q Edward Bowater's house; r part of Bowater's sandpits; s road to Greenwich; t road to Plumstead; u Love Lane; v Cholic Lane; w Globe Lane; x Remnant's Foundry; y Hill's Wood Wharf. For the numbered buildings in the Warren and the Dockyard see Ills 75 and 117



9. Streets in Woolwich, c.1760 (left) and c.1815 (right)

Wartime reconstruction of the military estate after 1800 lifted Woolwich to another level. Work attracted new immigration and in the decade to 1811 the population almost doubled to 17,054 in 2,296 houses. Fields had been built on, extending the town south of the dockyard from 1786, to the east on the Powis estate from 1799, and on the Rectory (glebe) estate from 1809 (Ils 5 and 9), though not well – ‘the streets are irregular and ill contrived, and the houses insignificant.’<sup>26</sup> The population of the barracks rose above 3,000 and in 1814 the dockyard and ropery workforces, whose bargaining power had been neutered through impoverishment and technological and administrative reform, was 2,026, while there were around 5,000 working in the Arsenal, not all necessarily resident in Woolwich. An eastward shift in the town’s centre of gravity, away from the dockyard, reflected the Arsenal’s new primacy of scale. Further south large villas had begun to appear beside the common and in other more healthful areas for a substantial market of military officers. Those who contracted services to the garrison became important local figures, the prime example being John Long. There were resentments and the military was prevented from taking control of Woolwich (see page 22). A fractious symbiosis developed and endured.<sup>27</sup>

After the end of the wars in 1815 there was a collapse. Thousands were discharged from the dockyard and the Arsenal, and the Royal Regiment of Artillery was halved in size. There was great distress. By the early 1820s hundreds of Woolwich houses, perhaps as many as a quarter, were unoccupied. The workhouse overflowed, with 400 more than it could accommodate receiving relief. Development stopped dead; London’s building cycles meant little. The ropery closed in the early 1830s, and the founding of a Home for Destitute Jews in 1832 seems symptomatic of the state of the town, the appearance of which was judged ‘far from prepossessing’ in 1838.<sup>28</sup> Yet the overall population level had stayed more or less static, and building activity did pick up in the 1830s. The long peace meant that artillery and other officers settled down in Woolwich, so more good houses were built facing the common and on and around Woodhill, to the west of the Royal Artillery Barracks. Economic revival was stimulated by a new departure in the dockyard. A steam factory at its west end brought a new lease of life to an establishment that had repeatedly escaped pending obsolescence. As a consequence the 1840s saw the future Morris Walk area covered with artisans’ houses. The Arsenal also discovered steam mechanization, retooled and rebuilt, whereupon housing development occurred to the east in what became Burrage Town, whose phenomenal

growth occurred mostly in Plumstead. In the late 1840s there was even an attempt to establish pleasure grounds, Reynolah Gardens on the west side of Samuel Street. The boom overheated in the 1850s with huge expansion in the Arsenal workforce during and after the Crimean War. The population of Woolwich – 27,785 in 1841, about half of whom were born outside Kent – rose to 41,695 in 1861, in 4,596 houses, the ‘thickly inhabited streets being hemmed in betwixt the river, the Dockyards, the Arsenal, and the military establishments on the Common’.<sup>29</sup> The laying down of sewers in 1853–4 was a crucial improvement (see page 23). Small infills of development thereafter up to the early 1860s on the Powis, Ogilby and Harrington estates left little free building space in the parish. Powis Street and Beresford Square had become a thriving commercial centre for a much wider district.

In a rich social mix Victorian Woolwich accommodated its own artisan elite, now based in the Arsenal: highly skilled engineers who worked with metal rather than wood and were as atypical as their shipbuilding forerunners. Women and children had also come to work in the Arsenal, and there were in addition large numbers of unskilled labouring men. Further, alongside its military officers, Woolwich had its own small bourgeois, commercial and professional elite; many of its principal actors emerged from the building and retail trades, most notably perhaps the Jolly family, prominent Liberals. Soldiers accounted for ten to fifteen per cent of the town’s population until the mid-twentieth century. The garrison maintained a fluctuating strength of around 4–5,000, leaving aside wives and children (see page 33). Servicing it was an important purpose of the rest of the town, and provision ranged from the tailoring of uniforms and the manufacture of sporting equipment to laundries and prostitution, prevalent and problematic as the army (the Board of Ordnance was wound up in 1855) grappled with debilitation through venereal disease. But skilled labour was defining, and the basis for the local saying that ‘There are no fools in Woolwich.’<sup>30</sup>

The post-Crimean backwash involved cuts in the Arsenal workforce that led in 1857 to a state-funded emigration scheme, an unusual safety valve. After Disraeli’s extension of the franchise and loss of power to the Liberals in 1868, Gladstone’s government made deeper defence cuts in 1869, including the controversial closure of Woolwich Dockyard as well as new reductions in the Arsenal and the withdrawal from Woolwich of some troops. With thousands out of work this was another dire moment for the town, and a second supported emigration followed. Population declined by around fifteen per cent.

The first substantial diversification of the local manufacturing base came from a German firm, Siemens and Halske (later Siemens Brothers), which founded a submarine-cable factory in the formerly marshy north-west corner of the parish in 1863. This grew strongly and by the end of the century was fringed by dependent low-grade housing. Other smaller factories also found footholds and the Arsenal boomed again, doubling its workforce in the 1880s. Building activity picked up and the last available land for housing in the parish, east of the common, was unsystematically filled with poor houses. The wave of prosperity that surged out of the Arsenal underpinned a wholesale and up-scale lease-end rebuilding of the central commercial district in the 1890s, all but entirely handled for the Powis Estate and Ogilby Estate by the scion of two of the town’s eminent builder-auctioneer families, Henry Hudson Church. Branches of multiples began to appear in Powis Street, but with its own vast drapers’ emporia, indigenous co-operative stores and thriving street market in Beresford Square, Woolwich remained resolutely self-contained. In the first five years of the twentieth century three big theatres opened with a combined capacity of 4,430. Their seats filled, as did the terraces of the Arsenal football team’s ground in Plumstead. By 1901 the population of the parish of Woolwich had recovered to 41,625, only slightly less densely packed than forty years earlier. The number of inhabited houses peaked at 5,169 in 1893 – there were, by this time, a few hundred more in North Woolwich. Even taking this and the garrison into account there were still an average of about six people per house.<sup>31</sup>

The values and respectability of the artisan elite in Woolwich shone most vigorously through mutualism. Friendly societies provided security against illness and unemployment and grew strongly from the 1840s. The Labourer’s Friend Society had laid out early allotments at the south end of the parish and a mechanics’ institution was established, as was the Woolwich Equitable Building Society on Powis Street, to help working-class people acquire their own homes. The West Kent Freehold Land Society followed in 1850. Self-help was not wholly restricted to artisans. Royal Artillery non-commissioned officers and gunners established a local Oddfellows’ lodge in the 1850s. It was, however, artisans in the Arsenal who were responsible for the foremost mutualist initiative: the Royal Arsenal Co-operative Society (RACS), which emerged out of trade-union association (the Amalgamated Society of Engineers) in 1868. An enormous

success, it was at first dominated by Arsenal engineers, but it soon transcended that base and forged the capacity to open more and more shops on Powis Street and beyond, moving in 1900 into house-building programmes outside the parish of Woolwich. With more than 20,000 members by 1902, its scale of operations was without parallel in southern England. It was, Booth opined, 'one of the best proofs of prosperity and well-being among the working classes. It tells of the money which reaches the homes and is spent on the family: on food, on clothing, and on furniture, to say nothing of bicycles and pianos.'<sup>32</sup>

Education was another area in which the RACS was active. The Board of Ordnance's 'scientific corps', the Royal Military Academy and the Arsenal gave Woolwich long-standing and unparalleled traditions of educational prowess in mathematics, art, engineering and science, to which the names Charles Hutton, Paul Sandby, Henry Maudslay, Michael Faraday and Frederick Abel bear passing witness. In both the officer corps and the Arsenal there were intellectually fruitful cultures of encouragement and experimentation. An early offshoot had been the Rotunda, an educational public museum in Repository Woods since 1820. Another, from 1838, was the Royal Artillery Institution for officers. But for the greater part of the population of Woolwich educational opportunities were limited until the late nineteenth century. An important new presence from 1891 was Woolwich Polytechnic Young Men's Christian Institute, part of a wider movement for improved technical education and, with a gymnasium, improved health. It was able to draw on and feed into the town's existing skills. For children, and as elsewhere, a smattering of church schools and a ragged school gave way or were supplemented by much bigger and more uniform public board schools after 1870. By the 1890s there were five in the parish. After a long struggle a public library opened in 1901. Thereafter the Polytechnic saw dramatic expansion and diversification.<sup>33</sup>

Middle-class temperance movements and religion fared poorly in Woolwich. With other class-based outlets for sociability Kentish London was not a church-going place. Even so, Wesleyan growth had led to the opening of a large chapel in 1816, at which date there were also numerous other small places of worship for Nonconformists and Catholics. Affluent naval and military officers privately funded a boldly classical Anglican proprietary chapel on a prominent town-centre site in the 1830s, but a decade later a visitor had to ask eleven locals before finding one who knew what it was. The growth of the garrison and concerns about discipline encouraged the Board of Ordnance to provide sites and funding for more big churches – Scottish Presbyterian, Roman Catholic (for a largely Irish congregation) and Anglican – on the margins of the military estate in the 1840s. This amounted to over-provision, but yet more building was stimulated by military pietism after the Crimean War. Soldiers' institutes, a distinctive church-based feature of the locality, originated in the 1830s, but only gained strong physical presence in later decades. They provided reading rooms and baths alongside optional religious tuition. There were also other late-Victorian missionary interventions in the town's poorest quarters. Nonconformity had long been well represented in Woolwich, but it grew increasingly dependent on the small middle class. John Wilson, a radical Baptist and disciple of Charles Spurgeon, countered this trend, attracting skilled Arsenal workers. In 1904 he drew twice as many as did the parish church; only the Catholics did better. However, it was said that a religious man in the Arsenal was marked down for setting himself above others. Godlessness remained strong, on account of poverty as much as factory-based antipathy.<sup>34</sup>

As to poverty, the shame of Woolwich was the 'Dusthole', a notorious slum, one of London's worst, near the river in the centre of the town. Other pockets of deprivation were around Morris Walk, to either side of Frances Street, near the dockyard station, west of the parish church, between Powis Street and Beresford Street, and east of the common. In the Dusthole prostitution and overcrowding in lodging houses persisted, but Christian Socialist clergymen, J. W. Horsley and Charles Escreet, led the way from 1888 in attempting to deal with health problems – Woolwich had the worst mortality rate of any London sanitary area and because of its anomalous administrative history (see pages 22–5) did not have a Medical Officer of Health. That changed in 1889, in which year a philanthropically funded cottage hospital was built. Under pressure from Horsley the military ceded public access to part of the common, and Escreet helped see that the parish churchyard was laid out as a public recreation ground. Extensive municipal public baths opened in 1894, a small private bath-house of 1850 having fallen into disuse. A charitable nurses' home and a municipal mortuary and public shelter (for use during the disinfection of houses) followed, and, in a pioneering private initiative, the British Home for Mothers and Babies was established on Woodhill in 1905. There was even an early experiment in the building of council houses in North Woolwich in 1902–3. All this and other council initiatives had vastly improved public health by 1914.<sup>35</sup>

Arsenal layoffs after the Second Boer War aroused great protest and had political consequences (see page 25), a safety valve this time being a shift in 1910 of torpedo work and 700 workers from the Arsenal to Greenock in Scotland. Numbers of small shops were abandoned in 1912–14. The First World War brought much greater upheavals, not least 28,000 'munitionettes' working in the Arsenal in a workforce that peaked around 75,000, drawn, of course, from a much wider area. To house arms-makers a renowned garden suburb, Well Hall, was built between Woolwich and Eltham (outside the parish). Less well known wartime creations were an early nursery school near the parish church, and the army's Signals Experimental Establishment on the common, where land was taken back from the public.<sup>36</sup>

Precise figures for population in the twentieth century are lacking as the parish ceased to be a unit of measurement, but there appears to have been gradual decline, to around 36,000 in 1921 and 32,000 in the early 1930s. Of these people around eighty per cent were classified as working class. Woolwich was still a garrison town, with about 5,000 military personnel. Employment in the Arsenal had shrunk right back to around 7,000, and closure was being discussed. On the other hand, by the late 1930s Siemens, now making telephones, had a rising workforce, largely female, of more than 9,000. Unemployment remained low by London standards and Woolwich maintained what a Ministry of Health report of 1934 called 'a keen and civic-minded population'. Ominously, the same report also said that 'without its Arsenal and all it stands for socially and economically, Woolwich would not be Woolwich.'<sup>37</sup>

Prosperity fuelled a good deal of building in the 1930s – Equitable House for the town's thriving building society, a new department store for the RACS, and two great cinemas, the Granada and the Odeon, with a combined capacity of about 5,000. Woolwich Borough Council was unique as a Labour stronghold that had land for building. It carpeted great tracts of Eltham with thousands of houses in cottage estates and gained a reputation as a first-rate provider of homes, using direct labour from 1924; its Direct Labour Organization became a model of its kind and a significant local employer. Overcrowding in Woolwich was thereby largely alleviated and only small amounts of slum clearance were programmed. On the Rectory estate the Ecclesiastical Commissioners began housing renewal.

The Second World War brought another boost to the Arsenal, though nothing like that of 1914–18. Subsequent retrenchment was quick, and closure was more and more insistently mooted in the 1950s. The garrison too was scaled down, to about 1,500 by 1961. Woolwich Borough Council's reputation for house-building and shared Labour staunchness underpinned the London County Council's decision in 1951 to grant Woolwich the unique distinction of autonomous responsibility for a comprehensive development area. The huge St Mary's area project south of Woolwich Church Street saw more than 4,000 people rehoused in 1,434 dwellings built over nearly two decades. The LCC also built substantial amounts of housing in Woolwich and pushed other initiatives that saw the town centre reshaped – by further enlargement of the polytechnic, road and other transport reconfigurations (see page 21), and by zoned commercial redevelopment, largely carried out through the Ogilby Estate, that included the advent of speculative offices in tower blocks. What Princess Margaret called a 'streamlined trend of events'<sup>38</sup> made Woolwich at the beginning of the 1960s a 'lively, go-ahead' place.<sup>39</sup> The Rev. Nicolas (Nick) Stacey, an archetypal trendy vicar, 'he wears blue jeans under his cassock', acknowledged church attendance of around one per cent (a tenth of the national average) in his still largely godless parish, and applauded, though with telling doubts, the fact that in Woolwich the 'vast majority have a material affluence they have never had before.'<sup>40</sup>

Stacey had good reason for reservations. Looking in from the outside, James Ramsden, the Secretary of State for War responsible for planning the closure of the Arsenal, referred to Woolwich in a confidential memorandum of 1963 as 'markedly down-at-heel'. A week later in a statement to the Commons he reported that employment prospects in the town were 'good', amended from 'excellent' in his draft text.<sup>41</sup> The end of manufacturing in the Arsenal in 1967 was a great blow, but not unanticipated. The closure of the former Siemens factory a year later by the firm's asset-stripping (and British) successors was, by contrast, sudden and a real shock. It brought the loss of another 6,000 jobs. The two big private department stores on Powis Street closed in the early 1970s. The co-operative stores followed in the 1980s. What was left of south-east London's engineering economy, scattered in small factories, also packed up. In the 1980s the Borough of Greenwich lost forty-three per cent of its remaining 15,500 industrial jobs, and unemployment rates rose to about eighteen per cent. In St Mary's Ward twenty-seven per cent of males were unemployed in 1991, when eighty-four per cent of that area's population were local-authority tenants, down from more than ninety per cent in earlier decades. Council-house building had continued

with relentless vigour until 1983, but by then the council's attempts to find commercial partners for the development of a major town-centre site had failed, leading to the inadvertent formation of a new open space, General Gordon Square. Powis Street came to be dominated by discount retailers. The garrison retained sufficient importance as to be a target of IRA bombs in 1974 and 1981.

Census abstracts suggest that by 1971 the population of the parish area had collapsed to around 17,000, though post-imperial immigration had brought much Asian, especially Sikh, settlement to the borough. This led to the acquisition of the former Methodist chapel and soldiers' institute in the late 1970s for conversion to a Sikh temple (*gurdwara* and *langar*). What were defined as Commonwealth households made up about nine per cent of the total in the area in 1981, rising to about fifteen per cent in 1991. A Hindu temple was built in the mid-1980s and thereafter the vicinity's growing population of Nigerian origin underpinned the conversion in 2000 of the former Odeon Cinema to a Christian church – a similar adaptation of the former Granada Cinema followed in 2012. The area's population has risen substantially since 1991. It stood at around 25,000 in 2001. About a quarter of these people had been born outside the British Isles, around forty-five per cent classified themselves as non-white British, about fifteen per cent as of black-African origin, and somewhat fewer than ten per cent as of South Asian origin. Of around 12,000 dwellings, about a third now were houses rather than flats. Unemployment continued at around fifteen per cent.<sup>42</sup>

Housing demand had increased by the 1990s. New provision in western parts of the parish in that decade included the replacement of some crime-plagued deck-access blocks of flats of the late 1960s with streets of terraced houses. Two town-centre office towers of the early 1960s, impossible to let, were speculatively converted to flats in 2002–6. Some new housing was used to meet the demands of the council's housing lists. Gentrification has, thus far, made little impact. At Connaught Mews the conversion of listed army buildings in the early 1990s brought with it the social and environmental blight of a gated community, yuppification installing greater security than had the military. This happened again at the Grand Store a decade later. A small defence presence at the Arsenal continued until 1994, so reuse and redevelopment there did not begin until 1999. That process, both conserving and denaturing, came gradually to be dominated by Berkeley Homes, which formed a new housing quarter that grew bigger as other plans failed to gel. The town centre began to attract development schemes, not all for housing, but these mostly fell foul of the financial collapse of 2008, as did a part-completed conversion project at the Royal Military Academy. Public-realm and transport improvements became increasingly entangled with and dependent on large speculative developments, but, construction aside, new housing did not generate jobs. The largest project, a vast supermarket under housing blocks, was begun in 2011, shortly before central Woolwich was ransacked in looting that broke out across London. The reduced garrison continues. The departure of the Royal Regiment of Artillery in 2007 marked a major break with the past, mitigated by the arrival of the King's Troop of the Royal Horse Artillery in 2012. Later that year the common was used for shooting events in the Olympic Games.

#### *Communications: river, roads and railways*

The continuance of a ferry service in Woolwich between the fourteenth and the seventeenth centuries is likely, though not manifest in records, even though the north bank of the Thames was not a place of settlement. The Crown was petitioned for the lease of 'a long and short ferry' in 1622 and a thirty-year ferry licence was granted in 1679. More or less constant renewal of embankments to control flooding was rounded off in 1606 by major and lasting works by William Burrell, who became the East India Company's chief shipwright and engineer of its yard at Blackwall. Ancient road links endured, but they were less important than the Thames, which remained the principal artery connecting Woolwich to London through the early-modern period. Pepys came and went by river, as did many others, keeping numerous watermen afloat, plying their trade from five town-centre river stairs.<sup>43</sup>

Steam-power transformed the speed of conveyance on the river in the early nineteenth century. The Woolwich Steam Packet Company was established in 1834 and brought something new: tourists. Woolwich was a naval and military depot of unrivalled glamour. Its newly accessible public buildings – the dockyard, Arsenal, barracks, Rotunda, Repository and Academy – and reviews of troops on the common were the subjects of wonder and several guidebooks. A pier was built in 1840 and it was said that 'the intercourse

with Woolwich has become very great.'<sup>44</sup> A western ferry had been instigated in 1811, but this was a failure, wound up in the 1840s when there were two paying ferry services in the town centre. River traffic continued to thrive; it was as a seaside holiday destination from Woolwich that Clacton began to be developed in 1871. Thereafter the steamboat era was on the wane.

Roads in Woolwich long remained rudimentary. The main east-west road was rerouted around the north side of the church in the early seventeenth century in association with enlargement of the dockyard. The naval and military agencies avoided civil road building, encouraging, even impelling, but not underwriting local initiatives. A Turnpike Act of 1765 led to the improvement of Cholic Lane as Woolwich New Road and, with better links to the London-Dover road, eased the transfer to and fro of ever larger numbers of troops (with field artillery). Powis Street was laid down as a broad straight track in 1782–3 and Church Street was widened in 1785–6. After 1800 the demands of war and the availability of funds induced the Board of Ordnance to take direct responsibility for major road improvements: Artillery Place and Hillreach were formed in 1804–5, Brookhill Road and (as a rerouting) Ha-Ha Road in 1806–8, and Wellington Street in 1809–12 – the first and last as parts of another longer route through to points west. The same decade saw the Powis and Rectory estates laid out with networks of residential streets, and Samuel Street and Woodhill provided the first north-south road links for western parts of the parish. Since Woolwich had economic independence and did not develop as a suburb its road communications with London remained neglected. There was just one short-stage coach a day in the 1820s. George Shillibeer introduced omnibuses in 1834, but suffered from steamboat competition, and later services were complained of as poor.<sup>45</sup>

There were, however, early plans for a railway line. The story of the coming of the railway to Woolwich is told in detail here, as it is parish-wide in nature. Thomas Telford's Kentish Railway scheme of 1824 would have connected London and Dover via Woolwich and Chatham, and in 1832 Henry Palmer broached a project to do the same, including a steamboat river crossing. Another scheme was a spin-off from Col. George Landmann's London and Greenwich Railway, the first English railway built specifically for steam-driven passenger traffic, which gained its Act in 1833 and was built in 1836–8. Landmann, born and raised in Woolwich as the son of a professor at the Royal Military Academy and himself a former Royal Engineer, wanted to extend his line to Gravesend, taking a route through Woolwich close to that eventually built. His scheme failed in Parliament in 1836, opposed because it would have gone through Greenwich Park and near the Royal Observatory, as well as locally in Woolwich because it involved the demolition of many houses.<sup>46</sup> The hilly terrain close to the river east of Greenwich anyway presented considerable engineering difficulties and from 1834 there was the competition from steamboats. A rival scheme for a London-to-Dover railway via Gravesend had been devised in 1833, but this was dropped in favour of a southern route that the South Eastern Railway Company, formed in 1836, began to implement. This company acquired the London and Greenwich line in 1845.

It was in that year, after several Kentish railway plans had been mooted, that three new schemes for bringing the railway to Woolwich were presented to Parliament. The first of these was for a branch from the Eastern Counties line at Stratford to uninhabited North Woolwich, to lure people across the river by ferry. This was built and opened in 1847. The others, in gestation since 1840, stayed south of the river. The North Kent Railway scheme was designed by Charles Blacker Vignoles, another engineer with Woolwich in his veins – he had been brought up by his grandfather, Charles Hutton, also a professor at the Royal Military Academy. Vignoles was assisted from 1842 by Alexander Doull, another former Woolwich military officer who mapped Woolwich for its Town Commissioners in 1843 (Ill. 10). He was probably the son of Alexander Doull, a Blackheath builder-developer, and the brother of William Doull, an architect.<sup>47</sup> Vignoles and Doull proposed a route across Woolwich Common on comparatively level ground that involved scarcely any demolition, but this hardly served the town at the bottom of the hill. The other project was the South Eastern Railway's attempt to keep a grip of what it considered its turf. It pursued the more destructive northern route through the town, intending two Woolwich stations, one to the west close to the dockyard, and one to the east that was at first destined for Hare Street, but quickly moved to serve the Arsenal better. This line was immediately favoured, both by the Board of Trade and by Woolwich interests; the houses affected, it was conceded, were largely in 'a very low neighbourhood'.<sup>48</sup>

The military response to the competing schemes, potentially decisive, fell into confusion and scandal. The Board of Ordnance sanctioned the southern route, Gen. Sir George Murray, the Master-General,

holding that a station on Vignoles' line at Nightingale Place would be convenient for the garrison. He was, however, contradicted by Lt. Gen. Benjamin Bloomfield, Commandant of the Woolwich garrison (to whom Doull's map had been dedicated), in evidence to a Commons Select Committee. The elderly and ailing Baron Bloomfield said that the line would be disruptive of artillery practice on Barrack Field and the common. It later emerged that members of the Board had shares in Vignoles' project. Not deep enough for a proper tunnel under the common, it was withdrawn. The plans were sold to the South Eastern Railway Company, but only after another failed round in Parliament and passage of the South Eastern Railway scheme, all in 1846.<sup>49</sup>

The South Eastern Railway Company's engineers, Robert Stephenson and George Parker Bidder, immediately staked out the line for what was henceforth called the North Kent Railway. Also involved was Peter William Barlow, once more Woolwich-born as the son of yet another professor at the Royal Military Academy. He had been a resident engineer for the South Eastern Railway in its works of the late 1830s. The resident engineer for the North Kent line was M. Harrison. The adoption of a route (possibly at Barlow's suggestion) that looped southwards from the Greenwich line via Lewisham and Blackheath involved more tunnelling, but avoided interference with Greenwich Park and the Observatory (another line directly through Greenwich was formed in the 1870s). The deep cuttings through parts of Woolwich that the topography imposed were less problematic than they would have been if there had been sewers in the hillsides. Indeed, Capt. W. T. Denison, RE, thought the line might facilitate drainage (see page 23). The contract for building the western section of the line as far as Erith went in February 1847 to John Brogden junior, whose father was a major South Eastern Railway shareholder who gained a seat on the board. Barlow and Bidder soon fell into dispute. The company favoured the former, which caused Stephenson to resign. Another dispute, this time about pay, then led Barlow to resign in January 1848. Alexander Doull stepped up, but Barlow was quickly reinstated as Engineer in Chief. Meanwhile work on the line progressed, but there were delays in the acquisition of properties in Woolwich, and most of the construction work there was undertaken only in the months leading up to the opening of the line in July 1849. The station buildings were overseen from late 1848 by Samuel Beazley, newly appointed as the company's architect, but a veteran whose pedigree was largely in theatres, as both an architect and a playwright. Beazley was asked to work upwards from ground plans supplied by Barlow. The contractor for the stations, completed by November 1849, was John Kelk, a young builder on his way to bigger things. Woolwich Dockyard and Arsenal stations were both sited in disused sandpits.<sup>50</sup>

From 1865 workmen's trains ran from Woolwich to London, but rail was not more extensively developed as the area was so dependent on work within its own ambit and on the river for freight. Horse trams were introduced onto local roads in 1881 and then electrified by the LCC after 1900, with a substation (the Tramshed) on Woolwich New Road. London's last tram ran from Woolwich to New Cross on 5 July 1952.<sup>51</sup>

On the river major change came with the opening of the Woolwich Free Ferry in 1889, an LCC service that made it practical for Woolwich residents to work in the docks that had been dug on the north bank. In 1910 the ferry carried around 8,000,000 foot passengers and 800,000 vehicles. Problems with the ferry service in fogs led the LCC to add an all-hours foot tunnel under the river in 1912.<sup>52</sup> The Thames Barrier was built just west of the parish boundary in 1974–84.

Demand for the ferry and growing volumes of motor traffic caused traffic congestion in the town centre, with waiting vehicles backed up along Hare Street. A rearrangement of access routes to the ferry in 1964–6 was part of a wider LCC and Woolwich Borough Council programme of works to deal with the impact of motor cars. This included the formation of the dual carriageway that is John Wilson Street (the easternmost section of London's South Circular inner ring road), and the widening of the High Street and Church Street. There had also been pioneering initiatives with parking in 1961, some of London's first meters and an automated multi-storey car park, the Autostacker, that proved an utter failure and thus a poignant symbol of post-war pomp in Woolwich. The most savage road improvement, however, did not come until as late as the mid-1980s when the Plumstead Road was rerouted through southern parts of the Arsenal, marooning its main (Beresford) gate and more than ever severing the rest of the Arsenal from the town.

10. Woolwich, survey of 1843 by Alexander Doull for the Woolwich Town Commissioners, showing the Town Hall and the Royal Military Academy (bottom right)



Rail connections were improved with the arrival through a sub-Thames tunnel of a branch of the Docklands Light Railway in 2009, its terminus linked to Woolwich Arsenal Station. Commuter-boat services were also introduced from a pier in the Arsenal. After a decisive subsidy commitment from Berkeley Homes work began on a Crossrail station in the Arsenal in 2011. Crossrail stands to transform connections to London and thus to have a much deeper impact on Woolwich; it may finally become a suburb. The free ferry and foot tunnel continue in nobly anachronistic use.

#### *Administration, local government and politics*

Eighteenth-century and earlier Woolwich was administered by a parish vestry, open to all rate-paying inhabitants but generally thinly attended, which met in a room at the parish church and was presided over by the rector, some matters falling under the jurisdictions of the ‘manor’ and of justices of the peace. At the beginning of the nineteenth century, the pressures of enormous population growth and the transfer of huge acreages to the military impelled change.

The Vestry and the Board of Ordnance clashed in 1802–4 over the enclosure of the common and the Board’s liability to pay rates. Joseph Meads Madkins, a Woolwich lawyer who had advised the Vestry to sell rights to the common to the Board, drafted a bill in 1806 to go to Parliament proposing local-government reform. This adopted what, away from London, had become a widespread ad hoc approach to the administration and improvement of towns, suggesting a board of commissioners with powers relating to water supply, paving, cleansing, lighting and watching, also providing for increased space for burials and a new workhouse and market. A tripartite commission was proposed with representation to be divided equally (ten commissioners each) between the town or parishioners, the Board of Ordnance, and the Admiralty. Leading names on the town list were Madkins, who later allied himself to John Long (whose wealth came largely through military contracts), John Cook and Henry Rideout, other military contractors.

This scheme met opposition in 1807 from the rector, the Rev. Hugh Fraser, and other vestry officers, who opposed the dilution of their status and rallied support, arguing that the entrenchment of naval and military power would sow discord and faction, and subjugate the parish: ‘Most unhappily for the peace of this parish, the influence of the Dockyard has in many cases been successful; how long the Town is thus to be tormented.’<sup>53</sup> Madkins countered that the military would tend to keep the rates down, and sought Nonconformist support in objecting to the power of the established church. In Parliament Sir Edward Knatchbull, MP for Kent, reported that a committee had sided with the opposition and so amended the bill. There may well have been concern in Parliament at the prospect of the military gaining too much control over civil matters. The Act for improving ‘the Town and Parish of Woolwich’ provided for the appointment of thirty ‘substantial householders’ as Town Commissioners. Woolwich had been saved from falling under the direct control of what was, in effect, the military-industrial state, but the first annual election of Commissioners did install six Ordnance officers, including the garrison’s Commandant, Gen. Vaughan Lloyd, the Royal Regiment of Artillery’s Surgeon-General, Dr John Rollo, and Capt. George Hayter, RE, who was overseeing the Board’s vast building works in Woolwich, as well as Madkins and Long; Cook failed to win election and Rideout was dead. Two years later, in 1809, Madkins was out, the old guard seemingly ascendant.<sup>54</sup>

The Town Commission made the Vestry an administrative nullity, something exceptional in nineteenth-century London. It was soon, in the post-war years, struggling with a return to a low rating base – the navy and military had stayed exempt. It had no power to borrow money and so little was done. Gas lighting was introduced, but water supply was problematic, there was no paving to speak of, its new market was a failure and there was corruption in rating assessments. In 1831–2 cholera passed through, causing forty deaths, and a district board of health was constituted, then almost immediately wound up. Woolwich resisted outside interference and in the 1830s opposed, without success, a Poor Law Union with Greenwich and Lewisham – closure of the parish workhouse followed, and plans for the town to come under the jurisdiction of the Metropolitan Police. For themselves, the Commissioners, wanting premises of greater dignity than the parish vestry room and led by Robert Jolly, a builder-surveyor who had been a Commissioner since 1823 and fought to maintain the town’s independence, built a town hall in 1840, only, bizarrely, to sell it to the Metropolitan Police and build another one close by in 1841–2.<sup>55</sup>

The Commission’s downfall was the town’s want of cleanliness, specifically sewers. Matters now followed a pattern typical of northern manufacturing towns. The Royal Commission on the Health of Towns, set up in 1843, commissioned a report on the sanitary state of Woolwich from an eminent local resident, Capt. Denison, who had been responsible for development works in the dockyard. He found the town to be in a poor state and was critical of the Commissioners’ thin record of improvements. He supported their reactive undertaking of 1845 to seek powers to introduce sewers, but a bill was still being considered in 1847 when, rather than pay for a private Act, the Commissioners decided to wait for the Public Health Act of 1848. In the meantime, Richard Ruegg, editor of the Woolwich newspaper, the *Kentish Independent*, bemoaned the town’s free-flowing filth and disparaged the competence of the Commissioners. Their meetings often failed to muster a quorum, and the annual elections engaged only around fifteen per cent of eligible electors. A campaign for reform through application of the 1848 Act to Woolwich was led by Ruegg and the rector, the Rev. William Greenlaw, with emphasis on the continuing marshland scourge of ‘ague’ (malaria), though Denison had not found this to be a significant cause of local mortality.

The clamour for drainage encountered opposition, in particular from Jolly, but it failed to prevent an inquiry in 1849 by the General Board of Health, led by one of its inspectors, the civil engineer (Sir) Robert Rawlinson. His report, one of very many he undertook, was not published until 1851. It recommended application of the Act and, saying that the garrison and military manufacturing establishments made Woolwich ‘a place calling for special supervision’,<sup>56</sup> suggested that a new board with twenty-one members should include six appointed by the military, which might thereby pay rates, as it did in Portsmouth. But this proposal was checked and the balance of the board’s make-up emerged as eighteen from the town and three from the military, leaving the latter still exempt from rates and the board’s control. The Woolwich Local Board of Health was duly formed in 1852 with powers over sanitary matters – sewers, drains, water, slaughterhouses, burial grounds, public baths and wash-houses, as well as other powers transferred from the abolished Commissioners. Drainage works of 1853–4 were preceded by an excellent ten-foot (1:528) Ordnance ‘town’ survey, overseen by Capt. William Driscoll Gosset, RE (Ils 33, 217, 241, 293, 295, 382). New cemeteries were built in Plumstead in 1856.<sup>57</sup>

Numerous similar boards of health were formed at this time in other English towns, but no others in the London area. The status of Woolwich as a part of London was formally established in 1855 when its Board was included among the bodies entitled to elect members to the Metropolitan Board of Works (MBW), a body formed, in large measure, to co-ordinate drainage; its intercepting sewers arrived in the 1860s. But the Woolwich Local Board of Health kept wider powers than London’s other local bodies, district boards of works and vestries. From 1853 to 1881 its chairman was William Parry Jackson, proprietor of the *Kentish Independent* and, incidentally, the uncle of the local antiquarian, William Thomas Vincent (1835–1920), who came to Woolwich in 1849 to work on his uncle’s paper, which he edited from 1880. The Woolwich Local Board of Health only ever had two surveyors, John Barnett and, from 1876, Herbert Oliver Thomas.<sup>58</sup>

A Woolwich Poor Law Union was separated from that for Greenwich and Lewisham in 1868 to cover Woolwich, Charlton, Kidbrooke and Plumstead. Its Board of Guardians quickly saw to the building of a large workhouse and infirmary complex in Plumstead. From 1870 education in Woolwich was overseen by the School Board for London, and the Metropolitan Board of Works (MBW) gradually extended its responsibilities to a fire brigade, parks and river crossings. It oversaw the plans for the free ferry in Woolwich that were introduced in 1882 by John Robert Jolly, the Liberal son of Robert Jolly and the MBW’s member for Woolwich. But the MBW and its indirect representation were discredited. A Local Government Act of 1888 created the County of London and the London County Council, to be directly elected by ratepayers. Woolwich was included in the new county, so in 1889 formally ceased to be a part of Kent.

Local boards of health elsewhere became district councils in 1894, but not Woolwich, because of its position in London. So, for a few years, Woolwich sustained the country’s last board of health, if in name only. Canon Horsley found it a ‘do-nothing’ authority, rife with landlordism and, under Conservative control, fiercely opposed to increases in rates. He had to gain the insertion of a clause in the Infectious Disease (Notification) Act of 1889 to force the Board to appoint a Medical Officer of Health, and then to get himself elected on to the Board to fight for other welfare provision. Local Progressives, those who in the radicalized temper of the times favoured the improvement



11. Will Crooks, as caricatured by 'Spy', 1905

of services over low rates, were otherwise strengthened by the Public Health (London) Act of 1891 that gave the Woolwich Board power to borrow. The Tenants' Defence and Fair Rent League joined battle, alleging corruption. The rates were raised by fifty per cent in 1893, and public baths were built. A public library followed.<sup>59</sup>

Woolwich had been represented in Parliament as part of the constituency of Greenwich until 1885 when national reorganization saw Woolwich, Plumstead and Eltham combined to be a Parliamentary borough, initially Conservative, held by Col. Sir Edwin Hughes, who had earlier been central in a campaign to make government property rateable. That borough formed the basis for a new local authority, created in the London-wide local-government reforms of 1899 through which boards and vestries were abolished and metropolitan borough councils invented. Woolwich Borough Council came into existence in 1900, with a higher turnout than anywhere else in London to elect thirty-six councillors. Conservatives outnumbered Progressives and Hughes was the first mayor. Municipal pride lay behind the adoption of a coat of arms bearing three silver cannon (which later gained a rhyming motto, *Clamant nostra tela in regis querela* or 'Our weapons sing in the quarrels of the King'), and the building of a spectacular new town

hall in 1903–6. This was needed to accommodate staff, up since 1900 from 54 to 114. Frank Sumner, from Plumstead, was the first Borough Engineer and Surveyor. He was succeeded in 1905 by J. Rush Dixon. The town hall, the building of council houses and the acquisition of the local electricity supply were all initiatives of the Conservative administration.<sup>60</sup>

In 1903 Woolwich politics took on national importance as a nest for the Labour movement, born out of late-Victorian mutualism, trade unionism and Christian socialism. Along with the RACS and the Arsenal's unions there was the Woolwich Radical Club, founded in 1880, and the Woolwich Independent Labour Party, founded in 1893. The council's Progressive group was led by Charles Henry Grinling who had trained for social work at Toynbee Hall under Canon Samuel Barnett and served as a curate before coming to Woolwich in 1889 and, through Charles Escreet, becoming secretary of the local Charity Organisation Society. In 1901–2 a new alliance, the Woolwich District Trades and Labour Council, with William Barefoot as its Secretary, had successes with Labour candidates in council by-elections, so it came together with the Progressives to put forward a Labour candidate for Parliament. This was Will Crooks, a charismatic and eloquent Poplar politician who had cut his teeth in the Dock Strike of 1889 (Ill. 11). Post-war cutbacks in the Arsenal and open-air oratory in Beresford Square helped Crooks win a famous by-election victory in March 1903 that made him the country's fourth Labour MP. After this the Woolwich Labour Representation Association was formed, with Grinling as Chairman and Barefoot as Secretary. It won sweeping control of the council in November 1903. With the election of two Labour representatives to the LCC in March 1904 Woolwich gained the distinction of being the first place in the country to be represented by Labour at all levels of government.<sup>61</sup>

Woolwich Borough Council was again Conservative-controlled from 1906 to 1919. Thereafter Labour, which built a powerful political machine, held power continually save for a Municipal Reform interlude in 1931–3. From 1921 the RACS, uniquely at first, was affiliated to the Labour Party, the Woolwich branch of which was the largest local party in Britain until the late 1930s, with more than 5,000 members. The borough continued to maintain exceptionally high voting rates. Grinling and Barefoot remained crucial cogs. The former founded the Woolwich Council of Social Service in 1926, the latter continued as the local Labour Party secretary until his death in 1941. When Woolwich was assessed from the Ministry of Health in 1934, the council was judged 'to have more of the spirit of adventure than is often the case'.<sup>62</sup>

Herbert Morrison arrived in Woolwich Labour politics in 1922 as an LCC councillor. He was the second Labour government's Minister of Transport in 1929–31 and the leader of the LCC from 1934 to 1940, when the launch of a Housing Research Group was among his achievements. Right up to its abolition Woolwich Borough Council was a Labour bastion. It kept unusually good relations with the Labour LCC and thus, and with its huge Direct Labour Organization, had more control of post-war housing programmes in its area than was the norm. Mabel Crout was a central figure, the local party secretary through the 1940s, an LCC councillor, and chairman of the borough's housing committee in the eventful 1950s. David Jenkins was Town Clerk from 1933 to 1962. The council's engineers through this period were John Sutcliffe, Herbert William Tee from 1932, Wallace H. Gimson from 1939, and Robert L. Gee from 1960.<sup>63</sup>

In 1965 local government was again reorganized. Across London, boroughs were merged to produce councils with responsibilities for larger areas and greater autonomy in some matters including town planning. Woolwich and Greenwich were combined, taking the latter name, though Greenwich was the smaller partner, because it was more known in the wider world. This hurt Woolwich, and there was much bad feeling. Woolwich won precedence as the new borough's civic centre for the co-location of premises, its Edwardian town hall used for council meetings, with a new office complex, Peggy Middleton House, built near by in the 1970s. Responsibility for building works was initially given to Gee, working with John M. Moore, an architect from Greenwich. By 1969 Moore was in charge, and continued in the 1980s as Director of Architectural and Engineering Services. Greenwich Council has been solidly Labour-run except for a Conservative interlude in 1968–71. After the abolitions of the Greater London Council in 1986 and the Inner London Education Authority in 1990 it took on additional housing and other responsibilities, including schools. The Greater London Authority's London Plan of 2008 identified wider Woolwich as an 'Opportunity Area' and the town as a 'Major Centre'. The old parish of Woolwich makes up just two of the council's seventeen wards, but the opening of new civic offices on Wellington Street in 2011 underlined its continuing political centrality for what became the Royal Borough of Greenwich in 2012.<sup>64</sup>



12. Graffiti on Wellington Street in 2007

### THE FABRIC

Woolwich has been repeatedly rebuilt, yet it holds a concentration of architecture that reflects its unusual and important history. Foremost are its public buildings, in the widest sense, not just those erected for the navy, the military and their manufacturing establishments, but also those built through and for working-class collective advancement. Woolwich also has a distinctive housing history. Its buildings are diverse, always interesting and significant, even when ugly. Some have monumental, even aesthetic, power. This brief preliminary account presents a passing overview of surviving public fabric followed by parish-wide contexts for housing, including that provided for soldiers in barracks and elsewhere.

The impact of continual regeneration is most evident in the absence of any buildings from earlier than the 1690s. By then Woolwich had 180 years of dockyard history, but there were still more than 170 to go. Such long vitality means that nothing stands to remind us of the earlier period. At the dockyard's centre there are remnants of the 1780s that scarcely hint at what else once stood round – Portland stone gate piers, a colonnaded guard range, and a big square domestic-looking office block (the Clockhouse). More evocative of shipbuilding are the granite surfaces of the long river wall and graving docks, and the orderly steam-factory buildings and great chimney of 1834–48, largely due to Capt. Denison.

At the Arsenal, where there was more space to grow, early buildings have fared better. There are sorry fragments from 1696 in the shape of two (again domestic-looking) pavilions from the first Royal Laboratory. Much more impressive, and defining of the place, are the several survivals from Brigadier Michael Richards' monumental building campaign of 1716–23. The Royal Brass Foundry is *sui generis*, as architecture and as industrial archaeology. Just as extraordinary are the eccentric, allusive and Hawksmoorian former Academy and Dial Arch range. James Wyatt designed a more conventional storehouse in 1783–5, but that is hidden among later buildings in the site's north-east corner. He also supplied the panache for the Grand Store, the site's central riverside complex, warehouses of 1806–13, seen through by nephew Lewis Wyatt and Royal Engineers, an Ozymandian project with few parallels in England. The Royal Carriage Factory of 1803–5, now sadly diminished, was a great workshop and comparably exceptional. Several buildings of the 1850s – the Paper Cartridge Factory, Shot and Shell Foundry Gatehouse, and

Cannon Foundry, designed by Col. R. S. Beatson, RE, and David Murray, combine potent polychromatic architecture with fascinating constructional and decorative uses of iron; a prototype was designed by Gottfried Semper. Beresford Gate, of 1828–9 and 1889–91, is a robust oddity. The same might be said of the Central Offices of 1905–11, a reminder of just how big and how peopled this place once was.

There is no let-up in scale at the top of the hill, where the nearly quarter-mile (0.4km) south front of the Royal Artillery Barracks faces Woolwich Common. It is a single range, but was built in two phases in 1774–8 and 1801–7. Its first phase was plainer; in so far as it has architectural qualities that have invoked comparison with St Petersburg, it is a happy product of James Wyatt's genius for scenography. That is also evident in his contrastingly Gothic Royal Military Academy of 1803–6, across the common. East of the barracks, less prominent, less known and less style-conscious is the former Royal Artillery Hospital of 1778–80 (now Connaught Mews), an important early military hospital that was enlarged to Wyatt's designs in 1794–6. On the barracks' other side is Repository Woods, a military training landscape of great interest, into which was placed the Rotunda, a pavilion in the shape of a military bell tent. This was designed for the Prince Regent by John Nash and William Nixon and first erected at Carlton House in 1814. Royal engineers reconstructed it in Woolwich in 1818–20 to be an educational and commemorative museum. In both its functions and its structure it is yet another unique building. Finally, survivals from the military estate also include the imposing classical Portland stone entrance arch of 1842–8 from the Marine (later Cambridge) Barracks on Frances Street, by Denison, and the more pedestrian and old-fashioned Engineer House, offices of 1858–60.

Church architecture is not a strong feature of Woolwich. The parish church, dedicated to St Mary Magdalene, was wholly rebuilt in the 1730s on plain and artisanal lines and in brown brick. It is a commanding hilltop presence. The former Methodist chapel of 1814–16 on Calderwood Street (now a gurdwara) is a good example of a comparably plain but classically decorous type devised for Wesleyans by the Rev. William Jenkins. Early Victorian Gothic-Revival church architecture is represented by St Peter's Roman Catholic Church of 1842–3, a rare specimen in London of A. W. N. Pugin's work. There followed the former Garrison Church of St George of 1862–3, by T. H. and M. D. Wyatt, now a pathetic ruin, and St Michael and All Angels, with a chancel of 1876–7 by J. W. Walter and a nave of 1888–9 by William Butterfield. There is also the former Wesleyan Soldiers' Institute of 1889–90 (now the gurdwara's *langar*), the only building of its kind left in Woolwich, and the Royal Military Academy chapel of 1902–4, by Maj.-Gen. N. H. Hemming, RE.

Woolwich has a good array of other institutional or more conventionally public buildings. Many are uncommonly closely packed together in a precinct bracketed by two town halls, one small of 1841–2 for the Town Commissioners to local classical designs, an unusual survival, and one big of 1903–6, a superb Baroque Revival confection by Alfred Brumwell Thomas and the most ambitious and architecturally successful town hall and assembly-rooms complex of its period in London. Hard by are several late-Victorian buildings put up to rather less urbane designs by the prolific local architect H. H. Church – municipal baths of 1894, a library of 1901 and the first block of Woolwich Polytechnic, of 1891 with extensions that were begun by Church and rounded off in 1914–16 by outside architects, T. Phillips Figgis and A. E. Munby. Locally conceived municipal architecture elsewhere includes the Callis Yard works depot and the Sunbury Street public shelter, both of 1899–1900, and the *moderne* Electric House on Powis Street from 1935–6 by H. W. Tee. London government has contributed a free-Gothic MBW fire station of 1887 by Robert Pearsall, among London's earliest surviving fire stations, and a tramways electricity sub-station (the Tramshed) of 1909–10, perhaps the last project overseen by E. Vincent Harris when he gave neo-Georgian finesse to the LCC's tramways architecture. Back in the municipal precinct are a police station of 1910 and magistrates' court of 1912 for the Metropolitan Police by John Dixon Butler in his distinctive red-and-white classical style. Woolwich County Court is a standard neo-classical Office of Works building of 1935–6. The LCC's foot tunnel of 1912 has a diminutive domed rotunda atop its access shaft, while the same body's reconstruction of the Woolwich Free Ferry terminal from 1964–6 has Corbusian elements that derive from work at the South Bank. The LCC also put up further extensions to the Polytechnic in the early 1960s to proto-Brutalist designs by a group that included Ron Herron. More recent public buildings are Greenwich Council's Waterfront Leisure Centre of 1986–90 and its more dignified brick and glass Woolwich Centre of 2009–11 by HLM Architects. Woolwich Arsenal Station was rebuilt in 1992–3 to high-tech designs by British Rail's Architecture and Design Group.

The earliest surviving school buildings in Woolwich are of the 1850s – Green Hill School, engineers’ classical for the Royal Artillery Barracks, and St Peter’s Roman Catholic Schools, High Victorian Gothic, both now converted. There are two big Victorian board schools, Woodhill of 1882–4, a fine Tudor–Gothic example of the genre, probably designed by E. R. Robson, and T. J. Bailey’s less harmonious Maryon Park of 1894–6. A prefabricated nursery school of 1943 on the common, in continuing use, is a peculiarity. There are also some recent school buildings, Mulgrave Primary School, a replacement of 2003–5 by Dannatt Johnson Architects, Brookhill Children’s Centre of 2006–7 by Architype, and St Mary Magdalene Church of England Primary School of 2009–11 by Pellings, which all tackle the challenges of circulation and sustainability with imagination.

Commercial architecture, including that for public houses, was long locally generated. H. H. Church was largely responsible for the piecemeal and eclectically historicist redevelopment of shop premises on Powis Street in the 1890s, the highpoint of which was R. S. Garrett’s Kent House, a twenty-one-bay ‘gigantic emporium’. The RACS had its own architects. Frank Bethell designed the similarly extensive free-Renaissance red-brick and terracotta RACS Central Stores, begun in 1902. His successor, S. W. Ackroyd, was responsible for the streamlined department store of 1938–40 across the road. The Woolwich Equitable Building Society’s Equitable House is a big, Portland stone-faced office block from 1934–5, classical with Art Deco touches, for which Lionel Upperton Grace was principally responsible. Exactly contemporary was the first phase of the rebuilding of the Marks & Spencer store on Powis Street, put up and later extended to a modular design system that Robert Lutyens devised for the firm. On Hare Street the neo-Egyptian Burtons of 1929 and the neo-Georgian Woolworths of 1930 and 1962–3 are also instances of national house-style types. Much redevelopment of the years around 1960 in the Powis Street area is architecturally undistinguished, but mention might be made of 115–123 Powis Street, a forceful contribution of 1964–5 from the Owen Luder Partnership, and of 71–77 Powis Street with what was Morgan Grampian House (the Vista Building), a larger and more suave project of 1970–3 from Sir John Burnet, Tait and Partners. Beresford Square and General Gordon Square were relandscaped and unified by Gustafson Porter in 2009–11.

Three theatres of the turn of the twentieth century, one each by leading West End theatre architects, Frank Matcham, Bertie Crewe and W. G. R. Sprague, have gone. But their successors, two great cinemas of 1936–7, the Granada, with a fantastical Gothic interior by Theodore Komisarjevsky, and the Odeon, with a sleek Art Deco exterior by George Coles, survive, used for Bingo, until 2011, and worship. There are also still, in a motor garage on Woolwich New Road, remnants of the comparatively tiny New Cinema of 1912.

A few more industrial buildings deserve mention, including those at the major site that was the Siemens works: cable-making sheds of the 1870s and 1880s, much more substantial reinforced-concrete framed buildings of 1910–11 and later, and a former canteen of the 1950s. Tucked away on Woodrow is Charles Malings’s former fives-racket factory of 1856–7, with an extension of 1904–5 by Slazenger and Son for making tennis rackets and balls. Furlongs Garage, between Woolwich High Street and Powis Street, incorporates a multi-storey ramped maintenance and car-parking building of 1938–9 and a little-altered petrol-station forecourt of 1955–6.

#### *Housing, including military accommodation*

There is little surviving fabric to convey an impression of the houses of Woolwich in the eighteenth century. Some evidence from buildings recorded prior to demolition is brought in here for the sake of a fuller picture. Before the mid-eighteenth century most houses in the town would have been timber-built, no more than two storeys tall, and seldom more than one room on plan. Of this once-standard type, only the slightest fragments survive on the High Street (Ill. 13). The middle decades of the century saw a number of better developments by artisan builders for artisan occupiers who all probably had at least one foot in naval or ordnance work. Short brick rows or pairs of double-pile houses were generally laid out with central chimneys alongside winder staircases, an old-fashioned plan that remained common in Woolwich, as across south London and coastal Kent, through the century. A cut above this were a few double-fronted houses on less constrained, more peripheral sites. Still only one room deep, these houses were

comparatively well lit and airy. Idiosyncratic variants on the double-pile, party-wall chimney and rear-staircase layout that had become standard in fashionable districts of London were introduced to Woolwich through in-house projects for officers of the Admiralty in the 1750s, and of the Board of Ordnance in the 1770s and 1780s.

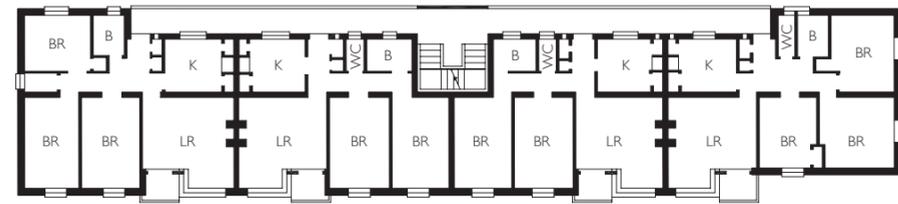
This rear-staircase type was otherwise rare in Woolwich until well into the nineteenth century. Indeed, the surviving evidence, and there is not much from later than the 1850s, indicates even greater diversity in the laying out of houses, now invariably brick and of two or more rooms on plan, except at the lowest end of the market. The central-chimney layout had passed out of use, but almost anything else, it seems, was possible. Larger houses, whether a bespoke singleton or in small speculations, were generally aimed at officers. What is known about builders suggests a gradual and typical shift away from ad hoc consortia of artisan carpenters or bricklayers to those who styled themselves surveyors or even architects, such as William Gosling or Robert Jolly, men who built their businesses through contracts and contacts on the military estate. They took on somewhat larger speculations, thereby introducing some standardization, and became important local figures. There were also numerous smaller operators. In house-building Woolwich was, as in so many other ways, largely independent. Around 1850 ninety-four per cent of its house-builders were indigenous; in the late 1870s this figure was eighty-seven per cent.<sup>65</sup> Officers were frequently redeployed, so there was usually plenty of trade for estate agents, auctioneers and furniture depositories. As was the norm elsewhere, if to a lesser degree, this kind of work blended imperceptibly with building, surveying, architectural design and speculative development through such as George Hudson, Timothy Church and Lewis Davis. It was from this milieu that H. H. Church emerged to redesign much of central Woolwich.

Evidence for lesser housing is slight. There were some back-to-backs, including Mortgramit Square, an extraordinary court of 1807–8, built as one-room tenements with balcony access to an upper storey. Widespread overcrowding and poor construction were documented in the public-health investigations of the 1840s, and 121 houses were immediately certified as unfit for human habitation after the Housing of the Working Classes Act of 1890. In the nature of things, and thankfully, physical evidence for the worst housing does not survive. Expansion in the Arsenal meant strong demand for housing in the 1880s and 1890s. Blocks of industrial dwellings were never a local feature and even maisonette flats, widespread on London’s margins around 1900, were rare; skilled workers wanted houses, however small. What was built, as to the east of the common and on Brookhill Road, where there is some survival, tended to be mean and even then sometimes immediately fell to subdivision.<sup>66</sup>

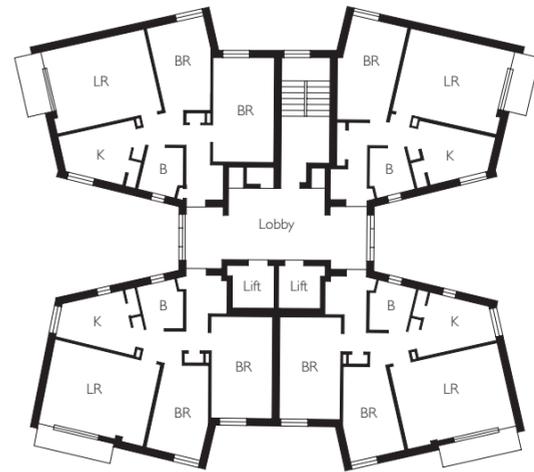
What replaced the ‘slums’ was, with few exceptions, council housing. Absence of space near the town centre meant that the first and fairly precocious experiment was in North Woolwich, where in 1902–3 Woolwich Borough Council’s first Conservative administration put up twenty-five houses. In the 1930s the Ecclesiastical Commissioners built some cottages and small blocks of flats on the Rectory estate, but it was not until 1939 that Woolwich proper saw its first council houses, six standard non-parlour cottages on Woodrow. By this time Woolwich had, through building in Eltham, established itself as a highly productive housing authority, adhering strongly to time-tested cottage-estate principles. At the Milne Estate, bomb-site reconstruction of the early 1950s, the LCC introduced multi-storey, balcony-access blocks, plain in themselves, but attractively arranged across a hilly site (Ill. 14). The Borough Council started the St Mary’s Comprehensive Development Area project with firm low-rise intentions in 1951. Gimson, the Borough Engineer, prioritized roomy living spaces in conservative and architecturally unspectacular brick forms, avoiding for both general and specifically local reasons the kind of multi-storey blocks that were everywhere characterized as ‘barracks’. Rehousing and densities, and pressure from the LCC for a mixed-development approach, forced resort to towers, which arrived with a flourish from outside architects Norman & Dawbarn in the butterfly-plan, concrete-frame blocks of 1956–62 that step down Frances Street. The LCC brought large-scale industrialization or system building onto the scene in an experiment of national importance at the Morris Walk Estate of 1962–6. This was picked up by Greenwich Council, where the old Woolwich commitment to an output-driven housing programme survived. The imperatives of quantity tipped the balance in the late 1960s in favour of yet greater height in a scatter of Concrete Ltd’s Bison Wall Frame tower blocks, of twenty and more storeys, and hexagon-plan nine-storey slab blocks. There was the usual shift back to low-rise brick in the 1970s, but commitment to output imposed some late



13. Woolwich house plans, 1700 to 1900. Plans are of ground floors unless otherwise indicated



Milne Estate (1952-1954)



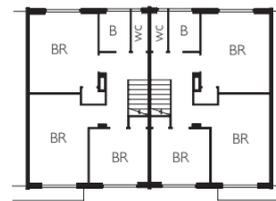
Frances Street towers, St Mary's Estate (1959-1962)



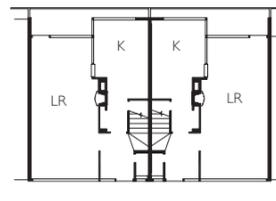
LR Living room  
BR Bedroom  
K Kitchen  
B Bathroom



Morris Walk Estate (1962-1966)



First Floor



Ground Floor

Walpole Place (1965-1966)

14. Woolwich council housing, typical floor plans of mid-twentieth-century flats

tall slab blocks at Woolwich Dockyard. Woolwich Common presented an opportunity for Byker Wall-inspired perimeter planning, and the Peabody Trust quietly introduced some sophisticated massing at Pellipar Gardens. Council house-building made a terminal move to neo-vernacular terraces on the east side of Frances Street in 1979-83.

Thereafter the baton was forcibly returned to private providers, among which the London and Quadrant Housing Association (Group) has played an especially important role in Woolwich. Most developments of the 1990s took generic forms, terraced houses interspersed with small blocks of flats, predominantly of yellow brick on the Cardwell Estate, and red brick from Fairview Homes on western parts of the former dockyard. An exception is Parish Wharf, self-built timber-framed co-operative housing, designed by Architype following prototypes invented by Walter Segal. At Mast Quay and in the Arsenal the boom years around 2005 saw upmarket or 'luxury' developments of brightly clad riverside flats. Since 2008 more affordable sectors of the market have had greater agency, as at International House, and a revival of council-house building in 2009 permitted the insertion of three-house terraces on the St Mary's Estate and Milne Estate. Other small infill developments have ranged from good pastiche neo-Edwardian to the simply lamentable.

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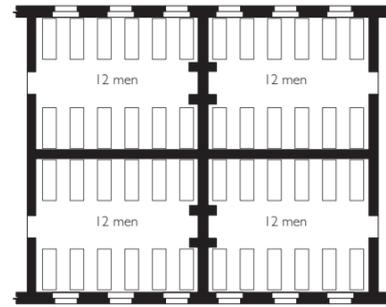
The army followed its own paths. In the mid-twentieth century it had begun again to build good-sized houses for its Woolwich officers, semi-detached pairs of a conventional suburban appearance, as on the north side of Nightingale Place and on Academy Place. The Prince Imperial Road development of 1962-8 introduced a much higher and thoughtfully modernist architectural standard through the designs of Austin-Smith/Salmon/Lord, followed up in the early 1970s in attractive culs-de-sac at Woolwich Common.

While officers were always separately housed, rank-and-file soldiers have until recently shared their living spaces. For some time this even applied to the families of those soldiers who were, against discouragements, married. Improvements have been gradual, reflecting housing progress in wider society as well as an increase in the respect given to soldiering. This is another story that must draw on recorded evidence. Purpose-built barracks in England were rare in 1719 when the first such accommodation in Woolwich was erected for artillerymen on the Warren. To start with, around fifty were packed together into rooms about 60ft by 36ft (18m by 11m), giving about 430 cubic feet (12.2 cubic metres) of air per man (the traditional measure of barrack accommodation), with officers in private rooms on either side (Ill. 15). As the size of the Woolwich force increased, things became more crowded and, no doubt, more fetid. The hilltop Royal Artillery Barracks of the 1770s could not rise to the standard of the earliest provision, starting with rooms of 25ft by 20ft (8m by 6m), each for twelve soldiers, each of whom had about 375 cubic feet (10.6 cubic metres) and a 2ft (61cm)-wide fixed bed. These rooms also soon came under pressure as numbers doubled and women and children were here and there indulged to squeeze somehow into curtained-off corners. Overcrowding was rife and beds had to be shared. Even so, in 1847 the Royal Horse Artillery quadrangles, where each room had tables and benches, allowed, ostensibly at least, around 450 cubic feet (12.7 cubic metres) per soldier. Capt. Denison was a reformer in this area too. The Marine Barracks of 1842-5 that were built to his designs on the east side of Frances Street were a progressive model. There were improvements in heating and circulation and it was a novelty that sergeants and their families were given separate rooms. Yet the main barrack rooms (36ft/11m by 18ft/5.5m) each housed twenty men, so apparently providing only around 400 cubic feet per soldier.

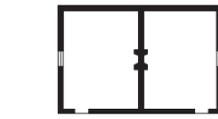
There was one official recourse in Woolwich for the few artillerymen married 'on the strength', that is with permission: the so-called Duke of York's Cottages, fifty back-to-back, single-room (12ft/3.7m by 16ft/5m) dwellings built on the margins of Woolwich Common in 1812 (Ill. 16). The Board of Ordnance supplied these only because they replaced mud huts soldiers had built for themselves that were found to be in the way of artillery practice. For privacy and space these rooms must have been sought after, but they became squalid and disease-ridden. Those married 'off the strength' had fewer options. Private lodgings in the town could be sought, if they could be afforded. Around 1850 tenement housing was speculatively built for this purpose, as on Frances Street, where a terrace filled up with a gunner's family in each room.



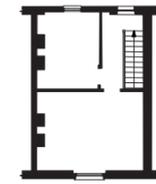
Woolwich Warren, upper floor (1719 demolished)



Royal Artillery Barracks (1778)



Duke of York's Cottages (1812 demolished)

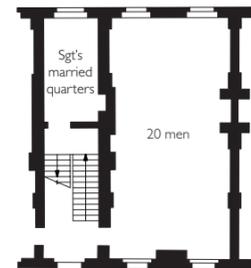


Lettable first-floor rooms, 11-21 Frances Street (1851)

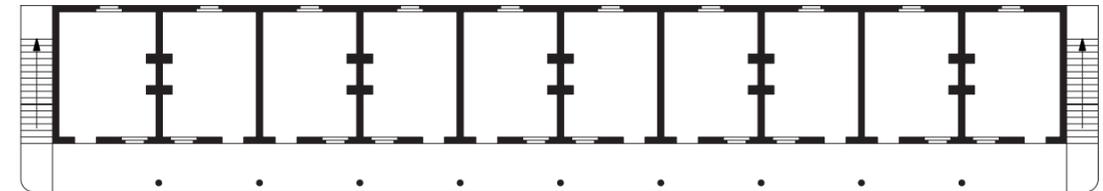


balcony (stables below)

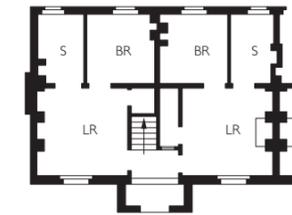
Royal Artillery Barracks, upper floor (1802-1805 demolished)



Marine Barracks (1845 demolished)

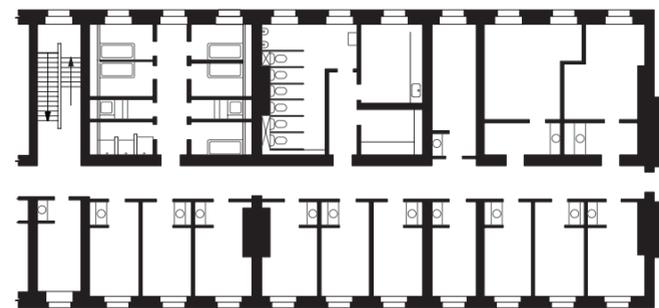


Cambridge Cottages, first floor (1865 demolished)



Brookhill Road (1894 demolished)

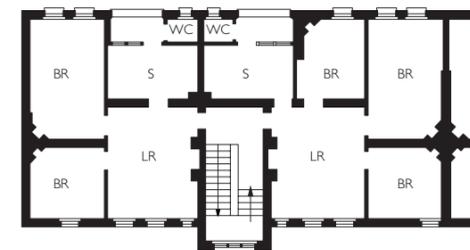
- LR Living room
- BR Bedroom
- DR Dining room
- K Kitchen
- S Scullery



Individual cubicles  
Royal Artillery Barracks (as refurbished 1968)



Individual en-suite rooms  
Royal Artillery Barracks (2011)



Artillery Place, upper floor (c1910 demolished)



Married Officer's Quarters (four-bedroom house)  
Prince Imperial Road (c1968)

After the Crimean War it was demonstrated that mortality in barracks was double that outside. The Barracks and Hospitals Improvement Commission now suggested a minimum of 600 cubic feet (17 cubic metres) per soldier, as obtained in prisons. This could only have been met in Woolwich through substantial reductions or new building, which did not take place. Soldiers continued to suffer overcrowding and were still generally held in low regard by the wider population. Some progress with married quarters arose from wider public-health concerns, worry about the indecency of the 'corner system', and, perhaps, a gradual recognition that a shift towards greater acceptance of marriage might help to reduce venereal disease among soldiers. The Cambridge Cottages of 1863–5 were six rows of married quarters, each with twenty single-room dwellings of about 13ft by 19ft (4m by 5.8m), with balcony access for upper storeys. A decade later Cardwell Cottages provided rooms 16ft (5m) square, and in 1875 the Cambridge Cottages site gained two rows of ten 'model dwellings', each with two rooms of 12ft by 15ft (3.7m by 4.6m) and a scullery. As demand and expectations grew, houses in the town were on occasion rented for married soldiers. More two-room-and-scullery married quarters were built in the 1890s on the west side of Brookhill Road.<sup>67</sup>

At the beginning of the twentieth century the Barrack Construction Department began to provide yet better accommodation for married soldiers, designed by Harry Bell Measures on the lines of his 'Rowton' houses, model lodgings for working men. Around 1910 blocks of this kind on the north side of Artillery Place provided two- and three-bedroom family flats. After 1918 attitudes shifted further in the 'Homes for Heroes' context and with the advent more generally of state provision in working-class housing. At Green Hill Barracks there are married quarters from around 1920 to 1935 that are attractively sited four-room houses in short two-storey rows. Back on Artillery Place, Cambridge House of 1937 was married-quarters flats and maisonettes. Further quantities of married quarters, mostly houses with some flats, were built through the Property Services Agency in the 1970s at the Brook Hill Estate and on Gunner Lane and Mill Lane.

For the unmarried there continued to be accommodation in the purpose-built barracks, with some improvements in sanitary conditions, but no substantial change until the late 1950s when, for a much reduced garrison, the rear parts of the Royal Artillery Barracks were replaced with three-storey blocks that each provided eighteen dormitory rooms, each for six men, with shared sanitary facilities and television rooms. Rebuilding of the centre-east front-range block in 1965–8 provided better accommodation. In space that had housed 144 soldiers in the 1770s there were now thirty-two individual cubicles, each with a basin, but still with shared toilets and bathrooms. The most recent change has deployed the acronym SLAM (Single Living Accommodation Modernisation) for the replacement in 2008–11 of many of the 1950s blocks with new ranges made up of prefabricated modules for a typical floor layout of eight bedrooms and two common rooms. Each soldier has an en suite private shower, toilet and storage space and almost 2,000 cubic feet (57 cubic metres) of air.